Pursuing the Common Good: How Solidarity and Subsidiarity Can Work Together
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# SOCIAL CAPITAL AND PERSONAL IDENTITY

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## 1. Definitions?

The idea of *social capital* sits awkwardly in contemporary economic thinking. Although it has a powerful, intuitive appeal, the object has proven hard to track as an economic good. One can argue (Arrow, 2000) that it is misleading to use the term 'capital' to refer to whatever it is that 'social capital' happens to be, because capital is usually identified with tangible, durable, and alienable objects (e.g., buildings and machines), whose accumulation can be estimated and whose worth can be assessed. There is much to agree with this. But in regard to both heterogeneity and intangibility, social capital would seem to resemble knowledge and skills. So, one can also argue that since economists haven't shied away from regarding knowledge and skills as forms of capital, we shouldn't shy away in this case either.

At first glance it may seem quite absurd that we should even doubt the existence of social capital. After all, we Humans, as has been said so often, are social animals. It is probably impossible to imagine life, let alone a well-lived life, without human relationships. But the idea underlying social capital points to something more elusive. It suggests that there are *instrumental* advantages that a person enjoys when he connects with others, and that those advantages express themselves in the shape of material benefits – higher income, a longer and happier life, and so forth. One can argue that when Aristotle asserted that Man is a political animal, he was speaking about social relationships in the way social scientists today think of social capital: the 'political animal' recognises the benefits of cooperation via collective action. My task in this symposium, as I see it, is to study the notion of social capital and personal identity through my economist's lens. It will provide a partial viewpoint, but I hope a useful one.

In an early definition, social capital was identified with those '...features of social organization, such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinated actions' (Putnam, 1993: 167). The characterization suffers from a weakness: it encourages us to amalgamate strikingly different objects, namely (and in that order), beliefs, behavioural rules, and such forms of capital assets as interpersonal links (or 'networks'), without establishing reasons why such an inclusive definition would prove useful in gaining an understanding of our social world. Subsequently, Putnam (2000: 19) suggested a redefinition: '...social capital refers to connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them'. This is an improvement, but it imbues the object with a warm glow, so much so that we overlook to ask whether social capital may not have a dark side to it. Since Putnam (2000), authors have defined social capital even more inclusively than he did in his original definition: now attitudes toward others make their appearance as well: 'Social capital generally refers to trust, concern for one's associates, a willingness to live by the norms of one's community and to punish those who do not' (Bowles and Gintis, 2002: F419.).

These definitions tells us that 'social capital' is an ingredient in the workings of *civil society* (Putnam, 1993, 2000). In a parallel development, the theory and empirics of *common-property resources* in poor countries (e.g., coastal fisheries, village tanks, local forests, pasture lands, and threshing grounds) have brought out the character of those local institutions that enable mutually beneficial courses of action to be undertaken within communities (Dasgupta and Heal, 1979; Jodha, 1986; Dasgupta and Mäler, 1991; Bromley *et al.*, 1992; Baland and Platteau, 1996). Development economists have also studied rotating savings and credit associations, irrigation management systems, and credit and insurance arrangements in poor countries (Ostrom, 1990; Udry, 1990; Besley *et al.*, 1992; Grootaert and van Bastelaer, 2002). These studies suggest that social capital is a measure of the worth of *communitarian institutions*.

Where the state is weak or indifferent or rapacious, where markets don't work well or are even non-existent, communities enable people to survive, even if they do not enable them to live well. That may be why scholars writing on social capital have frequently imbued the notion with a warm glow. But there is a dark side to communities, involving, as they often do, hierarchical social structures (e.g., the Hindu caste system), rent-seeking groups, the Mafia, and street gangs. Ominously, the theory of repeated games (Fudenberg and Maskin, 1986) cautions us that communitarian relationships can involve allocations where some of the parties are *worse off* than they would have been if they had not been locked into the relationships;

meaning that even though no overt coercion would be visible, such relationships could be exploitative (Dasgupta, 2000a, 2008).

We will take 'social capital' to mean *interpersonal networks*. This is a lean definition and does not presume that social capital is necessarily virtuous. Two sets of questions arise: (1) What functions do networks serve?, and (2) How do networks form? Question (1) is self-evidently important. Question (2) is important because people invest in joining and building networks.

In studying these questions, though, I have found it necessary to dig deeper and study the notion of *mutual trust*. The next section begins with trust.

## 2. Why do People Keep Promises?

Imagine that a group of people have discovered a mutually advantageous course of actions. At the grandest level, it could be that citizens see the benefits of adopting a Constitution for their country. At a more local level, the undertaking could be to share the costs and benefits of maintaining a communal resource (irrigation system, grazing field, coastal fishery); construct a jointly useable asset (drainage channel in a watershed); collaborate in political activity (civic engagement, lobbying); do business when the purchase and delivery of goods can't be synchronized (credit, insurance, wage labour); enter marriage; create a rotating saving and credit association (*iddir* in Ethiopia); initiate a reciprocal arrangement (I help you, now that you are in need, with the understanding that you will help me when I am in need); adopt a convention (send one another Christmas cards); create a partnership to produce goods for the market; enter into an instantaneous transaction (purchase something across the counter); and so on. Then there are mutually advantageous courses of action that involve being civil to one another. They range from such forms of civic behaviour as not disfiguring public spaces and obeying the law more generally, to respecting the rights of others.

