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Modeling the Structure of Collective Action

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We propose an improved theoretical approach to the rich variety of collective action now present in public life. Toward this end, we advance a conception of collective action as communicative in nature, and offer a two-dimensional model of collective action space, comprising dimensions for (a) the mode of interpersonal interaction and (b) the mode of engagement that shapes interaction. We illustrate the perspective by describing the location of a variety of contemporary collective action groups within it and by an explication of the space that reveals its utility for making sense of modern collective action efforts. Specifically, we apply the collective action space to illustrate the changing presence of collective action groups over time, deviations in collective action groups through changes in size, shape, and location, and variations in the experiences and motivations of people engaged in collective action efforts. Finally, we show how our communicative approach to collective action can integrate the insights of several theoretical traditions, including collective action theory, social capital theory, and aspects of organization theory.

Keywords: Collective Action; New Technology; Organizing; Communication and Information Technology; Public Goods

One of the great challenges for scholars in the social sciences is advancing compelling frameworks for explaining phenomena in times of brisk social change (Deetz, 1992; Monge, 1998). Rapid technological innovation in the current period is associated

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with opportunities for people to engage with one another in novel fashion and to act on private as well as public concerns in ways that often appear quite different from what has gone before. In particular, collective action has revealed a diversity of forms and dynamics in conjunction with technological developments.

Instances of collective action that might be labeled "classic" in a theoretical sense, such as joining interest groups or voting, are accompanied now by a variety of new kinds of actions. These include self-organized protests and political actions in the absence of an interest group or other central coordinators, affiliation with a wide array of online organizations outside of formal "membership" procedures and incentives, and a vast scale of personal, voluntarily contributed informational goods for public use through the creation of Web content. Contrary to many existing perspectives on collective action, in such cases the act of organizing may be decoupled from formal organizations and the transition of private interests and resources to public domains of collective activity may be more easily accomplished than in the past (Bimber, Flanagin, & Stohl, 2005).

Understanding contemporary collective action thus requires recognizing how people are interacting and what opportunities are afforded them, along with examining what organization and structure fit their behavior and help facilitate collective actions. To achieve this, we propose a theory of the "organization" of collective action that distinguishes organizations by the ways in which personal relations and activities are enacted. This reconceptualization illuminates several forms of collective activity, be it the emergence of large scale social movements (Melucci, 1996), the production of information public goods (Fulk, Heino, Flanagin, Monge, & Bar, 2004; Monge et al., 1998; Yuan et al., 2005), the development of support groups (Alexander, Peterson, & Hollingshead, 2002), or the appearance of virtual communities and small groups (Walther & Bunz, 2005; Wellman et al., in press), to name just a few. Moreover, our theory addresses three major theoretical problems for scholars interested in various types of collective action.

First, many new kinds of collective actions are not well explained by existing collective action theory. Long-established collective action perspectives seek to explain how individuals, with at least a modest level of shared interests, coordinate their efforts to secure a common goal that none could obtain without the efforts of others. Collective actions are typically framed as resulting in some shared outcome, or "public good," which may consist of traditional, physical goods like parks, bridges, or libraries (Marwell & Oliver, 1993; Olson, 1965; Samuelson, 1954) or less tangible goods like databases of information or communication systems (Connolly & Thorn, 1990; Fulk, Flanagin, Kalman, Monge, & Ryan, 1996; Markus, 1990; Rafaeli & LaRose, 1993). The basic paradigm of collective action theory has over the years provided insights into a wide array of phenomena, with important theoretical contributions from economics (Olson, 1965; Samuelson, 1954), political science (Barry & Hardin, 1982; Chamberlin, 1974; Hardin, 1982), sociology (Coleman, 1990; Marwell & Oliver, 1993; Oliver, 1991), and communication (Connolly & Thorn, 1990; Fulk et al., 1996; Markus, 1990), among other disciplines.

Yet, much of this body of theory posits phenomena that are observably absent from contemporary collective action efforts: in particular, the strict conception of individuals' decisions to participate in collective action efforts as binary choices (i.e., contribute or not), and a reliance on formal organization to overcome obstacles to collective action associated with "free riding," which occurs when participants enjoy the benefits of the public good without contributing to its establishment or maintenance (Connolly & Thorn, 1990; Hardin, 1968; Olson, 1965; Sweeney, 1973). Scholars have noted the disjunction between theoretical predictions and evidence in the contemporary media environment but have only begun to suggest theoretical developments that can reconcile the two (Bimber et al., 2005; Lupia & Sin, 2003).

