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Too Much Investment in Social Capital?☆

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1. What this is all about

I am baking a cake and have run out of sugar, but I can go to my neighbor next door to get some. It was worth being nice to that neighbor even though I did not particularly fancy her. Do I have to return the sugar? Maybe she can borrow my lawn mower the next time she needs to mow her lawn and that will count as a return of the favor. Maybe the value of the sugar is trivial enough not to require repayment in kind. Now I need a recipe for a new cake. My neighbor has just the right recipe for me. But there is really nothing to return except for good will because in giving me a copy of the recipe my neighbor still has it. A guy three houses down the street whom I do not know has heard from my neighbor that I know something about computers and asks me to help him. I am busy but feel obligated to at least try to help because we all live in the same neighborhood. Someday I will have to ask a neighbor, maybe even a different one, for help in fixing that darn lawnmower. What goes around comes around. In fact, I am really in a bad mood because the cake was not really any good, the new recipe was of no great help, and besides, my lawnmower is busted.

☆ Nadav Halevy pointed me in the direction of various readings in economics. Barry and Beverly Wellman read the manuscript meticulously and made important suggestions.

Social Capital of Organizations. Research in the Sociology of Organizations.

Shaul M. Gabby, Roger Th. A.J. Leenders (Eds.), Samuel B. Bachrach (Ser. Ed.), Vol. 18; Elsevier, Oxford, 2001, viii + 291 pages, Cloth \$ 85.

Social Capital: A Theory of Social Structure and Action. Structural Analysis in the Social Sciences

Nan Lin (Ed.), Mark Granovetter (Ser. Ed.), Vol. 19; Cambridge University Press, New York, xiv + 278 pages, Paper \$ 23.

Social Capital: Theory and Research. Sociology and Economics.

Nan Lin, Karen Cook, Ronald S. Burt (Eds.), Paula England, George Farkas, and Kevin Lang (Ser. Eds.); Aldine de Gruyter, Hawthorn, NY, xii + 333 pages, Cloth \$ 57.95, Paper \$ 28.95.

Bowling Alone: The Collapse and Revival of American Community.

Robert D. Putnam (Ed.); Simon and Schuster, New York, 2001, 540 pages, Paper \$ 16

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A long-term friend just happened to call me up on the telephone and I guess I let loose some of my frustration on him. He told me a bunch of silly jokes and made me feel much better.

The concept of “social capital” is said to cover all these situations. I do not have to have the sugar because my neighbor has some. I may even be able to return the favor not in kind but through some other means. I did “invest” in that relationship by being nice to her in the past. The guy down the street counts on my help even though he hardly knows me because we live in the “neighborhood” and we therefore have something in common. And I “cast my bread upon the waters” in helping him, because I believe someone in the neighborhood may eventually help me. This is a neighborhood rich in resources—from sugar, to recipes, to mechanical knowledge of small engines to computer savvy. Not only do I have “social capital” but so does the neighborhood collectively. Finally, social capital does not have to be accessible solely through geographic propinquity. I received some “social support” long distance.

These kinds of situations raise a large number of important, basic researchable questions. On the dyadic level, what are the mechanisms and consequences of different kinds of “investments” in other people? If they all have sugar available and they all are in the same neighborhood and so for this purpose are interchangeable, maybe I should try to reach out to people who have more esoteric resources and are not connected to these neighborhood people?

What are the “costs” of borrowing that cup of sugar? What if anything do I owe in return—the same cup back again, something else of greater interest to the neighbor or simply the gift of allowing her to feel “one up” on me? Suppose I ask the next time not for a cup of sugar but a whole cake? Have I worn out my welcome the first time or have we established a good relationship through the previous transaction so that my chances for getting a cake have actually improved?

What is the “cost” of an idea after all, if the donor still retains the recipe? But what about proprietary recipes—every chef has some secrets? It may be one thing to pass along information about a job that one does not need in a situation in which there are plenty of jobs for one’s friends, but quite a different matter to pass along job information in a situation in which jobs are very scarce.

What is the impact of social, emotional, and geographic distance on access to resources? How do we talk about “investment” in our friends to whom we relate not because we might have to call upon them for resources but simply because we like to be with them?

Then there is the question of motivation, values and attitudes. Motivation to feel supported and warm and cuddly might lead one to be more inclined both to ask for and give resources; motivation to be effective might lead one consciously to invest in relationships that might turn out to be advantageous at some future point. Trust in people as well as norms about helping others and belief in the “system” might grease both asking for and giving resources. On the other hand, these norms, beliefs and basic values might be enhanced as a result of successful experiences with asking for and giving resources.

