

individuals who are within the structure" (1990, p. 302). This *functional* view may implicate a tautology: social capital is identified when and if it works; the potential causal explanation of social capital can be captured only by its effect; or whether it is an investment depends on the return for a specific individual in a specific action. Thus, the causal factor is defined by the effectual factor. Clearly, it would be impossible to build a theory in which causal and effectual factors are folded into a singular function. This is not to deny that a functional relationship may be hypothesized (e.g., resources embedded in social networks make it easier to obtain better jobs). But the two concepts must be treated as separate entities with independent measurements (e.g., social capital is the investment in social relations, and better jobs are represented by occupational status or supervisory position). It would be incorrect to allow the outcome variables to dictate the specification of the causal variable (e.g., for actor X, kin ties are social capital because they channel X to get a better job, and for actor Y, kin ties are not social capital because they do not channel Y to get a better job). The hypothesized causal relationship may be conditioned by other factors (e.g., family characteristics may affect differential opportunities for building human and social capital) that need be specified in a more elaborate theory. A theory would lose parsimony quickly if the conditional factors become part of the definitions of the primary concepts. In fact, one would question whether it remains a theory if it is required to make a good prediction for every case and every situation.

Perhaps related to this indistinguishable view of social capital from its outcome – and perhaps given his view that social capital, as a collective good, can also be seen in many different forms, such as trust, norms, sanctions, authority, and so on – Coleman questions "whether social capital will come to be as useful a quantitative concept in social science as are the concepts of financial capital, physical capital, and human capital remains to be seen; its current value lies primarily in its usefulness for qualitative analyses of social systems and for those quantitative analyses that employ qualitative indicators" (1990, pp. 304–305). Again, the confusion can be seen as resulting from extending the notion of social capital beyond its theoretical roots in social relations and social networks, and the unattainable theoretical position that prediction holds for every individual case. Once these issues are resolved, social capital should and must be measurable.

### 3

## Resources, Hierarchy, Networks, and Homophily

### The Structural Foundation

It has been proposed that social capital, as an investment in social relations with an expected return in the marketplace, should be defined as *resources embedded in a social structure that are accessed and/or mobilized in purposive actions*. In this definition, three critical components present themselves for analysis: (1) the resources, (2) being embedded in a social structure, and (3) action. I contend that resources are at the core of all capital theories, especially social capital. A theory of social capital should accomplish three tasks: First, it should explain how resources take on values and how the valued resources are distributed in society – the structural embeddedness of resources. Second, it should show how individual actors, through interactions and social networks, become differentially accessible to such structurally embedded resources – the opportunity structure. Third, it should explain how access to such social resources can be mobilized for gains – the process of activation. This chapter will focus on the first two of these tasks: embeddedness of valued resources in society and the opportunity structure relative to such resources. Chapter 4 will conclude the explication of the theory by discussing the action component.

### Resources and Their Social Allocation

A fundamental concept of the theory presented here is resources, defined as *material or symbolic goods* (Lin 1982).<sup>1</sup> Beyond the basic physical resources needed to sustain and enhance human life, individuals and groups ascribe meanings and significance to other resources as well.

<sup>1</sup> Sewell (1992, p. 9) identified two types of resources in structure: nonhuman and human resources. While nonhuman resources are consistent with physical resources, human resources include both physical (physical strength, dexterity) and symbolic (knowledge, emotional commitment) resources.

Here, three principles are proposed as assumptions about how meanings and significance are assigned to resources.

First, in any human group or community, *differential values are assigned by consensus or influence to resources* to signal their relative significance (Lin 1982). Value assignment of a resource is dictated in part by its scarcity relative to the demand or expectations for it (e.g., gold in one society or seashells in another). But it is also determined by the unique historical, geographical, and collective experiences of each group.

The assignment of values to resources may be achieved through one of three processes of influence: persuasion, petition, or coercion (Lin 1973; and see related discussions in Kelman 1961 and Parsons 1963). *Persuasion* is a process by which fellow actors are convinced, through communication and interaction, of the merit of a resource, resulting in the internalization of the value of a resource among the actors. Members supposedly see the intrinsic value of a resource. Persuasion results in assigning value to a resource without the threat or imposition of external sanction or punishment. *Petition* indicates the appeal or lobbying of a group of individual actors and represents normative pressure. Individual actors accept the value of a resource because they wish to remain members of a group or identify with the group, and they are willing to accept what the group's values even if they do not understand or accept the resource's intrinsic merit. *Coercion* is the process by which fellow actors are forced to recognize the merit of a resource or face certain sanction or punishment. Individual actors do not see the intrinsic value of a resource or voluntarily accept its value because they wish to identify with the group. Rather, they are confronted with either recognizing the authoritative assignment of value or suffering undesirable consequences (physical or mental harm, for example).

The assigned value of a resource may change due to internal (civil war, revolution, upheaval, disaster, authoritative revision, discoveries, changes in fashion or taste, etc.) and external (trade, war, invasion, conquest, exchange of ideas, etc.) forces. For example, the status of females, while universally distinct, is expressed differently in different communities and epochs. For women in the Qing dynasty of imperial China, bound feet signaled high status; the smaller the foot, the more highly the lady was regarded. For women in mid-twentieth-century Europe and North America, high heels similarly signaled high status. Both resources are valuable in their respective contexts and time, perhaps for women to attract mates who have other valued resources. While the value of each resource is time-bound, some resources are more enduring or universal (e.g., money, ethnic or racial ranking, pierced body parts) than others (e.g., bound feet, kilts for men, and wigs for judges or high priests).

Second, we assume that *all actors will take actions to promote their self-interests by maintaining and gaining valued resources if such opportunities are available*. An actor here is either an individual or a collective group. The collectivity, or the community, promotes its self-interest by conferring relatively higher statuses on individual actors who possess more valued resources. There is a good reason why the collectivity would confer such status on or "empower" (Sewell 1992) individual actors. It reinforces the social consensus of the collectivity on the values of the resources — a sense of community. It is a reward to an individual actor for his or her demonstrated adherence to the social consensus on the assigned values. The status conferral serves to promote the unity, and thus the survival and persistence, of the collectivity. Conferred status further reinforces the loyalty to the collectivity of the individual actors in possession of the valued resource, because it confirms and protects the values of the resources. Thus, status conferral for possession of valued resources promotes the mutual interests of the community and the participating individual actors.

The reciprocal relationship between the persistence of a community and its conferral of status on individual actors possessing valuable resources has important consequences for collective action. Individual actors holding more valued resources, and therefore higher standings, tend to be given the opportunity to make decisions on behalf of or in the name of the collectivity, including ways to allocate and distribute the valued resources. Such an opportunity is offered by assigning to these individual actors decision-making positions in the collectivity. This structural opportunity will be discussed further in the next section on the macrostructure of resources. In any case, the consequence is that individual actors in possession of valued resources are more likely to be involved in decisions regarding the rights (use, transfer, disposition) of these resources (e.g., valued properties).<sup>2</sup> Actors in decision-making positions are expected to reinforce the community consensus, because there is an incentive for them to sustain and promote their standing in the community. Self-interest is thus served because it is consistent with collective interest. These powerful individual actors can further advance their standing by either gaining more valued resources, or manipulating value consensus to promote the value of resources that they possess or can access. Higher positions in the collectivity offer more opportunities to promote self-interest.

On the other hand, individual actors with less valued resources and

<sup>2</sup> For a discussion of property rights, see Alchian (1965), Alchian and Demsetz (1973), Gilham (1981), and Willer (1985). For the relationships between property rights and class structures, see Dahrendorf (1959), Bourdieu (1986), and Kornai (1992).

thus lower standings in the community experience greater structural constraints and less opportunities to innovate. There are two types of actions these individuals can take: either appropriate more valued resources or change the values assigned to various resources. Appropriation of valued resources can employ means legitimated and sanctioned by the community, that is, institutionalized channels such as going through the educational system. Or it can employ means not sanctioned or considered legitimate by the community, that is, deviant actions. Merton (1940), in his work on social structure and anomie, has theorized how individual actors can violate group norms to achieve individual goals.

To change the values of resources requires more than individual actions; it needs the mobilization of other actors who make similar demands. Such mobilization can range from the formation of social networks promoting alternative value assignments to resources to revolutions that aim to replace the community's decision makers (for further discussion, see Chapter 11).

These deviant actions, of course, risk sanctions from the community. Sanctions may range from demotion in community standing (incarceration or deprivation of valued resources and higher status) to expulsion. Such is the force of structure on individual actors to act responsibly. Yet, the fact remains that structural constraints and opportunities go hand in hand (Merton 1995). The focal point, for both individuals and the community, remains contention for valued resources, and actions are taken to promote self-interest by gaining and preserving such resources.

In ordinary times, when actions and interactions are carried out routinely, the significance of the constraint-opportunity synergy is not clear to the actors themselves, since the decisions seem to be made by the collectivity's invisible hand for the well-being of every member. It becomes more explicit when the community's survival is challenged. In time of external crisis, a unified community follows a strategy that protects those with the most valued resources and sacrifices those with the least valued resources. In facing an external threat, for example, a collectivity would tend to let go the non-decision makers first or in higher proportions, while the managers who authorize or control such layoffs tend to survive unless the collectivity is on the verge of collapse. During the waning phase of World War II, Japan sent its low-ranking and younger pilots on kamikaze missions while holding back the higher-ranked and more experienced pilots in preparation for the final battle to defend the motherland. Preservation of valued resources are mutually serving and sustaining.

The third principle regarding valued resources assumes that *maintaining and gaining valued resources are the two primary motives for action, with the former outweighing the latter* (Lin 1994a). Both the

community and its individual actors strive, first, to maintain the valued resources they possess or to which they can gain access. Only when the existing valued resources are secured do actors seek to gain additional valued resources. There are secondary and peripheral motives for actions; however, we assume that these two motives are primary and dictate the overwhelming proportion of actions. A further deliberation on the significance of this principle and its consequences for action will appear in Chapter 4.

### The Macrostructure of Resources: Hierarchies and Social Positions

Once resources are defined and their values and significance assumed, we next consider how resources are embedded in the collectivity. The following description below focuses on several topics: (1) the nature of a social structure, (2) the hierarchy in a social structure, (3) the pyramidal shape of the hierarchical structure, and (4) complex social structures and resource transactions.

#### Social Structure

A *social structure* is here defined as consisting of (1) a set of social units (*positions*) that possess differential amounts of one or more types of valued resources and that (2) are hierarchically related relative to *authority* (control of and access to resources), (3) share certain *rules* and procedures in the use of the resources, and (4) are entrusted to *occupants* (*agents*) who *act on* these rules and procedures (for related discussion, see Sewell 1992).

The first element links the embeddedness of resources to social positions (for a discussion of the positional view of structure, see Burt 1992). The occupant of a position may change, but the resources are attached to the position. Therefore, resources embedded in a structure are distinguished from resources possessed by individual actors. A structure remains stable as long as the positions with their embedded resources persist (Weber 1947).

The second element describes relations among the positions. *Authority* is one form of power, defined as the relative control over and access to the valued resources (see discussion of this definition in Emerson 1962; Cook and Emerson 1978; Bourdieu 1983/1986; Coleman 1990, pp. 780-782), identifying the relative ranking between any pair of positions. Authority implies coercion, with explicit legalistic sanctions. A structure

is more hierarchical the more the relative authority among its positions differs.

The third element describes the shared procedures and rules guiding how positions (and the agents) ought to act and interact relative to the use and manipulation of valued resources (for a discussion of rules in structure, see Sewell 1992).<sup>3</sup> The rules and procedures lead to uniform actions and interactions among social positions, so that the value of the resources is upheld and maintaining and expanding such resources remain the purposes of collective actions.

The final element is the occupants of these positions, which highlights the fact that they are expected to behave in accordance with these rules and procedures. Thus, social structure, with its rules and procedures, represents the principle, and the individual actors who occupy positions and are empowered to act out the rules and procedures are the agents. This is a very important principle and a paradox as well. On the one hand, enactment of the rules and procedures is critical to the persistence of the structure, so that selection of occupants favors those who are socialized and trained to carry out these rules and procedures. On the other hand, because occupants must carry out these rules and procedures, individual actors in these positions gain opportunities to act according to their own interpretations. The paradox is that while these occupants are favored because of their skills and knowledge, and the expectation that they will carry out the rules and procedures that sustain the community, these agents are also given opportunities to act according to their whims – a reliance on their ability and willingness to interpret “properly” and act effectively and creatively. This agency principle (for a discussion of agency and agents in structure, see Sewell 1992) runs the risk that occupants may consider interests other than those of the collectivity in their interpretations or err in applying the rules and procedures to actual situations.

