

## Property Rights, Economic Analysis and the Information Problem

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### **Property Rights, Economic Analysis and the Information Problem**

A popular definition sees economics as the science that studies the allocation of scarce resources among competing ends.<sup>1</sup> Yet until recently, economics has virtually ignored *time* and *information*, scarce resources of utmost importance in economic activities. In this paper my concern is with the role of the *information problem* in the evolution of the *property rights approach* from its origins in the neoclassical theory of production and exchange. I use the term property rights analysis to refer to studies which seek to explain the *economic effects* of institutions and the causes of institutional change in terms of a) methodological individualism, b) some version of the rational choice model, and c) what I call the *control dilemma*.<sup>2</sup> Further, the property rights approach (and related institutional analysis) logically involves three frames or components: An institutional framework, a response by representative individual actors and their organizations to the institutional framework, and a mechanism

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<sup>1</sup> The definition is found in Robbins' *An Essay on the Nature and Significance of Economic Science*. According to Robbins' (1932; 16) popular definition, "Economics is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses." Robbins saw economics as only able to make qualitative and not quantitative predictions and was critical of W.C. Mitchell, the institutionalist, for attempting "to use statistical methods to find common features in business cycles." (Backhouse 1985; 269; Robbins 1932; 113).

<sup>2</sup> There is much confusion and little agreement over names for the new institutionalism. I am guilty of referring to rational choice institutional analysis as *neoinstitutional economics* and of using the label *new institutional economics* for studies using bounded rationality (Eggertsson 1990). Now I see bounded rationality as a *bona fide* member of the happy rational choice family. For economists, the *economics of institutions* is a good term but probably not so for rational choice sociologists and political scientists, and evolutionary and biological institutionalists object, quite rationally, when the rational-choice people appropriate the *new institutionalism* for themselves (Hodgson, 1993).

for aggregating individual actions.<sup>3</sup>

The paper seeks to accomplish the following:

1. Introduce the information problem and place it at the center of theories of social systems.
2. Show how the area of competence for a theory of social systems is defined (partly) by its approach to the information problem, and how applications of social theories outside their areas of competence produce misleading results.<sup>4</sup>
3. Trace the development of the property rights approach from the traditional neoclassical theory of production and exchange in terms of a) a recognition of the information problem, and b) extension of the analysis to political and social issues.
4. Discuss the limits of the property rights approach and respond to misguided criticism.

### I. *The information problem*

Few social scientists disagree with the proposition that social systems are too complex to be captured entirely by a single operational model or theory.<sup>5</sup> Most scholars agree that the development of specialized theories, which are designed to cope with a limited set of questions, is a sensible response to the complexities of the social and natural worlds. Below I argue that the area of competence for any social theory is related closely to its assumptions concerning the information problem. By the information problem, I refer to a host of issues that emerge in human society because information, broadly defined, is a scarce commodity. Rather than attempting to give a comprehensive account, I list three categories of information issues that have particular relevance for the creation and distribution of wealth, which is the chief concern of property rights analysis:

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<sup>3</sup> In his important study of the foundations of social theory, Coleman (1990; 1-23) argues that a theory of social systems should have a macro-to-micro component, an individual-action component, and a micro-to-macro component. Property rights analysts are sometimes criticized for being casual about the micro-to-macro component, and neoclassical economics tends to neglect the macro-to-micro component.

<sup>4</sup> My discussion refers only to theories that involve human actors and not to theories where the primary actors are nature, social categories, institutions or even history herself.

<sup>5</sup> The old institutionalists and the new-old institutionalists, who have no fear of complexity, probably disagree with this statement.

- a) *Coordination issues.* If (economic) actors, rather than producing and consuming in isolation, specialize, form teams and engage in exchange, their activities must be coordinated, even when they share common goals and values and have no incentive to cheat. Coordination uses scarce resource, because information is not a free good.
  
- b) *Measurement / enforcement issues.* In society, as a general rule, actors do not fully share common goals. Because information is scarce and not evenly distributed, the measurement of the quality and quantity of resources and activities in transactions is costly and incomplete. In exchange, the cost of measurement and enforcement relaxes constraints and creates opportunities for cheating. Even actors who generally have little economic and political power often find an opportunity to cheat in the shadow of measurement and enforcement costs. Although social values often substitute for measurement and enforcement by encouraging cooperation at the expense of narrow self-interest, still measurement and enforcement problems are important factors shaping the organization of exchange.
  
