

Strategy, Bargaining, and Economic Organization:  
Some Thoughts on the Transaction Cost  
Foundations of Firm Strategy

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# I. Introduction: Transaction Costs Economics and the Strategy Field\*

With respect to its role in the strategy field, transaction cost economics (henceforth, "TCE") is in a strange position. After attracting a great deal of sympathetic attention and influence at the beginning of the nineteen-eighties following the fundamental work of Williamson (1975) and the first applications to management studies (e.g., Dundas and Richardson 1980; Ouchi 1980; Rumelt 1984), TCE seems to have become the *bete noire* of the strategy field. Thus, the rhetorics of many a paper published in such top business administration journals as *Academy of Management Review*, *Organization Science* and *Administrative Science Quarterly* is unabashedly and uncompromisingly anti-TCE. Particularly strong attacks have been carried out by Kogut and Zander (1992), Madhok (1996) and Ghoshal and Moran (1996; see also this book), writing from a competence/knowledge/resource-based perspective.<sup>1</sup> In fact, these contributions constitute much of a counter-revolution to the revolution in management studies represented by the influence of TCE in particular and organizational economics (henceforth, "OE") more broadly.<sup>2</sup> If anything, the counter-revolution appears to have gained momentum recently. This is bizarre, because more and more papers with a TCE orientation are published in the leading strategy journals. Thus, while the TCE does not appear to be liked by many, it is in fact applied by many. There is a strange schism between rhetorics and practice here. Because of this schizophrenic situation, the TCE has seldom been explicitly defended; rather, it has been applied in silence.

However, in a recent paper Oliver Williamson (1999) set out to explicitly defend TCE against its knowledge-based critics. He examined a number of fundamental "moves" that TCE had accomplished with respect to what is assumed about human actors, what is the relevant unit of analysis, the amount of empirical work done, the presence of a sophisticated efficiency analysis, etc. Williamson concluded that the competence-based critics of TCE was in actuality way behind TCE with respect to all these "moves" — which, he noted, was perhaps not so surprising given that the TCE has had a much longer gestation period than the competence approach. He concluded that both the TCE and the competence approach were "... needed in our efforts to understand complex economic phenomena as we build towards a science of organization" (1999: 1106) (see also Foss and Foss 2000a).

The present paper is different from Williamson's paper, although it complements it by lending support to his argument that "... economizing is more fundamental than strategizing" (1994: 362). It is more in the nature of a fundamental

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\* The comments of Kirsten Foss and Volker Mahnke are gratefully acknowledged.

<sup>1</sup> In the following, I use the term "resource-based" to also cover "knowledge-based," "capabilities-based," "competence-based" etc.

<sup>2</sup> In addition to the TCE, OE includes agency theory (e.g., Holmström and Milgrom 1991), team theory (e.g., Carter 1995), and incomplete contract theory (e.g., Hart 1995).

and perhaps provocative argument that the basic insights of TCE and related economics of organization approaches are *indispensable* to the strategy field. Moreover, it is perhaps less conciliatory than Williamson's paper. Thus, the paper may be seen as being in the nature of a manifesto for a counter-counter-revolution. More precisely, I argue that TCE and other fields in the economics of organization are necessary (at the present stage of the evolution of the field) to make sense out of, not only "the deep structure of organization" (Williamson 1996), but also "the deep structure of strategy." Indeed, these deep structures are composed of the same stuff — namely, transaction costs.

Thus, the argument is in broad agreement with Rumelt's claim – made two decades ago – that "... it appears obvious that the study of business strategy must rest on the bedrock foundations of the economist's model of the firm" (1984: 557), more specifically with the transaction cost approach to economic organization (Coase 1937, 1960; Williamson 1975, 1985, 1996). However, while transaction cost insights are indeed necessary, they are certainly not sufficient. In particular, TCE (and OE generally) is much under-developed with respect to taking account of cognitive issues (as admitted by Williamson 1998). Psychological and experimental economics research has revealed the existence of fundamental, persistent and systematic cognitive biases that influence decision-making, sometimes dramatically.<sup>3</sup> Arguably, these challenges are much more basic and important to meet than those coming from the resource-based critics of TCE (Foss and Foss 2000a).

The design of the paper is the following. I begin by critically reviewing the perhaps dominant approach to strategy content research, namely the "resource-based perspective" (henceforth, the "RBP"). I argue that this approach at best paints a very limited picture of firm strategy as solely a matter of earning rent in competitive equilibrium, but that a more general — and Coasian — approach is possible in which strategy is seen as aiming at the creation, appropriation and protection of added value in a general context of bargaining. The basic notions are developed in the setting assumed by the Coase theorem ("*Creating, Appropriating, and Protecting Value: From Competitive Equilibrium to Bargaining*").

However, while this is an instructive exercise, it is only by adding transaction costs — primary among which are bargaining costs —, that a more encompassing strategic approach can be developed. Many writers have already noted the importance of transaction costs to understanding organizational and corporate strategy (Williamson 1975, 1994, 1999; Dundas and Richardson 1980; Jensen and Meckling 1992). However, I argue that transaction costs are also important to understanding issues of competitive strategy. The bottomline is that the transaction cost approach has a broader applicability to strategic issues than it is commonly assumed. However, a deficiency of the transaction cost approach lies in its neglect of

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<sup>3</sup> While economists appear to be increasingly cognizant with these discoveries, they are worried that no general theory of behavior, comparable to the expected utility maximization model, appears to be forthcoming from the psychological and experimental economics research.

cognitive issues, leading to a possible over-estimation of organizational flexibility. I briefly discuss how some well known biases on decision-making may be an independent and so far neglected determinant of transaction costs (“*Strategy and Transaction Costs: Impediments to the Creation, Appropriation and Protection of Value*”).