These four elements – *positions*, *authority*, *rules*, and *agents* – collectively define the social macrostructure as a system of coordination for the maintenance and/or acquisition of one or more types of valued resources for the collectivity.

### Hierarchical Structure

In general, social structures and their resource(s) can be classified over a continuum of differential explicitness in resources, positions, authority,

<sup>3</sup> Rules and procedures exist beyond the social structure described here. In a larger society, the shared, understood, and largely consensual “ways of thinking and doing things” or “rules of the game” form culture or institutions (see Bourdieu 1972/1977; Meyer and Rowan 1977; North 1990; Scott and Meyers 1994; Lin 1994b). Also see Chapter 11.

rules, and agents. The formalization of a social structure is characterized by the extent to which these elements are made explicit, and inclusive and exclusive criteria are well understood in terms of valued resources, positions, authority, rules and procedures, and occupants.<sup>4</sup> It is impossible to identify the full range, and thus all types, of social structures in terms of their formality. In general, and stereotypically, the degree of formalization of social structures ranges from so-called formal organizations or hierarchical structures (e.g., firms, corporations, and agencies) to voluntary associations and clubs and to informal social networks.<sup>5</sup> We will focus on the more formally organized and hierarchical social structures. Differentiation between formal organizations and less formal structures such as social networks will emerge as the discussion warrants.

In hierarchical structures, positions are linked in a chain of authoritative command, where higher and more powerful positions not only dictate the behaviors of occupants of less powerful positions by instructing and socializing them as to how to interpret rules and procedures, but also dispose of these lower positions, discharge occupants, and reallocate embedded resources, as dictated by explicit rules and procedures or interpretations of the former by occupants in higher positions. The rules and procedures, in principle, are legalized in that they are usually enforceable, with the approval of and even enforcement by the larger community (e.g., the state); punitive actions can be taken against violations or deviations. The occupants are designated in contract relationships and can be dismissed under rules (Weber 1946, 1947).

A simple formal structure is therefore defined as a hierarchical structure consisting of a set of positions linked in authority (legitimately coercive) relations (command chains) over the control and use of certain valued resources. The relative rank ordering of positions in terms of access to valued resources can be determined by their vertical location in the authority hierarchy. A position higher up in the hierarchy, by definition, can exercise authority over lower positions. Just as important, the higher positions have more information about the locations of valued resources in the hierarchy – where specific types and amounts of resources are embedded. In other words, the higher the position in the hierarchical structure, the better information it provides of the structure's resources.

*Lateral positions* are defined as those endowed with authority over a similar amount of resources in a simple social structure. These positions

<sup>4</sup> It is theoretically possible to have a social structure with the specific criterion of “no criteria of exclusion and inclusion.” This case, for our purposes here, is equivalent to no formal or rigid criterion.

<sup>5</sup> *Institutions*, in this volume, will be defined as sets of rules and procedures used by various social structures (see Chapter 11).

can also form relationships with each other because they offer opportunities for information exchanges about the location and availability of resources in different positions. Such information facilitates better control and manipulation of a position's resources, and access that ensures the maximal likelihood of preserving and/or gaining resources. Transactions over resources can take place among these lateral positions when they are authorized to do so, or when rules and procedures do not prevent such exchanges and are not interpreted as sabotaging higher authority in the command chain. Horizontal linkages become especially relevant when collective action is geared to massing or combining available resources in the structure.

### The Pyramid of a Hierarchy

Another assumption about the macrostructure of resources is that there is a general tendency for the hierarchical structure to have a pyramidal shape in terms of position distribution: the higher the level in the command chain, the fewer the number of positions and occupants (Lin 1982). The inverse relationship between the number of positions and their command of other positions is assumed for most social structures. However, many evolving structures show a smaller bottom level than expected by this image, as industrialization and technological development continue to define or redefine the values of resources and to redistribute positions and occupants accordingly. For example, in most industrialized societies, there is only a small segment of agricultural production and positions at the bottom of the command hierarchy.

An important consequence of pyramid-shaped hierarchical structures is that authority is concentrated in a few positions and occupants. At the very top, only a few positions and occupants not only command the largest absolute and relative amounts of valued resources, but also have the most comprehensive information on the location of resources in the structure.

### Transactions in Complex Social Structures

Any existing social structure reflects a complexity that involves multiple hierarchical structures over many different kinds of valued resources. For most collectivities, the highly valued resources are associated with economic, social, and political dimensions. For example, Weber (1946) identifies three dimensions of "power" distribution in a community: *classes*, *status groups*, and *parties*. Because other terms have also been used in the literature regarding resources distributed in society and among indi-

Table 3.1. *Dimensions of Valued Resources for Characterizing Structural Positions and Individuals*

Dimension	Positional	Individual
Social	Status (prestige)	Reputation
Economic	Class	Wealth
Political	Authority	Power

vidual actors, a clarification of how these terms are defined and used in this monograph is needed.

Valued resources are distributed in three dimensions (social, economic, and political) and can characterize structural positions and individual actors. These characterizations are specified in Table 3.1.

For example, a socially highly regarded structural position can be characterized as a high-status "group." Correspondingly, individual actors are considered as having better or worse reputations.<sup>6</sup> Positions in possession of valued economic resources are considered upper class, and individuals occupying these positions are wealthy actors. Positions higher up in a hierarchical command structure are seen as more authoritative, and individual occupants are labeled as powerful.<sup>7</sup>

In any event, the theory assumes that while the uneven distribution of various valued resources forms the basis of hierarchical structures, and each valued resource defines a particular hierarchy, these hierarchies have a tendency toward congruence and transferability. That is, there tends to be a correspondence of occupants among hierarchical positions across valued resource or status dimensions. An occupant in a position of relatively high standing with respect to one resource also tends to occupy a relatively high position with respect to other resources. For example, a person with relatively high standing (status) in the occupational structure is also likely to hold a high position in the class and authority dimensions.

<sup>6</sup> *Prestige* has been used in the sociological literature to represent both statuses of positions (e.g., occupational prestige) and statuses of individuals. To avoid this confusion, and for important theoretical reasons (see Chapter 9), I choose the term *reputation* as an indicator of social standing for individuals.

<sup>7</sup> Ambiguity concerning the term *power* remains. As used by Weber, it means general control over resources in a structural sense. For others (e.g., Emerson and Cook), power indicates the extent to which an individual actor, relative to other actors, controls alternative sources of resources. To avoid confusion, power is used in this volume as a characterization of individual actors or occupants.

When such convergence is not functionally complete (i.e., a one-to-one relationship), exchange of resources across dimensions is not only possible but, in most societies, is explicit and expected. For example, an occupant with power resources can negotiate and trade with an occupant with wealth resources to acquire some of the latter's wealth in exchange for lending power to the latter. The calculus of such transfers is usually institutionalized (with rules and procedures understood and practiced by individual actors) in a social structure.

### Interaction and Homophily: Networking and Social Capital

Social networks represent a less formal social structure in that there is little or no formality in delineating positions and rules and in allocating authority to participants. In social networks, fluidity characterizes the occupants, positions, resources, and rules and procedures. Mutual agreement through persuasion rather than authority or coercion dictates the actors' participation and interaction, and defines the boundary and locations (positions) of participants' (nodes). A particular network may evolve naturally or may be socially constructed for a particular shared focus or interest regarding a resource (e.g., protection of the environment, women's rights). However, in general, a social network may be constructed for multiple interests in its different segments – different interests link nodes in different parts of the network. Being in a node of a network directly and indirectly provides potential access to other nodes (actors) in the social network. Resources embedded in these nodes become ego's social capital. As already pointed out, social capital reflects more than the mere personal resources of those nodes in the network. Since individual actors may be embedded in hierarchical structures and other networks, they bring to bear resources embedded in the positions of these hierarchies as well. These resources lie beyond the focus resource that might have been the initial reason for interacting. For example, individual actors may interact because of their shared interest in gun control or abortion issues, but they also bring to the interacting context their other personal and positional resources, such as their jobs and authority positions, wealth, and affiliations with religious institutions and political parties, as well as the networks and resources of their spouses, relatives, friends, and fellow workers.

Thus, interactions should be analyzed and understood not only as relationship patterns among individual actors or nodes but, much more importantly, as resource patterns linked in interaction patterns. The

critical question then is: What patterns of resource linkage might be expected through interacting and networking?

The theoretical foundation for understanding interaction can be found in Homans's (1950) studies of small primary groups. He postulated in principle the reciprocal and positive relationships among three factors: interaction, sentiment, and activity. The more individuals interact, the more likely they are to share sentiments and the more they engage in collective activity. Likewise, the more individuals share sentiments, the more likely they are to interact and engage in activities. The critical hypothesis for us here is the positive relationship between sentiment and interaction. That is, the basis of interaction is sentiment – affection, respect, sympathy, and liking for each other (Homans 1950, pp. 37–40) and vice versa. In other words, interaction is based primarily on shared emotion. An important extension of the sentiment-interaction hypothesis is the homophily hypothesis. Largely a theoretical induction from research on patterns of friendship (Lazarsfeld and Merton 1954) and associations (Laumann 1966), the principle of *homophily*, also known as the *like-me hypothesis*, is that *social interactions tend to take place among individuals with similar lifestyles and socioeconomic characteristics*. Research has shown that interactions tend to occur among individual actors occupying similar or adjacent and slightly different social positions.

If we assume that socioeconomic characteristics and lifestyles reflect resources embedded in individuals and their hierarchical positions and network locations, then the homophilous principle of interaction implies a positive relationship between individuals with similar resources and the amount of their interaction, since similarity of social positions/locations is presumably characterized by similarity of types and amounts of resources. From the resource perspective, this suggests that interactions tend to occur among actors at the same or adjacent social positions in the hierarchy.

Thus, the Homans sentiment-interaction hypothesis becomes a sentiment-interaction-resources hypothesis. That is, there are triangular reciprocal relationships among sentiment, resources, and interaction that thus link interactions not only to shared sentiment, but also to similarity in resources. (See Figure 3.1.) While the sentiment-interaction hypothesis and the homophily hypothesis do not insist on a particular cause-and-effect sequence among the three elements, an important consequence of these hypotheses is that individuals whose positions are situated closer to each other in social structures are more likely to interact.

We may further extend the homophily principle to occupants of similar positions in multiple resource structures (e.g., authority, status, or class) because, by the rules of congruence and transferability of resources, interaction may engage partners with different kinds of resources as long

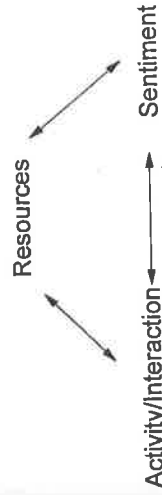


Figure 3.1 The homophily principle. (Modified from Homans 1950 and Lazarsfeld and Merton 1954)

as the values of their resources are equivalent. For example, a banker and a senator may have different resources, but they are both high in their respective resource structures, and thus are more likely to engage in interaction than, say, the banker and a local manager of a fast-food shop.

### Concluding Remarks

This chapter has outlined the structural foundation for social capital, conceived as *resources embedded in a social structure that are accessed and/or mobilized in purposive actions*. It has defined resources and conceptualizes how resources acquire value in a society. It has suggested how such valued resources are embedded in hierarchical and network structures that are differentiated in terms of their degree of formalization of positions, authority, rules, and agents. Differential opportunity structures emerge because embedded resources in these social structures are differentially accessed by individual actors in their web of social relations and because the principle of homophily is the normative expectation. In this formulation, social capital is shown to have significant structural character – the embedded resources in hierarchies and networks, their capture at least in part contingent on the opportunity structure afforded by the normative principle of interactions, or homophily. In the next chapter, this structural foundation of social capital will be elaborated and complemented with the incorporation of possible action and choice elements in completing the conceptualization of social capital.

