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BAD FOR PRACTICE: A CRITIQUE OF THE TRANSACTION COST THEORY

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Transaction cost economics (TCE), and more specifically the version of TCE that has been developed by Oliver Williamson (1975, 1985, 1993b), has become an increasingly important anchor for the analysis of a wide range of strategic and organizational issues of considerable importance to firms. As argued by some of its key proponents, the theory aims not only to explain but also to influence practice (Masten, 1993). In this article, we argue that prescriptions drawn from this theory are likely to be not only wrong but also dangerous for corporate managers because of the assumptions and logic on which it is grounded. Organizations are not mere substitutes for structuring efficient transactions when markets fail; they possess unique advantages for governing certain kinds of economic activities through a logic that is very different from that of a market. TCE is "bad for practice" because it fails to recognize this difference. We identify some of the sources of the "organizational advantage" and argue for the need to build a very different theory, more attuned to the realities of what Simon (1991) has called our "organizational economy."

In business circles, a story is often told of two hikers who wake up one night to find a tiger lurking near their tent. One of the hikers immediately reaches for his running shoes. On being reminded by his partner that he could not possibly outrun the tiger, he responds that all he has to do is to outrun the partner. At a superficial level, the somewhat macabre humor of the situation also serves as a powerful reminder of the similarities between biological and economic competition. Survival of the fittest, and, hence, the need to be the fittest, is seen as the moral of the tale.

On deeper reflection, however, the story reveals a set of assumptions and their self-fulfilling and ultimately debilitating consequences for the hikers that directly contradict the first-cut analysis. We begin our critique of transaction cost economics (TCE) with this story because much of TCE (Williamson, 1975, 1985, 1991a,b,c,d, 1992, 1993a,b,c) is based on a very similar set of assumptions with similar debilitating consequences for

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organizations whose managers knowingly or unknowingly adopt its prescriptions.

The first assumption is regarding human nature. In reaching for his shoes instead of considering any collaborative action with his partner, the first hiker represents the "model of humans" that is embedded in Williamson's brand of TCE logic. His behavior is opportunistic (i.e., an expression of "self-interest unconstrained by morality") (Milgrom & Roberts, 1992). In deciding to abandon his partner, he assumes that he has no choice because he cannot be certain, ex-ante, that his partner will not behave opportunistically, and ex-post discovery can be costly (Williamson, 1975).

The second assumption is regarding the requirement for success. What matters is the speed of running, because that is the strength of the tiger. Going up a tree, or lighting a fire, or any other such "strategic" actions are not contemplated: Rather, "efficiency" within predefined rules of the game is the criterion that determines the desirability of the outcome (Williamson, 1991d).

In a world of hikers and tigers, given these two assumptions, tigers will ultimately prevail. Even if one hiker survives the first encounter by outrunning his partner, he would succumb in some subsequent encounter either to a faster partner or simply because he would soon run out of partners and would have to go hiking alone.

In Williamson's world of TCE, the competition between organizations and markets can be predicted to lead to similar unhappy consequences for the former. According to this theory, organizations exist because of their superior abilities to attenuate human opportunism through the exercise of hierarchical controls that are not accessible to markets. As we will show, however, such hierarchical controls need not necessarily curtail opportunistic behavior. Indeed, they are more likely to cause precisely the opposite effect. The assumption of opportunism can become a self-fulfilling prophecy whereby opportunistic behavior will increase with sanctions and incentives imposed to curtail it, thus creating the need for even stronger and more elaborate sanctions and incentives. Caught in such a vicious cycle, "hierarchies," as organizations are described by Williamson, would, over time, lose their initial raison d'être. Like the hiker, such organizations will ultimately succumb either to other organizations (which may be at an earlier phase of this self-destructive cycle or may be governed by a logic different from that of TCE) or, in the long run, to the very markets from which they sprang. Organizational failure would return to markets what market failure gave to organizations.

TCE has been criticized for many things—for embodying a hidden ideology that distorts more than it illuminates (Perrow, 1986), for ad-hoc theorizing divorced from reality (Simon, 1991), for lacking generality because of ethnocentric bias (Dore, 1983), for ignoring the contextual grounding of human actions and, therefore, presenting an undersocialized view of human motivation and an oversocialized view of institutional

control (Granovetter, 1985), and for other such purported acts of omission and commission. Although we sympathize with most of these arguments, our critique of the theory rests on a very different ground. Like Pfeffer (1994), we are concerned with its normative implications.

All positive theories of social science are also normative theories, whether intended or not. The normative implications of TCE, in particular, are inescapable. "[T]hat transaction cost economics can be useful to business decision makers" is the "import" of a recent special issue of "Managerial and Decision Economics" (Rubin, 1993: 95). In that issue, Scott Masten, a key contributor to the TCE literature, wrote, "Were explaining managerial behavior the sole aim of transaction-cost reasoning, this [empirical research to date] . . . would constitute considerable progress. But transaction-cost economics aspires to influence as well as understand behavior" (1993: 120). "In effect, transaction cost economics offers strategy a set of normative rules for choosing among alternative governance arrangements. To the extent that governance choices are an important determinant of firm performance, managers would be well advised to heed those rules and to factor transaction-cost concerns into their decision-making calculus" (1993: 119).

Over the last decade, TCE has become an increasingly important anchor for the analysis of a wide range of strategic and organizational issues of considerable importance to managers—from vertical integration (Masten, Meehan, & Snyder, 1989; Monteverde & Teece, 1982; Walker, 1988) to distribution strategy (Anderson & Schmittlein, 1984; John & Weitz, 1988), from international expansion (Buckely & Casson, 1976; Hennart, 1982; Rugman, 1981; Teece, 1983) to strategic alliances (Balakrishnan & Koza, 1993; Hennart, 1991), from optimum financial structure (Balakrishnan & Fox, 1993; Williamson, 1991d) to the design of internal incentive systems (Harris & Raviv, 1978; Hoskisson & Hitt, 1988). On each of these and many other such applied issues, normative implications can and have been drawn based on the TCE logic. Such implications are no longer buried in the pages of obscure academic journals: They are featured in the popular press and in the rhetoric of chief executives, and specialist consulting organizations have sprung up to disseminate the theory to their corporate clients. As Masten emphasized, "Economists have also begun to bring transaction-cost reasoning to the classroom (e.g., Milgrom & Roberts, 1992) and to general business audiences (Rubin, 1990) not just as positive theory of business practices but also as a normative theory of organizational choice and design" (1993: 120).

Our primary objective in this article is to caution against this growing tendency of applying the TCE logic for such normative purposes. As we will discuss in the concluding section, Williamson's theory is not without its merit as a positive theory though, given its strong assumptions and extreme stylization, its usefulness is far more limited than is sometimes claimed. However, although positive theory (applied at the proper level of aggregation) often can be made parsimonious and powerful by

simplifying assumptions that may only approximate reality (Friedman, 1953), normative theory cannot. As Masten observed, "Rules of behavior prescribed by economic models, however logical, cannot be normative if managers are incapable of implementing them or the assumptions upon which the models are built do not apply" (1993: 127). Even though Masten is concerned in this case primarily with the irrelevance of positive theory that is misapplied in normative fields, we are more concerned with its dangers. Williamson's arguments—as we show in this article—are not only inapplicable to most decision-making situations in firms but, if so applied, are also likely to adversely affect their performance. In this regard, the hiker's tale is considerably less dangerous than TCE: At worst, it is only a bad joke.

Our critique of TCE, however, will be limited in one important way. Although many scholars have contributed to the expanding domain of TCE and, as a result, there are now several different strands of the theory, we focus on only the version that has been articulated and developed by Oliver Williamson. This is an important limitation because the arguments of both Douglass North (1990) and Ronald Coase (1988)—two Nobel laureates who have made important contributions to the TCE literature—differ significantly from those of Williamson. We highlight some of these differences in our exposition. However, we choose to focus on Williamson's version of TCE for the following reasons.

Williamson's treatment of TCE is well developed, and it is relatively more accessible to "business decision makers." It is also the version that is most commonly used by scholars who conduct research outside of the mainstream field of economics and, as a result, it is the version that predominates the application of TCE to the more managerially relevant issues. More specifically, TCE, originally developed as a positive theory to explain a firm's boundaries (i.e., why firms exist and persist in markets), is more recently being extended to explain internal organization and management practices within firms. Williamson's argument (as in his M-form hypothesis) is the version that is most often applied for this purpose. Given their focal concerns and their level of analysis, other versions of TCE have had less direct influence on the management literature. Further, of the different versions of TCE, Williamson's rests most critically on its behavioral assumptions. When these assumptions, and the logic they are embedded in, are applied normatively to business decisions, particularly decisions that influence a firm's internal management, they can have an adverse impact on the "base rate" (Kahneman & Tversky, 1973) of the phenomena and, hence, the validity of the assumptions themselves. Therefore, the likelihood of applying the TCE logic for normative purposes is higher, and the practical implications are greater, for Williamson's version of the theory. Even though much of our argument may apply to TCE in general, and other versions of TCE may, indeed, be strengthened by addressing our criticisms where they may apply, and by

distinguishing that particular version from Williamson's where they do not, we leave these important associations and distinctions to others.

