Producing Human Services:
Why Do Agencies Collaborate?

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Abstract

Belief in the resource-saving and service-enhancing potential of inter-organizational collaboration has become virtually an article of faith among resource providers, client advocates, and service planners. Yet collaboration in practice encounters myriad difficulties, and successful collaborations are relatively rare. We focus on providers' incentives to collaborate: assuming that there are unrealized net benefits from collaboration, why might a provider decide to reallocate effort away from independent (i.e., uncoordinated) service provision and toward collaboration? We review theories of three types: rational choice theories, socialized choice theories, and psychological/cognitive choice theories. We discuss of implications of these kinds of theories for the creation and governance of collaborations and lay the groundwork for further empirical investigation of collaboration.

Introduction

Organizations providing human services [1] are under increasing pressure to collaborate with other providers to achieve the putative net benefits of interorganizational complementarities. Belief in the resource-saving and service-enhancing potential of collaboration has become virtually an article of faith among resource providers, client advocates, and service planners. Despite face validity and enduring popularity, however, collaboration in practice encounters myriad difficulties (Bardach and Lesser 1996; Hassett and Austin 1997; Meyers 1993; USDHHS 1991; USGAO 1992; Weiss 1981) that are not readily predicted by theory.

The popularity of collaboration follows decades of emphasis on specialization by category of need (e.g., substance abuse, employment services), by type of intervention or treatment (e.g., counseling, drug therapy), or by treatment modality (e.g., residential facility, outpatient clinic). A government agency that directly delivers services may decide, more or less arbitrarily (by fiat), to "privatize" service delivery, i.e., to award contracts to private agencies to deliver services formerly provided by public employees. A government agency that already has contractual relationships with individual private providers may decide, again more or less arbitrarily, to integrate or coordinate the services of these private agencies, i.e., to impose a collective purpose on formerly independent service providers.

Induced by external governing authorities or by providers themselves, efforts to collaborate typically reflect increased uncertainty associated with competition for scarce resources that creates incentives for service cost reductions and innovation; increased emphasis on performance that requires interorganizational coordination; and the professional appeal of sophisticated treatment or intervention concepts that call for interorganizational cooperation to meet the multifarious needs of communities, families, and individuals (Bickman, et al. 1995; Bickman 1996).

The decision to collaborate is faced by many types of human service providers: (1) legally autonomous private agencies in an organization field (DiMaggio and Powell 1983) or set (Blau and Scott 1962; Evan 1966); (2) a group of offices, branches, divisions, or other units within a government department or within a "comprehensive" nonprofit organization (NPO) (e.g., classes, support groups, day care, emergency assistance, nutrition assistance, and case management), each having a significant measure of discretion or autonomy; (3) public agencies sharing responsibility for the well being of multi-problem clients (Glisson 1996); or (4) a combination of organizations that serves a range of client needs. For example, Finn (1989) describes organizations with which a mentally ill person may interact: mental health clinics, hospital emergency rooms, local police departments, and jails, as well as other providers of emergency services, inpatient services, aftercare, outpatient care, day treatment, counseling services, and case management. There are, moreover, numerous mechanisms by which collaboration may be effected, as shown in Figure 1.

[1] Human service organizations have as their mission to promote and protect the well being of individuals, families, and other social units through direct (mandatory or voluntary) interventions in their lives. See Hasenfeld (1983).

Research on collaboration tends to focus on factors or conditions that influence the success of an existing collaborative arrangement. The value of collaboration to the individual providers is seldom directly addressed: meeting total client needs is often assumed to be each provider's goal. Weiss (1981, p. 25), however, distinguishes three types of actors who may benefit from coordination:

> Some advocate coordination that operates to the benefit of clients, making it easier for them to get the help they deserve. Others advocate coordination that operates to the advantage of the professional providers, making it easier for them to do their jobs as they see fit. Still others advocate coordination that works to please administrators and funding authorities by cutting costs, eliminating waste, and increasing efficiency and financial accountability.

The incentives of providers remain at the core of all three motivations: even if clients and a governing authority benefit from and desire collaboration, the providers must somehow be induced to collaborate.

This paper is focused on providers' incentives to collaborate: assuming that there are unrealized net benefits from collaboration, why might a provider reallocate effort away from independent (i.e., uncoordinated) service provision and toward collaboration? [2] We review theories that may explain decisions to collaborate (i.e., participate in interorganizational arrangements), discuss implications for governance of the collaborative, and lay the groundwork for empirical investigation of these theories. [3] To facilitate our inquiry, we adopt the default view that the underlying issue facing providers is economic, i.e., a question of allocating scarce organizational resources toward organizational goal attainment.[4] We differentiate various theories in terms of (1) the variables each theory holds to have explanatory power, (2) their contingent predictions regarding the likely benefits and costs of collaboration, and (3) corresponding governance mechanisms for inducing and sustaining collaboration. The ultimate goal of this inquiry is to provide prescriptive implications for policy makers and managers; for example, how might the director of a state mental health department induce the department's

[2] Stated differently, why do organizations form or join a network? We use the term "collaboration" rather than "network" because we wish to distinguish network theories from other theories that provide insight into collaborative behavior.

[3] Weiss (1987) studied collaboration in educational service agencies in local school districts, found that different theoretical perspectives explained different elements of the behaviors she observed, and proposed a process model that integrated the perspectives. Our goal in this paper is neither to assess each theory in regard to a particular collaborative initiative, nor to attain an integrated model. Reitan (1998) also discusses a number of different theoretical approaches for understanding interorganizational relations in human services. Our analysis differs from Reitan's approach in our definition of the problem, the scope of theories we examine, the identification of a "reduced-form" model for each theory, the accompanying omitted variable problems in empirical investigation of each theory, and implications for governance research.

[4] Interdependence and associated collective action problems are more general phenomena in public service provision. Optimal service effectiveness often depends on coordinated action by multifarious actors related in a parallel, sequential (possibly hierarchical), or reciprocal (endogenous) fashion (see Comfort and Namkoong 1989, Thompson 1967).

contractors to provide continuous care to clients? In the light of the benefits and costs of collaboration, should the department even try?

In the next section, we describe a general framework for reviewing the various theories, and consider the decision to collaborate to be a strategic production problem for a human service organization. Next, we review three major types of theories and their implications for collaboration: rational choice, socialized choice, and psychological / cognitive choice theories. Finally, we suggest some relevant empirical investigations prompted by this review.

Collaboration as a Strategic Production Problem

Collaboration refers to participation in interorganizational (horizontal) relationships calling for voluntary compliance with agreements or understandings concerning the allocation of responsibilities and rewards among the collaborators. In this paper, we are concerned primarily with collaboration as a strategic production problem faced by autonomous human service production units.[5] Certainly, strategic production decisions encompass a wider range of decisions than whether and how to collaborate with other organizations.[6] Furthermore, collaboration need not involve production choices.[7] Viewing collaboration as a strategic production problem, however, provides a common denominator with which to discuss providers' motivations and incentives to collaborate and provides a useful frame for understanding a governing authority's levers of influence.

The basic production problem exhibits the following features: a legally or organizationally autonomous human service provider is capable of allocating effort toward one or both of two outputs: Q_I, an independent product or service for which the production influence of other organizations is limited to arm's length market transactions; or Q_C, a collaborative product for which the provider's productivity (as expressed in some valued performance measure) is affected by the efforts of other providers.[8] An independent product might be "counseling," "residential placements," "training," "case closures," or "mediation services." A collaborative product might be "continuity of care," [9] "wrap-around" or "family support" services,[10] or "integrated (holistic) services."

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[5] Autonomy refers to the right to make decisions concerning the use of resources, i.e., having discretion or authority to select actions (cf. Aghion and Tirole 1997).

[6] Other strategic production decisions include whether to enter into binding contractual relationships with superordinate organizations such as a state agency or a parent organization, to diversify services, to convert to another governing form (e.g., from nonprofit to for-profit status), or to initiate or terminate specific products or services.

[7] For example, Dluhy (1990) defines a coalition as an organization of organizations that has as its primary purpose "securing resources and other public policy actions from government" (p. 10).

[8] Either product could be a pure private good (i.e., an excludable, rival good with no externalities), a collective good (i.e., a nonexcludable, nonrival good), or a good having some of both characteristics.

[9] Continuity of care may be defined as "a process involving the orderly, uninterrupted movement of patients among the diverse elements of the service delivery system" (Bachrach 1981, p. 450).

[10] The wraparound concept implies an unconditional commitment to serve children and their families in accordance

Collaboration requires interactions that are unnecessary when agencies are engaged in independent production; providers must coordinate client processing based on shared or negotiated understandings about each provider's contributions and rewards. The assumption among proponents of collaboration is that interdependence among collaborators leads to collective (or community) well-being or utility that is higher at a given resource expenditure than if agencies produced only independent products.[11] For example, collaboration could improve individual or caseload outcomes, or expand service availability to particular categories of clients, compared to the performance of providers acting in an uncoordinated fashion.

