

# Understanding Business Systems: An Essay on the Economics and Sociology of Economic Organization

by

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## **Abstract**

This is a discussion from an economist's perspective of the concept of business systems. This concept has recently been proposed by Richard Whitley as a means of conceptualizing the close connections between dominant social institutions and ways of coordinating economic activities as well as the interrelations between firms and market characteristics. The paper discusses to which extent economics is helpful for the understanding of business systems. Moreover, the paper uses this as a catalyst for a broader discussion of the economics and sociology connection. The main argument is that while economics is helpful for understanding certain aspects of business systems, the path-dependent, complementary and context-dependent features of business systems are hard to grasp with economic tools to the extent that these features have cognitive and normative elements. In general, economics has a problem with the cognitive and normative aspects of institutions, which are merely treated as side-constraints on action. However, these aspects may be crucial for understanding processes of path-creation and dependence (for example, in business systems), and therefore ultimate allocations.

## **Acknowledgments**

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## I. Introduction

This speculative and purely conceptual paper is taken up with discussing two connected issues; issues, however, that are of somewhat different scope and are discussed separately.

Thus, the paper is in the first instance a review and discussion of a new sociological perspective on a specific pattern of aggregate economic organization, namely so-called “*business systems*”. The pioneer work here is that undertaken by the British sociologist Richard Whitley (1992a), who coined the concept of business systems, and I will almost exclusively refer to his work which seems to have become increasingly influential lately (for example, see the contributions in Whitley (1992b), Peer Hull Kristensen (1996) and Whitley and Christensen 1996). The concept of business systems is one among many recent manifestations – in sociology, economics and management studies – of the idea that economic organization, including corporate governance and the market/hierarchy choice bears a strong national mark as it were, and that various national institutions and historical incidents help explaining the path-dependent and systemic nature of business system.<sup>1</sup> My design in this paper is to discuss the concept of business systems from an economist’s perspective.

Now, those who do research on business systems are mostly sociologists, and are critical of economic analysis, a critique that, I will argue, is not completely warranted. Indeed, the writing of this paper was prompted by reading Whitley’s (1992a: 2) critical remarks on economics, and much of the following may be seen as an attempt to argue that there may be room for a

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<sup>1</sup> For this reason, Kristensen (1996) explicitly talks about “national business systems”. See Whitley (1992a: 14-15) for a discussion of this issue. I will not here discuss the methodological difficulties that are involved in the issues of whether “national business systems” compete against each other, whether such systems can have “competitive advantages”, etc.

fruitful dialogue among economists and sociologists with respect to theorizing business systems.

This leads to the second main issue in the present paper: the relation between contemporary sociology and contemporary economics as it is being applied to economic organization. To a large extent, the “relation” has been characterized by economic imperialism, as economics has increasingly invaded the territory once reserved for sociologists and because of the infusion of rational choice methodology in the work of, most notably, James Coleman (1990). However, recent years has witnessed a “reverse sociological imperialism” in which the earlier sociological reverence for economics (e.g., in Parson’s work) has been substituted with a new aggressive stance, according to which sociologists are fully entitled to study essentially economic phenomena, notably markets (Harrison White 1981; Mark Granovetter 1985, 1992). To some extent, this “new economic sociology” leans on social constructivist methodology (e.g., Granovetter 1992). Arguably, business systems scholars may be seen as part of this movement.

As already indicated, economists and management scholars have had much to say about phenomena that are closely related to business systems already (e.g., Ken-Ichi Imai and Hiroyuki Itami 1984; Mark Casson 1990; Douglas North 1990; Michael Porter 1990; Bruce Kogut 1991, 1993; Steen Thomsen and Torben Pedersen 1996). However, it is a recurring theme in the sociological literature that economics is badly suited to address and understand such business systems.

This is essentially because economics is seen as putting forward a universal model of economic organization, according to which only one pattern of organization (for a given matrix of products, technologies, and market structures) can be efficient. Thus, efficiency dictates that diversification

requires the M-form, that there should be an arms-length relation to suppliers, etc.

However, this is at variance with the observed successes of such very diverse business systems as those of Japan, South Korea, Taiwan and Hong Kong (Whitley 1992a), or Denmark, Holland, Germany, and Finland (Whitley 1992b) for that matter. And a rather natural implication is that (the) economics (of organization) is a social construction that bears the distinct stamp of a specific period of the development of Western capitalism, and is being applied to other societies in an illegitimate manner. There are no universal models of economic organization.

An implication is that contemporary economics confronts severe difficulties coming to grips with the systemic and path-dependent nature of economic organization and with the co-evolution of institutions and business organizations that create and maintain path-dependence. This means that the pursuit of an alternative – sociological – approach is clearly warranted.

This challenge is evidently one reason why an economist should be interested in business systems.<sup>2</sup> As already mentioned, Whitley is critical of economics. But, as I will argue, the critique is not entirely fair, even if it is not completely off the mark either. Specifically, the critique neglects that modern economics is in fact able to address a good deal of the central issues in the analysis of business systems, for example, path-dependencies, complementarities, generalized relations of trust, reputation, credible commitments, and how these combine to produce specific systems of corporate governance and economic organization more broadly. Thus, on the face of it may doubted whether path-dependent economic organization, such

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<sup>2</sup> A further reason is that the literature on business systems highlights, if only implicitly, society's institutional, including cultural, set-up as an important determinant of wealth and growth.

as business systems, really represents a challenge to economics. In such a reading, Whitley and his associates have simply identified empirical grist – namely business systems – for the mill of the theoretical economist.

However, this attitude would be wrong, or so I will argue. To be sure, economists have not said all of significance about business systems. In fact, a further reason for being interested in Whitley’s analysis is that it suggests where some of the weak points of economics may lie; it therefore indirectly challenges existing thinking in economic theory. Most obviously, there is the whole issue of “embeddedness” (Granovetter 1985) which economists (until recently) have ignored at their peril. This is really a manifestation of the broader neglect of social institutions that has characterized much (if certainly not all) of economics until relatively recently, and is still predominant in some quarters of economic theory, even in places where they ought to be of paramount importance (e.g., modern growth theory, see Nicolai Foss 1997b; Geoff Hodgson 1996).

