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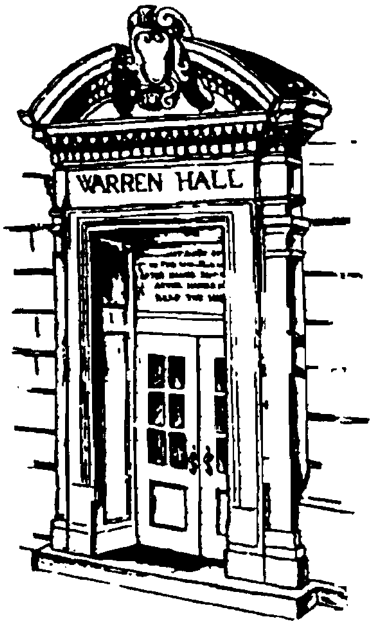

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Department of Agricultural, Resource, and Managerial Economics
Cornell University, Ithaca, New York 14853-7801 USA

Trust in Japanese Interfirm Relations: Institutional Sanctions Matter

James M. Hagen and Soonkyoo Choe

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JAMES M. HAGEN
Cornell University
146 Warren Hall
Ithaca, New York 14850
Tel: (607) 255-1615 Fax: (607) 255-4776
e-mail: jmh43@cornell.edu

SOONKYOO CHOE
127-36 Sangbong 2-dong
Chungrang-gu
Seoul, 131-222, South Korea
Tel: 82-2-435-7028
e-mail: schoe@sunnet.kisdi.re.kr

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ABSTRACT

Trust is a critical component of interfirm relations, and scholars have pointed to Japan as an environment where trusting relationships flourish. In looking for environmental characteristics important for enabling and sustaining trust in Japan, we propose that a critical role is played by a combination of institutional and societal sanctions. Examination of Japanese subcontracting practices allows an elaboration of these sanctions and their interplay. We recommend further focus on sanctions in exploring interfirm trust issues.

Considering that firms may obtain inputs through their own in-house production, by purchase on the open market, or through some intermediate mechanism such as an alliance with another firm, transaction cost economists (Williamson, 1975, 1985) characterize the open market as the default option as it garners the benefits of specialization. That option may not be effective, though, when markets are imperfect (due, for example, to a small number of buyers or sellers) and either party to the prospective trade demonstrates some likelihood of opportunistically cheating the other. Bromiley and Cummings (1995), Casson (1991), and Maitland, Bryson, & Van de Ven (1985), and are among those who have argued that trust and a spirit of cooperation can attenuate this opportunism and the limitations it imposes.

While trust is important for the operation of markets, it is also very important for the operation of intermediate modes of transaction (such as alliances) as neither competitive forces nor hierarchical control dominate such relationships between firms. Fostering trust has become particularly important as intermediate governance modes have increasingly appeared as competitive alternatives to hierarchy. Examples of such intermediate modes include alliances (Gomes-Casseres, 1996), virtual corporations (Davidow & Malone, 1992), network forms of organizations (Powell, 1990), and participants in relational contracting (Macneil, 1985).

Japan, as leader of the postwar move towards interfirm cooperation (Casson, 1991; Dunning, 1995), is often presented as a cultural model for fostering trust and cooperation (Casson, 1994; Ouchi 1981;). The belief that there is more trust in Japanese management than in Western management was formed during the 1980s as many Japanese firms emerged as champions in global competition and Western scholars sought out explanations for this success. Referring specifically to Japan as a model, Ouchi (1981) praised Japan for its between-firm relations, contrasting them to those in the U.S. where "firms rarely trust each other sufficiently to enter into the [bilateral] relationship" (p. 16).

The benefits of trust are characterized in several ways. While Dore (1987) credits trust in part with a lower cost of doing business in Japan, Casson (1991, p. 12) credits it with Japan's ability to "respond effectively to changing world markets through the flexibility of their trained workers." McMillan (1984) attributed trust with being "a major lubricant to the total dynamics of man and machines, worker and manager" (p. 39).

While trust may appear to be a universal characteristic of Japanese culture and a source of its success, we would expect that the degree of trust held by any given business firm would depend on the nature of its relationship with the party to be trusted and on the context of the transaction between the parties. This context factor helps explain the surprising survey findings by Yamagishi (1986, 1988) and Campbell (1995) that Japanese people actually trust less than Americans. In running dramatically counter to conventional wisdom, this encourages us to go beyond observations that a person or country is trusting, and to rather investigate the context that may enhance or hamper the development of trust relationships.

Regarding trust as an attitude, it is certainly a slippery construct to attempt comparative measures of. Adding a cross-cultural dimension to attitude studies further increases the methodological complications (Triandis, 1994). For our purposes of trying to understand what motivates both trust and trustworthiness in interfirm relations, we suggest that the context or antecedents of trust in specific situations are more readily observed than trust itself, and that context may be an appropriate target of investigation.

