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SOCIAL CAPITAL: PROSPECTS FOR A NEW CONCEPT

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A growing number of sociologists, political scientists, economists, and organizational theorists have invoked the concept of social capital in the search for answers to a broadening range of questions being confronted in their own fields. Seeking to clarify the concept and help assess its utility for organizational theory, we synthesize the theoretical research undertaken in these various disciplines and develop a common conceptual framework that identifies the sources, benefits, risks, and contingencies of social capital.

The concept of social capital has become increasingly popular in a wide range of social science disciplines. A growing number of sociologists, political scientists, and economists have invoked the concept of social capital in the search for answers to a broadening range of questions being confronted in their own fields. Social capital—understood roughly as the goodwill that is engendered by the fabric of social relations and that can be mobilized to facilitate action—has informed the study of families, youth behavior problems, schooling and education, public health, community life, democracy and governance, economic development, and general problems of collective action (for overviews, see Jackman & Miller, 1998; Portes & Sensenbrenner, 1993; and Woolcock, 1998; see also special issues of *American Behavioral Scientist,* 40[6], 1997, and 42[1], 1998; *Housing Policy Debate,* 9[1], 1998; *Administrative Theory and Praxis,* 21[1], 1999; *National Civic Review,* 86[2], 1999; and the World Bank's "Let's Talk Social Capital" internet discussion group and its social capital website at http://www.worldbank.org/poverty/scapital/index.htm).

In organization studies, too, the concept of social capital is gaining currency. It proves to be a powerful factor explaining actors' relative success in a number of arenas of central concern to organizational researchers:

- Social capital influences career success (Burt, 1992; Gabbay & Zuckerman, 1998; Podolny & Baron, 1997) and executive compensation (Belliveau, O'Reilly, & Wade, 1996; Burt, 1997a).
- Social capital helps workers find jobs (Granovetter, 1973, 1995; Lin & Dumin, 1996; Lin, Ensel, & Vaughn, 1981) and creates a richer pool of recruits for firms (Fernandez, Castilla, & Moore, 2000).
- Social capital facilitates interunit resource exchange and product innovation (Gabbay & Zuckerman, 1998; Hansen, 1998; Tsai & Ghoshal, 1998), the creation of intellectual capital (Hargadon & Sutton, 1997; Nahapiet & Ghoshal, 1998), and cross-functional team effectiveness (Rosenthal, 1996).
- Social capital reduces turnover rates (Krackhardt & Hanson, 1993) and organizational dissolution rates (Pennings, Lee, & van Witteloostuijn, 1998), and it facilitates entrepreneurship (Chong & Gibbons, 1997) and the formation of start-up companies (Walker, Kogut, & Shan, 1997).
- Social capital strengthens supplier relations (Asanuma, 1985; Baker, 1990; Dore, 1983; Gerlach, 1992; Helper, 1990; Smitka, 1991; Uzzi, 1997), regional production networks (Romo & Schwartz, 1995), and interfirm learning (Kraatz, 1998; see also special issue of *Strategic Management Journal,* 21[3], 2000).

The breadth of the social capital concept reflects a primordial feature of social life—namely, that social ties of one kind (e.g., friendship) often can be used for different purposes (e.g., moral and material support, work and nonwork advice). Coleman calls this the "appropri-

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ability" (1988: 108) of social structure. Appropriability legitimates a conceptual strategy of bringing under the one notion much of what has been studied under such concepts as informal organization, trust, culture, social support, social exchange, social resources, embeddedness, relational contracts, social networks, and interfirm networks.

It is not obvious, however, that we gain more than we lose by gathering all these various phenomena under an "umbrella concept" (Hirsch & Levin, 1999) of social capital. Such a move risks conflating disparate processes and their distinct antecedents and consequences. More fundamental, it is inevitable that an object of research encompassing as much as this should attract researchers from heterogeneous theoretical perspectives. Skeptics have therefore characterized the social capital concept as "a wonderfully elastic term" (Lappe & Du Bois, 1997: 119), a notion that means "many things to many people" (Narayan & Pritchett, 1997: 2) and that has taken on "a circus-tent quality" (De Souza Briggs, 1997: 111).

Social capital is still in the "emerging excitement" phase of the life cycle typical of an umbrella concept (Hirsch & Levin, 1999). In order to capitalize effectively on this momentum and prepare the way for the next phase of the life cycle—the "validity challenge"—we propose a conceptual framework that allows us to integrate the various relevant streams of research. Our goals, therefore, are broader than those of other recent reviewers (such as Leenders & Gabbay, 1999a, notably their Introduction and Agenda chapters; also Burt, 2000; Foley & Edwards, 1999; Lin, 1999; Portes, 1998; Woolcock, 1998; Woolcock & Narayan, 2000). Whereas these reviewers have tended to focus on specific disciplinary domains, our first goal is to integrate across these domains. And whereas these reviewers have tended to advance their own theoretical perspectives, our second goal is to encourage dialogue across perspectives (see Weick, 1999, on dialogue versus paradigm wars).

We begin by defining the concept more precisely and by articulating a conceptual framework for our integration. We then discuss, in turn, the sources, benefits, risks, and contingencies associated with social capital. A conclusion summarizes the prospects and challenges of a social capital organizational research agenda and suggests some management implications.

DEFINING SOCIAL CAPITAL

The Core Intuition

The core intuition guiding social capital research is that the goodwill that others have toward us is a valuable resource. By "goodwill" we refer to the sympathy, trust, and forgiveness offered us by friends and acquaintances (see Dore, 1983, on goodwill; Robison, Schmid, & Siles, in press, on sympathy; Adler, 2001, on trust; and Williamson, 1985, on forgiveness; the accounting notion of goodwill draws from the same semantic pool but has grown broader and less specific over time; see Hughes, 1982). If goodwill is the *substance* of social capital, its *effects* flow from the information, influence, and solidarity such goodwill makes available (using the tripartite distinction drawn by Sandefur and Laumann, 1998). As we discuss below, these benefits are accompanied by costs and risks. These direct effects lead, in turn, to other effects of various kinds: we listed several organizationally relevant one above, and in other contexts yet other kinds of effects will be salient. For any given actor, a given effect has different *value*, depending on a number of moderating factors we discuss below.

Social capital's *sources* lie—as do other resources'—in the social structure within which the actor is located. Indeed, we can differentiate social capital from other types of resources by the specific dimension of social structure underlying it; social capital is the resource available to actors as a function of their location in the structure of their social relations. But what are "social relations"? We can distinguish conceptually among three dimensions of social structure, each rooted in different types of relations: (1) **market relations,** in which products and services are exchanged for money or bartered, (2) **hierarchical relations,** in which obedience to authority is exchanged for material and spiritual security, and (3) **social relations,** in which favors and gifts are exchanged (see Table 1). It is this third type of relationship that constitutes the dimension of social structure underlying social capital. (This three-way differentiation extends the distinction between "economic exchange" and "social exchange" drawn by Blau [1964] and

TABLE 1
Market, Hierarchical, and Social Relations

Dimension	Market Relations	Hierarchical Relations	Social Relations
What is exchanged?	Goods and services for money or barter	Obedience to authority for material and spiritual security	Favors, gifts
Are terms of exchange specific or diffuse?	Specific	Diffuse (Employment contracts typically do not specify all duties of employee, only that employee will obey orders. Other hierarchical relations imply a similar up-front commitment to obeying orders or laws, even those yet to be determined.)	Diffuse (A favor I do for you today is made in exchange for a favor and at a time yet to be determined.)
Are terms of exchange made explicit?	Explicit	Explicit (The employment contract is explicit in its terms and conditions, even if it is not specific. Ditto for other kinds of hierarchical relation.)	Tacit (A favor for you today is made in the tacit understanding that it will be returned someday.)
Is the exchange symmetrical?	Symmetrical	Asymmetrical (Hierarchy is a form of domination.)	Symmetrical (The time horizon is not specified nor explicit, but favors eventually are returned.)

Homans [1974] along lines similar to those suggested by Cardona, Lawrence, and Bentler [n.d.]. For present purposes, we can set aside social exchange theory's broader theoretical ambition to constitute the micro foundations of sociology.)

