

Staff Paper

SOCIAL CAPITAL: SYMPATHY, SOCIO-EMOTIONAL GOODS, AND INSTITUTIONS

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ABSTRACT

(17 pages)

This paper summarizes the current state of the social capital paradigm from the viewpoint of the authors. The paper presents and defends a social capital definition based on sympathetic relationships. The paper also summarizes an expanded set of rational preferences that depend on social capital. Then, the paper describes the origin of social capital and its economic consequences, and introduces the concept of socio-emotional goods. Socio-emotional goods may attach themselves to physical goods and services. When this happens, physical goods and services are exchanged on terms different than those values established in an arm's-length market or in exchanges between strangers. It is possible to invest in social capital and this paper reviews several opportunities for social capital investment. Moving from a micro to a macro focus in the study of social capital directs the paper's focus from informal to formal institutions. Finally, the paper summarizes agreed-on social capital principles that suggest that the social capital paradigm is maturing.

Key Words: earned kernels, inherited kernels, institutions and networks, social capital, socio-emotional goods

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by

Lindon J. Robison and Marcelo E. Siles¹

Introduction

In recent years, there has been a significant amount of research and writing about social capital, including some of our own. This increase leads us to the point of this paper. We intend to summarize the social capital paradigm as we see it today. We hope this summary will be useful to those wanting an introduction to social capital without reading all of the conflicting papers on the subject. However, we wish to be clear that our summary is from our perspective. Others will disagree. In addition, we intend to address a current issue that is unresolved; namely, the micro to macro linkage in social capital. In this paper, we defend the position that the micro to macro linkage in social capital is through the formation of institutions and organizations.

The flavor of this paper is between the informal conversation of colleagues gathered together in a break room to discuss current topics and the formal prose contained in a journal article published after sometimes years of research. The first part of this paper summarizes years of research on the subject of social capital. The second part of this paper explores the connections between social capital and the formation and maintenance of institutions and organizations.

More information on many of the topics summarized here can be found on the web. We have participated in the creation of a social capital data base that resides at one of the World Bank's web sites. This data base is organized by categories and can be searched. One can also find relevant social capital literature on the Social Capital Initiative's web site.²

Definition

Social capital is about sympathetic relationships. A relationship is an outcome of a shared experience. Social capital is created when shared experiences produce relationships of sympathy. The recipients or objects of another person's or group's sympathy have social capital. Those holding sympathetic feelings provide social capital. Most relationships have reciprocal levels of sympathy; otherwise,

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²Learn more about social capital by visiting the Social Capital Initiative's web site at <www.ssc.msu.edu/~internat/soccap/index.htm> or the World Bank's web site at <www.worldbank.org/poverty>.

exploitation may occur, as in the case of the “spoiled kid.” Relationships that connect more than two individuals can be described as a network.

Social capital is a resource with capital-like properties. Social capital owners may receive from social capital providers physical goods and services on preferential terms of trade. They may also receive from social capital providers socio-emotional goods that include validation, expressions of caring, access to information, and support. The value of one’s social capital depends on one’s needs and the resources of one’s social capital providers.

Rational individuals make decisions they expect to further their own well-being. However, when these same individuals develop sympathy for others, they may act in the interest of those who are the objects of their sympathy and still act rationally. Acting rationally, individuals may be motivated by the following desires:

1. The desire to maintain and improve one’s well-being without concern for the welfare of others. This motive is sometimes referred to as selfishness of preferences and is often employed in neoclassical economic models.
2. The desire to maintain one’s social capital by allocating resources in ways that are approved of by social capital providers. This is also a selfish motive. However, this motive recognizes the importance of one’s social capital resource. This is sometimes called the reputation effect and helps explain peer pressure that motivates members of networks to conform.
3. The desire to benefit others who are the objects of one’s sympathetic feelings. This motive is rational and in one’s interest because sympathetic feelings internalize the well-being of others. This motive is summarized by the caption below a picture of an older brother carrying his sleeping younger brother. The caption reads, “he’s not heavy, he’s my brother.”
4. The desire to increase one’s sympathy for others and things associated with significant others. This motive recognizes that one’s level of satisfaction derived from the activities and characteristics of others and things associated with others can sometimes be increased by increasing one’s sympathy. For example, one’s satisfaction with a successful sports team may be increased by increasing one’s identity or sympathy for the team. A person may increase his sympathy for the team by wearing their colors and by becoming personally acquainted with the players. We may decrease our sympathy by emphasizing a team’s undesirable qualities such as undesirable behavior of one or more players.
5. The desire to maintain one’s social capital with an ideal self by acting in ways consistent with an accepted set of values and norms. Sometimes this internalized set of values is referred to as one’s conscience. One’s ideal self changes over time as one adopts the example and values of religious figures, important role models, and friends.