In spite of impressive work in neo-institutional economics, economic man still is under-socialized. For example, in economics the *cognitive and normative* functions of institutions<sup>3</sup> – so strongly stressed in the institutional turn in organization studies (Walter Powell and Paul DiMaggio 1991a) – are almost completely neglected; institutions are seen merely as side-constraints on action. Only the regulative (Richard Scott 1995) aspects of institutions are considered. To the extent that these cognitive and normative aspects are relevant to the creation of path-dependent economic organization, and to

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<sup>3</sup> These are Scott’s (1995) terms. By “cognitive”, Scott intends to refer to “... the centrality of cognitive elements of institutions: the rules that constitute the nature of reality and the frames through which meaning is made” (1995: 40)., and by “normative”, he draws attention to the “... normative rules that introduce a prescriptive, evaluative, and obligatory dimension into social life” (1995: 37).

keeping economic organization on a path-dependent track of development, there is still a challenge for economics here. But this, in my view, is more a matter of underlying methodological and meta-physical commitments (and prejudices) than it is a matter of well-reasoned choice: there is no *inherent* reason why – as a purely technical matter – socialized agents cannot be featured in economic analysis. To put it briefly, one can do a lot with utility functions and information partitions, including constructing agents that are, for all analytical purposes, socialized, embedded in societal norms, rule-following, etc.<sup>4</sup>

This claim may strike many economists as odd; for clearly it seems to run counter to a long tradition of economists' self-understanding that stresses methodological individualism and voluntarism. Indeed, many economists have made a point out of stressing how their basic model of human *action* differs from the sociologists' presumed model of human *behavior*.<sup>5</sup> But this view neglects that there are different sociologies, that economists need to face the embeddedness issue, and that socialization and embeddedness is not synonymous with the complete determinism traditionally ridiculed by economists.

My specific design is the following: I begin by looking at how business system scholars, primarily Whitley, have identified their object of inquiry, and

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<sup>4</sup> This is why Granovetter's (1985) famous "embeddedness" argument is in reality more a critique of existing economic practice than it is a critique of the inherent capacities of economics. To put it briefly, we can imagine economic models in which embeddedness is modelled, and modelled not only through the restrictions we impose on utility functions (on this point, see the interview with Granovetter in Swedberg (1990), but also, and perhaps more convincingly, through the restrictions we impose on agents' information acquisition.

<sup>5</sup> As an aside, we may note that it is doubtful whether economists are really entitled to make this accusation; for it is hard to see that the formal, single-exit, rational choice model of humans that proliferate in economics is any less deterministic and "behavioralistic" than many sociological models that stress the influence of outside forces.

then turn to a discussion of how economics may cast light over this object. I argue that many recent advances in economics are helpful in this respect. However, the concept of business systems raise a number of difficulties for economics, particularly with respect to the role of embeddedness, the systemic nature of business systems, and, finally, their process of emergence. I end by relating these differences and difficulties to traditional schisms and problems in the economics/sociology connection.

## **II. Business Systems as Path- and Context-Dependent Economic Organization**

### *A. The Phenomenon*

The aim of research in business systems, Whitley (1994: 154) explains,

“... is to provide a framework for comparing and contrasting the different ways of organizing economic activities which have become established in different institutional contexts and to suggest how some key characteristics are interrelated in particular kinds of business systems”.

The development of this comparative framework seems to have been inspired by specific case-studies of, in the first instance, the economic organization that characterizes East-Asian economies, and to have been developed in very close contact with empirical research (Whitley 1992a, 1992b). In a painstakingly detailed empirical analysis, Whitley (1992a) demonstrates how post-war Japan, South Korea, Taiwan and Hong Kong manifest different configurations of firm-market configurations, and how these have been produced by path-



dependent historical processes that have been shaped by the pre-industrial institutions of these societies. Indeed, the approach would seem to constitute a paradigm case of what is sometimes called “grounded theory”. But what, more precisely, are business systems?

We are presented with a complicated definition at page 10 in Whitley (1992a):

“Distinctive business systems ... are particular arrangements of hierarchy-market relations which become institutionalized and relatively successful in particular contexts. They combine preferences for particular kinds of activities and skills to be coordinated authoritatively with variations in the degree of discretion exercised by managers from property rights holders and in the ways in which activities are co-ordinated. They also exhibit differences in extent and manner in which activities are co-ordinated between economic actors. Thus the nature of firms as quasi-autonomous economic actors, their internal structures and their interdependencies are all interrelated and differ significantly between institutional contexts”

To put it more simply, business systems are characterized and differentiated by at least the following constituent features:

1. The different ways of organizing and coordinating transactions, where what is different across different systems is the mix of hierarchical and market organized transactions.
2. Different types and levels of specialization (“preference for particular kinds of activities and skills”).
3. The degree of separation between ownership and control, that is to say, the mode of corporate governance.

4. Organizing principles that influence firm routines and capabilities through their influence on authority relations, organizational structures, relations between the professions, etc.<sup>6</sup>

Moreover, it is a crucial point that business systems are embedded in an institutional context that is specific to different nations or perhaps regions. Specifically, Whitley introduces a distinction between “background institutions” (trust, norms...) and “proximate institutions” (particularly the state) that is somewhat akin to North’s (1990) distinction between “formal” and “informal” institutions. The institutional embeddedness is an important cause of the diversity of business systems. The interaction between the business system and the institutional context of its national host is a co-evolutionary process that is strongly path-dependent. Moreover, even abstracting from this co-evolutionary process, business systems are strongly path-dependent. Essentially, this is because of “... the mutually reinforcing nature of many business systems” (Whitley 1994: 154).