The matter of beliefs and norms raises further questions for our examples on the nature and effect of the neighborhood. Some neighborhoods may have a strong “culture” of mutual aid, whereas others may be anomic—an older term for a lack of social capital. It should make a difference in asking for and offering resources if the neighborhood has few resources. In

a high rise populated by single persons, an extra cup of sugar may be unusual and perhaps a scarce resource. These attributes of the neighborhood may be simply aggregated from its individual residents (median pounds of sugar per resident) or they may be a global attribute such as being located in a cul-de-sac that might enhance a sense of mutual dependency. If the neighborhood is well organized in terms of voluntary societies and churches, this too might have an effect on the nature of dyadic quests for resources. What about other social environments besides neighborhoods?

These are the kinds of issues addressed by the books being discussed here under the rubric of “social capital”. Though I have put them in a homely fashion, the issues and questions raised here are at the heart of understanding modern life. They are not new and have been discussed by such disparate scholars as Tönnies, Marx, Weber, Durkheim, Pareto, Simmel, Kroeber, Parsons, Lévy-Strauss, and Merton—to name just a few of the giants of social science who are no longer with us. It should be obvious that a very wide range of concepts and theoretical orientations and propositions as well as empirical findings is involved. My first question is whether this apparent potpourri is clarified or mystified by placing all these phenomena and issues under the single heading of “social capital”.

2. The concept of social capital

Social science has a long tradition of concepts borrowed from or shared with other fields. Function came from biology; organic from philosophy and biology; evolution has been shared by philosophy, anthropology, sociology and biology but has been more widely accepted by biology; force and mechanism and mechanical came from physics; contagion from epidemiology; and network from electrical engineering, to name but a few. With the possible exception of organic, and maybe evolution, the definitions and extensions of the terms were reasonably clear in the original source. Now we have a tradition of another concept, capital, borrowed from economics, to which we have added the modifier social. The World Bank has embraced it (Feldman and Assaf, 1999). The term “human” has already been added to capital, but by a “card carrying” economist whose Nobel Prize was in part based on this work (Becker, 1964).

Social capital has been a well-loved addition to the vocabulary, with more than 500,000 “hits” on Google. However, the meaning of social capital has been much contested. It would have been helpful had capital a well agreed upon definition and set of extensions in economics, but that has not been the case. In his seminal book on the theory of social capital, Lin (2001, p. 4) observes, “the notion of capital can be traced to Marx”. The famous Marxian “surplus value”, representing the price of the product that was extracted by exploitation, minus the cost necessary to keep labor alive, has two components: the current revenue that can be used to repeat the current production process as well as to sustain the consumption style of the capitalists, and a second component that is saved for future investment into production processes, thereby incrementing the valued resources. This second component is called capital. One might have credited Adam Smith with the idea if not the precise term. Smith had reservations about the relationship of labor to capital creation, however. He considered “productive” labor as that which augments the stock of “capitals” versus “unproductive” labor which does not.

More importantly, Lin's account ignores the vast controversy among economists as to the sources and meaning of capital. To begin with, almost no modern economists even cite Marx on capital, though of course the other "giant" upon whose shoulders he stands, Adam Smith, is still occasionally mentioned. This is not the place to enter into theories of capital for that would take us from Adam Smith, to John Stuart Mill, to the "Austrian School" to John Maynard Keynes and Joan Robinson and to the post-Keynesians. That would be the subject of another essay. At the minimum, it appears to me that everyone agrees that entrepreneurs try to estimate what they can earn if they invest current resources into factors that aid production of more resources rather than consuming those resources immediately.

But there are endless debates about how this "surplus value" might be calculated, what are its sources, who should get it, how it relates to labor and consumption, and who really are the entrepreneurs. Time is indeed of the essence, since at the heart of capital is the idea of saving for future investment, a topic key to the Keynesian revolution. But there are endless debates about how the investment is discounted and who sets the discount rates, and what are the consequences of different savings rates for the total economy. To a sociologist, much of this depends on how the investment process is embedded within the social system. So "real" capital, as compared with social capital, depends on social structure. No conceptual help here. We are caught in a circular argument.

These theories of withdrawal from current consumption of course apply to the theory of the individual firm. But as noted, the rate of savings in aggregate has crucial consequences for the economy as a whole. For example, the Bush administration is curiously "Keynesian" in its theories as it promotes consumer spending rather than savings and pumps money into the economy at the expense of a huge national debt. Is there an analogue between spending it now and partying now to create "social capital?"

