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Staff Paper

SOURCES OF SOCIAL CAPITAL

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Staff Paper 00-07

April 20, 2000



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Abstract

If the capital metaphor is to be taken seriously, social capital must focus on sources and not consequences. Human motive is the equivalent of physical capital goods which can perform transformative functions such as creating utility for one person out of the consumption of another and solving free rider problems. The focus on consequences of social capital cannot distinguish a gift motivated by affinity from a goods transfer motivated by moral obligation or promise of selfish gain. Motive is important if we are to understand investment and depreciation in social capital. The paper develops and tests a survey instrument to measure the predominant motive describing the relationships among people in eight Michigan communities with different socio-economic characteristics. Such a social capital account would allow community stocks to be compared and tracked over time.

19 Pages

April 20, 2000

SOURCES OF SOCIAL CAPITAL

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The literature on social capital has accumulated substantial evidence on the usefulness of social capital. Among other consequences, social networks are a productive asset and lower the cost of information. Knowing who can provide a needed physical input or skill is useful. Trust is a kind of substitute for assurance of performance as agreed to between parties (Fukuyama 1995). It may substitute economically for formal contract enforcement. Knack and Keefer (1997) found a positive relationship between countries whose citizens agreed that they could trust others and the rate of economic growth. Social capital also supports one-way income and service transfers. These are some of the products and consequences of social capital. But, what is the source that enables these consequences?

Michael Woolcock argues that, "definitions of social capital should focus on its sources rather than its consequences." (1997, 35) This paper describes a pilot research project whose purpose is to develop some basic metrics for measurement of social capital itself which can be used subsequently to explain how it can be changed (invested in or depreciated). It is a beginning on measuring social capital as is now done for physical capital (investment in the national income accounts) It will be argued that it is important to distinguish the capital goods or "factory" from its products (or consequences) and from the means for building factories. It will be argued that emotions and motives are what energizes the outputs. Unless the motive is understood, it will be difficult to understand how to get more of it.

The plan of the paper is to first review some of the measures of social capital extant in the literature and illustrate how they do not identify sources. Next, a deeper interpretation of the capital metaphor is offered. This is followed by an analysis of the role of emotion and motives. Finally, a survey instrument is developed and tested to identify sources of social capital.

Measures of Social Capital

Measures of social capital in the literature are greatly influenced by two seminal works, that of Robert Putnam and Francis Fukuyama. Putnam has offered historical data in the U.S. on participation in voluntary civic associations, such as Parent-Teacher Associations. His cross-sectional analysis of the performance of local government in northern and southern Italy indicates that different levels of participation in civic associations of all kinds are associated with different governmental and community performance such as crime and corruption (Putnam 1993). The associations may range from neighborhood associations, choral societies, cooperatives, to sports clubs. The numerical measure is the number of associations and members. It is presumed that the greater these numbers the more social capital which is itself not quantified.

Both Putnam and Fukuyama emphasize the role of trust. Trust is the name of Fukuyama's

book (Fukuyama 1995). He says, "Social capital is a capability that arises from the prevalence of trust in a society or in certain parts of it." 26 "Trust is the expectation that arises within a community of regular, honest, and cooperative behavior, based on commonly shared norms, on the part of other members of that community." 26 In other words, if you expect others to do the regular, honest and cooperative thing, you are trusting. While trust is surely an expectation, it also leads to action. A person who trusts another person will place resources at risk of being lost to the possible opportunistic behavior of others. Fukuyama does not try to quantify either the expectations or the overt behavior. He does offer qualitative contrasts among countries as to the extent of these expectations and behaviors, and finds them associated with economic development made possible by achieving economies of scale available to large firms with hired professional management in contrast to small family run firms. Fukuyama finds ordinal differences in participation in associations which he refers to as "spontaneous sociability" in contrast to authoritative hierarchies. What is the source of trust for Fukuyama? Shared norms. And where do shared norms come from? From religion, tradition and historical habit. These are distinctly social phenomena and little affected by an individual decision to invest.