Imagine next that the parties have agreed to share the benefits and costs in a certain way. Again, at the grandest level the agreement could be a social contract among citizens to observe their Constitution. Or it could be a tacit agreement to be civil to one another, such as respecting the rights of others to be heard, to get on with their lives, and so forth. Here we will be thinking of agreements over transactions in goods and services. There would be situations where the agreement was based on a take-it-or-leave-it offer one party made to another (as when one enters a modern supermarket). In other contexts, bargaining may have been involved, as in a middle-eastern bazaar. The question arises: *Under what contexts would the parties who have reached agreement trust one another to keep their word?*

Because one's word must be credible if it is to be believed, mere promises wouldn't be enough. (Witness that we warn others – and ourselves too – not to trust people 'blindly'). If the parties are to trust one another to keep their promise, matters must be so arranged that: (1) at every stage of the agreed course of actions, it would be in the interest of each party to plan to keep his or her word if all others were to plan to keep their word; and (2) at every stage of the agreed course of actions, each party would believe that all others would keep their word. If the two conditions are met, a system of beliefs that the agreement will be kept would be self-confirming.

Notice that condition (2) on its own wouldn't do. Beliefs need to be justified. Condition (1) provides the justification. It offers the basis on which everyone could in principle believe that the agreement will be kept. Notice that condition (1) on its own wouldn't do either. It could be that it is in each one's interest to behave opportunistically if everyone believed that everyone else would behave opportunistically. In that case non-cooperation is also a possible outcome. The fundamental problem every society faces is to create institutions where conditions (1) and (2) apply to engagements that protect and promote its members' interests.

In responding to the question I have highlighted, four contexts come to mind:

(i) *Mutual affection*

Consider those situations where the people involved care about one another. The household is the most obvious example of an institution based on affection. To break a promise we have made to someone we care about is to feel bad. So we try not to do it.

(ii) *Pro-social disposition*

Another situation is where people are trustworthy, or where they reciprocate if others have behaved well toward them. Evolutionary psychologists have suggested that we are adapted to have a general disposition to reciprocate. Development psychologists have found that pro-social disposition can be formed by communal living, role modelling, education, and receiving rewards and punishments (be it here or in the afterlife).

We don't have to choose between the two viewpoints; they are not mutually exclusive. Our capacity to have such feelings as shame, guilt, fear, affection, anger, elation, reciprocity, benevolence, jealousy, and our sense of fairness and justice have emerged under selection pressure. Culture helps to shape preferences, expectations, and our notion of what constitutes fairness. Those in turn influence behaviour, which are known to differ among societies. But cultural coordinates enable us to identify the situations in which shame, guilt, fear, affection, anger, elation, reciprocity, benevolence, and jealousy arise; they don't displace the centrality of those feelings in the human makeup. By internalizing norms of behaviour, a person enables the springs of his actions to include them. In short, he has a disposition to obey the norm, be it personal or social. When he does violate it, neither guilt nor shame would typically be absent, but frequently the act will have been rationalized by him. Making a promise is a commitment for that person; and it is essential for him that others recognise it to be so.

People are trustworthy to varying degrees. So, although pro-social disposition is not foreign to human nature, no society could rely exclusively on it; for how is one to tell to what extent someone is trustworthy?

*The need for incentives*

Societies everywhere have therefore tried to establish institutions where people have the incentive to do business with one another. The incentives differ in their details, but they have one thing in common: *those who break agreements without acceptable cause are punished*. Broadly speaking, there are two ways in which the right incentives are created.

(iii) *External enforcement*

It could be that the agreement is translated into an explicit contract and enforced by an established structure of power and authority; that is, an *external enforcer*.

By an external enforcer we imagine here, for simplicity, the State. (There can, of course, be other external enforcement agencies; e.g. tribal chieftains, warlords, and so forth.) Consider that the rules governing transactions in the formal marketplace involve legal contracts backed by an external enforcer, namely, the State. So, it is because you and the supermarket owner are confident that the State has the ability and willingness to enforce contracts that you and the owner of the supermarket are willing to transact when you go there to purchase goods.

What is the basis of that confidence? Simply to invoke an external enforcer for solving the credibility problem won't do; for why should the parties trust the State to carry out its tasks in an honest manner? A possible answer is that the government worries about its reputation. So, for example, a free and inquisitive press in a democracy, aided by a demanding civil society, helps to sober the government into believing that incompetence or malfeasance would mean an end to its rule, come the next election. Knowing that they worry, the parties trust them to enforce agreements.

The above argument involves a system of interlocking beliefs about one another's abilities and intentions, one that supports an equilibrium in which the agreement is kept. Unfortunately, non-cooperation can also be held together by its own bootstrap. There, the parties don't trust one another to keep their promises, because the external enforcer can't be trusted to enforce agreements. To ask whether cooperation or non-cooperation would prevail is to ask which system of beliefs has been adopted by the parties about one another's intentions. Social systems harbour multiple possible outcomes.

### (iv) *Mutual enforcement in long-term relationships*

Suppose the group of parties in question expect to face similar transaction opportunities in each period over an indefinite future. Imagine too that the parties can't depend on the law of contracts because the nearest courts are far from their residence. There may even be no lawyers in sight. In rural parts of sub-Saharan Africa, for example, much economic life is shaped outside a formal legal system. But even though no external enforcer may be available, people there do transact. Credit involves saying, 'I lend to you now with your promise that you will repay me'; and so on. But why should the parties be sanguine that the agreements won't turn sour on account of malfeasance?