The considerations just described and others lead us to support the following definition of social capital:

Social capital is a person's or group's sympathy that provides another person or group potential benefits, advantages, support, and access beyond that which might be expected between strangers in an exchange relationship.

Origins of Social Capital

Social capital begins with shared experiences organized around traits that are either earned or inherited. We refer to these traits as kernels of commonality. Inherited kernels include one's gender, age, ethnic background, cultural heritage, nationality, values acquired from parents, and other resources inherited as a result of the conditions of one's birth.

Earned kernels are those that can be acquired through effort and include one's place of residence, membership in organizations, friends, and education, to name a few. Some earned kernels take on the permanence of inherited social capital because they are irreversible—once you acquire it, you always have it. Examples of irreversible earned kernels include education, some diseases, and one's alma mater. Reversible kernels include one's current residence, one's work environment, and one's club membership. Another special class of earned kernels is the class created out of covenants that bind people together with a formal commitment. Covenant kernels include marriage contracts, religious ceremonies that create obligations, and initiation rites of orders, service organizations, clubs, and fraternities.

Relationships based on inherited kernels tend to create stronger and more permanent bonds than those based on earned kernels because inherited kernels cannot be destroyed or changed. Social capital based on inherited kernels is referred to as bonding social capital. Bonding social capital tends to be used primarily for experiences of caring and insurance (you can always count on your family during hard times). Bonding social capital is especially suited for expressions of caring and support.

Relationships based on earned kernels tend to be more pro active and produce networks of more diverse persons than those networks based on inherited kernels. Social capital based on earned kernels is referred to as linking or bridging social capital. Networks of linking social capital are those that exist among peers such as club members, colleagues at work, and others. Networks of bridging social capital are generally diverse and enjoy distinct comparative advantages. They tend to be more efficient in the production of goods and services than networks of bonded members. Bridging social capital is especially suited for validation and the production of physical goods and services.

The Economic Consequences of Social Capital

Social capital has the potential to alter economic outcomes. When one imposes consequences on others without their consent, an externality is created. Externalities may have negative or positive values for those who experience them. Second-hand smoke is usually considered a negative externality by those who do not smoke. Light from houses and public street lights is usually considered a positive externality by those trying to find their way at night.

An externality experienced vicariously by its producer is said to be internalized. Social capital providers who experience vicariously the consequences of their choices on the objects of their sympathy internalize externalities. Decision makers who internalize externalities make different economic decisions than those motivated by selfish preferences. Increases in social capital that internalize externalities lead to the following economic consequences:

1. As social capital increases within networks, network members alter their terms of trade and increase their levels of trade.
2. As social capital increases within networks, network members reduce those activities that impose negative externalities on other members of the network.
3. As social capital increases within networks, network members increase their investments in public or high exclusion cost goods that produce positive externalities.
4. As social capital increases within networks, the average income of network members increases and their disparity of income decreases. Increases in the number of network members produce the same effect as increases in social capital within an established network.
5. As social capital increases within networks, transaction costs between network members, including the cost of gathering information, reaching an agreement, and enforcing commitments, decrease.
6. As social capital increases within networks, network members specialize and trade more. As a result of their increased specialization and trade, their productivity increases.
7. As social capital increases within networks, network members are more likely to share information and technology.
8. As social capital increases within networks, social capital between network members and nonmembers may decrease and produce undesirable consequences. These undesirable consequences are generally the opposite of those consequences produced among network members who experience an increase in social capital.

Social Capital and Socio-Emotional Goods

Much of our earlier work on social capital focused on its economic consequences derived from sympathetic relationships and its ability to internalize externalities. However, an equally important social capital focus is the connection between social capital and socio-emotional goods.