Trust can be in part quantified by surveys which ask people the extent of their agreement with the statement "Generally speaking, would you say that most people can be trusted?" This question is included in the World Values Survey in 26 countries. The mean value of the Likert scales reported were used by Knack and Keefer as the independent variable in a regression equation explaining economic growth. (I say in part because we do not know how many resources people in the various countries would actually put down, but most observers probably agree that resources placed at risk and reports that people are trustworthy are positively related.) Other measures of civic cooperation have been developed by asking for whether the behaviors such as the following can always be justified, never, or in between: "claiming government benefits which you are not entitled to," "avoiding a fare on public transport," or "keeping money that you have found." All of these measure are of feelings about actions. There is no inquiry into what is behind these feelings.

The feeling about returning lost money has been experimentally tested by the *Reader's Digest* (1996). Wallets were planted in 20 European and 12 U.S. cities. The percentage of wallets and cash returned provides a numerical measure of opportunism forgone. Again, there is no inquiry into what is behind this behavior, i.e. its source.

There is a large empirical literature in sociology on social networks. These networks describe the extent of social interaction in a community. For example, there are surveys which ask respondents the number of people on their block that they know by first name; the number they have had as house guests or left their keys with. There are other measures of feelings of connection, support, belonging, participation, empowerment and safety. Again, these are measures of behaviors and attitudes, not about motive.

The Capital Metaphor

Why use the concept of capital when speaking of human relationships? Does the capital metaphor suggest different measures than are now common in the literature? We have long understood the role of physical capital in the production of goods. Capital is a way of describing machines and factories that make things. Capital is not immediately used up in production but

rather its services extend over time. The capital stock is subject to investment (augmentation) for future production and depreciation and decay from both use and non-use. Are we now ready to add social capital in the same way? Can we explore its substitutability and complementarity?

If social capital is adherence to a norm and not affected by individual action as Fukuyama suggests, then it is not capital in the above sense. It is a valuable and productive asset, and like land nice to have, but given for practical purposes. It is like capital in the sense that it can depreciate.

What dimensions of human relationships better fit the concept of capital. And, what relationships lie beneath the observed behaviors of trust and socializing? By social capital I mean a relationship between individuals combining caring (degree of affinity or sympathy) and social distance (awareness). Social capital also includes an internalized sense of obligation and ethical norm. Both kinds reside in transacting, communicating individuals. This relationship is like capital in the sense that it is productive and transformative. For example, caring makes it possible for a person to derive utility from the welfare of others, from regard given by others, and from giving regard. And, most important for economic development, it reduces the free rider problem.

Caring produces value as does a factory. Since it is a relationship, it is possible for more than one person to benefit from social capital, unlike physical capital which is incompatible in use. Caring is the only thing that makes it possible for two people to enjoy what would otherwise be an incompatible use good. Performing as to a norm cannot do this. A norm can support an income transfer, but it cannot make the recipient's welfare contribute to the giver's welfare.

Social capital as conceptualized here is the "factory" that produces utility and preferential treatment. It is distinguished from the goods and utility produced by the factory such as material transfers and trusting and non-opportunistic behavior. This conception is consistent with Woolcock's (35) suggestion that "definitions of social capital should focus on its sources rather than its consequences."

Social capital is viewed here as a property of individuals within some macro unit such as an organization, community, or society. Individuals can invest in relationships to increase the affinity others have for them and they have for others. Cultural learning may also increase social capital for members of some macro unit with little intentionality by individuals. Cultural learning is particularly important for internalized social norms (the ethical thing to do).

Emotion and Motive

Social capital may be created by the conscious calculation of individuals who hope to benefit from it. A person may give another a gift in anticipation of future favors. But social capital may also be created subconsciously as a result of human interaction. Humans love and want to be loved (held in good regard). These are basic emotions and not just behaviors calculated to obtain something else in exchange. The self-centered and the loving (caring) motives are often mixed together and hard to separate. In the words of Kenneth Boulding, the "carrot" and the "hug" are both present in a human interaction, but he argues that the hug is stronger (Boulding 1973). Francis Fukuyama's new book, *The Great Disruption*, is built on a foundation of how the human brain has evolved in the context of successful cooperation for survival (Fukuyama 1999). This perspective of evolutionary psychology is consistent with the thrust of this proposal in its exploration of the emotions.