- c) *Knowledge issues.* Because information is scarce, actors have limited knowledge or understanding of the social and physical world and of the laws governing nature and society. The limited knowledge that the actors possess is subjective and distributed unevenly. Knowledge issues also involve 'knowledge' of the moral world. Human actors are moral beings and presume the existence of moral truths or moral laws. The perceptions of actors concerning the world around them influences their preferences and their behavior. The acquisition of knowledge is a dynamic process of learning where actors interact with their environment.

## *II. Theories of social systems and spheres of competence*

I have sketched the information problem to clarify my point concerning information issues and the sphere of competence of social theories. Consider neoclassical economics or microeconomic theory. In terms of its assumptions,

the theory bypasses both the knowledge issue and the measurement/enforcement issue but directly addresses (aspects of) the coordination issue. In neoclassical theory, the level of analysis is the market as a system — not the structure of economic organizations or contracts/transactions as a system. In other words, the focus is on coordination in decentralized exchange.

Demsetz (1980) refers to this theoretical apparatus as the *decentralized model*. The decentralized model is well suited for analyzing coordination issues in a decentralized exchange system, for instance adjustments to shocks that shift supply or demand curves. The enormous success of this scholarly enterprise is partly due to the economies of scale of a cumulative research program. However, a well-developed research path sometimes put blinders on scholars, making them believe that their path is the whole world, rather than a specialized theory resting on simplified assumptions. Consequently, scholars are prone either to ignore critical questions or stray into areas that are outside the sphere of competence of their theories (Eggertsson 1993a). For instance, neoclassical economics (at least prior to a recent inflow of ideas from the property rights school and elsewhere) is not well suited for studying:

- a) the structure and operation of economic, political or social organizations
- b) institutional design
- c) the acquisition of knowledge/preferences

I argue below that the relative strength of the theoretical tools of the decentralized model is in *predictive* rather than *prescriptive* analysis. In other words, standard neoclassical economics, by not allowing for measurement/enforcement problems, is poorly suited for prescription in areas such as regulation or antitrust policy. Indeed, the whole field of welfare economics is outside the sphere of competence of neoclassical economics. In defense of neoclassical economists, it must be said, however, that in their prescriptive work many economists use judgment in applying their theory and informally allow for measurement and enforcement issues. That tradition is evident in a well-known statement on the nature of economics by J.M. Keynes in his essay on Alfred Marshall:

[Economics] is an easy subject, at which few excel! The paradox finds its explanation, perhaps, in that the master economist must possess a rare combination of gifts. ...He must be a mathematician, historian, statesman, philosopher — in some degree ... as aloof and incorruptible as an artist, yet sometimes as near the earth as a politician. (Moggridge, 1973; 173; cited in Lackman, 1994; 410-411).

With training in economics becoming narrower and more specialized in recent decades, the ability of academic economists to informally adjust for measurement and enforcement problems may be less than it used to be.<sup>6</sup>

### III. *Property rights analysis: Phase I*

#### *a) a new level of analysis*

In its first phase, property rights analysis extended neoclassical economics in two ways: a) by allowing explicitly for measurement and enforcement, and b) by moving the analysis to a new level, the level of organizations and transactions. However, the bulk of the work continued to deal with economic organizations and transactions in the economic sphere (Furubotn & Pejovich 1972).

Particularly important contributions were made to the theory of the firm (Coase 1937; Williamson, 1964; Alchian 1965; Alchian & Demsetz 1972). In neoclassical economics, the firm was modeled as an actor who maximizes profits, subject to constraints. The property rights approach changed the level of analysis by entering inside economic organizations and by studying the behavior of individual actors, such as managers, who optimized their personal objective functions. Now the behavior of managers could be analyzed in alternative environments and structures that presented them with varying incentives. The early studies often gave startling (and, at the time, hotly controversial) results, for instance, concerning outcomes under workers' self-management of the Yugoslav variety (Ward 1957; Furubotn & Pejovich 1970). However, most of these studies were concerned not with the soviet firm or the "firm in Illyria," but

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<sup>6</sup> A recent survey of graduate students of economics in the U.S.A. reports that 68 percent of the students claim that a thorough knowledge of the economy is unimportant for academic success in economics and only 4.4% said that such knowledge is very important (Klamer & Colander 1990; 18).

with the firm in North America. Many empirical studies compared outcomes in private and public firms or examined the performance of firms under government regulation (De Alessi 1980).