They would be sanguine if agreements were mutually enforced. The basic idea is this: *a credible threat by members of a community that stiff sanctions would be imposed on anyone who broke an agreement could deter everyone from breaking it*. The problem then is to make the threat credible. The solution to the credibility problem in this case is achieved by recourse to social norms of behaviour.

By a *social norm* I mean a rule of behaviour that is followed by members of a community. For a rule of behaviour to be a social norm, it must be in the interest of everyone to act in accordance with the rule if all others were to act in accordance with it. The theory of games has shown that, if people discount the future benefits from cooperation at a low enough rate, there are social norms that support cooperation.

As with the case of external enforcement, even when cooperation is a possible outcome under mutual enforcement, non-cooperation is a possible outcome too. If each party was to believe that all others would break the agreement from the start, each party would break the agreement from the start. Failure to cooperate could be due simply to a collection of unfortunate, self-confirming beliefs, nothing else.

## 3. Social Capital as Interpersonal Networks

In common parlance, we reserve the term *society* to denote a collective that has managed to achieve a mutually beneficial outcome. Underlying each of the four contexts I have alluded to, in which people trust one another to cooperate, is a system of mutual beliefs. Because such a system of mutual beliefs is likely to arise only if the parties know one another (at least indirectly), I believe it is best to regard *social capital* as *interpersonal networks*, nothing more. The advantage of such a lean notion is that it doesn't pre-judge the asset's quality. Just as a building can remain unused and a wetland can be misused, so can a network remain inactive or be put to use in socially destructive ways. There is nothing good or bad about interpersonal networks: other things being equal, it is the *use* to which a network is put by members that determines its quality.

Interpersonal networks are systems of communication channels linking people to one another. Networks include as tightly-woven a unit as a nuclear family or kinship group, and one as extensive as a voluntary organization, such as Amnesty International. We are born into certain networks and enter new ones. Personal relationships, whether or not they are long-term, are emergent features within networks – involving as they do systems of mutual beliefs. For example, Seabright (1997) has suggested that civic engagements and communal activities heighten the disposition to cooperate (context (ii) above). The idea is that trust begets trust and that this gives rise to a positive feedback between civic and communal activities and a disposition to be so engaged. That positive feedback is, however, tempered by the cost of additional engagements (time), which, typically, rises with increasing engagements.

## 4. Culture as Beliefs

You can see where I'm heading. Agreements would be kept only if parties expect agreements to be kept. Mutual expectations about 'reputation' and 'norms of behaviour' would seem to require an underlying 'thing', something that would permit the coordination of those optimistic beliefs. But what is that 'thing'? Could it be culture? I now argue that pointing to culture as an explanatory device won't do, because culture itself should be explained.

### 4.1. *Basics*

In any situation where incentives are required for cooperation, noncooperation is also a possible outcome. Which state of affairs prevails depends upon mutual beliefs. The arguments I am offering here don't *explain* those beliefs; what they do is to identify beliefs that can be rationally held. Rational beliefs are not belied by the unfolding of evidence. As they are self-confirming, rational beliefs offer an anchor for our analysis. Because rational beliefs are not unique, they offer just the kind of flexible anchor we need in order to make sense of societal differences.

In his famous work on the influence of culture on economic development, Weber (1930) took a community's culture to be its shared values and dispositions, not just beliefs. Studies as widely cast as Weber's can't easily be summarized, but the causal mechanism Weber himself would seem to have favoured in his work on Protestant ethic and the spirit of capitalism leads from religion, through political culture, to institutions and, so, to economic performance.

Using culture to explain economics has not been popular among social scientists in the post-War period. But there has been a recent revival. The most ambitious appeal to culture to understand differences in economic performance since Weber has been Landes (1998), who asks why it is that since the middle of the sixteenth century, countries in northern Europe managed to race ahead of those several others elsewhere seemingly better placed at the time. No doubt technological progress and its rapid diffusion among populations was the key to that success, but that progress itself needs explaining. The one Landes offers is distinctive, because it gives importance to the evolution (or a lack of it) of different types of attitudes and beliefs in various regions of the world. Landes argues that these differences gave rise to institutional differences (with feedback to attitudes and beliefs), which help to explain why some countries became winners, while others enjoyed a brief period of success before losing to the winners, while yet others merely suffered from atrophy.

Landes offered a historical narrative. An alternative strand of enquiry makes use, when available, of statistical evidence. The two strands complement each other. Putnam (1993), Knack and Keefer (1997), and La Porta *et al*. (1997) have studied cross-section data and discovered positive links between *civic* culture (civic engagements, trust) and economic growth, while Granato, Inglehart, and Leblang (1996) have studied cross-section data and found positive links between *personal motivation* (the desire to advance oneself economically) and economic growth.

The statistical findings shouldn't be given a causal interpretation. The motivation to advance oneself would be expected to depend upon one's expectations (i.e., beliefs) regarding the chance that hard work pays off. Parents would be expected to instil personal ambition in their children only if they were sanguine that such ambition would not be thwarted by the social order. And women would not rise beyond their station if they (rationally!) feared retaliation against them for their temerity. Thus, even an attitude can be a determined rather than determining factor. When it is the former, an observed statistical link between culture and economic progress should be interpreted as a relationship between two variables, nothing more. I am using 'culture' to denote differences in the beliefs people hold about one another. Culture in this view is a coordinating device.[1]

Let us apply the above line of thinking to two contemporary phenomena: the presence of cultural stereotypes and tax compliance.