Robison and Schmid (Robison and Schmid 1991) asked people for what price they would be willing to sell a used car to a set of buyers who were presumed to vary in the degree of social capital they held vis a vis the seller based on the seller's affinity for them. The selling price varied as the buyers ranged from a family member, friend, neighbor, to nasty neighbor. It seems reasonable to assume that this progression reflected a rank order of affinity motivating benevolence to neutrality to malevolence. But, the affinity was not directly measured.

Robyn Dawes (Dawes 1990) found that people playing prisoner's dilemma games more often achieved cooperation after they first had five minutes of conversation. It can be presumed that conversation increased social capital, but the affinity was not measured.

The next step in social capital research is to develop a metric to directly measure the degree of affinity that constitutes the social capital "factory." The factory is the motive for human actions and choices. The literature has documented that actions like associational activity, number of social events attended, donations given, and degree of civic involvement are associated with economic growth and achievement. But what is the source (motive) of these actions? One means to motivate these actions is to provide information to individuals so they can better calculate the returns to their own investment in social capital. But if emotion is at work, then social capital is also built by changing the affinity that people have for one another. Social capital is not just about values in the sense of prizing honesty and cooperation. It is also about the value placed on receiving and giving regard and caring. If we can improve our understanding of the role of emotion it opens up a new approach to social capital formation.

Comprehensive measures of outputs are difficult because of the problem of accounting for all of the voluntary associations that exist and their qualitative differences. Putnam has evoked much objection from those who observe that associations come and go in different forms (Ladd Report). This suggests the need to explore a different tack. Associations are intermediate outputs and products, not capital itself. They are not the source of energy for transforming inputs to outputs. This energy is in peoples' heads. If we can get at the factory rather than the products it will facilitate comparisons across nations. Weighting a parent-teacher association in the U.S. with equivalents in France or Germany is inherently difficult. But the weighting of sympathy and norm following may be more meaningful.

Consider some of the other output measures suggested in the literature such as family structure, crime, trust, values and civil society. Family structure has greatly evolved. The rate of divorce reflects an underlying caring. But, a time series is confounded by questions of whether higher modern rates reflect a change in caring or just a change in law and social prescriptions. We know that many couples stayed together not out of love, but because of convention and lack of other opportunities. For example, does Ireland have a lower divorce rate because it has higher social capital or because of religious and state rules? The problem intensifies if we make comparisons in Moslem countries. Family structure provides a context in which to contrast the motives of affinity, norm following and selfishness. Do people associate out of affinity, norms, or selfish calculation? It is at this level of analysis that international comparisons and time series may be meaningfully constructed, rather than in terms of divorce rates and family composition.

The contrast between measures of association and motive is well illustrated by reference to social network analysis. One of the earliest examples of network analysis was the mapping of intercourse among a group of young adults over time. The map showed that Sally slept with John

and John also slept with Jane. Jane slept with Mary and so on. What the map did not show was the motive. We can imagine it ranged from regard for others only as commodities (prostitution) to deep caring and love. The map did note marriages, but again not the motive.

Crime statistics are noted in the literature as somehow reflecting social capital, but again there is not a time series on motive. We can imagine that one avoids crime because of affinity, regulation, and opportunity (monitoring). If we take the capital metaphor seriously, crime is seen as an outcome, not the factory capital.

Peoples' trust in various organizations has been measured over time. There are surveys asking if the government (or whatever) can be trusted to do the right thing. These questions use the term "trust" in quite a different way than it is defined above. It has little to do with putting resources at risk. The response can not be distinguished from the answer to "Do you agree with the decisions of government?" The "right thing" may be read as doing what I prefer instead of what others prefer or as doing the opposite of what all people have agreed on. Only the latter is equivalent to the opportunistic violation of a contract.

The fact that Blacks and the poor are more distrustful of government than are Whites may just say that Blacks lose more often when in conflict over social policy. This has nothing to do with trust as defined above. The question might better have been, "Do you agree with government policies, etc.?"

Social scientists using in-depth interviews have come closer to exploring motives. Alan Wolfe found that middle-class Americans expressed the opinion that Americans had become more selfish over time (Wolfe 1998). If people can perceive differences over time, can they perceive differences in communities? Can they perceive differences in themselves in different contexts such as when dealing with strangers and neighbors?