This assumption cannot be taken for granted. Does an individual organization's share in the benefits of collaboration justify the additional production and participation costs that accompany its involvement in the collaborative? Because the modification of independent production may be costly to the provider beyond any immediately perceived benefits, collaborative production requires governance, i.e., an agreed-upon means of arranging and enforcing understandings and agreements with respect to interactions among providers (Miller 1992). Such a governing authority may be created by an enacting coalition of legislators, a single state agency, or providers themselves acting voluntarily.

The costs and benefits of participating in collaborative production may be pecuniary or nonpecuniary. As a step toward identifying the costs and benefits that a governing authority may target in order to induce collaboration, the general strategic production problem for each agency or organization i, where $i \hat{I} [1, \ldots N]$, may be expressed as follows:

$Q_C = f(C, R, P, S, O, n)$, where

Q_C = 1 if provider i chooses to produce a collaborative product
= 0 if provider i chooses to produce an independent product[12]

C = Costs, which can be further subdivided into
- C_P = Production costs
- C_T = Transaction costs

R = Resources, which can be further subdivided into
- R_F = Financial resources from external sources
- R_E = Expertise or access resources from external sources
- R_I = Internal discretionary resources, e.g. from organizational slack or cross subsidies

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with team-developed service plans appropriate to the individual child's particular needs.

[11] Independent providers may spontaneously coordinate their actions without engaging in direct transactions by, for example, anticipating and adapting to each other's service practices, but the result of implicit coordination may not maximize collective well-being. See Moe's (1985) concept of an "endogenous core."

[12] The model can accommodate different degrees of collaboration: the dependent variable could range between 0 and 1, where 0 indicates "independent production" and "1" indicates "full integration." The research problem lies in empirical measurement of collaboration.

P = Structural and managerial characteristics of providers/organizations

S = Staff characteristics or interests

O = Client outcomes

n = Number of other providers, agencies, or organizations involved in the collaborative

This reduced-form expression of the strategic production problem denotes factors that different theories and accounts hold to be influential in a provider's decision to collaborate. Collecting these factors in a single model and juxtaposing their implications for provider incentives provides a useful framework for understanding options for collaborative governance.

Theory and Human Service Collaboration

To frame our discussion, we classify the numerous theories by which we might analyze collaboration as three types. *Rational choice theories* are concerned with exchanges (e.g., of effort for reward) or with other interactions (e.g., providing or withholding information) between autonomous actors who are assumed to choose production strategies to attain pre-existing goals. *Socialized choice theories* are concerned with interactions between autonomous actors within or between associational units that are assumed to be "socially constructed" by the actors. That is, actor choices conform to and contribute toward the creation of socially-constructed expectations regarding production activities. *Psychological/cognitive choice theories* are concerned with the psychological, cognitive and emotional bases of behavior that either may be consistent with or may modify both rational and socialized motivations. Risk aversion may inhibit collaboration perceived as creating uncertainty.

Drawing on rational choice theories, for example, we might designate providers as *contractors*, *agents*, a *production team*, or a *latent group*. Socialized choice theories might identify these same providers as participants in a *structurated social system*, as members of an *organizational field*, as a *network*, or as an *institutionalized sector*. Psychological/cognitive theories might designate providers as either rational choice or socialized choice theories do, but emphasize each provider's attitudes toward the risks, uncertainties, and ambiguities inherent in collaborating with other organizations. Each designation invokes a distinctive theory of how actors will respond when confronting circumstances that call for a strategic choice between producing independent and collaborative outputs.[13] Correspondingly, each designation holds implicit, if not explicit, implications for how a governing authority might induce and sustain collaboration.

[13] Socialized or institutionalized organizations may pre-designate (as part of the socialization process) particular production strategies as inappropriate and therefore beyond consideration by the organization. This paper is concerned with circumstances in which a provider organization cannot avoid "consideration" of a choice even if the consideration is summary rejection on the grounds that "We don't do that kind of thing."

Rational Choice Theories

The notion that individual actors intentionally seek to advance their interests in their several roles — as consumers, workers, employees, parents, and citizens — is basic to rational choice theories of individual behavior. These theories tend to view production units as created to facilitate the goal-seeking behavior of the individuals comprising them and of their patrons.

Two assumptions are fundamental to rational choice theories: (1) individuals react rationally to changes in the terms on which their goals can be fulfilled,[14] and (2) the relative values that individuals place on achieving various goals remain virtually invariant over long periods of time. With these assumptions, rational choice theories tend to view the production strategies of human service providers as dependent on the transactional context within which exchanges take place and within which internal and external resource dependencies emerge; altering that context will alter production choices. The research objective is to demonstrate the existence and magnitude of causal relationships between contextual variables (especially those under the control of policy makers), organizational choices, and outputs.

Transaction Cost Economics. $Q_C = f(C_T) = f\,[C_T(R_E, P, S, O)]$

Transaction costs are the resources that interacting parties devote to insuring the reciprocity of an exchange, i.e., to insuring that mutual expectations are ultimately satisfied. Such costs include those incurred to obtain information relevant to the exchange and to reach, monitor, and enforce agreements. The premise of transaction cost economics is that the organization of production is influenced by the transaction costs associated with different production strategies (Williamson 1985). These costs are influenced by asset specificity, uncertainty, and frequency of the exchange. At its core, the theory is concerned with how to align governance structures with transaction features.

NPOs often are created to provide a public benefit in the form of local collective goods or private goods and services that are not otherwise provided by the market. In the absence of market prices by which to compare the efficiency of internal and market (or contractual) provision, the relevance of transaction cost economics to NPO production decisions may not immediately be apparent.

Certain indicator variables associated with high or low transaction costs may be quite relevant for understanding NPO production decisions, however. For example, costs tend to be higher when information asymmetries exist between parties to an exchange; when, because their underlying interests are in conflict, the parties' commitment to the terms of an exchange may be imperfect; or when compliance with the terms of the exchange is difficult to observe or verify. Transaction costs tend to be lower to the extent that the parties rely on trust to fulfill

[14] Critics of rational choice theory often point to the "unrealistic" assumptions underlying formal models, e.g., continuous, twice differentiable utility functions constructed to facilitate hypothesis construction. Weaker assumptions underlie "bounded rationality" models in which behavior is depicted as "intendedly rational," i.e., goal oriented in the light of resource constraints (Simon 1947).

commitments, which may result from repeated interactions between the transacting parties or from favorable reputations earned in other exchanges.

While reduction of transaction costs is often cited as a reason for entering into collaboratives (e.g., Adams, Landsbergen and Hecht 1996, Myrtle and Wilber 1994), little effort has been devoted to distinguishing transaction from production costs, or more importantly, to specifying the core aspects of the transaction (e.g., asset specificity, uncertainty) that lead to increased or decreased costs. A greater effort to identify these core aspects may provide an important basis for analyzing a human service provider's decision whether to produce an independent or collaborative good, and increase the accumulated knowledge and options for governance of collaboratives.

To coordinate with other agencies, each specialized agency requires compensation that exceeds what it could earn in independent production. Small, grass-roots providers in particular may see these additional costs of collaboration as too high compared to the nonappropriable collective benefits that sponsors seek. Such compensation might be quite high relative to the governing authority's willingness or ability to pay for coordinated production. A specialized provider's bargaining power will be enhanced to the extent that the exact nature of its specialized tasks (and therefore its true costs) is indeterminate and that the performance of these tasks is difficult to measure (e.g., highly-skilled therapy or counseling).

For example, suppose that each potential party to services integration is a specialist. In the extreme, this asset specificity confers monopoly power within a spatial community; for example, suppose that only one emergency room, one intensive care unit, and one outpatient clinic exist in a service area. Under services integration, an NPO hospital emergency room that provides accurate information to a community-based case manager about a patient who needs acute care could insure an admissions decision in the best interest of the patient (detectable in patient outcome measures). In contrast, the emergency room of an autonomous NPO hospital might provide only partial information and simply "dump" the patient on the nearest alternative provider. For this autonomous unit, the benefits of collaboration do not outweigh the additional costs involved with setting up case management and with monitoring to preclude opportunistic reporting.

A drawback of using transaction cost theory to understand providers' incentives to collaborate is that transaction costs are inherently difficult to measure. Furthermore, the magnitude of transaction costs alone is not necessarily a strong predictor of actors' production strategies (Milgrom and Roberts 1992, Powell 1990). The goal of those who create a production organization is to minimize a cost function that includes transaction costs, other costs of production, exposure to risk, and other material considerations. Many organizational arrangements, not just those that minimize transaction costs, may be consistent with efficient production and may be factors in a provider's decision.