"UNPACKING" OPPORTUNISM

Opportunism is a central concept in Williamson's TCE logic. According to Williamson, while asset specificity is "the big locomotive" to which TCE owes much of its predictive content (1985: 56), opportunism—the seeking of self-interest with guile—is the ultimate cause for the failure of markets and for the existence of organizations (1993c: 102). "But for opportunism, most forms of complex contracting and hierarchy vanish" (1993c: 97), and markets alone would be sufficient for handling most transactions through autonomous contracting, even in the presence of bounded rationality, asset-specificity, and small-numbers bargaining (Williamson & Ouchi, 1981). As described by Williamson, "self-conscious attention" to the ramifications of this key behavioral assumption distinguishes TCE from other theories of firms and markets (1975: 4).

At the same time, however, recognizing the possibility of "instrumentalist excesses" in the explication of behavioral concepts, Williamson acknowledged that the "calculative orientation" of economics may be a disability and suggested that a "non-calculative orientation may help to unpack the[se] issues" (1985: 406). He also argued that "organization theory specialists, being less committed to the rational spirit, have less baggage to contend with" (1985: 405) and, therefore, "would appear to be well-suited to the task" (1985: 406). It is with this task of "unpacking" the concept of opportunism that we begin our arguments.

The Concept of Opportunism

Opportunism is a stronger form of the self-interest assumption of motivation that is common to economics and other social science disciplines. The two are distinguished primarily by whether or not individuals can reliably be expected to obey rules or keep promises. Self-interested behavior, in the received view, is presumed to be constrained by obedience and faithfulness to promises. Opportunism is not. It allows for "strategic behavior," that is, "the making of false or empty, that is, self-disbelieved, threats and promises in the expectation that individual advantage will thereby be realized" (Williamson, 1975: 26).

As it is used in Williamson's analysis, however, the concept of opportunism is more than a mere acknowledgement of the indisputable presence of opportunism in economic institutions. Without specifying the mechanisms through which opportunism is created or is reduced (Hart, 1990: 9), Williamson assumes human nature to be its sole cause. By attributing opportunism solely to the "human condition" rather than to technology or to the institutions themselves, and the control of opportunism solely to imposed safeguards (1993c: 102), Williamson turns a relatively

common yet unexplained phenomenon into a behavioral assumption that has been described as an "extreme caricature," even by those who have made important contributions to advance the cause of TCE (Milgrom & Roberts, 1992: 42).

This extreme behavioral assumption, however, is necessary for TCE to explain the existence of organizations as is manifest in Williamson's distinction of opportunism from both stewardship behavior (which implies trust relations) and the "more neutral" instrumental behavior—where parties are not necessarily self-aware of the benefits from their behaving opportunistically (1975: 26). In either of these cases, market mechanisms can be designed that would allow joint profit optimization for any transaction. It is only in the case of opportunistic behavior (given a set of other conditions) that hierarchical control mechanisms such as fiat, monitoring, and incentives represent the only reliable safeguards for effective exchange. In the presence of such behavior, "sanctions" (as Williamson described these mechanisms of hierarchical control) are "required not as the normal motive for obedience, but as a *guarantee* that those who would voluntarily obey shall not be sacrificed by those who would not [Hart, 1961: 193]" (1990: 191).

Attitude or Behavior?

Williamson used the term *opportunism* both in the sense of an attitude and in the sense of a behavior. For example, he refers to the "opportunistic attitudes" (1975: 48), which he understood as one of the "rudimentary attributes of human nature" (1991c: 8). At the same time, he saw it as a type of behavior such as lying, stealing, and cheating (1975, 1985) and "calculated efforts to mislead, distort, disagree, obfuscate, or otherwise confuse" (1985: 47). This implicit yet unacknowledged distinction between opportunism as an attitude (i.e., inclination or proclivity) and opportunism as a type of behavior or action is, nevertheless, important for Williamson's arguments. It's this distinction that allowed him to treat opportunism simultaneously as "[t]he behavioral assumption that human agents are given to" (1985: 64) as well as a behavioral outcome that is determined by the choice of governance modes (1975).

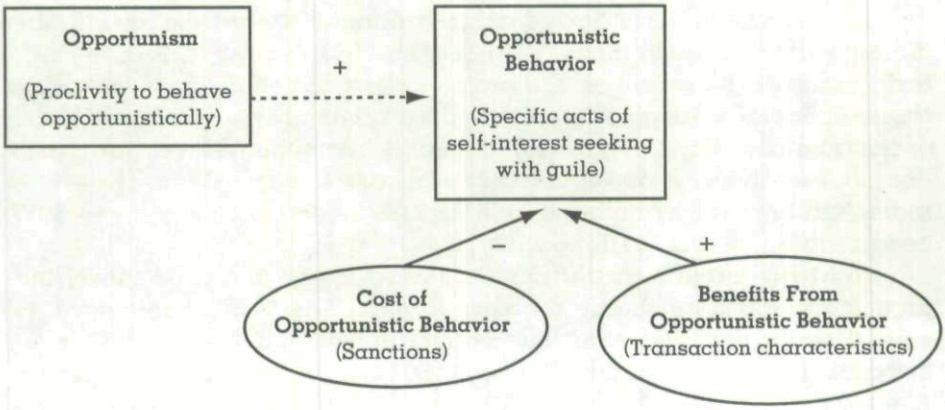
However, although clearly implied in his discourse (e.g., in his discussions of "atmosphere" and his concerns for "attitudinal separability" and "spillovers" (1975: 37–39, 256–257; 1993a: 480–481), this distinction between opportunism as an attitude and its behavioral manifestation in opportunistic behavior is absent from Williamson's formal theorizing. Further, it is this absence of any distinction between opportunism and its manifestation that permits his logic to hang together and keeps it from being underspecified and indeterminate. For his theory to pass, opportunism has to be both an assumption that is independent of context and an outcome that is not.

Consider the implied role that opportunism plays in Williamson's formal logic. For clarity of our own exposition, we shall hereafter refer

to the behavioral manifestation of opportunism as opportunistic behavior and to the attitude (i.e., proclivity, inclination, propensity) of individuals to act opportunistically as opportunism. According to Williamson, opportunistic behavior is positively related to the opportunity for (i.e., expected benefits from) such behavior, determined primarily by the characteristics related to a transaction (primarily asset specificity; see Riordan & Williamson, 1985), and is negatively related to (i.e., constrained or moderated by) safeguards such as controls, fiat, monitoring, and so on, which increase the costs (to the individual) associated with such behavior. These relationships (illustrated in Figure 1) are necessary for TCE to predict the most efficient governance form for any specific transaction. They demonstrate both the implied variability of opportunistic behavior, as well as its relationship with context (i.e., the interaction between transaction characteristics and governance).

As for opportunism (i.e., the attitude), TCE does not require that all individuals are so inclined but only that some, sometimes, are (though, according to Williamson, 1979: 234, "even among the less opportunistic, most have their price"), and that it is not practically possible to separate ex-ante those who are from those who are not (Williamson & Ouchi, 1981: 351). However, while accommodating both the existence of individuals of different types (i.e., extent of inclination to be opportunistic) and the individuals' propensity to vary the behavioral manifestation of their individual *attitudes*, the theory does not accommodate their propensity to change their attitudes with changes in time and place. Because Williamson does not theoretically separate opportunism from its behavioral manifestation (i.e., opportunistic behavior), we must infer that either opportunism (i.e., the attitude) is considered to be a fixed trait, unaffected by context, or it is a covariant with opportunistic behavior (i.e., both variables function as a single construct), each affected by context in the same way. That is, even though one contextual variable (i.e., asset specificity)

FIGURE 1
Williamson's Model of Opportunistic Behavior



may systematically influence an individual's perceived valence of (or scope for) opportunistic behavior and another variable (i.e., sanctions) may moderate the individual's expectancy from this behavior, context is believed not to have any effect on the individual's attitude toward opportunism that is independent from its effect on opportunistic behavior. Hence, either people are fixed in their attitudes toward opportunism, or their attitudes and behavior must change in concert with one another as if they were hard wired together, so as to act as one and the same concept. Otherwise, that is, if opportunism (the attitude) varied systematically, but independently (from opportunistic behavior) with context, for Williamson's theory to have any explanatory or predictive power with regard to the choice of governance form, a whole range of additional relationships between opportunism and the transaction and governance characteristics would have to be specified together with another set of relationships on how those conditions influenced the interactions between opportunism and opportunistic behavior.

What if Opportunism is a Variable?