The literature to date has focused on international comparisons and time series within a country. Then analysts have tried to explain differences across nations by reference to historical cultural differences. Or they have tried to explain time trends also by reference to changes in population, women in the work force, etc. This leaves the impression that we are stuck with whatever exists. But if differences among communities are found, this suggests that there are some choices at the community level that can make a difference in the future.

Explanation, Understanding and Occam's Razor

There is a great attractiveness to parsimony. Why add excess baggage of additional variables if fewer will explain something? For example, cooperation in repeated Prisoners Dilemma games can be explained as a rational calculation based on the observation that tit for tat gives an individual greater payoff than any other strategy. The explanation of rational self interested behavior is consistent with the evidence that much cooperation occurs. So why introduce altruism, caring and love and other elements of social capital?

The answer lies in the economics of substitutes and complements. If I want to get more cooperation, what is the cheapest production method? Given any starting place, if I want another unit of cooperation, is it cheaper to add another unit of information (education) about how well tit for tat works or is it cheaper to produce a unit of caring? If information and caring are different inputs, then the fact that information is associated with cooperation is not enough. It is like

noticing that nitrogen is associated with plant growth. Why would I want to add P & K to the input set? Because at some point it is cheaper to get more plant growth to adding P to a given amount of N rather than another unit of N.

Occam's Razor is more of an engineering concept than social science. Explanation in the sense of discovering that A is associated or consistent with B is not good enough. We want to know if C is a substitute or complement for A in the production of B.

We can observe that a person returns a lost wallet. This behavior is consistent with an explanation that this person predicts that the owner will give her a reward, if not now, sometime in the future. So it is consistent with a selfish motive. Is this to be the end of the story because of the beauty of Occam's Razor? The behavior is also consistent with a learned habit where there is no calculation at all; the person never imagines an alternative behavior. Sen refers to this motive as one of commitment (Sen 1982). The behavior just fits the situation. Is this to be the end of the story because of the beauty of Occam's Razor? Which is more beautiful, the parsimonious selfish motive or the equally parsimonious commitment/social norm motive? Beauty in this case is probably a matter of whether one is an economist or sociologist.

The behavior is also consistent with altruism and sympathy. Neither mainstream economists nor sociologists seem to find this beautiful. Nevertheless, there is the question of substitutes and complements. Not all people return lost wallets. If I want to increase the proportion that do, what variable do I try to alter? Even if I could determine that all of the people who now return wallets are motivated by narrow self interest (the most parsimonious explanation), it does not follow that education to improve the calculation of self interest or even increasing the rewards is the cheapest method to increase performance. It might be cheaper to decrease social distance and arouse sympathy. This is an empirical question to which Occam's razor has little to contribute.

Sen makes the point that preferences are not revealed and we can't distinguish sympathy from commitment by looking at behavior alone (Sen 1982). Why bother to inquire directly as to motive? Because the marginal products of commitment and sympathy per unit of effort may not be the same.

Robert Axelrod (1984) has demonstrated that tit for tat is a maximizing strategy in Prisoner's dilemma games. The lesson that some draw is that a calculated self serving strategy can emerge and survive without any centralized or caring behavior (Adam Smith modernized). Apparently we need no consciously collective or caring behavior. Being "nice" can emerge without anyone actually being nice. Is this persuasive?

There is still the matter of complements and substitutes. Can calculated narrowly self-interested behavior meet all our needs? Some want not only the fruits of *de facto* cooperation but also the sense that someone cares for them. Even if calculated tit for tat goes a long way, could it meet still more of our needs when combined with caring? What if the first move of others is uncooperative? Tit for tat is a recipe then for low level equilibrium. What if the other person makes a mistake? The tit for tat rule could be modified to allow one unmet non-cooperation. But what if it takes more than one move in the real world for the other person to recover— e.g. a business firm to recover from a mistake). Will the customer remain loyal long enough as Hirschman (1970) asks? And what happens if people get mad? But of course, in the completely rational world there is no room for the emotion of malevolence any more than benevolence which

some have tried so hard to make redundant.