This brings us once more to the problem of the "Wealth of Nations". No one can figure out, at least not using economic theory, why one country has more capital than another. Olson (1996) in "... Why some nations are rich and others poor," concludes:

"Though the low-income societies obtain most of the gains from self-enforcing trades ... they do not have the institutions that enforce contracts impartially, and so they lose most of the largest gains ... They do not have institutions that make property rights secure in the long run, so they lose most of the gains from capital-intensive production ... The intricate social cooperation that emerges when there is a sophisticated array of markets requires far better institutions and economic policies than most countries have. The effective correction of market failures is even more difficult." (p. 22).

In short, as some of the authors of the books reviewed here might say, low-income societies lack social capital, and standard economic theories based on rational individual action are of no help. Olson, a distinguished economist, believes there is no answer in economic theory to the question he posed in the title of his article. Borrowed ideas about capital may not be useful, and we may have to cut directly to the chase and consider social structures.

This brings us to the matter of defining social capital and its relation to social structure. The situation is even more confused than economic capital. There are two perspectives on social capital, the individual and the group, though as will become apparent, this distinction

may not be as useful as it first appears. The group perspective “focuses on social capital at the group level, with discussions dwelling on (1) how certain groups develop and more or less maintain social capital as a collective asset, and (2) how such a collective asset enhances group members’ life chances” (Lin, 2001, p. 22). The individual perspective according to Lin focuses on “how individuals access and use resources embedded in social networks to gain returns in instrumental actions (e.g., finding better jobs) or to preserve gains in expressive actions” (p. 21). Individuals are said to “invest” in social capital in the hopes of some return to them.

Social capital can also be defined as something that is generally functional to social systems. Robert Putnam quotes L.J. Hanifan, “state supervisor of rural schools in West Virginia”, as the first to use the term “social capital” in the collective sense. In 1916, Hanifan urged “the importance of community involvement for successful schools” and who invoked the idea of “social capital” that was accumulated when an individual

“comes into contact with his neighbor, and they with other neighbors . . . The community as a whole will benefit by the cooperation of all its parts, while the individual will find in his associations the advantages of the help, the sympathy, and the fellowship of his neighbors.” (Putnam, 2000, p. 19).

Pierre Bourdieu offers several definitions, that Adler and Kwon (2002, p. 20), call “external”, meaning structural rather than attitudinal or valuational. One definition is social capital as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition” (Bourdieu, 1985). This is clearly a definition of a collective property, given in network terms. In a later similar definition, he observes that the resources might, however, accrue to either groups or individuals. Bourdieu also claims that social capital can be fungible and convertible into economic capital or social position, and this is both a collective but also an individual attribute. Social capital is made up of social obligations (‘connections’) which are convertible in certain conditions to economic capital and may be institutionalized in the form of a title of nobility (p. 243).

These definitions are all implicitly functional. James Coleman directly offers a functional definition: “Social capital is defined by its function. It is not a single entity, but a variety of different entities having two characteristics in common: They all consist of some aspect of social structure, and they facilitate certain actions of the individuals who are within the structure” (Coleman, 1990, p. 302). Various aspects of networks and feelings of trust that give a collectivity a sense of being a community and thus enable individuals to draw upon community resources are offered as examples. Coleman’s definition is therefore both valuational or attitudinal as well as structural and social capital has both individual and collective aspects.

Putnam, though in many respects similar to Coleman in his overtly functional point of view, has such a long and varied set of definitions, connotations, denotations and extensions of “social capital” in his book, *Bowling Alone* (2000), that I turn to his web site for more concise definitions in his own words.

“The central premise of social capital is that social networks have value. Social capital refers to the collective value of all ‘social networks’ [who people know] and the

inclinations that arise from these networks to do things for each other [‘norms of reciprocity’]. The term social capital emphasizes not just warm and cuddly feelings, but a wide variety of quite specific benefits that flow from the trust, reciprocity, information, and cooperation associated with social networks. Social capital creates value for the people who are connected and—at least sometimes—for bystanders as well.” (<http://www.bowlingalone.com/socialcapital.php3>).

3. Finding social capital

How would we know a “social capital” if we ran across it? The conceptual definitions offered above gives some clues, but we need to specify better the relationship between the concept of social capital and the indicators for it. Obviously, the indicators will vary according to which definitions we use. Klausner (1964) defines three kinds of relationships between indicators and concepts. There are set based, rule-based, or attribute based relationships.

3.1. Set based definitions

Let us dispose of set based relationships as the most troublesome. Apples, and bananas are members of the set called fruit. All the examples of social capital given at the beginning of this review are members of the set called social capital. “The relationship is established through syllogistic reasoning” (Klausner, 1964). In Rudolf Carnap’s lexicon, these are extensions of a term, the set of items to which the term refers, or as Putnam (1975) explains, the extension of a term is simply the set of things of which the term is true.