### 4.2. *Cultural Stereotypes*

Beliefs can play an even more complex role than the one discussed so far. Economists have shown how cultural stereotypes can persist even when there are no intrinsic differences among groups. Needless to say, such stereotypes usually result in overall economic losses.[2]

Imagine that to be qualified to do a demanding (but personally rewarding) job requires investment, and that investment costs differ among peo-

[1] Greif (1994) has pursued this line of enquiry.

[2] The key contributions are Arrow (1973), Starrett (1976), and Coate and Loury (1993). The example in the text is taken from the Coate-Loury paper.

ple, dependent as the costs are on a person's intrinsic ability. Imagine too that individuals' intrinsic abilities have been drawn from the same genetic urn: there are no group differences, only individual differences. Assume now that innate ability cannot be observed by employers, to an extent that even if one has made the investment and is thus qualified for the demanding job, employers are unable *ex ante* to judge this with unerring accuracy. If, however, employers harbour negative stereotypes against a particular group's ability, they are likely to use a stiffer criterion for assigning workers of that group to the difficult, but personally more rewarding job. Among workers belonging to that group, this practice would lower the expected return on the investment that makes them suitable for the more rewarding job. This means that fewer of them would make the investment. This in turn means that there would be fewer of them suitable for the rewarding job, which in its turn could confirm the cultural stereotype and justify the use of the stiffer criterion by employers. In other words, it is possible for people's beliefs about group differences to be confirmed by the consequences of the actions members of those groups take in response to the practice people follow in response to those beliefs. This is once again an instance of one outcome out of possibly several, because, if employers did not hold negative cultural stereotypes against any group, there wouldn't be such a differentiated outcome among groups. Discrimination occurs and persists because of a self-fulfilling system of prejudicial beliefs.

### 4.3. *Civic Virtues*

Although quantitative estimates are few in number, civic virtues would appear to differ enormously across societies. In poor countries, where the State is often viewed by communities as an alien fixture and the public realm an unfamiliar social space, the temptation to free-ride on such State benefits as there are must be particularly strong. Even in a 'well-ordered' society free-riding would not be uncommon: separation of the private and public spheres of life is not an easy matter. Living off the State can become a way of life.

Political scientists have puzzled over the fact that in some countries tax-payers comply far more frequently than would be expected if compliance rates in other countries were used as a basis of comparison. Paying taxes is voluntary, in that people choose to comply in situations where they are not directly coerced. But it is only 'quasi-voluntary' (Levi, 1988), in that those who don't comply are subject to coercion if they are caught. One way to interpret differences in compliance across countries is to suppose that people are willing to pay their dues if (i) the government can be expected to keep to its side of the bargain on transfers and public expenditure, and (ii) others pay their dues. Taxpayers are viewed on this interpretation as people who are willing to cooperate in a good cause if a sufficiently large number of others cooperate as well, but not otherwise. The hypothesis is that most people are civic minded when, and only when, most others are civic minded.

There is evidence obtained by psychologists (not behavioural psychologists!) that people don't merely display reciprocity (Section 2.2), they have *feelings* about reciprocity. To quote Levi (1988: 53), nobody likes being taken for a sucker. Our propensity to have such feelings is itself an outcome of selection pressure over the long haul of time. Findings such as these have been deployed by economists in modelling the attitudes of citizens to work on the one hand, and to the volume of taxes and the character of public transfers on the other (Lindbeck, 1997; Lindbeck *et al.*, 1999). Imagine that a person's desire to live off the State increases with the proportion of those who live off the State because, say, there is little stigma or shame when the proportion is large, but a good deal when the proportion is small. Citizens vote on levels of taxes and transfers, and then choose in the light of the outcome of the votes whether to work. As the two sets of decisions are taken in a sequential manner, the model isn't easy to analyse, but it has been found that, with some additional structure, quantitative conclusions can be reached (Lindbeck *et al.*, 1999). The model is attractive because it treats the degree of compliance (more generally, the degree of civic cooperation) as something to be explained; civic behaviour isn't regarded as part of the explanation. The model admits more than one pattern of behaviour, each characterized by a particular degree of compliance. Compliance rates, whether high or low, are held together by their own bootstraps, involving the now-familiar circular chains of reasoning. Where compliance rates are high, it is because most people reciprocate by behaving in a civic-minded way when most others are behaving in a civic-minded way. Conversely, where compliance rates are low, it is because most people reciprocate by behaving in an opportunistic way when most others are behaving opportunistically; and so on.

### 4.4. *Culture vs Explanatory Variables*

In each of the two examples, rational beliefs could be the consequence of historical accidents, rather than deliberate agreement. So it can be that societies that are identical in their innate characteristics (i.e.

fundamentals) display very different civic behaviour. Similarly, it can be that people in one society harbour cultural stereotypes even though people in another society possessing the same fundamentals don't harbour them. Culture is not an explanatory variable in either example – it is created in both. Moreover, as our four-way classification in Section 2 suggested and the model of quasi-voluntary behaviour illuminated, you don't need to know someone, even at some steps removed, to form beliefs (even rational beliefs) about his or her intended behaviour. Social capital, in the sense of interpersonal networks, is certainly necessary if mutually beneficial outcomes are to be identified and the associated agreements reached, but you don't need to know each and every fellow citizen to arrive at rational beliefs, at a statistical level, about their intended behaviour. Trust is the key to cooperation, what scholars have meant by 'social capital' is merely one of the means to creating trust.