There are a number of important implications of Whitley’s analysis and empirical work. First of all, he documents that there are many – widely different – forms of aggregate economic organization, namely business systems, that are all *viable*<sup>7</sup>. Moreover, firms that are representative of different

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<sup>6</sup> Whitley (1992a: 18) also suggests that there are “three broad areas” in which business systems may be compared, namely “First, the nature of the firms the key economic actor in a particular economy and the dominant ways in which firms develop and compete ... Second, the connections that firms develop with each other in the same industry or markets, and across industrial sectors, are clearly interrelated with their distinctive capabilities and skills and form particular patterns of market organization. Third, how activities and skills are authoritatively coordinated and controlled within firms clearly varies between business systems”.

<sup>7</sup> Actually, Whitley and his co-workers seem to be making a stronger claim, namely that there is a number of different business systems and dominant types of firms belonging to these systems, and it is not clear if any of these are superior to the other.

business systems are also found to be strongly different, but viable. This should be taken as a critique of universalistic assertions that, for example, one organizational form is inherently superior in any institutional context.<sup>8</sup> Finally, it is an important implication that because of the inter-locking and complementary relations between the elements that constitute business systems, not anything goes.<sup>9</sup> Thus, the framework forbids (or, at least, make highly unlikely) some combinations of constituent elements; it is therefore in principle falsifiable.

### *B. Economics and Business Systems*

At first reading, the work of Whitley and associates may seem to the economist to be simply a sociological version of descriptive economics: it is a mass of empirical data – and they are in need of a theory (if not, to paraphrase what Ronald Coase once said of the “old” institutional economics, a bonfire). On second reading, the economist may realize that it is in fact hard not to associate the concept of business systems with key themes of recent developments in economics. His mind turns to transaction costs, reputation effects, hostages, relational contracting, and other recent creatures of the zoo of economics.

Now, Whitley is a sociologist and not surprisingly he turns to sociology for complementary perspectives. As he observes, the business systems

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<sup>8</sup> It may be doubted whether any serious social thinker ever believed this. However, as Peter Maskell pointed out to me, much practical management thinking has certainly been characterized by this, and the successes of such concepts as “flexible specialization”, “business systems”, “national systems of innovation” and the like may be explainable as reactions to this.

<sup>9</sup> For example, “... acquisition-based growth is unlikely to be associated with high levels of interdependence and commitment to particular business partners” (Whitley 1999a: 244) and “... high levels of employer commitment to employees and long-term investment in their skills are unlikely to develop in economics where market organization is weak and firm’s growth patterns are typically discontinuous” (ibid.: 245).

framework “... is consonant with ‘the new institutionalism’ in organizational analysis (DiMaggio and Powell 1993)” (Whitley 1994: 154; see also Peter Karnø 1996).<sup>10</sup> It is noteworthy that the new institutionalism is a recent trend in organization theory that seems directly opposed to virtually any kind of economics, including neo-institutional economics<sup>11</sup>:

“The new institutionalism in organization theory and sociology comprises a rejection of rational-actor models, an interest in institutions as independent variables, a turn toward cognitive and cultural explanations, and an interest in properties of supraindividual units of analysis that cannot be reduced to aggregations or direct consequences of individuals’ attributes or motives” (Powell and DiMaggio 1991b: 8).

Thus, in line with new sociological institutionalism, economics is not deemed helpful, and Whitley has rather strong opinions about economics; he is critical and perhaps unfairly critical of economics.

For example, we learn that economists are likely to “contest” the “significance of differences between forms of business organization and economic rationalities” (1992: 2), essentially because they “hypostatize” a specific “asocial, general economic and/or managerial rationality which

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<sup>10</sup> Indeed, DiMaggio and Powell (1983: 147) see the nation state as the primary shaper of organizational forms, which is clearly “consonant” with Whitley’s analysis.

<sup>11</sup> In an otherwise splendid essay, Powell and DiMaggio (1991b: 8) claim that in neo-institutional economics, “... institutions are the products of human design”, and then, almost paraphrasing the economist Friedrich von Hayek (e.g., 1952), they argue that this design perspective should be contrasted with the view of the new institutionalism in sociology where institutions are seen as the unintended results of aggregate human behavior. In fact, one of the primary virtues of neo-institutionalism in economics is precisely that it has refined this “invisible hand” approach to institutions; an approach that was pioneered by the philosophers and economists of the Scottish Enlightenment. See Schotter (1981) and Sugden (1986) for particularly explicit statements of this position.

determines efficient structures and practices for coordinating and directing economic activities irrespective of institutional differences” (idem.).<sup>12</sup>

It is far from clear what this means. Is it a reference to the ancient debate in anthropology between “substantivists”, who believe that economic analysis is of no use whatsoever for the analysis of societies that are not Western market societies, and an endorsement of this position, as against “formalists” who hold that the categories of economics are universally applicable?<sup>13</sup> Or, is it simply an assertion that economists have neglected the influence of institutions on economic action, an assertion that is obviously wrong (e.g., North 1990; Oliver Williamson 1996). There is much of the same, and I shall not tire anybody by repeating it.

But is this critique of economics just garbage to be rejected out of hand, as many economists may instinctively think? In a sense, the answer is both affirmative and negative. This section is in a sense in the affirmative mode, because the argument is that much of the nature of business systems is in fact given to economic analysis, while the following sections answers “no”, because it argues that the nature and analysis of business systems still offers important lessons for economics.

I will therefore continue by briefly considering what economics may have to offer in the explanation of business systems. There are a number of issues that should be mentioned and discussed, such as the co-existence and

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<sup>12</sup> The specific formulation is “those who adhere to the tenets of what might be called ‘economic rationalism’, be they neoclassical or transaction cost economists, population ecologists or contingency theorists of organization” (Whitley 1992a: 2). In fact, there is only one economist, namely George Richardson (1960, 1972), for which he appears to have much respect (Masahiko Aoki seems to come close, however). But many of the crucial points in Richardson, such as complementarity, and presumably the aspects of Richardson’s work that Whitley admires, are receiving increasing attention in modern economics (for a fuller statement of this argument, see Foss 1995).