Neither of the two possible interpretations of opportunism that could support Williamson's argument (i.e., either as a single construct, inseparable from opportunistic behavior, or as a fixed attitude) can withstand the scrutiny of received theory in other social science disciplines. A burgeoning literature in the fields of psychology and organization theory (see Kendrick & Funder, 1988, and the 1989 special issue of *AMR*, volume number 14(3) for recent reviews) provide incontrovertible evidence that attitudes and behavior exist as separate and distinct concepts and that both are affected by individual dispositions as well as by the situation that shapes the individual's perceptions and instrumentalities. Hence, both need to be taken into account when predicting the influence of context on behavior.

For example, even though sanctions can undoubtedly promote certain specific types of behavior and deter others, elements of governance mechanisms such as surveillance and fiat have consistently been shown to have negative effects on individual attitudes toward the specific behavior that is targeted (Enzle & Anderson, 1993; Lepper & Greene, 1975; Strickland, 1958) as well as the broader class of behaviors to which the target behavior belongs. An individual's attitude also is influenced by his or her own behaviors (suggesting a feedback loop between opportunistic behavior to opportunism) and also by his or her perceptions of the attitudes and behaviors of others (Aronson, 1980; Bem, 1972; Festinger, 1957; Heider, 1958; Petty & Cacioppo, 1981).

What if we followed Williamson's own advice and used these findings of organization theory scholars to elaborate TCE's behavioral assumptions? What if we considered opportunism as a variable? Next, we examine some of the implications of this more supportable assumption.

THE SELF-FULFILLING PROPHECY

According to the theory of reasoned action, still considered to be "the dominant theoretical framework in the attitude-behavior literature" (Olson & Zana, 1993: 131), volitional behavior is caused by behavioral intentions, which, in turn, are determined by attitudes and subjective norms (Ajzen & Fishbien, 1977). Figure 2 represents the outcome of our efforts to model a moderately dispositionalist view of opportunism on the basis of this theory. We rely on this particular theory only for illustration purposes; alternative theories explaining the attitude-behavior relationship (see Olson & Zana, 1993, for a recent review) are also consistent with our model.

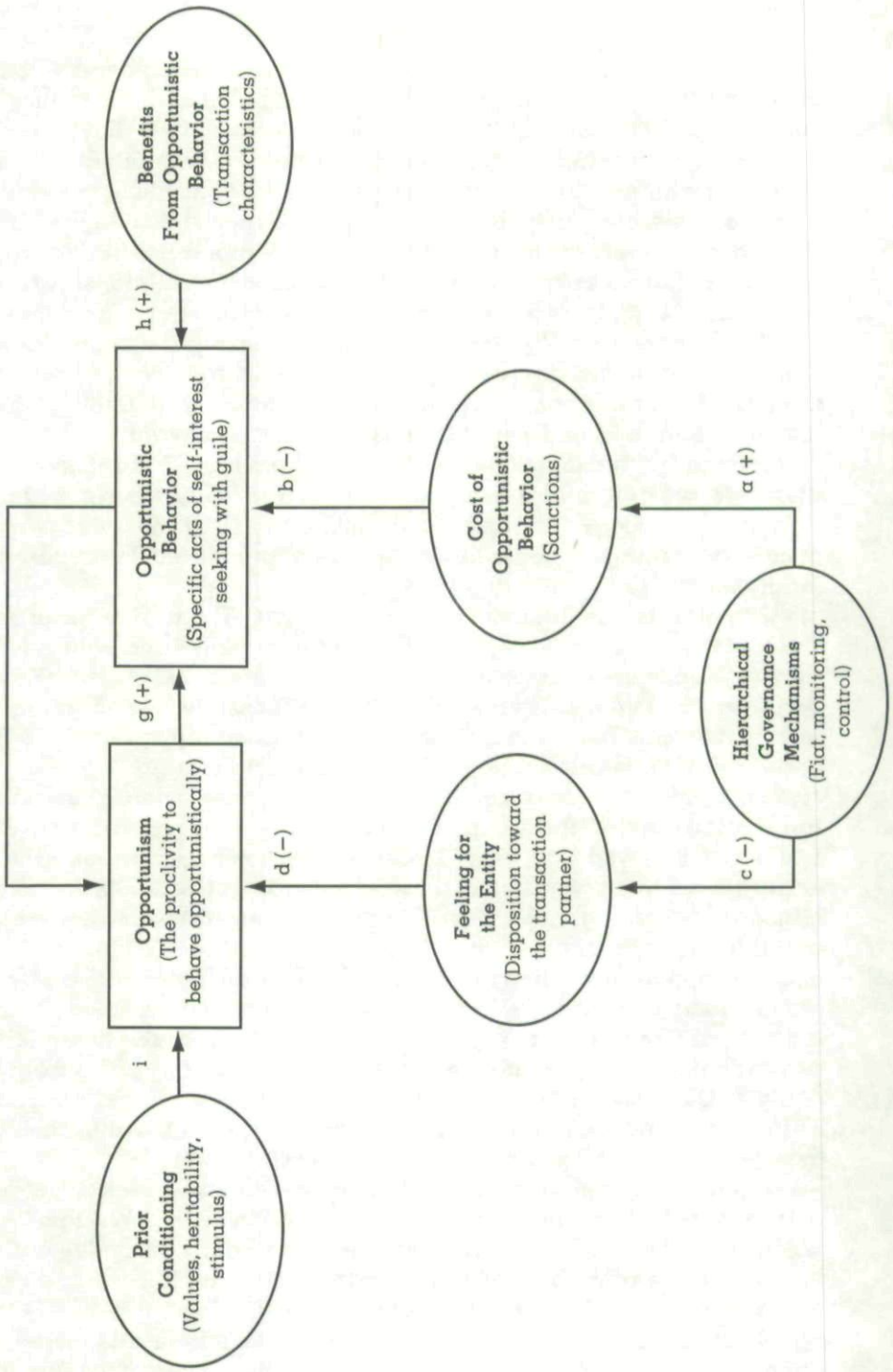
As described by Williamson and shown in Figure 1, opportunistic behavior is influenced positively by the benefits from such behavior determined by transaction characteristics (relationship 'h' in the model depicted in Figure 2) and negatively by the cost of opportunistic behavior determined by the sanctions in place (relationship 'b'). To these two influencers, we add a third that is also implicit in Williamson's model and is strongly supported by Ajzen and Fishbein's (1977) theory of reasoned action: opportunistic behavior is positively influenced by opportunism (relationship 'g').

Opportunism is influenced by three factors. The first is "prior conditioning" (relationship 'i') that includes all the attitudes and values formed through exposure to conscious as well as subliminal stimuli (Krosnic, Betz, Jussim, Lynn, & Stephens, 1992) and, possibly due to heritability factors (Olson & Zana, 1993; Tesser, 1993). Second, opportunism is influenced by what we describe as the "feeling for the entity," which represents the individuals' favorable or unfavorable assessment of the specific transaction partner, the group or the organization. As shown by Ajzen and Fishbein (1977) and Eagly and Chaiken (1992), a positive feeling for the entity would reduce opportunism whereas a negative feeling would enhance it. Accordingly, we have stipulated a negative influence of this variable on opportunism, identified as relationship 'd'. The third influencer of opportunism is opportunistic behavior. As described in dissonance theory (Aronson, 1980; Festinger, 1957), any incongruence between attitude and behavior may give rise to dissonance, if the behavior was accompanied by high commitment, freedom of choice and consequence (Petty & Cacioppo, 1981), and, as a result, will lead to modification of attitude as a means of reducing dissonance. This is shown in the model as a positive feedback loop designated as relationship 'e'.

Finally, the influence of hierarchical governance mechanisms such as fiat, monitoring, and control is specified, following Williamson, as positive on the cost of opportunistic behavior (relationship 'a') and, following the literature on motivation we have referred to earlier, as negative on the feeling for the entity (relationship 'c').

Before proceeding to draw some implications from this model, it is important to note that there is nothing in the model that is contradictory

FIGURE 2
The Cycle of Self-fulfilling Prophecy



to Williamson's own views. Relationships 'a', 'b' and 'h' are the explicit basis of TCE. Relationships 'i' and 'g' are clearly acknowledged by Williamson (1975: 256) but do not merit any explicit analysis because the linkages among conditioning, attitude, and behavior are seen as direct hard-wired connections or as fixed traits. He does not take into account the dissonance reducing feedback loop 'e', but this relationship does not affect the fundamental characteristics of the model since it only reinforces the net influences from the rest of the system. Williamson also clearly acknowledges relationships 'c' and 'd', for example, in his discussions on the importance of "atmosphere" (1975: 37–39, 40, 256–258) and of the possible negative motivational consequences of monitoring (1979: 245–246), but does not formally introduce these considerations in his theorizing. In other words, our departure from Williamson lies only in making explicit and endogenous to the model considerations that are implicit or exogenous in his theory.