Principal-Agent Theory. $Q_C = f(C_P, C_T, R_F, R_E, R_I, P, S)$

Collaborative production may occur within a framework of hierarchical relationships. We might choose to designate the authority governing collaborative production (or the group of

potential financial contributors to collaborative production) as "the principal" and the producers of Q_C as "agents." In principal-agent theory,

> …agents are perceived as having distinct tastes (such as the desire to limit risk taking or minimize costly effort), which they pursue as rational maximizing [actors]. The principal's job is to anticipate the rational responses of agents and to design a set of incentives such that the agents find it in their own interests (given the incentive system) to take the best possible set of actions (from the principal's perspective) (Miller 1992, p. 2).

Thus, the existence of principal-agent relationships (e.g., formal contractual relations between a state agency and NPO service providers) indicates decisions by principals and agents to enter into such relationships. In a principal-agent relationship, authority flows from the principal to the agent, establishing what sociologist James Coleman (1990) termed "disjoint authority relations" (p. 79). This concept refers to the transfer of a subordinate's (or agent's) right to control his or her actions to a superordinate, or principal, in exchange for favor or remuneration. Predictors of problems in principal-agent relationships include, for example, conflicts of interest and information asymmetries between the principal and agents. For example, a governing authority and providers may disagree over desired levels of effort or effort allocation between agencies and between individual and collaborative products.

Research questions concern the predictors of the existence, forms, terms, and effectiveness of principal-agent relationships in collaborative arrangements. Possible forms of such relationships include employment contracts (i.e., producing services "in-house"), bilateral contracts between a state agency principal and an NPO provider, and a "quasi-market," in which the principal negotiates performance contracts with each agent, with negotiations disciplined by the prospect or presence of competition among providers.

A strategic production problem of particular interest in human services involves *team production*, which exists when the marginal productivity of a particular provider depends on the level of effort of other providers (Alchian and Demsetz 1972). Under team production, the total "output" cannot be attained by simply summing the efforts of individual producers. Assuming this interdependence holds for product Q_C and that actors are rational, potential (or actual) providers of Q_C may "shirk" by either producing the independent product rather than the team product or by defecting from formal agreements to contribute to the team product (perhaps because defection is unduly costly to detect). For example, of one services integration project, investigators noted that "Some public servants will not support implementation of policies or programs; others promise to implement the program as intended, sign legal agreements to that effect, and still fail to do so" (Shea, Lewko, and Lees 1994/95, pp. 26-30).

Alchian and Demsetz (1972) argue that the most efficient production and monitoring of team products occur within an entity ("the firm"). Holmstrom (1982) also considers the problem of unobservable agent effort within an organization, and derives the implication that competition among agents can be beneficial to the principal because it produces information for the principal (not because competition itself is valuable).

The disincentives to allocate effort to the team product may be more or less severe under different types of collaborative arrangements. For example, collaboration that calls for a greater degree of provider specialization than is required for independent production might appear to imply higher productivity for some providers but lower productivity for others, e.g., those assigned particularly difficult clients or ambiguous tasks. Or, collaboration might call for reassignment of tasks or for retraining of workers that distributes costs of adjusting to the new arrangements in ways that incite resistance. Finally, collaboration might require team decision making rather than agency-based decision making, e.g., management of a troubled child might require consensus among an interagency team of specialists, thus restricting individual unilateral agency discretion to place a child in a residential home.

Any reassignment of tasks that creates interdependence among autonomous units and redefines tasks will almost certainly increase workers' uncertainties concerning their own prospects and rewards. Unless an appropriate reward structure is devised to insure that providers see team production as more beneficial or appropriate than independent production, they may refuse to collaborate.

Other problems related to monitoring and contract enforcement arise in governance of collaboratives. An agent with significant bargaining power could agree to contribute to the collaboration, thus acquiring a reputation for being cooperative, but then effectively conceal the actual level of effort or reallocate to the collaboration costs that are reimbursable by the principal. The transaction costs of insuring good faith performance by all agencies contributing to a collaborative product may be so high as to deter any real commitment to collaborative production or sponsorship of it by potential principals. (Are all referrals by one agency to another, for example, fully justified according to prior understandings, or are they a subtle form of shirking? It may require expensive, intrusive effort to satisfy all partners in the collaboration as to what the others are up to, and a principal may decide it is not worth it.)

One solution in the case of legally autonomous actors is to agree to the creation of a governing authority to assign and monitor effort and to apportion rewards. (Such an authority might be called a "firm" if there are tradable property rights, or, in the case of interest here, it might be called "government" if the authority of the state is invoked. It might also be called a "network.") Presumably, the sum of the rewards to individual providers by the governing authority/principal must exceed the sum of the rewards that providers might earn in independent production. The higher the reward, all other things equal, the more likely it is that agencies will cooperate, although the extent of actual (as opposed to apparent) cooperation may depend on the transparency of performance and the effectiveness of monitoring.

Or public officials as actual or potential principals may search for less intrusive, low cost solutions. One such solution is "relative performance contracting," or "managed competition," in which private agencies compete to achieve state-defined performance goals (Mookherjee 1984). Yet another solution, favored in human service communities where competition is unpopular, may take the form of *mandated* "planning" or other mechanisms of coordination, such as network participation, that may seem inexpensive because they rely on peer pressure and monitoring rather than state surveillance.[15] In reality, coordination is not costless

[15] Such arrangements are termed "induced" or "delegated" cooperation by Itoh (1991, 1992, 1993) and are attempts to solve the team production problem. Itoh shows that induced cooperation requires the random factors that affect the performance of one task to be uncorrelated with the random factors that affect the performance of an other task, and is furthered as agents are less risk averse or the tasks are similar in terms of performance measurability and costs of actions. Principals may benefit by delegating to the agents the arrangement of cooperation. The principal must

and may involve significant and unwelcome changes in private agency operations, stimulating power games among rival agencies, thus undermining or precluding collaboration.

Another aspect of principal-agent models relevant to strategic production decisions involves the performance of *multiple tasks* by a single agent, which may be observable or measurable to varying degrees (Holmstrom and Milgrom 1991). For example, services for deinstitutionalized mentally-ill individuals involve both medication prescription, which is measurable, and medication management subtleties, which are not. The Holmstrom-Milgrom work suggests that contractual arrangements that focus on the measurable elements of service will lead to neglect of unmeasurable elements, possibly jeopardizing the overall quality of agency performance. Furthermore, as it is more difficult to observe outcomes in a multi-task environment and to accurately appraise agents' contributions to them, incentives designed to influence bureaucrats' actions are predicted to have negligible effects. These problems are exacerbated when multiple organizations are involved in collaborative or team production: if the collaboration requires any single provider to perform both measurable and unmeasurable tasks, then it is likely that the provider will focus on the observable or measurable elements of its contribution to collaboration and neglect the unmeasured responsibilities.

Theories that consider the effects of *multiple principals* provide insight into another common aspect of human service providers' decisionmaking environments. Multiple principal, or common agency, models are concerned with situations in which many stakeholders or principals have an interest in affecting the actions of a single agent (Bernheim and Whinston 1986). Human service providers often have multiple constituencies and principals attempting to influence their activities. For example, Bertelli and Lynn (2000) describe a number of government agencies and interest groups in mental health, social policy, civil rights, and family policy that attempt to influence mental health policy and delivery.

When answering to multiple principals, a provider's incentives are weak because "each principal offers a positive coefficient on the dimension of output that concerns him and negative coefficients on the other dimensions; the result when all principals' schemes are added together is a weak positive coefficient on each dimension" (Dixit 1999, p. 16). An organizational design implication is that "when possible, agencies should be organized to group together complementary activities, and grouping of substitute activities should be avoided" (Dixit 1999, p. 16). Such schemes assume that principals' interests can also be divided to focus incentives on these tasks. In mental health services, for example, such division may directly conflict with views of treatment professionals who view continuity of care as "a concept so widely endorsed in psychiatry and so generally identified as a valid aspect of psychiatric service delivery that its very absence can generate discomfort" (Bachrach 1981, 1449).

The implications for governance of collaboratives point to the potential power of a strong central governing authority. When the multiple interest groups or principals of a particular agency disagree, "the greater the likelihood that the status quo will reflect the agency's preferences, which are assumed to be broader than the interests of any single group" (Bertelli and Lynn 2000, 30). Assume that the status quo is nonparticipation in collaborative production: what

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make the agents responsible to each other's outcomes, ruling out relative performance contracting. The agents in effect engage in the kind of contracting "on the side" that is impossible to include in the principal's contract with them (Tirole 1988).

incentive does the provider have to participate? Bertelli and Lynn (2000, 31) argue that impetus to change the status quo requires some "process that transcends the normal bargaining among interests." A governing authority that mandates collaborative production might represent such a mechanism. The work of Provan and Milward (1996) supports such an argument, providing some evidence that a strong central controlling authority leads to greater network effectiveness.

