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**UNDERSTANDING, MEASURING AND UTILIZING SOCIAL
CAPITAL: CLARIFYING CONCEPTS AND PRESENTING A FIELD
APPLICATION FROM INDIA**

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ABSTRACT

Social capital is a resource, a propensity for mutually beneficial collective action that communities possess to different extents. Communities with high levels of social capital are able to act together collectively for achieving diverse common objectives.

While the concept of social capital is valid universally, the measure of social capital will vary by context. It must be related in each case to aspects of social relations that assist mutually beneficial collective action within that particular cultural context.

A locally relevant scale of social capital was developed to assess whether and how social capital mattered for development performance in 69 north Indian villages. Variables corresponding to other bodies of explanation, including extent of commercialization, relative stratification, and relative need were also examined, but a combination of high social capital and capable agency was found to associate most closely with high development performance.

Agency is important particularly in situations where institutions are not available that enable citizens to connect with the state and with markets. The productivity of social capital is considerably reduced on account of this institutional gap in the middle. Development performance can be improved in these situations by adding to the stock of social capital and also through enhancing agency capacity.

Keywords: social capital, India, agency, development, institutions

UNDERSTANDING, MEASURING AND UTILIZING SOCIAL CAPITAL: CLARIFYING CONCEPTS AND PRESENTING A FIELD APPLICATION FROM INDIA

Anirudh Krishna¹

1. INTRODUCTION

Social capital has become prominent within the vocabulary of development practitioners, but there is little consensus about what it is, how it is observed and measured, what outcomes it supports – and more important, what outcomes it does not support. In popular imagination, and also in some scholarly writings, social capital is often equated with all that is good about human and social relations. And it emerges from these renditions as no more concrete than a warm, fuzzy feeling, lacking concrete empirical referents that one can examine to study this variable independent of its effects. Consequently, people – particularly busy practical people – tend to be somewhat cynical when references are made to the power of social capital.

I have worked for 15 years as a development practitioner, and I tend to be skeptical as well about newfangled ideas and fashionable terminology. But I do see considerable hope in the idea of social capital. And I should like to use this opportunity to clarify this concept and to associate it in our minds with images of reality that we see around us in our everyday work.

By helping focus attention on talents and energies that exist at the grassroots – within indigenous communities and local groups and not so much among national planners and international consultants – concern with social capital helps rectify a severe imbalance in

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development practice. It frees up space for communities to plan their own futures, and it forces national planners to recognize that communities are not all alike.

Development practitioners have for long been aware that program results vary considerably from one location to another. Even very standardized programs have quite non-standard results. But it has been hard so far to account for these differences. Why should Community A derive higher benefits from some program than Community B? When both communities received the same level of assistance overall, why should results vary so much from one location to another? A number of different reasons – quality of leadership, effectiveness of program staffs, etc. – can be suggested to explain these observed differences. And social capital is one other possible explanation that must be considered within this mix.

Social capital refers to the quality of human relations within some well-defined social group that enables members of this group to act in cooperation with one another for achieving mutual benefits. More formally, it is defined as “features of social organization such as networks, norms and social trust that facilitate cooperation and coordination for mutual benefit” (Putnam 1995: 67).²

We are all aware of communities that are more cooperative, where members care for one another and where they are prepared to act collectively for common purposes. And we are all aware of other groups in which there is more infighting, discord, jealousy, and selfishness. The concept of social capital formalizes these everyday observations; more than that it makes the claim that these inter-group differences have important consequences for the results that these groups can achieve in practice.

² Notice in passing (we will come back to this aspect later) that networks and network density constitute just one among multiple aspects that can potentially constitute social capital. Some analysts have, however, equated social capital with network density, thereby severely confining the scope of this concept.

More cooperative groups will achieve better development and governance outcomes, it is claimed, while groups with lower levels of social capital will have lower achievements in the social, political and economic realms. What happens within the group influences its achievements in the world outside.

This is a claim worth taking seriously. It adds an important new element to development practice, and it asserts that this element can make the crucial difference between success and failure.

Plans and programs are central for development, it was believed earlier, and better plans and programs were sought in order to achieve better results. However, performance continued to be mixed even as programs of assistance were refined and improved. Some communities performed very well and other communities performed very poorly, and the reasons for success and failure were never completely well understood.

It is important though to understand these reasons better. Such knowledge can help ratchet up the pace of development. For if one knows what causes success and what causes failure, and if one can influence the levels of these factors, then significant improvements can be made in people's quality of life. Such a claim inheres in the concept of social capital, and it is worth our while to suspend cynicism and to examine seriously whether societies' fates can be improved significantly through paying attention to social capital.

Section 2 of this paper presents the methodology of the study that provided the in-depth insights as well as quantitative data for assessing the effect of social capital. What constitutes a high level of social capital will be discussed in Section 3, where I will discuss issues related to the measurement of social capital. Social capital is a quality that exists inside people's heads; it can never be observed and measured directly. A number of proxy measures have been

constructed that are each relevant for scaling this concept in a particular cultural and social setting, and different sets of proxies are more suitable for this purpose in different societal contexts.