Implications

While a number of implications can be drawn from the model, the one that concerns us here is the effect of hierarchical governance mechanisms on opportunistic behavior in organizations. As we have discussed earlier in the paper, Williamson's logic crucially depends on the claim that hierarchical control reduces opportunistic behavior since, without this claim, organizations would have no rational justification. The model, however, suggests a more complicated and ambiguous relationship between these two variables consisting of two distinct and mutually contradictory effects.

The first is the negative effect stipulated by Williamson: fiat, monitoring, and control increase the costs, to the individual, of certain types of opportunistic behavior (a) which, in turn, reduce these types of opportunistic behavior (b). The total strength of this relationship depends on the strength of 'a' and 'b' [f (a, b)].

The second is a positive association: hierarchical controls create a negative feeling for the entity (c) which increases the propensity to behave opportunistically (d) which, in turn, increases opportunistic behavior (g). Overall the strength of this relationship depends on the relative strengths of 'c', 'd,' and 'g' [f' (c, d, g)].

Consequently, the net effect of hierarchical control on opportunistic behavior will depend in part on the relative strengths of these two opposing influences, i.e., [f (a, b) − f' (c, d, g)]. This net effect, whether positive or negative, will be reinforced by the feedback loop 'e'.

The directionality of this net effect cannot be theoretically determined. This situation itself should be a matter of concern for TCE scholars, given that any ambiguity in this relationship calls into question the entire edifice of Williamson's theory. Worse still, available empirical evidence from research on the effects of rational control on employees'

attitudes and behaviors suggests that the likely net effect may be opposite to what Williamson has asserted. This is because the negative association, on which Williamson's argument depends, between hierarchical controls and opportunistic behavior [f (a, b)] is likely to be weak, whereas the positive association between the same two variables [f (c, d, g)] is likely to be quite strong.

Fiat is a blunt instrument. Although monitoring and incentives may be effective in constraining opportunistic behaviors in specific areas that are considered important, such areas must be few for both cost and practicality considerations. As has been described by Dow (1987), when the balloon of opportunistic behavior is poked in one place by the blunt instrument of rational (i.e., hierarchical) control, it readily yields but reemerges elsewhere in ways that may make it more difficult and costly to detect and curtail. In focusing attention on the relatively few activities or outcomes that lend themselves more easily to observation, measurement, and evaluation, rational controls give rise to opportunism by enhancing any negative feeling feelings (e.g., perceptions of biases, inequities or unfairness) toward the organization [f′ (c, d)]. Heightened opportunism, in turn, induces opportunistic individuals to "game the system" [f′ (g)] in other important but less accessible areas. Williamson on occasion has acknowledged this risk of "pushing metering at the margin everywhere to the limit," and has described it in terms of "spillover effects from easy-to-meter onto hard-to-meter activities" (1993a: 480). However, he has yet to account for this risk in his core argument.

There is considerable evidence that the use of rational controls adversely affects the feelings of both the controller and the controllee concerning their relationship. For the controller, negative feelings arise from what Strickland (1958) described as "the dilemma of the supervisor" viz., the situation when the use of surveillance, monitoring, and authority led to management's distrust of employees and perception of an increased need for more surveillance and control (Kipnis, 1972; Kruglanski, 1970). Because all behavior (especially that which is consistent with management's objectives) is seen by management as motivated by the controls in place, managers develop a jaundiced view of their subordinates.

For the controllees, the use of rational control signals that they are neither trusted nor trustworthy to behave appropriately without such controls. Enzle and Anderson (1993) have provided strong empirical evidence, for example, that surveillance that is perceived as controlling threatens the controllee's personal autonomy and decreases his or her intrinsic motivation. Similarly, Baker, Jensen, and Murphy (1988) cited several studies that showed that intrinsic motivation and commitment are reduced as extrinsic rewards are increased and that lost motivation and commitment are not restored if the extrinsic rewards are later taken away. In addition to reducing motivation and commitment, rational controls also tend to damage the self-perception of the controllee (Lepper & Greene, 1975). In the face of eroding attitudes, controls may be effective in

influencing specific measurable behaviors, but they are likely to be ineffective, or even negatively influence nonmeasurable forms of the same class of behaviors, as evidenced by "work-to-rule" practices (Williamson, 1985: 262–263). An even more damaging and more likely effect of eroding attitudes is a shift from "consummate" cooperation (which is increasingly required of employees and expected by firms) to "perfunctory" compliance (see Blau & Scott, 1962; Kerr & Slocum, 1987; Kim & Mauborgne, 1993; O'Reilly & Chatman, 1986).

The consequence of these negative feelings for both controller and controllee is a "pathological spiraling relationship," which was described by Enzle and Anderson: "Surveillants come to distrust their targets as a result of their own surveillance and targets in fact become unmotivated and untrustworthy. The target is now demonstrably untrustworthy and requires more intensive surveillance, and the increased surveillance further damages the target. Trust and trustworthiness both deteriorate" (1993: 263).

The Case of Social Control

In our discussions so far, we have focused on rational control because Williamson's theory focuses on rational control and because his theory *requires* some form of coercive control to explain an organization's ability to attenuate opportunism. Other authors (most notably Ouchi, 1979), however, have distinguished rational control, based on information and the use of formal administrative mechanisms to limit deceptive or self-interested behavior, from social control, based on people, their preferences, and the use of informal mechanisms to build their motivation and commitment. TCE has been used to account for the efficiency characteristics of some applications of social control, particularly in the context of an organizational form that Ouchi described as *clans* (1980; Wilkins & Ouchi, 1983; Williamson & Ouchi, 1981). But a careful evaluation will show that (a) TCE can be applied to only a narrow subset of the domain where social controls are used; (b) where it can be applied, TCE can, at best, only explain a very minimal level of cooperation and, consequently, can account for only a small portion of the *potential* efficiency gains; and (c) the ways in which social controls are likely to be most effective are inaccessible to TCE logic and are, therefore, likely to be foreclosed to managers who rely on Williamson's theory.

Social control can influence behavior with or without a change in individual attitudes. In its broader and more far-reaching form, its users seek to create normative integration by inducing individuals to internalize the values and goals of the organization. Because such internalization implies a change in attitudes, users of TCE, in its present form, cannot even *consider* this path without first formalizing the process through which attitudes change and, in turn, affect behavior. It is not surprising then, given the little attention that proponents of TCE have given to social

control, that they have emphasized the effects of social control without expecting or allowing for any attitude change. Ironically, however, the value from social control used narrowly in this way is likely to be severely limited by TCE's two behavioral assumptions (i.e., opportunism, which suggests one cannot predict others' behavior, and bounded rationality, which suggests one cannot identify his or her own best behavior), which make the distinction between initiative and opportunism problematic (even ex post).

Although Williamson explicitly differentiates opportunistic behavior from the "less realistic" expectations of instrumental behavior "in which there is no necessary self-awareness that the interests of a party can be furthered by strategems of any sort" (1975: 26), Ouchi assumes that the clan has attained a level of socialization that effectively ensures the instrumental behavior of its members. Indeed, the viability of social control in Ouchi's clan rests not only on the assumption of instrumental behavior, but also on a *necessary* self-awareness among members that the interests of a party *cannot* be furthered by strategems of any sort. As Wilkins and Ouchi argued, "were people in the clan to believe that others would intentionally attempt to misrepresent and seek personal ends, at the expense of the collective good, the cooperation and tolerance of short-run inequities necessary for the clan to function would disappear" (1983: 476).

Essentially then, the clan form of organization is assumed to exhibit an environment where there is *no perceived threat* of opportunism, even from opportunists! Even though Ouchi did not specify how or how often such a clan environment can be expected to come about, he suggested that it is relatively rare and difficult to achieve. At a minimum it requires an organization that values and can credibly support long-term serial equity expectations and has had a long history with stable membership, no institutional alternatives, and a strong social memory (Alvesson & Lindkvist, 1993; Ouchi, 1984; Wilkins & Ouchi, 1983). Williamson has noted that such clan forms of organization can be viable only in specific cultures in which additional "more elaborate informal governance apparatus" are available to offset the greater risk of opportunistic behavior (Williamson & Ouchi, 1981: 361, 363). Not only are such environments likely to be rare, they are likely to induce only a minimal level of cooperation. At best, the kinds of behaviors that can be expected without any change in attitudes are those that will all but ensure individual net gain and will maintain the likelihood of exploitation from opportunists at very low levels (Axelrod, 1984). In other words, within the logic of Williamson's theory, cooperative behaviors other than what can be expected even among opportunists cannot be reliably ensured through social control, even in the special cultures that are considered as the exceptions to the theory.