Analysis of rational beliefs in such models as those in the pair of examples is frequently a short hand for understanding pathways by which beliefs evolve over time. History matters, if only because historical experiences affect contemporary beliefs. The idea, more broadly, is to explain contemporary cultural differences (differences in rational beliefs) in terms of differences in primitives, such as our material needs, the large-scale ecological landscape, the shared knowledge base, and historical accidents. Cultural differences would be correlated with differences in economic performance, they would not be the cause of them.

The models of cultural stereotypes and civic cooperation suggest also that different types of variables should be expected to change at different speeds – some slow, some others not-so-slow, yet others fast. Imagine now that certain types of (cultural) beliefs are slow to adapt to changing external circumstances. Since slow variables are to all intents and purposes fixed in the short run, it would not be unreasonable to regard them as parameters for short-run analyses. This is the approximation social scientists make when they offer cultural explanations for economic performance, for example, the success of Japan in the post-War era (Hayami, 1997).

Matters are different in the long run. Individual motivation and beliefs are influenced by values and the practice of norms, and they in turn are influenced by the products of society, such as institutions, artifacts, and technologies (Wildavsky, 1987). Moreover, any process that ties individual motivations and beliefs to values and norms and thereby to the choices made, and back again, would be expected to be path-dependent. There is little evidence though that trade and imitation may not lead to convergence in those spheres of culture that have a sizeable effect on economic performance. It is also possible that the *effect* of a particular component of a people's culture changes over time even when the culture itself isn't changing. The various components of culture are in different degrees complementary to other factors of production. So it is possible for a particular component to lie dormant for decades, even centuries, only to become a potent force when external circumstances are 'right'. By the same token, this same component could become ineffective, even dysfunctional, when external circumstances change again. This is why there is no logical flaw in such claims as that Japan's remarkable economic success in the post-War period has been due in part to some aspects of the nation's culture, even though those same aspects did not have potency in earlier centuries and may in future even prove to be dysfunctional.

And finally, the models of cultural stereotypes and civic cooperation offer the sobering thought that, under slowly changing circumstances, the extent to which people harbour cultural stereotypes or the degree to which people are civic-minded can alter imperceptively over a long period of time, until a moment is reached when society transforms itself rapidly from one state of affairs (e.g., a society where citizens are civic minded) to another, very different, state (e.g., a society where citizens are not civic minded). The rapid transformation is a transition from one compliance rate to another.

## 5. Creating Networks

So far I have assumed that people are able to interact with one another without having to search for others with whom to interact. The interpersonal networks (networks for short) have been taken to be in place. But people are known to create networks. Moreover, searching for others with whom to form networks involves resources (e.g., time). So we need to study pathways by which networks get formed and the reasons why they get formed.

One may think of networks as systems of communication channels for protecting and promoting interpersonal relationships. Interpersonal relationships are a more complex notion than networks, as they are the outcomes of a system of mutual beliefs. But networks cover a wide terrain. We are born into certain networks and enter new ones. So networks are themselves connected to one another. Network connections can also be expressed in terms of channels, although a decision to establish channels which link networks could be a collective one.

An elementary channel connects a pair of individuals directly. However, one can establish indirect links. Person A builds an elementary channel, connecting her to person B, person C builds an elementary channel connecting him to B, and so forth. A is then connected to C, albeit once removed. Indeed C's motive for establishing an elementary channel with B could be because of his desire to be linked to A. And so on.

To establish a channel involves costs, as it does to maintain it. In some contexts they would be called 'transaction costs'. The desire to join a network on someone's part could be because of a shared value.[3] But as we noted earlier, networks also play a role in enabling coalitions to form, to coordinate and to act, matters central to Putnam's (1993) view of civic engagement. Generally speaking, the decision to invest in a channel could be because it would contribute directly to one's well-being (investing in friendship) or it could be because it makes economic sense (joining a guild), or it could be because of both (entering marriage). On occasion, the time involved is not a cost at all, as the act of trying to create a channel can itself be something that adds grace to one's life. Arranging and sharing a meal; giving a personal, decorative expression to one's immediate environment; being able to confide one's inner world to chosen others – these are deeply felt needs. We all experience these needs and try to act upon them.[4] Many of the consequences of joining a network and continuing one's membership are unanticipated. The immediate motivation could be direct pleasure (enjoyment in relating to someone or being a member of a congenial group), its economic benefits an unanticipated side-effect (the 'old-boy' network). But the direction could go the other way (joining a firm and subsequently making friends among colleagues). Regardless of the motivation, expenditure in a channel involves a resource allocation problem, with all its attendent difficulties.

The clause 'personal relationships' in the notion of networks is central. It involves trust without recourse to an external enforcer of agreements (Section 2).[5] There is also the suggestion that engaging in civic cooperation leads

[3] Fukuyama (1997, Lecture 2) takes this to be the defining characteristic: 'A network is a group of individual agents that share *informal* norms or values beyond those necessary for market transactions'.

[4] Douglas and Isherwood (1979) and Goody (1998) contain accounts of why and how it is that even 'consumption' is a social engagement.