## Resources, Motivations, and Interactions

### The Action Foundation

As conceptualized in the previous chapter, social capital is rooted in social networks and social relations and is conceived as resources embedded in a social structure that are accessed and/or mobilized in purposive actions. Thus conceived, social capital contains three components intersecting structure and action: structure (embeddedness), opportunity (accessibility through social networks), and action (use). The previous chapter has articulated the structural and opportunity aspects of social capital. This chapter will add the component of action to complete the theoretical foundation.

#### “It’s Not Just What You Know but Who You Know”: The Microstructure of Resources

The saying “It’s not just what you know but who you know” suggests that social capital should provide benefits for an individual who acts for a purpose. In this context, interaction is seen as a means to attain a goal of action. The task here is to understand how action is related to interaction and how agency is salient in the process of mobilizing social capital in a purposive action. I begin with a discussion of resources embedded in actors.

Individuals, like groups and organizations, gain and maintain valued resources to promote their well-being. They can mobilize and use such resources in purposive action to gain additional resources (see Chapter 1 for the discussion of neo-classical theories of capital). Just as important, possession of or access to resources protects and promotes an individual’s standing in the social structure. Social recognition confers identity and reputation, providing recognized individuals with still more resources and a sense of worth and security within the structure. In general, two types of resources

can be defined for individual actors: personal resources and social resources.

#### Personal Resources as Human Capital

Personal resources are in the possession of individual actors who, as their owner, can use, transfer, and dispose of them without needing to receive specific authorization or be accountable to other actors or social positions.<sup>1</sup> Acquisition of personal resources can be pursued down many avenues. One major route is by way of inheritance or ascription. Resources may be declared the individual actor's by transfer from parents, kin, or other actors. By the institutional rules of the community, they are passed on from one individual actor to another. Another avenue is to acquire them by investing one's own resources or efforts. Education, for example, has been seen as an acquired resource through investment of parental or personal resources and personal efforts. Presumably, investment in education also leads to acquisition of other valued resources (e.g., power, wealth, and reputation) (see Chapter 1 on education as human and cultural capital).

A third way of acquiring personal resources is through exchange. Acquisition of personal resources may involve a direct payment (money) or exchange of resources (bartering) through which title to resources is transferred from one individual actor to another. It is possible to delay the payment or exchange; in this case, a personal credit or debt is incurred on either side, with the expectation that the credit slip (promise of future payment) will be honored. Nevertheless, in pure exchange there is no expected obligation beyond the payment of the debt itself and no expectation of further exchanges. Personal property, commodities, money, and labor are typical resources in such exchange.

Some personal resources are fully owned by an individual actor (e.g., education, wealth) in the sense that the individual actor is free to use and dispose of them.<sup>2</sup> But they are usually "owned" only by social contract, which designates an individual actor to be the user of specific resources – typical property rights designation (see Alchian 1965 and Alchian and Demsetz 1973 for a definition of property rights). As long as the contract is in force, the individual actor can exercise power in resource control and use. For example, an occupant of a position in a

<sup>1</sup> However, a larger or external community's (e.g., the state) sanction is necessary for such use and appropriation. See the references in footnote 2 in Chapter 3, in particular: Willer (1985) on the legal sanctions for property rights.

<sup>2</sup> Some resources are more difficult to dispose of than others. For example, education seems permanent after acquisition and certification, even though discrediting or disqualification (disownership) may still be possible and legitimate under certain conditions.

hierarchical structure has the right to control and use the resources attached to that position. These ownership rights expire when the individual actor is detached from that position. Therefore, it is useful to distinguish positional resources from the more fully owned personal resources.

While positional resources are less permanent, they are much more powerful as far as the other resources they control are concerned. Being part of a hierarchical structure with authority and linkages offers opportunities for the actor-occupant to have access to other actor-occupants and borrow or exchange resources. In other words, through structural connections, positions in hierarchical structures gain control and use of resources beyond those that these positions are allocated. It is in this context that we need to go beyond personal resources and explore resources accessed through social connections, that is, social capital.

#### Social Resources as Social Capital

As already indicated, not all resources available to individual actors are in their personal (including contractual) possession. In fact, personal resources for most individual actors are very limited. More likely, individual actors access resources through social ties. We define *social resources*, or *social capital*, as those resources accessible through social connections. Social capital contains resources (e.g., wealth, power, and reputation, as well as social networks) of other individual actors to whom an individual actor can gain access through direct or indirect social ties. They are resources embedded in the ties of one's networks. Like personal resources, social resources may include material goods such as land, houses, cars, and money and symbolic goods such as education, memberships in clubs, honorific degrees, nobility or organizational titles, family name, reputation, or fame.<sup>3</sup>

Resources an actor can be linked to through her or his social networks<sup>4</sup>

<sup>3</sup> It is important to differentiate two types of social resources: social capital and cultural capital. Social capital is resources captured through social networks and social connections, whereas cultural capital is resources captured through social identification and reciprocal recognition. It is conceivable that some social resources, for certain actors, are captured through both identification (being a member of an ethnic group) and social networks (with ties to other members of the ethnic group), whereas other social resources for other actors are captured through either identification or social networks. Further articulation of the differentiation and integration of these two types of capital is beyond the scope of this volume. The focus here is on social resources captured through social relations – social capital.

<sup>4</sup> Individual actors' own knowledge of resources embedded in their ties may be only a subset of the actual types and amounts of their social capital. This is so for two reasons: they are unaware of all their alters' (direct ties') resources and/or of the ties and resources in their alters' networks. Thus, individual actors' social capital can be divided into two parts: (a) the portion that they are aware of and (b) the remaining unknown portion.



represent a repertoire of ego resources. Even if ego does not use or mobilize these resources, they have substantial symbolic utility. Letting others know about one's social capital may be sufficient to promote one's social standing. The symbolic utility occurs because such information imputes the potential power of ego by association. Spreading information about ego's having a millionaire friend provides better social recognition for ego in her or his social circle because the alleged potential is there for ego to activate the connection and draw on that resource if necessary.

Symbolic utility also occurs because such a connection reflects ego's social or cultural standing. Information about one's acquaintance with a movie star may not impute any power in action, but it can enhance ego's social recognition because it suggests that ego, through interactions with the movie star, could share and enjoy a lifestyle much admired in ego's social circle. Mentioning a tie ("So and so is a friend," "I talked to so and so yesterday") may be sufficient to promote ego's social standing. Of course, social capital can provide utility beyond its symbolic power. Actual use of social capital mobilizes it for a purposive action, a topic to be treated in Chapter 5.

Two important features of social capital deserve further clarification: (1) resources can be accessed through direct and indirect ties, and (2) such resources may be in alters' possessions (their personal resources) or in their social positions (their positional resources). First, social capital includes the resources accessed through indirect ties. Resources of alters (direct ties) represent a relatively small portion of ego's social capital. Often social capital activates chains of multiple actors. In order to gain access to a certain resource (say, information about a job), ego may go to someone who does not possess that information but who may know someone else who does. In this case, the initial contact's social networks become resources for ego. Thus, social capital does not come merely through direct connections or simple dyadic relationships. Both direct and indirect connections can afford access to resources. Through the direct and indirect ties of alters, actors' social capital extends as far as their social networks. That is, social capital is contingent on resources embedded in direct and indirect ties and accessible through these ties.

Second, resources accessed through social ties include both these alters' more or less permanent resources and the resources they control through their positions in a hierarchical structure, say an organization — their positional resources. In general, the positional resources of social ties are much more useful than personal resources to ego, because positional

Actors' self-reporting inevitably yields an incomplete and conservative estimate of their social capital's potential repertoire. Self-reporting may yield different estimates than sociometric methods. There is no true estimate because that if social capital is not within individual actors' cognitive maps, it may be inaccessible and not useful to them.

resources evoke not only the resources embedded in positions in an organization, but also the power, wealth, and reputation of the organization itself. Two equally competent professors who are respectively affiliated with an Ivy League university and a state four-year college, or two equally competent professional programmers, one of whom works for Microsoft and the other for a small local software company, will have quite unequal positional resources, even if their personal resources, including knowledge and earnings, are equal, because the positional and personal resources of their respective colleagues may be quite different in quality. Through these alters, ego gains access not only to their resources, both permanent and positional, but also potentially to resources through their connections in the organization, as well as the power, wealth, and status of the organization itself.

Furthermore, because each organization is located in a network of organizations, ego's social capital extends beyond the limits of the organization. Through the organization's linkages, both direct and indirect, to other organizations, and through the ties' connections to these other organizations' position occupants, ego's social capital may extend to include resources embedded in these other organizations.

### Motives for Resources: Purposive Actions

Once it has become clear that individual actors have in their possession and access valued resources, it is then not difficult to understand human actors' motives for action and the consequences of different types of action. As stated in Chapter 2, both collectivities and individual actors take action for two primary motives: to protect existing valued resources and to gain additional ones. That is, it is assumed that actions are rational and are motivated to maintain or gain valued resources in order to survive and persist. The first motive dictates actions to preserve valued resources already at the individual's disposal. The second motive promotes actions to acquire valued resources not yet at the individual's disposal.

It is assumed that the motive to maintain valued resources promotes *expressive action*. Maintaining one's resources requires recognition by others of one's legitimacy in claiming property rights to these resources or sharing one's sentiments. The action, of course, can be seen as instrumental in that ego has a goal in acting — to solicit sentiment and support. However, the expected response is primarily expressive: acknowledging ego's property rights or sharing ego's sentiment. There is no action required beyond this public recognition and acknowledgment of others. Examples include a mother talking with another mother about her affect-

tion for her children, a woman talking to her mother about her husband's watching too much football on television, a man sharing his feeling of admiration for a woman with a friend, and a man complaining about his boss to his wife. In these cases, the act of communicating serves as both means and goal; alters are expected to sympathize and empathize with ego and to appreciate and reciprocate ego's feelings, thereby recognizing, legitimizing, and sharing ego's claims to their resources.

Further, it is assumed that the motive to seek and gain additional valued resources primarily evokes *instrumental action*, which hopes to trigger actions and reactions from others leading to more allocation of resources to ego. Thus, the action can be seen as a means to achieve a goal: to produce a profit (added resources). Likewise, instrumental action contains expressive elements in that alter must have sentiment for ego to take action on ego's behalf. However, action is required on alter's part, and the end result is expected to be a gain for ego. Examples include seeking a job, promotion, salary, or bonus increase; getting a loan; finding a babysitter; or looking for a job for one's son.

It should be noted that both types of action represent purpose or agency because motivations provide the drive to act. Of the two motivations for action – to maintain or to gain resources – it is assumed that the motivation to maintain and defend existing resources is the more important driving force. Losing resources in one's possession poses a greater mental and physical threat to ego's existence than not gaining additional resources. Thus, expressive action – action that seeks sentiment and support – is expected to take precedent over instrumental action (see Chapter 3).

These motivations for action result in two behavioral consequences: either actors can engage in activities by themselves that can produce better protection or gain resources, or they can engage one another to use one another's resources. It is the latter case that is of interest here for a theory of social capital. Purposive actions must therefore be understood in terms of interactions that allow actors to access and use one another's resources for their own purposes. We next examine the two types of interaction – homophilous and heterophilous – and assess their utilities for purposive actions.

### Homophilous and Heterophilous Interactions

As explicated in the previous chapter, social interaction engages actors and thus intersects the resources embedded in the actors' structural positions and social networks. The extent to which the intersecting resources are similar or different in quality, type, and amount may be considered

as variables ranging from identical to completely different. For simplicity's sake, two types of interaction have been identified and defined: homophilous and heterophilous. The former characterizes relations between two actors who have similar resources, which can include wealth, reputation, power, and lifestyle. The latter describes relations between two actors with dissimilar resources. As described in Chapter 3, homophilous interactions prevail, since the homophily principle links sentiment, interaction, and similarity of resources in actors' reciprocal relationships.

While homophilous interaction has been much researched and examined, heterophilous interaction has received far less attention. The tendency has been to take heterophilous interaction as merely the opposite end of the continuum from homophilous interaction. Since there is a general tendency toward homophily in interaction, the logical deduction is that heterophilous interactions are less likely to occur. Given the hypothesized relationship between sentiments and interactions, the deduction has been that heterophilous interaction does not promote shared sentiment or that sentiment does not lead to heterophilous interaction.