*b) introducing the control dilemma*

The recognition of measurement and monitoring costs introduces what I call *the control dilemma*, which is the central theme of property rights analysis in all its phases. I refer to the control dilemma repeatedly below, but in simple terms the issue is the following:

- a) actors are reluctant to invest their resources, unless they expect to have a reasonable control of the yield;
- b) when control is uncertain, actors often abstain from potentially productive activities and are likely to engage in activities that dissipate resources (Eggertsson 1990,116-124).

In the economic sphere the control dilemma becomes more obvious when we relax the traditional neoclassical assumption that commodities have a single quantitative margin and recognize that most resources and activities have multiple valuable margins. A recognition of the control dilemma helps explain why in many situations neoclassical economics is a powerful tool for predictive analysis but ill-suited for prescriptive analysis. The market for residential housing serves well to illustrate these assertions. Neoclassical economics predicts well the impact of shifts in supply or demand on an unregulated housing market. The theory tells us how price and quantity is affected, in the short run and in the long run, by unexpected inflows of immigrants or by an accidental fiery destruction of the housing stock. However, neoclassical theory is unsuitable for designing or even analyzing rent controls. If a ceiling on price leaves a positive gap between the willingness to pay (demand) and the regulated price, temporarily the valuable differential is common property, a value in the public domain. As Cheung (1974, 1975,1976) analyzed in a series of pioneering studies of the housing market in Hong Kong, equilibrium is reestablished through adjustments at several margins. The complex multi-dimensional adjustment process often creates unintended side effects, and successful regulations usually are the outcome of an interactive process where the regulator learns by doing.

The case of ocean fisheries also illustrates well the distinction between the

predictive and prescriptive capacity of social theories. Neoclassical economics successfully analyzes how independent economic actors dissipate the rent from a non-exclusive natural resource, such as a fishery, if their activities are unregulated (Warming 1911; Gordon 1954). Although the theory of non-exclusive resources took the novel step to consider the implications for resource use of lack of control (of non-exclusive property rights), the theory did not fully incorporate the control problem by recognizing measurement/enforcement costs and multi-dimensionality. Therefore, traditional fisheries economics does not have prescriptive competence. Yet a generation of economists has used neoclassical fisheries economics (sometimes supplemented with informal insights) to design regulations for coping with the open-access problem. These regulations usually seem to fail throughout the world.<sup>7</sup>

Finally, the omission to distinguish between the predictive and prescriptive capacity of social theories also has confounded macroeconomics, where estimated relationships between macroeconomic variables seem to disappear when the estimates are used for policy purposes. The recognition of the problem is due to Lucas (1976). Initially, macroeconomists responded by shifting the foundations of macroeconomics to the neoclassical micro level, but the attempt failed because traditional microeconomics did not recognize the control dilemma. Recently, several macroeconomists have begun to incorporate elements of property rights analysis in their work.

### *c) problems with terminology*

The theory of property rights is plagued with unclear definitions and unsettled terminology. Although confusion frequently is found in new fields of studies, where eager academic retailers seek profits by diversifying their product, clarification and standardization is an urgent task.

The very term *property rights analysis* is rather unsatisfactory because, for many people, the term carries meanings that do not correspond fully with the meaning assigned to the term in the economics of property rights. For some social scientists property rights refer to the law of property, a specific branch of law, for others it represents private property, even capitalism and rights and wrongs.<sup>8</sup> However, already in the pioneering studies of Alchian, the term has

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<sup>7</sup> In fisheries, property rights analysis has a relative advantage in studying the consequences of various regulatory regimes. The design of a workable institutional framework is a far more difficult task.

<sup>8</sup> Anthony Scott (1983), tongue in cheek, entitled a paper, "Property Rights and Property Wrongs."



a broad meaning that approximately refers to the social system for assigning control of resources:

The rights of individuals to the use of resources (i.e., property rights) in any society are to be construed as supported by the force of etiquette, social custom, ostracism, and formal legally enacted laws supported by the state's power of violence or punishment. By a system of property rights I mean a method of assigning to particular individuals the "authority" to select, for specific goods, any use from a nonprohibited class of uses. (Alchian 1977; 129,130)

The quotation from Alchian (1977) shows that in the analysis of property rights the control of resources originates not only with the enforcement of formal rules such as constitutions, statutes or regulations, but also with social conventions, norms and custom. The behavior of actors is influenced by the beliefs they hold and the values they entertain concerning the proper way of relating to other members of society. I refer to these values as *social preferences* or *social values* and contrast them with the narrow *personal preferences of economic man*.