[5] Compare Putnam (1993: 171): 'Social trust in complex modern settings can arise from two related sources – norms of reciprocity and networks of civic engagement'.

to a heightened disposition to cooperate (Section 2). It amounts to forming personal beliefs about others and one's own tastes through sampling experiences. But if social engagement fosters trust and cooperation, there would be positive feedback between civic engagement and a disposition to be so engaged. The synergy would be tempered by the fact that the private cost of additional engagements (time) would rise with increasing engagements.[6]

As elsewhere in economics, it helps to think first of networks in 'equilibrium' and to then study their dynamics. We may take it that each person has available to him a set of channels from which he can choose. Some would have been inherited (the decision problem concerning these would be whether to maintain them and, if so, at what level of activity), others he would have to create. Imagine that for any configuration of channels that others select, there is an optimal set of channels for each individual. An equilibrium network of channels is then a feasible network possessing the property that each party's choice of channels in the network is optimal for him, given that others establish their respective channels in the network in question.

Equilibrium networks can be expected to contain strategically-placed individuals. They are the fortunate people, having inherited and (or) having made the most valuable connections, in a literal sense. There would be others with connections of not much economic worth, even if their emotional worth were high.

## 6. Network Externalities

Installing channels is a way to create trust. Plausibly, someone's knowledge of someone else' character declines with the number of elementary channels separating them, as in perhaps knowing very little personally about a friend of a friend of a friend, knowing rather more about a friend of a friend, and knowing even more about a friend.[7] This creates the necessary tension between the benefits and costs of establishing elementary channels.

[6] Putnam (1993: 86-91) discusses this influence. He even suggests (p. 90) that 'taking part in a choral society or a bird-watching club can teach self-discipline and an appreciation for the joys of successful collaboration'. Seabright (1997) reports empirical evidence of cooperation begetting further cooperation. Recall the observation by Hirschman (1984) that trust is a moral good (it grows with use and decays if unused).

[7] Compare this account with Putnam (1993: 168-9): 'Mutual trust is lent. Social networks allow trust to become transitive and spread: I trust you, because I trust her and she assures me that she trusts you'.

### 6.1. *Weak and Strong Ties*

But one can be misled by this chain-postulate into thinking that weak ties are not valuable. In fact they can be very valuable. In a famous study based on interviews with professional and technical workers in a town outside Cambridge, Massachusetts, Granovetter (1973, 1974) revealed that more than half had found their jobs through a personal connection. Surprisingly, the majority of personal connections weren't close friends, they were mere acquaintances.

Granovetter himself noted that the latter finding should have been expected. The reason weak ties are especially useful in the search for jobs is that they cover a greater range of links than strong ties. Weak ties connect one to a variety of people and so to a wide information base. However, among *rural* populations in poor countries there are not so many weak ties, ties are mostly intense. This narrows possibilities. But it creates an avenue for migration. One enterprising member of the community moves to the city, perhaps supported by those with whom he has strong ties at home while he searches for work. He is followed by others in a chain-like fashion, as information is sent home of job prospects. Migrant workers may even recommend village relations to their bosses, because employing them would reduce moral hazard and adverse selection problems for the bosses. This would explain the still largely anecdotal evidence that city mills often employ disproportionate numbers of workers from the same village. The emotional costs of adaptation to new surroundings would also be lower for later migrants, with the implication that migration in response to new opportunities in the city should be expected to be slow to begin with but would pick up strength as costs decline (Carrington *et al.*, 1996). Formal evidence of chain migration, though sparse, does exist. Caldwell (1969) has confirmed its occurence in sub-Saharan Africa and Banerjee (1983) has provided evidence from an Indian sample. Chain migration from village to town has been observed among children in Karnataka, India, by Iversen (2002) in his study of peer-group emulation as a determining factor in the supply of child labour.

### 6.2. *Inherited Ties*

Wintrobe (1995) postulates that parents create and invest in channels and pass them on to their children, in return for security in old age. This probably has had force in poor countries, where capital markets are largely unavailable to rural households. But there would seem to be more in our desire to transfer capital assets to the young. One type of capital we give our offspring in abundance is the kind which falls under the term 'cultural values', values we cherish. We make such transfers not only because we think it is good for our children, but also because we desire to see our values survive. Investing in channels and passing them on to children is a way of preserving those values.

Wintrobe (1995) also asks why networks frequently operate along ethnic lines and why they are multi-purpose and dense, unlike specialized 'professional' networks. In answer he observes that exit from, and entry into, ethnic networks are impossible, and that the threat of sanctions by the group prevents children from renaging on the implicit contract to work within it.

But there probably are additional forces at work. It shouldn't be surprising that the channels people bequeath their children in traditional societies frequently amount to ethnic networks (who else is there with whom one can form connections?). As Posner (1980) observes in the African context, village and kinship networks are a means of reducing what in the insurance industry are called 'moral hazard' and 'adverse selection', because monitoring one another's activities is not costly within the village and because membership of the kin-group is based on birth. However, while it is true that exit from one's ethnicity is literally impossible, children do have a choice of not using the ethnic channels they may have inherited. So Wintrobe's thesis needs to be extended if we are to explain why those particular networks are so active – their mere denseness would probably not suffice. The way to extend the account is to observe first that investment in channels is *irreversible*: one can't costlessly re-direct channels once they have been established (such investments are inevitably specific to the relationships in question). Moreover, if trust begets trust, the cost of maintaining a channel would decline with repeated use (witness that we often take our closest friends and relatives for granted). So, using a channel gives rise to an externality over time, much as in 'learning by doing' in the field of technology-use. The benefits from creating new channels are therefore low if one has inherited a rich network of relationships. This is another way of saying that the cost of not using inherited channels is high. Outside opportunities have to be especially good before one severs inherited links. It explains why we maintain so many of the channels we have inherited from our family and kinship, and why norms of conduct pass down the generations. We are, so to speak, locked-in from birth. That may be why our personal identities are so bound up with our inherited background.

