

THE SOCIAL SCIENCE OF WEALTH

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Prepared for the Workshop's Spring 1995 Mini-Conference
and for a volume, edited by Steven Medema and Warren Samuels,
where a number of economists answer the question:
"What Should Economists Do?"

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April 1995

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Introduction

I see economics as the *social science of wealth*, which studies the dual role of social institutions in economic life.¹ Institutions are rules that constrain and direct individual behavior and also aggregate individual actions, generating economic outcomes such as production, distribution, and growth — or decline (North 1990). The new science of wealth differs from the economics of my formal education by its explicit concern with social and political rules and their enforcement, which requires economists to foray into new territories.² Another distinguishing characteristic of the new economics of institutions is its preoccupation with knowledge and information problems (Eggertsson, 1994). Yet, the social science of wealth does not reject neoclassical economics. Neoclassical economics is the revered, but sometimes overweeningly ambitious, mother of the new science.

The study of institutional change and the relationship between institutions and wealth is a complex research program which rules out any single theory. I advocate the strategy of developing a cluster of related theories, which are organized around the basic economic approach but gain competence in specific areas by deviating on appropriate margins. I prefer a theoretical system which places rational actors in a social context, employs methodological individualism, and relies on the tools of microeconomics, including game theory. I recognize, however, that for

¹ The first textbook of economics that I read was a wonderful little book entitled the *Science of Wealth* (1960), written to introduce students of engineering to economics. My first professor of economics, Sir Charles F. Carter, was the the author, and his slim volume helped bring Paul Samuelson's inflated text down to scale.

² The paper summarizes my views of the economics of institutions. Also see Eggertsson (1990, 1993). As this is not a survey of the literature, my references are indicative, not comprehensive.

certain purposes the neoclassical approach must be modified, not marginally but fundamentally. For instance, the analysis of large-scale institutional change may need to explain how preferences and systems of change, which will take the scholar to a new level of analysis, outside the neoclassical tradition of *de gustibus non est disputandum* (Stigler & Becker 1977).

When researchers enter new territories, it is essential for them to recognize the limits of their theoretical tools. The history of our discipline shows that pathological path dependence frequently blinkers economists, who have applied standard formulations of the neoclassical approach to problems for which these tools have been unsuitable. And the history of economic policy shows that policies based on unsuitable theories often have costly consequences. An integral social science of wealth will lead us astray, unless we become aware of the *spheres of competence* for its various component theories. Below I discuss three critical determinants of the sphere of competence for a theory of social systems: (a) the theory's *level of explanation*, or what phenomena it treats as endogenous, (b) the *level of individual rationality*, and (c) the theory's assumptions concerning the *information environment* of the actors.

A small but a growing band of creative scholars, who labor in various (often loosely defined) branches of the social sciences (such as economic history, theory of the firm, industrial organization, property rights economics, economics of law, economics of information, positive political science, rational choice sociology, and anthropology), have laid the foundation of a new social science of wealth (Eggertsson 1990). The scholars have generalized the traditional economic approach (i) by extending the level of explanation and individual rationality into new spheres and (ii) by incorporating various issues bearing on knowledge and information. These (mainly uncoordinated) scholarly developments are only the first step on a long journey toward a general theoretical approach

to economic systems and their dynamics. Below, I discuss some ideas of where we should be heading — where students of economic systems are likely to find high intellectual rates of return on their investments, but not necessarily the key to a rapid promotion in academia (Eggertsson, 1995).

Misconceptions

All along, social scientists have studied various aspects of the relationship between social and political variables and economic phenomena. The present novelty is a systematic study of the link between institutions and economic results that employs key elements of the basic economic approach and relates the analysis and findings back to the corpus of economic thought. Critics frequently misunderstand these studies and the tools they employ, which requires a brief discussion of a few common misconceptions.

Commentators sometimes voice the belief that the rational choice economics of institutions has an inherent bias which makes all forms of organizations and institutions look efficient in some general neoclassical sense. Certain early (and also recent) studies probably contributed to this confusion by adding transaction costs to a model of a laissez-faire economy where a filter of competition selects only least-cost arrangements (Demsetz 1980). These models do not consider political interventions in the market, sheltered industries and various other situations where high cost organizations are able to survive. Although they don't tell the whole story, the laissez-faire models highlight fundamental measurement and enforcement problems that arise in various industrial environments, and provide useful benchmarks for studying low-productivity arrangements that result from unresolved distributional conflicts.