These set relations can therefore turn out to be laundry lists of plausible candidates, something not uncommon in the social science literature but difficult to put to empirical test and essentially not analyzable. This causes much of the problem with the use of social capital for authors are tempted to list a large variety of things as example of social capital. As an authority on logic and mathematics (Charles Lutwidge Dodgson, aka Lewis Carroll) wrote:

“I don’t know what you mean by “glory,” Alice said. Humpty Dumpty smiled contemptuously. ‘Of course you don’t—till I tell you. I meant “there’s a nice knock-down argument for you!’” ‘But “glory” doesn’t mean “a nice knock-down argument,”’ Alice objected. ‘When *I* use a word,’ Humpty Dumpty said in rather a scornful tone, ‘it means just what I choose it to mean—neither more nor less.’” (*Through the Looking Glass*, Chapter 6).

3.2. Rule-based definitions

Functional definitions of social capital are rule-based *process* definitions that are of the form, if x then y . The argument over “functionalism” is that we call x different things depending on y ; this is called “teleological”. Process relationships between concept and

indicator are a subset of what Klausner calls “lawful” or rule-based relationships (Klausner, 1964). For example, the height of a column of mercury indicates temperature. This is based on a law that relates heat and molecular motion and is empirically verifiable. Without any loss of generality we can substitute an invariant lawful relationship with a probabilistic one, a formulation more common in social science.

Functions can have positive or negative values. Coleman, often derided for his functional definition, observes that social capital may have positive functions for some but negative for others. “Social capital is defined by its function. It is not a single entity, but a variety of different entities having two things in common: They all consist of some aspect of a social structure, and they facilitate certain actions of individuals who are within the structure . . . A given form of social capital that is valuable in facilitating certain actions may be useless or even harmful for others.” (Coleman, 1990, p. 302). “Social capital inheres in the structure of relations between persons and among persons. It is lodged neither in individuals nor in physical implements of production” (p. 302).

Putnam (2000) has a generally rosy view of social capital, but he admits that there is also a “dark side of social capital” (the title of his Chapter 22). By definition, both economic and social capital are “unfair” in that they confer an advantage to those who have it, and a disadvantage to those who do not. To the extent that social capital depends on social connections, then connections can be exclusionary—the insiders benefit while the outsiders are left with their noses up against the window. Insiders can be smug and discriminatory. So Putnam applies the term social capital to outcomes both positive and negative (“social capital . . . can be directed toward malevolent, antisocial purposes just like any other form of capital”, p. 22). Gabbay and Leenders (2001) on the other hand reserve the concept “social capital” for outcomes that are positive, “i.e. helpful in attaining specific goals” whereas a negative outcome “produces *social liability*”, p. 6 (authors’ italics). I should add that the success of the Nazi party was in part based on the social capital, as Putnam would define it, of the voluntary and youth organizations of Post World War I German. In Gabbay and Leenders’ terms, this would be a positive outcome, since they helped achieve the goals of the Nazi party. Putnam might call this an example of the dark side.

Rule-based indicators are king in physical science. Rule-based relationships in social science can lead to trouble, however, when the relationships between different attributes of a concept are themselves rule-based. For example, trust, is an attribute that can operate on the dyadic level: for example, trusting that the other will reciprocate or offer resources. Trust can also be aggregated on a social system level as the percent of a population that trusts others. Trust can be measured by asking people whether they trust one another, whether people in general can be trusted, or by observing relationships and inferring that trust is present. Putnam uses trust as an indicator of social capital. As a thermometer, trust can be a probable outcome of exchanges in the process of creating social capital and can be regarded as a rule-based indicator of social capital.

More generally, norms and institutions about relationships that are sometimes used as attributes of social capital may be regarded as probable outcomes of social capital processes. On the other hand, norms, values, and institutions can be facilitators rather than social capital itself. This confusion leads Lin to reject trust as well as other norms as necessary components or indicators of social capital, preferring instead to assume transactions solely on the

basis of calculations of possible gains or losses in the rational choice tradition (Lin, 2001, p. 149).

