

Formal and informal institutions

Joseph E. Stiglitz

World Bank

Social capital—including tacit knowledge, a collection of networks, an aggregation of reputations, and organizational capital—can be interpreted in the context of organizational theory as a social means of coping with moral hazard and incentive problems. As a society develops economically, its social capital must adapt as well, allowing the interpersonal networks to be partially replaced with the formal institutions of a market-based economy, such as a structured system of laws imposed by representative forms of governance. This process may initially involve a depletion in the overall level of social capital, but eventually leads to the creation of a different type of social capital, in which social relations are embedded in the economic system, rather than vice versa. Despite its complexity, we can make several observations about it: First, even if it is not directly mediated by the market system, social capital is clearly affected by (and in turn affects) the market economy. Secondly, since history matters, sequencing reforms correctly matters a great deal. And finally, community-produced social capital need not necessarily be superior to state-produced social capital, and in some cases is not. Recognizing social capital and acknowledging an important public role for its provision, it should be noted, does not specify who should undertake that role. The answer to that question requires further research and reflection.

Social capital is a concept with a short and already confused history. Since Coleman's (1988) use in the context of education, the concept has evolved a great deal. I want to approach the subject from the perspective of organization theory and ask four questions:

- Viewing society in its entirety as an organization, what does organization theory have to tell us about social capital?
- What does this analysis allow us to see about the relationship between social capital and markets? In particular, to what extent can "social capital" or social institutions more broadly make up for deficiencies in the market economy?

- What can we say about the evolution of social institutions and the development of social capital over time? In particular, is there reason to believe that there may be, at certain stages of development, an undersupply of social capital?
- If lack of social capital is a common characteristic of developing economies, we should be as concerned about its progress as we are about increasing human and physical capital. What can be done to improve the social capital of a society, to accelerate its formation? In particular, is there reason to believe that devolution and a movement to greater participation is likely to prove beneficial?

These are all broad questions, and I can only sketch an answer to each in this paper.

Organization theory and social capital

Our society comprises a myriad of organizations. In recent years, the nature and performance of these organizations have come under increasing scrutiny. This is one of the most successful areas of interdisciplinary research, bringing together psychologists, sociologists, and economists. Among the organizations that economists have studied most closely are firms. The market value of a firm typically exceeds by a considerable amount the value of its physical assets and the human capital that is attached to the firm. Accountants call this capital “good will,” but it is, I think, closely akin to what many of us think of as social capital.

Understanding the sources of this capital provides insights into the nature of social capital. There are, I think, at least four distinct aspects:

First, social capital is tacit knowledge; it is partly the social glue that produces cohesion but also a set of cognitive aptitudes and predispositions. For example, college kids who are now in U.S. universities are overwhelmingly computer-literate and share the “Internet culture.” This is not the case, I venture to say, with college kids in Ethiopia—not even with many retired U.S. university professors. So, the cohort of college students in the United States share some tacit knowledge, which is part of their “social capital.” It is capital because it takes time and effort to produce (it has an opportunity cost) and it is a means of production.

Second, social capital may be thought of as a collection of networks, what sociologists used to call the “social group” into which one is socialized or aspires to be socialized. When I am with one of my social groups I know how to behave, I know whom to call, I know what is expected and how it is measured. The problem, of course, is that I may belong simultaneously to many social groups and they may have in-

compatible rules. So there is a need for hierarchy in rules, for a metaorganizing device—and I will return to this in a moment.

Third, social capital is both an aggregation of reputations and a way to sort out reputations. Individuals invest in reputation (an implicit form of capital) because it reduces transactions costs and it helps break barriers to entry in a variety of production and exchange relations.

Finally, social capital includes the organizational capital that managers have developed through their styles of administration, incentives and command, their labor practices, hiring decisions, systems of dispute resolution, style of marketing, and so on. While economists focus on incentive mechanisms, there has been increasing attention to how organizations offset preferences through processes of affiliation that could alter these incentive mechanisms.

Thinking about social capital from the organizational perspective helps one focus on its nonmarket aspect: most activity within a firm is not mediated by standard market mechanisms. Yet what goes on within the firm is clearly closely linked with what goes on outside the firm, with the firm's environment. There is thus a close link between markets and social capital. Much of what I want to explore here is the relationship between the two.

Social capital and the market economy

One way to think about these issues is through rational choice theory: If we want to improve our organizations we should redress the incentives, hence behavior, by perfecting the instruments that match individual effort with individual gain through competitive market mechanisms. But, as I noted earlier, what goes on inside the organization is often, at best, only imperfectly mediated by market mechanisms. Typically there are reasons, such as those suggested by Coase (1937), related to transactions costs, that make the inside of firms closer to organizations than to markets. More recent discussions have focused on one particular manifestation of transactions costs—information costs.