<sup>13</sup> Granovetter (1993) is a particularly good survey of this debate.

continued viability of different types of business systems, and their complementary and path-dependent nature.

### *C. Selection and Efficiency*

With respect to the variety of business systems and the continued viability and co-existence, Whitley fails to recognize that it is still possible to hold that there is, in fact, only one efficient way of organizing transactions given the parameters normally considered in economics (such as asset-specificity), and that some business systems may be less efficient than others, but may still exist for very long periods of time. The reason? Precisely the circumstance (which Whitley himself points to) that societal evolution contains a good deal of slack. In the words of the anthropologist, Christopher Hallpike (1996: 684):

“... because of the relatively weak constraints on social efficiency ... it is possible for many customs and beliefs ... to come into existence because of universal human proclivities and of basic features of social systems, and survive because they seem to work and in reality do not do very much harm, or because no one can get rid of them”.

Therefore, a possible counter-argument to Whitley’s position may be that different business systems are *not* in fact all equally “efficient”, but that a weak selection environment tolerates inefficiency, and that a tightening selection environment may wipe out weaker business systems.

However, there are a number of problems with this argument (I shall return to it at the end of this section). First, there are problems that relate to the nature of the evolutionary mechanisms involved. For example, claiming that there is some sort of evolutionary struggle going on between major national business systems runs into all sort of difficulties related to whether

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there is such a thing as group-selection. Second, the argument may amount to what philosophers call “the eschatological fallacy” of issuing open-ended predictions: Just wait a little longer, and things will prove me right! That is, *eventually* selection forces will select in favor of the most efficient entity.

It is perhaps more constructive to briefly consider what economists have actually had to say about the basic features of business systems. To recapitulate, these features relate to

1. the mix of market and organization,
2. the type and level of specialization in terms of skills and activities,
3. the mode of corporate governance,
4. organizing principles, such as dominant organization structure.

Moreover, business systems derive their systemic feature precisely from the fact that these four elements are inter-locking, producing path-dependence. Finally, business systems are embedded in a broader institutional setting (including national culture) with which it co-evolves.

It is notable that with respect to the four points (at least the first three points) *individually*, there is a large economic literature that, in some cases, goes decades back. Thus, the literature *on organizational economics*, including the modern theory of the firm, addresses point 1); *trade theory* in its various manifestations deals with point 2); there is large *literature about corporate governance* that also takes its starting point in organizational economics (point 3); and, at least in *evolutionary economics*, country-specific organizing principles have been given some attention (point 4) (e.g., Kogut, 1991, 1993). It is not here, one may suggest, that the deep problems for economics lie. Arguably, they may rather lie in the *systemic, context- dependent* and *path-dependent* features of business systems. I consider these in the following.

### *D. Path-Dependency*

It is true, in fact, that it is only recently that economics has begun to make progress here, but at least there exist some instructive models (e.g., Brian Arthur 1989) and some instructive stories (e.g., North 1990).

For example, economists have been quick to assimilate the lessons of, for example Paul David (1985) and Arthur (1989) that even in a world of maximizing agents, some random and seemingly inconsequential advantage for some technology, standard, product, organizational form, institution, etc. can have significant and irreversible consequences for the ultimate allocation of resources.<sup>14</sup> Essentially, this is because various increasing returns mechanisms (such as “increasing returns to adoption”, as in telecom) are in operation. Thus, allocations “today” exhibit “memory” in the sense that they are dependent on past decisions. Ultimate allocations may be both unpredictable initially and inefficient.

The paradigmatic story about path-dependence is David’s (1985) argument that the standard QWERTY keyboard arrangement is substantially inferior relative to an alternative keyboard arrangement developed by August Dvorak. Unfortunately, we are locked into the blasted thing because of a basic coordination failure: Nobody teaches the Dvorak keyboard, because nobody is interested in learning the Dvorak keyboard, because there are no Dvorak machines to be found, because nobody teaches and learns the Dvorak keyboard, etc. The process is path-dependent, in David’s understanding, because it is the *timing* of the adoption of QWERTY rather than its efficiency that explains its survival.

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<sup>14</sup> For an excellent recent survey and critique of path-dependence models in economics, see Liebowitz and Margolis (1995).



Illustrative as it is, the story is nevertheless just that: a piece of fiction (see Liebowitz and Stephen Margolis 1995). However, it is a nice parable for casting light over the observed diversity of business systems. When Whitley argues, for example, that “[i]n many countries the dominant political institutions and authority relations reflect those that emerged during or, arguably, shared the industrial process” (1992a: 16), he is very obviously talking about historical processes “with memory” á la path-dependency.<sup>15</sup>

In fact, we can see more parallels if we inquire a little more into the notion of path-dependency. David (1992) suggests at least four reasons why we should expect path-dependency in institutions and organizations, and we may add also in complex bundles of institutions and organization such as business systems. First, they incorporate shared conventions and mutually consistent expectations that are based on “... shared historical experiences and conscious perception of the shared past” (p.9). Second, institutions, organizations and business systems help define roles and various acculturation mechanisms. Third, they come equipped with “codes” for providing and absorbing information. Fourth, there is a significant degree of complementarity among various constituent components of organizations, institutions and business systems (roles, incentives, codes, etc.).

At least the first three of these four reasons for path-dependency, all of which may arguably be found in various guises in Whitley’s work, have a distinctly cognitive and informational aspect. This in turn suggests that an important aspect of what differentiates business systems has to do with cognitive and informational aspect. I will discuss this later, and for the moment turn to the fourth reason for path-dependency in economic systems, namely complementarities.

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<sup>15</sup> Numerous specific examples are given in Whitley (1992a: chapters 4 and 5).