Another reason for taking the capital metaphor seriously is its ability to serve as a diagnostic. Two communities could have equal trust, networks, etc., but their capital plant which produces these things could be in ill-repair and about to collapse. If one only has a measure of the end products, there is no signal to explore potential current repairs that could make a difference.

Motivations to Volunteer

Research on motives is most prominent in the literature explaining volunteer activity. This literature inquires into how motivations differ between volunteers and non-volunteers rather than how communities differ. The scales used can be useful for both. Cnaan and Goldberg (1991) administered a scale with 28 motives that had been used in other studies. They distinguish sympathy for the recipients from adherence to a moral norm. Subjects were asked the extent of their agreement with the various motives (Likert scale). Many of the items are different ways to express the same basic motivation.

A. The following items reflect a concern for the cause and project of the organization:

1. Create a better society.
2. Doing something worthwhile.
3. Adhering to agency goals.
4. Opportunity to change injustices.
5. There would be no one to carry out this volunteer work.

B. The following items are self-serving:

1. Gaining practical experience toward paid employment.
2. Educational experience.
3. Loneliness.
4. Agency is prestigious.
5. Improve attitude on one's own life situation.
6. My employer/school expects it.

C. The following items may reflect affinity and sympathy:

1. Knowing a client of this agency.
2. Previous contact with professionals in this agency.

The "opportunity to do something worthwhile," "makes one feel better about oneself" and "it creates a better society" were the Likert items with the largest means for volunteers. The lowest means were for "gaining practical experience toward paid employment" and "loneliness."

The authors utilized a factor analysis to discover any patterns among the motives. Twenty of the twenty-eight variables loaded on one factor. These included a mix of motives that might be interpreted as altruistic and egoistic. The authors interpreted "opportunity to do something worthwhile" and "it creates a better society" as altruistic. They regarded "makes one feel better about oneself" as egoistic. But this turns on how the subjects defined the self. If the self is altruistic then it is self serving (as are all motives), but it is quite different from a narrow definition of self. The authors conclude that the motivation to volunteer is unidimensional and no

distinction can be made between egoistic and altruistic motives.

The authors reasoned that the unidimensional hypothesis could be confirmed if the total score was correlated with the number of hours of volunteer work. The correlation coefficient was .25 with $p < .001$. They further reasoned that volunteers would have higher scores than non-volunteers who were asked to rate how important each motive might be if they decided to volunteer at a future date. However, the tests may indicate only that low-participation volunteers and non-volunteers can't imagine being enthusiastic about any motive for volunteering. The non-volunteer can't think of any strong reason, egoistic or non-egoistic, to volunteer. The more interesting question is the difference between high participation volunteers and non-volunteers in the pattern of their motives. I would hypothesize that if the egoistic and altruistic motives could be sharply distinguished, volunteers would have higher scores on altruism than narrow ego. The authors convinced of the unidimensionality of their scale, did not make any contrasts on a single expression of a clearly egoistic motive and a clearly altruistic motive.

The authors argue that volunteers act on both egoistic and altruistic motives (p. 281). "Volunteers act not from a single motive or a category of motives but from a combination of motives that can be described overall as 'a rewarding experience,'" (281) "People are motivated by a particular meaningful whole that is relevant to them." 281 But this is not to say that some motives are not more important than others or that the motives most important for volunteers are not the most important imagined by non-volunteers if they were to participate. The latter point argues for:

1. Sharply distinguishing egoistic and altruistic motives.
2. Contrasting the importance of the egoistic motive from the altruistic motive for volunteers and non-volunteers (or in my case, comparing communities as to the mix of these motives). This argues for asking the question in terms of ranking the motives rather than using a Likert scale of agreement with the motive. With a Likert scale the non-volunteer can report that they have low agreement with all motives listed. This may be so reported even if one motive is relatively more important than another. The latter can only be revealed if a ranking scale is used such as the allocation of 100 points among various motives.
3. The motive to volunteer may be associated with a broader orientation. A question that reveals caring in another context may be a better indication of volunteering or other cooperative behavior. Do we ask, "why volunteer" or "why return a wallet?" Or both? So instead of asking "if you were to volunteer, what would be your motive" it might be better to ask, "would you return a wallet and why?"