The extraordinary pressures on public officials attempting to create and supervise a system of grants or negotiated contracts are seldom anticipated, and thus the effectiveness of such relationships may be compromised. Problems such as performance ambiguity, conflicts of interest, and provider risk aversion, i.e., "creaming" of lower priority but easier-to-treat clients, may compromise a state's ability to meet its treatment goals at reasonable cost. The result may be loss of state policy control over service priorities, quality, costs, and budgets and the temptation to further regulate—at even greater cost—who is served and how.

Theory of Teams. $Q_C = f(C_P, C_T, R_F, R_E, R_I, P, S)$

The concept of "team production" discussed in the previous section and the "theory of teams" are unique concepts: "team production" refers to a feature of production technology (i.e., the marginal productivity of one actor is affected by the level of effort of another actor), while the theory of teams refers to a specific set of assumptions about actors' goals, strategies, and access to information.

The principal-agent models discussed in the previous section assume divergent interests between principals and agents (and among agents themselves). The theory of teams is concerned with production situations in which individuals have common interests (i.e., they share preferences), but they may have access to different information on which to base their decisions, and their options for actions and strategies may differ (Marschak and Radner 1972).[16] Extending this line of research, Groves (1973) argued that the theory of teams could also be applied to situations in which employees may have different interests, but that the payoff function to employees induced them to act in the principal's interest.

In placing the theory of teams in a more recent context, McGuire and Radner comment:

> …one can view the problem of 'incentives in teams' as one of devising the 'rules of the game' in an economic organization so that the 'equilibria' of the game (as defined) implement the organizational goals (or perhaps larger social goals). As Marschak recognized, a central feature of this class of problems is the dispersal of heterogeneous relevant information among the members of the organization (the 'agents') and the attendant uncertainty on the part of both the agents and the organizer(s) (McGuire and Radner 1986, p. xxi).

[16] More recently, stewardship theory (Davis, Schoorman, and Donaldson 1997) also examines situations in which agents' and principals' interests are aligned and represent the goals of the organization in some sense. This theory draws from psychology and sociology, but does not trace its roots to the theory of teams approach, and is not primarily concerned with differential information or strategies.

The role of a governing authority in securing collaboration under these conditions seems clear: if lack of or disparate information precludes agents from pursuing their (common) interests, then a governing authority can best advance those interests by facilitating the exchange of accurate, timely information among collaborative participants.

Game Theory. $Q_C = f(C_P, C_T, R_F, R_E, P, S, n)$

Suppose that providers perceive that the payoffs from choosing to produce Q_I or Q_C will be influenced by the production choices of all other providers. In game theoretic models, outcomes are jointly determined by participants' choices of strategies.[17] A given provider's strategy will depend on the joint payoffs associated with different combinations of all providers' strategies.[18]

Game theoretic models facilitate analysis of how autonomous actors choose whether or not to cooperate with one another and how such choices depend on the structure of their interaction.[19] The analyst must specify what participants know about each other and about the state of the operating environment. Further, dynamic (i.e., time-related or sequential) factors can be analyzed by modeling collaboration as involving repeated interactions. In such a model, for example, participants may manipulate their reputations as a means of inducing a particular strategic outcome or focal equilibrium (which might be a restricted or partial form of cooperation).

The possibilities for using game theory to analyze the type of collective action problem addressed in this paper are developed by Heckathorn (1996). He first describes the situations that can arise as actors make choices to contribute to the provision of a collective good. He then shows the different types of games that can characterize these situations. Heckathorn argues that such an approach "serves to specify when cooperation by rational actors is problematic and, if so, whether the dilemma lies in issues of coordination, in bargaining over how gains are to be divided, or in lack of trust that the other will cooperate" (Heckathorn 1996, p. 253).

Heckathorn suggests that a potential authority desiring to increase the prospects for collective action may attempt to deal with problems of trust, bargaining, and coordination directly. Alternatively, such an authority may seek to "change the game" by increasing the value of the collective good, by reducing the number of providers in the collaboration (thus reducing the costs of collaboration), and by capitalizing on pre-existing relationships among subgroups of providers. Heckathorn quotes Fireman and Gamson (1979) to the effect that collective action

[17] The games are assumed to be noncooperative, i.e., any coordination and communication among players occur through the structure of the game itself. In cooperative games, in contrast, players are assumed to coordinate their actions through binding agreements.

[18] The team production problem discussed above can be conceptualized as a game whose particular payoff possibilities create a Prisoner's Dilemma.

[19] Game theoretic analyses of collaboration are complementary to other theoretical views. For example, transaction cost theory indicates that these costs are lower when actors develop trust from repeated interactions; game theory would indicate that the structure of a single-stage interaction may be a Prisoner's Dilemma, but repetition of the game may nonetheless lead to a cooperative strategy.

research should focus on ". . . how organizers raise consciousness of common interests, develop opportunities for collective action, and tap constituents' solidarity and principles" (p. 36).

Koremenos and Lynn (1996) apply a game theoretic heuristic to analyze how the director of the Illinois Department on Aging (IDOA) induced cooperation among a number of actors involved in caring for the elderly. They take as given the participants' desire to participate in the collaborative good, specify the "games" that occurred at different levels of the IDOA hierarchy, and draw implications for the choices available to the director. They argue that the director's success was in rewarding collaboration and in establishing a focal equilibrium on which collaboration participants could focus.

Collective Action Theory. $Q_C = f(C_P, C_T, R_F, R_E, n)$

Collective action theory is concerned with issues that arise on the demand side of exchange. Suppose that the collaborative product Q_C, has the character of a "local" collective good. That is, all "local" community members benefit from its provision and access cannot be restricted. Again, if individual rationality is assumed, a Prisoner's Dilemma may arise on the demand side as potential contributors shirk in the face of requests for voluntary contributions to a good from which they can fully benefit if others finance its provision.[20]

It may be difficult to obtain sufficient appropriations or budgetary allocations to induce providers to coordinate their production rather than operate independently. The solutions may be subtle: "selective incentives" in the form of statutory or regulatory concessions that induce committee chairs or their constituencies, e.g., various provider groups to authorize or support an appropriation or donors to contribute generously. Arranging such solutions may depend, as suggested in the previous section, on the number of potential contributors (i.e., the size of the enacting coalition) being small enough to permit face-to-face interaction and negotiation. The allocation of effort and distribution of rewards, however, is likely to be influenced by disproportionalities in the bargaining power of the contributors.

But suppose that there is a single contributor, e.g., a single state agency is a monopsonist under relatively loose legislative oversight. Rewards and effort allocation will depend on negotiations between the monopsonist and groups of potential contractors, possibly organized into coalitions. If individual providers are monopolists, i.e., if there is very high asset specificity and no competition, then bilateral monopolies may exist. Whether or not a bargain is struck will depend on the benefits and opportunity costs of collaboration to both parties. Thus providers with numerous opportunities to engage in lucrative independent production will be less inclined to collaborate than providers with few remunerative options.

Socialized Choice Theories

[20] Of course, "collaborative product" and "collective good" need not be synonymous but it is convenient for the argument here to assume that they are.

In contrast to rational choice theories, socialized choice theories are not derived from individual maximizing behavior. Such theories tend to view the production strategies of human service providers as partially or wholly endogenous with respect to socially constructed patterns of interaction. Thus, socialized choice theories accommodate social motives other than economic motives and interactions other than exchange transactions. Even if the existence of an organization has a predominantly economic rationale (as with a profit-seeking firm), intraorganizational and interorganizational structures and behaviors may come to reflect social constructs arising from both the economic and non-economic needs and motives of their participants (Uzzi 1996).

At any given time, individuals within an associational unit may behave in accordance with a socially-constructed habit or norm without necessarily reflecting on its rationale (Hardin 1995).[21] Such patterns develop over time, but at any given time, socially-constructed production strategies may be partially or wholly exogenous (or contextual) with respect to how providers respond to changes in the transactional (i.e., economic) context. The research objective is to demonstrate the consequences for organizational choices and outputs of (internalized) social and psychosocial structures and contexts.

Socialized choice theories raise issues of selection. From a socialized choice perspective, individuals having particular dispositions toward economic or social interaction search for, and are sought by, particular organizations (Moran and Ghoshal 1996). Such associational units are capable of purposive adaptations to their environments that override or modify narrow economic goal-seeking; the form these adaptations take reflects the collective disposition of the people in the organization.[22] Thus an investigator concerned with organizational performance must account for the pattern of interactions within and between organizations in other than economic terms and allow for social influence on strategic production choices and outcomes.