### *E. Complementarities*

Although the concept of complementarity goes back at least to the turn-of-the-century economist, Francis Edgeworth, it is only recently that its many implications have begun to be explored (Paul Milgrom and John Roberts 1990, 1995; Milgrom, Roberts and Qian 1991). Activities are said to be Edgeworth complements if doing (more of) any of them increases the return to doing (more of) the others. This is what the intuitive ideas of synergy and systems effects are all about, and one charm of recent work on complementarities is the development of a formalism for handling these phenomena (see, particularly, Milgrom and Roberts 1990).

Moreover, the idea of Edgeworth complements, and the mathematical apparatus that comes with it, help us to understand *persistency effects*. Thus, if elements in a system “feed on” each other in a strong and self-reinforcing way (Milgrom, Roberts, and Qian 1991), this intuitively suggests why change in such a system may be difficult, and why the system may have to be very substantially influenced from the outside to change at all. In other words, complementarity is arguably an important source of path-dependency. Another intuitive implication is that because the elements that constitute a system are tightly linked, some elements “mesh” with each other while other don’t.

To use Milgrom and Roberts (1990, 1995) examples, we can have two systems of manufacturing, one (“modern manufacturing”) that contains complementary elements such as flexible machines, frequent product improvements, trust-based relationships, skilled and cross-trained workers, etc., and another one (“mass production”) that contains complementary elements such as specialized machinery, infrequent product changes, hierarchic planning and control, vertical integration, etc. Both systems are

efficient solutions to specific problems, and will continue to be so until some fundamental change destabilizes them.<sup>16</sup> But (the conjecture is that) we cannot efficiently combine elements from the two systems.

Ideas on complementarity are arguably relevant in connection with understanding business systems. Thus, Whitley (1992a: 22-23) talks about the “considerable internal cohesion and integration of [the] components” of business systems

“... Japanese patterns of long-term employment and internal promotions in relatively specialized sectors encourage incremental strategic changes and limit diversification ... the lack of strong institutional trust mechanisms in Hong Kong and Taiwan inhibits the development of impersonal authority and trust relations within firms ... Effective business systems in East Asia, then, demonstrate particular connections between authority structures, firm type and inter-firm relations which ‘fit’ together relatively cohesively in these particular institutional contexts”.

Whitley strikes a functionalist chord when he generalizes this reasoning and suggests that each business system can be seen as “a systematic interrelated response to the three fundamental issues of any market-based system”, namely “first, what sorts of economic activities are to be authoritatively integrated and co-ordinated towards what competitive priorities? Second, how are market relations of competition and co-operation to be organized and firms’ activities connected? Third, how are economic activities to be managed

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<sup>16</sup> Such as the emergence of information technology?

in authority hierarchies?” (1992a: 18). The economics of complementarities may be helpful for reaching a more analytical focus on these issues.<sup>17</sup>

### *F. Efficiency Once More*

Having argued, admittedly in a rather sketchy way, that contemporary economic theory is in fact capable of addressing at some level of detail not only the constituent elements of business systems, but also their path-dependent and complementary nature, it is time to (re-)consider the claim that business systems and their constituent elements are not representative of efficiency (at least in the sense of economists). Karnø (1996: 8) provides the following summary:

“... Whitley demonstrates how such universal capitalist institutions as the financial systems, educational systems, traditions for state intervention, and industrial relations differ across nations ... That means that the form and function of institutions do not represent any “most” efficient solutions to coordination problems, but rather institutions are socially constructed and their functionality is relative within each business system”.

This summary of Whitley’s position (which I believe to be a concise and fair one) contains a syllogism; however, unfortunately, one that is a glaring *non sequitur*. For it is perfectly possible for business systems to be widely different, and still at the same have them representing efficient (wealth-maximizing) solutions to coordination problems. This is because of the systemic feature, which means that once element A is in place, element B, C, D, etc. also have to be in place, for efficiency to obtain; or, conversely, that if

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<sup>17</sup> A pertinent reference here is Aoki (1994) who analyzes the Japanese firm and Japanese economic organization, building on Milgrom and Roberts’ (1990) analysis of complementarity.

element A1 is in place, then element B1, C1, D1, etc. also have to be in place for efficiency to obtain.

For example, Imai and Itami (1984) examine the relative proportion of market and organization directed coordination of the allocation of finance capital, labor and intermediate and end products in the Japanese and American economies, and find that these are widely different. For example, entry into, and mobility within, the American labor market is not difficult (as it is in the Japanese labor market), but this market organization is supplemented by the organizational dimension that trade unions represent. Labor markets in Japan, on the other hand, are very inflexible, but this is partly compensated for by well working internal labor markets. Finance capital is to a large extent allocated by means of internal capital markets in the US, whereas it is allocated more on a market basis in Japan, but with strong banks playing a key role. Etc.

They further argue that these characteristics of the allocation of products, labor and capital are complementary, so that the Japanese way of allocating capital fits with the Japanese way of allocating goods and labor, and the same said of the American system. Moreover, Imai and Itami (1984) are careful to not say that one system is more efficient than the other; they are different solutions to coordination problems, but precisely because they are complementary systems, they may in fact be equally efficient.

To this argument may be retorted that where economists (in a functionalist manner) see (“objective”) problems and (“objective”) efficient solutions to problems, there are in reality only “socially constructed” institutions. These institutions did not necessarily have to be what they are now (other institutions could have been “constructed”); however, they are heavily legitimized because this helps stabilizing society (in itself a sort of

functionalist argument). This argument which is presently much *en vogue* in organization studies (DiMaggio and Powell 1991a) can be found in both extreme (and absurd) and moderate manifestations.

At its worst, social constructivism is an extreme idealist diversion which simply neglects that we do live in a world of scarcity, and that this basic circumstance imposes some regularities on social life; regularities that are mirrored in economic science, and that, for example, imply that there is a tendency towards efficiency. At its best, however, social constructivism may imply useful lessons for economics, particularly with respect to the cognitive and normative dimensions of institutions. (I reserve this for later discussion, however).