### 6.3. *Contagion*

There are types of influence that are able to travel great distances, for example, via radio and television, newspaper, and the internet. They would be expected to push society in the direction of greater homogeneity. Individual projects and purposes would become more similar across regions. Of course, local influences can have this effect too, as in simple models of 'contagion'. Whether contagions spread or are geographically contained appears to be sensitive to model specification. The models are nevertheless united in one thing: they all tell us that channels of communication create twin pressures, one leading to clusters of attitudes and behaviour (Glaeser *et al.*, 1996; Eshel *et al.*, 1998), the other to homogeneity (Ellison, 1993). These pressures work on different, criss-crossing spheres of our lives. Both in turn interact with markets.

## 7. Horizontal vs. Vertical Networks

Putnam (1993: 174) observes a critical difference between horizontal and vertical networks:

'A vertical network, no matter how dense and no matter how important to its participants, cannot sustain social trust and cooperation. Vertical flows of information are often less reliable than horizontal flows, in part because the subordinate husbands information as a hedge against exploitation. More important, sanctions that support norms of reciprocity against the threat of opportunism are less likely to be imposed upwards and less likely to be acceded to, if imposed. Only a bold or foolhardy subordinate lacking ties of solidarity with peers, would seek to punish a superior'.

There is a third reason:

Imagine a network of people engaged in long-term economic relationships, where relationships are maintained by observing social norms (e.g., norms of reciprocity; Section 2.6). Suppose new economic opportunities arise outside the enclave, say, because markets have developed. Horizontal networks are more likely to consist of members who are similarly placed. If one of the parties discovers better economic opportunities outside the enclave, it is likely that others too will discover better economic opportunities. Both parties would then wish to re-negotiate their relationship.

Vertical (or hierarchical) networks are different. Even if the subordinate (e.g., the landless labourer) finds a better economic opportunity in the emerging markets, it is possible that the superior (i.e., the landlord-creditor) does not; in which case the former would wish to re-negotiate, but the latter would not. It is no doubt tempting to invoke the Coase-argument (Coase, 1960), that the subordinate would be able to compensate the superior and thus break the traditional arrangement. But this would require the subordinate to be able to capitalise his future earnings, something typically not possible for such people as those who are subordinates in rural economies in poor countries. Nor is a promise to pay by instalments an appealing avenue open to a subordinate. He would have to provide collateral. As this could mean his family left behind, the worker could understandably find it too costly to move.

## 8. Networks and Markets

Networks are personal. Members of networks must have names, personalities, and attributes. Networks are exclusive, not inclusive, otherwise they would not be networks. The terms of trade within a network would be expected to differ from those which prevail across them. An outsider's word would not be as good as an insider's word: names matter.

Networks give rise to 'communitarian' institutions. In contrast, markets (at least in their ideal form) involve 'anonymous' exchanges (witness the oft-used phrase: 'my money is as good as yours'). To be sure, the distinction between named and anonymous exchanges is not sharp, and even in a sophisticated market (modern banking), reputation matters (credit rating of the borrower). But the distinction is real. The key point that follows is that the links between markets and communitarian institutions are riddled with externalities. Transactions in one institution have effects that spill over to the other without being accounted for. Externalities introduce a wedge between private and social costs, and between private and social benefits. We observe below that some externalities are of a kind that reflects synergism between the two institutions, while others reflect antagonism between them.

All societies rely on a mix of impersonal markets and communitarian institutions. The mix shifts through changing circumstances, as people find ways to circumvent difficulties in realizing mutually beneficial transactions. It pays to study those features of goods and services that influence the mix in question and the hazards that lie in wait while the mix changes as a consequence of the individual and collective choices that are made.

### 8.1. *Complementarities*

Networks and markets often complement one another. Production and exchange via networks in one commodity can be of vital importance to the functioning of the market in another. As has been long noted by economists, for example, exchanges within the firm are based on a different type of relationship from those in the market place between firms. The classification in Section 2 was in part prompted by such differences.

But complementarities between networks and markets can be a good deal more subtle. Powell (1990) and Powell and Brantley (1992) have found that researchers in rival firms in such a competitive environment as the one that prevails in the bio-technology industry share certain kinds of information among themselves, even while the scientists maintain secrecy over other matters. The balance between disclosure and secrecy is a delicate one, but in any given state of play a common understanding would seem to prevail on the kinds of information members of a network of scientists are expected to disclose, if asked, and the kinds one is expected not even to seek from others. In such an environment non-cooperation would be costly to the individual scientist: if he refused to share information, or was discovered to have misled others by giving false information about his own findings, he would be denied access to information others share. There is also evidence that sharing research findings among scientists in rival firms is not clandestine practice. Management not only are aware of the practice, they positively encourage their scientists to join the prevailing network. Well-connected scientists are especially valued. The geographical clustering of firms in research-based industries (e.g., Silicon Valley, California; the Golden Triangle in North Carolina; Silicon Fen around Cambridge, England) is a consequence of the need for such networks. Networks can even be the means by which markets get established (long distance trade in earlier times). In some cases they are necessary if markets are to function at all.[8]

### 8.2. *Crowding Out*

Where networks and markets are substitutes, they are antagonistic. In an oft-quoted passage, Arrow (1974: 33) expressed the view that organiza-

[8] Even here the role of networks can be expected to diminish as it becomes easier and easier to transmit and access information in the market place.

tions are a means of achieving the benefits of collective action in situations where the price system fails. This formulation, if interpreted literally, gets the historical chronology backward, but it has an important contemporary resonance: when markets displace communitarian institutions in the production of goods and services, there are people who suffer unless countermeasures are undertaken by collective means.