Actors' control of resources also has a private component that originates in individual efforts and investments, such as locking up, fencing or hiring guards. The private component may also be cooperative and involve voluntary contractual safeguards which a set of actors agrees on. From the viewpoint of an actor, therefore, control has both an internal (private) and external (social) source.<sup>9</sup>

Critics have argued that the economics of property rights (or neoinstitutional economics) neglects power or social conflict (Gustafsson, ed. 1991; Knight 1993). However, the economic definition of property rights, as we have seen, relates property rights to the distribution of power, and the logic of the approach does not require that all transactions involve partners of equal standing or power. In part, title confusion over power is due to the frequent assumption made in studies of transactions in the economic sphere that the fundamental distribution of property rights (power) is given. In other words, the studies limit their scope to the effects of property rights regimes on economic organization. A property rights study of the transactions between enterprise managers and central planners in the former Soviet Union usually does not

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<sup>9</sup> Elsewhere (Eggertsson 1993a) I have used the terms *internal and external property rights*, which may stretch property rights beyond recognition.

explore how the Bolsheviks took power (which different from as condoning their power — or the power of capitalists in other types of studies) or assume that the two sides share equal power. The point is that even the relatively powerless retain limited property rights, in some degree because such rights are granted by society and in some degree because the costs of measurement and enforcement often shield the weak from the powerful (*vide* the relative autonomy of soviet enterprise managers). When two actors retain some property rights or control of resources, within any given distribution of power, there is scope for the transfer of such rights. Further, most studies do explicitly recognize variations in economic power — think of Williamson's (1983) holdup problem or agency theory (Moe 1984) — and portray it in the structure of contracts. Finally, applications of property rights analysis in the political and social sphere, which I discuss below, have explicitly considered the causes of institutional change, and institutional change represents the redistribution of wealth and power.

Together, the costs of measurement and enforcement are known as *transaction costs*. Although the concepts of transaction costs and property rights, are two sides to the same coin, the literature has not settled on a common definition of transaction costs. I advocate the following definition: Transaction costs refer to the (expected) opportunity cost of an actor (or a set of actors) of maintaining control over resources or services, both in use and in exchange. In other words, from the viewpoint of an individual actor, transaction costs are his or her internal or personal control costs. If socially-assigned control is strengthened and extended for any set of actors, it will reduce the actors' expected transaction costs and increase their willingness to invest and trade.<sup>10</sup>

My final comment on the vocabulary of property rights analysis concerns the distinction between *organizations* and *institutions*. Social scientists are liable, even within the same essay, to use the word institution both to signify shared social values (such as the norm to 'talk well of the dead') and a business firm. I prefer North's (1989) definition of *institutions* as (effective) informal and formal rules and of *organizations* as teams and the rules that they play by.<sup>11</sup> North (1989) emphasizes the two-way interaction between organizations and institutions, and he also makes clear that the performance and output of

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<sup>10</sup> From a national point of view, transaction costs are the aggregate control costs for the whole economy.

<sup>11</sup> I admit that the word 'Institution' is not a satisfactory term, because of its general use both in the meaning 'behavior pattern' and 'firm/foundation' (not to mention other meanings, such as 'a place for the care of people who are mentally ill').

organizations are the joint products of teams, the resources they use, their internal rules, and the surrounding institutional framework.

The criticism has been heard that the logic of property rights analysis or neoinstitutional economics reduces the study of institutions and organizations to isolated nonsocial abstract individuals (Hodgson 1989).<sup>12</sup> This critique is misguided. A macro-to-micro component is one of the three essential steps of property rights analysis, as I emphasized at the outset. Besides, the perspective that over time actors accumulate social capital and pass it on to new members of society, is consistent with the property rights approach (Coleman 1990), and so is the notion that organizations accumulate internal social capital that is passed to new team members. Alchian (1984) emphasizes that the value of teams depends on the success of entrepreneurs in matching actors and resources that are appropriate for a specific time and place. The joint value of a successful team is greater than the sum of its parts.

#### IV. Phase II: Applying property rights analysis to politics

From the 1960s and into the 1980s the bulk of studies that examined the control problem in terms of transaction costs focused on the economic sphere, and a new theory of economic organization emerged (Eggertsson 1990; Chapters 6 & 7; Milgrom & Roberts 1992). In their theories and models, many scholars have employed what Demsetz called the *laissez-faire model*. Demsetz's *laissez-faire* economy assumes a decentralized competitive (advanced industrial) market economy, which is based on private ownership and subject to transaction costs, but with no government interference or restrictions. The assumption of a *laissez-faire* economy with these characteristics, enables the theorist to explain the structure of various forms of economic organization in terms of the interaction between control problems and production technology. Usually, it is assumed, implicitly or explicitly, that in each line of production competition among organizational forms selects the least-cost arrangements (Alchian 1950). The appeal to a Demsetzian *laissez-faire* economy by many early contributors to the new theory of economic organization helped give many critics wrong impressions of the fundamental nature of the property rights approach.