Conceptually the economics of institutions is not restricted to laissez-faire markets with transaction costs. Various studies show that the

approach is well suited for analyzing the institutions of central management, local communal property arrangements, and everything in between (Alston, Eggertsson & North, forthcoming; Ostrom 1990). The American origins of the new rational choice institutionalism have produced a disproportionate number of studies dealing with aspects of the U.S. economy, but it is unwise to see the nature of theoretical tools as determined by the research topics or personal views of some of their users.

Mankind is better equipped to study physics than social institutions, and the study of institutions is particularly vulnerable to the propensity of social scientists to become involved emotionally with their subject. Unfortunately, passion, the mother of noble deeds, is also the father of confusion. Many scholarly studies of institutions have an explicit political agenda or at least a hidden message, and in the social sciences the filter of competition has large meshes. Passion also breeds suspicion and an unproductive preoccupation with hidden agendas. Scholars, who study contractual arrangements and private order that emerge within a particular system of property rights, have been accused of favoring the system by taking it as given. For instance, studies which apply the economics of transaction costs to slavery have caused considerable suspicion. A study, which purports show that owners motivated by their economic interest offer better treatment to slaves who perform skilled work (which requires care) than to slaves who are employed in unskilled tasks (which require only brute force), is liable to create the impression that the author regards slavery as globally efficient and perhaps as a legitimate form of economic organization.

The dialogue concerning the economics of institutions is riddled with misconceptions, but I mention only one more instance. Some critics, even some economists, believe that voluntary exchange and contracting imply that all parties to an exchange are partners of equal (economic and political) power. As the new rational choice institutionalism is

preoccupied with exchange and contracting, it follows that new institutionalists must turn a blind eye on the unequal distribution of power found in all societies. The critics err because voluntary exchange does not imply equal partners. The only requirement of exchange theory is that both sides *control some rights* which they are able and willing to exchange — not that the traders in some sense have equal rights or equal social standing. However, control is a necessary condition, because otherwise the "buyer" would not purchase the rights but appropriate them.

Theories of social systems and their spheres of competence:

The social science of wealth is concerned with the response of human groups to potential opportunities for increasing their wealth and, in this context, with the reactions of economic political and social organizations to changes in their environments. At any time, the structure of property rights, and the associated structure of incentives and organization, matches either well or poorly with the short-term and long-term economic opportunities that a human group faces. A full-blown theory of institutions (when or if it emerges) must analyze the complex interactions of the economic, political and social spheres that give rise to institutional change (North 1994). An inquiry of such magnitude takes us beyond the traditional turf of economics, namely the logic of exchange in a decentralized system of private property. We must employ new tools to look at resource allocation in various systems, at the logic of economic organization, and at institutional change. Already some of this has happened. Economists cross into new territories to explore rules that originate in political and social organizations (Mueller, 1989). A concern with social values and the enforcement of rules has opened lines into psychology and cognitive science (Denzau & North 1994). In their studies of social institutions, political scientists, sociologists and anthropologists use methods which derive from economics. (Alt & Shepsle 1990; Hechter,

Opp & Wippler, 1990). Yet in spite of these attempts to throw our nets far and wide, I suspect that the social science of wealth will do no better than sketch certain important elements of the complex story of institutional change. Therefore, it is vital, now and in the foreseeable future, to recognize the limits and the spheres of competence for our fragmentary theories.

(a) The level of explanation

The term, level of explanation, refers to how far a theory or a model goes in explaining (rather than assuming) the various elements of economic, political and social systems. In selecting variables to study from the virtually infinite set of candidates, the choice is partly influenced by our professional histories and the theoretical luggage we carry with us. Economists over-sample economic variables, rational choice political scientists concentrate on political organizations and the supply and demand of public rules (frequently at the national level), and rational choice sociologists and anthropologists often limit their studies to cultural variables and social order in small groups. Specialization may increase productivity in scholarship as well as in production, but the products of specialized scholarly firms may be hazardous, unless we know their proper use.