3.3. Attribute based definitions

An indicator can be an attribute of the event or extension of the term designated by the concept. For example, red is an attribute of apple. Take the common measurements of intelligence: being able to solve a particular problem in arithmetic or knowing a particular piece of information are attributes of intelligence. In social science, these attributes bear a probabilistic relationship to the concept. Not everyone who is otherwise “intelligent” at a given level can solve a particular problem posed in the WAIS (Wechsler Adult Intelligence Scale). Latent class and latent trace models are used to determine these probabilities (Taub, 2001). In some definitions, having a dense personal network—closure when viewed from a social systems point of view (Lin, 2001, p. 27)—or being close to a bridging point in a network (p. 71) are attributes of social capital, though of course not the only ones. Most current uses of collected network data are not probabilistic: if someone reports a tie then it is regarded as a tie, although more recent work has been moving to probabilistic relationships and latent class models (Huisman and van Duijn, 2003). If the concept is the social capital of a community or other aggregate, then the attributes can be aggregated attributes, such as the proportion of people who agree that “most people can be trusted”, or global attributes, such as the number of voluntary organizations in the community.

An ingenious attribute indicator of social capital on the individual level is based on defining social capital as network diversity (Lin, 2001; Erickson, 2001). Social capital is here defined as the range or diversity of whom ego knows. Diversity can be measured by the range in social ranks of the people you know, where rank is measured by the standing of their occupation. Other measures of diversity are possible, such as access to different kinds of communities, cultures, or information. In addition to the range, one might include the sheer number of positions ego has access to, and the highest rank. If several of these “Position Generator” attributes are indexed, then a factor analysis or some other latent attribute model can be generated transforming the attribute into a probability measure (Lin, 2001, p. 109). This is a definition of social capital as a probable *potential* for action by individuals. The conditions under which this potential is realized remains to be empirically demonstrated. The theory is that heterophilous interaction with actors who have more resources than ego can lead to advantages for ego (Lin, 2001, p. 50).

Lin and his colleagues have especially concentrated on status attainment as an outcome of social capital as modeled with the position generator index. They have generally shown that higher social status is associated with higher social capital in a variety of different societies (Lin, 2001, p. 84). The theory curiously rests on the foundation of a functional theory of stratification. Actors will attempt to promote their self-interests by accessing the potential resources of those with higher statuses whom they know, because “the collectivity, or the community, promotes its self-interest by conferring relatively higher statuses on individual actors who possess more valued resources” (Lin, 2001, p. 31). Kingsley Davis, an early student of Talcott Parsons, is generally credited with formulating this theory, developed in its most widely known form in Davis’ textbook, *Human Society* (Davis, 1949).

Many contemporary theorists, however, find serious fault with Davis' suppositions. Lin does not cite Davis nor acknowledge this controversy. To the extent that differential resources are hierarchically distributed, and the hierarchy may rest on different bases—for example prestige, money, or power—and because the individual is motivated to seek out heterophilous ties for the purpose of status attainment, the theory as expanded in Chapter 10; also implicitly relies on a theory of status consistency: that there is a tendency for individuals to hold similar ranks on the various dimensions of stratification. Status consistency theory has a long tradition in sociology. However, Meyer and Hammond (1971) maintain that not only is inconsistency rather than consistency to be expected, but that the variety of definitions and subjective experiences of inconsistency render systematic research next to impossible. Notwithstanding these difficulties, the status attainment literature is impressive. It should spur further work that explores what kinds of rankings are related to what kinds of resources.

Bonnie Erickson, using the number of different categories in which the respondent claimed to know someone as a measure of social capital (and controlling for human capital), found that social capital is associated with managerial positions in the securities industry. She notes that “the value of social capital in the sense of far-flung diversity, will always depend on the extent to which a job is part of a firm’s unofficial department of external affairs . . .” and further, “. . . jobs that call for external social capital will tend to be good jobs, though there will also be other good jobs that call for a more internally oriented network” (Erickson, 2001, p. 158). The theory is well grounded in the particular indicator of social capital.

Putnam offers a host of attributes, mainly on the aggregate level. They are listed as chapter headings in “Section II: Trends in Civic Engagement and Social Capital”. We might reword the section to say something like “Civic engagement as an Indicator of Social Capital”. The chapters are, each with a host of indicators: “Political Participation”, “Civic Participation”, “Religious Participation”, “Connections in the Workplace”, “Informal Social Connections”, “Altruism, Volunteering and Philanthropy”, “Reciprocity, Honesty, and Trust”, and “(Against the Tide) Small Groups, Social Movements and the Net”. These are not indexed or modeled together by year as indicators of change in social capital, as test theory might suggest, but rather treated separately with the claim that they all show similar trends. Putnam does create an index that he says is equivalent to a factor score from a principle components analysis. This index, composed of 14 items shown in Table 4 on page 291, is only for cross-sectional state-by-state data. Included are:

“Measures of community organizational life” such as the aggregated variable percent served on a committee of local organizations; “Measurements of engagement on public affairs” such as turnout in presidential elections; “Measures of community voluntarism” such as the global variable number of non-profit organizations; “Measures of informal sociability” such as mean number of times entertained at home in last year; and “Measures of social trust” such as percent who agree with (the famous item) “Most people can be trusted”.