Concurrent with studies of the structure and performance of economic

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<sup>12</sup> The isolated individual is, of course, a common artifact in social theory. Man in the state of nature is a key theoretical construct in Hobbes' *Leviathan*, 1651.

organizations, trickled a small stream of studies, later to become a veritable river, which applied the property rights approach, and its emphasis on transaction costs, to political transactions and organizations.

Some studies attempted to explain institutional change and the emergence of exclusive rights, without dealing explicitly with political organizations and processes, by (implicitly) extending the filtering mechanism of the laissez-faire model to the political arena. The approach is associated with Demsetz (1967) and I call it the *naive theory of property rights* (Eggertsson 1990). The naive model recognizes that exclusive control is costly, both to introduce and to maintain, and postulates that exclusive control will replace open access when the (joint) benefits of doing so exceed the (joint) costs. Therefore, a move to exclusivity is usually associated with an increase in the potential value of resources (for instance, with new markets) or with a drop in exclusion costs (for instance, with the introduction of barbed wire for fencing).<sup>13</sup> In other words, in the naive model control issues do not present a dilemma, property rights will adjust to maximize the joint value of resources — and economists need not be concerned with political processes.

Actually, the naive theory is a good approximation of a special case: The theory appears to hold for some small groups that are not plagued by distributional conflicts and enjoy considerable autonomy. Libecap (1978), using an ingenious empirical test, finds that mineral rights in 19th century Nevada were firmed and clarified as more deposits were discovered. In a large empirical study of communal users of common pool resources, Ostrom (1990) shows that many such groups can establish effective control mechanisms and avoid dissipating their resources, but others fail to do so. Ostrom goes beyond the naive model and attempts to identify circumstances and arrangements that make for success or failure in solving the open-access problem.<sup>14</sup> Finally, the economics of law has used the naive model in controversial studies to explain the evolution of Anglo-Saxon Common or judge-made law. (Coase 1960; Posner 1977).

In spite of the fame or notoriety of the naive model, studies of political aspects of the control dilemma have paid much attention to property rights structures that involve heavy opportunity costs of lost (aggregate) output and investment opportunities. Three examples of such work will illustrate my point:

First, North (1979) has applied the new theory of organization to analyze

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<sup>13</sup> Increasing governance costs of regulating the common use of a resource is the third factor that pushes toward individual exclusive ownership.

<sup>14</sup> Also see Ostrom et al. (1994).

why absolute rulers frequently set up systems of property rights that stifle economic growth and development. North finds the answer in measurement and enforcement costs that shield government agents and tax payers from the ruler, and in the multi-dimensionality of resources and activities which creates countless opportunities for evasion. These complications, along with concern over potential competition for power, may force an "absolute" ruler to introduce practices that provide economic actors with perverse incentives and encourage them to dissipate resources. Even when all sides realize that an alternative system would increase both the revenues of the ruler and the wealth of her subjects, high costs of committing to a new system and negotiating the transfer often block reforms.

Second, I mention studies of the historical origins of secure markets and their political foundations (North and Weingast 1989; Weingast 1993). Here the double-edged nature of state power poses a dilemma: the authority of a ruler can be used either to protect or to appropriate ownership rights. A ruler may be tempted to meet some pressing needs by breaching her contract with the subjects and confiscating their wealth, unless there are institutions which constrain her. Insecure exclusive rights can create a vicious circle where the subjects' reluctance to invest reduces the tax base and raises the cost of credit, which in turn may push a ruler toward further confiscatory measures that make exclusive rights even more insecure. Various recent studies have examined why some states have failed and others have succeeded in escaping the vicious circle of insecure property rights (Firmin-Sellers 1993).

Third, many well-known studies have used information and transaction costs to explain the disproportionate power of relatively small special interest groups in democracies; how such groups often manage to obtain favorable changes or adjustments in their property rights at the expense of a majority of the voters (Olson, 1971; 1982; Buchanan *et al.* 1984).<sup>15</sup>

In sum, looking at the political sphere we conclude that the property rights approach is not based on the notion that all parties share equal power or that all institutional change represents increased efficiency in some sense or contributes toward greater aggregate wealth.