If one wanted to explain the difference in volunteering among communities, the motives expressed in the wallet question might be more indicative than those expressed in the volunteering hypothetical. (The non-volunteers may feel that they would only volunteer if they later got a monetary reward, but report a low level of agreement with monetary reward as the motive for volunteering because they can't imagine that volunteering has much monetary reward.) A counter argument is that there is no link between a general attitude and general behavioral tendencies, but rather that each behavior may be quite frame specific. This should be subject to empirical testing.

Questionnaire

Available data drives concepts and research agendas as much as concepts and theory drive data collection. The existing cross-sectional and time series data are largely on outputs and products and that is where current research is focused. The research described here builds on a base of data about capital, not outputs and intermediate products, and it inquires about the motives for associating rather than only the acts of association.

A random sample of individuals in five communities in Michigan was drawn for a phone interview. The random digit dialing survey was conducted by the Survey Research Division of the Michigan State University Institute for Public Policy and Social Research, August, 1999. One hundred interviews were completed in each of the five communities. The communities were chosen for contrast in socio-economic characteristics (see Appendix Table A). They range from a central city, high poverty census tract to a suburb with high income. The research is pushing into a relatively unexplored domain and one of its major products will be developing a workable survey instrument. Two focus groups were conducted to help determine how people conceptualized reasons for cooperative association.

Consistent with the exploratory character of this pilot project, the random digit phone survey was supplemented with a mail questionnaire to three small Upper Peninsula communities. Two hundred questionnaires were mailed to each community, and of the valid addresses, the response rate varied from 35 to 46 percent.

The questionnaire was deliberately kept short in the hope of achieving a high response rate. If a valid instrument can be developed, a short questionnaire would be more suitable to be included as a part of other broad social surveys such as the trust question which is now a part of the World Values Survey. No individual demographic data need be collected. The purpose is to determine if there are differences in social capital between communities rather than to explain why one person has high social capital and another does not. The communities can be described by reference to Census data on income, etc.

The model for this measure of social capital is that of the national income accounts. It is intended as a basic stock inventory which others can use to explore substitutes and complements and to relate to processes of investment and dis-investment.

The first question in the survey instrument shown below asks whether the respondent would return a lost wallet. The lost wallet has a firm place in social capital research and as noted above has been used in experiments. The contrasts in actual returning of the wallets provides an example of the opportunities for relating the capital stock and motives to other data on outputs, outcomes and behaviors. The answer to the wallet question is not expected to be meaningful. It was used just to provide a setting where opportunistic behavior is possible. The focus is on the reasons for returning the wallet. The question for future research is whether such a measure for a community is an indicator not just of wallet returning behavior, but a whole range of cooperative and volunteer behavior

Social Capital Questionnaire

*1. If you found a wallet with \$1,000 and the name and address of the owner (not known to you),
Would you return it? Yes _____. No _____.*

If you would return it, indicate the importance of various reasons that are relevant for you by distributing 100 points among various reasons listed below. (Make sure the items sum to 100)

- _____ A. You would feel sympathy for the person who lost it.
_____ B. It is the ethical thing to do.
_____ C. You might earn a monetary reward or praise by the owner or friends.
- 100 *Sum of all the reasons.*

2. *If you lost a wallet, do you think most finders would return it?*

Yes _____. No _____.

If returned, do you think the person finding it returned it because, (again assign 100 points)

- _____ A. They feel sympathy for you.
_____ B. They feel an ethical obligation.
_____ C. They expect a monetary reward or praise from you or friends

100 *Sum of all reasons*

Note that these motivations are different. Feeling sympathy for a person is an identification with that person. It is related to affinity and caring. One's utility is affected by the utility of others. Feeling an ethical obligation is acting consistent with a moral code (a norm), perhaps in support of a person's concept of their ideal self. There is no necessary caring here. The benefit-cost calculation involved in a possible reward or praise is a different matter. No caring is necessary. The questionnaire asks first of the respondent's own motives and then their perception of the motives of others in the community.

It is theorized that different motives can co-exist. Action can simultaneously have different motives with different weights. The respondents are asked to weight the motives by allocating 100 points among them. This is in contrast to the much used Likert scales wherein the respondent may agree fully with all items. Perhaps it is the economist's viewpoint in working with budget constraints that led to a format allocating 100 points.