In Section 4 of this paper, I will present some results obtained from comparing development outcomes in 69 north Indian village communities. Social capital matters significantly for development outcomes, it is seen here. Villages that have high levels of social capital also have significantly higher development performance. However, the utility of social capital is enhanced considerably when this resource is utilized strategically. The capability of a particular set of village agents is of special importance in this respect. Villagers who are knowledgeable and well versed in dealing with government agencies and market operations help target villagers' social capital toward incentives available in the external environment. Agency capacity matters in addition to high social capital, it is seen.³ Villages that are not well led in this respect achieve much lower development success even when they have high levels of social capital.

Section 5 presents an agenda for action to help capture the potential of social capital while avoiding some pitfalls that can result from glorifying this concept. Social capital may or may not be possible to enhance over the short term, it is argued, but the utility of a given stock of social capital can be enhanced significantly through strengthening intermediary institutions. When the channels that connect communities with state and markets are widened and unblocked, social capital can flow without hindrance into improving development results. In situations where these channels are constricted or unavailable, social capital remains a latent resource, potentially useful but not immediately usable.

³ Agency is understood here in terms of the definition provided by Sen (1999: 18-19) of agent as "someone who acts and brings about change, and whose achievements can be judged in terms of her own values and objectives, whether or not we assess them in terms of some external criteria as well."

2. STUDY METHODOLOGY

Over two years starting in the summer of 1998, I lived among village communities in the Indian states of Rajasthan and Madhya Pradesh. I selected Rajasthan because I have lived and worked there for 15 years as a government official. I understand the local dialects, and I know different plans and programs that have been implemented in this area.

I did not present myself as a government official when I went to the villages this time, however. I selected parts of the state where I had not worked before, and I traveled by myself or with one or two companions, using public transportation and living in public buildings that villagers made available to me.

For the first six months, I spent my time observing patterns of collective action in these villages. What activities did villagers undertake collectively, and what activities did they usually undertake individually? It was in the former sets of activities – those that most villagers thought appropriate to execute in association with their fellows – that I would find my culturally appropriate referents of social capital (as discussed in Section 3).

I studied 16 villages as case studies, staying in each of them over considerable periods of time and speaking with a wide cross-section of villagers. Later, I extended the inquiry to 69 villages. I was supported for this extended survey by a group of 16 field investigators, equally men and women, who are themselves villagers from this region, and who speak and dress like the people they interviewed. Together, the investigators and I interviewed a sample of over 2,000 villagers, selected by random sampling from all adult villagers of these 69 villages.⁴

⁴ The results of these investigations are presented in greater detail in Krishna (2002).

The average population of these villages is about 1,100 persons, divided into about 200 households, and average area of a village is a little under 2,000 acres, almost half of which consists of wasteland and scrub forest. More than 90 percent of village residents have agriculture as their principal occupation. However, average landholding is small, about half of one acre per capita, and land quality is mostly quite poor. The area is mostly all semi-arid, and drought is a frequent visitor, with rainfall being well below average in two years out of every five. Nearly 45 percent of village residents are poor, i.e., their incomes are less than the officially-calculated poverty line.

I came to know the conditions behind these statistics as I lived in these villages, and I inquired into the nature of results for which the villagers cared most deeply. They were concerned, first and foremost, with development performance. Not all development results matter equally, to be sure, but there are some specific development outcomes that they care for much more than any other outcome in the economic, social or political realms.

3. MEASURING SOCIAL CAPITAL

We already cited that social capital is defined as “features of social organization such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit” Putnam (1995: 67). Putnam (1993) ranks social capital in Italian regions according to a measure of density of membership in formal organizations. It must be noted, however, that this is a proxy measure of social capital: it is not directly concerned with norms or with trust but it looks, instead, at certain manifestations that accompany social capital in this specific setting. It is not obvious that similar manifestations of social capital will be observed within other cultures. Diverse forms of human activity develop to deal with different needs and compulsions of life in

different ecological and cultural settings. Networks, roles, rules, procedures, precedents, norms, values, attitudes and beliefs are different among people who have different patterns of life.

Measures of social capital that are relevant for one set of cultures can be irrelevant for others.

Density of formal organizations is a particularly inappropriate indicator for Rajasthan villages. Villagers in Rajasthan have set up hardly any formal organizations voluntarily, and nearly every formal organization in these villages has been set up at the initiative of some government agency. Villagers join these organizations mostly in order to gain some immediate economic benefits; no traces of collective action are associated usually with such government-sponsored organizations in India and elsewhere. Mostly richer and better connected residents have also attended government-sponsored organizations in other parts of the Third World and mostly also with the limited objective of deriving economic benefits cheaply. "Government officials and employees of the project agency got first claim to these resources, along with some relatively better-off villagers... [Most] villagers perceived these schemes as not for ordinary farmers. They came to these projects mostly with a cynical attitude, hoping to gain access to subsidized credit or to some other cheaply available resources." (Zoetelief 1999).

Formal organizations in these developing country contexts do not, therefore, provide any reliable indication of voluntarism and cooperation among villagers. However, several informal networks exist and many villagers attend these networks regularly.

A locally relevant scale for measuring social capital in Rajasthan was devised that relies upon assessing participation in informal networks. It considers those types of activities with which people of this area are commonly engaged. Not all activities are valid for investigating cooperation and coordination within any particular context. Social capital exists "in the *relations* among persons" (Coleman 1988: S100-101), and only those activities should be considered for

measuring social capital that members of a particular culture regard appropriate to carry out collectively rather than individually.