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<sup>15</sup> In the political sphere, applications of the property rights approach to democratic institutions are not limited to studies of *rent seeking*. For instance, the new transaction-costs theory of the firm has been used to model the structure and performance of various democratic political organizations, such as legislatures and governmental agencies (Alt & Shepsle, eds. (1990); Eggertsson 1990, Chapter 10).

V. *Property Rights Analysis, Phase III:*  
*The Social Sphere and the Acquisition of Knowledge*

*a) recognizing social preferences*

Until recently, it was rather exceptional for studies in the property rights tradition to explicitly incorporate social preferences and informal institutions in the analysis, even as exogenous variables.<sup>16</sup> Most studies have examined political or formal rules and not dealt with rules rooted in culture — norms, custom and other shared values. The typical study, explicitly or implicitly, has treated the stock of cultural capital in a community as exogenous and stationary and assumed that (marginal) changes in formal rules do not fundamentally alter the relationship between formal and informal rules in their joint production of the property rights environment.

Property rights scholars, and also their critics, are often unaware of this crucial assumption of a stable relationship between formal rules and social preferences. The lack of awareness is reflected in heated debates over the ability of a theory, which assumes rational choice and selfish (nonsocialized) actors, to explain voting, criminality or commercial morality. The plain truth is that the property rights approach is not able to deal with such questions in their entirety: they are outside the model's sphere of competence. Specifically, rational actors who forego valuable resources or commodities in return for no other benefits than the personal satisfaction of having done right, are expressing specific preferences or tastes, values obtained over time through interaction with the actors' physical and social environment. One way formulate these issues, is to assume that an actor's set of preferences includes a subset of (shared) social values, which sometimes include traits such as commercial morality. However, to explain commercial morality, we must violate the ultimate taboo of neoclassical economics and construct a theory of preferences.

However, all is not lost. It is unreasonable and illogical to assume that all social preferences have infinite value; some substitution between personal and social preferences is to be expected, and also among social preferences.<sup>17</sup> For

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<sup>16</sup> For an actor, the social preferences of other actors are her informal institutional constraints. An actor may not share (all) the social preferences of the members of her community, for instance, when she is a recent immigrant from a different culture.

<sup>17</sup> The *vulgar old-institutional view* sees no substitution between social preferences and personal preferences (the old institutionalists "take institutions seriously.") On the other

instance, the situation can arise where any action or inaction will violate some social value. Property rights analysis is not able to answer questions about the origins of moral behavior or altruism, but it can study how an increase in the opportunity costs of committing a crime, cheating a customer or not voting is likely to affect behavior.<sup>18</sup>

Theories that assume stable social preferences and deal with substitution at the margin can examine a whole range of important questions, but they are inappropriate for studying changes in property rights systems that are (partly) driven by changes in social preferences.<sup>19</sup> In this area, property rights analysis faces a crisis not unlike the crisis in neoclassical economics, when, without regard for the control problem, the theory was used for prescriptive analysis.

#### *b) the static approach to social values*

The problem of dealing with the role of social values in a system of property rights has two aspects, a static and a dynamic one. In the first instance, the stock of cultural capital is treated as exogenous but the role of social values in the structure of property rights is recognized explicitly. The dynamic approach seeks to explain the formation of social preferences and changes in the stock of cultural capital. I now discuss each of these aspects after a brief note on terminology. I use the term *cultural capital* to refer to social values, but *social capital* stands for social organizations. Although the two are closely related, there is the following distinction: cultural capital corresponds to social preferences that influence the behavior of actors, social capital corresponds to social organizations and the relevant teams of actors. For instance, commercial morality belongs with cultural capital, but an informal network of traders (where trust is based on cultural factors such as common identity and religious beliefs) is social capital.<sup>20</sup> Events such as wars or revolutions may destroy (temporarily)

hand, the *vulgar marxist* *Ineoclassical view* is that social preferences passively adjust to material circumstances.

<sup>18</sup> A fine for not voting or a new crime detection technology, for instance, would provide an opportunity to study how an increase in the opportunity cost of antisocial behavior affects choice.

<sup>19</sup> As emphasized by North and Denzau (1994), changes in social preferences are related to changes in the ways actors model their social and physical environment, to changes in their mental models.

<sup>20</sup> In other words, the distinction between cultural capital and social capital corresponds to the distinction that North (1990) makes between institutions and organizations. Also note that the distinction between social, economic and political organizations is not always clear. For instance, in societies with limited specializations, the same organization may have important economic, political and social roles.

elements of a community's social capital, but leave the cultural capital essentially intact.