These items manifestly (a latent trace model is not used) hold together on the state level with item to scale correlations ranging from 0.92 for “most people can be trusted” to 0.66 for the “mean number of times did volunteer work”. Were these items defined for individuals

rather than for a collectivity, they would form an index of “propensity”, although people often speak of collectivities as having propensities as well: for example, “the United States recently tends to act unilaterally in international relations”. Units that score high on this index are more likely to have social capital as defined by the scale.

Putnam finds that his state-by-state index of social capital is positively related to state-by-state indexes of tolerance, economic equality and civic equality, despite situations in which bonding leads to exclusion. Structural bridging attributes can overcome the exclusivity of social bonding attributes. To be sure, some methodologically inclined readers do not accept Putnam’s demonstrations because they suffer from problems of ecological fallacies (e.g., Edwards and Foley, 2001). An ecological fallacy, of course, is attributing correlations among attributes of individuals based on the correlations between those attributes for an aggregation. For example, *individuals* who live in *states* with more social capital (as indexed by Putman) are supposed to be happier. Statisticians have long held this to be a fallacy (Robinson, 1950).

Attribute based models and function based models can be combined, even though some of the authors reviewed deny that they are using functional models. In his modeling of social capital processes, Lin holds the outcome separate from the process of mobilization and distinguishes between potential access to social capital, and actually mobilizing it for expressive or instrumental purposes (2000, pp. 76, 83). Mobilization, not access per se, results in an outcome. Access, as we noted, is only *potential* social capital. This is a functional use of social capital if function is said to mean consequential. Process kinds of definitions are often used in the research offered in Lin (2001), Lin et al. (2001) and Gabbay and Leenders (2001).

What attributes or factors are involved in the process of access and mobilization, and what are the outcomes of social capital that vary considerably in this research. They can be empirically verified. There has been important work recently following the lead of Lin and others discussed here that begins to develop appropriate empirically based measurement models for understanding individual social capital (Van Der Gaag and Snijders, 2003a,b).

Three different sets of attribute indicators of individual social capital were administered in a nationally representative sample in The Netherlands. A name generator asked respondents 12 different generators ranging from “Who helped you on your current job?” (27% yes) to “Who do you go to for social visits?” (94%). A position generator offered a list of 30 positions. Respondents were asked, for example, “Do you know anyone who is a nurse?” (75% yes) or “an engine driver?” (18% yes). If the answer was “yes”, they were further asked whether the person is an acquaintance, friend or family member. Finally there was a 33-item resource generator with items such as, “Do you know anyone who can do your shopping for you when you are ill?” (96% yes) and, “Do you know anyone who owns a holiday home abroad?” (41%), and if yes, whether the person is an acquaintance, friend or family member. The items were subjected to a principal components analysis, and five somewhat correlated factors emerged: high prestige and diversity of prestige, network relationship extensity, low prestige, concrete resources, and network diversity. This is what I mean by empirically verifiable relationships between attribute indicators of social capital.

The authors conclude that there are only slight correlations between factors. Furthermore, “the three measurement instruments (from which the items were drawn) therefore measure distinct aspects of individual social capital”, and “for several outcomes of social capital,

the predictive values of each of these indicators proved different”. This, in the authors’ view accounts for the wide variation in findings in different studies of the consequences of social capital and the suggestion that “future social capital measurement choices should be carefully adjusted to specific topic under investigation”.

This work was only for individual social capital. Since the sample was not clustered by social unit, there was no way of aggregating these individual level measures into social unit measures such as might be attempted with multi-level modeling, as discussed below.

4. Individual versus collective social capital

There is an apparently vexing methodological issue in understanding the meaning of social capital. Lin finds social capital lodged in collectivities or groups a dubious idea. Putnam writes a long book about social capital as a collective property. Coleman finds the collective properties as an aid to individuals. Wellman and Frank (2001) offer the solution of multi-level modeling that has the advantage of being both a theory and a method. In retrospect, it is “obvious” that context is critical and that “embeddedness” is characteristic of all social network behavior.

The idea has been around for a long time in social research. In *Continuities in the Language of Social Research* (Lazarsfeld et al., 1972), there are a number of examples in Section III, “The Study of Collectives”, of quantitative work dating back to the 1950s that featured what the authors termed “contextual analysis”. The effect of the social context on individuals was demonstrated via percentage differences. For example, Coleman reports in his study of “union democracy” that in union shops in which there was high political consensus, 29% of the men were active in union politics as compared with only 7% in shops with low political consensus (Coleman, 1972, p. 262). Both these variables might be treated as attribute type indicators of social capital. When the political collective social capital was high, then individuals were more likely to participate in political activity. Putnam would be pleased. The “method” was clearly also a theory about relations between macro- and micro-effects, though as typical with Lazarsfeld, the theoretical implications were hinted at but not fully developed.