The nature of the relationship among these three types of relations (dimensions of social structure)—and thus among the three corresponding types of resources—is much debated (see Swedberg, Himmelstrand, & Brulin, 1990, for an overview), and this debate reappears in social capital research at several points discussed below. It suffices for now to note, first, that we assume that any concrete relation is likely to involve a mix of all three types (see Adler, 2001, and Cardona et al., n.d.). Second, insofar as real-world market and hierarchical relations give rise to social relations—as is inevitable under conditions of repeated interaction—the other dimensions of social structure contribute indirectly to the formation of social capital; we return to this in our discussion below of sources of social capital. Third, given the differentiation of types of exchange, there is some debate as to whether these social resources can legitimately be called a form of "capital"; we summarize the associated issues below.

External and Internal Ties

Social scientists have offered a number of definitions of social capital (see Table 2). While these definitions are broadly similar, they express some significant nuances. First, the definitions vary depending on whether they focus on the substance, the sources, or the effects of social capital (Robison et al., in press). Second, they vary depending on whether their focus is primarily on (1) the relations an actor maintains with other actors, (2) the structure of relations among actors within a collectivity, or (3) both types of linkages. A focus on external relations foregrounds what has been called "bridging" forms of social capital, whereas a focus on internal ties within collectivities foregrounds "bonding" forms of social capital (see Gittell & Vidal, 1998, and Putnam, 2000; Oh, Kilduff, & Brass, 1999, make the same distinction under the headings "communal" versus "linking" social capital).

The first group, the bridging views, focuses primarily on social capital as a resource that inheres in the social network tying a focal actor to other actors. On this view, social capital can help explain the differential success of individuals and firms in their competitive rivalry: the actions of individuals and groups can be greatly facilitated by their direct and indirect links to other actors in social networks. Social capital research in sociology (e.g., Burt, 1992) has been strongly influenced by network theorists, and this view of social capital is reflected in the egocentric variant of network analysis.

TABLE 2
Definitions of Social Capital

External versus Internal	Authors	Definitions of Social Capital
External	Baker	"a resource that actors derive from specific social structures and then use to pursue their interests; it is created by changes in the relationship among actors" (1990: 619).
	Belliveau, O'Reilly, & Wade	"an individual's personal network and elite institutional affiliations" (1996: 1572).
	Bourdieu	"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" (1985: 248).
		"made up of social obligations ('connections'), which is convertible, in certain conditions, into economic capital and may be institutionalized in the form of a title of nobility" (1985: 243).
	Bourdieu & Wacquant	"the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (1992: 119).
	Boxman, De Graaf, & Flap	"the number of people who can be expected to provide support and the resources those people have at their disposal" (1991: 52).
	Burt	"friends, colleagues, and more general contacts through whom you receive opportunities to use your financial and human capital" (1992: 9).
		"the brokerage opportunities in a network" (1997b: 355).
	Knoke	"the process by which social actors create and mobilize their network connections within and between organizations to gain access to other social actors' resources" (1999: 18).
	Portes	"the ability of actors to secure benefits by virtue of membership in social networks or other social structures" (1998: 6).
Internal	Brehm & Rahn	"the web of cooperative relationships between citizens that facilitate resolution of collective action problems" (1997: 999).
	Coleman	"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 individuals who are within the structure" (1990: 302).
	Fukuyama	"the ability of people to work together for common purposes in groups and organizations" (1995: 10).
		"Social capital can be defined simply as the existence of a certain set of informal values or norms shared among members of a group that permit cooperation among them" (1997).
	Inglehart	"a culture of trust and tolerance, in which extensive networks of voluntary associations emerge" (1997: 188).
	Portes & Sensenbrenner	"those expectations for action within a collectivity that affect the economic goals and goal-seeking behavior of its members, even if these expectations are not oriented toward the economic sphere" (1993: 1323).
	Putnam	"features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit" (1995: 67).
	Thomas	"those voluntary means and processes developed within civil society which promote development for the collective whole" (1996: 11).
Both	Loury	"naturally occurring social relationships among persons which promote or assist the acquisition of skills and traits valued in the marketplace . . . an asset which may be as significant as financial bequests in accounting for the maintenance of inequality in our society" (1992: 100).
	Nahapiet & Ghoshal	"the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit. Social capital thus comprises both the network and the assets that may be mobilized through that network" (1998: 243).
	Pennar	"the web of social relationships that influences individual behavior and thereby affects economic growth" (1997: 154).
	Schiff	"the set of elements of the social structure that affects relations among people and are inputs or arguments of the production and/or utility function" (1992: 160).
	Woolcock	"the information, trust, and norms of reciprocity inhering in one's social networks" (1998: 153).

In contrast to this view of social capital as a resource located in the external linkages of a focal actor, bonding views focus on collective actors' internal characteristics. On these views, the social capital of a collectivity (organization, community, nation, and so forth) is not so much in that collectivity's external ties to other external actors as it is in its internal structure—in the linkages among individuals or groups within the collectivity and, specifically, in those features that give the collectivity cohesiveness and thereby facilitate the pursuit of collective goals. In this latter sense, the proponents of the internal view can endorse the label *capital* even while distancing themselves from the more strongly instrumental interpretation of social capital usually associated with the external, bridging view. This internal approach to social capital is reflected in the sociocentric (Sandefur & Laumann, 1998) and much of the "whole-network" (Wellman, 1988: 26) variants of network sociology (see the studies in Part 1 of Marsden & Lin, 1982, for examples).

A third group of definitions is worded so as to be neutral on this internal/external dimension. These definitions' neutrality has several advantages. First, the distinction between the external and internal views is, to a large extent, a matter of perspective and unit of analysis: the relations between an employee and colleagues within a firm are external to the employee but internal to the firm. Moreover, the internal and external views are not mutually exclusive. The behavior of a collective actor such as a firm is influenced both by its external linkages to other firms and institutions and by the fabric of its internal linkages: its capacity for effective action is typically a function of both. In research on social capital, however, scholars have tended to adopt either an external or an internal viewpoint. In this article we address both.

But Is It "Capital"?

In what sense is this resource a form of capital? Baron and Hannan (1994) complain about the indiscriminate and metaphoric importation of economic concepts into sociological literature and refer to the social capital literature as an example of "a plethora of capitals." Social capital resembles some kinds of capital and differs from others (see also Araujo & Easton, 1999, and Robison et al., in press). To assess the validity of characterizing this resource as a form of capital, we discuss first the more widely shared characteristics and then the less widely shared ones.

First, like all other forms of capital, social capital is a long-lived asset into which other resources can be invested, with the expectation of a future (albeit uncertain) flow of benefits. Through investment in building their network of external relations, both individual and collective actors can augment their social capital and thereby gain benefits in the form of superior access to information, power, and solidarity; and by investing in the development of their internal relations, collective actors can strengthen their collective identity and augment their capacity for collective action. While some commentators have argued that social capital in larger social aggregates has deep historical roots and, thus, should be treated as an exogenously given "endowment" (e.g., Putnam, 1995), it is also, at least under some circumstances, "constructible" through deliberate actions (Evans, 1996; Sabel, 1993). Like all forms of capital, social capital can yield disutilities as well as benefits both for the focal actor and for others (we discuss these disutilities in a subsequent section).

Second, like other forms of capital, social capital is both "appropriable" (Coleman, 1988) and "convertible" (Bourdieu, 1985). Like physical capital, which can typically be used for different purposes (albeit not necessarily equally efficiently), social capital is appropriable in the sense that an actor's network of, say, friendship ties can be used for other purposes, such as information gathering or advice. Moreover, social capital can be "converted" to other kinds of capital: the advantages conferred by one's position in a social network can be converted to economic or other advantage. Among the several forms of capital identified by Bourdieu, economic capital is most liquid; it is readily convertible into human, cultural, and social capital. By comparison, the "convertibility rate" of social capital into economic capital is lower, since social capital is less liquid and more "sticky" (Anheier, Gerhards, & Romo, 1995; Smart, 1993).

Third, like other forms of capital, social capital can either be a substitute for or can complement other resources. As a substitute, actors can sometimes compensate for a lack of financial or human capital by superior "connections." More often, however, social capital complements other forms of capital. For example, social capital can improve the efficiency of economic capital by reducing transaction costs (Lazerson, 1995).