Property rights analysis has given relatively little attention to the role of informal organizations and institutions in providing Elster's (1989) *cement of society*. Rational choice institutionalism sprang from neoclassical economics and for various reasons invaded the domain of political science earlier and more massively than the domains of sociology and anthropology. Although many scholars believe that the rational choice approach is poorly suited for studying social organization, I think that a host of important issues can be explored with the tools of property rights analysis:

First, there is the question of order and exchange in communities where specialized political organizations are weak or absent. Considerable work has been done here, such as Landa's (1981; 1994) studies of ethnically homogeneous middlemen as an alternative to contract law, Posner's (1980) theory of social organization in primitive and archaic societies, Bates (1983) work on order in traditional African societies, de Soto's (1989) studies of the informal sector in Latin America, and Eggertsson's (1994a) analysis of informal social security arrangements in historical Iceland. Recently many property rights analysts have recognized that informal institutions play an essential role in developed industrial economies, whether it is the organization of the diamond trade or the culture of corporations (Kreps 1990). Still the role of informal institutions in facilitating transactions and in supporting property rights remains relatively unexplored, with good empirical work in short supply.

Second, it is of great practical and theoretical interest to establish whether, as many scholars believe, social values are sticky, even in an environment where formal rules and/or material circumstances are changing rapidly. For instances, consider the role of sticky social preferences in the transition in Eastern Europe (Eggertsson 1994b) or in a group that shares a common pool resource and suddenly is faced with an explosive increase in demand (Ostrom 1990; Eggertsson 1993b).<sup>21</sup>

Third, if social preferences are sticky and if governments are unable to manipulate basic social values of mature persons, social preferences cannot be policy instruments, except perhaps in (very) long-term policy. Therefore, policy

<sup>21</sup> Another issue of great concern is the role of sticky cultural capital in freezing the industrial organization of a community and preventing economic actors from systematically using valuable natural and other resources. Eggertsson (1994c) studies the frozen industrial organization of historical Iceland and the absence of a specialized Icelandic fishing industry until the late 19th century.



makers must understand the interaction between a particular set of social preferences (or the (relatively) stationary stock of cultural capital) and various sets of formal rules and related organizations, if they are to manage successfully economic transitions in Third World countries and elsewhere. Successful policy requires that prevailing social values support the proposed set of formal institutions and related organizations.

I admit that these issues may stretch the rational choice model to the limit. Without drawing on a theory of preference formation (and on a theory of learning), scholars probably will find it difficult to distinguish substitution from a fundamental reordering of preferences (Brunner 1987). However, while waiting for an operational theory of learning and preference formation, we must treat cultural capital as an exogenous variable and struggle to understand its role in the creation and allocation of wealth. However, with cultural capital as given, scholars applying the property rights approach are still able to offer insights into the emergence of social capital. For instance Landa (1994), an economist, has examined the role of ethnicity, religion and social networks in organizing trade and shown how social values and social organizations often substitute for a formal system of contract law. A number of rational choice sociologists (Hechter, Opp, Wippler, eds. 1990), often using game theory, have made important contributions to the study of social structures, and Coleman's (1990) *Foundations of Social Theory* is already a classic work. Finally note that in property rights analysis the exploration of social preferences and social capital is helped by the relatively narrow focus of the inquiry, which is restricted to the role of these factors in the creation and distribution of wealth.

*c) the dynamic approach to social values*

Although the property rights/rational choice approach is helpful in exploring many important questions concerning the role of social variables in the structure of property rights, it cannot explain the emergence of new social preferences, which may accompany major social transformations. I agree with North (1990) that a general theory of social transformation requires a new level of analysis and new tools. The new level of analysis is the *individual as a system*, and the new tools are a theory of preference formation and, generally, a theory of learning. At the new level, a dynamic theory of cognitive processes must replace the behavioral assumptions of the rational choice model, and

explain how mental models and social preferences are formed as individuals interact with their physical and social environment (Denzau and North 1994). Rather than venturing too far outside my own field of competence in a discussion of learning theories and cognitive science, I conclude this section with few comments intended to put dynamic studies of social values in the context of the traditional property rights approach.

First, if social preferences exert an independent influence on behavior and economic activity, they cannot be explained or endogenized in terms of rational actors who are endowed only with personal preferences. This assertion is essentially a matter of definition. Think of games that induce actors to act as if they were altruistic, because selfish behavior is punished so heavily (perhaps by lost commercial reputation), that the costs of defection are greater than the benefits, both measured in terms of personal rather than social values. Although such strategic situations are important and worthy of analysis, the preferences driving the actors are not social values, as they are defined here.