It is well established that individuals have social and emotional as well as physical needs. Socio-emotional needs include the need for validation (meaningful assignments), experiences of caring (friends), and information flows that communicate encouragement, support, and acceptance. Just as physical needs are satisfied by physical goods, socio-emotional needs are satisfied by socio-emotional goods. One important characteristic of socio-emotional goods is that they must be obtained directly

or indirectly from others, including one's ideal self. Our need for socio-emotional goods provides an important incentive for investing in and maintaining one's social capital.

Socio-emotional goods can be offered to others by attaching them to physical goods and services. Alternatively, they can be offered independent of physical goods and services. The motives that prompt one to offer socio-emotional goods to others are the same motives that determine allocations of physical goods and services. One may offer socio-emotional goods selfishly to elicit socio-emotional goods in return or in an effort to maintain or increase one's social capital investments. One may offer socio-emotional goods because of sympathetic desires to improve the well-being of others who are the object of one's sympathy or to increase one's sense of belonging. Finally, one may offer socio-emotional goods to maintain one's social capital with one's ideal self.

A practical example of a physical good with socio-emotional goods attached is a flower. A flower may have desirable physical properties of smell, color, and shape. But, one may attach a socio-emotional good to a flower when it is offered as a gift that is perceived to convey caring, support, or validation. If one values the flower only for its physical properties and ignores the attached socio-emotional goods, the value of the flower gift would be underestimated.

Other examples of physical goods with socio-emotional goods attached include awards and medals, pictures of loved ones, and personalized objects that once belonged to a person who is the object of one's social capital. When socio-emotional goods are attached to physical objects, one receives the socio-emotional good when the physical object is received.

Sometimes socio-emotional goods are conveyed in an exchange. For example, when one purchases a desired object at preferential terms of trade, a socio-emotional good may be conveyed. To illustrate, on one occasion, friends of one of the authors of this report purchased a home on favorable terms from a widow who cared about them and wanted them to live in her home because she could no longer maintain it. To those who purchased the home, the favorable terms they received communicated the caring of the widow, a socio-emotional good.

On occasions, some purchase physical goods because they expect that owning them will elicit socio-emotional goods in the future. Thus, one may purchase and display his or her school colors to receive the validation from fellow students and alumni. Or, one may purchase an expensive car or clothes to receive the validation associated with having wealth. Finally, one may earn a college degree to receive the validation of those who respect the educated.

Sometimes advertisers attach socio-emotional goods to products in an attempt to increase the product's market value. A popular person who endorses a product may attach a socio-emotional good to the physical product. Thus, when a famous basketball player speaks positively about a brand of basketball shoes, these shoes are expected to increase in value among the basketball player's social capital providers.

Frequently, socio-emotional goods are exchanged without the necessity of attaching them to physical goods. In these cases, one expresses validation, caring, and support directly. However, even these acts may involve physical goods. For example, telephones are often used to communicate caring and validation. This fact has led some telephone advertisers to promote the telephone for this purpose

and to increase the value of telephone services because of the telephone's potential to create socio-emotional goods. These efforts might be illustrated by the "reach out and touch someone" campaign that attempted to sell telephone service because of its potential to create socio-emotional goods. In other cases, letters and cards may be used to communicate caring and validation. The result has been the creation of a significant industry organized around messages of validation and caring expressed in cards.

Markets of Physical and Socio-Emotional Goods

When physical goods and services are exchanged in markets, the terms of trade are transparent and the value of the exchange is reflected in the market price. A good's value independent of the relationship between its buyer and seller is referred to as its market value or arm's-length value.

Voluntary and informal exchanges occur when the parties to the exchange believe the value of what they receive is worth more than what they sacrifice. The surplus value resulting from voluntary exchanges in economists' models is the difference between the value of goods and services offered and received and can be described diagrammatically. Above the market price and below the demand curve is a measure of the demander's surplus. Below the market price and above the supply curve is a measure of the supplier's surplus. The surplus value of the goods sold by the supplier are profits that increase the supplier's financial capital. The surplus received by the demander reflects a surplus in the value of the goods received compared to the price willingly paid.

When socio-emotional goods are included in exchanges, markets become more complicated. One complication associated with exchanges of socio-emotional goods is that the terms of trade are not always transparent. One may observe the physical characteristics of a good that is exchanged, but it may be impossible to observe the socio-emotional goods that are attached because they depend on relationships.

