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# Adam Smith's Invisible Hand and the Nobel Prize in Economic Sciences

## **1.1.** The Research Protocols of Economics, the Ironies That Result from Them, and Other Preliminaries

By the end of the twentieth century, if not earlier, economics could be seen as science, as political and moral philosophy, as ideological self-projection by the people of the Euro-American nations and their way of earning a living, as both derived from and generally reinforcing the existing structure of power, privilege, and so on. The terms "science," "political and moral philosophy," and "ideological self-projection" each has a wide array of meanings. Language is a political phenomenon. Certainly such is the case with the term "the invisible hand." Each effort at definition is, in one way or another, an attempt to influence, for purposes of policy making, the definition of reality – the social belief system – by which we understand and, often unwittingly, socially reconstruct the economic world. The essays comprising this book are an attempt to make sense of a concept – the invisible hand – widely used in the corresponding plethora of assertion, argument, and controversy. A great deal is involved in this literature, much of which is rarely understood to constitute social control.

In light of this, it is fair to say that the nature, meaning, and significance of the concept of the invisible hand arise within the social construction, practice, and enforcement by strategically positioned economists. Certain research protocols are enforced that control (1) the scope of economics, (2) the way in which the economy is dealt with, and (3) how economic research is undertaken. Several ironies that have arisen in this situation must also be understood. As matters turned out, very little of all this derives from actual economies. Much more important is what strategically placed economists opine and enforce in regards to how economics is to be organized and controlled.



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The protocols are adopted and enforced by a system of social control that is in the hands of the strategically best-positioned economists. These economists are the ones who make decisions as to the hiring, promoting, remunerating (notably merit raises), and distributing of professional or institutional awards. Other strategically situated economists include, among others, journal editors, the organizers of conferences (and of sessions at conferences), and the nominating committees charged with supervising the nomination of candidates for election to departmental and other organizational offices and committees, in each case depending on the organizational offices and bylaws. So ubiquitous as to be readily overlooked are those faculty members that teach courses in economic theory and those that write course and, especially, comprehensive qualifying examinations. Variously called preliminary, general, qualifying, or comprehensive exams, only the doctoral candidates who pass them may continue in the program. A variety of rules govern these examinations.

In the late 1960s, in part as a result of student activism, graduate students acquired rights to membership on departmental and other committees, electing their own representatives. The rationale was the same as that advanced, since the late eighteenth century, in support of the extension of the franchise to all adult males and, later, all adult females – namely, that peoples should participate, through their elected representatives, in decision making with regard to matters that impact their lives.

Considerable freedom of action, or independence, is enjoyed by departments. This autonomy has several possible sources. One source is the establishment of academic freedom, which also operates at the level of the individual faculty member but is influenced by hiring, promotions, and other incentives. Another source is the establishment by faculty and higher administration of a charismatic leader, in the Weberian or some other sense, as department chair. Faculty can de facto quietly override, within more or less variable constraints, certain decisions by the state legislature in the case of a public university or the governing board of either a private or public institution. A common example is the legislative determination that the chair of a department is a head and not primus inter pares. The head is legally responsible, and has the legal authority, to make all curricular, personnel, and operating decisions. Election to the position of chair, or to a list of three submitted to the dean from which the dean chooses, may be restricted to only those faculty that agree to share decision-making power with the rest of the faculty or an advisory committee. Complete authority is never lodged in a department. Budgetary decisions can be imposed on a university, college, or department by legislative committee, governing board, president, or dean.



## 1.1. The Research Protocols of Economics

We come now to the first protocol and the first ironies. These economists, in their work, although they identified the economy as governing the allocation of resources, considered the economy to be self-contained and generating its own laws of allocation and distribution. After countless articles on the scope (and method) of economics had been mulled over and debated, discussion converged on a definition of the economy as independent of the rest of society, with its own laws of operation and development. All of that constitutes the first protocol. Considerations of the structures of decision making, power, and social control – that is, whose interests would count in the organization and operation of the economy – were excluded, minimized, or trivialized. The same is true of the working out of the structures themselves.