An important implication of socialized choice theories for collaborative governance is that the ability of a governing authority to influence provider choices by manipulating the transactional context may be weak because provider responses are attenuated by social context. Observed allocations between Q_I and Q_C and observed resource dependencies may reflect both the transactional context and social structures. Moreover, the governance of Q_C production at any given time may be either economic or social or both. However, endogeneity within and between socially constructed units creates issues of model identification that complicate empirical work.[23]

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[21] Jon Elster argues that norms are not outcome-oriented. As Hardin interprets him, "In essence, he supposes, that norms are exclusively about classes of actions and not about outcomes" (Hardin 1995, p. 108).

[22] One such disposition, taken for granted by economists, is to maximize utility within whatever constraints the environment presents. In general, dispositions are "tendencies to respond to situations, or classes of situations in a particular, predetermined manner (House, Shane, and Herold 1996, p. 205). Further, "[d]ispositions are generally thought to be psychological characteristics of individuals . . . tendencies to respond to situations, or classes of situations in a particular, predetermined manner [which] may vary in their temporal stability, their activation state, and their usefulness in explaining behavior under different conditions" (House, Shane and Herold 1996, p. 205).

[23] Manski (1995) notes the differences between economists and sociologists concerning how social relations affect individual behavior. "Many economists regard such sociological concepts as norms and reference groups as spurious epiphenomena explainable by processes operating entirely at the level of the individual" (p. 127). He

Resource Dependence. $Q_C = f(C_P, R_F, R_E, R_I, P)$

Reflecting elements of both rational and socialized choice approaches, resource dependence theory holds that organizations interact with their environments and respond to available opportunities and constraints, but they are not completely determined by such external forces (Aldrich and Pfeffer 1976). Although resources from external sources are crucial to survival of an organization, "some interdependencies are sought or avoided by administrators because of the power and control possibilities inherent in the situation of dependence" (Aldrich and Pfeffer 1976, p. 83). Thus, survival is an overarching goal (reflecting a rational goal-based perspective); yet "not all internal decisions are relevant to survival, and thus not all are affected by the environment" (Aldrich and Pfeffer 1976, p. 84).

The resource dependence perspective clearly emphasizes the potential importance of access to resources. Governance mechanisms consistent with this view might either encourage independent production (e.g., different contracting agencies with different funding streams require segmentation of services even within an organization), or collaborative production (e.g., contracting agencies who want to fund "innovative" projects may have preferences for collaborative arrangements as a promising idea with face validity) (Kramer and Grossman 1987).

These financial mechanisms may be relatively "easier" to manipulate by external governing authorities than other inducements. The resource dependence view leaves open the possibility, however, of other factors affecting an organization's decisions (including, presumably, decisions regarding whether to produce a collaborative product), without actually specifying what they might be.[24] These other factors may prove to be just as powerful as financial inducements. For example, in a study of collaboration among organizations designed to prevent child abuse and neglect, Mulroy and Shay (1998, p. 14) found that scarce resources motivated participating organizations, but "there were other motivators as well; shared values, compatible service philosophies, and the opportunity to extend the mission and strategically meet organizational needs."

Organization Theory. $Q_C = f(R_E, P, S, O)$

Organization theory has generated a number of concepts that may explain the decisions of providers to collaborate (Scott 1998). In this review, we touch on a few of these concepts: embeddedness, power, organizational culture, leadership, and managerial capacity.

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distinguishes among explanations for why individuals in the same group tend to behave in the same way: (1) endogeneity, i.e., individual behavior varies with the prevalence of behaviors in the group; (2) contextual effects, i.e., individual behavior varies with the distribution of background characteristics in the group; and (3) correlated effects, i.e., individual behavior is correlated with institutional environments or with similar individual characteristics. These effects are often confused in empirical work, wherein endogenous effects may be modeled as contextual effects (Manski 1995, p. 129).

[24] Scott (1998, p. 117) notes that much research on buffering and boundary spanning strategies of organizations has been spurred by resource dependence theory. Adaptation to (and changing of) the environment is the focus of such strategies; other organizational motivators are not specified by the theory.

The *embeddedness* of organizations in relational networks may contribute significantly to governing relations and have a decisive effect on performance. Achieving the goals of human services policies, for example, typically requires lateral cooperation among numerous, diverse organizational actors (e.g., those listed on pp. 1-2). Particular actors or coalitions may favor cooperation to ensure *conceptual control* of policy implementation, e.g., proper implementation of continuity of care for mentally ill offenders. The goal may be to achieve a style of service delivery that exhibits certain ambiguous properties such as "comprehensiveness," "integration," or "community involvement," for which communication and coordination are necessary.

Alternatively, the impetus for horizontal cooperation may arise from the technical demands of service delivery, which require contributions from a variety of autonomous actors. Technical interdependence may be classified as one or more of three distinct types: pooled (in which each actor "renders a discrete contribution to the whole and...is supported by the whole", e.g., serving multi-problem clients), sequential (in which actors depend on each other in identifiable sequences, e.g., child protection and permanency), and reciprocal (in which actors produce inputs for each other, e.g., multi-unit hospitals) (Thompson 1967, 53-54). Reciprocity perhaps poses the most difficult challenges, in part because it is most dependent on establishing trust and raises issues of endogeneity.

Agency and group position and influence within a communication and exchange network are the basis for organizational *power*. Derived from social embeddedness, power affects an organization's, or a social group's, responsiveness to the governing relations incorporated in policy and to specific mechanisms, mandates, or inducements originating at the policy making level (Scott 1998). For example, the lack of responsiveness by public human service agencies to their political and social environment underlies stereotypical complaints about bureaucratic turf protection, rigidity, red tape, and resistance to change. "More and more the specialized knowledge of the expert became the foundation for the power position of the officeholder" argued Max Weber (1946, p. 235, quoted by Scott 1998, p. 334), and power shifts from citizens and beneficiaries to administrative elites expert in the procedures of program implementation and procurement (Michels 1949, from Scott 1998). The power of elites may lead to significant goal displacement as public officials reshape governing relations to their liking, a common problem affecting relations between governments and their purchase-of-service agencies.

Informal social systems within organizations may similarly influence power or control relationships, and consequently, governance. For example, Ouchi has characterized certain organizations as "clans," in which control is exercised through informal social systems. "The functions of socialization," he argues, "are similar in professions, cultures, and clans . . . Clearly a clan is more demanding than either a market or a bureaucracy in terms of the social agreements which are prerequisite to its successful operation" (Ouchi 1979, pp. 837, 838). Clan-like entities such as medical departments, criminal justice agencies, and "old-line" organizations may appear to be ungovernable.

Organizational *culture* or climate, [25] and the relationships between culture and performance, are also relevant features for understanding the incentives of organizations to

[25] Some research traditions consider culture and climate to be unique concepts, but we do not attempt here to distinguish between them.

collaborate. Culture may be considered a "system of shared values (that define what is important) and norms that define appropriate attitudes and behaviors for organizational members (how to feel and behave)" (O'Reilly and Chatman 1996, p. 160). Definitions of climate have included both organizational participants' *perceptions* about the work situation, as well as *sets of conditions* such as coordination or involvement in decisionmaking.[26] Empirical research on organizational culture and its relationship to performance often focuses on for-profit organizations. However, Wilson (1989) discusses organizational culture in public organizations, where "an agency's culture is produced in part by...the predispositions of members, the technology of the organization, and the situational imperatives with which the agency must cope" (p. 93). Service providers that have a strong sense of mission and autonomy may find it difficult to coordinate or share information.

In the popular literature as well as in some academic literature, a link is often posited between organizational characteristics, including performance, and *leadership* (e.g., Schein 1992). A typical statement is that "success requires leadership that believes strongly in the mission and consistently demonstrates this belief." The potential contributions of leadership to governing relations and to organizational performance encompass a large and diverse literature.[27] Yet leadership remains an elusive notion, more an explanation for success *after the fact* than a quality or skill that can be identified *before the fact* and used in planning. For example, Meyer (1979) showed, according to Rainey (1997) that "those in stronger positions politically …show more ability to defend their agency against pressures for change in structure and against the loss of units to other agencies, apparently because of their greater ability to draw on support from political networks."

In contrast to such views, skeptics concerning leadership as an explanatory construct assert that public officials "make their mark in inches, not miles" (Kaufman 1981, p. 135). A more optimistic but still qualified notion is that leadership is a resultant of the right fit between the individual in a potential leadership role and the demands of the particular circumstances of that role: "achievement is favored by a good match of individual skill and the organizational task attempted" and that "the favorable match of skill to task must be reinforced by favorable historical conditions if there is to be a significant historical achievement" (Doig and Hargrove 1987, pp. 13, 14). Distinguishing between transformational and transactional leadership may also be important (Burns 1978) for understanding the contributions of leadership to governance but, again, more after than before the fact.