The flaws or weaknesses of specialized theories of social systems are akin to the limits of partial equilibrium analysis in microeconomics that general equilibrium analysis is supposed to rectify. The relevance of partial theories depends on the structure of social systems, on the answer to questions such as: Are the compartments of the system well enough insulated from each other (at least in the short-run) to be studied separately? Or, does one part of a social system lead the other parts,

which adjust passively to changes in the leading sector?³ Can researchers, for most purposes, safely ignore certain components of the system because they are invariant, except in the very long run? If so, how does the invariant part of the system interact with its variable parts as they change? Will a large change in a variable component induce a qualitative change in the relationship? In general, is the relationship stable and predictable or non-linear and unpredictable?

Economists who work with macroeconomic models are familiar with questions of this nature, but many social scientists frequently ignore them or do not know the answer. Consider the common treatment of *social networks and cultural capital* in the economics of institutions. Social networks are informal organizations, networks of relationships in the social sphere that also may have political or economic functions. Cultural capital are shared values and beliefs in a community or in a social group that influence the behavior of actors both when they operate in formal and informal organizations or act alone.⁴ Typically, the economics of institutions ignores both phenomena or treats them implicitly as constants, which may or may not be appropriate.

For instance, the economic analysis of crime usually concentrates on

3 Some economists justify their narrow focus by taking the extreme view that social and political institutions simply reflect and adjust to basic underlying economic forces. On that account, differences in economic outcomes between, say, Texas and Mexico or Sweden and Poland are due solely to endowments and economic variables.

4 I follow North (1990) who defines institutions as rules, but uses the term organization to denote teams of actors who share a common purpose. Actors and their organizations are constrained by institutions. Also, I make a distinction between informal organizations and informal institutions. A tribal dan or a loose network of traders is an informal organization but social values or beliefs that constrain tribesmen and traders are informal institutions or cultural capital. Many writers do not make a distinction between informal organizations and cultural capital and refer to both as informal institutions.

formal rules and the actor's costs and benefits of-criminal behavior, implicitly treating social networks and cultural capital as constants (Becker 1968;1976). Some economists even give the impression that these factors are irrelevant. Both critics and supporters of the economic analysis of crime sometimes fail to recognize that the analysis of why some people are inclined to commit crimes is not within the theory's sphere of competence. The theory is useful primarily for analyzing how a change in relative *prices changes* criminal behavior at the margin, for instance, when the authorities tighten enforcement, improve detection or increase punishment (Grofman 1993: 239-242). However, even the theory's capacity to study the impact of a change in relative prices on crime may uncertain. For instance, (in the long run) a change in formal rules or their enforcement may interact with the communities cultural capital and shift the relationship between relative prices and criminal behavior in an unexpected way. Similarly, experiences with the European welfare state suggest that over time these systems have produced unexpected side effects, partly because of factors related to social networks and cultural capital (lindbeck 1995).

The role of social networks (informal organizations) and cultural capital (informal institutions) in the creation of wealth is perhaps the biggest and the most difficult puzzle in the economics of institutions. Various studies have analyzed how these structures preserve order and support exchange, for instance in stateless societies, in local commons, among ethnic traders (Landa 1994), but we know much less about the formation of cultural capital and social networks, how these variables change and how they respond to exogenous impulses. For instance: How does the introduction of new production techniques or the opening of lucrative markets affect the social networks and cultural capital of actors in a traditional agricultural community who share their common pool resources? What is the relative role of formal (political) rules and social

capital or informal rules in enabling secure exchange among unrelated individuals (outside social networks)? To what extent and how efficiently can informal organizations and institutions substitute for formal organizations and institutions in Eastern Europe, China or Latin America (de Soto 1989)? These and similar questions pose a great challenge to the new institutionalism.

(b) The level of individual rationality.

The level of explanation is related closely to another important issue: how far into the political and social domain do we carry the assumption that each actor optimizes a personal objective function? Assumptions concerning the level of individual rationality is another critical determinant of a theory's sphere of competence. Neoclassical welfare economics, as we know, limits personal objective functions to the economic sphere and introduces a social welfare functions in the political sphere (Atkinson & Stiglitz 1980). When individual rationality and group rationality clashes in the economic sector, welfare economics has political actors use social welfare functions to evaluate such market failures and then conscientiously administer remedies.