Furthermore, heterophilous interactions demand effort, as the interacting partners, aware of the inequality in differential command over resources that can be brought to bear, need to assess each other's willingness to engage in exchange. The resource-poorer partner needs to be concerned about alter's intention or ability to appropriate resources from them. And the resource-richer partner needs to consider whether alters can reciprocate with resources meaningful to their already rich repertoire of resources. Thus, both partners in a heterophilous interaction have to make a greater effort in forging the interaction than those in a homophilous interaction. Heterophilous interactions therefore are relatively less likely to occur.

If this analysis is correct, one would also expect that when heterophilous interaction does occur, it requires more effort, probably at a greater cost, because of resource differentials and lack of shared sentiments. If homophilous interaction is the normative and ordinary interaction, then heterophilous interaction represents nonnormative and extraordinary interaction. What, then, motivates heterophilous interaction?

### Action Guiding Interaction: Formation of Predictions

One clue explaining motives for heterophilous interactions is provided by the finding already referred to, that individuals prefer to associate

Table 4.1. *Initial Predictions of Effort and Return for Purposive Action and Interaction (without Taking Structural Constraints into Account)*

Motivation for Action	Resources of Interaction Partners	
	Similarity (Homophilous)	Dissimilarity (Heterophilous)
Maintaining resources (expressive)	Low effort/high return	High effort/low return
Gaining resources (instrumental)	Low effort/low return	High effort/high return

with others with somewhat better social status. The *prestige hypothesis* (Laumann 1966) shows that preferred partners for interactions are those occupying slightly higher social statuses. Empirically, such behavior has been well documented as the *prestige effect*. The implication is that such interaction is expected to enhance the prestige of the less advantaged actors. But the enhancement remains unclear, even though the term *prestige hypothesis* suggests a halo effect: a higher-status individual's prestige rubs off on the actor seen with him or her. Such a halo effect (e.g., being admired for knowing a movie star or a Nobel Prize winner) by itself does not represent a permanent gain, since termination of the interaction might also result in the loss of the halo. What needs to be considered, then, is what an interacting partner with more resources represents.

It should be obvious by now that the explanation to be offered is this: *actors access social capital, through interactions, to promote purposive actions*. Thus, the nature of embedded resources accessed in interactions becomes critical in the analysis of purposive actions and interaction patterns. This can be made clear by presenting the hypotheses in a typology of action and interaction, as shown in Table 4.1.

In this typology, the two motives for action are represented by two rows: maintaining resources or gaining resources. Two types of interaction relative to resources in the two columns are homophilous interactions, in which partners share similar resources, and heterophilous interactions, in which partners share dissimilar resources. Obviously, this is a simplification of many more gradations possible in reality, but it will serve for the purposes of our discussion here. Each cell represents the coupling of a particular purposive action and a particular type of interaction. Two variables can be used to describe each cell: how much effort is required for the interaction and how much return or payoff may result relative to the purposive action.

From the perspective of social interactions, the homophily principle points to the triangular relationships among sentiments, interactions, and shared resources. It provides a structural explanation for *least-effort* interactions; interactions tend to promote sentiment and shared resources and vice versa. It is expected, then, that the homophilous interaction is the preferred and more frequent type of interaction; the least-effort homophilous interaction should be the expected pervasive pattern of interactions observed.

The purpose of expressive action, therefore, is consistent with this pattern of interaction. This type of action is likely to result in ego's seeking out other actors who have similar resources and a similar interest in maintaining and defending them. The more similar the partners' resources, the more likely they will share an understanding and concern for maintaining or defending such resources. Empathy and common concern promote interaction. Furthermore, the more homophilous the interacting partners are in terms of resources, the more socially equal they are. Thus, there is less concern regarding the possible intention or ability of alter to appropriate resources from ego. The cost of guarding and defending resources is reduced. The return, relative to the motivation for action, is also expected to be better.

Defending one's resources requires the sentiments and support of those who are in the same social groups or those who are in a similar position (e.g., class) in the hierarchical structure. In other words, action taken to protect and maintain resources is consistent with normative patterns of interaction. At the extreme, then, normative interactions sustain maintenance of resources among individuals without the need to stress the action component.

Gaining resources, on the other hand, implies a different type of interaction. It is argued that the action to gain resources is better served, in terms of return, if the actor engages in heterophilous interactions — finding actors with dissimilar resources. In Chapter 3 it was pointed out that in macrostructures, social positions are characterized by the resources they control and manipulate. Interaction, then, represents not only the joining of two actors but also, much more important, the joining of two social positions that the actors occupy. Interacting with an actor who controls more resources means interacting with a social position with more resources. A higher position in the hierarchical structure not only controls and manipulates more resources, but also has greater command and a better view of other positions in the structure. Access to such a position affords the possibility of borrowing that command or that view. If the resource an actor wants to gain is located in a social structure (e.g., in the hands of someone who occupies a position in that

structure), then it follows that interacting with an alter who occupies a higher position in that hierarchy might have the benefit of finding that position (through alter's better view of the structure) or of mobilizing alter's commands for moving ego to link up with that position or even to occupy it.

Further, this benefit goes beyond the hierarchical structure in which alter holds an advantaged position. By the rules of compatibility and transferability across different hierarchical structures, alter may also exercise influence by providing information regarding other structural positions or by helping ego establish links to another actor in the structure where that actor holds an advantaged position, from which this third actor might exercise authority to help ego find resources or occupy a sought-after position.

While heterophilous interactions therefore may provide the social capital useful for attaining such a goal for an actor taking an instrumental action, the effort is more costly. That is, obtaining additional or better resources requires interacting, directly or indirectly, with actors in other (and better) positions so that more and better information or authority/influence may be obtained. It means seeking out actors in different social positions than ego's. Two factors make such efforts more difficult. First, the homophily principle suggests that a normative tendency is for actors of similar resources to engage each other. Finding and engaging others of dissimilar resources represents extraordinary interactions requiring greater effort.

Second, it should be clear by now that heterophilous interaction, as described here, goes beyond simply the reversal of homophilous interaction. It is more than merely interaction between dissimilar actors. From an actor's point of view, the payoff may come from interacting with another actor who is not only different but also has better resources. Since actors occupy hierarchical positions in society, ego would need to interact with someone who not only possesses more highly valued resources but also, more importantly, occupies a higher hierarchical position. Thus, as shall be made more explicit in the next chapter, heterophilous interactions have better returns if the partner occupies a higher, not lower, hierarchical position relative to ego. In such asymmetric interactions, while an actor seeking more resources may have much to gain, the payoff for the other partner (alter) in the interaction poses a serious problem: What favor can ego return to alter, who has better resources? Or why should alter respond by offering its resources as social capital to ego? Asymmetric exchanges, as heterophilous interactions imply, require further articulation, a topic I will treat in Chapter 9. Suffice it to state here that heterophilous interactions are costly and unusual.

Heterophilous interaction occurs, therefore, despite the fact that it requires greater effort to reach out beyond one's own social circles, and is more costly in commitments to reciprocity and the offer of one's resources for the initiating actors. In short, instrumental action requires a greater degree of agency to overcome the normative homophilous pattern of interaction.

### Structural Constraint and Opportunity in Capitalization

The predictions based merely on action and interaction, as projected in Table 4.1, however, are tempered by necessary considerations of the structural positions and network locations the engaging actors occupy. More specifically, without an appreciation of the hierarchical structure and its constraints, heterophilous interaction by itself would make a poor prediction of instrumental return. Consider a bank president, who occupies a high-level position in the local community and beyond and who socializes with other highly positioned actors, as the homophilous principle would predict. Interacting with others with similar resources reinforces his or her position in the hierarchy, as the expressive action intends. However, when the bank president engages in instrumental action, would he or she need to engage others with dissimilar resources, as the heterophilous principle would predict? If valued resources are transferrable (see Chapter 4 on the transactions in complex structures), then we would expect the bank president to interact with others who may have different types of resources (e.g., power rather than wealth) but who nevertheless occupy a similar position in the complex hierarchical structure of the community – a homophilous interaction.

Likewise, actors occupying the lowest level of positions are not expected to garner as much return from heterophilous interactions as higher-level actors. As the distribution of positions and occupants in the pyramidal structure dictates, they are much more likely to engage in homophilous interactions (i.e., there are more actors like themselves in the structure, so that the opportunity for homophilous interactions is higher) and to find it much more difficult to engage others with higher positions (i.e., they have much less to offer in return for favors by those in higher positions). Thus, heterophilous interactions are less likely to produce the greater returns in their instrumental actions, as expected from Table 4.1.

It is therefore important to incorporate this hierarchical/structural dimension. The predictions presented in Table 4.1 may hold in general, but probably not for those who occupy elite positions in the structure.

For them, heterophilous interactions offer no greater return than homophilous interactions if multiple hierarchies implicating different types of valued resources are to be treated simultaneously. Structure does provide opportunities for some and constraints for others.

### Concluding Remarks

This chapter, by specifying the motivations for action and the possible effort and return for such purposive actions in different types of interactions, and by bringing the action aspect and the structural aspect together, has set the stage for a formal presentation of a theory of social capital in the next chapter. Here we clarify the debate on action versus structure in the process of social capitalization: the process by which structural resources are turned into social capital. That is, does social capitalization represent purposive action on the part of the actor or does it simply reflect the structural opportunity present for an actor?

Classic capital theory and cultural capital theory (Bourdieu 1972/1977; Bourdieu and Passeron 1977) both see structural constraints or opportunities as decisive. Action is anticipated on the part of those in advantaged positions. For Bourdieu, the structural imposition is reflected in the dominant class's socializing other members of the society (e.g., through education) with the elite's values and norms, so that these others misrecognize the values and norms as their own. Individuals do use strategies of action to adopt and attain these values and norms, but such adaptation and action merely serve to reinforce the structural reproduction of the system that privileges the already dominant.

For most human capital theorists as well as some social capital theorists, the purposive action initiated by the actor seems to be the driving force behind the investment and mobilization of resources as capital. Actors' purposive actions may be constrained by their structural positions or network locations, but in this conception, even occupants of advantaged positions and locations cannot benefit from their positions/locations unless they initiate action to bring about desired results.

For Coleman, social capital is defined by the function it serves for a particular purpose and a particular actor (Coleman 1990, Chap. 12). If something embedded in the structure works for an individual for a particular action, then it is social capital. The same thing in another action and for another actor would not necessarily be social capital, as it may not serve the function. The concept has also been extended by Putnam (1993, 1995a, 1995b) and others to refer to participation in voluntary organizations, social clubs, and social groups, as it reflects trust in social

institutions (Hardin 1998) and may be linked to the well-being of the society.

Granovetter (1974) points to the process of gaining information advantages through weaker ties and bridges. He does not specifically argue that actors are conscious of this advantage, or that they make efforts to use weaker ties or bridges. However, since normatively more frequent interactions tend to occur within one's own social circle (among persons with stronger ties), the implicit suggestion is that the use of weaker ties or bridges represents extraordinary effort – thus, purposive actions.

Burt's (1992) theory of structural holes says nothing about action. Yet, central to the utility of structural holes is an actor's calculation of profit, which is a joint function (multiplication) of investment and the "rate of return," as represented by structural opportunities. Burt analyzes structural opportunities in terms of structural holes and structural autonomy, expecting those with structural opportunities to take advantage of these resources and capital by taking action (investing) to generate a profit. Thus, for Burt, active manipulation of resources by the actor is assumed. In fact, he prefers the term *players to actors* to emphasize this point.

While these theorists hint at the action aspect, it remains implicit in their theories rather than being the focal point or the driving element. The theory of social capital offered here and elsewhere makes this action aspect more explicit (Lin 1982). From the resource perspective, action is important and is given equal significance relative to structure. Motivated action guides interactions. Instrumental action, in particular, motivates investing – seeking out and mobilizing – in relations and connections that may provide access to social resources. Making explicit the hints of purposive action suggested by Granovetter and Burt, the theory of social capital gives primacy to the propensity to act in order to gain access and mobilize better social resources. However, the effort at investment and mobilization is constrained by the extent of resources' availability and heterogeneity in the social structures in which actors find themselves. Actors are further constrained by their particular position in hierarchical structures and their location in the network. Given existing social structures, this constraint looms as large and significant. Thus, in any empirical study, structural effects must not be ignored or underestimated. In causal terms, however, it would be impossible to tease out the sequence in which either action or structure more significantly dictates access to social capital. Chapter 8 will propose the theoretical possibility that it is action that leads to social structures through the mobilization of social resources or social capital.