Despite some complications of markets involving socio-emotional goods, many of the features of markets for physical goods and services apply to markets in which socio-emotional goods are exchanged. For example, persons exchange socio-emotional goods only when they expect the value of what is received to be worth more than what is supplied. Furthermore, one may supply socio-emotional goods in the present for a future stream of socio-emotional and physical goods. Socio-emotional goods exchanged for future streams of socio-emotional goods and physical goods offered at preferential terms are considered investments in social capital.

Physical goods with attached socio-emotional goods may be offered as gifts or traded at a price. When the value of attached socio-emotional goods dominates the value of a good's physical properties, the physical good is offered as a gift. When the value of a good's physical properties dominates the value of attached socio-emotional goods, the good is exchanged in a market between a buyer and a seller. However, the price of the exchange is likely different than the arm's-length price. The difference between the price at which the good is exchanged and its arm's-length price is referred to as a good's attachment value.

We believe that most markets are characterized by combinations of physical and socio-emotional goods. Thus, the exchange price frequently fails to reflect the arm's-length value of a good because it does not measure attachment values. So, when a farmer sells his land to his friendly neighbor at a price below the arm's-length market price, the value of the exchange is understated by the price because it ignores the socio-emotional goods exchanged.

Capital and Social Capital

To describe sympathetic relationships as social capital suggests that relationships have capital-like properties. These capital-like properties require that social capital has the capacity to provide services and continue to exist in a recognizable form. Social capital can continue to exist even after economic, validation, caring, and information services have been extracted as long-term relationships testify.

We acknowledge social capital's durability by our reluctance to invest in temporary relationships. We also acknowledge the capital-like properties of social capital by our unwillingness to act in ways that may place our social capital at risk—so we don't ask friends for loans unless we have no other recourse. Finally, we acknowledge the capital-like properties of social capital by our investment/disinvestment decisions that reflect its opportunity costs. Thus, we frequently fail to take advantage of a friend even when it may be in our financial interest to do so. It seems to us that social capital has all of the essential properties of other capital forms.

Investments/Disinvestments in Social Capital

Social capital is created when the following two conditions exist. The first condition requires an exchange in which socio-emotional goods and perhaps physical goods are exchanged. The second condition requires that the exchange creates a surplus in which the combined cost of socio-emotional and physical goods and services provided is less than the combined value of socio-emotional and physical goods and services received. If the exchange only involves physical goods and services as typically portrayed in classical economic models, then financial capital, but not social capital, is created.

One of the important issues in the social capital literature is identifying specific ways to invest in social capital. For example, development researchers may find convincing evidence that social capital facilitates development. But, this knowledge may not be useful unless these same experts can facilitate investments in social capital.

If our hypothesis is true that investments in social capital require exchanges of socio-emotional goods, what can be done to facilitate the exchange of socio-emotional goods that produce surpluses and social capital? The following are suggestions for exchanging socio-emotional goods that create social capital:

1. Identify shared kernels. Socio-emotional goods are often exchanged when individuals identify shared kernels. Initial conversations between strangers often begin by exploring areas when

shared kernels might exist. This search looks for joint acquaintances, shared experiences such as having visited the same place, attended the same school, or read the same book. This search might also look for shared political, cultural, and religious views. Sometimes this search for shared kernels is facilitated by creating opportunities to visually identify shared traits. One's gender, age, and dress often communicate one's kernels. Or, merely attending a group meeting where members share certain traits allows one to identify with others with traits similar to one's own; e.g., attending a church service while on vacation or traveling. Identifying a shared kernel is a means of validating one's own kernel and that of others.