The Public Choice School introduced personal objective functions for political actors and also recognized two-way interactions between the economic and political domains (Mueller 1989). Public Choice and related schools explain the supply of formal rules mostly as the outcome of competition among pressure groups and accommodation by elected representatives who maximize votes. Also, rational choice political scientists have introduced personal preference functions into the study of legislatures and bureaucracies, which has brought out the critical importance of parliamentary rules and structure induced equilibria (Shepsle & Weingast 1981).

The extension of personal objective functions to the political domain

introduces serious problems for the theory of institutional design and the theory of economic policy (Hettich & Winer 1993). Now economic policy must reckon with not only strategic responses by economic actors and various unwanted side effects in the economic domain, but also consider the behavior and reactions of lobbyists, government bureaucrats and legislators. Further, positive political science suggests that successful economic reforms or measures may require institutional change in the political domain to create new constraints and incentives for legislators, public bureaucrats and lobbyists, who otherwise would thwart the reforms. In many circumstances there may be no scope for such changes or the set of workable reforms may be quite modest. A additional complication arises, if we assign a personal objective function also to policy advisers. What structure of incentives, constraints and goals do economics professors and the experts of multinational organizations have? The new institutionalism still has to face these issues squarely, but it is clear that the location of individual rationality affects die sphere of competence of a theory, particularly its prescriptive competence.

(c) The information environment

Finally, the relevance and competence of theories of social systems critically depends on how they model the information environment of the actors. For some purposes, highly restrictive assumptions are appropriate. The information assumptions of the Walrasian general equilibrium model are appropriate for a descriptive study of decentralized exchange, but the same assumptions are inappropriate for a prescriptive theory of anti-trust policy (Williamson 1985). The neoclassical convention, to treat the firm as free of internal coordination problems and modeling it as a computer program which automatically minimizes costs, may have tricked some economists into believing that coordination problems (market failures) would disappear, if the entire economy were

organized as a single firm.

In general, the information requirements are less stringent when a theory is used for description or prediction than when it is used prescriptively to manipulate social systems. Besides, a theory that appears to have good explanatory and predictive powers may lose these qualities if the same theory is applied prescriptively to manipulate or guide a social system. Macroeconomists learned this lesson when they attempted to use their theories to manipulate the macroeconomy, relying on historical statistical relationships (Lukas 1976).

Economics is now in the early stages of an information revolution and recent theoretical developments, even in the mainstream, reflect a growing concern with information and knowledge. Below, I distinguish three types of information problems that the new institutionalism cannot avoid: (i) coordination, (ii) control, and (ii) learning and systems of beliefs.

Coordination

Coordination is not a problem because of conflicts of interest or because actors cheat. The problem, in its pure form, arises because information is scarce and actors need information to coordinate their activities. Of the three categories of information problems, the coordination problem has received the greatest attention in economic theory. The basic Adam Smith question and the Walrasian general equilibrium model concern how the market solves the vast coordination problem of national economies. Hayek's early essays on information in economic life, and his emphasis on local knowledge, also deal with the coordination problem (Hayek 1937), and so does the theory of central planning. The literature on the economics of search, which analyzes how actors invest in search, also belongs to the coordination category (Stigler 1961).

(ii) The control dilemma

Unlike their traditional concern with coordination, only recently have modern economists become preoccupied with the link between control and the creation of wealth (Furubotn & Pejovich 1972). The economics of property rights and transaction costs focuses on various aspects of control and the same is true of the economics of law and various research programs in political economy.⁵

The classification of control as an information issue may startle some social scientists who (rightly) see the control of valuable assets as a manifestation of power. But power unconstrained by costly information holds little interest for the science of wealth. With full information and zero transaction costs, the powerful have full control of their resources and the incentives and ability to contract with the weak to maximize the national dividend. Given the distribution of power, resources will not be dissipated, and organizational failures will not push the economy onto paths of long-term decline. However, when power and distributional struggles for control of resources counter measurement and enforcement problems, uncertain control may bring dissipation and decline.