To learn from the apparently trust-enhanced Japanese business success, we first examine the antecedents of trust irrespective of specific nationality. Like others, we find that trust is an "elusive notion" (Gambetta, 1988; Powell, 1996, p. 62; Williamson, 1993, p. 453) which is difficult to operationalize. It is, however, closely related to and even enabled by the more clearly observable phenomenon of institutional sanctions. We then describe the role of sanctions that underlie trust and cooperation, particularly in the case of Japanese business practice. Following that, we discuss the role of sanctions in Japanese buyer-supplier relations, and we conclude the paper with several implications for future research.

ANTECEDENTS OF TRUST

Despite the importance ascribed to trust in today's business environment, the ascribers (e.g.,Casson, 1991; Ouchi 1981;) frequently focus on calling for leaders to demonstrate trust so that followers can then reciprocate. Others ask more pointedly how to foster trust (Smith, Carroll, & Ashford, 1995. p. 20) or how to reinforce it (Powell, 1996, p. 63).

In this section of the paper we address these "how" questions by discussing several antecedents of trust suggested in previous literature. We conclude that trust is highly context-bound and that sanctions play an important role in those contexts. Sanctions of various types are present in all societies, and the nature of a society's specific sanctions influences the apparent trust observed in that society.

Distilling from numerous definitions in the literature, we use the word *trust* as a reference to the expectation that the promise of another can be relied on, and that in unforeseen future circumstances the other will act in a spirit of cooperation with the truster. In transaction cost parlance, trusting a person, then, can be equated to believing that person will not act opportunistically. While some (e.g., Jensen and Meckling, 1976) argue against applying personal phenomenon to firms, we subscribe to the view held by Rotter (1967) and others that trust and trustworthiness can apply to organizations. Specifically, we say that firms can act in a trusting or trustworthy fashion.

In looking at possible causes or influences of the phenomenon of trust, Rotter (1967) identifies individual disposition as an important cause. Even if trust is dispositional and firms can have such dispositions, however, a contextless explanation of trust is problematic in explaining interfirm cooperation. A person may be highly trusting and trustworthy in some circumstances and not in others. Hofstede and Bond (1988) note, for example, that the Confucianist tradition of being trustworthy applies only to friends. Presumably a firm's trustworthiness would also depend on circumstances.

Of Zucker's (1986) three modes of trust production, the *characteristic* mode is perhaps closest to dispositional. Zucker defines it as based largely on family and ethnic background. To the extent that Japan has a *culture* of trust (Ouchi, 1981), it would be an example of trust production by the characteristic mode. Zucker's other two modes are *process* (based on past experience) and *institutional* (related to established guidelines, whether they be legislated or unwritten but understood). The process mode is in effect when trust is based on reputation, as when a customer's trust of a used car salesman is based on satisfaction with past purchases from the same salesman or knowledge that others were satisfied. An example of the institutional mode might be our confidence that a state inspection and licensing system is preventing gas stations from mismetering their pumps. The gas station operators are sanctioned by the power of the state to suspend licenses. An example of a non-legislated institutional arrangement is the exchange-of-threat whereby prospective competitors in an industry each demonstrate their ability to retaliate against the others if their markets are invaded.

It seems likely that sanctions also play a role in the characteristic mode. In the case of trust characterizing an entire community, we would expect to find that trust is seldom violated. Regardless of how the tradition of trust got started (whether by some sanction or by innate disposition) in such a community, it would seem that the very rarity of trust violations would make any violation that did occur to be such an extreme and conspicuous event that the violator would suffer shame, humiliation, or ostracism, and possible a more specific sanction as well. Violating the trust (or consequently, not trusting another) could effectively become unimaginable.

Similarly, the process mode contains a sanctioning mechanism. A person with a good reputation has an asset that will suffer a diminution of value if he or she violates the trust represented by that reputation. The sanctioning effect is even stronger the more efficiently the reputation information can be communicated. Similarly, in the Shapiro, Sheppard and Chersakin (1992) categorization of trust (and as extended by Lewicki and Bunker, 1996), deterrence-based trust is most directly a result of sanctions, but the knowledge-based trust of knowing a partner's modus operandi still harkens back to some underlying behavioral motivation, such as sanctions, that exact a penalty for violations of prescribed behavior. Identification-based trust also relies on underlying motivations that are independent of the two partners identifying with one another.

Granovetter's (1985) discussion of trust and malfeasance with respect to economic practice, which is related to the identification-based concept of trust, concludes that direct experience with another person is a much more significant driver of behavior than that person's reputation is. The firm can be an effective governance structure for reducing opportunism, not so much because it enables decision making by fiat, but because it brings people into close proximity so that personal and trusting bonds can be formed. The link between proximity and bonds may be the opportunity each party has to observe the other and to detect any cheating by the other, which leads back to deterrence and sanctions.

In addition to any heartfelt desire to be trusting and trustworthy, we propose another supporting motivation: a violation of trust within that context would be such an extreme act that it would result in sanctions such as social isolation and the need to seek new relationships. Cross-cutting ties between organizations so that a web of network relations is formed would tend to exacerbate those sanctions.