Yet all the while, economists took as their special domain the making of recommendations of policy, believed by them to be privileged because of their special expertise, which also was generally deemed to exempt them from the injunction in favor of laissez-faire. Numerous lines of reasoning, some of which shall be examined later, have been advanced in support of these positions; in most, if not all, cases, however, the arguments assume the very point that they assert. Such is the first irony.

The second irony derives from the protocol governing the way in which the economy is dealt with, and in such a way as to reinforce the narrowing effects of the first protocol and the first irony. It should go without saying that no model and no theory can encompass every relevant operating variable in the economy. The number of variables has to be made manageable, and it is sensible to commence the study of an economic question with those variables that appear to be the most important – sensible so long as one does not cease serious research involving the variable(s) in which one is most interested, inasmuch as those variables may have been chosen with a view to protect and promote certain interests and beliefs. The second protocol goes beyond manageability to the nature of the economy with which the theorist works. This protocol stipulates that economic theory be conducted with and within a generalized, a-institutional, purely conceptual economy – that is, an economy understood to possess the institution of "private property" but largely approached only in generic and conceptual terms. The pure a-institutional economy with private property lacks any specification and assignment of the particular bundles of rights enjoyed by the owners of particularly defined and assigned property (whose interests, and the uses to which that property is put, are thereby protected). The purely conceptual economy also lacks official cognition, recognition, specification, and, of course, protection of those whose interests are not protected as property. In

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actual economies, the other assets of these unprotected economic actors are left exposed to the choices and actions of those whose interests and ability to act are protected.

The second irony derives from the second protocol in three ways. First, inasmuch as the second protocol omits the specification and assignment of rights, those economists (and others) who apply the theory ensconced in the generalized, a-institutional, purely conceptual economy have no basis for their application(s). They have no reason to believe either that the purely conceptual economy and the actual economy have anything in common or that the purely conceptual economy can be meaningfully applied to the actual economy. Not all models of a generalized, a-institutional, purely conceptual economy necessarily apply either to a particular actual economy or to each and every actual economy. Secondly, even though the second protocol omits the specification and assignment of rights, the design of the generalized, a-institutional, purely conceptual economy may actually give effect to hypothetical institutions that are in conflict with actual institutions; or the design is applied to existing institutions that are specific to existing detailed arrangements of social control. Thirdly, the actual existing institutions, notably private property, may derive from one stage of society - of social control – whereas the network of forces presently active in society may relate to a later or to a current stage of social control and social change, with the conceptual model of the economy an object of control with which to advance one or the other stage of society or economy.

Undoubtedly, every stage of society/every stage of social control has conflicting elements inherited from multiple earlier stages. In the discussion of Friedrich Hayek's theory of nondeliberative and deliberative decision making, I adopt and invoke Carl Menger's version of that theory. As a result, except in the case of so-called spontaneously arising (i.e., nondeliberative) institutions in their first period, all institutions, pace Menger, are blends of deliberative and nondeliberative decision making. I mention that here because it appears to me to arise in the case of both Smith's stages theory and his legal-economic analysis as found recorded in the two sets of students' notes from his lectures on jurisprudence. As a result, still another irony arises, as will be seen in Essay 8, when the universal University of Chicago misperception of Smith is contrasted with what Smith actually wrote (on power, etc.) and is recorded as saying (on law, on the conditions of its genesis, and on its change) in his lectures. The foregoing holds even when one emphasizes, in his case, the allocation of resources through markets (but decidedly not markets that are, by their very nature as markets, competitive [pace Stigler]).



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I now turn to the third protocol and the fifth irony. The third protocol governs how economic research is undertaken. The protocol requires that an exercise in economic theory produce a unique determinate equilibrium optimal result, or solution. This research protocol has an extraordinary narrowing effect. For example, choice must be made between different meanings of optimum. Further, if the choice be Pareto optimality, inasmuch as each possible structure of power or each possible set of assets will likely yield different Pareto optima, choice must be made between different power, or rights, structures. To produce a unique determinate equilibrium result (i.e., aside from optimality), assumptions must be made that rule out all determinate equilibrium results other than the unique determinate result thereby reached. In sum, the production of unique determinate results and so on assumes some specification and assignment of property rights, as well as that such rights are fully defined and unchangeable, and makes similar assumptions regarding all other relevant institutions.