Fourth, like physical capital and human capital, but unlike financial capital, social capital needs maintenance. Social bonds have to be periodically renewed and reconfirmed or else they lose efficacy. Like human capital, but unlike physical capital, social capital does not have a predictable rate of depreciation—for two reasons. First, while it may depreciate with nonuse (and with abuse), it does not depreciate with use. Like human capital and some forms of public goods, such as knowledge, it normally grows and develops with use—for example, trust (which we argue is a key source of social capital) that is demonstrated today typically will be reciprocated and amplified tomorrow. Second, while social capital sometimes is rendered obsolete by contextual changes (see Sandefur & Laumann, 1998, for examples), the rate at which this happens is typically unpredictable so that even conservative accounting principles cannot estimate a meaningful depreciation rate.

Fifth, like clean air and safe streets, but unlike many other forms of capital, some forms of social capital are "collective goods" in that they are not the private property of those who benefit from them (Coleman, 1988). This is particularly true of internal, bonding social capital; the use of such social capital is nonrivalrous—one person's use of it does not diminish its availability for others—but (unlike pure public goods) its use is excludable—others can be excluded from a given network of relations (Hechter, 1987). The former characteristic makes social capital vulnerable to free-rider problems and the resulting "tragedy of the commons" risks. The latter characteristic means that in examining the significance of a given group's internal, bonding social capital for the broader aggregate of which it is a part, we must consider the nature of that group's relations to others (we return to this question in our discussion of social capital's risks). (Leana and Van Buren [1999] describe the difference between the external and internal views as that of a focus on private versus public goods. However, the more accurate term for the internal view is *collective* goods, since, unlike the case of pure public goods, insiders can exclude outsiders from social capital's benefits; the distinction is important, because one of the defining features of bonding forms of social capital is the associated risk of exclusivity.) Note that in contrast with internal, bonding social capital, external, bridging social capital is closer to a private good. Indeed, it can be traded in the form of business "goodwill."

Sixth, some scholars (e.g., Coleman, 1988) have argued that social capital is unlike all other forms of capital in being "located" not in the actors but in their relations with other actors. "No one player has exclusive ownership rights to social capital. If you or your partner in a relationship withdraws, the connection dissolves with whatever social capital it contained" (Burt, 1992: 58). While it takes mutual commitment and cooperation from both parties to build social capital, a defection by only one party will destroy it. We should note, however, that even in these respects, social capital is not entirely unique. The utility of "network" goods like railways, telephones, fax, and e-mail is also a function of the number and identity of other users.

Finally, social capital is unlike other assets that economists call "capital" because investments in its development do not seem amenable to quantified measurement, even in principle (Solow, 1997). Even if the benefits that flow from social capital can be measured, the *capital* label should be taken somewhat metaphorically as long as the effort involved in building social networks cannot be measured. (Fernandez et al. [2000] quantify the benefits of social capital used by a call center in recruiting friends of employees. They also claim to identify the investment in the social capital. However, they identify only the bonus paid by the firm to employees whose referrals lead to hires; they do not capture the investment by the employees in creating and maintaining these social ties. It is hard to imagine how the latter could ever be measured, which is Solow's point.)

In sum, social capital falls squarely within the broad and heterogeneous family of resources commonly called "capital." In some respects, the use of the term is metaphorical, but such metaphorical uses are very widespread, and it is difficult to see what harm they do.

Working Definition and Conceptual Framework

Summarizing the discussion to this point, our working definition differentiates the substance, sources, and effects of social capital.

> *Social capital is the goodwill available to individuals or groups. Its source lies in the structure and content of the actor's social relations. Its effects flow from the information, influence, and solidarity it makes available to the actor.*

This definition encompasses internal and external ties and allows social capital to be attributed to both individual and collective actors. It also encompasses the social capital that is available to an actor by virtue of already-established ties from the social capital that the actor can mobilize by creating new ties.

Our discussion now focuses, in turn, on the nature of social capital, its sources, its benefits and risks, and the contingencies that influence its value. Figure 1 summarizes the overall conceptual framework that will guide our discussion.

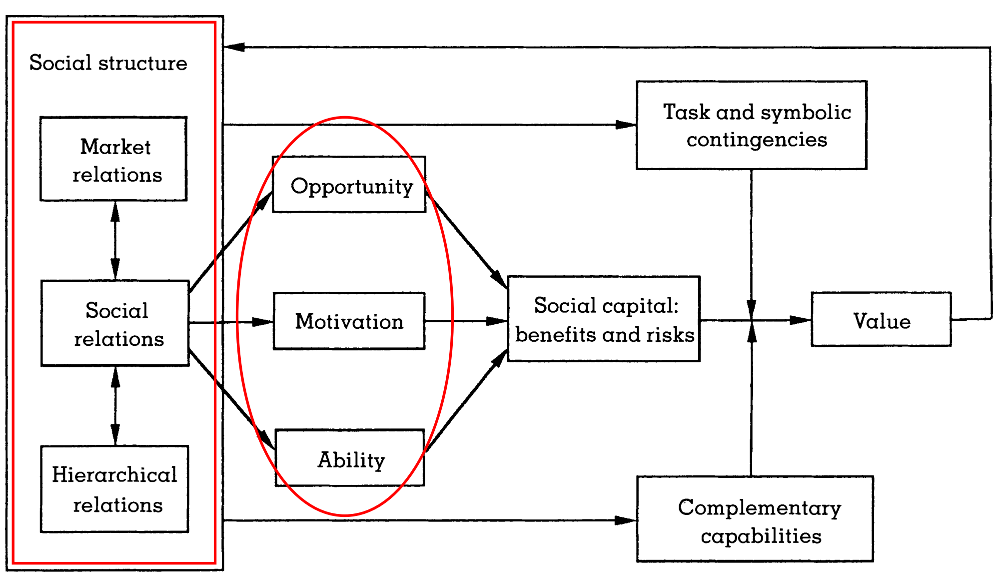
SOURCES OF SOCIAL CAPITAL

Beyond the basic consensus that social capital is derived from social relations, considerable disagreement and confusion exist concerning the specific aspects of social relations that create social capital. Much social capital research can be divided into a first branch, which locates the source of social capital in the formal structure of the ties that make up the social network, and a second branch, which focuses on the content of those ties. The formal structure of the network of social ties has been the focus of network theoretic approaches to social capital, and this research has revealed the important effects of features of structure such as closure and structural holes. In contrast, research in other disciplines has emphasized the role of tie content—most commonly shared norms and beliefs, but also abilities—in determining the social capital embodied in a social network.

The relative roles of network structure and tie content are simultaneously a theoretical and an empirical question. Theoretically, much network research in sociology has worked toward Simmel's vision of a formalistic sociology, which could reveal how the structure of social interaction generates its own content (Wellman, 1988: 23). It has thus downplayed the importance of the content of network ties (DiMaggio, 1992; Emirbayer & Goodwin, 1994; Powell & Smith-Doerr, 1994).

Empirically, this orientation can find support in the appropriability of social network ties; as we noted above, ties of one kind can be used for different purposes, and to this extent the specific content of ties can reasonably be bracketed. Empirically, however, there are limits to this appropriability. Burt (1997b) and Podolny and Baron (1997), for example, find that, depending on the content of the ties (specifically, friendship ver-

FIGURE 1
A Conceptual Model of Social Capital



sus work ties), network ties have very different effects on managers' promotion rates. And research focused on other outcomes has revealed different effects of different types of ties. Some formalists, such as Burt (2000), look for a middle ground by allowing that tie content may be a contingency factor conditioning the value of the social networks, but this approach implies that ties can have significant social capital benefits entirely independent of their content—an assumption we find implausible. (We note, in passing, that this formalist/substantialist debate is also played out one step "upstream" from social capital in Figure 1, in the analysis of social structure. On the one hand, Granovetter's [1985] notion of "embeddedness," adapted from Polanyi [1957], suggests that market and hierarchical relations are typically embedded in social relations, and to that extent all three types of relations are essentially social and their distinctive content, thus, is secondary to their common social nature. On the other hand, there is a long tradition of scholarship arguing that in modern societies, economic and authority relations have been progressively differentiated and disembedded, and to that extent they engender distinct dynamics.)

