ABSTRACT

By modifying the assumptions of opportunism and bounded rationality and by introducing the notion of social knowledge, this paper shows that social control systems can be integrated into Williamson’s transactions cost framework. Social knowledge, defined as one’s ability to understand and predict (but not necessarily share) the other’s general patterns of behavior, is presented as a general condition for social control systems, from which the traditional emphasis on trust and cultural or value commonality could and should be separated.

INTRODUCTION

Since Williamson’s seminal publications (1975; 1985; 1996), his transactions costs (TC) approach has become more and more well accepted as a (possibly) general paradigm to explain the nature and purpose of organizations (Barney & Ouchi, 1986; Hesterly, Liebeskind, & Zenger, 1990; Maitland, Bryson, & Van de Van, 1985; Argyres & Liebeskind, 1999). Taking the transaction as the unit of analysis, the TC approach identifies and evaluates alternative governance mechanisms (of which internal organization is but one) with which the transaction may be organized in terms of their capacities to economize on transactions costs.

Nevertheless, there exists a strong body of literature which indicates that the TC approach may not be completely adequate in explaining various organizational arrangements, such as networks or other “intermediate” forms of organizing (Larson, 1992; Powell, 1990; Gulati, 1994; Wicks, Berman, & Jones; 1999). These scholars claim that contractual or hierarchical means of governance may be somewhat overemphasized in the TC paradigm in its current setting and it ignores the value of social control mechanisms, such as trust or norms of reciprocity.
Larson (1992), in her study of networks of organizations, has compellingly demonstrated that exchanges can be governed through non-contractual or non-hierarchical means. Generally, these scholars posit that "the familiar market-hierarchy continuum does not do justice" to many interesting organizational phenomena (Powell, 1990:296).

While sharing that the TC framework, in its current setting, may not be entirely adequate, the main objective of this paper is to show that it can be. This paper proposes that the extension may be accomplished by modifying or relaxing its traditional behavioral assumptions, i.e. bounded rationality (inability to costlessly process all relevant information) and opportunism (self-interest seeking with guile). It is now well accepted that these characteristics represent the cognitive and self-interested aspects of human economic actors more accurately than those acknowledged in the traditional microeconomics. Nonetheless, "human nature as we know it" (to cite Williamson, 1985:3) certainly does not indicate that they are equal in these respects to each other. As such, the human economic actors, in this paper, are assumed to be neither equally boundedly rational nor equally opportunistic.

Employing this modified set of assumptions, this paper introduces the notion of social knowledge as a general condition under which social control system may be utilized. Extending Tolbert (1988), social knowledge is defined in this paper as one's ability to understand and predict the other's general patterns of behavior. In this context, social knowledge also extends the existing social control literature, which has emphasized the role of trust (Jarillo, 1988; Powell, 1990; Larson, 1992; Ring & Van de Van, 1992; 1994; Gulati, 1994; Bradach & Eccles, 1989; Dore, 1987; see also Bigley & Pearce, 1998; Rousseau, Sitkin, Burt, & Camerer, 1998). The two critical components of trust as commonly defined in the traditional literature are (1) one's certainty or predictability of another's behavior, and (2) one's confidence in another's goodwill (see e.g., Gambetta, 1988; Ring & Van de Ven, 1992; Bradach & Eccles, 1989; Shapiro, 1987). As defined, social knowledge embodies the first component of trust, but not the second; this paper submits that the second component, i.e., goodwill or altruism, may not be a necessary condition for efficient employment of social control system. As an example, an economic actor may have substantial social knowledge over the behavioral patterns of his or her bitter enemies, whom he or she distrusts and detests. Nonetheless, as he or she may understand and predict how they would act or react under certain stimuli, he or she may indeed skillfully manipulate, and thus control, them through social, as opposed to hierarchical or contractual, means. Clearly, efficient utilization of social means of control does not necessitate an existence of trust among the parties to an exchange. Hence, the concept of social knowledge extends the applicability of social control system, as it now is possible to relax other typical bilateral constraints (such as shared behavioral patterns or norms of reciprocity), while maintaining the value of non-hierarchical or non-contractual governance mechanism. The concept of social knowledge...
knowledge, with its concentration on behavioral patterns, enables us to investigate economic exchanges without reference to trust, thereby better serving the studies of complex economic organization (Williamson, 1993: 99).

This paper proposes that the value of social knowledge would be in that it would enable an economic actor to (1) selectively deal only with those with desirable behavioral characteristics (i.e., overcome adverse selection problems with reduced costs), and to (2) provide them with meaningful social incentives with which potential opportunistic attempts may be controlled. Additionally, it will also be discussed that the value of mutual trust or cultural commonality may have been overemphasized in the existing social control literature; these may only be sufficient, but not necessary conditions for social control systems.

Following Jaeger and Baliga (1985; see also Tannenbaum, 1968), "control" is defined in this paper as any process in which one determines or intentionally affects what others will do. Note that this definition of "control" includes more than an active exercise of power or authority. In this context, punishing and "controlling" an opportunistic supermarket by shopping elsewhere (Alchian & Demsetz, 1972) or penalizing a rule-ignoring individual by ostracism (Hershleifer & Rasmusen, 1991) clearly qualifies as a "control" action. To extend, an economic actor can be thought to "control" a group of others (whom he or she knows to have undesirable behavioral pattern) by choosing not to deal with them. Thus, not only how an exchange is to be governed, but also if the exchange is to take place should be viewed as a control decision.