## II. Creating, Appropriating , and Protecting Value: From Competitive Equilibrium to Bargaining

In this section, I critically discuss one key “move,” to use Williamson’s (1999) term, of the resource-based perspective, namely that of addressing “sustained competitive advantage” (henceforth, “SCA”). I shall argue that, to the extent that this analysis is correct, it is also unnecessarily restrictive, conceptualizing SCA as a matter of earning rents in competitive equilibrium. A broader view of strategy, founded not so much on competitive equilibrium as the bargaining setting underlying the so-called “Coase theorem,” is sketched. In this view, strategy is conceptualized broadly as a matter of the creation, appropriation and protection of economic value. Since reasoning connected to the so-called “Coase theorem” (Coase 1960) is important to the argument here and in later sections, the framework may properly be called “Coasian.” Note that Coasian insights are a crucial part of the pedigree of TCE (Williamson 1985).

### **Sustained Competitive Advantage: The Resource-based Perspective**

The basic issue in strategy research is now conventionally seen as understanding the sources of SCA. However, some rather fundamental problems beset this understanding, particularly in its resource-based version. To get an understanding of these, consider the following nutshell representation of Barney (1991), a paper that might well be the most cited paper on the issue.<sup>4</sup> Barney begins by formulating the analysis of SCA in terms of the *strategies* that firms implement in product markets, so that a necessary condition for obtaining a SCA is that the product market strategies implemented by the firm are unique. In other words, only strategies that are not implemented by competitor firms can secure a SCA. Barney then goes on to argue that what makes strategies unique and capable of securing SCA is that the underlying resources are valuable, rare, hard to imitate and hard to substitute. Resources are *valuable* when they help seizing an opportunity in the firm’s environment or when they help neutralizing some threat in that environment, or at least shielding the firm against the threat. By resources being *rare*, Barney seems to have a simple counting sense (as distinct from an economic sense) in mind.<sup>5</sup>

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<sup>4</sup> Indeed, a small industry has grown up around attempts to operationalize and extend some of the crucial building blocks of the reasoning in that paper, for example, the idea that resources must be highly costly to imitate and substitute in order to yield a SCA.. See, for example, McEvily, Das, and McCabe (2000).

<sup>5</sup> Thus, on this scheme, if 10 firms control a certain resource, it will not be rare — even if a million other firms badly want the relevant resource!

The *hard-to-imitate* condition directs attention to whether (or, at which cost) competitor firms can acquire or accumulate resources with attributes and levels of attributes similar to some desired resource which produces a competitive advantage. The *hard-to-substitute* condition refers to whether (or, at which cost) competitor firms can access resources that will allow them to implement the same strategies as some successful firm. This is different from the non-imitability condition because it is not here required that the underlying resources that substituting firms access are the same as those controlled by the successful firm in terms of their composition and level of attributes.

Given these criteria, sustained competitive advantage obtains when a firm implements a unique strategy that is “backed up” by resources that conform to the four criteria above. Thus, SCA obtains when all attempts by competitor firms at imitating or substituting a successful firm have ceased, so that SCA is seen as a property of some essentially unspecified Nash-equilibrium.

### **Some Problems With the Resource-based Perspective**

There are many problems with this scheme, some having to do with its internal logic and some having to do with its interpretation. For example, the analytical categories are overlapping, since, for example, resources cannot be valuable if they aren't also rare — a rare resource *is* a valuable resource (Petersen 1999). In fact, all the scheme appears to be saying is that a resource that is valuable on a sustained basis is a source of SCA, which, of course, is a tautology, at least if we think of competitive advantage in terms of value creation (as I submit we should do).<sup>6</sup>

With respect to problems of interpretation, the very meaning of “sustained competitive advantage” is unclear in the scheme. Several interpretations are possible. For example, it may be defined in terms of strategies, so that a SCA is defined as implementing a unique strategy that is not implemented by the competition. (This is the interpretation that is arguably closest to Barney 1991). The problem with this notion is that a firm can have a SCA (in the sense of a unique strategy implemented in a product market) and still only break even! This is because the four criteria does not say anything about the costs of implementing strategies,<sup>7</sup> so that factor market competition may completely offset any gains from the firm's SCA (in the sense of a unique strategy implemented in a product market). Such a firm can hardly be claimed to be successful, although it still has a SCA. Alternatively, one may interpret SCA in terms of the firm's returns, specifically whether its earning of rents is sustainable in equilibrium (as in Lippman and Rumelt 1982; Peteraf 1993). Although this interpretation makes economic sense and shall be adopted in the following, it is hardly the most operational understanding of SCA, depending as it does on equilibrium and the notion of rents. Firms experience disequilibrium

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<sup>6</sup> Foss and Knudsen (2000) present more critiques.

<sup>7</sup> Incidentally, this is quite ironic since the costs of implementing strategies was the crucial issue in Barney's 1986 paper.

situations and there are other sources of returns than rents. Moreover, it doesn't tell us how those attractive rent streams are created.

In the following, I shall argue that rather than reducing the analysis of strategy to be a matter of the analysis of sustained rents in competitive equilibrium — that is, the focus of the RBP —, an economic approach should take a much broader view on both the nature of economic returns and the interaction among firms. OE perspectives, as well as ideas from (cooperative) game theory, are helpful here. This is not necessarily to say that the RBP focus is wrong; merely that it is unnecessarily restricted.