The idea that leadership is best understood as a configuration of distinct elements also suggests a more socialized view of governance. In a study that sought to identify factors accounting for variations in the effectiveness of individual agency managers, Lynn (1981, 1987) identifies four independent variables contributing to managerial accomplishment that include

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[26] This range of constructs has contributed to the sense that climate "'includes everything'" (Denison 1990, p. 24). Lack of clear guidance on the measurement of culture and climate is mirrored in their operationalization. See Pfeffer (1997) for a review and critique.

[27] There is a meaningful difference between "leading" and "managing," i.e., between an emphasis on "doing the right thing" and on "doing the thing right," between focusing on the ends of human activity and on designing and executing the means.

three individual-level variables: skill, personality, and design (i.e., a manager's goals and the means chosen to achieve them); and one institutional-level variable: opportunity (e.g., organizational structures and processes and authorizing statutes). He concludes that these variables interact in complex ways but that the choice of a design or model that fits the opportunity seems to be more important than the singular influence of general managerial skill and personality. That is, even mediocre managers might "pick the right model" and be regarded as successes in their particular circumstances. Thus, leadership is contextual, not absolute: the right person in the right place at the right time. Even though leadership may matter to organizational success, many other things matter, too, including appropriate governance structures and adequate managerial capacity. Leaders both create and benefit from supportive structures and administrative technologies.

Management *capacity* might be argued to be a "platform" for leadership, management, and organizational performance. There has been little intellectual development of — but substantial disagreement about — the concept of management capacity. Public management research tends to focus on individual managers, whose activities are investigated primarily in case studies. Occasionally, reference is made to management teams or to "managerial culture." The concept of capacity goes well beyond that limited conception to encompass, for example, information, planning, systems, and evaluation, and coordination and integration, i.e., the means whereby managers do their work. We tend to think that managerial capacity exists when structures, information, and internal processes are sufficiently well developed to enable managers to pursue their objectives successfully.

Because it is a multi-dimensional concept, managerial capacity is hard to define and even harder to measure. Traditional approaches to public administration emphasize appropriate and competent functional specialization, on the assumption that a good organization will exhibit good management. To be effective, however, the contemporary public manager must be proactive and adaptable to new and rapidly changing circumstances while insuring reliability of service and satisfaction of stakeholder expectations. A more advanced concept of management capacity is needed to accommodate this more complex managerial role (Ingraham and Donahue 2000).

Finally, the nature of *primary work* affects incentives to collaborate and the strategies at a managers' disposal to induce collaboration: different types of organizations are likely to require different types of management (Wilson 1989). *Production* organizations (e.g., residential facilities), in which both work and outcomes are observable, give managers "an opportunity to design...a compliance system to produce an efficient outcome" (pp. 159-160) *Procedural* organizations (e.g., child protection), in which work is observable but outcomes are not, make granting discretion problematic. *Craft* organizations (e.g., substance abuse treatment, counseling), in which activities are difficult to observe but outcomes are easy to evaluate , enable managers to be "mission-oriented" and grant employees discretion in day-to-day activities. *Coping* organizations (comprehensive human service agencies), in which neither work nor outcomes can be observed and evaluated, render "effective management ... almost impossible" (p. 175). In coping organizations, there will be a strong temptation for managers to focus on what is most easily measured and little incentive for them to delegate to subordinates.

Institutional Theory. $Q_C = f(C_P, R_F, R_E, P, S, O)$

Institutional theory emphasizes the persistent interdependence of provider organizations. For example, a provider or group of providers within an organizational field may exhibit structural arrangements or patterns of coordination or effort allocation (as between individual and collaborative products, for example) that persist even when changes in economic circumstances or the technical requirements for cooperation might warrant restructuring or reallocation of effort.[28] What are the forces governing change and, in particular, why does isomorphism, i.e., convergent structural/functional arrangements, apparently occur? Three mechanisms for inducing isomorphism are political influence (operating as an exogenous influence on firms), standardization of responses to uncertainty, and standardization reflecting professional norms (e.g., of accounting, personnel, and marketing functions) (DiMaggio and Powell 1983).

Interdependence persists because it serves to sustain agency legitimacy in the eyes of donors or constituencies that provide essential support for provider activities. This "institutionalization" or "rationalization" of agency and interagency structures and allocations is most likely to occur (1) when tasks are indeterminate and performance is ambiguous and hard to measure or evaluate, (2) when agencies frequently interact, either as partners or competitors and (3) when an external agent compels it (DiMaggio and Powell 1983). The adoption and persistence of particular arrangements is, in effect, a substitute for the kind of performance monitoring and evaluation that is possible when tasks and outcomes are more readily definable and measurable, when legitimacy can be determined by success in markets.

Within institutionalized sectors, there are several reasons for adhering to the status quo when confronted with a strategic production choice. A new external mandate or an inducement or exhortation to reallocate effort may be rejected if regarded as inconsistent with structures or norms of legitimacy that sustain support by external constituencies. The inherent ambiguity of service tasks and outcomes may allow providers to conform symbolically or with less than total effort to a new mandate (Meyer and Rowan 1977; Weiss 1981). Alternatively, a provider may accede to the mandate and reallocate effort if such a choice is consistent with or even enhances institutionalized values. A mandate arising from constituent pressure, for example, may undermine the legitimacy of the status quo and create pressures for change.

Structuration Theory. $Q_C = f(P, S, O)$

If institutional theory emphasizes the interdependence of provider organizations, structuration theory emphasizes their local uniqueness. Structuration theory, based on the work of Anthony Giddens, assumes that a social practice (e.g., performing a social service such as counseling or intake) is governed by rules that, on the one hand, are the product of action and the norms, values, and resources underlying action and, on the other hand, constrain action in order to insure the continuity of already enacted norms and values (Cassell 1993). "Structure is *both*

[28] For example, despite their differences, the nation's school districts are remarkably similar in how they allocate resources between instructional and non-instructional expenditures (Picus 1993).

enabling and constraining. . . . Structure is thus not to be conceptualized as a barrier to action, but as essentially involved in its production" (Cassell 1993, p. 123).

Structuration theory implies that each autonomous production unit constitutes a structurated social system. For example, front line staff in a welfare-to-work office formulate and scale their expectations of success to what is achievable under local constraints: such matters as "[t]he legitimacy of administrative rules to dictate behavior, the ineffectiveness of [other local organizations, and] the incompetence of local management become indisputable organizational realities to anyone within the social system" (Sandfort 1997).[29] Thus structuration theory is likely to come into its own under circumstances in which legitimacy is problematic, i.e., when technologies and effectiveness are ambiguous, uncertain, and value-laden. For example, legitimacy may be easier to attain in a manufacturing firm or retail establishment, compared to a youth gang intervention project or a battered women's shelter.

A reallocation of effort toward collaboration, then, requires the social acceptance within the provider organization of whatever rules, practices, and norms are needed to insure the benefits of collaboration. The resistance typically encountered in organizational change processes indicates how difficult it is to achieve such social acceptance. Because organizational structures are generated locally, moreover, a shift toward provision of a collaborative product *ceteris paribus* increases in difficulty with the number of autonomous providers whose cooperation is required. Suppose, however, that service workers employed by various providers share legitimating values and beliefs originating in a common educational experience or a common professional identity, e.g., having earned an MSW or become identified as a child protection worker or classroom teacher. Then reallocation toward collaboration would be facilitated by compatible change in legitimating values and professional norms.

Methodologically, the problem is the endogeneity of structuration, i.e., the propensity of an individual to behave in some particular way depending on the prevalence of that behavior in the group. For example, a provider organization may resist collaboration to the extent that its employees have a disposition to resist the subordination of individual interests to a collective, client-referenced, or policy-driven interest (which may congeal into a structural disposition to defend professional autonomy). Another similarly situated provider may collaborate because its employees are disposed to cooperate in collective goods provision.

Do structures adapt to exogenous changes in organizational contexts? If so, what mechanisms induce change in local structures? The research problems are identifying those collective dispositions that are reflective of local, socially-constructed realities, assessing their malleability to internal and external changes (such as reallocations of resources), and identifying their consequences for organizational performance. An empirical model must identify the dispositions that explain the organization's response to an inducement to collaboration in the light of the possibility that the inducements themselves, or accompanying environmental changes, alter dispositions.

[29] Similarly, Anspach (1991, p. 2) examines the integration of former mental patients into communities and argues for the utility of considering "effectiveness as a socially constructed phenomenon, focusing on subjective assessments of effectiveness by members of a particular service delivery team."