While Granovetter plays down the value of formal contracts, Ring and Van de Ven (1992) see the development of cooperative interfirm relationships as a process involving the balance of formal and informal (psychological) components. These two components, however, seem inextricably linked. Formal institutions can foster a practice that becomes psychologically compelling (e.g., laws prohibiting nudity can, over time, result in people feeling uncomfortable even at legally designated nude beaches). We present a more pertinent example of this by Ramsayer in the next section. Our purpose in the present section was to argue that trust, in any of its dimensions, cannot be created in a vacuum and that the concept is only meaningful in an institutional or societal context. Part of that context is a formal or informal (but, in any case, very real) set of sanctions that enforces the trust.

THE CONTEXT OF TRUST IN JAPAN

In proposing that an attempt to understand a trust relationship is greatly aided by understanding the sanctions that form part of the context for that trust, we are extending Gerlach's view of institutional mechanisms providing the "backdrop" for a variety of "social ties" in Japan (1992: 52). We specifically argue that trust in Japan is enabled by institutional characteristics which, in part, operate through a sanctioning effect.

Yamagishi (1986, 1988) conducted experiments in Japan and the U.S. which identified a relationship between trust, cooperation, and sanctions. One of his intriguing conclusions was that "Japanese subjects, who live in a society which is characterized by strong mutual monitoring and sanctioning, have weaker trust and cooperate less in the absence of a sanctioning system than do American subjects, who live in a more individualistic society" (1988, p. 217).

The Yamagishi study is detailed in Appendix A, but for now note that his student subjects in Japan indicated by questionnaire that they trusted others less than the American subjects did. Yamagishi then conducted an experiment with the same Japanese and American subjects in independent groups, whereby groups of them could mutually gain through cooperation. However, each player's gain was at risk of loss if the others did not cooperate. It was only in the experimental condition of non-cooperators being punished (the condition of sanctions) that Japanese subjects showed as much cooperation as the American subjects.

Potential methodological problems that can bedevil such a study hamper our full embrace of Yamagishi's argument that a constant background of monitoring and sanctioning in Japanese society makes Japanese subjects more reliant than American subjects are on sanctions in order to cooperate. We do, however, note his contribution of identifying a possible relationship between sanctions and cooperation/trust in Japan.

The key question which this paper attempts to begin answering is what sanctions (if any) may be embedded in Japanese enterprise society that encourage cooperative behavior and how do these sanctions operate. Laws and regulations (backed by the force of the government) are a key sanction, as are customs, and the two can be mutually supportive, as evidenced by Ramsayer's (1985) exploration of the interplay between the cooperative tendency of Japanese people and their avoidance of litigation. He argues that it is primarily administrative barriers (including the regulatory restriction on the number of lawyers among others) that discourage litigation by making it non-economic for the litigants. The very rarity of litigation makes it customary (not just economic) to not litigate. Ramsayer goes on to caution, though, that the custom is probably not so strong that it would survive a relaxation of the regulatory barriers. In short, he advises looking at the institutional arrangements that help to perpetuate a culture. Another connection between law and cooperation in Japanese culture was offered by an early Japan scholar, Lafcadio Hearn (1904).

Hearn is but one of many scholars noting that highly detailed penal codes of the early 17th to mid 19th century included many penalties for putting self ahead of community interest. At the time of his writing, he noted that many of the laws had become customs and that the penalties for violations centered on ostracism. It is widely accepted that Japan is a collectivist culture in the sense that people's self-identification tends to be deeply rooted in group membership (Hofstede, 1980; Triandis, 1994), and so ostracism would be a particularly severe penalty.

At the two extremes, a group (or community) could comprise an entire country or just two people. There are rules that define behavior within such a group. Accordingly, as people belong to multiple groups, they become connected in a complex web of relationships. Each relationship within a Japanese group is hierarchical, with the ordering based on professional rank, year in school, or age, to name several examples. A two-person relationship in which one person is the master or senior, and the other is the apprentice or junior is common and is called an *oyabun-kobun* relationship (Roniger, 1985). Both parties in the dyad have obligations to the other. It is not surprising, then, that Hearn noted that the behavior of leaders (and not just followers), was also restricted by law and then custom. A modern day example of this type of restriction is the case of Prime Minister Sousuke Uno's forced resignation in 1989. When a geisha claimed that Uno had paid her during a five-month affair several years earlier, the public outcry was not Uno's immorality in having an affair, but rather his immorality in having treated the geisha badly enough that she would complain and go public with it (Hillebrand, 1989).

The education system also arguably impacts the power of sanctioning within Japan. The dense inter-personal networks formed through the university rating practices (Johnson, 1982) make it easy for information to be circulated among the people. Standardized pre-university education leads young students to develop similar perceptions on their roles in society (Lorriman & Kenjo, 1994). Part of that education is to follow strict behavioral norms. These institutional forces contribute to a phenomenon observed by Odagiri (1994) and others that people living in Japan give great weight to how they are perceived.

In asking why relational contracting thrives in Japan, we see a system of sanctions supported, in part, by fear of ostracism. The importance of group membership, reduces mobility (as does a costly real estate transaction system) and makes the ostracism threat all the more effective. The next section describes this sanctioning effect in detail in the case of buyer-supplier relation in Japanese enterprise.