### **Exchange and Bargaining**

The RBP model, at least in its economics-oriented version, is based on competitive equilibrium, either explicitly (Lippman and Rumelt 1982; Peteraf 1993) or implicitly (Barney 1991).<sup>8</sup> Thus, in order to "explain" SCA one introduces imperfect mobility into such an equilibrium, so that either a story about unique product market strategies (in equilibrium), or rents (in equilibrium) or both (in equilibrium) can be told. For obvious reasons, this is a very specific and constraining starting point. The suggestion here is that the analysis of the fundamental aims of strategy should begin by asking more basic questions and ask these questions, at least as a starting point, without specific reference to any structure of interaction. The relevant questions are, *How is value created, protected and appropriated?* Answering these questions may involve reference to a competitive equilibrium (they need not, however), but that particular model is no longer a starting point.

Instead, one might begin in a much more general manner with the basic economic notion of exchange through bargaining. This is an appropriate starting point, because exchange itself is value-creating (all parties to an exchange expect *ex ante* to increase their utility) and because bargaining determine how value will be split (i.e., the issue of appropriation) and how much value will be dissipated (i.e., the issue of protection).

Moreover, an exchange/bargaining perspective makes contact to a huge literature in economics and game theory, which in spite of its obvious relevance has been under-utilized in strategy research. Thus, there is a literature on bargaining processes and the role played by transaction costs, outside options, time preference, etc. for the outcomes from such bargaining processes (summed up in Muthoo 1999). Moreover, there is vast literature related to the Coase theorem (Coase 1960). Since this literature will play an important in the following, it is appropriate to briefly recapitulate the theorem: It asserts that in the absence of transaction costs, initial assignments of property rights or legal entitlements to assets will make no difference to efficiency in the sense that the identical Pareto-optimal allocation will be realized regardless of who holds the relevant property rights or bear legal liability, since the

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<sup>8</sup> There is a species of the literature that is only remotely connected to economic reasoning, for example, Prahalad and Hamel (1994).

parties will always be able to bargain their way to efficiency. Because it highlights the role played by transaction costs in determining outcomes, this theorem has been crucial to the evolution of OE in general and TCE in particular. I shall argue that it is also helpful for understanding the nature of firm strategy.

Thus, as the line of reasoning here indicates, I wish to begin from a notion of unrestricted, zero transaction cost bargaining (as in the Coase theorem) and see what this tells us about value creation, appropriation and protection (this section). I later (next section) complicate the reasoning by introducing transaction costs and see what comes of this with respect to some fundamental issues of strategy. This has the advantage of treating in a unified way issues of economic organization and issues of firm strategy (cf. Williamson 1994). Thus, as I shall argue there is the same fundamental transaction cost logic underlying both of these two subjects.

### **Creating Value**

To fix ideas, consider exchange in a vertical chain of players, say a supplier, a producer and a customer (as in Brandenburger and Stuart 1996). How much value is created in this chain? "Value," as that term is conventionally used in strategy discourse, typically refers to either the difference between turnover and the value of purchased inputs ("value added") or the amount by which the revenue exceeds the value of *all* the inputs (thus including the opportunity costs of the suppliers of labour and capital) the firm uses ("added value") (Davis and Kay 1990).<sup>9</sup> For an economist, at least, the latter measure is the more satisfactory one, for it captures the full economic loss that would result if the firm was broken up and "its" inputs used elsewhere in the economy.

Given the latter notion of value, we can unambiguously define value creation in our vertical triad as the customer's reservation price (the maximum that he is willing to pay for the good) minus the supplier's opportunity cost (cf. Brandenburger and Stuart 1996: 8). In a broader context — for example, one involving more customers, firms and suppliers — the problem of defining value creation is essentially the same, although the situation may be more complicated (different opportunity costs, different reservation prices). Thus, if all players can freely make exchanges,<sup>10</sup> the relevant measure of value creation will be the highest reservation price minus the lowest opportunity cost. This also suggests that in a large-numbers situation, there will be many "coalitions" (i.e., customer-firm-supplier value chains) and these coalitions may not create the same amounts of value (since opportunity costs and reservation prices differ).

Now, what guarantees that the various coalitions, such as our original customer – firm – supplier triad will in fact create the value implied by the difference between

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<sup>9</sup> Note that I am not saying "the values of the inputs of capital and labor," for it is only in full, long-run competitive equilibrium that values and opportunity costs coincide.

<sup>10</sup> In terms of the cooperative game theory perspective that is implicitly underlying the reasoning here, we are dealing with a "market game."

opportunity costs and reservation prices? There are two problems in this. The first has to do with whether the players will discover the possible gains from trade implied by the divergences between opportunity costs and reservation prices. Here we shall simply assume that players are so "alert" (in the sense of Kirzner 1973) that they will indeed discover possible gains from trade. The second problem has to do with realizing those gains: Notice that nothing has been said so far about the prices at which the customer, the firm and the supplier actually make their exchanges. These prices will be determined by bargaining, and may not bargaining among the parties dissipate value? This is a realistic possibility, which shall be considered later. For the moment, note that in the absence of costs of bargaining and given that players' preferences display no wealth effects, economic theory demonstrates that they will in fact implement an allocation of resources that maximizes the total value of the affected parties (assuming that an index representing the total value of a jointly conducted activity is in fact an appropriate measure of welfare for group decision making).<sup>11</sup>

It may be claimed that this amounts to trivializing the process of value creation, which becomes reduced to a bargaining between fully rational players with well-behaved preferences who bargain their way to efficiency (maximum joint surplus) in a split second. To some extent this is true, but the obvious answer is that it is exactly by making extreme mental models that we obtain precise definitions and that we become able to locate those aspects of the model that need to be changed in order to bring it closer to reality.