In the general case, outside of these special cultures, social control, like rational control, is likely to affect attitudes. Moreover, internalization (i.e., the effects of controls on attitudes) is not likely to be universal nor

uniform. Those members who may internalize their organizations' goals and values less than others (even if the only value requiring internalization is that "opportunism does not pay!") may experience the internalization of others as a coercive form of peer pressure to conform. As such, this form of social control is likely to have similar, if only stronger (because the coercion is so much more fine grained), effects as those shown in Figure 2 for hierarchical governance mechanisms. Hence, in general (if not in all cases), managers who rely on TCE are left to conclude that social control cannot "reliably safeguard" the interests of nonopportunists from the guile of opportunists, and it is, therefore, "nonviable" (Williamson, 1993c: 98). It is important to emphasize that we are not arguing that social controls do not work. Indeed, as we note later in this article, they are at the core of organizations' potential advantages over markets. However, because TCE cannot account for the efficacy of social controls in most realistic settings, managers guided by TCE are likely to avoid their use and, consequently, forego their potential for enhancing efficiency.

To summarize, available theory and evidence suggest the following very plausible scenario. For decision makers shaped by the logic of Williamson's theory, the need for "guarantees" against "the intrusion of unscreened and unpenalized opportunists" (Williamson, 1985: 65) will severely restrict the viability of alternative social controls and will induce them to turn to rational controls. As the increased use of rational controls (a) increases the organization's dependency on those controls, (b) shifts voluntary compliance and extra role behavior to compulsory compliance and work-to-rule, and (c) encourages more difficult to detect opportunistic behavior, the cost of removing these controls will grow until it is no longer an option for the organization. Management's options for responding to opportunistic behavior will narrow to one of more controls that would serve only to increase opportunistic behavior. As this self-fulfilling prophecy plays itself out, management perceptions that employees are opportunistic would become increasingly valid. An equilibrium between dishonesty and control may be reached, temporarily, when the firm exhausts its opportunities to apply rational controls. By then, the most promising individuals within the firm (i.e., those who are most equipped to succeed) will more likely be those who are most skilled at furthering their own interests, with the most guile.

IN THE END, MARKETS?

One consequence of this self-fulfilling prophecy of opportunism is to increase governance costs, thus making these firms progressively uncompetitive. After all, the task of designing and implementing such controls is among the main causes for the build up of "unneeded bureaucrats and wasteful bureaucratic practices" that Williamson viewed as the source of inefficiency in firms (1991d: 78). It can also enhance risk-averse behavior,

adversely affecting long-term performance (Hoskisson & Hitt, 1988), but there is another less obvious outcome. We suggest that firms, caught in this cycle, would gravitate to certain kinds of businesses that are relatively more suitable for governance through rational control. These are also the kind of businesses in which markets will have superior efficiency characteristics and will ultimately prevail over firms. In other words, emphasis on rational control will lead firms to domains in which they would be uncompetitive in comparison with and, therefore, would ultimately succumb to markets.

Control-Context Fit

In the past, researchers of organizational control have argued for a control-context fit: Certain kinds of control mechanisms are more appropriate than others for certain kinds of businesses and activities (Eisenhardt, 1985; Ouchi, 1979; Thompson, 1967). For example, Ouchi argued that the usefulness of rational and social control would depend on the extent to which performance can be measured and evaluated. When performance can be measured accurately, based on either the behavior of individuals or on the outcomes of those behaviors, rational controls are effective. When, however, neither behavior nor outcomes can be measured precisely, rational controls lose their efficacy, and social controls become preferable (Ouchi, 1979: 845). As described by Eisenhardt, "An organization can tolerate a work force with highly diverse goals if a precise evaluation system exists. In contrast, a lack of precision in performance evaluation can be tolerated when goal incompatibility is minor" (1985: 135). A proper alignment between the context of control and the mechanism of control, therefore, is essential.

As we argued previously, according to Williamson, opportunism can be counteracted only through rational control because only a regime of sanctions can reliably safeguard the interests of the nonopportunists from "the predatory tendencies of a determined minority" (1993c: 98). To use Williamson's own examples of opportunistic behavior (1975: 7), social controls are not likely to be effective protection against embezzlers and bank robbers, who, after all, represent a fairly extreme case of goal incompatibility. In TCE, it is a "rich variety" of precisely these kinds of behaviors that are presumed to cause market failures and to create the need for organizations.

If one reverses the arguments of Ouchi, what kind of activities will such hierarchies engage in? Given that their control tools require high measurability, the need for control-context fit will, over time, lead them toward activities for which either the outcomes, or the behaviors, or, preferably, both are measurable.

Domain Bias

As argued by Thompson (1967), uncertainty is the primary enemy of measurability. The presence of uncertainty requires what Williamson

called "adaptation (c)" (i.e., coordination, 1991d: 77). However, in the presence of uncertainty, there is an inevitable conflict between measurability and coordination. Consequently, given their need for measurability, organizations that depend upon the use of rational controls will try to adopt structures and strategies that shield them from uncertainty. This argument follows quite directly from the logic of Williamson's argument and is, indeed, both reflected in and consistent with his justifications for efficiency as the first-order objective of strategy (1991d) and for the M-form as the most efficient structure for hierarchies (1975).

There are two sources of uncertainty of organizations. The first lies in the external environment, arising from the complexity and dynamism of technologies and markets (Thompson, 1967: 13). The other lies inside the organization, arising from discretionary behaviors of individuals. In their search to reduce uncertainty, not only will hierarchies create a low-discretion, high-compliance environment inside the organization, they will also choose external environments that will represent relatively low levels of volatility in technologies and market characteristics (Eisenhardt, 1985). Large-volume, mature businesses with relatively standard products and processes involving activities that are programmable will gradually emerge as their domains of choice. However, as argued by Hill (1990), it is precisely for such businesses that markets are likely to possess efficiency characteristics that are superior to those of organizations.

From Hierarchies to Markets

According to Hill, the threat of opportunism in markets is exaggerated in TCE. Over time, he argued, the invisible hand of a "system of markets" weeds out habitual opportunism. In fact, the very threat of internal organization helps reduce opportunistic behavior in market transactions: "The use of hierarchy, as a response to the threat of opportunism, also dissipates some of the composite quasi-rents that are inherent in the exchange. Using hierarchy involves additional bureaucratic costs that *do not* have to be borne *by* actors who tacitly agree to cooperate and trust each other" (Hill, 1990: 508).

Therefore, as markets mature in size and sophistication and approach a state of competitive equilibrium, they become more and more adept at mediating exchange. According to Hill, there are three conditions under which organizations continue to have a durable advantage over such increasingly sophisticated markets. These are (a) when the outcomes of transactions are highly uncertain, (b) when the reputations of transacting parties are hard to establish, and (c) when the short-term gains from entrepreneurial (i.e., opportunistic) actions are very large.

The first of these conditions may allow opportunism to go undetected, even if both output and behavior are measurable. The second implies low behavior or outcome measurability. The third implies a high-discretion environment within the organization. But as we have established earlier, these are precisely the conditions that an organization locked into

Williamson's logic would seek to avoid. The self-fulfilling prophecy of opportunism will guide them, instead, into activities that sophisticated markets can coordinate, without the bureaucratic costs that the firms must incur. Hence, in the end, markets will prevail over these firms. The visible hand of hierarchy will have winnowed the universe of viable business domains down to those that the invisible hand of markets will have made inviable for them.

Beyond the Market-Failure Framework

If opportunism is overstated in markets, as Hill (1990) demonstrated, and if it is so hard to control in organizations, as we have argued, what, then, explains the existence and persistence of so many organizations? On the surface, it may appear that the answer lies in the more sophisticated forms of social and normative control based on identification that Williamson considers nonviable, in general, but that organization theorists have emphasized at least from the time of Fayol (1949) and Barnard (1938) and that economists have begun to explore (Ichniowsky, Shaw, & Prennushi, 1993). But it would be wrong, we believe, to conclude that organizations exist because they are able to attenuate opportunism, if not by rational control, then by other more suitable methods. The real issue is deeper: Although control is, indeed, necessary in all organizations, a preoccupation with control obscures an organization's fundamental source of advantage over markets.

This preoccupation with control arises from the ideological bias of the market-failure framework in which Williamson's arguments have their theoretical roots. This bias has been manifested in both his logic and his terminology. Weighed down by the value-laden label of *hierarchy* that suggests authoritarian subjugation of human volition, organizations in his theory are considered fundamentally inferior vis-à-vis the equity and fairness of markets in which the most efficient is presumed to win. As stated explicitly by Williamson, internal organization is the organizing form "of last resort, to be employed when all else fails" (1991a: 279).

The reality of the modern economy is very different. Efficient, energetic, and well-functioning organizations surround us. Their ability to continuously improve their own productivity underlies the uninterrupted progress of our economies, and their talent for creating new products and services has consistently improved the quality of our lives and surroundings. As argued by Simon, to call ours a market economy is a misnomer: Much of the modern world's business is carried out in an "organizational economy" (1991: 28), in which identifying "markets as beginning where organizations fail" (Rumelt, Schendel, & Teece, 1991: 19) may be the more realistic starting assumption.