COOPERATION IN JAPANESE BUYER-SUPPLIER RELATIONS

We have already asserted that sanctioning is an important part of the context for trust between economic actors. In this section we discuss how this assertion helps us to understand several important issues regarding Japanese buyer-supplier networks, specifically the relationship between Japanese subcontracting practices and trust, the social context for trust in Japanese buyer-suppler relations, and the transferability of Japanese buyer-supplier networks into foreign settings.

Japanese Subcontracting Practices and Trust

The competitive advantages, such as high productivity and manufacturing flexibility, which Japanese automobile and electronics firms are said to derive from harmonious supplier networks, have been well discussed (Abbegglen & Stalk, Jr., 1985; Clark, 1989; Fruin, 1992; Odagiri, 1992; Womack, Jones & Roos, 1990). A common explanation of the proliferation of buyer-supplier networks in these industries is that high trust and goodwill between Japanese companies in such networks enables them to cooperate with each other with little worry about the other party's possible dishonesty (Dore, 1987; Oliver & Wilkinson, 1988; Ouchi, 1981;

Powell, 1990). As noted earlier, U.S. and British companies have been blamed for the low degree of trust in their interfirm relations (e.g., Casson, 1991; Dore, 1987; Ouchi, 1981).

Nishiguchi (1993) finds that the trust which is present in Japanese buyer-supplier networks is not dispositional, having developed only since large manufacturing firms began investing seriously in their subcontractors in the late 1950s, motivated by the pending liberalization of foreign investment. The networks are specifically a result of innovations in contractual relations (Fruin, 1992; Nishiguchi, 1993; Odagiri, 1992; and Sako, 1992). Those innovations recognized as most important include a clustered control structure (by which assemblers buy from a limited number of subcontractors that in turn buy from their own subcontractors), systemized grading of subcontractor performance, short-term contracting, decentralization of quality control, bilateral price determination, bilateral product design, and a dual vendor policy (all of which are summarized in Appendix B). Individually and collectively these devices effectively reduce subcontractors' incentive to behave opportunistically for short-term profits while also promoting competition among suppliers (Odagiri, 1994, p. 160).

Each supplier is eager to increase its profits by advancing up the supplier hierarchy of the clustered control structure through continuous quality improvement and cost reduction efforts (Fruin, 1992, p. 276). The clustered control structure allows large assemblers to effectively manage their huge interrelated enterprises by "confining their attention to the management of the first tier of related firms" (Fruin, 1992, p. 273).

The subcontractor grading system serves the large assembly firms as an effective tool for tracking down dishonest suppliers and rewarding competent suppliers:

> Grading and scoring methods and their contents differed from firm to firm, but the impact of grading on subcontractor prospects was consistent and clear. Those with better grade were given more responsibility and long-term commitments from the customers, whereas those with poor grades were still given a chance to improve [sometimes with the technical, financial, and managerial support from the customer]. If they did not improve after several periodic checks, however, they were either discharged or forced to become lower-tier contractors serving higher-tier subcontractors with better grades (Nishiguchi, 1993, pp. 333-334).

Also, large manufacturers frequently request detailed cost data from subcontractors for bilateral price determination (Fruin, 1992, pp. 274-275; Nishiguchi, 1993, pp. 123-125; Sako 1992, pp. 137-139), and they involve themselves in their subcontractors' production operations in order to facilitate bilateral product design (Nishiguchi, 1993, pp. 125-128; Sako 1992, pp. 149-151). The information to evaluate whether a subcontractor's price estimation is reasonable also comes from the tenders of rival suppliers maintained by the customer through a dual vendor policy (Odagiri, 1994, p. 159). Opportunising subcontractors could be effectively punished by reducing the size of their contracts, demoting them to a lower tier of the supply chain, or in an extreme case, not renewing the short term contracts to which they are subject (Fruin, 1992; Roehl, 1989).

Another characteristic of Japanese buyer-supplier relations is the "problem-solving approach" (Nishiguchi, 1993, pp. 171-190). The problem solving approach is the willingness of large manufacturers to help subcontractors solve various operational problems. It has encouraged subcontractors to respond in a trusting manner (Nishiguchi, 1993, p. 176).

The institutional arrangements of subcontracting in Japan combine to provide large manufacturers with many instruments that could effectively (1) counter the incentives for subcontractors to behave opportunistically *ex ante* and (2) detect and retaliate against opportunistic subcontractors *ex post*. In addition, sound competition among subcontractors and effective sanctions against opportunistic subcontractors, within the institutional arrangements of subcontracting in Japan, allow the participating companies to improve their prospects for developing mutually trusting and harmonious buyer-supplier relations.

Social Context for Trust in Japanese Buyer-Suppler Relations

It appears that the current institutional arrangements for subcontracting in Japan are efficient in organizing interdependent productive activities of participating firms (Fruin, 1992; Nishiguchi, 1993; Odagiri, 1994; Sako, 1992), and it also appears that these arrangements provide a strong basis for mutual trust between the participating companies as we discussed earlier. An as yet unanswered question, however, is the extent to which these arrangements make subcontracting in Japan immune to any threat of potential opportunism.