Six such activities were considered for the purpose of measuring social capital in the context of rural Rajasthan.

1. *Membership In Labor-Sharing Groups*: Are you a member of a labor group in the village, i.e., do you work often with the same group very often, sharing the work that is done either on your own fields, on some public work, or for some private employer? Responses were coded as 0 for “no” and 1 for “yes.” These responses were aggregated for all individuals interviewed in each surveyed village, thereby measuring the proportion of villagers who do participate in such networks. More than 80 percent of respondents gave a “yes” response to this question, though this proportion varied from a high of 98.5 percent to a low of 73 percent among different villages.
2. *Dealing with Crop Disease*: If a crop disease were to affect the entire standing crop of this village, then who do you think would come forward to deal with this situation? Responses ranged from “Every one would deal with the problem individually,” scored 1, to “The entire village would act together,” scored 5. Individuals’ responses were averaged for each surveyed village.
3. *Dealing with Natural Disasters*: Suppose there was some calamity in this village requiring immediate help from government, e.g., a flood or fire, who in this village do you think would approach government for help? Responses varied from “No one,” scored 1, to “The entire village collectively,” scored 5.
4. *Trust*: Suppose a friend of yours in this village faced the following alternatives: which one would he or she prefer?
 - To own and farm 10 units of land entirely by themselves (scored 1)
 - To own and farm 25 units of land jointly with one other person in this village (scored 2).

The second alternative would give each person access to more land (12.5 units, instead of just 10 units represented by the first option), but they would have to work and share produce interdependently. The more people trusted other people in their village, the more they tend to prefer this second option. The question was framed so that the respondent was not making an assessment of his or her own level of trust, but rather of how trusting other people in the village were in general.

5. *Solidarity*: Is it possible to conceive of a village leader who puts aside his own welfare and that of his family to concern himself mainly with the welfare of village society? Responses ranged from “Such a thing is not possible,” scored 1, to “Such a thing happens quite frequently in this village,” scored 3.
6. *Reciprocity*: Suppose some children of the village tend to stray from the correct path, for example, they are disrespectful to elders, they disobey their parents, are mischievous, etc. Who in this village feels it right to correct other people’s children? Four alternatives were posed: “No one,” scored 1; “Only close relatives” scored 2; “Relatives and neighbors,” scored 3; and “Anyone from the village,” scored 4. Averaged individual responses ranged from a high of 3.45 to a low of 1.70.

Responses to these six items were highly correlated with one another and they all loaded highly on a single common factor, indicating that villages that have high scores on any one manifestation of social capital also tend to have high scores on the other five manifestations observed here. Village scores on the six separate items were aggregated to form the Social Capital Index. This Social Capital Index is highly correlated with each of its six constituent items, as reported earlier. It is correlated also with other indicators of local norms and informal networks.⁵ There is hardly any correlation, however, between the Social Capital Index and any of the other structural and agency variables considered below.

Let me conclude this discussion of measurement by re-emphasizing that social capital is not directly observable; people carry it inside their heads. What one can observe and measure are some manifestations or behavioral consequences given rise by social capital, including both structural and also cognitive elements (Uphoff 2000). Different cultures uphold different expressions of social capital, hence its observable aspects will vary contextually. Different

⁵ Responses to other survey questions concerning mutual support networks and expectations of collective action are highly correlated with the Social Capital Index (SCI), for instance, “If some epidemic were to occur among cattle or humans in this village, what do you think the people of this village would do? Will they act unitedly?” (Correlation with SCI = 0.592); and “Suppose some person from this village had to go away for a while, along with their family. In whose charge would this person leave their fields? Can only close relatives be trusted, or a larger group of villagers?” (Correlation with SCI = 0.712). These and other correlation coefficients are all significant at the 0.01 level.

measures of social capital are appropriate thus for different social and cultural contexts. The measures that were developed and used for Rajasthan may be applicable after adaptation in other developing country contexts. But this claim needs to be verified through careful field inquiries. Developing a locally appropriate index of social capital is the first step to take before examining the utility of social capital and investigating how one can add to its stock. And to do so effectively, one must be familiar with the specific societal contexts that one is considering.

4. ASSESSING THE UTILITY OF SOCIAL CAPITAL

EXAMINING DEVELOPMENT OUTCOMES

Development means different things to different people. For people living in these villages, four sets of outcomes are most important for defining benefits related to development performance. Livelihood stability is first among these important development outcomes, followed by employment generation, poverty reduction, and quality of basic services. These four development outcomes outrank by far any other outcomes that most villagers value in the economic realm. And it is hardly surprising why this should be so.

Living in a semi-arid region, where rainfall is scarce and highly variable – where most people depend on agriculture for a livelihood but most have relatively tiny plots – villagers in Rajasthan are very concerned about having food, fodder, and firewood available on a continuous basis. While food crops (mostly millets and maize and some wheat) are grown on privately owned land, fodder and fuelwood are collected mostly from common lands, which comprise between a third and a half of total village area in most cases. Protecting, preserving and developing these common lands is a collective concern of villagers, and their performance in a program of common land development provided one indicator for examining the relative impact of social capital.