One possible conclusion on this section is that economics is really able to account for much, and perhaps most, of what Whitley has to say about business systems; indeed, what are arguably their main features are not at all outside the explanatory realm of modern economics. It is true that economics only possesses a collection of bits and pieces and intuitive feeling of how they may be pieced together in an explanation of business systems. There are no formal models of business systems. But at least economists have relatively precise models of the individual constituent elements of business systems, and they may argue that this is not the case in sociology. However, this rather imperialistic view is, I believe, too facile. As I argue in the next section there are still lessons for economics from the analysis of business systems and related sociological areas.

### **III. Lessons for Economics**

#### *A. Economics and Sociology*

In a famous essay on *The Communist Manifesto*, Joseph Schumpeter (1949: 203-4) introduced a distinction, which he conjectured would not be “to everyone’s taste”, between economic sociology and economics:

“By ‘economic sociology’ we denote the description and interpretation – or ‘interpretative description’ – of economically relevant institutions, including habits and all forms of behavior in general, such as government, property, private enterprise, customary, or ‘rational’ behavior. By ‘economics’ ... we denote the interpretative description of the economic mechanisms that play within any given state of those institutions, such as market mechanisms. Or ... economic sociology deals with the problem of how people came to behave as they do at any time and place; and economics with the problem of how they do behave and what economic results they produce by behaving as they do”.

Thus, in Schumpeter’s scheme, Whitley’s analysis of business systems – very much an “‘interpretative description’ ... of economically relevant institutions” – would constitute a paradigm case of economic sociology. Clearly, Schumpeter’s distinction between economics (proper) and (economic) sociology is one of whether institutions are taken as given in the analysis or whether institutions are explicitly addressed and “interpreted”.<sup>18</sup> Underlying

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<sup>18</sup> Another Viennese, somewhat younger than Schumpeter, namely Alfred Schütz (1932, 1962) suggested that economics and sociology may be seen as distinguished with respect to the forces that drive agents and with respect to the level of detail of their explanatory concepts and mechanisms. According to Schütz, economics deals with agents’ “in-order-to motives”

this view is arguably a view of economics as not bound to specific spatio-temporal coordinates, whereas sociology in contrast deals with the history-bound and the specific.<sup>19</sup>

It is an implication of the preceding sections that this view simply cannot be upheld anymore. This is so for the overall reason that the economics of institutions (not only *with* institutions) has been rapidly expanding during the last two decades; we do have an impressive corpus of economic theories of “government, property, private enterprise, customary, or ‘rational’ behavior”. But there is still something to Schumpeter’s discussion, for he suggests that economics is about why people act in a certain way (for example, they choose the utility maximizing bundle of goods), whereas sociology is more about how they came to hold their beliefs, motives, etc. which underlie their choices.

The latter point is mirrored in various ways in the emphasis in work on business systems on shared belief systems, national cultures, etc., on the accompanying point that the institutions that make up business systems are socially constructed, etc. For example, Whitley (1992a: 17) argues that

“... traditional cosmologies and beliefs about the natural and social world often structure attitudes towards risk, planning horizons and preferences about specialization and formalization within authority structures”.

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(“Agent A does this because he wishes to maximize utility”), whereas sociology deals with agents’ “because-of” motives (“Agent A does this because he has been brought up within a given social stratum”). Moreover, Schütz also constructed a distinction between the social sciences based on Max Weber’s work on the ideal type. Schütz suggested conceptualizing the differences between economics, sociology and history in terms of the anonymity of the employed ideal types, with economics using the most anonymous (“man acts rationally”), sociology less anonymous types (“street gangs normally do so and so”) and history the least anonymous types (“this was a typical action of this specific French general, living in the middle of the 19. century”).

<sup>19</sup> A view that Schumpeter shared with another famous Austrian economics, Ludwig von Mises (1957).



It is here, I want to argue, that the challenge to economics lie, and not in the path-dependent and systemic nature of business systems *per se*. Specifically, the sociological challenges to economics that emerge from the literature on business systems relate, in my view, primarily to the lack of attention to the *cognitive* and *normative* dimensions of institutions in economics, and to their process of emergence. One result is that economics has difficulties understanding processes of path-creation and path-dependence to the extent that they are steered by these dimensions of institutions.

### *B. The cognitive and Normative Dimensions of Institutions*

It is characteristic of economics (including neo-institutional economics) that it implicitly claims cognitive homogeneity. Agent are assumed to hold the *same* “... rules that constitute the nature of reality and the frames through which meaning is made” (Scott 1995: 40), and these rules are assumed to be the *correct* ones. In technical terms, agents are assumed to be equipped with a set of categories that allow them to classify the state of the environment into equivalence classes; there is isomorphism between the real world and the agent’s model of it; and interacting agents will over time share all relevant knowledge. Thus, agents hold essentially similar representations of the real world, including the social world.

This assumption is, of course, often a convenient one. For it implies that we can abstract from all coordination problems that are caused by agents not holding the same view (or theory) of the world (Brian Loasby 1991), and concentrate attention on, for example, problems of misaligned incentives that take place within an already understood context, as it were. This is clearly the procedure followed in, for example, the modern theory of the firm (e.g., Bengt Holmström and Jean Tirole 1989). However, there is much evidence that a

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major organizational design problem is precisely getting everybody on the same wave length (e.g., creating a corporate culture). The assumption of cognitive homogeneity assumes that this problem has already been solved.

Because of the assumption of cognitive homogeneity, the role of institutions in economics is not cognitive but primarily regulative (Scott 1995) in the sense that institutions specify side-constraints to action.<sup>20</sup> Moreover, the process of emergence of institutions are not understood in terms of cognitive convergence (because this is already there), but in terms of, for example, interaction problems *à la* the prisoners' dilemma where the coordination problem is not one of divergent cognition but one of divergent incentives.