Given the radical differences among the various theoretical approaches underpinning these different views, our aim is modest. We aim simply to lay out the key strands of theory in a way that allows their differences to be seen and their respective merits to be debated. To this end, we use a "folk" schema that distinguishes opportunity, motivation, and ability (see also Bailey, 1993; Blumberg & Pringle, 1982; MacInnis, Moorman, & Jaworski, 1991; and Zeisel, 1947). The television series lawyer Perry Mason teaches us that in cases where there is only circumstantial evidence, successful prosecution requires showing that the defendant had the requisite opportunity, motivation, and ability. The crime in the present case is the gesture of social exchange—providing a favor to a contact in the absence of direct payment or direct orders—which is, so to speak, a crime against both *homo economicus* and *homo hierarchicus*.

Opportunity

An actor's network of social ties creates opportunities for social capital transactions. External ties to others give actors the opportunity to leverage their contacts' resources. For collective actors, internal ties create the opportunity to act together. Yet, although many researchers cite networks as an important source of social capital, what they mean by networks varies considerably. Among those who focus on internal ties within a given society (e.g., Brehm & Rahn, 1997; Evans, 1996; Ostrom, 1994; Putnam, 1993), the term *networks* often means informal, face-to-face interaction or membership in civic associations or social clubs. In contrast, network theorists argue that an understanding of social capital requires a finer-grained analysis of the specific quality and configuration of network ties. The latter perspective promises greater precision.

The analysis of network structure requires, first, attention to the quality of the constituent ties—their frequency, intensity, multiplexity, and so forth—and to their configuration. Second, it requires attention to both direct and indirect ties. Granovetter (1973), Coleman (1988), and Burt (1992), among others, point out that direct and indirect network ties provide access both to people who can themselves provide support and to the resources those people can mobilize through their own network ties.

Several researchers have studied the structural configurations of these networks of relationships. Here we focus on two key contributors: James Coleman and Ron Burt. Coleman (1988) argues that closure of the network structure—the extent to which actors' contacts are themselves connected—facilitates the emergence of effective norms and maintains the trustworthiness of others, thereby strengthening social capital. In a more open structure, violations of norms are more likely to go undetected and unpunished. People, thus, will be less trusting of one another, weakening social capital.

In contrast with Coleman's focus on closure, Burt (1992) argues that a sparse network with few redundant ties often provides greater social capital benefits. If the opportunity to broker the flow of information between groups constitutes a central benefit of social capital, and if, in general, information circulates more within than between groups, then a key source of social capital is a network of ties characterized by many structure holes—linkages to groups not otherwise connected. The long lineage of organizational research on brokers, gatekeepers, and boundary spanners shows some of the power of this form of social capital.

In part, the difference between Coleman and Burt reflects the difference between their respective internal and external foci and the related difference in assumed goals. Closure provides social capital's cohesiveness benefits within an organization or community; structural holes in the focal actor's external linkages provide cost-effective resources for competitive action. But even when we focus on external ties for competitive goals, both closure and sparse networks can yield benefits. Which is more valuable depends on the state of the other sources of social capital and on the task and symbolic environment confronting the actor. We return to this below, in a section on contingencies.

Motivation

Examining the "microfoundations" of social capital, Portes (1998) notes that it is obvious why the "recipients" in transactions mediated by social capital should desire its benefits; the key question, he points out, is what motivates "donors" to help recipients in the absence of immediate or certain returns. The mere fact of a tie implies little about the likelihood that social capital effects will materialize. The idea that motivations constitute not merely a contingency factor but, rather, a direct source of social capital underlies Putnam's (1993) assertion that the sources of social capital lie not only in networks but also in norms and trust. Leana and Van Buren tap the same intuition in arguing that the sources of organizational social capital lie in trust and "associability"—"the willingness and ability of individuals to define collective goals that are then enacted collectively" (1999: 542).

We should note two lines of thought that argue against this focus on motivation. First, in the standard rational actor model, it is assumed that all actors are identically motivated by self-interest. On that assumption, there would be no reason to explicitly consider motivation, and the empirically observed heterogeneity of actors' motivations would be simply ignored. Second, a strong version of formalistic sociology would posit motivation as the effect of network structure (e.g., Burt, 1992: 32–34; Uzzi, 1999: 500), and, on that assumption, explicit attention to motivations would be redundant. Since neither of these lines of thought is broadly accepted in social theory, we opt for an explicit inclusion of motivation in our model of social capital.

Portes (1998) provides a useful set of distinctions for characterizing the motivation of donors in relations mediated by social capital. Portes calls the first broad class of motivations "consummatory": they are based on deeply internalized norms, engendered through **socialization** in childhood or through experience later in life by the experience of a **shared destiny** with others. The second broad class of motivations are "instrumental": they, too, are based on norms, but norms that give greater scope to rational calculation. Instrumental motivation can be based on obligations created in the process of **dyadic social exchange** (Blau, 1964), or on what Portes calls "**enforced trust**"—where obligations are enforced on both parties by the broader community.

Perhaps because of the popularity of economically inspired rational actor models, in much social capital research in organizational studies, researchers have implicitly assumed that individual and collective actors are driven by instrumental motivations. Thus, actors are seen as cultivating and exploiting social capital to advance their careers (De Graaf & Flap, 1988; Lin, Ensel, & Vaughn, 1981; Marsden & Hurlbert, 1988), to survive in competitive rivalry (Burt, 1992; Pennings et al., 1998), and to reduce transaction costs (Baker, 1990).

It is clear, however, that social capital is sometimes motivated by normative commitments of a less directly instrumental nature, such as norms of generalized reciprocity (e.g., Portes, 1998; Putnam, 1993; Uzzi, 1997). As Putnam puts it, generalized reciprocity involves "not 'I'll do this for you, because you are more powerful than I,' nor even 'I'll do this for you now, if you do that for me now,' but 'I'll do this for you now, knowing that somewhere down the road you'll do something for me'" (1993: 182–183). The norm of generalized reciprocity resolves problems of collective action and binds communities. It transforms individuals from self-seeking and egocentric agents with little sense of obligation to others into members of a community with shared interests, a common identity, and a commitment to the common good. (The notion of social exchange invoked in Table 1 encompasses both more and less instrumental forms of social exchange.)

While shared norms are often seen as a key motivational source of social capital, there is some ambiguity in the literature as to exactly what it is about norms that enables them to function in this role. Putnam appears to privilege those norms whose content leads more directly to trust and trustworthiness, but *trust* is a very broad term too (Bigley & Pearce, 1998). Other authors emphasize the shared character of norms without further specifying their content, but the fact that a norm is shared is surely not a sufficient condition for the generation of social capital. In the classic study by Banfield (1958) of "amoral familism" in southern Italy, norms are strong and shared but such that they undermine rather than create social capital. We conclude that it is the specific content of the shared norms that determines whether they function as a source of social capital. We return to this concern below.

There is also some confusion in the literature as to the relationship between trust and social capital. Some authors equate trust with social capital (Fukuyama, 1995, 1997), some see trust as a source of social capital (Putnam, 1993), some see it as a form of social capital (Coleman, 1988), and some see it as a collective asset resulting from social capital construed as a relational asset (Lin, 1999). In the opportunity-motivation-ability schema, trust presents itself as a key motivational source of social capital (see also Knoke, 1999).

Ability

Ability—the competencies and resources at the nodes of the network—occupies an ill-defined place in the current state of social capital theory. Burt, for example, excludes it as a source, arguing that "human capital refers to individual ability, social capital refers to opportunity" (1997a: 339). Others argue that alongside motivation and opportunity, abilities are a source of social capital. Leana and Van Buren (1999) identify associability as a source of social capital and see associability comprising both the motivation and the ability of a collectivity to define and enact its goals. Nahapiet and Ghoshal (1998) adopt Putnam's list of networks, norms, and trust but also add shared beliefs—a form of ability. Lin (1999) and Gabbay and Leenders (1999) argue that if social capital is the resource provided by an actor's network of ties, its magnitude depends on the resources made available to the actor at the other nodes of this network.

The importance of ability in the theory of social capital can be easily understood through an example. If I am a product design engineer, my ties to my manufacturing-engineering colleagues afford me valuable opportunities for getting rapid and reliable advice on the manufacturability of proposed product designs. Clearly, however, even if I have an extensive network of ties with these colleagues, and even if their motivations incline them to help me, these ties are of little use if my colleagues lack the requisite manufacturability assessment expertise.