The irony arises insofar as the processes in actual economies in which all variables are worked out by actual economic actors are replaced by sets of assumptions such that it is the economic analyst or theorist who produces the ostensible unique determinate equilibrium optimal result and not the economic actors.

Different theorists and economists will make different choices insofar as they interpret and apply social control to the problems constituting the work of economists; the same is true insofar as they construct different a-institutional, purely conceptual economies; and likewise insofar as they make different assumptions, thereby producing different ostensibly unique determinate equilibrium optimal results. The result is ubiquitous variety and ubiquitous controversy in actual economies but not so evident in purely conceptual economy configured to produce unique determinant equilibrium optimal results.

Considering the protocols made or followed by economists and the consequential ironies of those protocols, the introduction into economics of the concept of the invisible hand comprises a means of establishing absolutism into economics, doing so in several ways, one being the further narrowing of what economics is all about.

The foregoing can be exemplified by briefly considering the history of value and price theories. Value theory constitutes the various efforts to establish an absolute and invariable basis of price. The two historically important theories of value (each manifesting, however, in a variety of formulations) are the labor theory of value and the marginal utility theory

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of value. The labor theory of value holds that the value of any reproducible commodity is a function of its labor content, that is, the labor required in its production. A generalization and extension of the labor theory is the cost of production theory that holds that the value of any reproducible commodity is a function of its cost of production and of nothing else. The marginal utility theory of value holds that the value of any reproducible commodity is a function of the marginal utility of the equilibrium unit and of nothing else.

It appears that most economists, for whatever reason(s), have considered neither proposed absolute and invariable basis of price to be a satisfactory solution. The alternative solution is price theory that holds that the price of any reproducible commodity is a function of demand and supply (logically of demand, supply, and the irrelevant). It is vital to understand that the new solution does not contemplate an absolute and invariable basis of price but instead posits price as the result of market structures and forces. The structures have to do, in general, with kinds of competition and the nature of rationality. The forces are demand and supply. Price theory is not a theory of the absolute and invariable basis of price. Price theory is a relativist theory in which value = price is a function of demand and supply. Such a relativist theory is offensive to anyone who requires the absolute determinacy and closure of value theory. (To the labor and marginal utility theories of value now must be juxtaposed the actually older theory of the just price, a theory apparently usually expressed in terms of some formulation of cost of production or marginal utility but also in terms of some theory of individual merit).

Price theory may be more satisfying to those displeased with uni-valued value theory – that is, those who are comfortable with indeterminacy, open-endedness, and ambiguity of relativism. However, price theory, with its possible multivalued concept of price (as a function of demand, supply, and market structures) is less satisfying to those who require determinacy and closure.

Economics, for all the belief by some economists in the scientific quality of their discipline, has been sufficiently burdened by multiplicity and conflict that it appears to other economists as having an exaggerated confidence in that quality. The conflicted nature and usage of the concept of the invisible hand in economics is reflective of the differences to be found among economists in all aspects of the subject. I shall begin with the controversy over the status of the invisible hand in regard to the Nobel Prize.



#### 1.2. Adam Smith and Some Nobel Prizes

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The Nobel Prize in Economic Sciences was first awarded in 1969 to Ragnar Frisch of Norway and Jan Tinbergen of the Netherlands. Both men were honored for their work in the major fields of what then constituted economics. They were followed by several Americans, most notably Paul A. Samuelson. Substantially all of them and those awardees that came afterward made significant advances in both well-established fields and in areas of economics that they helped establish. Much, but not all, of their work utilized mathematics and econometrics, often using procedures that they themselves had developed. Another characteristic was their conception of the economy as a whole, perhaps divided into fields. This characteristic they shared with Smith, although, as Robert Dorfman pointed out, they shared neither the mathematics language nor the precise modeling form or structure (Dorfman 1983: F15). Smith was a professor of moral philosophy rather than of economics alone, who took substantially all of social science, including economics (as it then was to be found), history, and law, as his domain. As will be examined in Essay 2, Smith had a tripartite structure of those fields in his mind: moral rules, government and law, and markets. Another characteristic that Smith superficially shared with modern economists was the notion of the invisible hand.