Arrow's observation also has a converse: certain kinds of network can prevent markets from functioning well (Arnott and Stiglitz, 1991). Networks can even prevent markets from coming into existence. In such situations networks are a hindrance, not a help to economic development. They may have served a purpose once, but they are now dysfunctional.

To illustrate, consider the strong kinship ties that are prevalent in traditional societies. Such ties reflect a communal spirit absent from modern urban life and strike an emotional chord among Occidental scholars (Apfell Marglin and Marglin, 1990). But there is a functional side to kinship ties: the obligation of members of a kinship to share their good fortune with others in the group offers a way to pool individual risks. The lowlands of sub-Saharan Africa, for example, are in large measure semi-arid, where people face large climatic risks. In contrast, people in the highlands enjoy more reliable rainfall. Lineage groups are powerful in the lowlands. They are less powerful in the highlands, where even private ownership of land is not uncommon (e.g., the Kikuyu in Kenya; Bates, 1990).

However, there is a bad side to the coin in kinship obligations. They dilute personal incentives to invest for prosperity. Even if the social return on investment in an activity is high, the private return can be low: because of kinship obligations, the investor would not be able to appropriate the returns.[9] Insurance markets are superior to communitarian insurance systems because the former, covering a wider terrain of people, are able to pool more risks. On the other hand, mutual insurance among members of a community (e.g., household, kinship, village) can be expected to be less fraught with problems of moral hazard and adverse selection than markets. This means that if we view kinship obligations over insurance and credit, respectively, as risk-sharing arrangements and intertemporal consumption-smoothing devices, they are to the good; but they are not *all* to the good,

[9] Platteau and Hayami (1998) have stressed this feature of life in the lowlands of sub-Saharan Africa. They were concerned to account for differences between its economic performance and that of East Asia since the 1960s.

because their presence renders as low the private benefits people would enjoy from transacting in insurance and credit markets even when the collective benefits are high.

It is possible also to show that the more dissimilar are transactors, the greater are the potential gains from transaction. This means that, to the extent communitarian institutions are a dense network of engagements, they are like economic enclaves. But if the institutions act as enclaves, they retard economic development. For example, social impediments to the mobility of labour imply that 'talents' aren't able to find their ideal locations. This can act as a drag on economic development. The same point can be made about credit, if credit is based on kinship. More generally, resources that should ideally flow across enclaves don't do so. Society then suffers from an inefficient allocation of resources.

## 9. Dark Matters

Two potential weaknesses of institutions built on social capital are easy enough to identify:

*Exclusivity*. Networks are exclusive, not inclusive. This means that 'anonymity', the hallmark of competitive markets, is absent from the operations of networks. When market enthusiasts proclaim that one person's money is as good as any other person's in the market place, it is anonymity they invoke. In allocation mechanisms governed by networks, however, 'names' matter. Transactions are personalised. This implies inefficiencies: resources are unable to move to their most productive uses.

*Inequalities*. The benefits of cooperation are frequently captured by the more powerful within the network. McKean (1992), among others, has discovered that the local elite (usually wealthier households) capture a disproportionate share of the benefits of common-property resources, such as coastal fisheries and forest products. Her finding is consistent with the possibility that all who cooperate benefit.

*Exploitation within Networks*

The reason why social capital continues to radiate a warm glow in the literature is that the examples that have motivated the subject have been the Prisoners' Dilemma (see e.g. Ostrom, 1990). However, one-period games involving the use of common property resources don't give rise to the Prisoners' Dilemma (Dasgupta, 2008). It is possible to show in such games that if the players discount their future payoffs at a low enough rate, there are social norms that can sustain an outcome where a party would be worse off in the long-term relationship with the others than she would be if they were not in long-term relationship. The social norm sustaining that outcome would be *exploitative* of her.

Inequality is not the same as exploitation. Which is why demonstrating exploitation in an empirically satisfactory way will prove to be very hard: any such demonstration would involve comparison of an observable state of affairs with a counterfactual. However, there are stark examples that are suggestive. In Indian villages access to local common-property resources is often restricted to the privileged (e.g., caste Hindus), who are also among the more prosperous landowners. The outcasts (euphemistically called members of 'schedule castes') are among the poorest of the poor. Stark inequities exist too in patron-client relationships in agrarian societies that make it very likely that the 'client' is worse off in consequence of the relationship than she would have been in its absence.

## 7. Morals

Social capital is an aggregate of interpersonal networks. From the economic point of view, belonging to a network helps a person to coordinate his strategies with others. We should not pre-judge the character of the strategies on which members of a network coordinate. As with any other form of capital asset, social capital can be put to good use or bad.

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