Faced with examples such as these, theorists have tended to divide into two camps. The "narrow" camp, exemplified by Portes (1998), argues that the abilities at the network nodes are complements to social capital. The "broad" camp, exemplified by Gabbay and Leenders (1999) and Lin (1999), argues for a more expansive definition of social capital that includes these abilities as constitutive of social capital.

The narrow approach seems to promise less confusion. Its proponents argue that the expansive approach ends up subsuming other forms of capital—embodied in my contacts' various competencies and resources—under social capital, which threatens to make the concept social capital impossibly broad.

The broad camp argues that if social capital theory were to distinguish as sharply as Portes recommends between the network and the resources at its nodes, social capital would risk becoming a concept with little purchase on reality—a kind of "pixie dust" with only virtual, rather than real, causal powers. In life we cannot expect to derive any value from social ties to actors who lack the ability to help us, and in theory development we cannot expect to derive great value from a theory which allows that social capital may be extensive but useless.

There is merit to both these views. Clearly, inflating the notion of social capital so that it subsumed all other forms of capital would obscure important differences of social structure. We should recall, however, that social capital is exchanged on very different terms than those governing market or hierarchical exchange; using the imagery of double-entry accounting, we would argue that, depending on the form of exchange that gives the actor access to a given resource, a given "asset" will be associated with very different "liabilities." One hundred dollars lent as a friend will not entail the same obligations as the same amount lent in a commercial transaction or committed by a manager to a department budget.

So, it is perhaps a fallacy of misplaced concreteness to see given types of resources as belonging intrinsically to one dimension of social structure rather than another; capital, in all its forms, is a relation, not a thing. In this sense, there is perhaps merit in allowing that given actors' social capital includes the resources that they could potentially mobilize via their social relations. (The share of those potentially mobilizable resources they receive depends on their contacts' *motivation*, and the total amount actually mobilized depends also on the *opportunity* created by the number of these contacts.)

Beyond Opportunity-Motivation-Ability

Our opportunity-motivation-ability framework suggests that all three sources must be present for social capital to be activated. A prospective donor without network ties to the recipients, without the motivation to contribute, or without the requisite ability would not be a source of social capital. A lack of any of the three factors will undermine social capital generation.

We should recall, however, that this tripartite schema is merely a heuristic guide to the proximate causes of social capital exchange. It does not substitute for the research that is needed on the features of the structure of social relations that create high opportunity, motivation, and ability. Formalistic network theoretic studies have perhaps gone furthest in this research, with an impressive accumulation of results on the features of the structure of ties that afford high opportunity for social capital (see Burt, 2000, for a recent survey). But, beyond this, research is still in its infancy. In their study of the role of social capital in human resource management, Brass and Labianca (1999) list as antecedents to social capital factors such as organization structure, size, actor similarity, and attitude similarity. In their paper on social capital as a factor in village-level development, Krishna and Shrader (1999), citing Bain and Hicks (1998), list "micro" cognitive and structural factors as well as "macro" factors, such as the rule of law, the type of political regime, the legal framework, the level of participation in the policy process, and the level of political decentralization. The ad hoc nature of these lists is all too obvious.

The question of social capital's deeper determinants also takes us back to the roles of hierarchical relations and market relations. Their influence may only be indirect, but it is nevertheless substantial. In the following sections we discuss them in turn.

The Role of Hierarchical Relations

Hierarchy is an important dimension of social structure that indirectly influences social capital by shaping the structure of social relations. By specifying work and decision flows, hierarchy within organizations can influence opportunity, because many ties come with formal positions and are not voluntarily chosen (Podolny & Baron, 1997). Hierarchy also can influence motivations—through its effects on incentives and norms—and abilities—through its effects on authority, resources, skills, and beliefs. However, the early call by Tichy (1981) for research on how formal organization hierarchy shapes informal social relations, a call echoed by Ibarra (1992), has largely gone unanswered (Gittell & Weiss, 1998).

This neglect of hierarchy is also found in macrosocial studies of social capital, but in this domain the issue has at least been the object of considerable debate. Many writers have criticized Putnam for an excessively "bottom-up" view of social capital and have stressed the "top-down" role of such formal institutions as government structure and legal rules in facilitating or impeding the emergence and maintenance of social capital and trust in civil society (e.g., Berman, 1997; Evans, 1996; Kenworthy, 1997; Levi, 1996; Ostrom, 1994; Pildes, 1996; Portney & Berry, 1997; Schneider, Teske, Marschall, Mintrom, & Roch, 1997; Woolcock, 1998; Youniss, McLellan, & Yates, 1997). Woolcock and Narayan (2000) note that in contrast with communitarian (e.g., Dordick, 1997) and network (e.g., Gittell & Vidal, 1998) views of social capital, institutional (e.g., Tendler, 1997) and synergy (e.g., Evans, 1996) views give an important role to government in fostering community-level social capital.

We should note that characterizing hierarchy as a facilitator of social capital runs counter to powerful liberal-individualist and antiauthoritarian ideologies within social research. These ideologies have tended to encourage the assumption that the effects of hierarchy on social capital are primarily destructive; bureaucracy is often seen as stifling informal organization and government as constricting civil society. A more objective assessment reveals the possibility of both negative (e.g., Pildes, 1996) and positive effects (see Hyden, 1997, for a review of the literature on the different possible relations between civil society and state, and Evans, 1996, on the contrast between crowding out and synergy views). Political scientists (e.g., Berman, 1997; Kenworthy, 1997; Levi, 1996; Ostrom, 1994; Portney & Berry, 1997) thus argue that strong government responsive to people's needs plays an important role in building social capital. Analogous dynamics are clearly at work in the role of formal authority in organizations.

What features of hierarchy explain these positive versus negative effects? Adler and Borys (1996) distinguish between "enabling" and "coercive" forms of bureaucracy in organizations and argue that these forms have contrasting effects on employee commitment and on the fabric of informal cooperation. They identify differences between the two forms in how the formal structures and procedures are both designed and implemented. Their analysis parallels the work of Evans (1996) on developing economies; Evans argues that the state can buttress rather than undermine civil society's social capital on two conditions: (1) its internal structure and process must display sufficient integrity, and (2) its external relations with actors in civil society must display sufficient synergy. Clearly, these conditions are not always (perhaps not even often) met, but just as clearly, when they are met, hierarchy acts as a powerful, albeit indirect, source of social capital.

The Role of Market Relations

If hierarchy can play a facilitative or an inhibiting role vis-à-vis social capital, what of market relations? In several currents of social theory, researchers have argued that the progressive differentiation and expansion of the domain of economic exchange tends, over time, to corrode social capital. Hirschman (1982) reviews the many incarnations of this "self-destructive" view of market-based society expressed in both Marxist and classical reactionary thought, as well as in numerous strands of sociological theory associated with Weber, Simmel, and Durkheim, to name but a few. On this view, the market undermines the traditional bonds of community and extended family, leading to the anonymity of urbanization and the destruction of social capital.

Hirschman points out, however, that this self-destructive view has competed with another, more benign view of the effect of the market on society—a view he labels the *doux commerce* (gentle commerce) thesis. Thomas Paine, in *Rights of Man,* expressed it in the proposition "[Commerce] is a pacific system, operating to cordialise mankind, by rendering Nations, as well as individuals, useful to each other" (1951: 215). Echoes of this view are heard in contemporary discourse on the way economic liberalization fosters democracy.

It is beyond the scope of the present article to attempt a synthesis of these two strands (for further discussion, see Adler, 2001). We note simply that research on social capital has varied in its sensitivity to these broader issues. Organizational researchers might find opportunities to link to the broader concerns of historians and sociologists by considering this framing (for one example of a fruitful linkage, see Howard, 1988).

BENEFITS AND RISKS OF SOCIAL CAPITAL

Although some commentators have argued for a conceptualization of social capital that identifies it as a resource with only positive outcomes, others increasingly see this position as too one sided. Three considerations lead us to argue for a more balanced view. First, investments in social capital, like investments in physical capital, are not costlessly reversible or convertible; therefore, unbalanced investment or overinvestment in social capital can transform a potentially productive asset into a constraint and a liability (Gabbay & Leenders, 1999; Gargiulo & Bernassi, 1999; Hansen, Podolny, & Pfeffer, 1999). Second, even when social capital is beneficial to a focal actor, it can have negative consequences for the broader aggregates of which that actor is a part; when the lens of social capital is used to analyze complex organizations, these multilevel issues are inescapable. And third, a given set of direct benefits and risks will have a different ultimate value for an actor, depending on a number of moderating factors. In this section we address the first two considerations in discussing social capital's direct effects; in the following section we address the third consideration.