Some economists have viewed organizations as providing efficient solutions to resource allocation mechanisms (for example, in the presence of these transactions costs). Economists such as Douglass North, Oliver Williamson, and Ronald Coase have developed an institutional perspective that argues that societies are generally efficient.

Could it be that there are dysfunctional social institutions? Obviously, there are: Colombia today would be better off without the narcotics trafficking, as would be the United States, Mexico, and so forth, provided they could each enjoy the same level of income without it, or nearly so. That is the catch—it is easy to show that, in partial equilibrium a given institution appears to be suboptimal. And it is easy to trace in these partial equilibrium models a particular inefficiency to particular prob-

lems, such as lack of property rights. The mantra holds that once property rights are appropriately assigned, the system will find an efficient equilibrium.

But, remarkably, all of this has been based on a matter of assertion and faith; there are few analytic results. On the contrary, it is possible to show that in fact *Candide* was wrong, that this is not the best of all possible worlds. Indeed, it is surprising that what I shall for short call the Chicago hypothesis has had such influence, because it has never been much more than an assertion. We know how difficult it is to establish that the market economy is Pareto efficient. Why should there be any presumption that the Nash equilibrium within and among nonmarket organizations has any optimality properties? Yet many economists have thought of social capital—and more broadly, social institutions—as making up for deficiencies in the market economy, as filling the gaps left by markets.

Moral hazard, markets, and reciprocity

I will refer to a model presented in Arnott and Stiglitz (1991) to illustrate these issues. The discussion will show that while in some circumstances social institutions can indeed improve upon market institutions, in other cases, they can actually make matters worse.

All social systems must find ways to deal with moral hazard and incentive problems, and market systems deal with these in special ways. Consider the case of car insurance. We are used to a market for insuring cars. One way the market responds to moral hazard is to provide only partial insurance, since individuals then have some incentive to take care to avoid an accident. The implication is that, as a result, people can buy less insurance than they may wish to have. To get what is missing they may choose to enter into nonmarket mutual insurance agreements. Marriage may be thought of as one such mechanism: the wife implicitly (sometimes explicitly!) insures the husband and vice versa.

As social scientists, can we develop a normative position on this arrangement? Is it socially optimal? It turns out that it may very well not be. Whatever the other merits of marriage, it is not the best way to provide car insurance; not unless husband and wife can monitor each other perfectly and both agree to this monitoring system and the sanctions it implies. That is to say, not unless they have a very peculiar marriage in which they recognize that their utility not only is interdependent but is *fully interdependent*, they never cheat and always act as if one's utility is dependent on the other's effort to avoid accidents.

Why is nonmarket insurance suboptimal? Because for market insurance to work efficiently it must be the case, as I mentioned earlier, that the quantity of insurance provided by the insurance company is less than the quantity of insurance demanded. Otherwise some drivers would

be reckless—they would not have the same incentive to avoid accidents entirely, because they are fully protected from the consequences of their actions (ignoring, for the moment, the incentive to prevent injury to self and others). Now the insurance company knows that the husband and the wife offer each other *some* nonmarket insurance, albeit imperfectly. So their response is to reduce further the quantity of insurance offered. In the end the same quantity of insurance exists; some provided by the market (the insurance company), and some by the family (nonmarket). But it exists at a higher cost because the insurance company can pool its risks more extensively than can the husband-and-wife team; thus its cost is lower.

In this example, the nonmarket insurance is harmful and dysfunctional. The equilibrium without nonmarket insurance cannot be improved upon, and if it were possible, it would be desirable to outlaw the provision of nonmarket insurance. The provision of nonmarket insurance does not enhance the risk-sharing capabilities of the economy. Rather, such insurance crowds out market insurance. It is less effective than market insurance since it is provided individually; in addition, the simultaneous provision of market and nonmarket insurance violates exclusivity (the need for insurers to limit the quantity of insurance)—which typically creates negative externalities that cannot be internalized and thus lead to higher costs.

What is going on in this story? The example vividly illustrates the functionalist fallacy: the fact that an institution (nonmarket insurance) has a clearly identifiable function (to improve risk-sharing by supplementing the rationed insurance provided by the market) does not mean that it actually performs that function. Several other nonmarket institutions may be dysfunctional. An important research issue is to understand better the situations in which nonmarket institutions are dysfunctional. At the same time, Arnott and Stiglitz (1991) showed that nonmarket institutions could be complementary to market institutions. If—and it is a big if—the monitoring and enforcement conditions I described earlier were valid, then the market's performance would actually be enhanced by the nonmarket institutions, since the reduction in moral hazard behavior induced by the within-family monitoring has a spillover to the market.