It is an empirical question whether people's response to these questions would explain the proportion of people in a community that would return wallets. More importantly, it may be a setting where people have a chance to reveal something about themselves which is related to tendencies on a variety of cooperative behaviors. It has similarity to a Rorschach test. (In fact this is what Banfield did in his description of communities in southern Italy (Banfield 1958). A person who sees mostly snapping Ninja turtles is a different kind of person from one who sees mostly love birds. In the same sense, it is hypothesized that a community that responds in terms of sympathy is different from one that responds mostly in terms of rule following. Once we have a measure of the social capital stock, this and other hypotheses can be tested. For example, we can ask whether a community with some threshold level of sympathy is likely to have more volunteer and other cooperative behavior than a community that falls below the threshold.

Results

As expected, nearly all respondents in all communities said they would return the wallet. But they were much less confident of the high-minded behavior of others (Table 1). The average of individuals of one community reported that they expected only 32% of others would return it. The most optimistic community expected 53%. The small rural communities (in the mail survey) were more confident that others would return the wallet than the larger urban communities (phone survey).

What about the reason for one's own behavior? Ethical motives dominate in all communities ranging from 52 to 66% of the total motivation. This was followed by a range of 28 to 38% for sympathetic motives and 3 to 16% for rewards. There is a marked difference in the role of reward in motivating one's own behavior for the small rural places compared to larger urban places. The people in the rural places on average reported 3 to 4 percent of the motivation as reward while the urban places reported 7 to 16%. The socio-economic characteristics of the survey sites are contained in Appendix Table A.

Reasons for the behavior of others if they were to return the wallet shift more to reward as the motivation. Ethical and sympathy still are the major reasons, but reward was expected to constitute 19 to 29% of the motivation for others. It is not surprising that we attribute higher motives to ourselves than others. The exception was the city of Benton Harbor where own motivation and motivation of others were remarkably similar. Benton Harbor is the only community where the ethical motivations of others is expected to be a greater proportion than it constitutes for one's own motivation. Benton Harbor is one of the poorest communities in Michigan with 92% of its population Black. By contrast, the rich, white suburb of Kentwood is the most suspicious of the motives of others. They report only 8% of their own motivation comes from reward, but attribute 27% of the motive of others stemming from reward, the largest percentage of all places surveyed. The poorer communities (e.g. the Lansing central city census tract and Benton Harbor) generally see themselves as being more motivated by reward than are the richer communities (even though ethical and sympathy dominate). (For socio-economic data, see Appendix Table A.)

The rural-urban, income and racial contrasts are not meant to establish any generalizable correlation. This pilot project is only intended to discover if variation exists and to demonstrate possible researchable follow-up that would be possible if such data on social capital sources were available across a universe of community characteristics. Because of the character of the data, only descriptive statistics are reported. The variability of the data can be seen in the standard deviations noted in Appendix Table B.

Radius of Social Capital

The radius over which social capital extends has been identified in the literature as an important dimension. (Fukuyama 1995). The implications of social capital are expected to differ if it applies only to one's immediate family and friends, to one's community or to a broader world. To explore this dimension, a question was added to the mail survey as follows:

People fall victim to disasters such as illness, accidents, floods, hurricanes, and war. If you had

decided to give \$100 to help such people, how much would you give to each category below?

a. People in your town \$ _____

b. People in the United States \$ _____

c. People in a foreign country. \$ _____

Total \$ 100

The results (Table 2) show a strong preference to allocate one's charity to local disaster victims. The percent of total contributions to local victims ranged from an average of 64 to 73% among communities. The percentage to U.S. victims was 20 to 24% and the foreign contributions ranged from 8 to 12%. Since these rural small towns were contiguous, they were not expected to show large variations in the radius of social capital. This suggests the need for further surveys of this dimension of social capital.

Conclusion

An argument has been made to conceptualize social capital as a productive asset that can transform inputs to useful products much as does physical capital. If the "factory" is to be distinguished from its products, a measure of the size and quality of the factory is needed as is now available for physical capital in the national income accounts. A social capital account would allow community stocks to be compared and tracked over time. It is hypothesized that the motives of rule following (ethics) produce a different behavior than sympathy (caring) or seeking of reward (or the proportions thereof make a difference). This cannot be tested unless these motors are distinguished and tracked over time.