### **Appropriating Value**

Our assumptions that bargaining costs are zero and that players' preferences display no wealth effects imply that we can separate the issue of value creation from the issue of the appropriation of value. Thus, we may imagine the players to follow a two-step procedure in which they first agree on the allocation of resources (mix of activities) that maximize their joint surplus, and then in the next step split this surplus through the prices and side-payments that emerge from bargaining. How will they split value, that is, how much value can each player (say, in our customer-firm-supplier triad) hope to appropriate?

In order to clarify this we can make use of reasoning related to the so-called "Shapley value" in cooperative game theory (e.g., Hart 1989). Roughly, this is a measure of the value of a player to a game. More precisely, it is the expected marginal contribution of player  $i$  to a random coalition  $S$ . For a coalition  $S$  which doesn't contain  $i$ , the marginal contribution of  $i$  to  $S$  is the change in the worth (i.e., the value created by the coalition) when  $i$  joins  $S$ . We don't need to worry about the exact computation of the Shapley value; it is sufficient to make use of the idea of marginal contribution. Add to this the assumption that players are engaged in a

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<sup>11</sup> Milgrom and Roberts (1992: 35) denote this "the value maximization principle." It will be recognized as closely related to the Coase theorem. For an enlightening critical discussion, see Furubotn (1995).

market game, that is, players can join and leave coalitions as they please, and also assume that all gains from trade will be discovered. The assumption that a market game is taking place and that gains from trade will be discovered intuitively imply that players will in fact *tend* to receive their marginal contribution to a coalition (for some modifications of the overall principle, see Nalebuff and Brandenburger 1996).

### **Protecting Value**

The protection of value is evidently a key strategy issue. In fact, the meaning in the RBP literature of "sustaining" a competitive advantage is that the resources producing the SCA are properly protected. However, protection of value cannot be a *problem* in the present context, because under the assumptions of this section, no value will be dissipated through bargaining and there will be no problem of protecting the value created in the coalition from, for example, would-be imitators. Implicitly, this is because the present setting is one characterized by zero transaction costs, implying that property rights can be costlessly exchanged and protected. The other side of the coin is, of course, that we may conceptualize the degree of protection of value in terms of the capture of property rights to created value and the costliness of bargaining. This, however, requires that transaction costs be explicitly introduced.

### **What Difference Does It Make?**

We may now ask what is gained — relative to, for example, the RBP — by thinking of the aim of strategy as a matter of creating, appropriating and protecting value in a bargaining setting rather than as a matter of earning rents in equilibrium.

At first sight, there may seem to be few substantial differences, since the aim of strategy in the RBP perspective is to maximize rents over some period of time (perhaps in perpetuity) which translates into maximizing the value of the firm. However, on closer inspection it turns out that the present perspective directs analytical and practical attention to a host of issues about which the RBP is silent. Most notably, the RBP is not particularly informative about important aspects of the process of appropriating value. For example, in Barney (1991), this is put under the rubric of costly imitation. And while Barney's (1986) conclusion that above-normal returns can only be achieved from inputs that are purchased at a price below their value to the purchasing firm is, of course, correct, this does not inform us about how much surplus value the firm can appropriate. The approach presented here can do that, as we have seen.

A more methodological difference is that the basic approach here is not dependent on any assumptions about equilibrium. Specifically, the approach allows for disequilibrium, since (subjective) opportunity costs and reservation prices exist under these circumstances (Kirzner 1973). In contrast, the RBP treats value creation as an equilibrium phenomenon. In this sense, too, the present approach is more general.

However, note finally that in an important sense, problems of strategy are, if perhaps not entirely absent, then certainly very much diminished in importance in the context of the setting in this section. Notably, because costs of bargaining have been assumed away, there is no problem of maximizing the value. When players' preferences display no wealth effects, they will agree on what is the value-maximizing allocation, that is, the efficient mix of activities, and implement this mix. Subsequently, players agree, through setting the appropriate prices and monetary transfers, on the division of the surplus from the relation. There are no problems of implementing strategy (the optimal mix of activities) and there are no problems of sharing the value from the implemented strategy. Given the assumptions, allocation and distribution can be completely separated, and both activities present no substantial problems for strategizers.

Of course, this is utterly unrealistic. Most fundamentally, it seems to leave very little room for discretion, since efficient allocations are implemented instantaneously by rational bargaining players. However, a starting point in the basic notion of exchange when bargaining costs are zero is helpful for clarifying what it means to create, appropriate and protect value, and exactly where we should make adjustments to obtain a more realistic understanding of these issues. The relevant "adjustments," I shall argue, are largely a matter of making allowance for transaction costs in the right manner. It is to the latter task that I turn now.

### III. Strategy and Transaction Costs: Impediments to the Creation, Appropriation, and Protection of Value

#### **Strategy and Transaction Costs: General**

The discussion in the previous section was labeled "Coasian." Admittedly, to some extent this is a misnomer, since Coase (1988) himself emphatically stressed that only models with transaction costs truly deserve to be called "Coasian." His interest was in explaining real institutions, such as the firm (Coase 1937); in that context, the role of the Coase theorem was to identify the extreme assumptions that are required for these institutions to have no allocative effects (i.e., no economic reasons can be given for their existence).

Although it is possible, as we have seen, to speak in a limited way of "strategies" in the setting assumed by the Coase theorem, and although this helps to clarify notions of creating, appropriating and protecting value, the full meaning of firm strategy can only be grasped by going beyond the setting assumed in the preceding section. Just as we can only have firms in a very limited sense (i.e., one person producers) in the setting assumed by the Coase theorem, we can, in that setting, only have strategies in the limited sense of coalitions teaming up and creating and splitting value in certain ways. In the Coasian setting, there is virtually

no discretion, since all property rights are perfectly delineated and enforced; hence, there is no genuine strategic choice.