The method itself that relied on tabular analysis arguably fell into disrepute (Hauser, 1970), but was revived with robust modern statistical techniques (Bryk and Raudenbush, 1992) under the name multi-level analysis. As Wellman and Frank (2001) observe “network capital is inherently multi-level” p. 259. For example, in terms of social support, “accessible” alters, those who are in frequent contact or live nearby understandably are more likely to provide everyday and emergency support (p. 251). But there is also a multiplier or interactional contextual effect: if the network *as a whole* is composed of accessible ties, then accessible *individual* ties are more likely to provide support. Note that access is used twice as a variable: first it is aggregated from the pair relations to characterize the network as a whole, then the effect of the each individual accessible to ego is analyzed. The logic for doing this is explained in Lazarsfeld and Menzel (1961). There is no conflict between collective and individual social capital. Both are necessary to an empirically based theory of social capital.

5. Motivation and investment

One of the troubling foundations of social capital theory is its use of the “investment” analogue to economic capital theory. The idea of investment is in turn tied to motivations to engage in social capital accumulation or to participate in passing it on.

To what extent can the cultivation of networked resources be considered a deliberate investment analogous to put aside profits from current production to be used in the development of future production capabilities? Writers on social capital vary in the extent to which they treat investment as a literal analogue in which actors labor to maintain and enhance their networked resources in order later to capitalize on them, or whether they treat investment as a metaphor. Burt in one of the volumes reviewed here (Burt, 2001, p. 32), prefers the metaphor formulation: “The social capital metaphor is that people who do better are somehow better connected.” But in his influential *Structural Holes* (Burt, 1992), Burt devotes almost an entire chapter to the art of consciously pruning one’s network so that redundant contacts are eliminated while one concentrates on those most likely to produce the advantage gained by networking across structural holes. This is indeed investment advice.

Lin’s fundamental rational action theory postulates that actors have two basic motives: “to protect existing valued resources and to gain additional ones.” p. 45. The former are expressive actions and the latter instrumental actions. Since social capital is networked resources, actors act so as to maximize these resources. Such activity is an investment. Especially in instrumental action, “the end result is expected to be a gain for ego. Examples include seeking a job, promotion, salary or bonus increase; getting a loan; finding a baby sitter; or looking for a job for one’s son.” Active effort is required to amass social capital.

Actual demonstrations of the effectiveness of investment strategies in social capital are rare. As Fernandez and Castilla observe, “if the term ‘social capital’ is to mean anything more than ‘networks have value’, then we will need to demonstrate key features of the analogy to ‘real’ capital. If ‘social’ capital is like ‘real’ capital, we should be able to isolate the value of the investment, the rates of return, and the means by which returns are realized” (Fernandez and Castilla, 2001, p. 85). They investigated a firm that gave bonuses to existing workers for referring potential employees “The firm’s \$ 250 investment (in the form of a referral bonus (for persons hired)) yields a return of \$ 416 in reduced recruiting costs . . .”, because the referrals were more likely to be appropriate for the job at the time of application, but turnover after a person was hired was not improved. From the employee’s perspective, persons with better jobs were more likely to refer others and thereby to reap the benefit of the bonus. The authors argue that it is likely that the instrumental value of getting the bonuses was discovered *after* employees discovered themselves in these positions, hence “it is misleading to think of occupancy of these positions as *investments* . . .” (p. 101; authors’ italics).

Although this is one of the few studies in the books reviewed that goes into the investment paradigm in detail, I believe that its careful findings are typical of what might be found about “investments” in networked positions. There are, of course, people who self-consciously cultivate “friends” and others who might prove useful in the future in sometimes as yet unknown ways. *Friends of Friends* (Boissevain, 1974) is full of such examples, and Boissevain devotes an entire section to “brokers” (his term) who indeed reap a profit from their investments into their network. Indeed his subtitle includes the word “manipulators”. Puzo

(1969) in *The Godfather* is another such “authority”, and the unsavory connotations of “politician” and “social climber” seem to wrap up the idea of investing in connections.