BEHAVIORAL ASSUMPTIONS AND THE VALUE OF SOCIAL INCENTIVES

Opportunism and Bounded Rationality: An Extension

Opportunism is a central assumption in modern economics. It is commonly recognized as the central source of problems in exchange relationships (Maitland et al., 1985; Williamson, 1985; 1993). It refers to the self-interestedness respect of human economic actors. That is, they are assumed to be motivated to maximize their self-interest. It has been at least implicit in the assumption of opportunism that the "intendedly rational" economic actors will always behave opportunistically, whenever they may increase their wealth positions by doing so (see Lincoln, 1990). Although Williamson (1985; 1993) correctly indicates that the assumption of opportunism reflects the human nature more accurately than the orthodox neo-classical economics has indicated, he appears to ignore (at least in his application of the assumption in the analysis) that this attribute, like many other human attributes, may be normally distributed in the population. Different individual economic actors may have different economic "tendency" (see Argyle, 1991; also Granovetter, 1985; Provan, 1993), but the traditional TC approach, or neo-classical paradigm in general, ignores or oversimplifies this. To rephrase Williamson
and Ouchi (1981:350), the question is not whether economic actors would always behave opportunistically or not. Rather the question is whether the assumption of "hyper"-opportunism is needed or if a weaker assumption of opportunism should suffice.

To illustrate, let us begin with a sociological notion that while human economic actors may increase their economic positions through opportunism, most, if not all, of them would experience social or psychological losses. Borrowing Blau's (1964) terms, an opportunistic economic actor may increase his or her extrinsic utility (with the increased material wealth), but, at the same time, would decrease his or her intrinsic utility (loss of friendship or respect). For many individual actors, exercising opportunism would result in a loss of "respect", "trust", "prestige", or "love" from others whom they exploit, once their opportunistic behavior is discovered. Conversely, if they have successfully resisted temptations to opportunistically increase their economic gains, they would experience positive social or psychological gains, e.g. feelings of "self-esteem" and/or "honor", in addition to respect or love from others (for not being self-interested). In many social science disciplines, it is well recognized that all of these "social" or "psychological" benefits represent positive "utilities" (e.g. Goode, 1978; Goldschmidt, 1990). Hence, a trade-off would exist between the opportunistic material gains and the social gains.

Figure 1 is presented to clarify the argument. Let us assume that these two (material and social gains) are "commodities", from which the economic actors would obtain utility gains. Material gains will refer to increases in all extrinsic utility gains from opportunistic behavior, such as improved monetary wealth positions. Social gains will refer to increases in intrinsic and non-material gains from successful resistance of the opportunistic temptations (i.e., sociological or psychological gains, such as honor or love).

![FIGURE 1](https://example.com/figure1.png)

The received TC literature (e.g., Klein, Crawford, & Alchian, 1978; Williamson, 1991a) indicates that the maximum size of exploitable economic gains is determined by the extent of asset specificity (the value of an asset in a specific exchange relationship over and above its value in alternative relationships). Hence, the maximum size of potential economic gains in a given exchange relationship would be exactly the same.
(Point EMAX in Figure 1), regardless of the "type" of the individual economic actor. A sloped line from EMAX to the social gains axis would represent a trade-off, i.e., less economic gains for more social gains.

The size of the maximum social gains, however, would be different across individual actors. For simplicity, let us suppose that there are two economic actors, A and B. Economic actor A is rather well embedded in social context (Granovetter, 1985), while economic actor B is not. It would then follow that actor A would value social recognition and institutions much more highly than economic actor B. In other words, actor A would obtain a higher social gains (SaMAX), when he or she chooses not to "consume" any opportunism, than actor B. Actor B, in contrast, would receive only SbMAX. The individual's intersection point on the social gains axis then determines the slope of the "price" curve, which would, therefore, be different from each other (PCa and PCb). The shapes of their respective indifference curves (Da and Db) would also be different. As in standard microeconomics, the point of tangency would represent optimum combination between economic and social gains for both actors. Thus, the resulting consumption combinations would be different for the two; A would consume only Ea of opportunistic material gains while obtaining Sa of social gains, and B would consume Eb and obtain Sb. This analysis, thus, indicates that actual extent of opportunism or behavioral patterns would be different across individual economic actors; differences in "tendencies" of opportunistic behavior exist.

This exercise reveals an interesting possibility to address potential opportunism problems. That is, if one could selectively deal only with A-type economic actors (with low opportunistic tendency), one might realize substantial savings on control costs, as the threats of possible opportunism obviously would be substantially lower. The distinction, however, would be a challenge under bounded rationality; one can not easily determine the other actors' "true" opportunistic type (Akerlof, 1970). As a result, the possibility of different opportunistic tendency has been routinely dismissed in the received literature, which insisted that bounded rationality would make the sorting costs (to distinguish the more opportunistic actors from the less) prohibitively costly (e.g., Williamson & Ouchi, 1981; Williamson, 1993). This argument, however, assumes, at least implicitly, that all economic actors are equally bounded in their rationality.