Employment generation provided a second indicator for comparing the utility of social capital relative to other bodies of social explanation. Nearly half of all village households, 45 percent to be exact, depend for their subsistence on getting wage employment for at least one month each year. Such employment is obtained most usually from some government-sponsored construction work located near their village. This work is usually of a casual nature, engaging laborers from day to day, and it is in the interest of villagers to have these works located as close to home as possible. People of different villages vie with each other to have such employment generating works located in their particular village, and the extent of success in this collective endeavor – measured in terms of days of public works employment per capita averaged over the last five years – provided a second outcome indicator for examining the development impact that social capital can have in this region.

Poverty reduction benefits provided a third indicator. Nearly the same proportion of households who look for wage employment in order to make ends meet, 45 percent, have incomes that are below the officially recognized poverty line in this region. Government programs exist that provide assistance to such below-poverty-line households, but some villages have been successful in attracting more poverty grants per capita, and this pattern has repeated itself over multiple years. Poverty grants per capita averaged over the preceding five years constitutes the third indicator for assessing social capital as a predictor of economic development outcomes.

The fourth and final development indicator that I considered relates to quality of basic services. Villagers are concerned to have better education and health facilities and clean drinking water. An index composed of their subjective assessments of service quality in these areas comprised the fourth aspect of development performance examined here.

HIGH- AND LOW-PERFORMING VILLAGES

These four development indicators are related to quite different aspects of development performance, respectively, livelihood stability, employment generation, poverty reduction benefits, and service quality. But they are nevertheless found on examination to be quite closely interrelated with one another. In general, villages that perform relatively well on any one of these four activities also perform comparatively better than other villages in each of the other three activities.

Village scores in these four different activities are quite closely correlated with another, and they align commonly on a single underlying factor, as seen in Table 1.

Table 1--Development performance: Factor pattern

Variable Name	Score
Livelihood Stability	0.82
Poverty Assistance	0.69
Employment Generation	0.84
Quality of Basic Services	0.71

Adapted from Krishna (2002)

High performing villages do well in general across multiple and different programs, and low performing villages do poorly overall.

The nature of the program does not matter so much for development success or failure, these data show. Rather, there is some peculiar quality of villages that makes some of them perform well, by and large, and other perform poorly – no matter which development program is taken up for comparison.

In order to assess what this hidden quality might be – whether it is social capital or something else – I constructed a single scale of development performance. By combining together village scores on these four different activities,⁶ a single Index of Development Performance was constructed, and scores were calculated on this index for each of these 69 villages.

It would be better if economic development performance could be compared using some more commonly used statistic, such as GDP. But such statistics are not available for this level of disaggregation. No other village-level statistics are generated that can be used reliably to undertake comparisons of this kind. And one needs to construct one's comparative measures anew.

I selected these specific measures because they correspond to what villagers themselves value in these particular contexts. Two of these measures – employment generation and poverty reduction – reflect villagers' ability to obtain higher development benefits from the government. The other two measures are somewhat different. Livelihood stability reflects how well villagers have been able to preserve assets created through investments made jointly by villagers and the government.⁷ Outcomes related to protecting, preserving and developing these common lands were measured seven years after government funding had come to an end. Protection and preservation were paid for entirely by villagers in the intervening period. Villagers that did better on this outcome measure were those that could better undertake these investments by themselves.

⁶ Since they are so closely correlated with one another and since they align commonly on a single common factor, as seen from Table 1, it is valid to combine them within a single index of development performance.

⁷ Villagers contributed 20 percent of the direct costs of these schemes and they also contributed considerable amounts of their time.

Quality of basic services, the fourth indicator, also reflects villagers' collective inputs. While the basic services are themselves provided by the state government, the quality of these services – and villagers' satisfaction levels – vary substantially from village to village. Extent of provision by government is related closely to population norms. However, service quality can be improved both when villagers collectively confront government officials and also when they collectively assist in improving service delivery.

Interestingly, village performance on any one of these four separate indicators is related closely to performance on each of the other three indicators. What factors can help explain these differences between high-performing and low-performing villages?

ASSESSING THE UTILITY OF SOCIAL CAPITAL AND OTHER EXPLANATIONS

Different bodies of theory were consulted to identify alternative explanations for the observed variations in village development performance scores. Several independent variables were considered for this purpose. These variables are discussed briefly below.

According to some observers, differences in caste, ethnicity and wealth might limit villagers' potential for acting collectively for common development benefits. The following variables were constructed to assess the impact of stratification and heterogeneity on development performance scores. The variable N_CASTES measures the number of different caste groups that reside in any village. This variable provides one measure of the extent of homogeneity within the population of a village, and it assesses the extent to which caste differences affect villagers' potential for collective action. The variable CASTE_DOM measures the proportion of village households that belong to the most numerous caste group.

Relative modernization might also make a difference to village performance (Inkeles and Smith 1974). Since the impulse of modernization and commercialization is likely to be less well

felt within villages that are located farther from markets, the variable, DISTMKT, was utilized that measures the distance in kilometers to the nearest market town. The relative level of infrastructure facilities might also help to explain differences in development performance (Gaiha 1989). The variable INFRASTR combines scores for level of facility related to transportation, communications, electrification, and water supply.

Literacy matters for development performance according to some other observers, for instance, Dreze and Sen (1995), who propose that economic development in communities is expected to be closely related to educational achievement. LITERACY was calculated as the sample percentage of persons having five or more years of formal education.