The pilot survey suggests that communities vary in the pattern of motivation in the context of a hypothetical situation where opportunism is possible. This promises to allow research on how these different patterns affect behavior and community outcomes. Further, if measures of the sources and radius of social capital were available for different communities, it would provide basic data to relate to some of the observed differences in trust and other social and economic functioning of communities. And, if we had these measures over time, we could explore the community characteristics and experiences that are associated with the creation, growth, and decline of social capital. This would allow social capital to take its place in the inventory of valuable assets now dominated by measures of physical capital and human skills.

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I want to thank Meenu Singh and Brady Deaton for their assistance with this project. Thanks also to Larry Busch, Ralph Levine, James Shaffer and Lindon Robison for their review of this work.

Table 1: MOTIVATION FOR RETURN OF WALLET: OWN AND OTHERS

Community	Own Motivation			Will Others Return? % Yes	Others Motivation			n	Percent Response Rate
	Sympathy %	Ethical %	Reward %		Sympathy %	Ethical %	Reward%		
<i>Mail Survey:</i>									
Iron River	36	61	3	55	29	49	22	68	46
Stambaugh	38	58	4	45	20	50	29	58	35
Caspian	31	66	3	53	25	52	21	70	40
<i>Phone Survey:</i>									
Lansing	34	55	11	32	25	51	24	100	
Kentwood	33	58	8	36	27	46	27	100	
BentonHarbor	32	52	16	33	26	54	19	100	
Jackson	30	62	7	44	33	42	24	100	
Delhi Twp.	28	63	9	42	22	57	21	100	

Source: A. Allan Schmid, Social Capital Survey, August 1999.

**Table 2: DISTRIBUTION OF CONTRIBUTION TO DISASTER VICTIMS:
OWN TOWN, UNITED STATES, FOREIGN**

	Iron River	Stambaugh	Caspian
Percent Town	64	73	68
Percent US	24	20	21
Percent Foreign	12	8	12

* Average contribution need not add to 100 percent.

Appendix Table : A POPULATION, INCOME, and RACE BY PLACE, 1989

	Delhi Twp.	Kentwood	Jackson	Stambaugh	Iron River	Caspian	Lansing Tract 15	Benton Harbor
Households	7,014	15,247	14,723	587	949	469	1,168	4,334
Median Income	\$36,038	\$34,324	\$20,830	\$14,025	\$12,290	12,011	\$10,147	\$8,866
Families	5,303	9,841	9,217	379	562	290	494	2,970
Median Income	\$40,455	\$40,946	\$25,355	\$18,000	\$16,464	\$17,670	\$13,750	\$10,447
% Black	1%	5%	18%	0%	0%	0%	66%	92%
Persons	19,190	37,826	37,446	1,281	2,095	1,031	2,525	12,818
Per Cap. Income	\$14,505	\$15,453	\$10,410	\$8,672	\$8,004	7,751	\$6,763	\$5,622
% Persons Below Poverty	8%	5%	24%	20%	26%	20%	28%	58%

Source: U. S. Census, 1990.

Appendix Table B: MOTIVATION FOR RETURN OF WALLET: OWN AND OTHERS
Standard Deviation (s)

Community	Own Motivation			Others Motivation			n
	Sympathy %	Ethical %	Reward %	Sympathy %	Ethical %	Reward %	
<i>Mail Survey:</i>							
Iron River	27.5	28.5	6.7	20.5	28.8	27.6	68
Stambaugh	30.6	30.4	9.2	20.3	30.7	29.7	58
Caspian	31.8	33.4	7.6	23.0	31.6	27.2	70
<i>Phone Survey:</i>							
Lansing	28.2	31.3	16.1	22.2	26.7	17.1	100
Kentwood	26.2	28.9	11.8	16.6	21.7	19.6	100
BentonHarbor	25.2	30.5	20.4	19.2	26.4	18.8	100
Jackson	24.9	30.0	10.1	22.3	26.1	23.4	100
Delhi Twp.	24.0	28.7	14.5	14.8	21.0	20.5	100

Source: A. Allan Schmid, Social Capital Survey, August 1999.