This paper questions this implicit assumption and proposes instead that an individual actor's "boundary" of rationality may be broader (albeit still limited) than another's. Different actors, then, would face different sorting costs, depending upon their boundaries of rationality; adverse selection (Alchian & Woodward, 1988) would be less problematic for some than for others. Trust is a good example in the existing literature under which reduced sorting costs can be found (Williamson, 1979; 1993; Gulati, 1994; Maitland et al., 1985; Jarillo, 1988; Ring & Van de Van, 1992; Powell, 1990; Argyle, 1991; Bradach & Eccles, 1989; Shapiro, 1987; Dore, 1987; Sheppard & Sherman, 1998). Although variations exist in the received literature on the definition of trust, prior research has commonly
identified that one’s ability to understand and predict another’s non-opportunistic behavioral characteristics is critical (Zucker, 1986; Ring & Van de Van, 1992; 1994; Gulati, 1994; Thorelli, 1986; Jarillo, 1988). Such ability clearly indicates an expanded boundary of rationality. While trust is not presented in this paper as a necessary condition under which an individual actor’s boundary of rationality may be expanded (see below), it clearly illustrates that sorting costs would be lower for some economic actors than for others. Once the distinction is made with reasonable credibility, the subsequent actual exchanges may then indeed be organized with reduced control problems (and therefore costs), as the needs to incur protective means against possible opportunism would obviously decrease.

To sum, it seems that the traditional implicit assumptions that all economic actors are equally opportunistic and equally boundedly rational could and should be relaxed. For a more interesting and better analysis of complex economic organizations, this paper proposes an extension: an economic actor’s pattern of opportunistic tendency and extent of bounded rationality may be different from those of another.

Social Incentives and Opportunism

Figure 1 reveals further that there are two possible ways with which potential opportunism may be addressed: one from economic or material perspective and the other from social perspective. Traditional TC literature tends to emphasize, while generally ignoring the latter. For example, Williamson (1985; 1991a; also Klein, Crawford, & Alchian, 1978; Weiss, 1992) emphasizes internalization (vertical integration) and extensive administrative systems as possible remedies for potential opportunism. Apparently, these remedies are effective because (1) unified ownership (vertical integration) reduces economic incentives for opportunism (as the material benefits from opportunism would not accrue to the exploiting party), and (2) authoritative monitoring systems make opportunistic exploitation for material gains more difficult (Williamson, 1993).

Nevertheless, it is obvious from Figure 1 that the threats of potential opportunism may also be controlled through social means. By providing the other party with appropriate social rewards which he or she finds valuable, one could effectively discourage opportunistic behavior, even in the absence of hierarchical or contractual means of governance. To the extent that the other party would obtain utility from the social rewards one provides, his or her incentive to “consume” opportunistic material gains would decrease. Examples of appropriate social stimuli or rewards would include gifts (rather than bribes), signs of respect, and various symbols of honor. In hierarchical, status-conscious societies, such as Japan or Korea, many firms are also known to have effectively used titles of their employees to stimulate loyal and non-opportunistic behavior (see e.g., Lebra, 1976; Ouchi, 1981). In resorting to social means to deter opportunistic behavior, however, the ability to recognize appropriate social incentives would be

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critical.

SOCIAL KNOWLEDGE AND SOCIAL CONTROL SYSTEM

Social knowledge is defined in this paper as one’s ability to understand and predict the others’ general patterns of behavior (Tolbert, 1988). Equipped with such ability, one would now be able to (1) predict how the other would react under different stimuli, (2) relate his or her behaviors to how he or she interprets the present state of affairs, and (3) detect and decipher various “signals” (Spence, 1974) that he or she implicitly or explicitly conveys. Through one’s ability to reasonably correctly identify the frame of reference and process the signals, one may also recognize (1) the other’s “frame of reference” within his or her environmental context (Frank, 1988; 1989a), thereby drawing inferences about his or her relative well-being, (2) what his or her desired future state of affairs are, and (3) how he or she would attempt to attain the desired future state. Social knowledge would, therefore, also enable one to identify if or how highly he or she values various social rewards or incentives over material gains. Such ability would provide an economic actor with social, as opposed to contractual or hierarchical, means with which the traditionally recognized problems of economic transactions may be controlled.

Social Knowledge and Trust

The concept of social knowledge should be distinguished from trust. As indicated above, the received literature commonly identifies two elements in the definition of trust: (1) one’s ability to understand and predict another’s non-opportunistic behavioral characteristics, and (2) one’s confidence in another’s goodwill (Zucker, 1986; Ring & Van de Van, 1992; 1994; Gulati, 1994; Thorelli, 1986; Jarillo, 1988; Gambetta, 1988). While social knowledge as discussed herein is somewhat concordant with the first element of trust, social knowledge is a value neutral concept. Social knowledge does neither include the notion of goodwill or altruism, nor does it necessitate one’s confidence in the other party’s non-opportunistic behavior. An economic actor may take advantage of a control system based upon social knowledge, if he or she understands (1) behavioral patterns of the other party (not necessarily non-opportunistic), and (2) whether, what, and how his or her counterpart values social incentives or rewards.

Clearly, such understanding can be developed without trust. It is certainly possible that one has substantial knowledge of the behavioral characteristics of another whom one does not necessarily trust. For example, one may understand that prestige is of vital importance to an Asian manager, who is otherwise prone to behave opportunistically to improve his or her material wealth positions. By providing him or her with symbols of prestige or status, one may certainly discourage his or her opportunistic attempts. More radically, one may even stimulate certain reactions
from another whom one actively distrusts and despises and whose goals totally contradicts one's own through social means, if one only understands their behavioral patterns; one could provide certain social stimuli to them so that they will react and behave in a certain way to one's benefit (see Frank, 1988; 1989b).