Network Theory. $Q_C = f(C_P, C_T, R_F, R_E, P, S, n)$

"Network governance" is assumed to constitute a distinct form of economic coordination in contrast both to markets and to hierarchies (Jones, Hesterly, and Borgatti 1997). Network governance may take the form of implicit, open-ended agreements among autonomous units to insure the reciprocity of exchange or of partnerships involving explicit elements of sharing and exchange. From the perspective of network theory, the question posed in this paper concerns the circumstances under which collaboration governed by network relationships will displace independent production. Information asymmetries and conflicts of interest, poorly defined technologies and ambiguous performance are the rule rather than the exception in social service domains. That there is any coordination or cooperation at all may be better accounted for by network analysis, i.e., by long-established position relationships and shared norms, than by rational choice theories.

Network analysts have tended to view the formation of networks as reflecting the influence of exogenous factors, such as "the distribution of technological resources or the social structure of resource dependence" (Gulati and Gargiulo 1999, p. 1440; also see Burt 1983 and Pfeffer and Salancik 1978). One recent approach supposes that the emergence of alliance networks is "a dynamic process driven by exogenous interdependencies that prompt organizations to seek cooperation and by endogenous network embeddedness mechanisms that help them determine with whom to build partnerships" (Gulati and Gargiulo 1999, p. 1441). Another approach integrates network formation with transaction cost economics, hypothesizing that network governance will emerge if it is a more efficient means for governing exchange than either markets or hierarchies (Jones, Hesterly, and Borgatti 1997). This is likely to be the case, it is argued, when demand for service is uncertain, when service transactions are based on asset specificity, when there are time pressures to perform complex tasks (where "task complexity refers to the number of different specialized inputs needed to complete a product or service" [Jones, Hesterly, and Borgatti 1997, p. 921]), and when transactions are frequent.

Powell has argued, however, "In only a minority of instances is it sensible to maintain that the genesis of network forms is driven by a concern for minimizing transaction costs. [30] Strategic considerations — such as efforts to guarantee access to critical resources, to obtain crucial skills that cannot be produced internally, to pacify the concerns of professional communities . . . — certainly seem to outweigh a simple concern with cost minimization" (Powell 1990, p. 322). Further, he argues, "many of the arrangements . . . actually increase transaction costs, but in return they provide concrete benefits or intangible assets that are far more valuable. The reduction of uncertainty, fast access to information, reliability, and responsiveness are among the paramount concerns that motivate the participants in exchange networks" (p. 323).

Network theory might explain both why collaboration occurs and why, *once collaboration is agreed to*, the governance of the collaboration takes particular forms, i.e., is governed by a network rather than by formal contractual understandings. A related question is whether or not there are features of networks (e.g., "relational cohesion")[31] which, in economic

[30] In which case network analysis becomes little more than an application of transaction cost economics.

[31] "In an exchange network, dyads with greater relational cohesion should exert greater informal constraints on

terms, ameliorate monitoring problems, reduce free riding by network members, or reduce the transaction costs associated with insuring cooperation, e.g., by sustaining norms of cooperation or facilitating self-enforcement of contractual agreements (especially of incomplete contracts). Alternatively, does an individual provider's structural position within partially overlapping networks exacerbate monitoring and enforcement problems within an integrated services network? In general, how do network and participation characteristics affect the likelihood of collaborative production? Standard network analysis emphasizes "position" and "relations" among actors comprising a network. Networks constitute both constraints on and opportunities for their participants, and network analysis can show how the properties of a network affect these constraints and opportunities.

Psychological / Cognitive Choice Theories. $Q_C = f(C_P, C_T, R_F, R_E, P, S)$

Psychological/cognitive choice theories are concerned with the psychological, cognitive and emotional bases of behavior that either may be consistent with or may modify both rational and socialized choice explanations.

By presenting individuals with alternatives and examining their choices, Tversky and Kahneman (1986, p. S252) show that "the logic of choice does not provide an adequate foundation for a descriptive theory of decision making. …deviations of actual behavior from the normative model are too widespread to be ignored, too systematic to be dismissed as random error, and too fundamental to be accommodated by relaxing the normative system." In response to arguments that learning and selection can mitigate some of these effects, the authors argue that such learning can take place only when there is "accurate and immediate feedback about the relation between the situational conditions and the appropriate response" (p. S274), a condition not often fulfilled.

In a model that builds on rational choice axioms, Halpern (1998) suggests that human interaction is characterized by "bonded rationality" in which first, "we share ways of evaluating alternatives that may not be objectively optimal, and second, that we reason rationally about these shared evaluations" (p. 220). She identifies a number of paths through which decisions may depart from the "objectively optimal" choice:

i. cognitive processes and limitations shared by all humans;
ii. cognitive illusions that may be innate or learned;
iii. heuristics that may arise independently in a variety of societies;
iv. the psychological context of how the alternatives are presented;
v. the social context in which the decision is made; and
vi. the cultural context of the decision maker. (Halpern 1998, p. 230)

The implications of cognitive choice theories for governance of collaboratives may be a glass half full or half empty. Halpern's list of departures from "objective rationality" may be

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opportunism or malfeasance" (Lawler and Yoon 1996, 89).

viewed as substantially expanding the inducements available to a governing authority. Or, the list may simply overwhelm an existing, complicated set of "objective" costs and benefits for provider organizations.

While such complications point to the shortcomings of a reduced form model like the one described in the second section of this paper, and may prompt an analyst (or governing authority) to opt instead for inducements that appeal to the rational provider, the cognitive theories suggest caution: "An adequate account of choice cannot ignore these effects of framing and context, even if they are normatively distasteful and mathematically intractable" (Tversky and Kahneman 1986, p. S273). To ignore these effects and impose mechanisms that trigger (supposed) extrinsic incentives invites trouble: "if 'intrinsic motivation' is the response of workers to fuzzy but nonetheless extrinsic incentives, explicit extrinsic incentives that are imposed may fight rather than complement preexisting incentives" (Kreps 1997, p. 362). Such guidance echoes that of Fireman and Gamson (1979) discussed earlier in the section on game theory.

Collaboration in Theory: An Appraisal

Attaining perfect coordination -- "when the actions of different individuals or agencies are tuned to each other such that production of any one output cannot be increased without an increase in costs or decrease in production elsewhere in the system" -- is likely not possible, given the complexities of human service provision (Weiss 1981, p. 38). This is not to say, however, that unrealized benefits from collaboration among providers may exist. The governance problem lies in how to induce and sustain collaborative production.

The contributions of individual theories, or sets of theories, can bring much-needed rigor to the analysis of providers' incentives to collaborate and corresponding governance mechanisms. In this paper, we have examined providers' incentives from a number of different theoretical perspectives (summarized in Table 1). For each model, we show the corresponding reduced form equation, the variables omitted from a full reduced form model, and the core aspects of the underlying theory. By designating "omitted variables," we do not mean to insist that a proper specification would have included them. We intend to show, rather, that these variables *might be* a source of bias in empirical estimators unless the investigator has constructed a model in such a way as to preclude their significance, e.g., by using data or selected cases that so that the omitted factors do not vary across units of analysis.

Developing an eclectic theoretical framework that retains predictive power may be quite difficult. For example, Klijn and Koppenjan (2000) suggest a set of theoretical assumptions for the policy network approach (Table 1 in their article). An important next step, as the authors point out, is submitting the approach to empirical tests. Yet the framework is so inclusive, embracing a number of aspects of other theories, that it may be difficult to identify the distinctive characteristics of policy networks: in an empirical test, what evidence would constitute support for or rejection of this approach?[32]

[32] For example, if no empirical support is found for one or more of the thirteen assumptions included in the four categories listed in Table 1 ("networks," "policy processes," "outcomes," or "network management") is the entire approach drawn into question?

With our review of rational choice, socialized choice, and psychological/cognitive choice theories, we do not intend to argue for the primacy of one particular approach for understanding provider decisions, but rather to highlight their potential tradeoffs and complementarities in analyzing collaboration. Argues Granovetter (1985, p. 487), "actors do not behave or decide as atoms in a social context, nor do they adhere slavishly to a script written for them by the particular intersection of social categories that they happen to occupy."

There is, in general, an apparent tension between *homo economicus* and *homo sociologicus*, i.e., between rational individuals who pursue self-interest calculated within a framework of resource dependency, and socialized individuals who enact socially-constructed values. In assuming that providers are motivated by self interest, rational choice theories explain strategic production choices in terms of an optimizing logic: the size and structure of rewards and opportunity costs (e.g., the benefits of independent production), information asymmetries (which affect bargaining power and incentives to shirk), and conflicts of interest (which create risks of opportunism). In assuming that providers seek out and create socially-constructed contexts satisfying a variety of dispositions and socially-constructed "needs," socialized choice theories explain strategic production choices in terms of the behaviors induced by these social constructions.