That the cognitive dimension of institutions are neglected in contemporary economics was acutely realized by an economist (albeit a very unorthodox one), namely the late Ludwig Lachmann (1990) (see Foss 1997b). Lachmann admitted that

“It is hardly possible to accuse today's orthodox economics of the neglect of institutions ... Markets and firms, after all, are institutions. On however high a level of abstraction ‘agents’ may engage in exchange transactions, the enforceability of contracts and the protection of property are implied” (1990: 139),

but he immediately made the point that in economics, institutions are simply treated as external constraints “... whose origin may not be investigated and whose continued existence is taken for granted” (ibid.). Moreover, “... *nobody*

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<sup>20</sup> This is closely connected to the method of situational logic that characterizes economics: the explanatory burden is placed on the features of the situation to which a principle of rationality (e.g., maximization) is placed. The “internal” features of agents are not allowed to play an explanatory role.

*asks questions about their meaning*" (ibid.). Similarly, Nobel Prize winner Douglas North (1990, 1996) has recently lamented the lack of an economic analysis of ideology, and, more generally, of different cognitive frameworks. There is a strong historical orientation in both Lachmann and North's work (albeit in different ways), and it is arguably on the basis of their historical knowledge that they view the lack of attention to the cognitive dimensions of institutions as a serious deficiency of modern economics.

One problem is that while we may agree that economics should pay attention to these dimensions, there are virtually no accepted formalisms for helping us doing this. Arguably, game theory may offer a framework, if in a somewhat indirect way. This has to do with the circumstance that in many coordination games, there are numerous possible equilibria, and the same may be true for other types of games, such as prisoners' dilemma games or chicken games (cf. the Folk Theorem).

For example, in the coordination game of finding out, in a state of nature, which side of the road to drive in, there are two equilibria, right-hand or left-hand driving. In real-world situations, there may be many more. Furthermore, and closely related to this, it may in many games be impossible to apriori deduct an optimal strategy for a player (Sugden 1989).

This is rather unfortunate for what may be taken to be the basic objective of game theory, at least in the classical tradition from von Neumann and Morgenstern: to show that rational analysis uniquely prescribes a particular strategy for each player in a given game. The guiding idea here is that an unlimitedly rational player given information about the game's pay-offs, but *no* information about how other players have played the game hitherto, will reach a determinate solution. Basically, this is assumed, rather than proved (Sugden 1989: 88).

However, as the simple game of coordination suggests, that assumption may not be reasonable, since information about the pay-offs and nothing more will not allow the players to coordinate their actions except by mere chance. Real-world, socialized, players do not confront these problems precisely because they can rely on pre-existing institutions – they are part of an ongoing life-world – that provide the necessary cognitive focal points.<sup>21</sup> These “cognitive focal points” may very well be the typifications of actors and ways of acting that according to sociologist such as Schütz (1962, 1964; Schütz and Luckmann 1973) and Berger and Luckmann (1967) are the constituent part of our “knowledge-at-hand”. Thus, by laying bare some elementary coordination problems, game-theory allow us to construct a link to a sociological tradition where the cognitive aspects of institutions have been highlighted.

Much of the traditional schism between economics and sociology has had to do with the fact that two fundamentally different and rivalrous meta-tales have been involved.<sup>22</sup> One of these is the “state of nature” type of explanation that characterizes mainstream economics. The ultimate primitives here are preferences, endowments and technologies, while institutions and organizations are derived entities – derived, that is, in a classic functionalist manner as efficiently solving allocation problems for the agents that are involved with the relevant institutions and organizations. In the other – sociological – meta-tale institutions are the ultimate primitives, and preferences, cognition, and the very notion of rationality are derived entities.<sup>23</sup> However, I personally do not see any

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<sup>21</sup> The notion of a focal point reaches back to the work of Thomas Schelling (1960). However, in economics, focal points are invoked as *dei ex machina* (or, *dei ex sociologica*): they help us understand why coordination problems aren’t as severe as simple theory predicts, but we are never told anything substantial about their emergence.

<sup>22</sup> Admittedly, the following sentences border on caricature.

<sup>23</sup> The new institutionalism in organizational analysis exemplifies this approach (Powell and DiMaggio 1991a).

reason why we should not “mix” the two meta-tales; for example, economists may recognize that socialization matters, that agents typify the social landscape, etc.

### *C. Lessons for Economics*

Economists have had much to say about learning agents, but they have been much more reluctant to examine the implications of agents holding different learning schemes, cognitive frames, typifications or whatever we decide to call essentially the same phenomena.<sup>24</sup> Formally, mainstream economists subscribe to the “information partition postulate” (Luigi Marengo 1995). This postulate holds that there 1) is an isomorphism between the real world and an agent’s image of it, 2) that agents only differ with respect to decision-making capabilities in terms of how fine or coarse their information partitions are, 3) that information partitions are given, and 4) that genuine knowledge gaps, such as mistakes and surprises, can be ruled out (*ibid.*). However, arguably this view is too restrictive, since it hinders fully understanding a host of phenomena, including innovative activities, the function of firms (Marengo 1995) – and business systems!

There may be valuable insights in this regard for economists in work such as Peter Berger and Thomas Luckmann (1967). In their theory of socialization, individuals develop a set of cognitive frames through primary socialization experiences in the family, play, clubs, schooling, etc.; frames that later condition the acceptance or rejection of new views that the individual is exposed to in secondary socialization. This socially constructed view of reality

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<sup>24</sup> The idiosyncratic, but often brilliant, Thorstein Veblen understood this, however (cf. Hodgson 1996). A notable recent exception is, of course, the work of Herbert Simon. As he notes, theories of bounded rationality should not only include computational limitations but more fundamentally it should include “the processes that generated the actors subjective representation of the decision problem” (1986: 211). See also Loasby (1991).

has an objective dimension to it precisely because of its social (shared) character. Moreover, differences in socialization and institutionalization in different business systems may help explaining other, more directly economic, differences among these systems.

Although economists may balk at much of Berger and Luckmann have to say about, for example, processes of socialization and institutionalization as glaring trivialities, doing so is not wholly warranted.