One puzzle that needs to be dealt with is how individual actors can use resources in the social structures for their own benefit rather than

for the benefit of the social structures. As mentioned before, actors, as agents in social structures, are expected to take actions to maintain and promote the structural resources. How, then, can actors/occupants appropriate such positional resources for their own interests instead?

In general, social structure and individual actors reinforce each other: the structure rewards individual actors who support and recognize its valued resources, and individual actors strive to recognize and promote structural resources in order to gain status or better positions in the structure. However, actors/agents, empowered to interpret rules and procedures and to mobilize resources in the social structure, can and will trigger structural changes (Sewell 1992). Variations in their perception and interpretation of rules, and in their assessment of resource availability and needs, differ among agents due to their different experiences in socialization or professionalization. These variations bring about changes within a social structure as well as in a new structure to which the rules and procedures of an existing structure are supposedly transposed (Sewell 1992).

Furthermore, resources considered valuable by the social structure and its agents are not entirely identical. As both the collectivity and individual actors as agents strive to promote their own interests, and as the collectivity empowers the agents to interpret the rules and procedures and to mobilize resources, individual actors have the opportunity to promote their own interests. One way to promote self-interest is to mobilize and manipulate resources entrusted to the positions that actors occupy. A second way is to use linkages to other positions and their occupants, and to mobilize and manipulate their resources as well. These issues, directly implicating social change, will be dealt with in Chapter 11.

It is these structurally empowered relationships among positions and embedded resources that offer opportunities for the actors/occupants – the agents – to gain access to structural resources for their own interests. That is, these structural opportunities become social capital of the actors/occupants.

## 5

### The Theory and Theoretical Propositions

The discussions of the structure, interaction, and action aspects of social capital described in the previous three chapters have laid the groundwork for specifying propositions to guide research. This chapter will summarize the major principles presented so far and will then present the theory's principal propositions.

#### The Theory of Social Capital

The theory of social capital focuses on the resources embedded in one's social network and how access to and use of such resources benefit the individual's actions. Resources are defined as valued goods in a society, however consensually determined, the possession of which maintains and promotes an individual's self-interest for survival and preservation. The values are normative judgments rendered on these goods. For most societies, they correspond to wealth, reputation, and power. The theory focuses on those actions that are taken for the purpose of either maintaining or gaining valued resources.

Resources can be either ascribed or acquired. *Ascribed resources* are those one is born with, such as gender and race. Other resources are prescribed by inheritance, such as caste and sometimes religion, and may include parental resources. Resources can also be acquired, such as education, or prestigious or authoritative jobs. When resources are being invested for expected returns in the marketplace, they become social capital.

Capital can be classified into two types: (1) personal or human capital and (2) social capital.<sup>1</sup> Human capital consists of resources possessed by the individual, who can use and dispose of them with great freedom and

<sup>1</sup> As stated in footnote 2 of Chapter 4, social resources may also include cultural capital.

without much concern for compensation. Social capital consists of resources embedded in one's network or associations. Our focus here is on social capital, which is not the individual's possessed goods, but resources accessible through direct and indirect ties. Access to and use of these resources is temporary and borrowed in the sense that the actor does not possess them. A friend's bicycle is one's social capital. One can use it to achieve a certain goal, but it must be returned to the friend. One implication of the use of social capital is its assumed obligation for reciprocity or compensation.

### Assumptions

The theory of social capital is framed in a set of assumptions about the macro-, meso-, and microstructures of society. For the macrostructure, the theory posits three assumptions. First, the theory begins with an image of the social structure, which consists of a set of positions that are rank-ordered according to certain normatively valued resources such as class, authority, and status. It further assumes that the structure has a pyramidal shape in terms of accessibility to and control of such resources. The higher the position, the fewer the occupants; and the higher the position, the better the view it has of the structure (especially down below). In terms of both number of occupants and accessibility to positions, the pyramidal structure suggests advantages for positions closer to the top.

A position closer to the top of the structure has greater access to and control of the valued resources not only because more valued resources are intrinsically attached to that position, but also because of the position's greater accessibility to positions at other (primarily lower) rankings. Thus, an individual occupying a higher position, because of its accessibility to more positions, also has a greater command of social capital.

With such an image of the social structure and an understanding of embedded resources, it is apparent that there is a direct relationship between the level of a position in the hierarchical structure and the amount of influence it may exert on other (lower) positions for instrumental purposes (obtaining additional resources), as well as the amount of information it possesses about the locations of resources in the structure. The influence factor derives from the ability of higher positions to cumulate resources at a higher rate than lower positions. Thus, any favor an individual at the higher position may provide can be expected to have a greater future payoff, since the higher position has more to offer the lower position than vice versa. The information factor is associated with

asymmetric network relations across levels of positions. A higher position tends to have more information or a better view of the structure than a lower position; thus, it is more capable of locating the specific resources embedded in the structure.

Second, the theory assumes that while various valued resources form the bases of hierarchical structures and each valued resource defines a particular hierarchy, these hierarchies tend toward congruence and transferability. That is, there tends to be a correspondence among hierarchical positioning across resource dimensions. An occupant of a relatively high-standing position on one resource dimension also tends to occupy a relatively high position on another resource dimension. For example, a person with a relatively high standing on the occupational structure is also likely to have great wealth and power. When such convergence is not functionally complete (not isomorphic), exchange of resources across dimensions is not only possible but, in most societies, explicit and expected. For example, an occupant with power resources can negotiate and trade with an occupant with wealth resources to acquire some of the latter's wealth in exchange for lending power to the latter.

Third, the theory assumes that this hierarchical structure tends to be pyramidal, the upper levels having fewer occupants than the lower levels. An empirical structure may not actually look pyramidal because each such structure is evolving and shifting toward a redefined set of levels. For example, as industrialization progresses (defined as the process of developing technology to make machine tools and assumed to be observable in every modern society), the occupational structure deviates from the pyramidal structure as occupants shift from the agricultural to the nonagricultural sector. While the size of the agricultural population decreases and the size of the low-level nonagricultural sector increases, the occupational structure, in terms of numbers of occupants at various levels, tends to be vase-shaped. Similarly, as the level of education in a society rises, there is always a small trailing tail at the lowest level representing the "residual" groups consisting of the most poorly educated individuals.

For the meso- and microstructures, the theory makes two assumptions about interactions and actions. First, it assumes that social interactions are more likely to take place among individuals at similar or adjacent hierarchical levels – the principle of homophilous interactions. Following from the structural assumption about congruence and transferability of resources, expected or fair exchange involves partners who can offer as well as receive resources. Thus, the closer or more similar the social positions, the more likely it is that the occupants will interact with one another. The theory assumes that *two primary driving forces* account for most individuals' actions: maintaining valued resources and

gaining valued resources. The first dictates actions undertaken to preserve and defend valued resources already at the individual's disposal, whereas the second promotes actions undertaken to add valued resources not yet at the individual's disposal. We may characterize them as expressive and instrumental actions, respectively.

Expressive actions are expected to result in interactions consistent with the principle of homophilous interaction. Recognition of the similarity of resources and of the need to reciprocate concerns about them and protect them constitutes the basis for satisfying interactions. This expectation is consistent with the observation that interactions tend not only to take place more often but also to be more satisfying among participants with similar socioeconomic characteristics, lifestyles, and attitudes (Homans 1950; Lazarsfeld and Merton 1954). These similarities are assumed to reflect the proximity of social positions in the hierarchical structure. In social systems where valued resources are distributed across all levels (i.e., where every individual in the system has some quantity of the resources), homophilous interactions are pervasive at all levels. In most empirical social systems, therefore, this pattern holds true.

Instrumental action, in contrast, may not result in interaction patterns consistent with the homophilous principle and the structural expectations. To gain additional or new resources, by definition, requires access to other social positions (especially those with more or better resources). That is, for the purpose of obtaining additional resources, more *effective* actions tend to be initiated toward others who have dissimilar (and presumably better) resources, consistent with the heterophilous principle of interactions.<sup>2</sup>

Thus, a theory linking individuals to structure must first distinguish the two classes of action: instrumental actions and expressive actions. Instrumental actions are those actions taken for the purpose of achieving certain goals. The distinctive feature of this class of actions is that the means and ends are separate and distinct. A typical example is the search for a job or a person. Expressive actions are taken for their own sake: the actions are both means and ends, and are integrated and inseparable. Confiding one's feelings is a typical example. The social capital theory varies in its propositions relative to instrumental and expressive actions.

<sup>2</sup> Instrumental actions can also be initiated by an occupant of a higher position toward an occupant of a lower position, since the latter provides many necessary services. Since the higher position commands and has greater access to resources than the lower position, the occupant of the lower position is normally obligated to respond to the action initiated by the higher-level occupant in the hope of receiving a reward. In this chapter, the focus will be on individuals who seek better resources. In Chapter 9, I will further elaborate the rationale for asymmetric exchanges.

Second, the theory must take into account the consistency or tension between action and interaction. An expressive action motivates the individual to seek out others with similar characteristics and lifestyles in order to share and confide so that the expected return, sympathetic and appreciative understanding and counseling, can be obtained. Since homophilous interaction is the normative type of interaction, the expressive action evokes normative interaction (the homophilous interaction). That is, there is a normative match between effort and return. On the other hand, an instrumental action motivates one to seek out others with dissimilar (and, it is hoped, better) characteristics and lifestyles in order to access information and influence to achieve the expected return of more and/or better resources. Thus, heterophilous interactions represent a potential mismatch between the extraordinary or "abnormative" effort and expected returns for the purposive (instrumental) action.

Because of the mismatch between instrumental action and normative patterns of interaction, a theory of social capital should pay special attention to the process by which instrumental action becomes successful through social capital.

### Theoretical Propositions: Structurally Embedded Resources and Purposive Actions

The theory specified here also applies only to a class of actions that evoke other actors as intermediaries. Under certain conditions, an action may be accomplished without going through intermediaries. For example, in a perfect labor market system, where all job vacancies and their required skills are known to all who seek jobs, and recruitment of an applicant to fill the job depends entirely on the matching of required skills and each candidate's skills, there would be little need to use a contact; direct application should accomplish all goals. Similarly, if the searcher knows everyone else in the social system, there would be no need for him or her to go through a contact to locate someone else. A contact becomes a requirement only when the searcher does not know the target person directly. Thus, the theory applies in an imperfect market where the diffusion of information about the goal is less than perfect. I am assuming that this condition covers most if not all real market situations.

For the theory linking social capital to action, seven propositions are specified:

1. For the return of social capital (Proposition 1: the social-capital proposition)
2. For the access to social capital



- The advantage of structural positions (Proposition 2: the “strength-of-positions” proposition)
- The advantages of social ties (Proposition 3: the “strength-of-strong-tie” proposition and Proposition 4: the “strength-of-weak-tie” proposition)
- The advantage of network locations (Proposition 5: the “strength-of-location” proposition)
- The interaction between network locations and structural positions (Proposition 6: the location-by-position proposition)
- The interaction of structural positions and ties/locations (Proposition 7: the structural contingency proposition)<sup>3</sup>

The first proposition is the pivotal proposition expressing the expected return of social capital; it hypothesizes that better social capital accessed and used will tend to lead to a more successful outcome. The five other propositions hypothesize factors leading to better access and use of social capital. The strength-of-position proposition argues that the social position of origin has a positive effect on accessing and using better social capital. The strength-of-tie proposition posits that the use of weaker social ties (more heterophilous interactions) will have a positive effect on accessing and using social capital. The strength-of-position proposition reflects structural effects on instrumental action, whereas the strength-of-tie proposition may reflect action effects. It is also hypothesized that there will be interaction effects between position, tie, and location. In general, it is expected that the structural effect is stronger than the action effect. The relative strength of structure over action is more prominent near the top or bottom of the hierarchical structure. In the following section, these propositions will be explicated.