This question appears to be critical in explaining the proliferation of cooperative buyer-supplier networks in Japan because any institutional alternatives are fundamentally imperfect due to the bounded rationality and self-interest orientation of economic actors. Discussing the fundamental imperfection of any human-designed organization, Granovetter (1985) maintains that efforts to devise institutional methods to prevent opportunism will be countered by the opportunists' efforts to circumvent those methods, and Yamagishi's (1986, 1988) experiments suggest that Japanese people may not be not an exception to this proposition. Therefore, it is essential to understand the social context in which potential cheaters would be prevented from undermining the established institutional arrangements, and in which the sanctions intrinsically built in the institutional mode itself could be more effectively imposed on those potential cheaters. The nature of sanctioning embedded in Japanese manufacturer-subcontractor relations becomes particularly critical.

Two examples show that the efficient institutional mode of subcontracting in Japan may have some weaknesses. First, the protection provided by the institutional safeguards built in Japanese buyer-supplier contracts are not equal for large and small participants. Most safeguards set in the contracts - such as subcontractor grading, a two vendor policy, and continuous renewal of short-term subcontracts, are primarily for the benefit of large firms. Small firms have few safeguards for themselves except some safeguards provided by the subcontractors' dual buyer policy (Martin, Mitchell & Swaminathan, 1993, p. 37) and by the Japanese government regulation on unfair subcontracting practices (Nishiguchi, 1993, pp. 70-76).

Second, however effectively the safeguards set by the large firms work at protecting them from their subcontractors' opportunism, the institutional apparatus could not perfectly close the possibility of the subcontractor fleeing to another supplier network with its skills and know-how gained with the larger manufacturer's assistance and commitment to the subcontract relation.

This asymmetric protection is in industries in which transaction specific assets and skills play an important role (Nishiguchi, 1993, pp. 143-170). Transaction cost theory argues that a bilateral relation which involves investment in specific assets cannot be maintained unless the parties in the relation are effectively protected from each other's opportunism by certain arrangements such as each party making specialized investments of value only to their joint business (Williamson, 1985). Subcontracting in Japan goes beyond such mechanisms and is also "relational" (Dore, 1987; Macneil, 1985), drawing on face-to-face relations to help enforce minimally specified contracts (Fruin, 1992, pp. 272-277), which by nature leave more room for opportunism.

A large manufacturing company's heavy reliance on subcontractors for product development and production inevitably involves the transfer of the company's economically valuable know-how and skills to the subcontractors [Roehl, 1989]. If a supplier who, having built production capability with the technical assistance of a large manufacturer, decides to serve other competing large manufacturers in the industry, the original manufacturer would suffer from the leakage of its manufacturing know-how. This is a reason why many high technology firms are so reluctant to enter into technology sharing agreements with independent firms (Ohmae, 1989).

A large number of studies on Japanese buyer-supplier networks, however, have found that instances of parties opportunistically taking advantage of such potential institutional shortcomings are rarely observed (e.g., Abegglen & Stalk Jr., 1985; Aoki, 1994; Dore, 1987; Fruin, 1992; Odagiri, 1992; Whitehill, 1991). We think this observation may be due, in part, to the sanctioning which is embedded in the Japanese buyer-supplier networks and which works as another layer of safeguards against players who could opportunistically find ways around the institutional rules without suffering retaliation by trading parties. Such sanctions are facilitated by the mutual monitoring between the participants and the rapid dissemination of information about the credibility of the participating companies in buyer-supplier networks.

As noted above, large manufacturers in Japanese buyer-suppler networks have many institutional instruments for discovering a subcontractor's dishonesty (e.g., subcontractor grading and access to a subcontractor's detailed cost data) and for punishing a dishonest subcontractor (e.g., continuous renewed short-term subcontracts and dual vendor policies). It is not surprising that there is information sharing within an industrial group (Kester, 1990. p. 68). If the sanctioning in a network operates independently from the sanctioning in other networks, however, the punishment could not be effective since a dishonest supplier could switch to another similar network. In Japan, though, the information about a dishonest subcontractor disseminates quickly to other large assemblers through society's "modern institutional fabric," (McMillan, 1984: p.40) which includes extended families, schooling, intricate horizontal and vertical corporate networks, and government-sponsored trade associations (Bolton 1993, pp. 40-42; Whitehill, 1991, p. 94; JETRO, 1982, p. 90).

For the consequence of such diffusion of reputation, Odagiri (1994, pp. 159-160) refers to the Japanese automobile industry in observing that the oligopolistic nature of the industry means that a supplier's reputation for dishonesty spreads quickly among the small number of buyers, and any gains from dishonesty are quickly overwhelmed by the negative reputation making it extremely difficult to establishing long term relationships with the assemblers.