But most people, I would think, gain their networked resource advantages mainly through their structural positions that may not have been acquired mainly with their networked resources in mind, or they simply—and this is a radical idea—enjoy being with their friends for non-instrumental reasons. The analogy to “investment” in “real capital” is the weakest aspect of social capital theorizing. This is not to deny the heavy use of social networks in societies such as the Mediterranean ones celebrated by Boissevain and Puzo, not to mention Eastern Europe and the former Soviet Union where the term “protectsia” means influence without which nothing is accomplished. But protectsia is a resource that is usually mobilized from ones’ existing kin and friendship networks (e.g., Sik and Wellman, 1999).

This brings us back to the issue of motivation that is curiously tied to the controversy between network closure as social capital (that is, the efficacy of dense interconnected networks in providing support and resources), and the utility of bridging structural holes as social capital. Lin suggests that homophilous ties characterize expressively motivated actions and that heterophilous ties are necessary for instrumental actions that seek to move beyond what one has. These two types of ties correspond to closed or dense versus bridging or loose networks. In correcting his earlier work, Burt finds that the two types are both empirically likely to occur together, although theoretically their mechanisms remain distinct (Burt, 2001).

I have argued elsewhere that the two kinds of networks in fact correspond to prime motivations that stem from one’s family of origin (Kadushin, 2002). The original closed family network provides support and individuals are motivated to continue to seek this out. At the same time, babies soon seek a sense of efficacy by moving out and away from their closed network, and this motivation continues throughout life. Every broker or seeker of advantage needs both some support in this endeavor as well as a way of reaching out to make connections where there were none before. Hence empirically, the two motives and the two network forms always co-exist. Since the motives are grounded in the earliest child development, it seems intellectually superfluous at best to characterize them as rationally motivated, though they are certainly functional.

6. Some empirical findings

So what do researchers do with the concept of social capital? While the term is widely thrown about, an examination of the actual findings of work inspired by the theory suggests that the term may be unnecessary. The work collected in Gabbay and Leenders (2001), in addition to research already cited, seem to exemplify this point while emphasizing that the utility of different types of network resources varies according to the context.

- Teams working in exploratory product development completed their projects more quickly if they had a social network structure composed of many non-redundant external ties; teams exploiting existing knowledge took longer to complete with this same type of network structure mainly because external ties not needed for the task had nonetheless to be maintained (Hansen et al., 2001).

- In investment clubs, the number of instrumental ties that members had with one another prior to joining the club were positively and directly related to a club's financial performance (with appropriate controls), though exactly why is not clear: task orientation was improved, organizational heterogeneity was increased as might be expected, and this led to a greater task orientation but heterogeneity was negatively related to performance (Harrington, 2001).
- In a rather loose application of the term "social capital" in the emerging software industry in Israel, both network centrality and geographic propinquity were related to engaging in similar strategies (Gabbay et al., 2001).
- In a large health organization in Finland, sparse networks (structural holes) are more likely to name a person who could solve a problem for them who was not directly connected to them (as a measure of "indirect control"). Employees acquired some instrumental benefits from sparse networks, but work units benefited from internally cohesive networks by having greater trust. Indirect networks attenuated the flow of information critical in triage decisions. Neither maximally sparse nor maximally dense social networks lead to optimal outcomes (here termed "social capital"). We learn that developing an optimal level of cohesion is tricky (Johanson, 2001).
- And also from Lin et al. (2001, p. 228): "Forms of social capital that are valuable in one environment may be useless or even harmful in another." More educated individuals generally have access to more resources, but in a hurricane situation the less educated rely more on kin and get more informal support. There was no evidence for social isolation of underclass among those who are employed: compared with higher class residents, those who found jobs got them through contacts connected with the destination firm (Hurlbert et al., 2001).

7. Conclusion

The four books reviewed here all have intriguing findings and interesting propositions—in fact the latter are often more impressive than the evidence in support of them. The reader is urged to examine them in detail. There remain some critical issues: to what extent is the overall concept of social capital useful? To what extent is social capital analogous to "real" capital? How are the indicators of social capital related to its various definitions? How manipulative are people in acquiring and maintaining social capital? What is the role of prior social position and rank in making use of social capital? What is the relationship between individual and collective social capital?

For my money (pun intended), in view of the many conceptual and measurement problems of social capital, I would prefer to replace the concept with that of "networked resources" and investigate to what extent do they incur advantages and to whom, under what circumstances, and what network shapes do these resources assume when accessed. Important would be a clear distinction between resource potential and resources actually accessed for some purpose. There are clearly different forms of networked resources and they tend to have quite different consequences. Some of this work is already beginning.

But after all, evidence sways me. Despite all the caveats placed on the concept of social capital by me and by others, it has inspired a vast output of theory and research of which

the reviewed books and the referenced articles are but a sample, albeit an important sample. Who is to argue with this?

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