2. Offer ownership. Managers, leaders, and decision makers in public and private organizations with resources may provide socio-emotional and tangible goods to their workers, associates, and other stake holders by providing them opportunities and responsibility to manage and make decisions related to the use of their resource. Managers who share responsibility communicate validation messages to those empowered that they are capable and responsible.
3. Recognize worthy efforts. All successful organizations establish methods for validating approved efforts. Sometimes these efforts are recognized by material rewards such as pay increases. Sometimes these efforts are recognized with formal awards, improved office space, or access to reserved parking or executive dining room. Sometimes these efforts are validated by informal validation that may include a personal message of recognition.
4. Create shared kernels. Sometimes sympathetic relationships are created. For example, individuals may participate in a team with a shared objective. Their shared team experience becomes a shared kernel that leads to relationships of sympathy and social capital. Sometimes this method of building social capital is referred to as team building. Teams may be organized around athletic contests, community investments, political objectives, support for schools, opposition to externalities, and others.
5. Give gifts. Perhaps the most popular method of building social capital is giving gifts. However, for this method to be successful, the gift must be personalized and have socio-emotional goods attached. For example, a gift from the corporation delivered according to some formula does not have the same socio-emotional goods attached as a gift from a husband to his wife remembering their special day. Similarly, flowers from the company fail to convey socio-emotional goods of caring and support in the same way as flowers sent by individual members of the company.
6. Create institutions. Institutions are “rules for ordering human relationships.” Little can be done cooperatively without institutions. Each new relationship requires that partners in the relationship agree on institutions to order their exchanges. An ability to create and sustain these institutions communicates shared values and norms and desires to maintain the relationship. These are socio-emotional goods and may lead to increased social capital.
7. Communicate socio-emotional goods as well as tangible rewards. It is one of the strange phenomena that goods with such potentially high returns are so infrequently purchased. The cost of socio-emotional goods is often very small, at least measured in units of physical goods. These socio-emotional goods often are nothing more than a greeting, a thank you note, a

congratulation note, or a note of shared sympathy. However, organizations that function well are those that regularly, and almost without being reminded to do so, exchange directly socio-emotional goods.

8. Resolve conflicts. Without exception, conflicts in values, in understanding what the facts are, and in economic benefits will occur in relationships. Successfully resolving these conflicts communicates that the relationship (and social capital) is valued more than the object of the conflict. This statement conveyed through successful conflict resolution almost always results in increased social capital.

How can social capital be destroyed? Institutional arrangements can create activities in which the success of one party requires the failure of another. Social capital can also be destroyed by exchanging negatively valued socio-emotional goods, including expressions of disrespect and antipathy. Finally, social capital can be destroyed by extracting services without reciprocity or maintenance.

One of the ironies of the social capital paradigm is that it provides a powerful defense of market institutions. Voluntary exchanges of physical goods and services frequently have socio-emotional goods attached so that the exchange often results in increased social capital. While neoclassical economists may recommend market systems organized by selfish preferences because of their efficiency and ability to organize productive activities, social capital theorists find another justification. They justify and support market systems because of their ability to create and transfer social capital.

Moving from Micro to Macro Relationships: Social Capital in the Large

At the micro levels, rules for ordering relationships, institutions, are personally established. They are established as individuals communicate and exchange socio-emotional goods and services. They depend on persons in the exchange identifying the physical and socio-emotional needs of others and responding appropriately.

But, not all of our exchanges are based on such personalized rules and relationships. Everyday we interact and exchange with strangers with whom we have no personalized relationship. We pass them on the highway. We make purchases from them in the supermarket, gas station, and clothes store. We pass them on the street, have them call us on the phone in an attempt to sell products, we send our tax forms to them, and in hundreds of other ways we exchange with strangers. Of course, we sometimes invest in social capital with strangers and many times this investment is successful. However, the fact remains that we need to relate to strangers and to do so we need institutions that function even between strangers. In complicated and large populations, progress demands formal institutions that apply impersonally must substitute for some informal ones whose maintenance depends on personalized social capital. One can imagine the difficulty of enforcing a tax code or water use fee on a large population where the code or fee varied by relationships.

So, how do we develop impersonal institutions that allow strangers to interact and exchange? Generally speaking, we create impersonal institutions, those whose application and maintenance do

not depend directly on personalized social capital by identifying kernels shared in the large. These shared kernels are for the most part formed in personalized relationships but universally accepted.

Kernels developed in personalized relationships and generally held can only become formal institutions and applied impersonally when those holding these kernels have the opportunity to express their agreement. Institutions that permit this expression of agreement take many forms. For example, opinion polls that contact large numbers of persons and ask for their views may contribute. Political candidates that express a position and then are endorsed by voters also contribute to the process of creating formal institutions. Individuals formed in organizations that establish a formal set of kernels and then invite others with similar views to join the organization also contribute to the formation of formal institutions. Nevertheless, it is important to recognize that nearly all formal institutions depend on personalized social capital for their creation and maintenance.