For our discussion of benefits and risks, we draw on Sandefur and Laumann's (1998) distinction among information, influence, and solidarity benefits. Although their discussion focuses on the benefits provided by social capital to focal actors, in the section below we use this distinction to frame a discussion of benefits both to focal actors and to the broader aggregates of which they are a part. In the subsequent section we then use this same structure to discuss social capital's risks.

Benefits of Social Capital

The first of social capital's direct benefits is information: for the focal actor, social capital facilitates access to broader sources of information and improves information's quality, relevance, and timeliness. Coleman (1988) illustrates this benefit with the example of a social scientist catching up on the latest research in related fields through everyday interaction with colleagues. Network research has shown that network ties help actors gain access to information about job opportunities (Boxman et al., 1991; Burt, 1992; Fernandez & Weinberg, 1997; Granovetter, 1973; Lin et al., 1981; Meyerson, 1994) and about innovations (Burt, 1987; Coleman, Katz, & Menzel, 1966; Rogers, 1995). Research on ethnic entrepreneurs and ethnic firms (as reviewed in Portes & Sensenbrenner, 1993) has shown that the information provided by community ties is critical for the mobility opportunities of newly arrived immigrants. The informational benefits of social capital have also been studied in interorganizational research. Powell and Smith-Doerr (1994) and Podolny and Page (1998) reviewed the research showing that interorganizational networks help firms acquire new skills and knowledge. Uzzi (1997) found that social embeddedness allows firms to exchange fine-grained information.

In some cases, information benefits at the focal group level can lead to positive externalities for the broader aggregate. Burt (1997a) shows how social capital enables brokering activities that bring information from other actors to the focal actor; to the extent that this brokering activity relies on a reciprocal outflow of information, the entire network will benefit from the diffusion of information. In his study of the apparel industry, Uzzi (1997) found that transfer of fine-grained information among firms helps them all to better forecast future demands and anticipate customer preferences. Nebus (1998) argues that social capital between independent units within a multinational corporation facilitates the transfer of information, and Hansen (1999) shows that weak ties facilitate the cost-effective search by product development teams for new information and that strong ties facilitate the cost-effective transfer of complex information and tacit knowledge—all of which would, ceteris paribus, have considerable positive benefit for the firm as a whole.

Influence, control, and power constitute a second kind of benefit of social capital. In Coleman's example of the "Senate Club," some senators are more influential than others because they have built up a set of obligations from other senators, and they can use those credits to get legislation passed (Coleman, 1988: S102). Such power benefits allow the focal actors to get things done and achieve their goals. Burt (1992) focuses on power benefits that accrue to entrepreneurs who bridge disconnected groups. Because these entrepreneurs have a say in whose interests are served by the bridge, they can negotiate terms favorable to these interests and, thus, become powerful actors. In a related study, Burt (1997a) argues that managers spanning structural holes are more powerful because they can control projects that connect other groups.

These power benefits also can have positive externalities for the broader aggregate, at least under some circumstances. Power helps get things done. Because some of its members have accrued relatively more power and can thus play a leadership role, the Senate is arguably a more effective legislative body than it might be otherwise.

The third benefit of social capital is solidarity. Strong social norms and beliefs, associated with a high degree of closure of the social network, encourage compliance with local rules and customs and reduce the need for formal controls. The effectiveness of rotating-credit associations (Geertz, 1962) and the low dropout rate among Catholic school students (Coleman, 1988) illustrate these solidarity benefits of closure and trust. In the organizational culture literature we find similar phenomena in organizations with strong culture and solidarity. Ouchi (1980) argues that clan-type organizations with strong shared norms benefit from lower monitoring costs and higher commitment. Nelson's (1989) study of intergroup ties in organizations supports this interpretation. He shows that frequent interactions between groups permit faster dispute resolution and prevent the accumulation of grievances and grudges. Krackhardt and Hanson (1993) point out that the trust network can transmit more sensitive and richer information than other types of networks because of the solidarity it engenders.

Important forms of solidarity can also emerge from weak ties, or at least weak ties that bridge otherwise unconnected groups. Granovetter (1982) discusses a number of studies of larger organizations that needed to integrate subgroups with strong internal ties—schools with strong cliques and racial subgroups (Karweit, Hansell, & Ricks, 1979), hospitals with strong departmental structures (Blau, 1980), and community movements built around cohesive cores (Steinberg, 1980). In each case, Granovetter argues, even weak ties between the subunits added considerably to the degree of integration of the larger aggregate.

For the broader aggregate, the positive externalities associated with a collective actor's internal solidarity include civic engagement at the societal level and organizational citizenship behavior at the organizational level. Putnam articulates these externalities in his analysis of the sources of civic engagement: "Internally, associations instill in their members habits of cooperation, solidarity, and public-spiritedness" (1993: 89–90), and these habits, in turn, spill over into members' involvement with other associations and, more broadly, into a higher level of generalized trust. In business organizations we might expect people working in more highly cohesive subunits to be less absorbed by parochial conflicts and, therefore, more attentive to the firm's superordinate goals.

Risks of Social Capital

Social capital has risks that can sometimes outweigh its benefits for the focal actor (Gabbay & Leenders, 1999; Hansen et al., 1999; Leana & Van Buren, 1999), and sometimes benefits for the focal actor create risks for other actors (Portes & Landolt, 1996). However, while a large body of research is focused on the benefits of social capital, the literature on its risks is much sparser. In this section we explore the nature of these risks, using the same analytical structure as the previous section's discussion of benefits. We distinguish the risks for the focal actors and the risks of negative externalities for the broader aggregate.

Let us begin with the risks for focal actors, taking first social capital's information risks. Building social capital requires considerable investment in establishing and maintaining relationships, and, as with any expensive investment, social capital investment may not be cost efficient in certain situations. Hansen's (1998) research on social capital's information benefits showed that project teams having strong ties with other units often took longer to complete their tasks than those with weaker ties. Although these strong ties had information benefits, they were too costly to maintain. Hansen argues that weak ties are more effective than strong—not (or not only) because they provide access to nonredundant information (as Granovetter would argue) but because they are less costly to maintain than strong ones.

Second, the power benefits of social capital may, in some cases, trade off against its information benefits. Ahuja (1998) argues that while an actor gains information benefits by having many contacts who themselves have many ties with many other contacts, in such a situation the focal actor's direct contacts will be less dependent on the focal actor than if these direct contacts had few other contacts.

Third, the solidarity benefits of social capital may backfire for the focal actor in several ways. Strong solidarity with ingroup members may overembed the actor in the relationship. Such overembeddedness reduces the flow of new ideas into the group, resulting in parochialism and inertia (Gargiulo & Bernassi, 1999). As Powell and Smith-Doerr put it, "The ties that bind may also turn into ties that blind" (1994: 393). Kern (1998) makes a similar argument about the current state of German industry. He notes that there is too much interfirm trust in Germany today to support radical innovation—firms are too loyal to established suppliers and, thus, are slow to seek out and adopt more novel ideas.

Waldinger (1995) makes a parallel argument in the context of ethnic communities. In a similar vein, Portes (1998) notes that social capital in tight-knit communities may create free-riding problems and hinder entrepreneurship. Strong norms in a community may dictate the sharing of resources among extended family members, which may, in turn, reduce the incentives for entrepreneurial activity and, thus, slow the accumulation of capital. This argument is reflected in Uzzi's finding that, in overembedded relationships, "feelings of obligation and friendship may be so great between transactors that a firm becomes a 'relief organization' for the other firms in its network" (1997: 59).

For the broader aggregate, the social capital of the focal group presents a real risk of negative externalities. In Coleman's example, closure of the network of ties among children is bad for the broader community, because it weakens control by adults (parents, teachers, and so on) and increases dropout rates. In general, we can identify costs to the broader aggregate associated with the information, influence, and solidarity effects of a focal actor's social capital. We discuss each category in turn.