The choice of a starting assumption matters a great deal because, as Simon (1991) pointed out, it influences the selection of variables to be included in a first-order theory. Williamson errs not by observing that opportunism exists, for it does, nor by suggesting that organizations need

control, for they do. Where he and his followers err is in the assumption that organizations exist because of their ability to attenuate opportunism through control—an assumption that directly follows from their adherence to the market-failure framework.

In their review of strategic management and economics, Rumelt and colleagues suggested that

> Twenty-five years ago economists, asked how a firm should be managed, would have (and did) argue that subunits should be measured on profit, they should transfer products, services and capital to one another at marginal cost, and the more internal competition the better. Today, we know that this advice, to run a firm as if it were a set of markets, is ill-founded. Firms replace markets when *nonmarket* means of coordination and commitment are superior . . . there are limits to building a theory of management and strategy around market failures. (1991: 19)

TCE is bad for practice because it is based on precisely this "ill-founded" advice that remains resistant to change.

However, as Kuhn (1962) pointed out, disconfirmatory analysis does not dislodge a dominant theory unless a more attractive alternative is presented. For our critique of TCE to have any usefulness, we must at least point the way to an alternative formulation that would not deny either the existence of opportunism in society or the need for control in organizations and yet provide the basis for a theory that would not assume organizations to exist only when markets fail. Although we have no claim to such a theory yet, in the next section, we explore some premises that such a theory could be built on.

THE ORGANIZATIONAL ADVANTAGE

Markets and firms are important in Williamson's analysis because both play important roles in the two key processes that drive the development of capitalist economies: the achievement of efficiency and the adaptation to change. Because transaction circumstances make one more effective than the other, both institutions are necessary to make capitalist societies as efficient as possible in their resource allocation and use. However, according to Williamson, organizations are merely another type of "contractual instrument, a continuation of market relations, *by other means*" (1991b: 162). The fundamental theoretical logics for achieving efficiency and adaptation are assumed by Williamson to be common, and the efficacies of both markets and firms are, therefore, assumed to depend on their ability to apply the same logic, albeit with different means, to transactions with different characteristics.

Lay observation suggests that markets and firms are not as clearly differentiated in terms of transaction characteristics as could be expected from Williamson's arguments. The same kind of transactions often persist

for long periods of time in both markets and organizations, for example, the same component continues to be outsourced by some firms and produced in house by others in the same market (Coase, 1988); both individual operators and large organizations remain viable in the same business (de la Torre & Koza, 1990); and both licensing and direct investment are common under essentially similar economic circumstances (Shane, 1992). There is no systematic evidence that for any given kind of transaction the inherent superiority of one governance mode has effectively weeded out the other, even in highly competitive contexts. Instead, what really differentiates markets and firms, we believe, is that they are able to achieve efficiency and facilitate adaptation in different ways, following different institutional logics. One is not a continuation of the relations of the other. The relations themselves and their transacting capabilities undergo a fundamental transformation as they are shifted from one institutional mode to another. The effectiveness of a specific firm or a specific market in accommodating a particular activity depends on how that entity is able to implement its own institutional logic. For any given transaction, a well-managed firm may be able to outperform many autonomous entrepreneurs operating in a poorly structured market, just as those same autonomous entrepreneurs operating in a well-structured market may be able to outperform a poorly managed organization.

To explicate the potential advantages of organizations over markets, therefore, it is necessary to understand the differences in the institutional logics of firms and markets and how those differences influence the ways in which each can pursue the objectives of efficiency and adaptation. Any normative prescriptions to managers of firms can only follow this understanding, just as any advice to the hikers must follow an understanding of a human's advantage over tigers.

The Market Logic: Autonomous Adaptation

As described by Hayek (1945), individual firms adapt autonomously in markets in response to market signals. This form of autonomous adaptation occurs automatically as the available supply of goods and services is cleared with current demand. It unfolds, as an emergent process, without any concern for the direction it takes or for its future states. Leaving the direction of adaptation to the judgment of its individual participants, markets are not constrained by the participants' autonomy or their potential conflicts in preferences. In fact, indifference to any specific outcomes enables markets to exploit the independence and "local knowledge" of exchange parties by spontaneously (and, therefore, efficiently) allocating resources among all available options as they emerge.

This process of autonomous adaptation has two distinctive features. First, prices must be known or predictable for the "marvel of the market" to work efficiently (Simon, 1991). Prices must serve as sufficient statistics for transactions to adapt autonomously (Williamson, 1991d: 77). That is, changes in price, which reflect changes in the demand or supply of a

commodity, must provide an adequate signal for "individual participants . . . to take the right action" (Hayek, 1945: 527). "Under certain circumstances [such as the absence of externalities and market failures] prices provide people with all the additional information about the economy which they need in order to make efficient use of the available resources" (Milgrom & Roberts, 1992: 58, 75). When these conditions are satisfied, prices enable exchange decisions to be coherent and, hence, permit the process of autonomous adaptation to unfold automatically and efficiently. However, in the absence of meaningful prices (i.e., those that reasonably approximate the value of a good or service), autonomous adaptation may be costly or even impossible.

Second, autonomous adaptation is biased toward static efficiency. Instrumental in making the set of available options as efficient as possible by directing resources away from the less efficient and toward the more efficient uses, autonomous adaptation moves along an evolutionary path that is guided by current relative efficiency and is independent of the efficiencies of future states. In other words, a highly efficient state that must be preceded by the occurrence of relatively inefficient states may not be reached through autonomous adaptation, regardless of how efficient the future state may be (Arthur, 1989).

Organizational Logic: Purposive Adaptation

In contrast to the automatic, autonomous adaptation that emerges within markets, organizations are capable of what Barnard described as "purposive" adaptation. According to Barnard (1938: 137), shared purpose is "the unifying element of formal organization" and "[t]he necessity of having a purpose is axiomatic, implicit in the words 'system,' 'coordination,' [and] 'cooperation' " (1938: 86). Although Williamson recognized the role of coordination in organizational adaptation (1991d), he failed to recognize the role of shared purpose in inducing such coordination. It is purpose that allows what Williamson described as "coordinated adaptation" to move toward some direction (which need not be either explicit or appropriate) and to do so by exercising judgment in deciding *which* market signals to respond to and which to ignore.

The advantage of purposive, coordinated adaptation over the undirected autonomous adaptation that takes place in markets lies in at least three areas. First, purposive adaptation is possible even in the absence of prices or markets. Second, it allows organizations to pursue dynamic efficiency, which creates new options and expands the scope of activities beyond those that markets alone can coordinate efficiently. Finally, shared purpose transforms the institutional context in which relations are embedded and, thereby, influences the behaviors and preferences of actors.

Missing markets. The concept of failed or "missing" markets (Milgrom & Roberts, 1992) as a source of organizational advantage has long been part of most, if not all, versions of TCE, including that of Williamson

(1975). However, according to Williamson's argument, the existence of organizations turns on the presence of opportunism (among other conditions). He wrote, "The environmental factors that lead to prospective market failure are uncertainty and small-numbers exchange relations. *Unless joined, however, by a related set of human factors, such environmental conditions need not impede market exchange*" (1975: 9). In his preoccupation with opportunism, Williamson did not consider that coordination can merely be a more efficient means for allocating resources, especially when prices, or even markets, are not available, and autonomous adaptation is difficult. Even though prices are output (i.e., product or service) specific, which is one reason why they may be unavailable if the output is uncommon or ambiguous, coordination is process specific and often depends on specific knowledge or skills. Because organizations' members and routines are repositories of knowledge and skills, they can have an edge over autonomous market participants in coordinated adaptation. Thus, although Williamson views the organizational advantage as lying in the attenuation of opportunism, particularly for transactions with high asset specificity, an alternative view that is consistent with the broader TCE logic suggests that organizations are simply more efficient than markets at coordinated adaptation when market failures are due to missing prices or "missing markets" (Milgrom & Roberts, 1992: 75–76, 601).

Dynamic efficiency. Williamson's claim that "economy is the best strategy" (1991d: 77) did not recognize that efficiency has both static and dynamic properties. What is efficient in the short term may not always coincide with what is efficient in the long term. As Schumpeter argued, "A system—any system, economic or other—that at *every* given point of time fully utilizes its possibilities to the best advantage may yet in the long run be inferior to a system that does so at *no* given point of time, because the latter's failure to do so may be a condition for the level or speed of long-run performance" (1942: 83). The efficiency of a transaction is changed by actions that expand the set of available options (Coleman, 1993; Milgrom & Roberts, 1992). Shared purpose permits organizations to relax the binding constraint of current period efficiency and allows the organizations' members and subunits to ignore (i.e., not select) some allocations and select others, in ways they could not outside the organization.