The social knowledge concept is also distinguished from the embeddedness concept suggested by Granovetter (1985). The embeddedness argument stresses the role of concrete personal relations and structures (or networks) of such relations in generating trust and discouraging malfeasance (Granovetter, 1985). Social knowledge is different from the "embeddedness" in the following two aspects. First, social knowledge is value-neutral, as was argued above; distrust is not excluded. Second, social knowledge can be generated not only from "concrete, ongoing systems of social relations" but also generally accepted facts. Consider a loan officer who evaluates loan applicants. The loan office will make loan decisions based on the profession, wealth, social status of applicants as well as their credit history. If an applicant has a long history with the bank or the loan office personally from which substantial extent of social knowledge has been accumulated, the loan officer will be able to make a more accurate decision on the application than otherwise. In a case when the applicant is a university professor, the loan officer's decision will similarly be influenced by his or her belief that university professors tend to redeem (or not to redeem) the loan on time.

Thus, social knowledge is presented in this paper as a general notion, under which trust (or embeddedness) is included. In fact, it appears that trust represents only a special case of substantial social knowledge, combined with strong sense of goodwill or altruism. Undoubtedly, substantial social knowledge should be present, before trust of any magnitude might be developed. Under the framework of this paper, therefore, trust represents sufficient, but not necessary conditions under which social control system may be effectively applied.

This paper, hence, suggests that the value of trust has been overemphasized in the received social control literature (Ring & Van de Van, 1992; Larson, 1992; Powell, 1990; also Wicks, Berman, & Jones, 1999). While trust would certainly be an important means with which economic exchanges may be governed, this paper questions its strength. How much can one trust another so as to successfully overcome opportunistic temptations which may be worth sizable economic gains? More importantly, how strongly can one trust another so as to place oneself under such vulnerable positions? It appears that trust of such extent rarely, if ever, exist among parties to economic exchanges. Gerlach (1990) vividly documents the inability or limitedness of trust to sustain economic exchange relationships, as the parties involved develop mutually competing goals during the life of exchange relationships (see also Granovetter, 1993; Shapiro, 1984). Hence, the connotation of mutual respect or altruism, which is deeply founded in the term "trust", could and should now be separated from the social control research.
Similarly, the traditional constraints of cultural or value commonality, such as norms of reciprocity, goal congruence, or shared managerial philosophy, should be distinguished from the social control systems (e.g., Alvesson & Lindqvist, 1993; Boisot, 1986; also Ouchi, 1980). One may be able to develop substantial social knowledge on the other, without necessarily sharing his or her value system or behavioral patterns or without the latter having a similar level of social knowledge on the former. As long as one has sufficient social knowledge on the other party to appropriately provide him or her with meaningful social incentives, it may not be critical whether the other party has the same ability or not. Thus, this paper submits that an economic actor needs only to understand, but not necessarily share, the behavioral patterns of the other party to take advantage of a control system based upon social knowledge.

**Social Knowledge at Work**

The most important benefit that one may obtain from social knowledge and the resulting behavioral signal processing ability would perhaps be that one could distinguish certain others with desirable behavioral patterns in a relatively costless manner. As discussed above, differences in the extent of social embeddedness or socialization exist among individual economic actors (Granovetter, 1985). A relatively well socialized individual actor would value certain social artifacts, symbols, or customs, and would thus behave in a predictable way, compared to another who is rather under-socialized. Obviously, the former would react much better to, and, therefore, much easier to be controlled by, certain social stimuli than the latter. The costs to distinguish between the two would clearly be lower under social knowledge than otherwise.

By selectively entering into exchange relationships only with those with desirable characteristics (and refusing to do so with others), an economic actor with social knowledge could overcome potential opportunism problems through social means. As he or she understands, through social knowledge, how the other determines what would constitute appropriate behavior for a given stimulus, he or she may provide the other with appropriate stimuli to induce certain reactions. Thus, social knowledge would enable an economic actor to manipulate the other's behavior to his or her advantages. Specifically, he or she, through social knowledge, may identify and provide the other party with appropriate social rewards systems, such as prestige and respect, with which the other party will be discouraged from "consuming" opportunistic material gains. For example, Camerer (1988) indicates that small, inefficient (with little practical value) gifts often serve as an important and meaningful social symbol. To the degree that the other party appreciates the social value (such as concerns, love, or respect) that the symbols represent, the other party would find material opportunistic gains to be less attractive.

Note, however, that social knowledge as defined in this paper is of "general" nature. With only "general" social knowledge, one could never perfectly anticipate or manipulate the other’s behaviors. Wrong signals may be sent or mistakes in interpretations may take
place. Thus, disputes may indeed arise. Nevertheless, one, being able to relate the other's behaviors to his or her interpretations or beliefs over the present state, may not find it to be prohibitively difficult to determine the sources of the disputes and send "corrected" stimuli, thereby resolving the disputes.

To sum, the value of social knowledge would be in that it enables an economic actor (1) to selectively deal only with those with desirable behavioral characteristics, and to (2) provide them with meaningful social incentives with which potential opportunistic attempts may be controlled. Thus, to the extent that he or she may take advantage of social knowledge, he or she could realize savings contractual (e.g., negotiating and writing complex contracts) or hierarchical (e.g., designing and maintaining complex administrative and monitoring systems) costs.

Limitations of Social Knowledge

Despite the advantages, important risks inherent in social knowledge should be noted. Most importantly, the "general" nature of social knowledge dictates that the probability of mistakes is always positive. The other party may indeed turn out to be a "lemon" (Akerlof, 1970), without the expected social embeddedness or behavioral characteristics. In this case, the other party would obviously not find the social incentives which one provides meaningful or valuable enough to refrain from opportunistic exploitation. As the size of potentially appropriable returns to the other party increases, one would find it increasingly disturbing that the probability of "lemons" is positive. If the size of the exploitable returns to the other party becomes sufficiently large, the potential costs to one (from the other's opportunistic behavior), after discounted for even a slight probability of "lemons", may be substantial and unacceptable. Or, if the size of the appropriable gains are sufficiently large, even those who normally value social incentives may find it difficult to resist the opportunistic temptation. The material gains from opportunistic exploitation may become simply too great to be controlled through social means. Indeed, the TC literature routinely recognize that opportunism problems intensify, as the extent of asset specificity increases (Williamson, 1985).