Second, whatever Simon (1957) intended with his theory of *satisficing*, the version adopted by the new institutionalists, bounded rationality, is not theory of preference formation and social values. In the hands of most scholars, bounded rationality is comparable to traditional optimization with new constraints. In these studies, an actor, whose rationality is bounded, is little different from an actor who faces high information costs. In one instance, information costs enter into the choice model, in the other instance, information costs enter as constraints.

Third, when (and if) a powerful theory of learning, preference formation and choice becomes available, the new theory might transform property rights analysis at all levels and, indeed, also the basic economic theory of production and exchange, at least in certain lines of inquiry. Currently, we lack a theory of behavior under uncertainty (rather than risk), and have limited understanding of how social preferences constrain behavior. A theory of organizations will not be complete without a better understanding of informal structures within such bodies. However, we are still waiting for a theory that could (partly) replace the (extended) rational choice model.

Fourth, a cognitive theory that looks at man as a system interacting with the physical and social environment is still, in a sense, methodological individualism, an extension of the research program that seeks to explain the causes and effects of institutions in terms of individuals and individual action.

Many critics implicitly recognize this by advocating alternatives both to rational choice and to methodological individualism. Some scholars favor replacing human actors with institutions as actors, others advocate evolutionary theories and discuss the similarities and dissimilarities of biological and social evolution.<sup>22</sup> If I understand them correctly, these alternative approaches, which give the property rights approach healthy competition, are not geared toward micro issues, such as the variation in the structure of agricultural contracts or the origins of a particular rent-seeking legislation, but explore long-term (macro-) changes in institutions and social values.

## VI. Conclusions

The new institutionalism has centrifugal tendencies.<sup>23</sup> I have referred to this propensity as the *open-field syndrome* and contrasted it with *scholarly path dependence* (Eggertsson 1993a). The open-field syndrome retards the development of a cumulative research program and increases transaction costs in scholarly exchange, but perhaps produces some gains through the competition between various research methods. Scholarly path dependence provides economies of scale in research at the cost of (sometimes) curtailing the side vision of scholars or leading them to apply inappropriate tools to new problems. In this paper, I tread the middle way.

I define the property rights approach broadly as the study of the relationship or the interaction between wealth (including the distribution of wealth) and institutions (including institutional change). However, under the property rights umbrella, I place only scholars who study the interplay between human actors and their physical and institutional environment, and recognize Coleman's (1990) three components of a social theory: a macro-to-micro-component, individual-action-component, and micro-to-macro component.

A research program, which has an individual-action component, requires a theory of choice. The property rights approach has borrowed the rational-choice model from economics and extended it by recognizing bounded rationality and

<sup>22</sup> The biological institutionalists puzzle over what social phenomena correspond to genes and pass on information, and whether the biology of Lamarck or Darwin is more appropriate for institutional analysis (Hodgson 1989; 264).

<sup>23</sup> There are real differences and artificial product differentiation, but in addition some observers mistakenly create differences out of thin air by concluding that scholars who specialize in particular theoretical or empirical topics form a separate school of institutionalism. According to this view, there is the school that studies the effects of institutions, another school studies institutional change, the third studies organizations, and the fourth international regimes.

the costs of measurement and enforcement or transaction costs. For more than a century, the rational choice model has drawn intense heat from its critics. My position is that inventive scholars will sell their product with ease, once they have discovered powerful alternatives to the (extended) rational choice model. Path dependence notwithstanding, rational choice scholars will welcome a new powerful choice model (almost) as well as they welcome new powerful computers.

The paper traces the evolution of the property rights approach from its roots in the neoclassical theory of production and exchange to the current frontiers of research. I make the point that the sphere of competence of social theories is (partly) determined by their treatment of the information problem. The breakthrough for property rights analysis came with the recognition of the control dilemma, which is fed by the multi-dimensionality of resources and activities and by the costs of measurement and enforcement.

The weakness of property rights analysis is its limited understanding of informal institutions, how they evolve and how they relate to formal institutions. A sound theory of choice under uncertainty (rather than risk) is lacking and, following the neoclassical tradition, the preferences of actors are taken as given. However social preferences (and the related concept of cultural capital) are critical components of the institutional environment. Since major institutional change often involves changes in social preferences, it is logical for (some) property rights analysts to attempt a theory of (social) preferences. A theory of preferences requires a new level of analysis, the level of the individual as a system and calls for a theory of learning. I argue that a theory of preferences and new theories of choice are consistent with the property rights approach and a logical extension of the struggle to master the information problem.

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