This ability to hold off market forces (at least temporarily) enables organizations to pursue innovative activities. Williamson framed the problem of efficient adaptation as a choice of governance modes for a relatively common class of routine transactions, in which static efficiency is the dominant requirement. The coordination of activities associated with these transactions is largely logistical, and the transaction problems he focused on were mostly concerned with the distribution and appropriability of the transactions' output and not the feasibility or quality of their execution. However, a broader consideration of an economy's complete

set of transactions or, more appropriately, all its interdependent activities that require coordination, suggests that different classes of transactions may exist, with different requirements for static and dynamic efficiencies, and that the relative efficacy of markets and organizations in handling these different classes of transactions may have more to do with their influence over the nature and magnitude of transaction outcomes than with the distribution and appropriability of those outcomes.

More specifically, Williamson ignored innovation-related activities that are efficient only in a dynamic sense and that often defy the explicitness necessary for "logistical" coordination. A part of the reason for this exclusion may lie in the fact that many of the activities associated with innovation occur within firms (Dosi, 1988) and are not easily described in transaction-specific terms. Because innovative activities often are characterized by missing prices (or even markets), by "strong" uncertainty (Denzau & North, 1994; Dosi, 1988), and by high ambiguity, markets alone are relatively ill-suited to transmit information and knowledge in sufficient quantity and quality to ensure execution of the most efficient transactions. Organizations enjoy a degree of advantage in executing these activities, at least for certain kinds of innovations, because of the possibility of purposive and more flexibly coordinated action.

It is the same ability to innovate that also may be the key advantage of firms over autonomous contracting in markets, even for those transactions that we have so far referred to as routine. The classification of a transaction as routine or innovation producing is rarely a given and depends instead on a decision maker's (and researcher's) assumptions. One large U.S. automobile company may assume its procurement of components to be a routine task, which is therefore amenable to analysis using transaction-cost logic (Walker & Weber, 1984), whereas its Japanese rival may consider the same activity as vital for producing innovations and choose to manage it in very different ways (Bensaou, 1993). As described by Nelson, "Simply producing a given set of products with a given set of processes well will not enable a firm to survive for long. To be successful for any length of time a firm must innovate" (1991: 68). Therefore, whereas first-order economizing may be relatively more important in some contexts, the ability to innovate—to create discontinuous improvement in processes, for example—may well be the main source of organizational advantage, even for those routine transactions.

The moral factor. Purpose also allows organizations to create an institutional context that influences the values and ambitions of the organization's members. This is what Barnard (1938: 261) described as "the moral factor"—the efficacy of cooperation, coordinated by shared purpose, in changing the preferences and utilities of those whose cooperation is solicited for its achievement. He wrote, "The most important general consequence of cooperation, rarely sought for and only occasionally recognized while in process, is the social conditioning of all who

participate and often of those who do not. In this way the motives of men are constantly being modified by cooperation, which is itself thereby altered as are the factors of efficiency" (1938: 45).

Incentives are unavoidably lower powered in organizations than in markets (Williamson, 1992). Williamson saw this, in the perspective of the market logic, as a disadvantage that must be overcome, rather than as an opportunity to exploit. His solution to the "problem" was contained in a combination of minimizing the incentive loss by incorporating as much of marketlike characteristics in the organization as possible and then compensating for at least a part of the rest through fiat and rational control. In stark contrast, Barnard argued that "it appears utterly contrary to the nature of men to be sufficiently induced by material or monetary considerations to contribute enough effort to a cooperative system to enable it to be productively efficient to the degree necessary for persistence over an extended period" (1938: 93). Holmstrom and Milgrom (1991: 38) provided a more direct argument against the use of high-powered incentives in organizations. They showed that "short-term incentives must be muted" to prevent the allocation of individual attention "away from important, but hard to measure, asset values." Similarly, fiat is ineffective in fostering initiative, creativity, or leadership, which are difficult to differentiate ex ante from opportunism. Therefore, as Barnard highlighted, the solution to the incentive loss "problem" is not in organizations emulating markets but by their creating a context of identification, trust, and commitment that clearly differentiates them from markets. As also emphasized by Selznick (1957), the essential role of purpose is to create such a context that guides the evolutionary process, whereby fragile organizations (which he viewed as expendable tools engineered to do a job) are infused with values and transformed into responsive and adaptive institutions. It is ultimately this transformation of institutional context in which social relations are embedded and through which preferences of actors are altered that allows the process of organizational adaptation to unfold via nonmarket incentives in a purposive and quasi-autonomous way, without emphasizing the need for rational controls.

In summary, shared purpose plays the role in organizations that price plays in markets. Each theme is the central focusing device within the institutional logics of the respective institutions. Although autonomous adaptation in markets is driven by changes in price, an organization's adaptation is driven by its members' perceptions of the evolving fit between their view of the organization's purpose and their own. This does not mean that all adaptation in markets is autonomous, based on effective functioning of the price system, nor that all adaptation in organizations is purposive. Also, the two logics are not mutually exclusive. Markets may compete with organizations by developing a level of shared purpose manifest in concepts like relational contracting (Williamson, 1991d) or strategic networks (Jarillo, 1988) and exemplified in extreme examples like the New York diamond market (Coleman, 1993). Organiza-

tions, similarly, may adopt certain forms of market mechanisms in directing internal flows of resources and in aligning incentives (Hennart, 1993). However, these mechanisms represent the constraints and overlays on the dominant logic of each. A market that puts purpose above price degenerates rapidly, as the erstwhile Soviet system has shown. Similarly, an organization that puts its faith in prices above purpose fails, too, as is manifest in the experiences of companies that have relied exclusively on market-based transfer pricing systems (Eccles, 1985).

In a market, where a transaction's characteristics are instrumental in determining which among a multitude of autonomous parties are temporarily paired in an exchange, the transaction may be the appropriate unit of analysis. However, in an organization, where relationships are less fluid and the transactions across them more varied, it is the quality of the relationship that determines the characteristics of the transactions that take place across it. By focusing only on transaction characteristics, Williamson took for granted "what a firm does" and focused, instead, on "how well it does it." In that process, the key distinction that only firms, not markets, have the choice is lost in the comparison. Purpose embodies that choice, influencing both the "what" as well as the "how" of the organizational advantage over markets. Purpose provides organizations the ability to adapt, even in the absence of prices or markets—the flexibility to choose a mix of autonomy and coordination in pursuing dynamic efficiency and in concentrating on innovative activities—whether in developing wholly new products or services or in improving existing ones. It is also purpose that allows organizations to create and nurture a social context that shapes the values, goals, and expectations of members and alters their perceptions of the balance between "inducements" and "contributions." It is, therefore, purpose that provides the ultimate source of an organization's advantage over markets and that must, therefore, lie at the core of any theory that, as argued by Rumelt and colleagues (1991), does not assume organizations to emerge when markets fail but identifies markets as beginning where organizations fail.

A THEORY FOR THE ORGANIZATIONAL ECONOMY

Coase expressed his concern with the direction that TCE has taken since the publication of his original article, which was the basis of this strand of theory. He wrote,

> I consider that one of the main weaknesses of my article ["The Nature of the Firm"] stems from the use of the employer-employee relationship as the archetype of the firm. It gives an incomplete picture of the nature of the firm. But more important, I believe it misdirects our attention . . . the way in which I presented my ideas has, I believe, led to or encouraged an undue emphasis on the role of the firm as a purchaser of the services of factors of production and on the choice of the contractual arrangements which it makes with them. As a

> consequence of this concentration on the firm as a purchaser of the inputs it uses, economists have tended to neglect the main activity of a firm, running a business. (1988: 37–38)

It is this view of organizations as bundles of employment contracts that led Williamson to focus on opportunistic behavior and on safeguards to minimize one party's exposure to the opportunism of another. Managers preoccupied with controlling opportunism, like the economists Coase referred to, are distracted from the main task of running a business.

The hikers in the story in the beginning of the article will continue to value hiking as long as the pleasure they get from it exceeds whatever "price" they pay for it. As the threat from tigers rises, each hiker can "rationally" justify "paying" more and more to keep track of his access to his running shoes relative to that of his partner. Each partner's expenditure to improve his relative position "ups the ante," and each expenditure is "efficient" as the opportunity cost of not making it rises. Eventually, it is not hiking but having access to one's running shoes that becomes the key objective of the endeavor.

We can now respond to Scott Masten's call for managers to pay heed to the TCE logic in managing their firms. The broad answer would be not to bother. If the assumptions on which the logic is based are accurate, as Masten insisted they must be for productive normative theory, firms are, ultimately, bound to fail anyway, even though they might prolong survival by finding a better fit for an ever-tightening institutional straightjacket. If, in contrast, the assumptions are overly simplified and incomplete, as we have argued, managers are likely to neglect the main activity of their firms. Like the hikers, managers who pay heed to Williamson's version of TCE will be distracted from the business of generating the collective energy of their organizations and focusing it on the task of running a business. Instead, they would oversee the dissipation of their organizations' energy, or worse, they would witness it being channeled into and consumed by the efforts of each individual to protect himself or herself from colleagues. Because opportunism is difficult to distinguish ex ante from entrepreneurship and leadership, in an effort to control the former, they will destroy the latter.