Social capital and development

My third question was: What can we say about the evolution of social capital and social institutions? Typically, institutions (organizations) develop an internal coherency that is not too dissonant with the external environment they must face. When it becomes too dissonant, then institutions change. The fact that institutions seem to respond to their environment is one of the factors that have misled some observers to

think of them as efficient. But just as one can show that, as a matter of equilibrium, social institutions may or may not improve upon the market equilibrium; there is no presumption that evolutionary processes have any strong optimality properties. Unfortunately, this is a subject on which I cannot expand here. What I do want to do is to comment on certain aspects of the evolution of social capital in the process of development, and in doing so begin to answer my fourth question: Should we care about the accumulation of social capital?

Clearly at least one important function of what we have come to call “social capital” is to complement or substitute for market-based exchange and allocation. Clearly too, it interacts with, and influences, market exchange. And it may be that there is a pattern in this complementarity and interaction—one that can be described as an inverted U-shape relationship between the density of social capital and the level of development.

Early on in the development of market economies, when markets are thin and incomplete, a thick network of interpersonal relations functions to resolve the allocative and distributive questions. Especially when the scale of the organization is relatively small, the system works reasonably well: in some cases, the principal can directly supervise the agent; in others, there are social mechanisms that induce agents to monitor each other. Peer monitoring is a good example of collective mutual monitoring. It creates an interdependence between the agents, who are simultaneously producers and monitors. A good example is a university department. A faculty member’s utility depends not only on his or her salary, performance, reputation, and working conditions, but also directly on the department’s and university’s reputation. Furthermore, the individual’s salary, performance, reputation, and working conditions all depend to some extent on the department’s quality. For these reasons, faculty members have a strong incentive to monitor one another’s performance, which they do through peer review. Direct monitoring, peer monitoring, and reputation all have a critical role for controlling moral hazard—and moral hazard is more frequent in nonmarket-based forms of organization. For example, in some developing countries, loans are often made to groups of individuals; the members of a group then have an incentive to monitor each other.

Change itself serves to weaken some aspects of social capital: old networks get destroyed, and a past that contains rapid upheaval may reduce incentives to invest in reputation mechanisms.

The initial impact of the markets’ development and deepening is that some of this network of interpersonal relations gets dispensed with and destroyed. The value of personal relations—and with it the value of social capital—declines. Contracts imbedded in a reasonably well-functioning legal framework dispense with intrapersonal means of dispute resolution and enforcement. The observation has been made often, and it is important, that if the State is weak or oppressive, social

networks assume importance for producing and enforcing “credible commitment,” for designing, implementing, and enforcing all sorts of formal and informal contracts. In this case the “public function” is decentralized and idiosyncratic, “community-based” and community-ruled—a web of horizontal relationships. But as the modern capitalist State matures, representative forms of governance with a clear hierarchical structure and a system of laws, rules, and regulations enforced by traditions replace the “community” as the guardian of social, business and personal contracts—and as the sole agent with a preemptory right to the use of force. The point is simple: one form of “social capital” is partly replaced by what might be thought of as another, an effective Webbehan bureaucracy that either substitutes or complements it in accomplishing the same sort of things—nonmarket allocation and distribution.

In advanced market economies there seems to be a restructuring and deepening of social capital, not in the form of “rules and regulation” to substitute or complement the market and the state but in the form of *tacit knowledge*. Markets and institutions are deep but so are the complexities of production and exchange. The production line is replaced by quality control circles in which workers are in a better position to monitor their coworkers than are employers. Partnership arrangements (which encourage monitoring) substitute for vertically integrated conglomerates. Large bureaucracies develop “cultures” and even “languages” of their own—dense webs of interpersonal tacit knowledge that are key to their success. Social capital is restructured and adapted to specific circumstances, distinct from areas in which the market and the state can deliver more efficiently.

Thus, the evolution I have described reflects a marked change in the interrelationship between market and nonmarket institutions. This has been characterized as a change from a situation in which economic activity is embedded in social relations, to one in which social relations are embedded in the economic system. This change is not uniform across the world, nor is it ever complete.

Investment in social capital

Now for my final question: Should we do anything to promote social capital and, if so, what? There is a huge literature on the importance of credible commitment for successful exchange and, as Dasgupta (1999) observes, “I trust” (that is, a credible commitment) is something riddled with externalities (she trusts you, now you trust me, so she now trusts me, and so on). It is akin to a public good, thus it is undersupplied. Trust can obviously be produced: Trust is based on reputation and reputation is acquired on the basis of consistent behavior over time, regarding which consistency has value and is the product of human actions. There is an immediate implication: there is a “public” role in the provision of trust.

But saying that there is a public role does not in itself give us much guidance in thinking about how that role should be performed. Interventions in organizations are far more complex than interventions in markets, through which we have learned how to use Pigouvian taxes to correct for market failures. Our earlier discussion provides some background for four preliminary observations:

First, changing the external environment may provide a context that motivates a change in the social capital. We noted early that institutions develop an internal coherence that is not too dissonant with the external environment they must face. Large changes in the external environment (for instance, the opening up to international markets) can effect a large transformation in the society—for instance, a transformation from an inward-looking society into an outward-looking one.