As asset specificity increases, then, one, even with substantial social knowledge on the other party, would wish to protect oneself with contractual or, eventually, hierarchical means of control. By establishing such precautionary systems, one could reduce the size of exploitable opportunistic gains to the other party. Moreover, one would also be able to address the potential opportunism with the traditionally recognized contractual or hierarchical means, should the needs arise. One could, then, take advantage of both the contractual or hierarchical means (which would respond to possible opportunism from the material gains perspective) and social means (from the social gains perspective), although one might indeed reserve the active use of the contractual or hierarchical means under normal circumstances. In case of failure to address the threats of opportunism with social means, however, one could resort to legal bureaucratic authority, for example, to deal with the problems.
Social means of control by itself may not be effective under high asset specificity.

Hence, this paper disagrees with the received social control literature, which indicates that social means of control may serve as a full replacement for the hierarchical means (e.g., Ring & Van de Van, 1992; Alvesson & Lindkvist, 1993). Social control systems may supplement or complement, but not fully substitute, the hierarchical means of governance. The value of social knowledge would be in that it reduces the needs (and therefore the costs) to resort to the hierarchical means. To the extent of the savings, social knowledge improves economic efficiency.

EXTENDING THE TC FRAMEWORK: A PROPOSITION

By emphasizing contractual and hierarchical means of control, the received TC framework has been widely criticized by social control researchers (Dore, 1987; Larson, 1992; Powell, 1990; see also Argyres & Liebeskind, 1999), who suggest that these means are often found to play a rather unimportant role in many exchange relationships. As shown above, it is notably absent in the TC literature that potential opportunism may also be addressed through social gains perspective. While the existing TC framework, with its uni-dimensional market-hierarchy continuum (based solely upon asset specificity), is admittedly rather limited in its current setting, this paper proposes that it may be extended.

In the received TC framework, asset specificity is recognized as the primary determinant of how an exchange would be organized (e.g., Williamson, 1985; Weiss, 1992; Klein, Crawford, & Alchian, 1978). The standard argument goes as follows; while the parties to exchanges may obtain savings in costs through employment of specialized assets, these savings are potentially exploitable by either party’s opportunistic behavior. As the size of the exploitable savings increases, the associated control costs will increase accordingly (because the incentives of opportunism will also rise). Eventually, the contractual control costs will increase to a higher amount than the corresponding costs of administrative processes. Thus, market contracting will fail, and the contractual control means will be replaced with the hierarchical coordinating and control mechanisms of internal organizations.

In our view, however, the real value of the asset specificity based uni-dimensional continuum is in that (1) it predicts the relative danger of opportunism, and (2) the consequent total level of control needs and costs the danger calls for. How individual economic actors would satisfy the required level of control is not necessarily dependent upon asset specificity. Indeed, many scholars commonly acknowledge that a combination of control mechanisms jointly respond to the potential problems in any exchange relationships (see Williamson, 1985: 42; Bradach & Eccles, 1989; Larson, 1992). Then, for a given required level of control, one would combine various means of control available to oneself in order to optimally (with least...
possible costs) satisfy one's total control needs. Specifically, to the extent of control ability one may obtain via social knowledge, one may be able to reduce one's needs to resort to contractual or hierarchical means of control.

At the risk of oversimplification, Figure 2 is presented to clarify the arguments. It is a slight modification from Williamson (1991b: 83).2. Mn(k) and Hn(k) respectively denote market and hierarchy governance costs as a function of asset specificity (k). As traditionally accepted in the TC literature, at low asset specificity, the governance cost of the market is lower than those of the hierarchy, reflecting the traditional wisdom that “markets have exceptional incentive intensity features and each party to a nonspecific transaction can go its way at little cost to the other” (Williamson, 1991b: 82): Mn(0) < Hn(0).

As asset specificity becomes great, however, the market governance costs increase to be higher than those of the market, because “the high-powered incentives of the markets are maladaptive, as compared with unified ownership and the attendant use of fiat, for the purposes of harmonizing an exchange relation where bilateral adaptation needs are ascendant” (Williamson, 1991b: 82). To reflect that “the marginal disability markets as compared with hierarchies in adaptability aspects as asset specificity, hence bilateral dependency, becomes more consequential” (Williamson, 1991b: 82), the comparative costs relations are presented: Mn' = Ms' > Hn' = H' s > 0.

In contrast, Ms(k) and Hs(k) respectively represent market and hierarchy governance costs for economic actors with substantial social knowledge on the other party. As social knowledge provides him or her with additional means of control with which he or she would realize savings on governance costs, as compared with his or her counterpart without social knowledge, the comparative costs relations are presented: Mn(k) > Ms(k) and Hn(k) > Hs(k). The difference in governance costs between Mn(k) and Ms(k) and Hn(k) and Hs(k) would depend upon the extent of social knowledge that the economic actor has on the other party. For simplicity, Ms(k) and Hs(k) are assumed to represent the governance costs of an economic actor with highest possible social knowledge on the other party.