Though all villages in the sample face shortages of fodder and fuelwood, some among them are more acutely affected by scarcity than others. An explanation of collective action based on a rational-actor premise would predict that communities whose members have a greater sense of deprivation and more acutely experienced common need will be more likely to act collectively for this purpose (e.g., Wade 1994). This relative needs hypothesis was tested with the help of two sets of three independent variables: DRYLAND assessed the ratio of rainfed (unirrigated) cropped area to irrigated cropped area, and PERCPOOR measured the percentage of village households that are poor in relation to the official poverty line.

A corollary to the above hypothesis stresses the relative need of powerholders. According to Knight (1992), collective action is most likely to arise on occasions when the powerholders in a society are most in need of the rewards likely to result from such action. The relevance of this hypothesis was tested by looking at the distribution of animal ownership by households.

The importance of government staff support was also separately assessed, particularly in relation to results in the livelihood stability program. Differences in the motivation and competence levels of government staff assigned to work with different villages, and in the extent to which they participated in the community's activities, were assessed through asking respondents about how frequently staffs of the concerned department visited their village and also by assessing the percentage of villagers who would recognize by sight the local staff of the concerned department.

In addition to these variables that are concerned with structural differences among villages, a number of agency variables were also considered for this analysis. The following agency forms are commonly functioning in these villages, and they are each regarded by some body of theory as having a significant (positive or negative) impact upon village development outcomes.⁸

- Traditional patrons, with str_PCR derived from scores on survey responses to nine questions on patron-client relations
- Leaders of different caste groups in a village, with str_CASTE derived from scores on survey questions related to strength of caste leadership
- Traditional village councils, with str_VC based on survey questions on strength of councils in the villages
- Officially local government (*panchayats*), with str_PANCH derived from survey questions on the strength of these elected bodies in the villages
- Political parties, with str_PARTY derived from survey questions about the activities of parties in the village

⁸ For detail on the definitions of each of these variables and underlying theoretical literature, see Krishna 2002.

New village leaders (village youth with some education who have come up within the past twenty years and who help other villagers establish contacts with state agencies and market operations),⁹ with str_NEW based on scores on the existence, utility, and contact by villagers with such new leaders.

These types of agency are common among villages in this region. However, the effectiveness, utility and range of functions of each type of agency differ from village to village, and I looked to these variations for developing scales for comparing agency strength.

RESULTS

All of these variables, corresponding to different bodies of explanation were considered – along with social capital – for understanding why some villages consistently outperform other villages in terms of development performance scores. Regression analysis as well as case study examination showed that only three among these independent variables were significant for explaining differences in Development Performance scores.

Results from regression analysis are shown in Table 2.

⁹ A longtime observer of village politics described these new leaders to me in the following terms: “They are usually between twenty-five and forty years of age...[and] educated to about middle school [level]. They read newspapers, have low-level contacts in numerous government offices, and are experienced [in dealing] with the government bureaucracy and with banks, insurance companies, and such like... Their caste does not matter. These new leaders can be of any caste, but they must have knowledge, perseverance and ability.” Separately and with the help of the field investigators, I interviewed nearly 120 such new leaders, and I found that they had come up and gained influence mostly within the past two decades. The spread of primary education in rural areas and also expanded interface with state and market agencies had contributed to the rise of these new leaders in villages. For a more detailed discussion of cause and effects related to the emergence of these new village leaders, see Krishna (2002, 2003).

Table 2--OLS Regressions on development performance:
DEVINDEX is the Dependent Variable

	MODEL 1	MODEL 2	MODEL 3
Intercept	22.4 (15.7)	-60.2** (24.70)	-47.2* (22.9)
<i>INDEPENDENT VARIABLES</i>			
<u>(A) Societal Variables</u>			
DRYLAND	0.09 (0.19)		
PERCPOOR	0.79 (3.48)	0.61 (3.21)	0.52 (3.24)
DISTMKT	0.21 (0.39)	0.30 (0.36)	0.27 (0.37)
INFRASTRUCTURE	-0.24 (1.77)		
NCASTES	0.15 (0.97)		
CASTEDOM		-0.001 (0.05)	0.002 (0.04)
Literacy	1.14* (0.44)	0.65* (0.37)	0.52* (0.24)
<u>(B) Agency Variables</u>			
Str_PCR	-0.14 (0.68)		
Str_PANCH	1.45 (3.89)		
Str_PARTY	0.97 (5.39)		
Str_CASTE	0.25 (4.41)		
Str_VC	-0.78 (4.82)	-0.89 (4.9)	-0.69 (4.77)
Str_NEW	0.87 (2.68)	1.12 (2.7)	0.61 (2.64)
<u>(C) Social Capital</u>			
(SCI)		1.10* (0.34)	0.35 (0.36)
<u>(D) Interaction</u>			
(SCI*Str_NEW)			0.08*** (0.009)
N	60	60	60
R ²	0.12	0.28	0.43
Adj-R ²	0.04	0.21	0.37
F-ratio	1.56	3.39	6.27
F-probability	0.186	0.01	0.0001

Note: Standard errors are reported in parentheses. *p<=.05 **p<=.01 ***p<=.001

Adapted from Krishna (2002)

The only significant variables are social capital, literacy, and the capacity of the new set of young village leaders, who have emerged and gained strength over the last two decades. None of the other variables – not commercialization or modernization, or relative need, or stratification and heterogeneity – were at all significant for explaining these results.¹⁰

Social capital is significant by itself, but it makes an even greater impact on development performance when the value of the agency variable is also high. These two variables – social capital and capacity of new village leaders – have a multiplicative impact upon each other in influencing development performance. High social capital is good for development performance, but this positive impact is made considerably larger when agency capacity is also high. And the impact of social capital is quite low (often close to zero) when agency capacity is very low or non-existent. Let me illustrate this point with the help of two village examples.