In a world of costly information, the control of scarce assets is never complete and the design and allocation of control affects incentives and behavior by influencing the expected costs and benefits of actions. When actors expect not to carry the full cost of their actions, or when they expect to receive only a part of the benefits, they adjust their behavior in predictable ways (Barzel 1989). When transaction costs are high, the initial allocation of productive resources is significant for the creation of

⁵ A note on terminology. A control structure is an economic manifestation of a system of property rights or, what is the same, of an institutional framework. The economics of institutions defines a system of property rights more broadly than lawyers do. In economics, property rights include all rules, regulations, enforcement and social conventions that constrain economic actors, and the focus is on effective or enforced rules, not merely rules on the book.

wealth, because control may be with actors who value the assets less than others and, moreover, are unable to trade them (Coase 1960). Furthermore, uncertain control sometimes breeds predatory public finance, which paralyzes economic activity, and regulations that involve more costs for the general public than benefits for special interests. In short, the control *dilemma* is an information problem.

The new institutionalists have explored various dimensions of control, such as the way in which private arrangements (contracting) are used within a given structure of property rights to limit dissipation and transaction costs (the cost of control), and how actors in a complex world attempt to escape new constraints through substitution at various margins. These studies also have sought to explain how political organizations supply control by providing formal rules, regulations and enforcement.

Attempts to gain control and maintain control often result in outcomes where group rationality and individual rationality diverge. The economics of institutions explains the existence of destructive control systems that dissipate resources in terms of rational ignorance and the high costs of credibly contracting over redistribution. Wars are an extreme instance of the control dilemma (Hirshleifer 1995), frequently involving the destruction of the disputed resources, but the political process can be nearly as destructive as wars. An uncertain commitment by the state to exclusive individual rights may act as a powerful disincentive for economic actors, reducing both personal income and government revenue, and bring long-term economic decline. Groups that capture the state sometimes use destructive measures to transfer resources away from critical industries and to themselves, with dire consequences for the economy (Bates 1981).

Its treatment of control issues is a major determinant of the sphere of competence of a theory. In particular, theories that ignore the control

dilemma tend to have little prescriptive power, although they may function well as descriptive and predictive theories. For instance, the standard theory of common property (open access) resources provides an excellent analysis of why the rent from such assets is dissipated (Gordon 1954). However, the same theory, which does not deal with transaction costs and control issues (except to assume free entry), provides little help for designing institutions for coping with the open access problem. A prescriptive theory of how to improve the utilization of open access (common pool) resources must explicitly face measurement and enforcement issues and deal with the possibility that actors will seek to defeat the regulation through substitution at various margins, involving inputs, outputs, production technologies, and timing. The reader may find my point rather obvious, but economists have a long history of prescriptive failures. Anti-trust policies have been based on standard microeconomic theory that does not even study the logic of economic organizations. Similarly, regulations aimed at protecting employees and consumers, cleaning the environment or "preventing chaos" in certain markets or industries have a checkered history (Noll & Owen 1983). It is a good sign that a new concern with information, measurement and enforcement is now evident even in mainstream economic thought (Milgrom & Roberts 1992).

(iii) Learning and systems of beliefs

In a theory of social systems, learning has two aspects: a) search for and interpretation of data within a fixed system of beliefs, and b) learning as a process for revising systems of beliefs.

Search with a fixed system of beliefs has important implications for behavior. New information may lead to new strategies, for instance when an actor learns that a prospective trader has cheated or that a commodity has unexpected valuable qualities. In other words, the actor will slowly

discover the true nature of her choice set and constraints and gradually reformulate her strategies. Frequently, our research questions make it unnecessary to model these processes and we assume them away, but in other instances it is essential to recognize the cost of learning (search, measurement) and how it constrains the actors. Economic theory has already expanded in this direction, for instance with models where actors invest in search (in the labor market and elsewhere), with models of bounded rationality, and with transaction costs models of exchange and contracting.

Learning as a process for changing an actor's beliefs and preferences opens the door to a world of enormous theoretical complexities. I finish the paper by sketching these issues, which, in spite of their difficulties, are unavoidable.

We can identify three systems of beliefs that strongly influence economic behavior and economic outcomes: (a) *beliefs about the physical world* partly reflected in formal theories of science and technology; (b) *beliefs about the social world*, which find expression in social science and, less formally, in various notions about the workings of social systems; and (c) *moral beliefs* that include religion, ethics, and informal notions of just behavior and fairness. Empirically, the three sets of beliefs often are closely related (North 1981). A religion may offer a an explanation of the origins of the world along with a theory of fairness which is based on an informal model of the economic system.