#### Return to Social Capital

(1) *The Social-Capital Proposition: The success of action is positively associated with social capital.* The primary proposition of the theory states that access to and use of better social capital leads to more successful action – the return to social capital. A simple strategy to accomplish a purposive action is to access an actor who possesses or can access more highly valued resources. Such access, as stated in Chapter 2, makes use of social capital for several important advantages. First, it makes use of the influence this intermediary may exercise on behalf of ego. The

<sup>3</sup> The earliest version of this theory and some of its propositions appear in Lin (1982), and subsequent versions and revisions appear in several other publications (Lin 1986, 1990, 1992a, 1995a, 1999a).

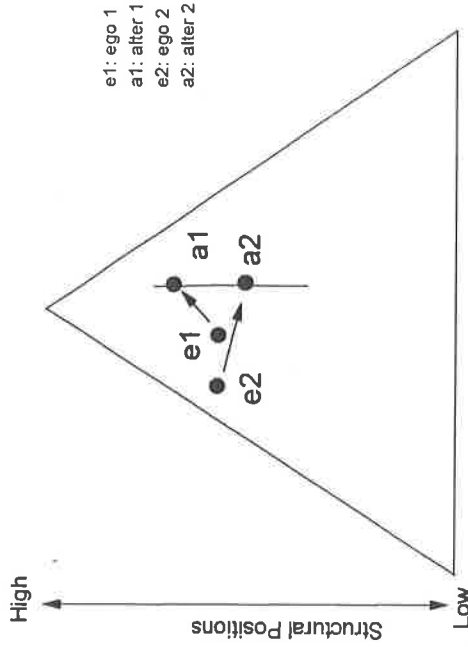


Figure 5.1 Relative effects of social capital.

better positioned the intermediary, and thus the better embedded and commanded resources, the more such influence should benefit ego. Second, the intermediary, given its advantageous view of the structure, may provide better information to ego. Third, a better-positioned intermediary, with its embedded and commanded resources, projects better social credentials, so that its willingness to serve as an intermediary assures or elevates ego's credentials. And, finally, the ability to access a better-positioned intermediary itself enhances ego's confidence and esteem in further interactions and actions (e.g., conduct in job interviews) that may be necessary to accomplish the goal of the action. Thus, the first and most important proposition for the theory is: *The success of action is positively associated with social capital.* It is argued that the relationship should hold for both expressive and instrumental actions.

Graphically, this proposition is depicted in Figure 5.1. The hierarchical nature of a social structure can be represented by the pyramid: levels of positions with varying degrees of valued resources can be plotted along its vertical axis. For two egos (identified as e1 and e2 in the figure), at approximately the same structural position, the proposition hypothesizes that e1 will have a competitive advantage over e2 as it accesses a social tie, a1, at a relatively higher position than that of the tie, a2, that e2 accesses.

Through direct and indirect ties, an individual actor gains access to a variety of resources; what measures can be suggested as indicators of social capital? Following Weber's argument, we may suggest three types of resources of social ties accessed as the contents of social capital: (1)

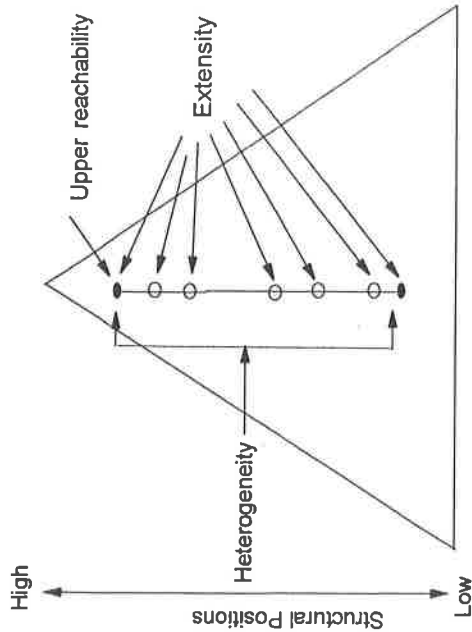


Figure 5.2 Measures of social capital.

wealth: economic assets, (2) power: political assets, and (3) reputation: social assets. Three summarizing characteristics can be suggested relative to each capital: (1) upper reachability: the best resource accessed through social ties; (2) heterogeneity: the range of positions whose resources are reachable through social ties; and (3) extensivity: the number of positions that are reachable. These criteria and their measures are graphically depicted in Figure 5.2.

The first criterion of upper reachability seems straightforward: the resource of an uppermost position ego can reach in the hierarchical structure through social ties. As in Figure 2.2, ego is connected to other positions in the structure; the highest position ego can reach represents the upper-reachable social resource for ego. That position is characterized by the values of resources it possesses, usually reflecting relative status, class, or authority in the structure or community.

The second criterion, resource heterogeneity, reflects the vertical range of resources reachable by ego through social ties across positions in a structural hierarchy. As in Figure 1.2, this is represented by the range between the highest- and lowest-reachable resources through ego's ties. The resource heterogeneity criterion is not so obvious, but it is important. For example, an individual who does not know how to increase computer memory to run an application may not need to contact a high-status programmer; it should be sufficient to call on someone friendly who can quickly help. Nor is it necessary to call on a neighbor with many resources when ego needs a babysitter at the last minute. Getting one's basket emptied or floor swept at the office depends more on friendly rela-

tions with the custodians than on making demands on one's supervisor. Thus, having all social ties of high status may not meet many life needs. Thus, heterogeneity in the types, levels, and amounts of resources provided through social ties constitutes an important criterion of better access to social capital. The third criterion, extensivity, simply reflects the diversity of positions, and their embedded resources, reachable by ego through social ties.

Actual measures of these economic, political, and social standings vary for each society or even each community. Therefore, identifying the locally meaningful measures of social capital for a given society is an empirical task. As long as such locally meaningful measures can be identified and examined, the proposed proposition is hypothesized to hold.

The correlations among the various measures of social capital, while generally assumed to be high, may also vary across societies and communities. To assess their correspondences for each society under study, and to exercise appropriate methodological controls to reflect the degree of convergence or distinction among the measures, is again an empirical task. Further, the relative utility of the social capital measures may depend on the purposes or motivations for action. As has been stated, action may be undertaken for expressive (maintaining resources) or instrumental (gaining resources) reasons. Whether the relative advantage among the social capital measures differs or not for different types of actions again may vary across societies and communities. In some societies, where the three measures of social capital largely overlap or correspond well, their utilities may also converge for both types of action. In other societies, when these assets are more segmented or independent, it becomes critical to assess their relative effects for the two types of actions.

The social-capital proposition is the primary proposition of the theory in that unless it can be verified in research, all other propositions become irrelevant. On the other hand, if this proposition is verified, then the stage is set for further propositions and elaborations. In the remainder of this chapter, we will focus on several other propositions concerning the etiology or causes of social capital – the factors determining the likelihood of achieving better social capital.

### Accessing Social Capital

Who, then, is more likely to gain better access to social capital? We propose three possible factors: (1) the position of ego in hierarchical structures, (2) the nature of the tie between ego and the other actors, and (3) the location of the ties in the networks. These three factors lead to four theoretical propositions concerning access to social capital: (1) the strength of the ego's structural position, (2) the strength of the tie,

(3) the strength of the location of the tie, and (4) the joint (interaction) effect of the position, the tie, and the location.

**Structural Advantage.** The principle of homophily has been used to describe normative and expressive interactive patterns. This principle suggests that persons, for expressive reasons, tend to interact with others who are like themselves. When this principle is applied to the issue of who tends to attain better social capital, it should be obvious that those whose initial positions are relatively high in the social structure should have the advantage over others. The initial position may be inherited from parents or achieved by the individual. Once such an initial position is located, the normative interactive patterns for the position's particular occupant link it with others at similar or higher positions. The higher the initial position, the more likely the occupant will have access to more highly-valued resources. Thus, it is hypothesized that the level of the initial position is positively related to the social capital reached through a contact, known as the strength-of-position proposition.

(2) *The Strength-of-Position Proposition: The better the position of origin, the more likely the actor will access and use better social capital.* Figure 5.3 illustrates two egos, e1 and e2, with relative positions in the hierarchy that are predicted to access alters at different higher positions. Thus, e1 is said to have a better positional or structural advantage over e2 in access to better social capital.

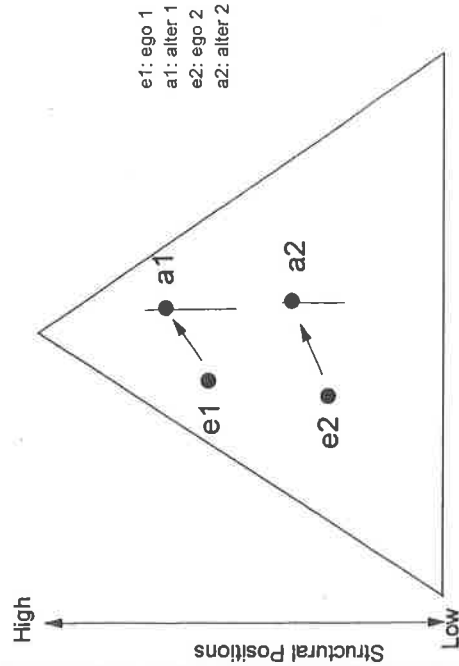


Figure 5.3 Relative advantages of structural positions for accessing social capital.

This proposition predicts a structural effect on social capital: those in better social positions will have the advantage in accessing and mobilizing social ties with better resources. *Position of origin* refers to both ascribed and attained positions of ego. *Ascribed positions* refer to social positions inherited by ego, usually from parents. *Attained positions* refer to social positions and social roles acquired and occupied by ego. Thus, the strength-of-position proposition predicts that those in better ascribed and occupied positions will also have a better chance of accessing and using social ties with better resources. This proposition is entirely consistent with the conventional structural theory; it reflects the structural advantage for actors and extends this structural effect to social capital. The havees will have more. It is argued that this relationship holds for both expressive and instrumental actions.

The strength-of-position proposition extends resources accessed beyond the homophily principle. Not only is an individual occupying a higher position more likely to have social connections with similar positions, but these other positions have their own connections whose social capital also becomes accessible to ego. By the same principle, these positions and their social capital should be similar to those with which ego has direct connections. Thus, these indirect connections further increase ego's propensity to access even wider resources. The strength-of-position proposition, therefore, suggests that the higher the individuals' own positions, the greater their likelihood of having access to better social capital.

**Networking Advantages.** The upshot of the strength-of-position proposition is that the structural opportunity for reaching better social capital is much better for those whose initial positions are relatively high. The next question is whether there is a mechanism by which persons at relatively low initial positions can reach better social capital. Or, when two actors occupy approximately the same position in the structure, would their actions make any difference in the outcome?

The proposal here is that access to social capital is also affected by ego's relationships with others in social networks. However, several principles would lead to different propositions. We will consider these in a logical sequence – from a structural perspective, to an opportunity perspective, to a choice perspective, and to a combination of these perspectives.

(3) *The Strength-of-Strong-Tie Proposition: The stronger the tie, the more likely that the social capital accessed will positively affect the success of expressive action.* The structural principle is straightforward: accessible resources are positively related to social ties to those alters with whom ego shares stronger sentiment. We may call this principle the

*strength-of-strong-tie proposition*. The strength of a relationship among those with social ties reflects their degree of intensity, frequency of intimacy (trustworthiness), reciprocity, and acknowledged obligations (Granovetter 1973). The stronger the relationship, the more likely the sharing and exchange of resources.

Mutual support and recognition go hand in hand with promotion of the ego and alter's resources, including their reputation. Thus, such a relationship is mutually tolerant and even encourages social debts and credits, as well as forgiveness of debt. Coleman (1990) describes any social structure with a higher than average density of obligations as a group with *closure*. The present proposition focuses on the likelihood of ego accessing others' resources because of the strength of ego's relationship with them. That is, even if alter has better resources, alter may not respond to ego's desire to gain access to them if their relationship does not reflect normative reciprocity, trust, and mutual obligations. Closer relationships are a necessary condition for getting access to social capital. There has been substantial argument (Bourdieu 1980, 1983/1986; Coleman 1990; Portes and Sensenbrenner 1993) for the effectiveness of dense, cohesive, interactive, reciprocatory, trustworthy networks as resources for participating actors.