Balesariya Village

People trust each other considerably in this village, and they meet often and cooperate about numerous community issues and common problems. Balesaria consequently has a high score on the Social Capital Index. But it does not score highly on the Index of Development Performance. Why does their high social capital not translate into superior results vis-à-vis economic development?

Low agency capacity prevents people of Balesariya village from converting their stock of social capital into a flow of economic benefits. To be able to gain economically, residents of any village must be able to make connections with the outside world. They must know what programs are available with state agencies and what opportunities exist in the market. They must

¹⁰ Some independent variables are correlated with each other, for instance, STR_CASTE is correlated with CASTEDOM, and Literacy is correlated with PERCPOOR, but pair-wise correlation among the independent variables is no greater than 0.5 in any case. The value of the Condition Index is 24.68 for model 1, indicating moderate collinearity, and it is less than 15 for Models 2 and 3, indicating low collinearity.

have available to them the services of effective agents who can forge these connections on their behalf.

Mangilal, *sarpanch* (chief) of Balesariya's *panchayat* (village government), is the only one among the 1,011 residents of this village who has any regular contact with any state or market agency. However, Mangilal is not a very efficient agent. He cannot easily cheat the villagers – villagers are strongly united, and social sanctions, including ostracism, are imposed swiftly and firmly, with no scope for appeal – and Mangilal serves as well as he can. But Mangilal's abilities are quite severely limited. He has not invested much in gaining information about new programs and opportunities, and he is not very persuasive with government officials and market operators.

Despite their ample stocks of social capital thus, residents of Balesariya have fallen quite far behind other villages in terms of economic development performance. These failures of achievement are quite evident when one visits this village. The approach road to the village is a muddy path, impassable during the three monsoon months. Drinking water is still taken from the community well, and there is no piped water supply anywhere in this village.

Villagers here make good use of the resources that they have, and they have allocated these resources reasonably effectively and equitably. Without the support of capable new leaders, however, they have been unable to add significantly to their resource base.

Ghodach Village

There are seven new leaders in this village of 2,003 inhabitants, and each of them is capable and effective in his ways. However, social capital is quite low in this village, and villagers are unable to act collectively to achieve any common objectives.

Development is slow in Ghodach because “villagers are not able to agree and form a consensus among themselves. That everyone gets together behind some work and behind

protecting and maintaining [the assets that are created by] this work – such a thing never happens in this village.”¹¹ Even though their leaders have the ability to connect effectively with marketplace opportunities and with program agencies of the state, their efforts often come to naught because villagers do not act collectively in support of these initiatives.

No rules guide the use of common land in Ghodach, and pastures planted under the watershed development program have been mostly destroyed. Half of their schoolteachers had been missing for a long period during the time I stayed in this village, but the villagers had not collected to present a petition to the government department concerned. The approach road to the village was in severe disrepair, but no village meeting was convened to discuss and act upon this situation.

They have capable new leaders but the residents of Ghodach are unable to achieve any coordination among themselves. Villagers here are suspicious of each other, and they have little faith in initiatives that are taken by anyone else in the village.

Their low stock of social capital prevents villagers in Ghodach from deriving any sturdy flows of development benefits, despite the presence of capable agency. In Balesariya, on the other hand, the stock of social capital is high, but capable agency is absent, so benefits are small.

Social capital is a resource that needs to be marshaled carefully by agents who can bring it to bear effectively and reliably upon incentives available in the external environment of state and market. Where such agents are available, social capital helps produce very beneficial development outcomes. But villages that do not have such effective agents available are unable to convert their stocks of social capital into a flow of development benefits.

¹¹ Interview with Sarup Singh, previously Sarpanch of Ghodach village, June 18, 1998.

Several practical consequences emerge from this finding, and I will return to this discussion in the concluding section.

5. WHERE DO WE GO FROM HERE?

Social capital and agency both matter for development results, we saw in Section 2, and they matter in conjunction with one another. High agency capacity multiplies the beneficial effects of social capital; and when agency capacity is low large stocks of social capital may be relatively worthless in terms of development results.

Why should agency matter in this way? A large part of the answer to this question has to do with the weakness of middle-level institutions in developing countries. Communities, especially rural communities, are only very poorly connected to the state and to markets. Such communities are not able to engage profitably with state and market agencies, so even very large stocks of social capital are not easily translated into high development benefits.

High social capital communities are better equipped to act collectively for mutual benefit. But what ensures that such collective action will be successful in terms of its goals? In terms of democracy and development, especially, where the state is the target of collective action by communities – i.e., where the result is not entirely or even mainly within citizens' control – it is hardly certain that collective action will not end up being a wasted effort. To succeed in achieving their goals, citizens must also at a minimum be well informed about the processes of decision-making in the state, and they must be able to gain access to the officials who make and implement these decisions.