Brokering for informational benefits by individuals or lower-level units may lead to a tragedy of the commons for the broader aggregate. Gabbay and Zuckerman (1998) analyzed the networks of R&D scientists and suggested that in units whose effectiveness depends on broad sharing of information, excessive brokering by individual scientists may hamper innovation. Even if the broker's career is enhanced by his or her strategic location bridging holes in the social network, there is no guarantee that this leads to the inflow of the information most valuable to the subunit, let alone an outflow of the information that is most valuable to the broader organization.

The risks of negative externalities associated with a focal actor's search for the influence benefits of social capital are all too obvious. Although some power differentiation in the Senate Club may be effective, even small deviations from that optimal configuration can lead to gridlock or diversion.

Finally, solidarity benefits, too, for the lower level can have downsides for the aggregate. Strong identification with the focal group may contribute to the fragmentation of the broader whole. Brass, Butterfield, and Skaggs (1998) show how social networks can promote unethical behavior and conspiracies. Social capital's solidarity effects can split the broader aggregate into "warring factions or degenerate into congeries of rent-seeking 'special interests'" (Foley & Edwards, 1996: 39). De Souza Briggs (1998) describes such a case in conflicts over priorities in a community development corporation. Portes (1998) points out that by bringing together dissatisfied actors, associational activity in civil society may deepen social cleavages.

In general, summing the information, influence, and solidarity effects, the potential negative externalities of social capital are considerable. Network contacts share (to a varying degree) obligations to help each other, and in particular to help each other in the collective rivalry of one network against others. Such rivalry can have salutary effects for the broader aggregate—stimulating effort, enterprise, and so forth—but it also carries the risk of reinforced domination and the opportunity cost of wasted effort and missed opportunities for collaboration. Moreover, given a prior unequal distribution of other assets, a dominant group's use of its social capital can considerably enhance its dominance by helping to exclude subordinate categories from the information, influence, and solidarity benefits it has already accrued. There is no invisible hand that assures that the use of social capital resources in competition among actors will generate an optimal outcome for the broader aggregate. Critics of the concept of social capital (such as Fine, 1999), thus, are on firm ground in highlighting the risks of policies designed simply (and, therefore, simple mindedly) to strengthen social capital (see also Edwards, 1999).

The Balance of Benefits and Risks

Researchers have only begun to characterize the conditions that determine the relative importance of positive and negative effects. Our discussion of the sources of social capital alerts us to the likelihood that the determinants will be found both in network structure and in the motivation and ability content of network ties. We discuss them in turn.

Woolcock's (1998) analysis of social capital in economic development provides a useful general framework that captures at least some of the structural considerations. He develops a two-by-two matrix that contrasts, on the first dimension, cases with high (many and strong) versus low (few and weak) linkages and, on the second dimension, linkages within the focal group (bonding) and linkages to others outside it (bridging). Obviously, groups that have neither internal nor external ties will suffer from a low stock of social capital; it is equally obvious that the high-high configuration holds great promise. The two off-diagonal cells point to two generic risks of social capital. First, high internal linkages combined with low external linkages will create a situation where internal solidarity is likely to be detrimental to the actors' integration into the broader whole. Such a configuration of ties may lead to isolation, such as reflected in the "Not Invented Here" (NIH) syndrome, and fragmentation of the whole. The other potentially dysfunctional configuration is one with high external ties but low internal ties. Durkheim's analysis of anomie provides an example: city life simultaneously increases contact with outsiders and undermines community solidarity, thus weakening collective norms.

A theory capable of explaining and predicting the balance of risks and benefits probably could not, however, rely exclusively on the analysis of formal structure; as we argued in our discussion of the sources of social capital, consideration of the content of the social ties is probably unavoidable. Depending on the content of its norms and beliefs, a group with strong internal ties but only few external ties may become insular and xenophobic or, alternatively, may use its internal social capital to encourage and help its members reach out to the surrounding world. Portes and Sensenbrenner note that entrepreneurship is often encouraged among Asian, Middle Eastern, and other immigrant communities by social capital based on solidarity but that in the inner city this solidarity can have the opposite effect if it encourages a "downward leveling of norms" (1993: 1343). Depending on their culture's norms and beliefs, some ethnic communities whose children develop strong external ties will assimilate rapidly while others will manage to reproduce a collective identity.

Moreover, it is likely that the indirect effects of market and hierarchical relations also play a role in determining the cost-benefit balance. To look at just one example, Bates' (1999) analysis of ethnic diversity in African countries shows that the conventional fear—that strong ethnic identity may provide intracommunity social support but also promote intercommunity violence—is ill founded: whether or not diversity leads to violence depends on whether political strategy choices and the political regime encourage winner-take-all outcomes. Generally, the risks of group-level exclusion and insularity associated with strong bonding social capital can be mitigated or exacerbated by hierarchy (in the form of law in societies and authority in organizations) and by market (in the form of broader though weaker tie networks and stronger self-interested motivation).

THE CONTINGENCIES AND VALUE OF SOCIAL CAPITAL

Above we identified the key benefits and risks of social capital and discussed some of the determinants of the cost-benefit balance that appear among the sources of social capital (on the left-hand side of Figure 1). However, the ultimate value of a given form of social capital also depends on more contextual factors—on the task and symbolic demands placed on the focal actor and on the availability of complementary resources. Here we discuss these in turn.

Task Contingencies

In discussing informal networks in organizations, Krackhardt and Hanson write "What matters is the fit, whether networks are in sync with company goals" (1993: 110). The fit between the network features that contribute to social capital and the organization's objectives—its "task"—is critical to understanding the value of that social capital.

Task contingencies help explain, first, whether strong or weak ties are more valuable. Hansen (1998) provides a nice example in the study we have already cited, showing that weak ties facilitate the cost-effective search for codifiable information and that strong ties facilitate the cost-effective transfer of complex information and tacit knowledge. Uzzi (1997) makes a similar point: if the task requires trust and cooperation, embedded ties with repeated exchanges between a small number of partners are preferred, but if the task requires economic rationality and market competition, arm's length market relations with more numerous partners are more effective. These propositions are consistent with Kraatz's (1998) finding that when private colleges initiate fundamental curriculum changes, they do so by imitating those colleges strongly tied to the focal organization, because the strong ties provide richer, more detailed information about the changes. Depending on the mix of tasks a network of firms faces, strong ties will be more of an asset or a liability.

Second, a task contingency view clarifies the tension between Coleman's thesis that the closure of a social network is the key source of social capital and Burt's theory that favors sparse networks with many structural holes (Baker & Obstfeld, 1999). Coleman's analysis highlights solidarity benefits, whereas Burt's focuses on information and power benefits, and depending on which benefit is more important in a given situation, one or the other network configuration will be more desirable. Hansen et al. (1999) show that the performance of relatively uncertain tasks benefits from greater tie density (closure), because closure makes actors more willing to share tacit knowledge, whereas when tasks are relatively certain, structural holes are more valuable, because they allow a cost-effective way of accessing a wider range of information sources. Gabbay and Zuckerman's (1998) study of scientists' mobility in R&D settings also illustrates this tradeoff. These researchers found that in basic research units where individual contribution and autonomy are more critical, scientists with sparse networks with many holes are more likely to be successful. In applied research and development units, where cooperation and group contribution are more important, individuals with high contact density are more likely to be successful.

Walker et al.'s (1997) study of the changing value of social capital over the life cycle of interfirm networks provides another example of the importance of task contingencies to the value of social closure versus holes. These researchers found that structural holes are more valuable during the early history of network formation, since the key tasks the network faces at that stage are informational. However, as the network becomes better established, more densely connected, and stabilized, cooperative network relationships become more valuable than brokerage opportunities.

Third, task contingencies influence the relative value of internal and external linkages. Krackhardt and Stern (1988) discuss the relative importance of friendship ties within versus across groups. They argue that if the task requires cross-unit, organization-wide cooperation, such as in an organization-wide crisis, the relative value of the intragroup, bonding form of social capital is reduced, and indeed it may become a liability, serving to anchor parochial resistance.