In their theories, economists always have recognized the importance of production technology for economic outcomes, but but they have done little to explain technological change. Still, some studies have tried to discover conditions that favor scientific process and influence the main direction it takes (Rosenberg & Birdzell 1986). Although certain cultures may have resisted applying new science and technology, I suspect that the resistance often involves distributional struggles or moral beliefs rather

than a conflict between competing models of the physical world. The application of science and technology creates relatively unambiguous feedback that confirms or rejects the validity of methods and hypotheses, reducing the variance in beliefs of actors concerning the physical world.

By contrast, the testability of theories of social systems is relatively weak, which permits a great variety of beliefs, as one immediately observes by visiting the social science departments of a big university. In their theories, economists usually assume (when it applies) that actors make choices on the basis of the best available models of social systems, usually the ones favored by the investigators. Economists rarely explore explicitly what theories and models actors use to guide their actions. There are exceptions, such as studies by macroeconomists, whose diverse theories are an embarrassment of riches, that have sought to discover the underlying models of major policymakers at central banks or multinational organizations, such as the IMF, or the OECD. I would like to see more work along these lines in the economics of institutions.

The new institutionalists primarily have expressed interest in the last of my three categories of belief systems: moral beliefs or social values. Such beliefs are thought to have an important role in the enforcement of rules and perhaps be a critical component of the political and social foundations of secure markets and stable economic systems. Of relevance here are only *valued beliefs*, because actors give up beliefs that are not valued as soon as the opportunity cost of standing by them exceeds zero. Only valued beliefs constrain behavior. Reputation, which is built as an investment and maintained until it pays in a narrow personal sense to cheat, is not a valued belief.

Many economists tend to discard valued beliefs as an independent economic force. The new institutionalists often appeal to valued beliefs in their studies, but they have done little to explain the formation and evolution of such phenomena — except to justify their existence in

functional terms. Attempts to properly endogenize belief systems will require incursions into the territory of psychologists and cognitive scientists, and that journey already has begun (Denzau & North 1994). Successful attempts to explain the formation of belief systems probably will bring us a new theory of learning and choice, where the traditional rational choice model will be reduced to a subcategory appropriate only for specific circumstances.

Conclusion

In this essay I make a case for a unified social science of wealth that draws on various disciplines but primarily on economics. Shared methods have been the strength of mainstream economics, but also the source of an important weakness: the frequent applications of theories outside their sphere of competence. The approach of the other social sciences has been heterogeneous, the results are scattered and the cost of transacting among the various schools is high. It concerns me that the new institutionalism already shows the same tendencies — multiplicity of schools, private vocabulary, and artificial product differentiation.

I have tried to sketch how we could enjoy the best of both worlds (a) by studying the relationship between institutions, organizations and wealth in terms of a common framework based on the economic approach modified by information issues, and (b) by introducing specialized features to adjust the theory for dealing specific categories of research questions. However, an integrated approach is likely to generate pathological path dependence, unless we are well aware of the sphere of competence for the various sub-theories. Although I argue for keeping the rational choice model, modified by information issues, it is a poor strategy to reject all attempts to develop more sophisticated models of learning and choice. In the study of social systems, as we raise the level of explanation above the structured world of markets, as we explore the

implications various information environments, and as we study large-scale institutional change and design, the weakness of the rational choice model becomes apparent.