Similarly, such sanctioning also works against the large players. Since subcontractors also maintain long-term relations with large assemblers, they have considerable information about large assemblers' policies and welfare. Any unfair action by large manufacturers toward them would thus be easily discovered. Information about the large firms' unfair treatment is also quickly disseminated through the same dense web of inter-firm and interpersonal relations. Also, the small number of large assemblers in the Japanese automobile and electronics industries makes it easy to disseminate such information among suppliers. The cost of a large manufacturing firm's negative reputation can be high because suppliers are reluctant to obligate themselves to long-term trade relations with such an opportunistic company by investing in transaction specific assets and skills to serve it. Aoki (1984) and Roehl (1989) emphasize that the high cost of adjusting to new conditions in some industries and the need for a smooth flow of information in forming and implementing certain production systems enforces the need for large manufacturers to maintain long-term relations with their suppliers.

To conclude, it seems that such collective sanctioning in Japan works as a powerful social instrument for reducing incentives for cheating as well as for punishing discovered cheaters through social and economic ostracism. Cooperative buyer-suppler relations in Japan can thus be maintained not only through the sanction-supported institutional arrangements of subcontracting developed by Japanese companies, but also through social sanctions that effectively discourage potential cheaters from evading their contractual obligations.

Transferability of Japanese Buyer-Supplier Networks into Foreign Settings

We have argued that both the institutional arrangements of subcontracting and the social sanctions embedded in Japanese buyer-supplier networks have contributed to Japanese firms developing mutual trust and cooperative long-term buyer-supplier relations. This finding suggests that Japanese manufacturing companies may have some difficulty in developing similar supplier relations with foreign subcontractors in other countries.

Japanese companies have been anxious to establish reliable groups of suppliers (Odagiri, 1994, p. 321). Sako's (1992) close examination of the buyer-supplier relations between three U.K. and Japanese electronics companies (a Japanese company in Japan, a U.K. company in Britain, and a Japanese company in Britain) and their 36 suppliers shows that the Japanese electronics manufacturer in Britain has tried to develop cooperative subcontracting relations with the local suppliers by replicating the institutional arrangements discussed above and summarized in Appendix B. The Japanese manufacturer's effort helped promote "goodwill trust," or a willingness to do more than is formally expected (Sako, 1992, pp. 37-40) between the company and its U.K. suppliers. Even though Sako does not provide comparable performance data between the firms examined in his study, his discussion strongly indicates that the Japanese approach to subcontracting helped the Japanese electronics company and its U.K. suppliers achieve significant productivity performance (pp. 221-246).

Likewise, several studies of Japanese transplants in the United States and Western Europe suggest that Japanese plants in these areas have achieved a higher level of productivity and quality than the average in the area, due in part to the technical and managerial assistance of the Japanese parent companies (Martin Mitchell & Swaminathan, 1993; Nishiguchi 1994; Odagiri 1994; Takamiya, 1981). For example, Takamiya's (1981) detailed case study of two Japanese plants in Britain, matched with a US owned and a British plant, found that both the Japanese plants generally recorded much higher productivity, quality levels, and lower absenteeism than the American or British plants, while employee satisfaction, working conditions, and time-off for holidays did not significantly differ between the plants. Similarly Sako (1994) found that Japanese plants in both Britain and Germany have better productivity and quality performance compared to British and German owned plants, and Nishiguchi (1993) found that Japanese consumer electronics plants in Britain usually reduced the overall defect rate on incoming components within a few years after start-up.

Taken together, these studies indicate that Japanese institutional methods of subcontracting also work well in foreign countries. For this, Nishiguchi maintains that "[Japanese companies'] ability to link and use efficiently various interfirm resource can be adopted to other industrial societies" (1993, p. 185). Interestingly, the same studies commonly reported that even though Japanese transplants abroad outperformed their local competitors, those transplants on average failed to achieve performance as high as at their headquarters plants in Japan (Nishiguchi, 1993; Sako, 1994), with Abo (1994, 1994, p.243) finding that, on average, transplant productivity was 85% that of headquarter plant productivity.

How can we explain this observed productivity gap between Japanese transplants and their sister plants in Japan? Related to this question, Sako said "the historical development of institutions cannot be ignored, as buyer-supplier relations have developed in the context of a number of supporting institutions, such as the legal framework, the financial structures, the employment system, and the form of entrepreneurship through hive-offs" (1992, pp. 242). The observed performance gap between Japanese transplants and their headquarters plants in Japan, then, may be due to the Japanese methods being transferred to a setting where the context of supporting institutions is different from that in Japan.

We note, however, that (1) the Japanese transplants examined by those studies were located in the most industrialized areas where supporting institutions are highly efficient even though they are not exactly the same as in Japan, and that (2) most studies of Japanese buyer-supplier relations have emphasized the mutual trust and cooperation between the Japanese participants as a major contributing factor to Japanese manufacturers' strengths whether they are institutionally created or given by Japanese culture in some dispositional sense. It seems, then, that the performance gap between the Japanese transplants and their headquarters plants calls for an explanation. There is some evidence that removal from the context of Japan's societal sanctioning system as discussed above is at least a partial explanation.