These analyses suggest that stronger ties based on sentiment, trust, and sharing of resources and lifestyles support the maintenance and reinforcement of existing resources – consistency with expressive action. Thus, the proposition: *the stronger the tie, the more likely the social capital accessed will positively affect the success of expressive action*.

However, the modified principle of homophily (Figure 2.1) tells us that interaction, sentiments, and similarity in resources are positively related. Thus, stronger ties allow access to social capital that is similar or perhaps slightly different (e.g., better) than ego's own – the exact prediction made by the strength-of-position proposition. Once the principle of homophily is extended to resources, the access effects of stronger ties are accounted for. Thus, the strength-of-strong-tie principle reflects a structural advantage.

The interesting aspect of interaction and networking is that, unlike social positions, which are more or less fixed unless or until social change takes place (a topic to be dealt with in Chapter 11), strength of ties and location of resources in the networks are variable. An individual has weaker as well as stronger sentiments for the interacting partners. The strength of these partners' relationships with others also varies. Also, in networks, because of both direct and indirect ties, ego's location in the network varies. These variations in tie strength and network location suggest that further propositions need to be developed regarding how such variations may affect an individual's access to social capital. In other

words, is there any benefit for ego if the strength of the tie is weaker rather than stronger and if ego's position is closer to the fringe than to the core of the network?

(4) *The Strength-of-Weak-Tie Proposition: The weaker the tie, the more likely ego will have access to better social capital for instrumental action*. Granovetter (1973, 1974) was among the first to theoretically examine issues involving the strength of weaker ties. Following Homans's conceptualization and the homophily principle, he envisioned social circles as being distinguished by denser and more reciprocally interactive partners. An individual embedded in a social circle tends to have characteristics homophilous with those of the circle's other members; these similarities also extend to information. In addition, knowledge about larger social structures is homophilous among members of a social circle. If individuals need different information, then they may be more likely to find it in different social circles than their own. To reach another social circle, ego would need to find ties that link the two circles. The ties between different social circles are *bridges*; without the linkage, the two social circles would be independent of each other.

Granovetter further argues that the tie between two individuals forming a bridge, for example, is weaker because each individual participates in a different social circle. There is also the implication, although he does not state it, that these bridging individuals tend to be on the margin of their respective social circles, as evidenced by their maintaining ties to other social circles, perhaps reducing the strength of their interactions with others in their own circles. Since stronger ties can be characterized by intensity, intimacy, frequency of contacts, acknowledged obligations, and provision of reciprocal services, individuals' chances of gaining better information are enhanced if they explore, among their ties, the weaker rather than the stronger ones, in order to find likely bridges to other social circles. Granovetter calls this strategy and benefit "the strength of weak ties."<sup>4</sup>

<sup>4</sup> The relational characterizations of the weak ties did not break any new ground, as they could be deduced directly from the homophily principle of interaction. Recall that the principle states that interaction tends to occur among actors with similar characteristics and lifestyles. The reverse statement is that interactions do not tend to occur among actors with dissimilar characteristics and lifestyles. If a social group or social circle is characterized by dense interactions and connections, then the homophily principle would predict that members must share similar characteristics and lifestyles, and therefore information as well. Since the connection with the other group is tenuous (only through a bridge), the homophily principle would also predict that the members of the two groups can be differentiated by their different characteristics, lifestyles, and therefore information.

The significance of the strength-of-weak-ties argument lies rather in its pointing out that the weak ties, because of their tenuous relationship, contribute to the flow of infor-

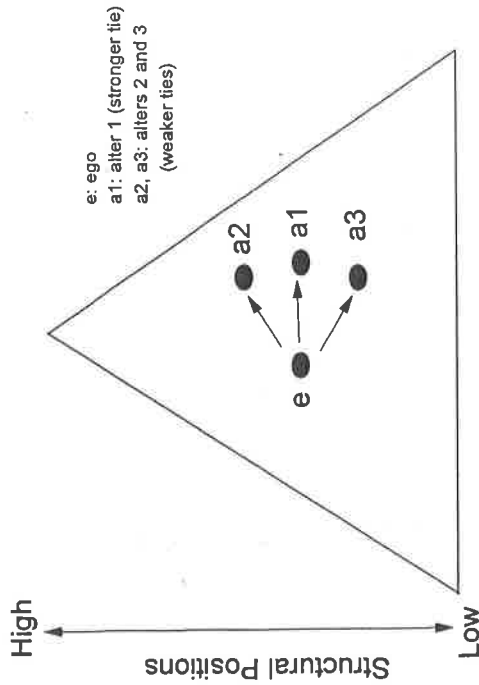


Figure 5.4 Relative advantages of weaker ties.

The benefit from weaker ties can be extended to social capital as well. The modified homophily principle suggests that dissimilarity of resources is related to less interaction and less sentiment (Figure 3.1). Thus, weaker ties characterized by less intimacy, less intensity, less frequent contact, fewer obligations, and weaker reciprocal services should also be associated with more dissimilar resources. As reflected in Figure 5.4, as ego reaches out for ties with weaker relations, the hypothesis on the strength of weaker ties suggests that ego would reach either toward the upper end (alter 2) or the lower end (alter 3) of the hierarchical structure. Weaker ties therefore allow access to wider resource heterogeneity. Thus, the

mation between the two groups. For several decades after the advent of social psychology in the 1920s and 1930s, the homophily principle in fact led much theoretical and research development by focusing on the strongly connected groups (e.g., primary groups, reference groups, small groups, and intimate relations) under the premise that stronger ties promote cohesion, satisfaction, and congruence of attitudes and opinions. These attributes were seen as desirable in sustaining members' relations as well as the group. That is, the focus was on the strength of strong ties. This development largely ignored bridges or weak ties because they were seen as the opposite of the strong ties that had all the positive features of social groups.

Granovetter's strength-of-weak-ties argument pointed out how weak ties might contribute to information flow. Through this bridge, and perhaps only through this bridge, a member in one group may learn and gain information about the other group. If that information is useful, then whoever has access to the bridge and uses it will gain an advantage over another member of the same group. Presumably the group also benefits from the information regarding the other group flowing through the bridge, even though this was not pointed out in Granovetter's original statements (1973, 1974).

modified strength-of-weak-ties proposition states that *the weaker the tie, the more likely ego will have access to heterogeneous resources*.

However, the weak-tie argument itself does not suggest that weaker ties will always link ego to better resources (upper reachability [alter 2 rather than alter 3] and extensity). After all, resource heterogeneity is only one criterion of better social capital (e.g., new and different information added to ego's repertoire of information). More critically, we need to modify the original strength-of-weak-tie hypothesis further in order to link it to the upper-reachability criterion for accessing social capital. Here we can employ an extension of the homophily principle.

Empirical observations (Laumann 1966) suggest that individuals prefer to associate with others of somewhat higher social status. Laumann calls this the *prestige principle*. Preference in association, of course, is different from actual behavior in interactions, but it does explain why empirical evidence shows that individuals tend to pursue interaction with others of similar or slightly higher, rather than lower, socioeconomic status.<sup>5</sup> That is, given a choice between alter 2 and alter 3 in Figure 5.4, ego will tend to prefer interacting with alter 2. Thus, we may further modify the strength-of-weak-ties proposition as follows: *the weaker the tie, the more likely ego will have access to better social capital (at least in terms of resource heterogeneity and upper reachability)*.

The strength-of-weak-ties argument is now clear. The remaining issue is whether it is necessary to have the strength-of-weak-ties hypothesis in order to understand the advantage of network locations in getting access to social capital. To explore this question, we will now examine an alternative conceptualization.

(5) *The Strength-of-Location Proposition: The closer individuals are to a bridge in a network, the better social capital they will access for instrumental action.* Granovetter's discussion of the "bridge in the network" (1973) pointed to the utility of network locations in allowing information to flow from one social circle to another. It led to his formulation of the strength-of-weak-ties argument. However, he then shifted the argument from a focus on network location to one on social ties. The advantage was that the strength of ties, as measured by intimacy, intensity, frequency of contacts, and reciprocal services – especially other surrogate measures, such as role relationships (e.g., kin, friend, acquaintance) – could be readily studied in sample surveys, since such measures

<sup>5</sup> In actual behavior, individuals do interact with others of lower socioeconomic status. This is a given, because even when individuals interact with preferred others (those of higher status), these others are interacting with lower-status egos. What, then, is the motive for individuals to maintain interactions with lower-status others? One perspective on this topic will be discussed in Chapter 9.

could readily be assessed from respondents' self-reports. It would have been much more difficult to gather data on how individuals form ties in social networks. The problem is whether such measures, or even the notion of the strength of ties, captures the significance of network locations such as bridges.

A *social bridge* may be defined as a linkage between two individual actors in a social network, the absence of which would cause the breakup of a cluster into two separate clusters, each of which has two or more individual actors. In other words, a bridge is the sole link between two groups of actors. This definition can be relaxed somewhat in that two clusters may be linked through several bridges. Bridges serve the important function of making possible access to resources embedded in both groups.

The notion of a bridge is more explicitly explored by Burt (1992) in his theory of the *structural hole*, defined as "the separation between nonredundant contacts" and a "relationship of nonredundancy between two contacts." Burt further specifies that "the hole is a buffer, like an insulator in an electric circuit. As a result of the hole between them, the two contacts provide network benefits that are in some degree additive rather than overlapping" (Burt 1992, p. 18). An example of structural holes is provided in Figure 5.5. Three holes are represented here: between the cluster of ties around A and those around ego ("you") cluster, between ego's cluster and the cluster around B, and between A's cluster and B's cluster. While the structural hole indicates nonredundancies or near emptiness of linkages between clusters, the connections, if they do

exist, between ego and A, ego and B, and A and B constitute bridges. The concept of structural holes focuses on the lack of access between clusters, while bridges emphasize access between clusters over the (nearly empty) holes. Thus, structural holes and bridges are two ways of describing similar network features and the strategic importance of certain locations.

Bridges allow individual actors in one cluster to have access to resources embedded in nodes in another cluster that otherwise would not be accessible. Burt argues that the benefit of bridges over structural holes is that they control the flow of information, very similar to Granovetter's argument. With no loss of generality, we may extend the benefit to include access to all social capital. Thus, this argument can be stated as the strength-of-location hypothesis: *the closer individuals are to a bridge in a network, the better the social capital to which they will have access.*

The strength-of-weak-tie argument can then be conceived as a surrogate proposition for the strength-of-location proposition. Since bridges tend to represent weak links between two clusters, using a weaker tie increases one's likelihood of gaining access to a bridge. This surrogate proposition is useful when it is difficult to rely on ego's cognition for complete mapping of a network. Rather than probing for all possible bridges in ego's network, ego's decision strategy can be simplified by looking for ego's weaker ties. This surrogate argument also simplifies the researcher's task. Rather than mapping an entire network for each ego, the researcher can use measures of the strength of ties instead. Of course, since this is a surrogate measure, evidence from research that tests the strength-of-location proposition may be weakened.

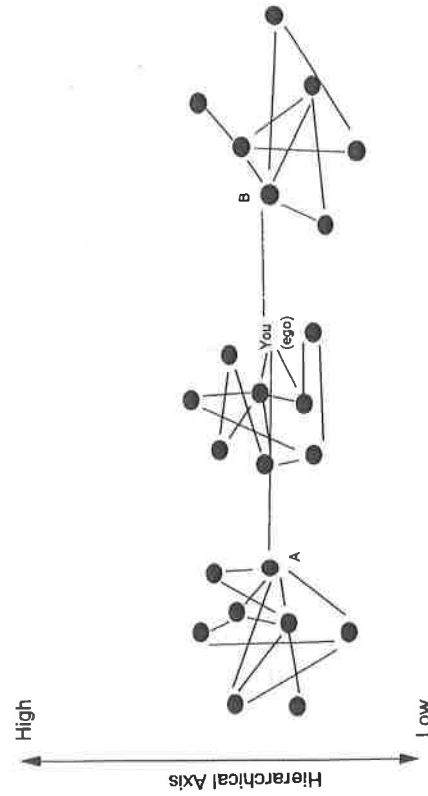


Figure 5.5 Structural holes (bridges) and strength of ties (horizontal clusters). (Adapted from Burt 1992, p. 27)

(6) *The Location-by-Position Proposition: The strength of a location (in proximity to a bridge), for instrumental action, is contingent on the resource differential across the bridge.* While the structural hole perspective shifts the formulation of social bridges from Granovetter's focus on the strength of ties to network locations, it also needs modification. Considering the vertical axis in Figure 5.6 as the hierarchy of a structure; then it is clear that ego's ("your") connection to A will be much more beneficial to members of ego's group than ego's connection to B, since A's cluster consists of positions richer in resources compared to those in ego's cluster, and B's cluster consists of poorer positions. This situation is a sharp contrast to the situation in Figure 5.5, where the three clusters are "flattened" to the same level in the hierarchy. The three structural holes and bridges remain the same as in Figure 5.6, but the relative benefit of resources accessed through the three bridges is minimal.