Second, because institutions may be inefficient, and inefficient institutions may persist, it is important to get things right, or as right as possible, the first time around. History matters.

Third, since history matters, how we sequence reforms can matter, and matter a great deal.

The fourth issue is far more complicated: it concerns decentralization in the production of social capital. I said earlier that there was a role for the public provision of trust, or more broadly, in the production of social capital. But “public” here does not have to be state-produced; it could be produced by the community. Trust is a component of social capital and we could agree that much of what we call social capital is not state-produced. In fact, today, many think of “community trust” as a superior good to public trust. But, obviously, this need not be the case. Social networks are necessarily personalized, and as such, they are exclusive—otherwise they would not be social networks (Dasgupta 1999). And the disadvantageous exclusionary elements to community trust are not present in the concept of citizenship, which is—and should be—far more inclusive.

There is social progress in moving from a society ruled by mutually exclusive groups to one that aspires to be ruled by citizens, hopefully through democratic forms of representation. Moreover, there is progress in moving from group-based to market-based participation. Groups are perforce particularistic and discriminatory. The market is anonymous and, if it functions reasonably well, it responds equally to all with equal amounts of purchasing power. The market is a more powerful and just form of participation. Whenever we can introduce markets *with competition* in the provision of collective goods and services, it has been argued that we tend to produce superior outcomes. This was, of course, Tiebout’s (1956) great insight.

Tiebout’s conjecture went further and argued that decentralization, that is, “voting with one’s feet,” was an efficient solution to the provision of collective goods and services. But this link cannot be firmly es-

tablished. Like many such insights, including that of Adam Smith's, it should be subjected to close scrutiny, and when that is done, there is a less compelling case than there seems to be at first blush.

This is another instance, like Coase's conjecture (1960), in which we have generalized a simple intuition and taken the result as a matter of faith. Some years ago, I subjected Tiebout's hypothesis to the same close scrutiny that Coase's conjecture and the functionalist fallacy had been subjected to. I showed that the failures of decentralized provision of even local collective goods are even more marked than the decentralized provision of private goods, and there are, in addition, a host of political economy issues that arise. Indeed, it is precisely in these political economy issues in which our understanding is weakest, though they lie behind much of the current force for devolution. It is precisely these forces in the U.S. context that disturb me. Again, the lesson to be learned for policy is one of circumspection: decentralization has, I believe, strong virtues but we must learn its limits as well as its strengths.

A real disaster may happen when states are powerful enough to disrupt an existing local cooperative status but not capable enough to replace it with anything functional and less arbitrary. Examples here abound and they are powerful reminders of the potentially destructive role of otherwise well-intended development projects. But the other extreme is equally as likely. Latin America has a tradition of oligarchic self-rule and, at least historically, a more powerful central government is known for acting to counterbalance reactionary local forces. We do not want to forget that when associations are organized around provincial economic interests, they rarely contribute to overall economic efficiency or equity. *The outcome of participation depends on the incentives of participants and the issues in question.* And the structure of participation is a factor as well.

Conclusion

I will conclude with four propositions that I hope I have been able to establish here:

- (a) Social capital is a very useful concept, but an extremely complex one, in which different perspectives have much to contribute. I believe that the organizational perspective in particular provides a useful frame.
- (b) There are reasons to believe that the composition, quality, and quantity of social capital of a society are not necessarily optimal.
- (c) Social capital is affected by, and affects, the development process.

- (d) There is an important public role in the enhancement of social capital, but who should undertake that public role, and how it should be done, are questions that will need a great deal more thought.

References

The word *processed* describes informally reproduced works that may not be commonly available through libraries.

Arnott, Richard, and Joseph E. Stiglitz. 1991. "Moral Hazard and Nonmarket Institutions: Dysfunctional Crowding Out or Peer Monitoring?" *American Economic Review* 81 (March): 179–90.

Coase, R. H. 1937. "The Nature of the Firm." *Economica*, pp. 386–405.

———. 1960. "On the Problem of Social Cost." *Journal of Law and Economics*, Vol. 3: 1–44.

Coleman, James S. 1988. "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 94 (Supplement): S95–S120.

Dasgupta, Partha. 1999. "Economic Development and the Idea of Social Capital." *Processed*, Faculty of Economics, University of Cambridge.

Tiebout, C. M. 1956 (1988). "A Pure Theory of Local Expenditures." In Martin Ricketts, ed., *Neoclassical Microeconomics*, Vol. 2, Schools of Thought in Economics Series, No. 3. Aldershot, Hants, U.K.: Edward Elgar Publishing; and Brookfield, Vermont: Gower Publishing.