Adequate information and easy access are implicitly assumed within the social capital hypothesis, but information and access are not always at hand. They are relatively easily available to citizens of some countries, and they are extremely hard to obtain by citizens of

others. Agency matters in the rural Indian contexts studied here because information about state institutions and government programs is not easily available to most villagers. Low literacy and poor-quality physical infrastructure contribute to this gap, but villagers' ability to obtain high-quality information is limited as well because of the weakness of middle-level institutions, those that stand between the grassroots and the national levels. Parties are weakly organized in the Indian countryside, and local governments serve merely as implementing agencies of a centralized state. Neither parties nor local governments help villagers make effective connections with state agencies.

To gain access to the offices of the state and to avail themselves of the benefits of government programs, villagers must take recourse to agents who are available locally. Without the support of capable agents who help make fruitful connections for villagers, it is not clear to what ends they should target their collective efforts and what strategies they should adopt.

Weaknesses in middle-level institutions produce large gaps in information and access, and these gaps make it difficult for citizens to take full advantage of the opportunities for self-development that are made available by state organizations and market operations (Ostrom 1996; Tandler 1998). Agency becomes important in these situations.

Middle-level institutions are weak not only in rural India, but also in other developing countries and countries undergoing transition from socialism, so agency should matter in a fairly large number of cases. Evidence from different developing and transitional countries attests to this view.

RUSSIA

Informal (grassroots) and formal (state) institutions often contradict each other... Russia today continues to suffer from a *missing middle* of organizations linking informal grassroots networks and modern organizations....this gap is sometimes filled by anti-modern enterprises run by ex-nomenklatura officials or by Mafia organizations (Rose 1999).

CENTRAL AMERICA (5 countries)

There are few “local and accessible links between townspeople and government.” Locally-evolved “community development organizations act as local-level town governments and see themselves as responsible for making national and local governments more responsive to the townspeople (Seligson 1999).

UGANDA

Village residents in Uganda find it hard to connect with agencies of the state. What they know and what is available to them – their traditional laws and deliberative bodies – are not valuable for these purposes; and what is valuable – state programs and state assistance – is usually hard to access... Decentralization has not helped...to reduce this distance (Opio-Odongo and Lwanda-Ntale 2000).

UKRAINE

There was no one who could help the recently formed association of concerned parents for meeting with government officials and for influencing government policy with respect to the handicapped. Political parties rarely take up citizens’ issues, and officials pay little heed to groups that have no official status and no mass following (Sheremeta, et al. 2000).

BOLIVIA

Bolivia’s agrarian reform of the 1950s created an institutional vacuum in the rural areas...it annulled the old feudal patterns...but little was done by the state or its agencies to build linkages with peasant organizations (Demeure and Guardia 1997: 91).

ZAMBIA

Urban-based political elites, who are more educated and more knowledgeable about the functioning of the state machinery, act as agents for their rural-based ethnic communities. “Political mobilization of communities by such agents lends weight to their demands for preferment in the distribution of public goods” (Bates 1999).

National-level institutions and community-level social capital can both be made more productive in these contexts through policies that help construct effective middle-level institutions and build strong bridges over the existing institutional gap in the middle. Where the formal institutions of the state have been crafted from above, and where these institutions mesh poorly with informal and traditional institutions at the grassroots of society, a fairly significant

gap often appears in the middle. Indigenous agency types develop in response to this gap between the demand and the supply of intermediation services.

The new village leaders, of whom more than a hundred were interviewed for this study, have acquired considerable utility in this regard. Because villagers frequently consult with them in respect of diverse dealings with state and market agencies, and because they are knowledgeable and capable for driving effective bargains with government officials and party politicians, the new leaders increasingly represent the voice of substantial numbers of villagers. Assistance that is provided at times of great need – taking a sick person to the district hospital in the middle of the night, helping another escape lightly from the clutches of a rapacious policeman, finding old-age pension support for someone else, etc. – creates a fund of personal obligations that new leaders can bank upon. Especially when such assistance is provided willingly and without regard for immediate personal gain, it helps elevate the new leader to high status in his village.¹²

Some new village leaders seek to profit economically from the work that they do on behalf of individual villagers. But more than half of the new leaders I met are motivated to achieve high status and political position, and short-term economic considerations matter relatively little in their calculation of personal profit. Respect and status are accorded more highly to leaders who do not seek to become rich at the expense of their fellows. Such leaders acquire a fund of goodwill in the village by charging relatively small fees for the services that they provide.¹³

¹² Most new village leaders are men, though there is a small proportion who are women.

¹³ Roughly half of the new leaders I met have acquired part-time government positions that provide them with steady if low incomes.

Alternative avenues for connecting with state and markets have become available in this manner. People in villages use these connections to make more efficient use of their stocks of social capital. An important collective resource – that might have remained dormant on account of missing middle-level institutions – has been mobilized and made productive through the intervention of these village agents.

Social capital may or may not be easy to build up over the short term. The evidence in this regard is mixed and so far inconclusive. Putnam et al. (1993) propose that social capital is accumulated only very slowly. “History determines,” they claimed, and “historical turning points...have extremely long-lived consequences” (1993: 179). Analyses undertaken in other parts of the world indicate, however, that social capital may not be a historically fixed endowment and that it might be possible to build up stocks of social capital within relatively short spans of time (e.g., Hall 1997, and Schneider et al. 1997). The issue is far from resolved.