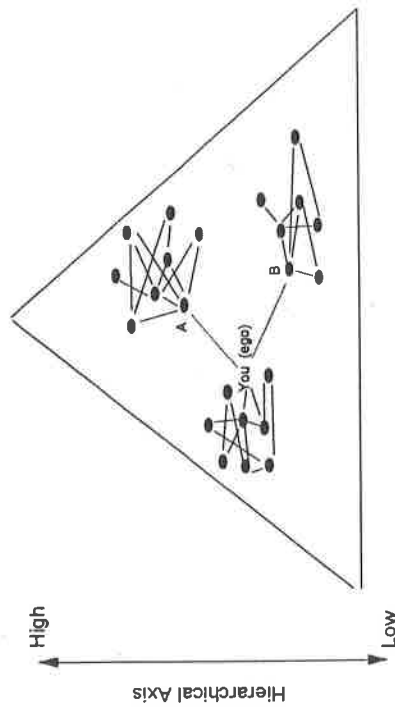


Figure 5.6 Differential advantages of structural holes (bridges) and weaker ties in a hierarchical structure.

Thus, the benefit of a strategic location such as the bridge in a social network depends on the resources accessed. Location near a bridge may not be very useful if the bridge simply leads to nodes that have similar or less highly valued resources. In other words, the relative advantage of proximity to a bridge in a network is contingent on the relative resourcefulness of the nodes to which that bridge provides access. This can be stated as an interaction proposition: *the strength of a location (in proximity to a bridge) is contingent on the resource differential across the bridge.*

Since differential resources among individual actors are best represented by their positions in the hierarchy, we can further specify this interactive proposition: *access to better social capital tends to occur for an individual actor who occupies a location closer to a bridge that links the actor to those in relatively higher hierarchical positions.* Thus, locational advantage is contingent on the resources of the accessible network. Since it is assumed here that better resources are embedded, by definition, in higher positions in a hierarchical structure, this means that the locational advantage in a network is contingent on the vertical extent of its accessible positions.

This location-by-position proposition does not entirely negate the significance of vertical bridges to lower as well as upper clusters. As seen in Figure 5.6, having bridges from ego to both A's and B's clusters increases resource heterogeneity for members in ego's cluster. However, since the strength-of-position proposition involves resource heterogeneity (the higher positions also have a greater vertical range in the resources accessible through their ties and networks) as well as upper reachability,

we expect B to maintain the connection with ego so that it expands the heterogeneity of resources for members in B's cluster to ego's cluster and A's cluster.

In summary, the significance of network locations, whether conceived as bridges or as tie strengths, is contingent on the relative hierarchical structural positions of the individuals thus bridged or linked. The relative advantage of having bridges or weaker ties is a function of the relative vertical distance between ties or clusters of ties.<sup>6</sup>

### Structural Contingency of Action Effects

The propositions just presented, especially the factors leading to better social capital, have identified two effects: effects due to positions of origin in the structure and effects due to networking (ties and locations) and their joint effects. While the strength-of-position proposition clearly reflects structural effects, the networking propositions reflect a mixture of opportunity and choice. Whether and to what extent opportunity and choice reflect purposive actions deserves some further consideration.

Both the strength-of-weak-tie argument and the strength-of-location argument, as discussed in Chapter 4, represent opportunity and choice, thus implicating action. However, there is little doubt that structure places constraints on opportunity and choice. Consider the strength-of-weak-tie argument. Toward the top of the hierarchical structure (see Figure 5.3), the vertical reach toward the upper ceiling is increasingly reduced. Thus, the likelihood of reaching up, as compared to reaching down, is decreased when the vertical link (weaker ties) is evoked. In fact, at the very top, any vertical link would be a downward link. Thus, stronger ties (horizontal ties) rather than weaker ties (vertical ties) should be more effective in accessing better social capital. In other words, as one's position in the hierarchical structure moves toward the upper ceiling, the homophily principle rather than the heterophilous principle becomes more effective.

At the same time, the strength-of-networking effect may also be constrained from below. At the low end of the hierarchy, as postulated, there will be more positions as well as more occupants. According to the structural theory postulated by Blau (1977), the probability of interaction is a function of group size. Thus, as the size of the population of positions and occupants increases, there is a greater likelihood of interaction

<sup>6</sup> Note that we do not postulate that the volume of the network, as reflected in the number of individual actors, is a determinant of better social capital. There is no theoretical reason to speculate that better social positions, resource-rich networks, or heterogeneous networks should be associated with a structure or network with a larger population.

among themselves if everyone is assumed to have the same propensity for interaction. Then it is conceivable that the social network becomes more homogeneous and less diverse as the size of the group increases. A derived hypothesis is that at the low end of the social hierarchy, the more homogeneous network increases the chances for interacting with strong ties and decreases the chances for interacting with weak ties. A conjecture can therefore be that the lack of the opportunity structure reduces the effect of networking as a way of accessing better social capital.

It is in the middle range of the hierarchical structure, therefore, that we should expect to detect the strength of networking effects. As the relative sizes of contiguous social positions are similar and the opportunity structure is extensive, the vertical reach should have the best probability of reaching upward. If this proposition is valid, we are also therefore predicting that action is most meaningful and effective when ego's position is in the middle range of the hierarchical structure. Actors at the lower level of the structure have little opportunity to exert meaningful actions. Similarly, but for different reasons, actors at the upper echelons have less incentive to take actions that would disrupt the structural effect (i.e., rocking the boat). This leads to the following proposition.

(7) *The Structural Contingency Proposition: Networking (tie and location) effects are constrained by the hierarchical structure for actors located near or at the top and bottom of the hierarchy.* Figure 5.7 illustrates this interaction between structure and action. Ego 1, near the upper ceiling, is shown to have limited opportunity to reach upward if

he or she chooses vertical access. Ego 3, near the lower ceiling, is structurally constrained in opportunities to access vertically in either direction. Ego 2, somewhere in the middle range of the hierarchy, should have the advantages of both extensive upper reaches and opportunities to achieve such access.

### Concluding Remarks

We now summarize the major points in the theory of social capital as a set of postulates (untested assumptions) and propositions as follows:

1. The structural postulate (Chapter 3): valued resources are embedded in social structures in which positions, authority, rules, and occupants (agents) usually form pyramidal hierarchies in terms of the distribution of valued resources, number of positions, level of authority, and number of occupants. The higher the level in the hierarchy, the greater the concentration of valued resources, the fewer the number of positions, the greater the command of authority, and the smaller the number of occupants.
2. The interaction postulate (Chapters 3 and 4): interactions usually occur among actors with similar or contiguous characteristics of resources and lifestyles – following the homophily principle. The greater the similarity of resource characteristics, the less effort required in interaction.
3. The network postulate (Chapters 3 and 4): in social networks, directly and indirectly interacting actors carry varying types of resources. Some of these resources are in their personal possession (personal resources or human capital), but most of the resources are embedded in others with whom each actor is in contact, directly or indirectly, or they are embedded in structural positions each actor occupies or is in contact with.
4. The definition (Chapters 2–4): these structurally embedded resources are *social capital* for the actors in the networks.
5. The action postulates (Chapter 4): actors are motivated to either maintain or gain their resources in social actions – purposive actions. Action to maintain resources can be called expressive action, and action to gain resources can be called instrumental action. Maintaining resources is the primary motivation for action; therefore, expressive action is the primary form of action.
6. The social-capital proposition: *the success of action is positively associated with social capital.*

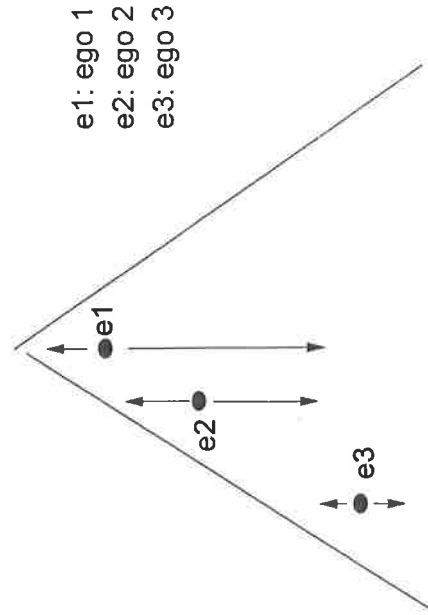


Figure 5.7 Structural constraints on networking effects.



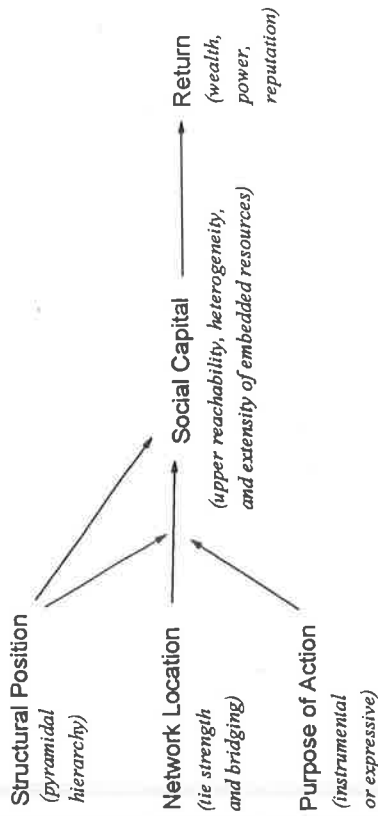


Figure 5.8 Model of the social capital theory.

7. The strength-of-position proposition: *the better the position of origin, the more likely the actor will access and use better social capital.*
8. The strength-of-strong-tie proposition: *the stronger the tie, the more likely the social capital accessed will positively affect the success of expressive action.*
9. The strength-of-weak-tie proposition: *the weaker the tie, the more likely ego will have access to better social capital for instrumental action.*
10. The strength-of-location proposition: *the closer individuals are to a bridge in a network, the better social capital they will access for instrumental action.*
11. The location-by-position proposition: *the strength of a location (in proximity to a bridge) for instrumental action is contingent on the resource differential across the bridge.*
12. The structural contingency proposition: *the networking (tie and location) effects are constrained by the hierarchical structure for actors located near or at the top and bottom of the hierarchy.*

A model based on these propositions is depicted in Figure 5.8.

These postulates and propositions have made it explicit that the proposed theory of social capital has four characteristics: (1) Its concepts are *relational* in nature and cannot be reduced to the individualistic or psychological level. (2) The theory is intrinsically interwoven within a *hierarchical structure*. In fact, it attains meaning only in the context of a hierarchical structure. (3) It entails *actions* on the part of the individuals, thus requiring a micro-level analysis. (4) Its development has been based on close reciprocal integration of *theorizing and empirical*

*research*, thus avoiding pitfalls of infinite abstract-to-abstract deductions from assumed theories or mindless empiricism. These characteristics, I argue, place it in a unique position to address the macro-micro gap and development in sociology.

Finally, we should note that assumptions are made only to allow the theoretical propositions to be specified. Thus, assumptions may be exogenous (given) to the explication of a theory, but there is no guarantee that they are empirically valid. Theoretical development anticipates research not only on the validity of the propositions, but on the validity of the assumptions as well. That is, it is anticipated that when instruments become available, the assumptions themselves must be subject to research and empirical examination. There is nothing sacred about the assumptions. The theory itself is subjected to modification or even refutation when assumptions are invalidated. Theory guides research, and it must continuously be subjected to verification and possible modifications.