First of all, economists do not have anything better to put in their place; theories of Bayesian learning, for example, are founded on the same assumption of cognitive homogeneity as the rest of economics. Second, the cognitive aspects of institutions and institutionalization may very well have allocative consequences, most notably because evolving shared mental constructs/belief systems help introduce and maintain path-dependency.

Third, institutions help solving the problem of social order, not only because they introduce constraints on actions and structure incentives, but also because they incorporate a shared cognitive dimension, that is, shared and therefore rather anonymous (generic) typifications in the words of the phenomenological sociologist Alfred Schütz (1932, 1964).

Such shared typifications – for example, roles and typical ways of acting – have a huge informational content which economists have until very recently completely ignored. It is true, of course, that economics does feature roles<sup>25</sup>, but these are introduced and used because they are labels that economists (analysts) put on different ways of acting; moreover, behavior is

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<sup>25</sup> For example, suppliers of capital, entrepreneur, worker in standard microeconomics; wives, husbands, children, etc. in, for example, Gary Becker's work on the household.

assumed to be homogenous inside role categories.<sup>26</sup> The informational content for agents of the typifications that these agents hold is not inquired into,<sup>27</sup> although it is hard to see any principled objection to this being done.

For example, we may imagine a population of agents that hold different typifications of “typical central bank policy”, and where these different typifications influence the efficacy of central bank policy through their influence on the formation of expectations (cf. Richard Ebeling 1986). Many other examples may be found or constructed, all pointing to the same conclusion: that agents’ construction of the social landscape that surrounds them is bound to have allocative consequences.

In addition to institutions having a cognitive role, they have a strong normative role<sup>28</sup>, that is, they introduce “... a prescriptive, evaluative, and obligatory dimension into social life” (Scott 1995: 37). Arguably, the normative view of institutions is the one that is most at variance with economic thinking. Again, it is possible to do tricks with utility functions and incorporate normative aspects in economic analysis in this way. However, the normative view introduces a fundamentally different view of economic action.

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<sup>26</sup> This is precisely the basis for Granovetter’s (1985) seemingly startling claim that modern economics operates with an “over-socialized” view of agents. Instead, Granovetter argues that the conditioning of economic action is a matter of the specific history of specific agents, not a matter of general role descriptions. Thus, modern economics is in a sense “over-socialized” and the crucial micro-dimension of social relations is missed. The debate may be resolved in terms of Schütz (1964) methodology of typification. Thus, economics operates with anonymous explanatory typifications that must inherently miss the detailed typifications that Granovetter wishes to use. But the history of economics is to a large extent a matter of using less and less anonymous typifications. Thus, economists do not any longer just talk generically of “the firm”; they now theorize all sorts of firms. In the end, therefore, economists may come around to Granovetter’s critique.

<sup>27</sup> A partial exception is to be found in some recent work on the principal/agent relation, where agents of different types are explicitly modelled.

<sup>28</sup> That, of course, is not unrelated to their cognitive role.

In James March's (1994) terminology, the logic of action changes from instrumental concerns ("What are my interests in this situation?") to concerns that relate to "appropriateness" ("Given my role in this situation, what is expected of me?"). Thus, whereas incorporating the cognitive dimensions of institutions in economics may be a matter of playing around with information partitions and information processing capabilities, incorporating the normative dimensions of institutions would seem to require that restrictions are made on utility functions or special arguments are introduced into these functions (e.g., reputation, see George Akerlof 1980).<sup>29</sup>

Mainstream economists are not likely to fancy such procedures, deeming them "ad hoc". However, normative aspects of institutions are to some extent given to explanation that does not rely on engineering utility functions. For example, the normative aspects of institutions introduce conformity and, in turn, imitation and inert behavior. Conformity and imitation may be rational (information cost-minimizing strategies. Network externality effects may reinforce this, and help to "lock-in" certain belief systems, typifications, constructions, or whatever we decide to call these mental representations. Once in place, they create switching costs that work as entry-barriers to other mental representations. A socially constructed reality has arisen.

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<sup>29</sup> Apart from the work of Akerlof (1984), the economist who has done most to address the cognitive and normative aspects of institutions (without using these terms, though) is arguably Mark Casson (1990, 1991). For example, Casson's work on business culture begins from the assumption that each group (firms, families) has a leader whose preferences and beliefs are taken as given. The leader understands the nature of the interactions between group member and calculate what equilibria may emerge, conditional on given preferences and beliefs. He then manipulates these preferences and beliefs in order to reach the desired outcomes.



## **IV. Conclusions**

This paper has roamed widely. Thus, I began with a discussion of a specific, aggregate type of economic organization, namely business systems, and confronted the argument, put forward by Whitley and others, that the phenomenon of business systems constitutes a challenge to economics.

On the face of it, much of what the proponents of the concept of business system say are – at least in principle –given to explanation in economic terms. This is not only a matter of the individual constituent elements of business systems, such as the market/hierarchy mix; it is also a matter of the path-dependent and systemic aspects of business systems. While economics is far from any satisfactory formal modeling of anything resembling business systems, there at least a number of useful ideas, and it is possible to suggest how they may be linked. Thus, it may be argued that path-dependent business systems do not constitute a substantial challenge to economics.

However, more careful scrutiny of the literature on business systems reveals that there is in fact a challenge that has to do with the role of institutions in conditioning business systems, and with the cognitive and normative aspects of these institutions. Arguably, these aspects are important for understanding path-creation and path-dependence in business systems.

As long as economists are reluctant to come to grips with these aspects, they will understand only part of aggregate phenomena such as business systems, and they will only understand only part of the complex social forces that create and maintain path-dependency. In other words, the present paper

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should not be taken as another imperialistic attack from economics on a sociological area of inquiry; there is certainly still an important challenge to economics from the best in contemporary sociology. Or, rather there is an opportunity for economists and sociologists to seriously cooperate.

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