While analysis remains to be done regarding the causes of social capital, experience shows that agency strength can grow rapidly even within relatively short periods of time. Building middle-level institutions is important. But institutional forms do not need to be imported from elsewhere, and imported institutions can quite often fail to live up to their expected performance (Firmin-Sellers 2001; Schönwälder 1997). Development results can be improved considerably even within the existing system, especially if one is willing to work alongside the forces that have developed indigenously and of their own accord. New institutions at the middle level are more likely to succeed if they are folded in with what villagers already have and what they can hold accountable in terms of local knowledge and everyday understandings of right and wrong. Different agency types have developed indigenously, and it is worth examining whether these can be strengthened and helped to acquire value and stability.

The productivity of existing social capital can be considerably enhanced by following this bottom-up route to institutional building.

REFERENCES

- Bates, R. H. 1999. Ethnicity, capital formation, and conflict. *Social Capital Initiative Working Paper No. 12*. Washington, DC: The World Bank.
- Coleman, J. S. 1988. Social capital in the creation of human capital. *American Journal of Sociology*, 94: S95-S120.
- Demeure, J. and E. Guardia. 1997. DESEC: Thirty years of community organization in Bolivia, 91-101. In *Reasons for Hope: Instructive Experiences in Rural Development*, ed. Anirudh Krishna, Norman T. Uphoff and Milton J. Esman. West Hartford, Connecticut: Kumarian Press.
- Dreze, J. and A. Sen. 1997. *Indian development: Selected regional perspectives*. Delhi: Oxford University Press.
- Firmin-Sellers, K. 2001. The reconstruction of society: Understanding the indigenous response to French and British rule in Cameroun. *Comparative Politics*, October: 43-62.
- Gaiha, R. 1989. Are the chronically poor also the poorest in rural India? *Development and Change*, 20: 295-322.
- Hall, P. 1997. Social capital in Britain. Paper prepared for Bertelsmann Stiflung Workshop on Social Capital, Berlin, June.
- Inkeles, A. and D.E. Smith. 1974. *Becoming modern: Industrial change in six developing countries*. Cambridge, MA: Harvard University Press.
- Knight, J. 1992. *Institutions and social conflict*. Cambridge, U.K.: Cambridge University Press.
- Krishna, A. and E. Shrader. 2000. *Cross-cultural measures of social capital: A tool and results from India and Panama*. Social Capital Initiative Working Paper Series. Washington, DC: World Bank.
- Krishna, Anirudh. 2001. Moving from the stock of social capital to the flow of benefits: The role of agency. *World Development*, 29 (6), 925-43.
- Krishna, A. 2002. *Active social capital: tracing the roots of development and democracy*. New York: Columbia University Press.
- Krishna, A. 2003. What is happening to caste: A view from some north Indian Villages. *Journal of Asian Studies*, forthcoming.
- Opio-Odongo, J. and C. Lwanga-Ntale. 2000. Participation and empowerment through participation: Some lessons from Uganda. In *Changing Policy and Practice From*

- Below: Community Experiences in Poverty Reduction*, ed. Anirudh Krishna. New York: United Nations Development Programme.
- Ostrom, E. 1996. Crossing the great divide: Co-production, synergy and development. *World Development*, 24 (6).
- Putnam, R. D. 1995. Bowling alone: America's declining social capital. *Journal of Democracy*, January.
- Putnam, R. D. (with Leonardi, R. and R.Y. Nanetti). 1993. *Making democracy work: civic traditions in modern Italy*. Princeton, NJ: Princeton University Press.
- Rose, R. 1999. *Getting things done in an anti-modern society: Social capital and networks in Russia*. Social Capital Initiative Working Paper No. 6. Washington, DC: The World Bank.
- Schneider, M., P. Teske, M. Marschall, M. Mintrom and C. Roch. 1997. Institutional arrangements and the creation of social capital: The effects of public school choice. *American Political Science Review* 91 (1): 82-93.
- Schönwälder, G. 1997. New democratic spaces at the grassroots? Popular participation in Latin American local governments. *Development and Change*, 28: 753-770.
- Seligson, A. L. 1999. Civic association and democratic participation in Central America: A test of the Putnam thesis. *Comparative Political Studies*, 32 (3), 342-362.
- Sen, A. K. 1999. *Development as freedom*. New York: Knopf.
- Sheremeta, P., D. Koenig, O. Vynogradov, and O. Sydorenko. 2000. CEREBRAL: A grassroots initiative for assisting children with cerebral palsy in Ukraine. In *Changing Policy and Practice From Below: Community Experiences in Poverty Reduction*, ed. Anirudh Krishna. New York: United Nations Development Programme.
- Tendler, J. 1998. *Good government in the tropics*. Baltimore and London: Johns Hopkins University Press.
- Uphoff, N. 2000. Understanding social capital: Learning from the analysis and experience of participation. In *Social Capital: A Multifaceted Perspective*, ed. P. Dasgupta and I. Serageldin. Washington, DC: The World Bank.
- Wade, R. 1994. *Village republics: Economic conditions for collective action in South India*. San Francisco, CA: Institute for Contemporary Studies.
- Zoetelief, Jochem. 1999. Finance From Below: Savings Arrangements and Credit Mechanisms in Dodoma Rural District, Tanzania. M.Sc. thesis, Department of Social Science, Wageningen Agricultural University, The Netherlands.

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