To illustrate the process of forming impersonal institutions, consider the following. In the 1700s, individuals living on the East Coast of what is now the United States acquired in personalized relationships the kernel that they should not be taxed without representation. This view was communicated in a number of mediums among the people living there until an institution was created. The institution was that the country of Great Britain would not be allowed to collect taxes on tea sold in the colonies. This institution led to others, as other kernels generally shared and communicated led to the establishment of a government, a constitution with institutions specifying the rights of individuals not assignable to the government.

We have adopted an important symbol for impersonal institutions. It is the symbol of our judicial system that communicates that formalized institutions are to be applied to all equally and without regard to personalized differences, especially of differences in inherited kernels. This symbol of our judicial system is Lady Justice who wears a blindfold to ensure that her judgments will be independent of the identify of those who stand before the bar of justice.

Thus, we move from personalized relationships and informal institutions to macro relationships with strangers that involve complicated exchanges by creating formal institutions that are impersonally applied. However, even these begin with personalized social capital.

It is often recognized among development specialists that the inability to find universal kernels that can be used to establish formal institutions is one of the most limiting constraints on development. The inability to establish impersonal rules will limit specialization and trade and increase transaction costs, all of which limit development. Often, universal kernels cannot be found because inherited kernels dominate relationships and these cannot be used to establish relationships in the aggregate.

Persons adopt and sustain institutions for the same reasons they exchange physical and socio-emotional goods. Persons may adopt and sustain institutions because they care about others who may benefit from the institutions or because they desire to maintain the goodwill of others who support the institutions. This method of enforcement because of social capital is referred to as “enforcement by the hug.” To illustrate, a person may adopt institutions that express greetings or that organize waiting to maintain one’s social capital involved in the same activity or to benefit those affected by the institutions. Finally, some sustain institutions because they believe it is the right thing to do, an action approved of by their ideal self.

Persons may adopt and sustain institutions because they expect physical/economic rewards. Thus, consumers are rewarded financially when they return empty soft drink containers. Or, some donate blood because they expect payment. Offering economic/physical rewards to adopt and maintain an institution is referred to as “enforcement by carrots.”

Finally, persons may adopt and sustain institutions because of the costs that may be imposed if they do not. For example, the tax codes are obeyed in part because of potential penalties that may be imposed for violating the institution. This method of enforcement is sometimes referred to as “enforcement by the stick.”

Institutions may be formal or informal. Informal institutions have limited application and are frequently enforced by the “hug.” Formal institutions apply to all citizens regardless of their stock of social capital. Formal institutions may be enforced by “hugs” and “carrots.” But, ultimately they almost always have sticks available. Still, enforcement by the carrot or the stick is costly and can only effectively be employed on a limited scale. Ultimately, both formal and informal institutions depend on enforcement from the hug.

Corruption is defined as the replacement of formal institutions with informal ones without the consent of the governed. For example, a judge whose verdicts should be governed by impersonal laws renders verdicts based on informal institutions such as allowing the verdict to be influenced by financial or other rewards is considered to be corrupt. On the other hand, informal rules may direct one’s allocation of his/her private resources to friends and relatives and this type of preferential treatment is not considered corrupt. The nexus between formal and informal institutions and the proper domain for each is a subject of controversy.

Kinds of Institutions

There are several distinct types of institutions. Some of these are described next:

1. Institutions that distinguish between network members and nonmembers. Immigration laws are examples.
2. Institutions that allocate and specify property rights. Institutions that license and provide property descriptions are examples.
3. Institutions that limit competition. Institutions that specify the rules of the game, fair business practices, and require truth in advertising are examples.
4. Institutions that internalize externalities. Institutions that limit noise, require one to maintain the yard, and penalize those who litter are examples.
5. Institutions that provide for orderly exchanges. Contracts are specialized institutions that provide for orderly exchanges by specifying the quality, quantity, location, and terms of trade for a particular good.