The other side of the coin is that there are no impediments to realizing the full economic value from all transactions. In order to make a room for strategic choice, we have to break with some of the assumptions underlying the Coase theorem. More specifically, we have to introduce transaction costs. However, having introduced transaction costs, we have also opened the door to strategic problems, that is to say, impediments to the creation, appropriation and sustainability of value. In the presence of transaction costs, it is no longer obvious with whom one should transact, when, and where; bargaining over a surplus dissipates value; and strategic assets cannot any longer be costlessly protected. Moreover, because recontracting is no longer costless, path-dependence emerges, constraining strategic choices. Thus, on a fundamental level, transaction costs and firm strategy make direct contact.

The link between transaction costs reasoning and the firm strategy field has been explicit at least since Williamson's (1975) demonstration of the capacity of transaction cost reasoning to throw light on corporate strategy issues — in the guise of the issue of efficient boundaries —, as well as functional and organizational strategy issues, in the guise of the issue of the efficient internal organization. The Chandler-Williamson M-form hypothesis became a key insight in the strategy field, particularly after being supported in a number of influential empirical studies (e.g., Armour and Teece 1978). The classic transaction cost papers on such issues as the multinational enterprise, vertical supply arrangements, joint ventures, franchising, sales force organization and much else have similarly become standard references in the strategy field. It is not surprising, then, that Rumelt, Schendel and Teece (1994, 27) could introduce the proceedings from the 1990 Napa conference on "Fundamental Issues in Strategy: A Research Agenda for the 1990s" with the observation that

"... [o]f all the new subfields of economics, the transaction cost branch of organizational economics has the greatest affinity with strategic management ... Within strategic management, transaction cost economics is the ground where economic thinking, strategy and organizational theory meet " (Rumelt et al. 1994: 27).

### **Deficiencies — Real and Imagined**

As suggested earlier, the enthusiastic endorsement of TCE by Rumelt and his colleagues wouldn't seem to be so generally accepted anymore, although TCE continues to be a strong voice in the conversation in the strategy field. Rather, according to a growing number of critics, TCE (and OE more generally), purportedly neglects a number of key strategy issues and makes assumptions that are overly unrealistic and perhaps even "bad for practice" (Ghoshal and Moran 1996). Some of these asserted neglects are more apparent than real, and some of the critiques of TCE

are outright mistaken (Williamson 1999; Foss and Foss 2000a).<sup>12</sup> However, some real deficiencies do exist. In particular, it is quite true that TCE neglect issues of market positioning and other issues of competitive strategy (Nickerson 2000), works with a too narrow conceptualization of transaction costs that turns overwhelmingly on problems associated with asset specificity to the exclusion of other sources of transaction costs (Milgrom and Roberts 1990; Holmström and Roberts 1998) and neglects learning and other cognitive issues (Kogut and Zander 1992). The question then is whether TCE/OE have the potential to remedy these deficiencies. The remainder of this section discusses the connection between TCE reasoning and competitive strategy, touches on some broader notions of transactions, before moving to a discussion of how learning and cognition relates to TCE.

### **Market Failure and Property Rights**

To see how extreme the "Coasian" setting of section II is, observe that as the Coase theorem is normally interpreted, it actually implies that all possible uses of assets are fully known, all returns from all uses of all assets are perfectly known, all legitimate and illegitimate uses of assets are perfectly specified, and all this is perfectly enforceable (Foss and Foss 2000b). If all rights are completely defined in this way, there cannot, by definition, arise any conflicts over the use of scarce resources or the returns from assets, because individuals do not have any discretion in the use of resources. Although different coalitions of agents may realize different levels of value, there aren't, as we have seen, any problems of bargaining over surplus, keeping would-imitators at bay, and the like — in short, there are no strategic *problems*. Notably, no value will be dissipated through bargaining or other attempts to capture value, for example, competitive imitation.

The other side of the coin is that because there are no impediments to efficiency in the "Coasian" world, there is also no genuine discretion. One implication of this is that there are no hold-ups or no problems of moral hazard. Thus, one cannot provide efficiency rationales for economic organization in such a world. Another implication is that there can be no genuine strategic choice. Those who implemented the best bargain at time 0 will be able to stick to this bargain for good. In this sense, the need to take a new decision doesn't arise in the Coasian world.

In order to find a role for strategic choice (and for firms, contracts, etc.), we have to throw some spanners into the works of the perfect "Coasian" world. Conventionally, these are represented by means the category of "market

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<sup>12</sup> Among the more problematic assertions are that TCE neglects considerations relating to production (Winter 1988) and focuses all attention on transaction *cost* to the neglect of transaction *value* (Conner 1991; Zajac and Olsen 1993; Madhok 1996). These claims can be countered by using the sort of arguments presented in the previous section. Thus, efficient economic organization is the one that maximizes joint surplus, given sharing rules, path-dependencies, information asymmetries and risk preferences. Clearly, production – relating to the *size* of the surplus — as well as exchange — relating to the *sharing* of the surplus — are both crucial elements of the process, so that the often-invoked distinction is a misleading one. Therefore, it is thus *not* true that, for example, TCE neglects transaction value.