The difficulty of sorting out rational from socialized behavior is presumably heightened in nonprofit organizations, where there may be no overriding material interest. Evidence suggests that nonprofits organize themselves to ameliorate the determinative influence of resource dependencies so that socialized values may govern operations. Other evidence suggests, however, that resource dependencies create pressures that cause resocialization of nonprofits into more business-like entities, initially causing goal displacement but ultimately leading to personnel turnover that "selects" new people with appropriate, "business-like" dispositions.

The tension between the two types of theories may only be apparent, however. As Gary Miller (1992) notes, for example, social psychologists and team production theorists might predict the same result: if an organization's individual effort cannot be detected (e.g., a tug-of-war), it has less incentive to maximize its contribution to collaborative effort. If knowledge has been reduced to norms or rules of thumb to minimize the need for repeated calculation, we might interpret the status quo as a focal equilibrium in a repeated game or as a structurated social system; participants may describe their conduct as either "efficient" or "appropriate." Socialized providers may resist a change from individual production to collaborative production or vice versa unless and until self-interest becomes overriding; this point will be reached at different points for different individuals and for different provider organizations. Furthermore, Hardin argues that "reduction of things to habit in complex society is often accomplished through the division of labor that lets most of us be radically ignorant of most of the things that matter to us" (Hardin 1995, p. 112). His implication is that an exogenous alteration in the division of labor, e.g., as a result of a statutory mandate, will lead eventually and inevitably to changes in habits, although the question that must be faced is how alterations in the division of labor might be brought about.

Rational choice theories can account for a wide variety of phenomena that are also the subject of non-economic theories, e.g., the significance of trust and reputation, non-cooperative behavior and resistance to change, entrepreneurship and symbolic behavior, and the like. The difference between the two types of theories lies less in the behaviors they purport to explain — both can account for the emergence of continuing relationships built on trust — than in the motives for these behaviors. Therein lies the central problem for comparative research: the ambiguity of the motivational bases for producer behavior and difficulty of adducing mutually exclusive, e.g., socialized and not rational, explanations for strategic choices.

Corresponding to rational choice and socialized choice theories of collaboration are rational and socialized concepts governance. Rational governance tends to be external and contractual and depends on the additivity and separability of actor preferences. Socialized governance tends to be internal (to the collaboration) and relational or effected in patterns of interaction, which might be given the formal designation "network," and depends on selection and endogeneity. For an existing collaboration, the character of governance might be an indicator of the motivational bases for the collaboration.

A rational or socialized approach each encounters its own distinct set of conceptual and methodological difficulties, which will materialize as challenges to identification and validity in empirical research. A full empirical research agenda remains for understanding why providers choose to engage in collaborative production, and what corresponding governance arrangements can best induce and sustain collaboration:

(1) We might want to compare the effectiveness of different contractual arrangements in securing a collaborative output. In other words, **what is the best administrative approach to achieving collaboration?** Ideally, we need a measure of collaborative output, measures or indicators of the features of contractual arrangements (e.g., reward structure, enforcement, competition, and effort allocation), and information about choices and relationships affecting the agents, together with a theory that orders their ongoing interrelationships.

(2) We might want to compare the effectiveness of a collaborative arrangement in stimulating the output of the collaborative product with agent groups or networks having different characteristics. In other words, **to what extent do intra- and interorganizational relationships affect the success of collaborative effort?** Again, we need measures of output and, in addition, the salient characteristics of the group or network producing the outputs.

(3) We might want to compare the effectiveness of the collaborative output with individual outputs in achieving outcomes for service recipients (e.g., measured well-being of the chronically mentally ill or timeliness of permanent placements of at-risk children). In other words, **is collaboration more effective than traditional categorical or independent service delivery?** In such research, we need outcome measures as well as measures or indicators of the consumption or use of integrated services and of individual services.

(4) We might want to compare the effectiveness in terms of client outcomes of different groups of providers who are collaborating, or of different, explicitly-formed (contractual) networks that are collaborating. In other words, **are some types of collaboration more**

effective than others? In such research, we need measures of output and of client outcomes as well as measures or indicators of group or network characteristics.

(5) We might want to simultaneously analyze group characteristics, governance arrangements, service outputs, and client outcomes using structural models that incorporate theories of their interrelationships and allow for other variations between sites. In other words, **we might want to answer any of the above questions with as many controls as possible over confounding or mediating variables**.

Whatever the research question, the investigator has a rich variety of theories on which to base the construction of empirical models and a complex set of issues to face in testing their validity.

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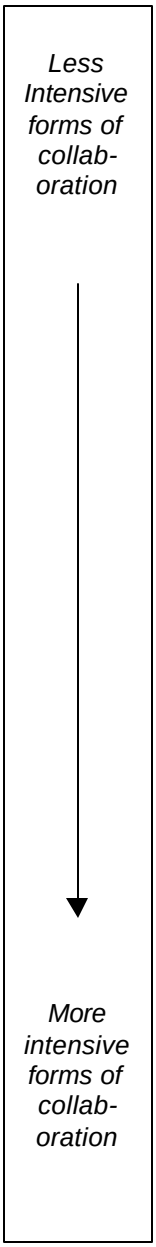
Figure 1:
Examples of Collaboration Mechanisms



- joint agreement concerning "best practices"
- formal interagency agreements to "coordinate"
- procedures for information sharing
- task forces, advisory groups, committees that review / approve plans and actions
- co-location of service activities
- temporary personnel reassignments
- coordinated eligibility standards
- coordinated personnel qualification standards
- joint mission statement / principles
- single application form / process
- case management
- centralized functional administration
- reprogramming authority
- pooled resources / budget contributions
- financial contracts that have provisions for fund transfers and reallocations
- "lead agency" agreements
- procedures for resolving inter-agency disputes
- multi-agency / multi-task / multi-discipline service plans and budgets
- cooperative monitoring / case reviews
- joint training / retraining / cross training
- shared human capital / physical capital assets
- joint / interagency field enforcement teams
- joint / interagency planning / division of labor / responsibility

Table 1:
Collaboration Models

	Model of Collaboration: $Q_C = f(\ldots)$	**Omitted Variables**	**Core Aspects**
Full Reduced Form Model	$C_P, C_T, R_F, R_E, R_I, P, S, O, n$		
Rational Choice Theories			
Transaction Cost Economics	$C_T = f\,[C_T(R_E, P, S, O)]$	C_P, R_F, R_I, n	joint determination of transaction costs; trust / reputation / repeated interaction
Principal-Agent Theory	$C_P, C_T, R_F, R_E, R_I, P, S$	O, n	asymmetric information and conflicts of interest
Theory of Teams	$C_P, C_T, R_F, R_E, R_I, P, S$	O, n	different information and strategies, similar interests
Game Theory	$C_P, C_T, R_F, R_E, P, S, n$	R_I, O	joint determination of payoffs
Collective Action Theory	C_P, C_T, R_F, R_E, n	R_I, P, S, O	collective goods and shirking
Socialized Choice Theories			
Resource Dependence Theory	C_P, R_F, R_E, R_I, P	C_T, S, O, n	adaptation
Organization Theory	R_E, P, S, O	C_P, C_T, R_F, R_I, n	
-embeddedness	R_E, P	$C_P, C_T, R_F, R_I, S, O, n$	relations
- power	R_E, P	$C_P, C_T, R_F, R_I, S, O, n$	asymmetries
- culture	P, S	$C_P, C_T, R_F, R_E, R_I, O, n$	values
- leadership	R_E, P	C_P, C_T, R_F, R_I, O, n	fit
- capacity	$R_E\ P$	$C_P, C_T, R_F, R_I, S, O, n$	systems
- primary work	P, O	$C_P, C_T, R_F, R_E, R_I, S, n$	tasks, service technology
Institutional Theory	C_P, R_F, R_E, P, S, O	C_T, R_I, n	legitimacy
Structuration Theory	P, S, O	$C_P, C_T, R_F, R_E, R_I, n$	local uniqueness
Network Theory	$C_P, C_T, R_F, R_E, P, S, n$	R_I, O	relational cohesion
Psychological / Cognitive Theories	C_P, C_T, R_F, R_E, P, S	R_I, O, n	framing and contextual influences on decision-making

(Notation key on next page)

Table 1 (continued)
Collaboration Models

Notation:

Q_C = $f(C, R, P, S, O, n)$, where

Q_C = 1 if provider *i* chooses to produce a collaborative product
= 0 if provider *i* chooses to produce an independent product

C = Costs, which can be further subdivided into
- C_P = Production costs
- C_T = Transaction costs

R = Resources, which can be further subdivided into
- R_F = Financial resources from external sources
- R_E = Expertise or access resources from external sources
- R_I = Internal discretionary resources, e.g. from organizational slack or cross subsidies

P = Structural and managerial characteristics of providers/organizations

S = Staff characteristics or interests

O = Client outcomes

n = Number of other providers, agencies, or organizations involved in the collaborative