6. Institutions that validate or censure. Most organizations adopt rules to recognize behavior supported by the members. Such institutions provide for validation by public recognition and awards. In other cases, organizations may adopt specific institutions that censure individuals who violate the accepted standards of the group. In such cases, the institutions may expel or condemn members who fail to conform to accepted institutions.
7. Institutions that express caring. A generally accepted institution that expresses caring is sending flowers. Another form is expressed by a hug.
8. Institutions that order information flows. Several institutions limit information flows that are false, including institutions that regulate labeling and advertising. Other institutions limit passing government secrets to persons from hostile countries.
9. Institutions that distinguish between personal and public areas of responsibility. The constitution is about identifying areas of public responsibility, including defense and public safety. Others want the responsibility of the public to include aspects of the financial well-being and the physical health of its citizens.
10. Institutions that create organizations. Communities can only be formed with a charter. The formation of service clubs must follow their club's charter. Marriage laws create the rules under which persons are joined together.

Social Capital, Institutions, and Organizations

An organization is a group of persons who satisfy an established membership requirement. Membership requirements may be based on inherited or earned traits or kernels of commonality. Organizations whose membership requirements are based on inherited kernels are closed, such as membership in the Daughters of the American Revolution. Organizations whose identifying kernel is earned are open, such as membership in the Rotary Club. The shared kernels of members often lead to relationships of sympathy and the development of social capital. Then, especially if the organizations are social or service based, the social capital of the members can be used to exchange socio-emotional goods.

Activity within organizations is directed by formal or informal institutions. The kinds of institutions that exist within any particular organization depend on the relationships or social capital that exist among members. Each organization must adopt institutions for making decisions. Other institutions are required for assigning duties, allocating resources, validating members, sharing information, resolving disputes, expressing caring, and limiting competition.

Organizations may pass through well-recognized stages. In stage one, members recognize in each other opportunity for synergistic exchanges (forming); in stage two, members experience the conflict because they support conflicting institutions (storming); in stage three, members agree on new and compatible institutions that permit synergistic cooperation (norming); and in stage four, members put into effect the new (and compatible old) agreed on institutions (performing).

In hierarchal organization, decision making power may be limited to a few. Democratic organizations share equally decision making responsibility. But, among social capital rich organizations, decision making is often by consensus because one desired outcome of the decision making process is to preserve the social capital that exists between members of the organization.

Organizations provide a place for social capital to reside. Organizations exist because they provide the setting in which members can meet their economic, social, validation, and information needs. As the needs of members change, membership requirements and organizational emphasis may also change. Relationships among an organization's members range from antipathetic to sympathetic. Depending on the quality of relationships or social capital within an organization, power will be exercised using a stick, carrot, or hug. Organizations may experience conflict if members perceive they must compete with each other to satisfy their needs.

Mature Paradigms

Paradigms move from an immature to a mature status when agreement is reached on the underlying principles of the paradigm. Some basic principles that we believe apply to the study of social capital and institutions that increase its maturation include the following:

1. Validation from others requires a demonstration of support for institutions that identify one as a member of a network. Institutions may identity conforming signals or traits. Institutions that distinguish members from nonmembers include the adoption of icons such as school colors, holding passports, and identifying clothes or symbols that must be owned or displayed by members.
2. Stability of institutions requires a stable network to which the rules apply and an apparatus that converts new network members to the institutions.
3. Externalities pressure individuals to organize into networks and create institutions to internalize the externalities. Institutions to internalize externalities will tend to be informal ones for networks of bonding social capital. Meanwhile, institutions to internalize externalities will tend to be formal ones for networks of linking or bridging social capital.
4. Even for people known to each other, their interactions must also be preceded with institutions or agreements. Social capital facilitates these agreements.
5. The methods used to achieve and enforce agreements or institutions depend on the kinds and distribution of social capital. The hug, carrot, or stick compliance method each reflects different kinds and distributions of social capital.
6. Institutions must allow for individual expression or will be unenforceable because of the need for validation by distinction.

7. Finally, an important motivation for institutions is to bound competition and encourage cooperation so that social capital can be created and maintained. Institutions that overemphasize competition (e.g., economics) do so at the expense of social capital.
8. Externalities, especially negative ones, are the source of conflict. How conflicts are resolved depends on the distribution of social capital between the parties in conflict. Conflicts are sometimes resolved by establishing new or enforcing old institutions.

Changes in Institutions

Institutions change for a number of reasons. However, all of these changes are connected to a redistribution of social capital that may occur in the following ways.