**FIGURE 2**

**Comparative Governance Costs**

The traditional TC literature indicates that, for all economic actors, (1) markets will be used for k < k1
and, (2) hierarchies will be used for \( k > k_1 \). While agreeing that markets will indeed be used for all exchanges for \( k < k_1 \), this paper submits, however, that \( k_1 \) simply represents where internalization might, as opposed to actually, begin to take place. While an economic actor without social knowledge (and, therefore, does not have access to the supplementary social means of control) may begin to be forced to internalize the exchange relationship at \( k_1 \), another actor with social knowledge would still find that markets are a more efficient alternative than hierarchies, up to \( k = k_2 \).

**Low Asset Specificity**

For \( k < k_1 \), all exchanges would clearly be organized through market contracting. In the absence of other considerations, utilization of social means of control in these exchanges does not offer apparent advantages. Each exchange may be isolated from each other; low asset specificity indicates existence of a competitive market, under which no one particular buyer or seller would be able to offer a better deal than anybody else. Price mechanism would be sufficient to control any opportunistic attempt. As discussed below, however, strategically minded actors, who contemplate future exchanges that may involve greater asset specificity, may repeatedly transact with a limited number of specific partners to develop social knowledge (see Ring & Van de Van, 1992; Gulati, 1994). Thus,

**Proposition 1:** Regardless of the amount of social knowledge available, exchanges associated with low asset specificity will be organized through market contracting.

**High Asset Specificity**

\( k_2 \) represents the other extreme, when the substantial asset specificity would result in internalization of any exchange relationships regardless of availability of social or other supplementary means of control. For \( k > k_2 \), the size of potentially exploitable economic gains are so substantial that even a slight probability of "lemons" (whose opportunism may not be appropriately addressed through social knowledge) may not be tolerated. Or the size of exploitable gains would be so large that even the least opportunistically inclined partner may not be reasonably expected to overcome the temptation. The material gains from opportunistic exploitation may become simply too great to be controlled through social means. Under such conditions, even an economic actor with highest possible social knowledge on the other party would wish to protect oneself through internalization. As recognized in the received literature, internalization would decrease the size of exploitable opportunistic gains to the other party. As indicated above, it would also enable one to take advantage of both hierarchical and social means of control to deal with potential opportunism. Hence, this paper submits that social control systems may supplement or complement, but not fully substitute, the hierarchical means of governance. Thus,

**Proposition 2:** Regardless of the amount of social knowledge available, exchanges associated

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with high asset specificity will be organized through hierarchies.

**Intermediate Asset Specificity**

For $k_1 < k < k_2$, asset specificity is not a useful predictor of how economic exchanges will be organized. Asset specificity simply recognizes the extent of opportunistic threats and the corresponding control needs. Each individual economic actor would, then, select an optimal combination of social and traditional means of control. To rephrase, different economic actors would organize exchanges of identical nature (thus necessitating an identical extent of control needs) through different arrangements from each other.

Some actors may be transacting with another on whom they have sufficient social knowledge. Being able to supplement their control needs with social knowledge, they, then, would not be forced to internalize the exchanges. To the extent that they may utilize social control systems, they may indeed realize savings on hierarchical governance costs. In contrast, others without social knowledge would find it necessary to internalize their exchanges. Because of their lack of access to social control systems, they would have to satisfy their control needs with hierarchical means, thus incurring higher governance costs than their counterparts with social knowledge.

**Proposition 3:** In exchanges associated with intermediate asset specificity, the higher amount of social knowledge available, the longer an economic actor would utilize market contracting, other things being equal.

**Integrating Social Knowledge into the TC Framework**

The analyses thus far indicates that the asset-specificity based uni-dimensional continuum of the received TC literature can be extended to include social knowledge. The most important contribution of such integration would be that it now makes it possible to consolidate the differences among individual economic actors into the study of economic organizations. Emphasizing the nature of exchanges, such as asset specificity, uncertainty, and frequency (e.g., Williamson, 1985; 1991a), the existing TC literature has not recognized that differences among the economic actors may matter. Such emphasis on the nature of exchanges, by definition, predicts that exchanges of identical nature would be organized identically by all economic actors, regardless of who the parties to the exchanges are. In our view, this is overly simplistic. This paper maintains that while the nature of exchanges would certainly determine the level of total control needs, how each individual actors would actually organize the exchange would depend upon the availability of social knowledge. Thus,

**Proposition 4:** Depending upon the amount of social knowledge available, different economic actors may organize exchanges of identical nature through different arrangements from each other.

Although they have not directly addressed the notion of social knowledge, several empirical studies report similar findings with the above proposition that
identical exchanges may be organized differently by different economic actors. Monteverde and Teece (1982), in their study of make-or-buy decisions in the automobile industry, report that two American automobile assemblers indeed have different propensity to internalize their part supplies, although the nature of the exchanges in question should be very similar across the two firms. The difference in the degree of internalization becomes even more apparent, if these American firms are compared with their Japanese counterparts (see Smitka, 1991; Nishiguchi, 1989). Various exchanges concerning parts supplies are far less internalized in Japan than in the United States, albeit the supposed similarity in the nature of products exchanged (Jaeger & Baliga, 1985; also Lincoln, 1990; Dore, 1987). Albeit speculative, social knowledge may indeed be an important clue to explain the observed differences in internationalization of exchanges of similar nature.