The Double Hermeneutic

In arguing that Williamson's particular version of TCE is bad for practice we are not arguing that opportunism does not exist. Also, we are not arguing that Williamson does not account for some behavioral regularities in our societies (e.g., locks on doors, guards in banks). If people were never or even only rarely opportunistic, this particular strand of TCE might not be as bad for practice as we have argued, regardless of its usefulness as a descriptive theory. It is precisely because the threat of opportunistic behavior is *not* uncommon, because its dysfunctional effects *are* substantial, and because, as we have argued, the forces that

give rise to the threat and consequences of opportunism are likely to be influenced by management beliefs, policies, and practices, that Williamson's theory is so "bad" for the practice of management. Social sciences carry a special responsibility because of the process of the double hermeneutic: Its theories affect the agents who are its subject matter. By assuming the worst, this theory can bring out the worst in economic behavior. By assuming opportunism and establishing it as his base case, Williamson is blind to forces that work to confirm or discredit the validity of his assumption. In the process, his theory is likely to encourage the very behavior that it takes for granted and seeks so hard to control. Therefore, given its assumptions and logic, Williamson's form of TCE will always be "bad for practice" as far as management of firms is concerned, even if, and especially when, the theory becomes increasingly more predictive of the behavior of the individuals, groups, and organizations that seek guidance from its prescriptions.

At this point we should emphasize that it is not this theory's failure to meet some criteria of social desirability that condemns it. Rather, it is the theory's failure to meet its own criteria of efficiency that causes our criticism. According to the logic of its argument, the threat of opportunism increases transaction costs, and firms exist to attenuate the hazards of opportunism and thereby accrue efficiency gains. Two problems with this approach have been pointed out in the literature. First, as Hart (1990) pointed out, Williamson did not specify the mechanisms through which opportunism is reduced, and, second, he failed to recognize the path-dependent nature of the evolving institutional framework, in which institutions exhibit increasing returns and where history—because it is difficult to change informal constraints—plays an important role in encouraging and locking in the pursuit of persistently inefficient, as well as efficient, activities (North, 1990). In this article we have begun to specify the mechanisms through which governance may influence opportunism and opportunistic behavior. In doing so, we have suggested that, given Williamson's behavioral assumptions (which, according to Williamson himself, is what distinguishes his theory from others with similar objectives), opportunism is likely to increase, not decrease, in firms that adopt his prescription of exclusive or even primary reliance on rational controls, thereby sacrificing long-term economic efficiency in the pursuit of short-term unsustainable gains.

Economic progress requires a combination of both static and dynamic efficiencies. First-order economizing is already a central feature of the process of autonomous adaptation that takes place in markets. Imposing first-order economizing to also be the key objective of organizations and as a principal criterion for the design of their boundaries, structures, and processes, however, is counterproductive. Although the pursuit of static efficiency can provide the resources to fuel investments for achieving dynamic efficiency, it is not likely to guide the direction of those investments. Further, because dynamic efficiency is more difficult to measure

than static efficiency, in their effort to lock in the latter, firms that follow Williamson's logic will lose sight of the former. By framing the problem of adaptation in terms of first-order efficiency, Williamson ignored the potential power of organizations to influence both the direction of economic progress and the motivation of individuals to contribute to and benefit from that progress. However, organizations and their members are not the only losers in this normative application of TCE. At a broader and, perhaps, more important level, societies that observe this particular logic of TCE stand to lose the potential vitality of a major source of their economic progress and of their members' satisfaction—the purposive organization.

Building On or Starting Over?

Although we have criticized Williamson's version of TCE when it is used as normative theory, it is not without merit as a positive theory, but, even for descriptive and analytical purposes, its usefulness is much more limited than we believe is necessary. As Williamson's TCE argument stands today, and as it has stood for nearly 20 years, it is essentially a static theory whose domain of applicability is limited to predicting the existence of a small set of firms in markets in which opportunism is likely to run rampant and unfettered. For markets that are more advanced in their institutional environments and exchange practices, the explanatory power of asset specificity and, therefore, the theory, falls off considerably. Even though an impressive number of empirical studies have found a positive relationship between asset specificity and internalization (Masten, 1994), correlation does not demonstrate causation. Relationship-specific assets (e.g., distance, routines) can reduce the costs of internal coordination, independent of their effects on opportunism or on the hazards of market exchange. Moreover, within an organization, the theory can tell us very little. Our argument, however, suggests some obvious ways in which the theory's domain of applicability can be extended, both across markets and within firms.

By incorporating opportunism as an attitudinal variable, which is conceptually separate and distinct from its behavioral manifestation, the predictive power of the theory can be broadened to cover more firms and different types of markets. Also, such an extension would permit a comparative analysis of different forms of governance within the firm.

Although this modification would go far in extending the usefulness of the framework as descriptive theory, much more is needed before it can be made suitable for normative application. As illustrated in self-fulfilling prophecies, predictive power does not sanction prescriptive license. Williamson himself acknowledged that controls can only lead to perfunctory compliance (1993a), when increasingly what is needed in organizations is consummate cooperation and extra-role behavior (Kim & Mauborgne, 1993; O'Reilly & Chatman, 1986), which are difficult to measure or reward directly. No amount of emphasis on opportunism alone (even ensuring its absence as a threat to the exploitation of an organiza-

tion's individual members) can unlock the initiative and tap the motivation that large, complex organizations increasingly require from their members. Theorists must adopt long-term efficiency as the criterion, and they must address such variables as innovation, learning, and asset redeployability. They must be able to accommodate multiple levels of analysis and frequent shifts in those levels.

Williamson wrote,

> To argue that the economic approach is flawed because of its preoccupation with intended effects to the neglect of unintended effects . . . assumes that the economic approach is unable or unwilling to take into account all relevant regularities whatsoever. . . . The correct view is that a naive application of calculativeness can be and sometimes is given to excesses but that this if often remediable. On being informed about added consequences, these will be factored into the design exercise from the outset. (1993a: 460)

In this article, we have attempted to inform TCE of such added consequences. We hope that Williamson's confidence that such consequences can be factored into his theory is not misplaced, because until then this version of TCE will remain "bad for practice."

However, we fear that it may not be possible to incrementally adapt Williamson's argument to develop a theory for what Simon (1991) described as the organizational economy. The strength and seductiveness of the markets and hierarchies argument lies in the parsimony of its narrow assumptions of human nature and its equally narrow interpretation of economic objectives: the same features of the theory that also preclude any broadening of its foundations without destroying its core. This is, perhaps, why the theory's mainstream development has remained immune to such important contributions as Ouchi's (1980) insights on social control; Granovetter's (1985) compelling argument for the need to consider the social relations, in which economic behavior is embedded; and even Williamson's own ideas about "atmosphere" (1975) and "dignitary values" (1985).

The context in which social relations and economic exchange are embedded can induce self-aggrandizement or trust, individualism or collectivism, competition or cooperation among participants. Economic progress requires both kinds of behaviors in each set of alternatives, not just one or the other. Because the logic of most markets is based on the first in each set of behavioral alternatives, organizations are necessary to protect some exchange parties from the opportunism of others so as to induce the second set of behaviors. But applying the same logic that gives rise to the need for protection does not provide the needed protection. Theories that ignore this distinction and attempt to create a model of organizations based on the logic of markets are dangerous, because the logic that creates the first set of behaviors destroys the context that is necessary for the second set.

As we have suggested in the preceding section, the advantage of organizations over markets may lie not in overcoming human pathologies through hierarchy, but in leveraging the human ability to take initiative, to cooperate, and to learn; it also may rely on exploiting the organization's internalized purpose and diversity to enhance both learning and its use in creating innovations and purposive adaptation. Similarly, following Barnard (1938), we also argued that organizations fail when they are unable to create the social context necessary to build the trust and commitment that are needed for maintaining cooperation. In a theory of organizations and markets, learning and trust may well take the place that efficiency and opportunism occupy in the theory of markets and hierarchies (see Axelrod, 1984; Coleman, 1990; Krackhardt, 1992), whereas purpose may take the place of price. Such a theory may also yield some very different conclusions on issues of organizational diversification, control, and governance.

It is not our objective to present such a theory here, and we are not yet capable of it. However, such a theory is unlikely to emerge without considerable effort from strategy and organization scholars, who are more exposed to what we have described as the organizational logic. This is why we feel concerned by the trend of those scholars increasingly embracing TCE—by proposing incremental modifications, like the inclusion of variables such as "trust" (e.g., Bromiley & Cummings, 1993), which their research reveals to be important—instead of challenging it on the grounds that such findings falsify its basic tenets. We believe that the time has come for these scholars to stop building on theories of organizations that persist with the myth of the market economy and to start afresh by developing an alternative theory that acknowledges the reality of the organizational economy.

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