First, institutions may change because the population to which the institutions apply has changed. Thus, changes in the age composition may prompt new institutions that apply to the older members of the population because the kernel of age has become more important.

Sometimes institutions change because new conditions arise for which the institution was not designed and as a result, benefits and costs are being distributed in ways that are inconsistent with the kernels and distribution of social capital on which the original institution was based.

Sometimes institutions change because their application destroys social capital and creates conflict in values of the members to which it is applied.

Sometimes new institutions are formed because we learn new information about the consequences of the application of the old institutions. For example, pesticide application laws before Rachel Carson's "Silent Spring" were generally lax. Then, when information detailing the effect of certain pesticides on birds was made known, there was a general response to the shared kernel that values wildlife for stricter institutions that would protect the environment.

Sometimes we require new institutions to allocate resources whose ownership has not been personalized. So, we have institutions that protect intellectual property, we have treaties with native Americans that specify certain rights belonging to them by virtue of their primacy, and other rights to resources that often accompany the discovery of a new resource or a limit on existing high exclusion cost goods such as clean air and water.

Institutions often change when they are not communicated to new members:

1. New information that invalidates the need for or the usefulness of old institutions.
2. Lack of understanding or agreement about the institution.
3. Belief that the institution creates inequity.
4. The creation of a new institution that requires abandoning an existing institution.

Applications of Social Capital Across the Sciences

Some have called the applications of social capital a cottage industry or a fad. While the adoption of the social capital paradigm has recently increased, recognition of its importance under different names probably has existed for centuries. One of the earliest uses of the term was 1914. However, since Coleman popularized the phrase, it has been receiving increased attention. Some of the applications of social capital include:

1. International development efforts, including those made by the World Bank.
2. Physical health and recovery from illness has been shown to depend on social goods provided by one's social capital.
3. Migration patterns are best predicted by the location of migrants' social capital.
4. Popularized by Granovetter's strength of weak ties, one's social capital has been shown to be an essential ingredient in securing employment.
5. Social capital based on inherited traits often prevents the establishment of formalized institutions and is a major cause of market failures.
6. Educational achievements depend on disciplinary information transfers and the supply of socio-emotional goods because the educational environment is often risky.
7. Anti-social and criminal conduct are often associated with failure to provide social capital services to disaffected members or an inability of disaffected members to accept social capital services from those identified with the institution.
8. Development at the community and country level is associated with their ability to create and maintain institutions which in turn depends on their level of social capital.

Unresolved Issues in the Social Capital Paradigm

We have not yet successfully developed the micro/macro linkage that permits us to move from social capital theories developed for individuals to social capital theory developed for units much larger than small networks of individuals. However, our work elsewhere has moved in the direction of establishing micro/macro linkages in economics. We also believe that the micro/macro linkages are made through institutions and that attention to the social capital/institution link may offer some solutions to the micro/macro debate.

Another continuing area of discussion is the definition of social capital. Some claim that efforts to define social capital precisely are doomed because of the breadth of its applications. This school of thought would consider social capital to be an area of study, much like monetary theory. We are uncomfortable with this position because progress in the paradigm requires that there be established

basic principles on which practitioners agree and that move the social capital paradigm to a mature status among scientists.

Some question social capital's capital-like properties. We find the evidence supporting its capital-like properties convincing.

Others question the usefulness of the social capital paradigm because of measurement difficulties. We find demonstrated that the influence of social capital can be measured successfully using the same methods that value the influence of time and risk preferences. The measurement requires establishing a baseline. Our baseline is the arm's-length relationship from which is measured the influence of social capital.

Still others want to claim that the evidence for social capital can be explained in selfishness of preference models. Such arguments are usually one-sided and equally convincing arguments could be made that selfishness of preference outcomes could be explained by social capital motivations with sufficient accommodating assumptions. A middle ground perhaps is to recognize that externalities can be internalized by means of social capital and other means. For example, we create institutions to impose penalties on those who litter, an act that creates negative externalities. Repeated exchanges may lead naturally to agents internalizing the effects of their choices on others because their act will be accounted for in the next round of exchanges. In short, the study of how externalities are internalized should consider all the motives described earlier including selfishness of preferences and those motivated by social capital.

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