SOCIAL KNOWLEDGE: BENEFITS AND CAUTIONS

Benefits of Social Knowledge

The discussions thus far indicate that social knowledge prolongs the ability of an economic actor to take advantage of the "high-powered incentives of the markets" (Williamson, 1991b: 82), and avoid outright internalization longer than another without social knowledge. The extended use of market contracting offers several important economic advantages. First of all, one may gain access to critical resources or functions without incurring the capital investments or administrative costs associated with internalization (see e.g., Larson, 1992). As is well known, massive integration of various functions or resources, which may not necessarily fit one’s primary functions within a single hierarchy, may adversely affect one’s performance (e.g., Rumelt, 1974). With the exceptional incentive intensity features inherent in market contracting, one would enjoy lower cost advantages, as compared to one’s internalized rivals (Williamson, 1979; 1991a). Obviously, a supplier will have more incentives to search and employ the least costly production systems, when he or she claims the fruits of the operation than when he or she is an employee of an organization, working for salaries. Furthermore, an autonomous supplier may be better positioned to fully exploit scale economies, as it would be easier for him or her to sell to a larger number of buyers than another with captive internal ties with a specific buyer (Williamson, 1979).

The ability to defer outright internalization would be especially critical nowadays, where the rate of technological change and innovation are notoriously high. Balakrishnan and Wernerfelt (1986; also Walker & Weber, 1984; Harrigan, 1985) indicate that deferring or avoiding internalization may increase one’s flexibility and/or adaptability to take advantage of technological advances. In case of technological advances, an autonomous actor may simply switch to a new source with new technology, while his or her internalized counterpart may find it rather difficult to execute such simple and swift displacement (Jarillo, 1988).
Cautions in Using Social Knowledge

It is also important to note that, despite the advantages discussed above, social control systems are not without danger. By selectively transacting with only a limited subset of economic actors with certain characteristics, one may end up restricting oneself from taking full advantage of all available resources. If one limits one's exchanges only to those whom one "knows" and is familiar with, one will not be able to take advantage of "newer" set of potential exchange partners who might indeed offer valuable contributions. Moreover, it becomes even more dangerous, when one "relates" desirable characteristics with wrong proxies, such as gender or race (which indeed have happened in the past). As a result, discrimination might be voluntarily or involuntarily encouraged and society as a whole may indeed be adversely affected. Perhaps this may offer insights to explain why the seemingly "unfair" and "favoritistic" business practices are so common in Japan, where social control system is reported to be extensively utilized (see Smitka, 1991; Nishiguchi, 1989; Dore, 1987). There exists a strong evidence that the Japanese firms, especially the keiretsu (large enterprise groups) affiliated ones, exercise extensive preferentialism for within-group trade, negatively affecting foreign firms' operations in the Japanese market (see Lawrence, 1991; Ross, 1991). Although further research is called for to obtain a more corroborative evidence, we speculate that such "favoritism" may result from conscientious efforts to deal only with others on whom they have sufficient social knowledge.

It should also be noted that social knowledge cannot be obtained costlessly. For the savings in governance costs that social knowledge offers today, significant sunk costs (to build social knowledge) have been incurred in the past. Hence, this paper does not argue that social knowledge is necessarily the efficient solutions for opportunism problems. For some, who could relatively easily develop social knowledge, it may indeed represent an efficient means of control. For others, it may not prove to be the efficient solution.

Development of Social Knowledge

While the concept of social knowledge is a new addition to the literature, the received social control research offers valuable guidance to understand how social knowledge may be developed. As typically emphasized in the existing literature, extensive prior relationships or interactions would be important for one to develop an ability to understand and predict the general behavioral patterns and characteristics of the other party. Likewise, Larson (1992; also Gulati, 1994; Ring & Van de Van, 1992; Jarillo, 1988) observes that exchanges relationships that are governed primarily by social means are frequently preceded by a series of minor, but incrementally expanding, exchanges among the same partners. While the existing literature essentially views this incremental extension of exchange relationships essentially as trust building behavior, a wider interpretation seems to be that it may be intended to build social knowledge.

Note further that the interactions might not have to be directly among the parties in question, as the
control system based upon social knowledge requires that one has social knowledge on the other party, but not necessarily vice versa. Obviously, one may develop non-trivial amount of social knowledge through indirect interactions or through reputations (Weigelt & Camerer, 1988; also Larson, 1992). For example, one may obtain reasonable amount of information on another’s behavioral patterns through careful observations of his or her past behaviors.

Albeit not a necessary condition for social control system, cultural or value commonality or comparable background may facilitate social knowledge development (Tolbert, 1988; also Williamson, 1991a). It would undoubtedly be easier for one to understand and predict the behavioral patterns of another with whom one shares culture or certain background than those of the others. Similarly, the relative homogeneity of the national culture in which the economic actor operates would be important. Social knowledge may be acquired and utilized more easily with lower costs under homogeneous cultures (with low variances in the behavioral patterns), such as in Japan (e.g. Lebra, 1976; Christopher, 1983; Gerlach, 1992) than under heterogeneous cultures, such as in the United States. This is consistent with the reported observations that social control systems are much more widely employed in Japan than in the United States (Dore, 1987; Jaeger & Baliga, 1985; Smitka, 1991; Williamson, 1991b). It should be emphasized here, however, that this is not inconsistent with the earlier arguments of this paper. While cultural or value commonality would facilitate the development of social knowledge, one can certainly develop substantial social knowledge on another whose cultural background is totally different from one’s own.

This paper suggests, therefore, that the amount of social knowledge developed would be a function of (1) the extent and frequency of one’s past direct and/or indirect experience or interaction with the other party, and (2) the extent of cultural or value commonality or background comparability between one and the other party. The former would determine the level of social knowledge developed, while the latter would determine the relative ease with which social knowledge would be developed.