Symbolic Contingencies

Norms and beliefs figure in the analysis of social capital not only because they function as sources of social capital but also because the norms and beliefs in the surrounding environment influence the value of a given stock of social capital. For example, entrepreneurship may be seen as legitimate in one context, whereas in another context it might be seen as opportunistic and self-seeking. In his analysis of corporate managers, Burt (1997a) found that entrepreneurial brokering by senior executives is perceived as legitimate and thus rewarded, but less senior managers may suffer if they engage in such activities. Similarly, Gabbay and Zuckerman (1998) found that organizational settings where norms encourage cooperation are often inhospitable to entrepreneurs, and brokering activities are less likely to be rewarded. Fernandez and Gould (1994) also emphasize the role of norms and beliefs in determining the effectiveness of brokering: widely shared norms in the United States discourage advocacy by government agencies, so agencies' effectiveness in brokering new institutional arrangements depends on their ability to preserve a neutral role.

These considerations remind us of the lesson of institutionalization theory: the success of organizations depends on their ability to master not only their technical tasks but also the symbolic challenge of creating and maintaining legitimacy. From this perspective we can see that social capital theory and institutionalization theory are largely complementary. Institutionalization theory is a story about how higher-level aggregates—through the diffusion and imposition via networks of norms, beliefs, and authority—shape choices for lower-level aggregates (see Scott, 1995: 141–143). Conversely, social capital theory is a story about how social networks provide resources to lower-level aggregates—organizations within societies, units within organizations, and individuals within units—with which the lower-level aggregates can reshape the higher-level aggregates and renegotiate their place within them.

Complementary Capabilities

We argued above that an actor's contacts' abilities (capabilities, resources) can be a source of social capital. We also noted that even under the broad view, only the resources potentially available to the actor in *social* exchange should be construed as sources of *social* capital. One's contacts' *other* resources reenter the picture, however, as potential complements; for example, the one hundred dollars lent the actor as a friend can function as seed money and allow him or her to attract more commercial investment.

One's own abilities, too, can figure as complementary resources. Hargadon and Sutton's (1997) study of an industrial design firm provides an example. New design ideas for one client often come from ideas developed in the context of work for other clients in other industries. Hargadon and Sutton show that a distinctive skill is needed to take advantage of the social capital created by the network of clients—the ability to combine these disparate ideas to generate new, innovative ones. For the focal firm, its own combinative capability is not constitutive of its social capital, but it is clearly a critical complementary ability.

We should also note that not all complementarities are symmetrical. In his discussion of the role of social capital within the family in a child's intellectual development, Coleman (1988: S110) argues that if human capital (in the form of the parents' education) is not complemented by social capital (in the form of both parents in the home, of a greater number of siblings, and of higher expectations by parents for the child's education), the parents' human capital contributes little to the child's educational growth. Although human capital in the absence of social capital is not productive, Coleman argues, there are cases in which social capital in the absence of human capital can be still productive; he cites the example of Asian immigrant families who have high expectations and investments for their children (for further discussion of the relative roles of human and social capital, see Lin, 1999).

From Social Capital Back to Social Structure

It is clear from the preceding paragraphs that action facilitated by social capital can, in turn, influence all three dimensions of the social structure, thus directly or indirectly influencing the social capital available to the focal actor and to other actors in the next round of action (see Leenders & Gabbay, 1999b). To date, however, few scholars have adopted the longitudinal approach that would be needed to grasp this link (see Ahuja, 2000, for an exception.)

CONCLUSION

In this article we have attempted to synthesize the theoretical research on social capital undertaken in various disciplines and to develop a common conceptual framework that identifies the sources, benefits, risks, and contingencies of social capital. The first of our goals—integrating across disciplinary domains—proved to be feasible, since across these domains there is broad consistency or complementarity of concerns and concepts. The second goal—integrating across theoretical perspectives—proved more difficult. There does not, as yet, seem to be anything resembling a rigorous theory or metatheory that can incorporate the strengths of the existing, competing theories and transcend their respective limitations. Our proposed conceptual framework does, however, allow us to map the various streams of ongoing research on social capital and identify some of the key issues under debate.

Implications for Organizational Research

Our conclusion regarding the prospects for social capital as an umbrella concept is cautiously optimistic. We see a number of important advantages to integrating under a concept of social capital the range of resources provided by the structure of social relations. This integration promises valuable opportunities for theoretical cross-fertilization and might afford us a better understanding of some crucial social processes. However, a number of important conceptual hurdles will need to be overcome in order to successfully meet the validity challenge ahead.

First, organizational research would benefit if we overcame the tendency to bifurcate our social capital research into a strand focused on external, bridging social capital and a strand focused on internal, bonding social capital. External ties at a given level of analysis become internal ties at the higher levels of analysis, and, conversely, internal ties become external at the lower levels. Although the mechanics of research are simplified by restricting ourselves to a single level of analysis, the reality of organizations is shaped by the constant interplay of the individual, group, business unit, corporate, and interfirm levels. Many of the phenomena we study as organizational researchers involve both forms of social capital simultaneously.

Second, research would benefit from more dialogue among proponents of competing perspectives on the sources of social capital. The formalistic network approaches reveal powerful effects of patterns not necessarily visible to the naked eye, but these results are far more interesting if taken as the starting point of a discussion, rather than the end-products of the research process. Both theoretical and empirical work will be needed to clarify the role of motivation and abilities. We need a better understanding of which features of social structure encourage the emergence of social relations that provide the requisite opportunity, motivation, and ability.

Third, social capital research would benefit from a more systematic assessment of risks as well as benefits. We need to understand better the downsides of social capital both for the focal actor and for others. One actor's social capital advantage is often another actor's disadvantage, and research on the differential access to social capital is therefore a high priority (Lin, 1999). Generally, each of the three kinds of relations we identified in Table 1 is characterized by distinctive failure modes, and while we understand a lot about market failures and bureaucratic failures, more research on the distinctive forms of social capital failure would be an important antidote to romantic illusions about Gemeinschaft.

Fourth, social capital's ultimate value depends on several moderating contingency factors. These factors have recently moved to the foreground of much social capital research (e.g., Burt, 2000; Rowley, Behrens, & Krackhardt, 2000). As we have indicated, factors that some researchers treat as moderating contingencies will appear as sources in other accounts. Debate over such issues is inevitable and healthy. This domain of research seems a high-priority one, particularly if we are going to understand the conditions that determine the balance of benefits and risks.

Finally, we would second Leenders and Gabbay's (1999b) call for more research on what they call the "coevolution" of social capital and social structure. If social capital has the manifold effects we have ascribed to it, then it seems important that researchers study not only its effects on the fortunes of individual actor's endeavors and its externalities for other actors' endeavors but also its resulting structural effects.

Implications for Action

Given the goals of this article, we have positioned ourselves at a considerable distance from practice. Nevertheless, our review suggests a number of managerial implications. First, to foster social capital in organizations, our framework suggests that managers need to do more than merely encourage social interactions among employees. Some firms interested in fostering social capital have adopted collaborative technologies, such as shared knowledge repositories, chat rooms, and videoconferences, but these merely create opportunity; building social capital requires not only establishing more social ties but also nurturing motivation and providing resources (Lesser, 2000).

Second, our discussion of bonding and bridging social capital suggests that management should pay heed to both. Investments in building the external, bridging social capital of individuals (e.g., Burt, 1992; Podolny & Baron, 1997), of units (e.g., Hansen, 1999), or of the firm as a whole need to be balanced by investments in internal, bonding social capital within units, within the firm, and within interfirm networks. Given time and resource constraints, however, investments in these different forms of social capital need to be guided by an understanding of their different contributions to organizational goals.

Third, and following from the two previous points, it would seem useful for management to map the social capital ties that are relevant to the various tasks the organization faces. This mapping poses a considerable challenge: from a purely technical point of view, it is far easier to map a small number of ego networks than to generate an intelligible sociocentric, whole-network map of a large, complex organization. Hopefully, future researchers will develop ways to simplify this mapping task.

Prospects for a New Concept

We suggested at the beginning of this paper that the key challenge of an umbrella concept like social capital is to deliver some conceptual value added over and above the range of more specific constructs. Our review suggests that this challenge might indeed be met successfully. The core notion is "appropriability"—the fact that ties of one kind can be used for other purposes. While we have argued that this appropriability has limits—otherwise, the formalistic sociology program would be unassailable and any consideration of tie content would be superfluous—appropriability is clearly a key fact of social life. To that extent, social capital is more than the sum of the various kinds of relationships that we entertain, and a social capital lens, therefore, can reveal features of reality that otherwise remain invisible.

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