failures,” normally taken to encompass externalities public goods, asymmetric information and non-convexities of production sets. To relate these to various fundamental strategic issues is an elementary exercise à la “asymmetric information is a necessary condition for internal capital markets to be superior to external capital markets,” “the public goods nature of knowledge may make it more efficient to exploit excess knowledge through diversification rather than contracting,” “because of asymmetric information, knowledge transfer may efficiently take place inside firms than across firms,” etc. In fact, these are exactly the arguments underlying the Alchian-Williamson argument in favor of internal capital markets (Williamson 1975), the dominant story of diversification (Teece 1982), and the theory of the multinational enterprise, respectively. It is not necessary to elaborate in detail about the importance of these arguments for the understanding of corporate strategy. However, the point isn’t just that transaction cost reasoning is important to understanding corporate strategy; rather, it is *indispensable*, in the sense that transaction cost ideas explain why it is possible to speak of corporate strategy at all.<sup>13</sup>

While the importance of transaction cost ideas to corporate strategy issues is rather widely acknowledged (e.g., Collis and Montgomery 1997), there has been similarly widespread agreement that TCE/OE are inherently ill-equipped to deal with issues of competitive strategy. I now want to develop an argument that is similar to the one above: Just as we can only meaningfully speak of corporate strategy in a positive transaction cost setting, making sense of competitive strategy also requires that we make use of transaction cost reasoning. This is because competitive strategy concerns the capture of rights to “unprotected” gains from trade, and this can only take place if transaction costs are positive.

### **Competitive Strategy, Transaction Costs, and the Capture of Rights**

One can show the relevance of TCE for understanding the foundations of competitive strategy in a fundamental way, one that begins directly from the conditions underlying the Coase theorem.<sup>14</sup> Competitive strategy may generically be

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<sup>13</sup> This has been understood at least since Teece’s (1982) demonstration that Penrosian (Penrose 1959) arguments were not sufficient for an understanding of the diversified firm.

<sup>14</sup> Very few TCE contributions explicitly deal with issues of competitive strategy, and none do so in the way sketched here. Williamson (1999: 1103) argues that TCE may add to positioning issues by providing insights into the *organization* of those strengths that allow firms to position. However, he doesn’t provide any detail on this. Nickerson (2000) argues that the choice of efficient organization should be seen as complementary (in the Edgeworth sense) to the choice of positioning. More specifically, Nickerson argues that 1) targeting a specific set of consumers (i.e., positioning in terms of product choice), 2) choosing a technology, 3) making specific investments to support the customer transaction and 4) selecting an organizational structure constitute a “four-tuple” of complementary choices and that the firm’s optimal strategy is the tuple that maximizes net receipts. Finally, Nickerson and van den Bergh (1999) integrate TCE ideas in the context of Cournot competition. There are many other ways in which TCE and competitive strategy may make contact; for example, specific assets may signal commitment to a market, thus helping the firm to deter entry or avoid price wars; agreements between colluding firms may be seen as incomplete contracts that are costly to enforce; etc.

understood as identical to what Williamson (1994) calls "strategizing," that is, the *ensemble* of ploys, tactics and signals that firms may employ, for example, in the service of deterring entry and otherwise create barriers to entry or mobility, creating or keeping collusion, pre-empting markets, etc. (Porter 1980; Tirole 1988). As Williamson (1994) further explains, the strategizing approach is based on power rather than on efficiency. Per implication, the pursuit of competitive strategy implies welfare losses caused by firms exercising their market power; a successful competitive strategy must impose some deadweight losses on society. As we have seen, in the world underlying the Coase theorem, there can be no such inefficiencies, since all property rights are perfectly specified and enforced and agents can make costless bargains. In this world, there cannot be any competitive strategy. In order to make provision for competitive strategy, some property rights have to be less than perfectly specified and protected; thus, some transaction costs have to be present.

From an *economic* perspective, property rights may be defined as "... an individual's net valuation, in expected terms, of the ability to consume the services of [an] asset, or to consume it indirectly through exchange" (Barzel 1994: 394). Transaction costs may be seen as the costs of capturing (including defining and exchanging) and protecting such rights. Thus, incurring the (transaction) costs of creating a monopolistic position means that the monopolist becomes the economic owner of the right to the monopoly gain. A large literature on rent-seeking has been taken up with the dissipation of value associated with the creation of monopoly positions, for example, through price wars ("predatory pricing"), advertising, R&D, etc. However, as Barzel (1994) points out that literature doesn't consider all the ramifications of a would-be monopolist's attempts to capture rights to the gains from a monopoly position. The other side of the coin of capturing monopoly rights is, of course, that some agents other than the would-be monopolist will have to surrender their rights.

Consider predatory pricing. In that case, these other agents ("preys") are the predating firm's competitors and consumers. However, preys are not completely defenceless against a would-be monopolizing predator. For example, the preyed-upon firm(s) can enter into long-term supply contracts with consumers that will protect them against the predator. A contract that stipulates the prevailing competitive price as the one under which future transacting will take place may be sufficient. Thus, the empirically testable proposition that follows from this is that where the threat of predatory pricing is high, buyers and sellers will enter into long-term contracts. The relevance for strategy is that where the transaction costs of entering into and enforcing such contracts are high, there may be a role for competitive strategy akin to predatory pricing. The managerial implication is that strategizing firms are well-advised to check the contractual structure that characterizes the industry in which they wish to position and compete.