While Japanese automakers have generally been successful at applying Japanese systems (e.g., team orientation) to the internal operations of their US facilities, their efforts to build up Japanese style just-in-time procurement systems in these plants have been futile because of the failure of local suppliers to deliver on time (Kumon, Kamiyama, Itagaki, Kawamura, 1994, p. 148). Another procurement problem for the transplants is that the quality of purchased parts is of a level that requires the transplant to have two to four times as many quality control workers per vehicle, compared to the ratio at the firms' parent factories (Abo, 1994, p. 249).

These observations suggest that the Japanese institutional arrangement of subcontracting, including such frequently used management methods as the just-in-time system, may not work in a foreign setting as efficiently as in Japan (Itagaki, 1994, p. 116). At least a partial explanation for this may be that the collective sanctioning that operates through the dissemination of information on noncooperation and through public ostracism in Japan could not be easily transferred to the foreign subcontracting relations. This would be the case because such sanctions are largely embedded in the Japanese economy and are generally more characteristic of Japanese society.

Thus, the consistently higher quality with competitive low price achieved by the plants in Japan (Sako 1992, p. 245), compared to Japanese transplants abroad and to local manufacturers (Abo, 1994; Nishiguchi, 1993; Sako, 1994; Takamiya, 1981) may indicate the Japanese institutional mode of subcontracting introduced in a foreign setting may not be as effective as in Japan in promoting mutual trust and cooperation between the Japanese transplants and their foreign suppliers and in countering incentives for the foreign suppliers to act opportunistically to gain short-term profits. The sanctions imposed on the foreign suppliers by the institutional arrangement may be less effective in the absence of the social sanctioning which supports buyer-supplier relations within Japan. Also, the limited mobility (to change employment or other relationships) which enhances sanctioning in Japan is not so characteristic of areas such as the U.S. and Europe.

CONCLUSION

While opportunism can render a transaction in any of the governance modes inefficient, the danger seems especially high in that mid-range mode of relational contracting where neither competitive forces nor hierarchical control dominates the relationship. A growing consensus in the business literature has trust as a critical ingredient in making such relational contracts work. Trust not only forestalls opportunism in defined transactions but also serves to seal the commitment by both parties so that they may jointly grow to their mutual benefit.

Japan is often given as the premier example of a country where relational contracts (and other forms of alliances) actually work. Advice, though, to develop the kind of culture of trust believed to characterize Japanese interpersonal and interfirm relations is difficult to heed without some consideration for where that apparent trust comes from and how it is sustained.

Trust is highly context-dependent, and it is meaningless to say that a whole country is characterized (as if in all situations) by trust. An examination, though, of the forces that discourage cheating and enable trust in specific situations can fruitfully indicate ways to foster cooperation. We have identified some institutional arrangements that can serve to give people and firms in Japan some confidence that they will not be opportunistically cheated, and we have also suggested how several features of Japanese society have supported those arrangements. Inspired by Yamagishi's (1986, 1988) recognition of the importance of sanctioning in Japan, we have identified these mutually-supporting institutional and societal arrangements as *sanctions*.

We have demonstrated the importance of sanctioning in buyer-supplier networks. Contractual institutions such as subcontractor grading and dual vendor policy serve as sanctioning mechanisms that promote cooperation by giving the buyer assurance against the suppliers defection. Cooperation is further supported by societal sanctions whereby ostracism which can result from inappropriate behavior is particularly severe on account of minimal mobility and the complex interlocking of relationships that play a role in any business activity.

Our initial motivation was an attempt to answer the question of "how?" when advised to establish cooperative, trusting relationships in the manner of the Japanese. We have demonstrated the importance of the sanctioning system in which Japanese cooperation is embedded. Amidst the recent calls to increase interfirm cooperation, we find reason to focus on the underlying sanctions. We find that institutional/regulatory mechanisms for fostering cooperation and cultural approaches are mutually supportive, and both are related to behavioral sanctions. Future research on explaining interfirm cooperation should not disregard trust, but neither should it shy away from examining the underlying sanctions.

As an attitude, trust is difficult to operationalize for research purposes, while the sanctions that support it may be more easily observed. Focused studies could look at the relationship between sanctions and trust/cooperation in a variety of cultural/industrial settings. Government policy makers are in the business of establishing institutions and manipulating sanctions, and an understanding of how those sanctions directly and indirectly impact trust in various business environments could make for better policy. One of the questions suggested by this paper is whether relational contracting is to be embraced as enthusiastically as business literature would suggest in countries lacking the necessary sanctioning systems.

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APPENDIX A:
YAMAGISHI EXPERIMENTS AS REPORTED IN HIS 1988 PAPER

Objectives
In his experiments, Yamagishi investigated (1) the relationship between trust and cooperation; (2) the influence of sanctions on cooperative behaviors of high and low trusters; and (3) the influences of sanctions on cooperative behaviors of Japanese and American subjects.

Design
The subjects were 192 U.S. and 221 Japanese college students. Before the experiments, Yamagishi used a questionnaire to measured the level of trust each subject had. The experiment was run in four-person groups. The experiment consisted of 16 sessions.