Bibliography

- Alston, Lee J., Thráinn Eggertsson & Douglass C North. *Empirical Studies in Institutional Change*. Cambridge: Cambridge University Press, forthcoming.
- Alt, James E. & Kenneth A. Shepsle, eds. (1990). *Perspectives on Positive Political Economy*. Cambridge: Cambridge University Press.
- Atkinson, Anthony B. & Joseph Stiglitz (1980). *Lectures on Public Economics*. London: McGraw-Hill.
- Barzel, Yoram (1989). *Economic Analysis of Property Rights*. Cambridge: Cambridge University Press.
- Bates, Robert H. (1981). *Markets and States in Tropical Africa*. Berkeley: University of California Press.
- Becker, Gary S. (1968). "Crime and Punishment: An Economic Approach." *Journal of Political Economy* 76 (March-April):169-217.
- Becker, Gary S. (1976). *The Economic Approach to Human Behavior*. Chicago: Chicago University Press.
- Carter, Sir Charles F. (1960). *The Science of Wealth: An Elementary Textbook of Economics*. London: Edward Arnold.
- Coase, Ronald H. (1960). "The Problem of Social Cost." *Journal of Law and Economics* 3, No. 1:1-44.
- de Soto, Hernandes (1989). *The Other Path: The Invisible Revolution in the Third World*. New York: Harper and Row.
- Demsetz, Harold (1980). *Economic, Political Dimensions of Competition*. Amsterdam: North-Holland.
- Denzau, Arthur T. & Douglass C North (1994). "Shared Mental Models: Ideologies and Institutions." *Kyklos* 47: 3-31.
- Eggertsson, Thralnn (1990). *Economic Behavior and Institutions*. Cambridge: Cambridge University Press.
- Eggertsson, Thráinn (1993). "The Economics of Institutions: Avoiding the Open-Field Syndrome and the Perils of Path Dependence." *Ada Sociologica* 36:223-237.
- Eggertsson, Thra"inn (1994). "Property Rights, Economic Analysis and the Information Problem." Indiana University: Workshop in Political Theory and Policy Analysis, W94-31.
- Eggertsson, Thráuin (1995). "On the Economics of Economics." *Kyklos* (2), forthcoming.
- Furubotn, Eirik G. & Svetozar Pejovich (1972). "Property Rights and Economic Theory: A Survey of Recent Literature." *Journal of Economic Literature* 10, December 1137-1162.
- Gordon, H. Scott (1954). "The Economic Theory of Common Property Resource."

- Journal of Political Economy* 62, April: 124-142.
- Grofman, Bernard (1993). *Information, Participation and Choice. An Economic Theory of Democracy in Perspective*. Ann Arbor: University of Michigan Press.
- Hayek, Friedrich A. (1937). "Economics and Knowledge." *Economica* (February): 33-54.
- Hechter, Michael, Karl-Dieter Opp & Reinhard Wippler (1990). *Social Institutions: Their Emergence, Maintenance, and Effects*. New York: Aldine de Gruyter.
- Hettich, Walter & Stanley L. Winer (1993). "Economic Efficiency, Policy Institutions and Policy Analysis." *Kyklos* 46: 3-25.
- Hirshleifer, Jack (1995). "Anarchy and Its Breakdown." *Journal of Political Economy* 103 (No.1).
- Landa, Janet Tai (1994). *Trust, Ethnicity, and Identity: Beyond the New Institutional Economics of Ethnic Trading, Networks, Contract Law, and Gift-Exchange*. Ann Arbor: University of Michigan Press,
- Lindbeck, Assar (1995). "Hazardous Welfare State Dynamics." *American Economic Review* 85 (2), forthcoming.
- Lucas, Robert E. (1976). "Econometric Policy Evaluation: A Critique." In Karl Brunner & Allen H. Meltzer (eds.). *Stabilization of the Domestic and International Economy*. Amsterdam: North Holland.
- Mayer, Thomas, ed. (1990). *The Political Economy of American Monetary Policy*. Cambridge: Cambridge University Press.
- Milgrom, Paul & John Roberts (1992): *Economics, Organization and Management*. Englewood Cliffs: Prentice Hall.
- Mueller, Dennis C (1989). *Public Choice II*. Cambridge University Press.
- Noll, Roger G. & Bruce M. Owen, eds. (1983). *The Political Economy of Deregulation: Interest Groups in the Regulatory Process*. Washington D.C.: American Enterprise Institute.
- North, Douglass C. (1981). *Structure and Change in Economic History*. New York: W.W. Norton.
- North, Douglass C. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- North, Douglass C (1994). "Economic Performance Through Time." (Nobel Lecture). *American Economic Review* 84 (3):359-368.
- Ostrom, Elinor (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.
- Rosenberg, Nathan & L.E. Birdzell Jr. (1986). *How the West Grew Rich : The Economic Transformation of the Industrial World*. New York : Basic Books.

- Shepsle, Kenneth A. & Barry R. Weingast (1981). "Structure Induced Equilibrium and Legislative Choice." *Public Choice* 37: 503-519.
- Stigler, George J. (1961). "*The Economics of Information.*" *Journal of Political Economy* 69:213-225.
- Stigler, George J. & Gary S. Becker (1977). "De Gustibus Non Est Disputandum." *American Economic Review* 67: 76-90.
- Williamson, Oliver S. (1985). *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting.* Boston: The Free Press.