This type of reasoning has broader applicability. In general, "... in anticipation of the potential of becoming the victims of monopolization, people can take

protective action to avoid the associated loss” (Barzel 1994: 407).<sup>15</sup> In principle, this applies to *all* those manifestations of firms’ discretion that may cause a deadweight welfare and/or the capture of consumers’ surplus. For example, in the standard analysis of (“first degree”) price discrimination, the monopolist can, absent legal restrictions, capture the whole of consumers’ surplus. This, however, is a *non sequitur* unless reasons are given why consumers can’t resist the capturing of their right to the surplus. At any rate, the property rights to the surplus are not clearly delineated, and the final allocation is likely to depend on the bargaining costs confronted by the monopolist and the consumers. Thus, firms that wish to pursue competitive strategies that involve price discrimination (e.g., “versioning” in IT markets) must carefully consider what sort of customers they up are against; bargaining with powerful customers may not only not lead to the hoped-for gains but may also dissipate value. In general, I submit that the understanding of competitive strategy will be much furthered by a TCE approach, because TCE allows for an identification of who may win and who may lose from competitive moves, and predicts that bargaining is likely to ensue between these. In contrast, the conventional approach (Porter 1980) to competitive strategy deals with a firm that has to position against anonymous industry forces.

### **Bargaining Costs**

So far, notions of bargaining and bargaining costs have been central to the reasoning. In the present context, we are interested in bargaining, and the impediments to bargaining, because it emerged from the analysis in section II that the determinants of the creation, appropriation and protection of value ultimately can be found on the level of bargaining. For example, obstacles to bargaining may mean that gains from trade are not realized (i.e., value is not created), may dissipate value, and may imply that agents will not receive the marginal contribution to a coalition. As Milgrom and Roberts (1990: 58) point out, bargaining costs are also key to understanding economic organization. They argue that “... the crucial costs associated with using markets to carry out transactions ... are the costs of bargaining over short-term arrangements between independent economic agents,” and point out that this is in contrast to the emphasis in TCE on asset specificity, uncertainty and frequency under conditions of incompleteness of long-term contracts. Their main point is that if short-term bargaining costs are zero, and agents are risk-neutral, hold common beliefs and have no private information market outcomes will always be efficient<sup>16</sup> — even in a situation characterized by asset specificity and opportunism.

The full set of impediments to efficient bargaining includes a large number of costs, including the opportunity costs of time spent on bargaining, costs of monitoring and enforcing an agreement, delay costs, and the costs of not reaching an

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<sup>15</sup> Note that this also applies to the TCE explanation of governance structures: These are chosen so as to minimize the losses caused by hold-ups and morally hazardous activities (Williamson 1996).

<sup>16</sup> That is, the same outcomes will be realized as in the situation where the parties could make a complete long-term contract.

agreement when efficiency requires cooperation. While all these costs have been treated in various segments of the bargaining and economics of organization literature, this is normally done in what may be described as a “reduced-form manner.” Thus, while one stipulates some functional form involving, for example, delay costs, the causes of these costs are seldom inquired into. To some extent, this is a result of the very stylized settings assumed in these literatures into which hyper-rational agents are introduced, so that bargaining problems can at most be caused by different time preference or asymmetric information. But there are surely many other causes of bargaining problems. As I shall argue next, important among these causes are various kinds of cognitive biases (cf. Kahneman, Knetsch and Thaler 1990). Among other reasons, biases are important because they influence the expectations of bargainers.

### **Cognition**

Most of economics assumes uniform and perfect cognition (Hogarth and Reder 1986). This is also the case of much strategy thinking influenced by economics.<sup>17</sup> More specifically, it is assumed that agents hold the same cognitive categories, and that the only divergence between reality and experience of reality is manifested in the updating of priors into posteriors.<sup>18</sup> Although Williamson (1998: 12) argues that “... organization can and should be regarded as an instrument for utilizing varying cognitive and behavioral propensities to best advantage,” very few TCE contributions explicitly deal with cognitive issues.<sup>19</sup> This is clearly related to the fact that TCE “... makes only limited contact with the subject of learning” (Williamson 1999: 1103).<sup>20</sup> In the present manifestation of TCE, bounded rationality merely has the function of explaining contractual incompleteness. However, as Williamson (1998) explicitly recommends, the many ramifications of bounded rationality should be explored with a view to first identify those regularities in decision-making that differ from the classical models of Von Neumann and Morgenstern and Savage, then work out the implications of these regularities for efficient organization, and finally fold these into the organizational design (Williamson 1998:18). That is an almost forbiddingly complicated undertaking, but some suggestions as to how it should be accomplished may be ventured (see further Heath et al. 1993; Grandori 1997; Mukerji 1998; Williamson 1998; Rubinstein 1999; Eggleston et al. 2000).

### **Biases**

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<sup>17</sup> For example, Porter’s (1980) industry analysis approach and much of the resource-based approach (Barney 1986, 1991).

<sup>18</sup> A very notable example of this is the common prior assumption, and particularly the Harsanyi doctrine that people that have access to the same information cannot possibly hold different beliefs.

<sup>19</sup> It may be noted that although TCE has often been criticized for this neglect, few of the critics have been able to come up with alternatives themselves.

<sup>20</sup> Foss and Foss (2000b) tell a limited story about how learning may be incorporated into a TCE framework.

It is intuitive that somehow cognitive factors influence exchange, bargaining and in turn economic organization.<sup>21</sup> I submit that one attractive way of furthering thinking on how cognitive issues influence bargaining processes and therefore economic organization and firm strategy is to begin with the relevant experimental literature in psychology on systematic biases to decision-making (which is summarized in Rabin 1998). Here are a few of the relevant biases:

*The availability heuristic* — that is, people tend to think that events are more probable if they can recall incidents of its occurrence. An example is that people typically think that more words, on any given page, will end with the letters “ing” than have “n” as the second-to-last letter (although clearly this is not possible).