**IMPLICATIONS AND CONCLUSIONS**

In this paper, the concept of social knowledge is introduced as a general notion in utilizing social control systems. Social control systems, as presented herein, are no longer restricted by the traditional constraints of trust or bilateral social knowledge; one may be able to take advantage of the control system based upon social knowledge, without necessarily sharing the value system or behavioral pattern of one’s counterpart or without the latter having equal level of social knowledge on the former. Furthermore, the connotation of mutual respect or altruism that is deeply founded in the term “trust” may now be separated from the social, or non-bureaucratic, control systems. This paper suggests that trust or commonalities in value or cultural systems and/or behavioral tendency may be sufficient, but not
necessary conditions under which non-bureaucratic means of control may be efficiently utilized; economic actors need only to understand, but not necessarily share, the value or behavioral systems of their counterparts to take advantage of the non-bureaucratic or social control system.

The proposition of this paper that trust may not be critical in social control mechanisms suggests interesting implications for future research on the Japanese management systems. For example, the popular perception that the Japanese are more "trustful" or less opportunistic than the Westerners (including the Americans) may not be right. A brief glance through the Japanese history unveils that it is filled with distrusts and continuous concerns against plausible rebellions and mutinies (see Sansom, 1963; Toland, 1970). In the absence of evidence that the nature of the Japanese has drastically changed in the recent past, we remain skeptical to the arguments that contribute the prevalence of "trust" or "low opportunism" as a main explanatory factor in the Japanese management systems (see e.g., Dore, 1987). While social control systems are widely and effectively utilized in Japan, this appears to be due to their strong homogeneous culture, rather than due to their "trusting" or non-opportunistic nature.

The most important theoretical contribution of this paper would be that it extends the TC framework. The received TC literature has thus far concentrated upon the nature of exchange as the primary determinant of how the exchange is to be organized. Recognizing the value of social knowledge as a means of control, this paper proposes to add another critical dimension into the received TC framework: the extent of social knowledge available to the economic actor. As a result, the traditional economic emphasis of the existing TC literature and the sociological perspective of the social control literature could now be integrated under the extended framework of this paper; (1) the nature of exchanges, i.e., asset specificity, frequency, or uncertainty, would determine the level of total control an economic actor would need, and (2) each individual economic actor would choose the most efficient combination of contractual, hierarchical, and social means, whose relative cost properties would be determined by the amount of social knowledge he or she has on the other party. Hence, we maintain that the nature and ability of individual parties to exchanges, as well as the characteristics of the exchanges, should be considered to properly study economic organizations.

An important limitation of this paper would be that it has not properly incorporated other important means of control, such as exchange of collateral bonds or appointment of acceptable arbitrator (Williamson, 1979; 1983). Likewise, it has not considered other factors which are reported to be important in organization of economic exchanges, such as the relative strength of property rights, managerial discretion, or contract law (Williamson, 1991a; 1993). Despite the limitations, the real value of this paper would be that it introduces a new perspective with which the traditional economic and sociological models could be integrated in a systematic manner. As such, it is our hope that this paper may serve as a stimulus for further research. The
arguments of this paper should be helpful in deriving empirically testable hypotheses, especially in research on organizational boundary issues in general. In this context, future research on strategic alliances, coalitions, R&D consortium, as well as joint ventures or other cooperative arrangements may benefit from the concepts offered herein. If the arguments of this paper are correct, it could be predicted that these forms will be employed more frequently by those with social knowledge than by others, as such "intermediate" forms of organizations, by their very nature, make it difficult to rely primarily upon contractual or hierarchical means of governance. Rigorous researches are invited to prove the propositions developed in this paper.

NOTES

1. Apparently, this would not apply to some individuals, who might experience positive psychological gains from successfully exploiting others. It appears, however, that these individuals would be exceptions to the rule, and do not address this issue further.

2. Williamson's (1991b) hybrid governance is not included. Figure 2 also presents two different governance costs functions; each represent with and without social knowledge.

3. Although not of direct interest to this paper, Williamson's (1991a; 1991b) hybrid modes of organizational arrangements, supported by contractual means could also be included in this continuum without difficulty. Nevertheless, this paper disagrees with Williamson (1991a), who indicates that the hybrid exchanges are defined and supported essentially by the neoclassical contractual means. Under the context of this paper, these represent only a subset of applicable control mechanisms.

4. To be sure, other types of supplementary means of control do exist, which also could be used to reduce hierarchical governance costs, such as exchange of hostages or arbitrage (Williamson, 1983; 1979). Neverth-
eless, these are not pursued further, as they are not of direct interest to this paper.

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이 논문은 사회지식이라는 개념을 통해서 기존의 거래비용이론을 확장한다. 거래비용이론은 조직의 발생과 목적에 대한 일반이론으로서의 가치를 인정받아왔음에도 불구하고, 사회적 통제시스템을 충분히 통합하지는 못한다는 비판을 받아왔다.

이 논문은 기존의 거래비용이론이 주목하고 있는 인간행동에 대한 두 가지 가정을, 즉 Opportunism과 Bounded Rationality, 완화시킴으로서 거래비용이론을 보다 일반화시킬 수 있다는 것을 보여주고자 한다. 이를 위해, 이 논문은 인간은 틀림없이 기회주의적이기라도 하고 완전한 이성을 가지고 있는지는 못하지만, 모든 인간이 같은 정도로 그러한 성향을 가지고 있는 것은 아닐이라는 점에 주목한다. 이 논문은 보다 완화된 가정을 통해, 기존의 거래비용이론의 틀이 확대되어 사회적 통제시스템을 포함시키는 것이 가능하다는 것을 보여준다.

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