In November 1983, shortly before Gerard Debreu was to receive the Nobel Prize in Economic Sciences, Harry Anderson reported in an article for Newsweek entitled "Explaining the 'Invisible Hand" that "Debreu has created a model of a theoretical marketplace and has provided an analytical framework for some of the most fundamental tenets of classical economics." Anderson noted that economists since Smith had accepted as "an article of faith" that the conflicting interests of supply and demand could be reconciled through the price mechanism creating equilibrium between them: "The best explanation that Smith could offer was that individual economic agents were guided to the common good 'as if by an invisible hand." Here Anderson slipped into committing a common error, for Smith had written that individuals actually are "led by an invisible hand," not "as if by an invisible hand." However, it was Debreu, together with 1972 Nobel Laureate Kenneth Arrow, who developed a model in which "at least in his theoretical world ... equilibrium could, in fact, be attained." Debreu did this by confirming "the internal logical consistency' of the classical view of markets" (Anderson 1983: 59; the internal quote is from the Royal Swedish Academy of Sciences award). Fourteen years

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later, shortly before Leonid Hurwicz, Eric S. Maskin, and Robert B. Myerson were to become Nobel Laureates in Economics, the *Economist* headlined the relevant column "Intelligent Design" and followed it, in the print edition, with "A theory of an intelligently guided invisible hand wins the Nobel Prize."

Some three weeks prior to Anderson's 1983 article, writing in the *New York Times*, Robert Dorfman quoted the invisible-hand passage in the *Wealth of Nations*, saying that Smith's "words carry immediate conviction, and they have served as the unifying principle of economics ever since they were written. But they do not bear close inspection." The key question concerns the coordination of all this activity: "Smith's explanation of the invisible hand – occupying barely a page – does little to answer such questions" (Dorfman 1983: F15). (Actually there is no explanation, only an assertion, and it runs to only a few lines. It is likely, possibly very likely, that at best he had only an incoherent vision or understanding when he used the term in his *Moral Sentiments* and *Wealth of Nations*.)

The next step was taken by Leon Walras a century after Smith. Walras's was a theory of general equilibrium utilizing a huge number of equations, but his demonstration was defective and could produce nonsensical negative prices and negative amounts purchased. Some sixty years later, Abraham Wald produced an equilibrium model with "some very restrictive assumptions about the nature of the economy. His demonstration, therefore, provided only modest comfort: The invisible hand might work as alleged in the Waldian economy, but whether it could do so in any real economy remained an open question."

The development of linear programming by Leonid V. Kantorovich and George B. Danzig led Tjalling C. Koopmans to look at Smith's problem in a new way, avoiding "the complexities of dealing with all of Walras's supply and demand equations." The next step was taken by Debreu and Kenneth Arrow, showing that "the equilibrium conditions could be satisfied under much less unrealistic conditions than Wald's." The significance for policy of that sequence of developments was, as Dorfman expressed it, that "it underlies all policies that rest on the belief that economic decisions are best left to the operation of free markets." Matters were not quite so simple, however. In a Debreu world, corporate size and no uncertainty (i.e., a complete array of futures markets) would eliminate economic instability. However, all that is "far different from our economy." Moreover, Debreu established only that "the invisible hand could work effectively, he did not show that it would." Dorfman provided a mixed evaluation:



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Professor Debreu's achievement, though the most advanced yet, falls far short of showing that reliance on the invisible hand is the ideal economic policy in any feasible economy. But there is every reason to think that the invisible hand is more powerful and subtle than it has yet been proved to be ....(Dorfman 1983: F15)