*Loss aversion* — that is, a loss relative to the *status quo* is seen as more undesirable than a gain relative to the same *status quo* is seen as desirable.<sup>22</sup>

*Preference reversal* — that is, the quite pervasive phenomenon that people are inconsistent when considering two gambles of equal expected value, one gamble having a high probability of winning a moderate stake and the other a low probability of winning a larger stake. The finding is that many persons who prefer the former over the latter when required to choose between gambles, actually put a higher minimum selling price on the latter than the former, when they are asked to evaluate the very same gambles.

*Adaptive preferences* — that is, preferences, for example, risk preferences (March and Shapira 1992), adapt to experience in a manner that roughly corresponds to people coming to prefer what they experience. This may produce intertemporal inconsistency in revealed choices.

### **Implications for Economic Organization and for Firm Strategy**

The importance of the above decision biases for economic organization derives from their influencing the bargaining games being played between and inside firms. More specifically, biases may influence the expectations that bargainers hold. For example, biases influence how much employees expects to capture of the firm’s surplus, how competitive threats are perceived, how the gains from trade at strategic factor markets will be shared, etc. The ramifications are many and complicated; only a few will be considered here.

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<sup>21</sup> One illustration is the, possibly apochryphical, story about the Japanese supplier firm, committed to total quality, zero defects managements, that unable to make sense of a requirement from its American buyer of 95 % defect free deliveries sent a separately boxed batch of 5 % deliberately broken parts and a note saying “We don’t know why you want these.”

<sup>22</sup> Loss aversion is part of a family of biases that also include the “endowment effect” (i.e., once a person comes to possess a good, he will value it more than before he possessed it), the “status quo bias” (which is really produced by loss aversion), and the “diminishing sensitivity bias” (the marginal effects of in well-being are greater when change is close to one’s reference level than for changes farther away). Common to these is that they all involve a reference point.

As a first illustration, consider strategic change (Rumelt 1995). For example, we may imagine a dramatic change in corporate strategy so that the firm withdraws from a number of markets, concentrating on core business. Of course, many employees in addition to those that may be laid off will suffer a loss of utility as a result of this. Since the change is likely to be at least partly negotiated between the various stakeholders of the firm, management and owners are likely to offer various side-payments to reduce these losses of utility. However, the phenomena of loss aversion and adaptive preferences are likely to complicate such bargaining games. First, loss aversion implies that the proposed strategic change will involve a mixture of painful losses and less-pleasurable gains so that people will tend to resist change. Second, in an employee relationship, employees develop implicit and explicit expectations to the contract governing the relationship, and particularly to the benefits that they believe they deserve under the implicit contract, that is, their “entitlements” (Heath et al. 1993).<sup>23</sup> There is psychological evidence that people tend to be systematically biased in their estimates of their entitlements, so that these are perceived as richer (people think they contribute more than they do) and more systematic (because rare events are often given probability zero, the consistency of others’ behavior is over-estimated) than they would be to a neutral observer (Heath et al 1993). The implication of all this is that side-payments are likely to be much larger than an “objective” evaluation would suggest.

More generally, the phenomena of adaptive preferences and loss aversion suggest that an important part of *ex post* governance is the management of the formation of the expectations of those agents with which the firm bargains over inputs and outputs. The ultimate sharing of value will not just be a matter of the “objective” contribution of each agent (as in the analysis in section II), but will also reflect players’ perception of their “legitimate” entitlements.

As a second illustration, consider the availability heuristic. As we saw, an implication of the combined effects of loss aversion and adaptive preferences is to make any *status quo* salient. However, the availability heuristic may counteract that tendency. The fact that the availability heuristic is likely to be very strongly socially conditioned only helps here. For example, public announcements by a CEO that the competitive situation faced by the firm is dangerous may create informational externalities, because his announcement is taken a relevant signal by employees. When there is little information about the true state of competition, such externalities may create informational cascades (Sunstein 1999).

As a final illustration, consider the implication of preference reversal and adaptive preferences that risk-preference is likely to be context-dependent. Specifically, March and Shapira (1992) argue that risk-taking is influenced by danger (threats to survival), slack (more slack leads to more risk-taking), aspiration levels (people are risk-seeking under the target level and risk-averse above), whose

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<sup>23</sup> Under unrestricted, costless bargaining (i.e., the situation described by the Coase theorem), such expectations would never develop because all rights and duties could be perfectly specified in contracts.

resources are at risk, and past experience. This suggests that efficiency of incentive contracts, which partly relies on shifting risks between parties, is context dependent, and that some kinds of incentive contracts may in some contexts have perverse consequences. For example, consider a firm that not only falls much below its own aspiration levels but also begins to confront difficulties with sales, and ultimately of paying creditors. In this situation, managers may want to assume more risk than would be sensible to a neutral observer. If they have been equipped with incentive contracts in the form of golden parachutes, their incentives to assume excess risks will be strengthened.

## IV. Conclusion

The basic aim of this paper has been to argue on a quite abstract level that TCE (and OE more broadly) are very useful starting points for thinking about strategic issues. The pedigree of TCE includes Coase's work on bargaining in zero and positive transaction cost regimes and this work provides a basic way in which to think of *both* firm strategy *and* economic organization. The great advantage of a bargaining/TCE approach lies in its generality: Contrary to the more rigorous versions of the RBP, it is not committed to any particular economic model, such as competitive equilibrium. As an illustration, I have argued that TCE is not merely limited to corporate strategy and internal organization issues, as is commonly believed, but also allows to think about competitive strategy in a way that differs from the conventional industrial economics paradigm. Still, TCE does have its limitations, primary among which is its neglect of cognitive issue. However, the situation is remediable: Drawing on the literature on biases to individual decision-making represents one way in which TCE may come to grips with cognitive issues, isolate those that are relevant to economic organization and fold back the implications of this into organizational design.

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