In each session, subjects were notified first that they had been given 50 cents and then were asked how much of 50 cents they wanted to contribute to other members of the group (in multiples of five cents). The amount contributed then was doubled in value and was distributed equally among the other three members. After deciding how much they wanted to contribute to the other members, subjects in the sanctioning condition were asked again to decide how much they wanted to contribute to a "punishment fund." They could contribute any amount, regardless of the amount contributed by other members. They paid this amount from their cumulative earnings. Twice the total amount contributed to the punishment fund was then subtracted from the cumulative earnings of the subject whose level of contribution to other members (not including the contribution to the punishment fund) was the lowest among the four members.

After all four members had made decisions on cooperation in the absence of sanctioning and in the presence of sanctioning, the following feedback information was displayed on the subject's screen: how much the subject had contributed to the other members (and to the punishment fund), the total amount contributed by the other three members and the amount of benefits the subject received from the other members' contributions, the total amount of the punishment fund, the number of lowest contributors and the amount of punishment administered to each of the lowest contributors, whether the subject was one of the lowest contributors, the subject's net earnings in that period, and the subject's cumulative earnings.

Findings
Major findings were (1) when no sanctioning system existed, high trusters cooperated more strongly than did low trusters; (2) when the sanctioning system existed, low trusters contributed more to the sanctioning system than did high trusters; (3) the sanctioning system had a stronger effect on the low trusters' cooperation than on the high trusters; and (4) American subjects cooperated more strongly than Japanese subjects when no sanctioning existed.

APPENDIX B:
CONTEMPORARY SUBCONTRACTING PRACTICES IN JAPAN

Clustered Control Structure
The firm at the top of a production pyramid (like Toyota and Mitsubishi) buys complete assemblies and systems components from a concentrated base (and therefore relatively limited number) of first-tier subcontractors, who buy specialized parts from a cluster of second-tier subcontractors, who buy from third-tier subcontractors and so on (Nishiguchi, 1993, pp. 119-123).

Subcontractor Grading
The subcontractors' performance is continuously evaluated by the customers in terms of product quality, delivery, engineering, and others considerations. In general, subcontractors are told their grades and are periodically given detailed scores, with indications of weak areas to be improved (Nishiguchi, 1993, pp. 133-136; Fruin, 1992, pp. 274-277).

Short-term Contracts
Large manufacturers usually do not have contracts of more than 12-16 months duration with their suppliers, even though the average trading relationship is more continuous and stable in Japan than in other countries. Therefore large manufacturers are legally quite free from the obligation to maintain a long-term trade relation with a subcontractor (Fruin, 1992, p. 272; Odagiri, 1992, p. 151; Roehl 1989).

Decentralization of Quality Control
Quality-control inspection of parts and components is the responsibility of the sub-assembler rather than the final assembler. Relying on this, large Japanese assembly firms (i.e., Toyota) employ the just-in-time (JIT) manufacturing system of low inventory. Quality is insured primarily by helping subcontractors improve their quality through technical and managerial assistance (i.e., TQC) and through overall subcontractor grading, rather than by the inspection of the incoming parts and components (Fruin, 1992, pp. 274-277; McMillan, 1984, pp. 162-166; Sako, 1992, p. 101).

Bilateral Price Determination
Customers frequently request detailed cost data from subcontractors. Rather than negotiating price downstream, prime contractors and subcontractors alike look at the possibility of reducing costs at the source. In exchange for long-term relations, prime contractors are able to demand subcontractors' continuous contribution to price reduction and product quality (Nishiguchi, 1993, pp. 123-125; Fruin, 1992, pp. 274-275; Sako, 1992, pp. 137-139).

Bilateral Product Design
Japanese automotive producers adopt the "target cost" method of new product development, which involves the component suppliers at an early stage. The method works on market price-minus principle. The sales price of a new car model is determined first, and the final assembler and its suppliers jointly evaluate the various possibilities in product design to reduce the combined costs of the parts while keeping constant the required specifications. Along with this method, the assembler and its suppliers use "profit-sharing rules." If, for example, the price for a component was agreed on as 120 points for the car's first model-year, during which time 110 points, the target price for the second year, was in fact achieved by their "joint" efforts, then the assembler would pat the supplier 115 points, thus sharing the profit evenly. If, however, the cost was further reduced during that period, say, 108 points, then the balance would go to the supplier (Nishiguchi, 1993, pp. 125-128; Sako, 1992, pp. 149-151).

Black Box Design
The customer provides basic ideas and specifications of size and performance for a particular component, and the supplier attends to the details of the design, fully utilizing its expertise in its specialized area. This arrangement relieves the customer of part of the increasingly complex and expensive management of product development, and it also gives the supplier incentives to propose new ideas, to make invest in its production, and to expand its business (Nishiguchi, 1993, pp. 129-130; Sako, 1992, p. 151).

Dual Vendor Policy
Large assemblers maintain at least two (existing or potential) suppliers for each and every kind of component they need (Odagiri, 1994, p. 159; Fruin, 1992, p. 272).

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