Dorfman concluded with the question, "Is it likely that Adam Smith's brilliant conjecture will be confirmed in the end?" to which he responded:

I say no. In the first place, there is not going to be any end ... Besides, the progress made so far supports the common-sense view that no such simple dictum can be relied on in all circumstances. (Dorfman 1983: F15)

Two days later, in the October 25, 1983 edition of the *Detroit News*, Edwin M. Yoder. Jr. queried, "Was Economics Nobel a Mistake?" His answer was given in several parts: Economics "is too limited a field to sustain a suitable myth of distinction." Economics "produces few great originals." The only two who seem likely to be chosen would have been Alfred Marshall and John Maynard Keynes – "both of whom were, alas, long dead when the prize was established."

An alert reader of both articles might have asked him – or oneself: Are there two invisible hands, or are there two theories of the invisible hand? What is the "invisible hand"? What does it do? Where does it come from? If this reader had some knowledge of philosophy, he or she might have also asked, in what sense or in what way is the invisible hand "explained." Is there a difference between what people think they are doing when they say something like "the invisible hand is X and X performs Y function," and the social function performed by doing so? Is there a test, perhaps a new test, by which the explanation is reckoned? Is this explanation a matter of setting down some "first principles," or some premises or axioms, or a mathematical model, and working them out? Can these techniques permit more than one, perhaps numerous, answers, and if so, can they be reduced to one answer? How can such reduction be undertaken? Is the process of explanation, therefore, one of deductive logic? If so, what of empiricism, or resort not to some set of equations but to empirical data? Even then, on what basis is the empirical data reckoned to be empirical data? Along a different path, are the foregoing procedures to be understood as one or another mode of doing science? Experimental and other scientific practices are the result of some combination of deduction and induction. Deduction is a matter of logicality, of drawing conclusions from premises, conclusions that do not necessarily yield truth, descriptive accuracy or correct explanation. Induction involves drawing conclusions on the basis of evidence,



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conclusions that may or may not produce truth that requires repetition and falsification. In any case, what about one's social belief system, or ideology, or, for that matter, theology? How does one choose from among different explanations? And how do we know that there is an invisible hand to be explained? Are there conceptual problems or substantive problems with any or all of the answers? Does meaning flow to the invisible hand from the words used to discuss it, or does meaning flow from the invisible hand to the words? What about the invisible hand being "a suitable myth"? After all is said and done, if one intends for the invisible hand to be (a metaphor for) competition, what does the term "invisible hand" add to the term "competition"?

The experience of the reception of the Nobel Prize in Economic Sciences seems to have been mixed when the Prize came to the invisible hand. In part, inasmuch as the invisible hand has been lauded as a foundational concept in economics, that very claim has been criticized as being exaggerated.

## 1.3. The Foundational Concept of Economics

The foundational status of the concept of the invisible hand in one specification or another has been widely affirmed in the literature of economics. It has been called the "central principle of classical political economy" (Buchanan 1986: 267), the "core of traditional economics" (Meek 1977: 183), and one of the "the basic propositions of neo-classical economics ... its show-piece theorem, the invisible-hand theorem" (Mueller, in Wiles and Routh 1984: 160–1), as well as the "heart of economics" (Desai 1986: 4). Kregel (1984: 34) is but one of many who have echoed the widely known and influential assertion by Arrow and Hahn (1971: 1) that:

[T]he notion that a social system moved by independent actions in pursuit of different values is consistent with a final coherent state of balance, and one in which the outcomes may be quite different from those who intended by the agents, is surely the most important intellectual contribution that economic thought has made to the general understanding of social processes.

It has been called the "first principle of economics" and also the "only principle of economics" (O'Driscoll, in Spadaro 1978: 116). It has been called the "unifying principle of economics" (R. Dorfman 1983: F15), "a key unifying concept" (Hirschleifer 1976: 12), and "a great unifying scientific conception of economics" (Hirschleifer 1960: 140).

The concept of the invisible hand has been said to have "been the essence of economic theory since Adam Smith" (Reder 1982: 15) and "the common possession of economic thought in the large ... of the genus economist in