A second theoretical problem lies in scholarship on social capital and its relationship to civic engagement. In their formulation of what has become classical social capital theory, Coleman (1990) and Putnam (2000) posit that societies or communities succeed better at solving collective problems when they have greater stocks of social capital: networks of trust and reciprocity associated with traditional civic organizations and repeated face-to-face engagement. Putnam's assertion that opportunities for collective action are threatened by the decay in the United States of a wide range of traditional civic associations has proven empirically contentious, and it has led specifically to a debate about whether online engagement, "virtual community," and the like can substitute for traditional social capital-building associations like bowling leagues and Elks Clubs. Even the strongest empirical work documenting a positive association between online engagement and variables such as social trust has not offered a comprehensive theoretical account that reconciles contemporary social innovations with the dominant understanding of traditional social capital and its relationship to collective action (Jennings & Zeitner, 2003; Neustadtl & Robinson, 2002; Shah, Kwak, & Holbert, 2001).

A third theoretical problem introduced by the diversity of contemporary collective actions involves the nature of engagement between members and organizations. Organizational dynamics have traditionally been represented as migrating from informal face-to-face contexts to more formal and impersonal modes of engagement over time (Hage, 1980). In this manner, organizational predictability and reproducibility are increased (Ritzer, 2001) through greater control and enhanced coordination (Barnard, 1938). The net result of this evolution is that communication between organizational leaders and members typically becomes formalized, largely one-way, and essentially prescribed. Contrary to this pattern, however, organizations today increasingly stress complementarity and informal relations based on trust (Miles & Snow 1984, 1986; Powell, 1990). Moreover, contemporary organizations are often built around short-term material flows that link people together. In this manner, formal means of organizing relying on clearly identified leaders, fully prescribed roles, and quantifiable resources are no longer the sole means of contemporary organizing. Because technological innovation permits viable communication and coordination mechanisms beyond those typified by extant organization theory, individual organizations and the processes of organizing are evolving in systematic yet

unforeseen ways. To date, these shifts have not been reconciled in the context of collective action efforts.

We approach these problems by observing that as a first principle, collective action is a communicative phenomenon. Specifically, collective action always includes (1) identifying and connecting people who share a common private interest(s) in a public good, (2) communicating messages to these people, and (3) coordinating, integrating, or synchronizing individuals' contributions. Most theories of collective action make several assumptions about communication: it is necessary, costly, difficult, and time-consuming to persuade individuals not to free-ride and to contribute to the public good. However, the underlying communicative nature of collective action has been little observed in traditional theories. Rather, many approaches to collective action theory proper have conceptualized collective action as a fundamentally economic phenomenon, resting on a rational or quasirational calculus of utility. Social capital theorists have conceptualized collective action as a social psychological phenomenon, resting on a set of attitudes and cognitive resources deriving from membership in networks. Organizational theorists note that organizations lie at the heart of collective action. By providing the infrastructure for initiating and coordinating action, organizations expend resources to overcome obstacles to collective action, and they provide a context for people's attachments to collective goals and processes. Without denying the value of approaching collective action in these ways under certain circumstances, we suggest that a communicative approach offers both greater theoretical purchase on contemporary phenomena associated with emerging technologies, and new ways to integrate and reconcile insights across traditional theories.

Consequently, we reframe collective action as being constituted by a set of communication practices involving the crossing of boundaries from the private to the public realm (Bimber et al., 2005). In other words, collective action is communicative insofar as it entails efforts by people to cross boundaries by expressing or acting on an individual (i.e., private) interest in a way that is observable to others (i.e., public). Traditional collective action theory represents only one, albeit important, subset of dynamics that applies when the boundary between private and public is well-defined and well-maintained. In such instances, communication is costly and intentionally focused, free-riding is a rational choice, and formal organization is often necessary. But these conditions are no longer universally present.

Based on the principle that collective action is a fundamentally communicative process that involves transcending the private/public boundary, we propose a "collective action space" as a way of accounting for the diversity now apparent in collective action that can accommodate both new instances and more traditional forms without confounding technology and organization type. This approach to collective action accounts for the expanding communicative affordances of technology without being premised on technological change or on any particular account of how innovation arises. We are particularly interested in avoiding the problem of confounding technological affordances with ways of organizing, since actors adopt, employ, and transform technologies for a variety of reasons and to a

wide range of effect (Bimber, 1994; Flanagin, 2000). While advanced technology is clearly one route to more permeable boundaries and new forms of collective action, these forms do not strictly depend on technology. Rather, we view innovative uses of technology by certain organizations as useful illustrations of deeper phenomena that are not strictly a function of contemporary technology. Further, many of these "novel" forms are not necessarily new but, rather, reflect alternative ways of organizing that have always been available but only now, when technological developments have enabled more opportunities for these forms to emerge and be sustained, have the dynamics become readily apparent. Our collective action space resolves some of the theoretical puzzles now extant in the various literatures relating to collective action and shows previously unrecognized connections among them.

The Collective Action Space

Collective actions exhibit variation along two dimensions: the mode of interaction used (ranging from personal to impersonal) and the mode of engagement felt (ranging from entrepreneurial to institutional) among participants in collective action efforts. Arrayed orthogonally, these independent dimensions form two axes of *collective action space* that incorporate fundamental features of human behavior: how people interact with one another and the opportunities for engagement afforded them in collectivities. As such, these dimensions constitute a fundamentally *communicative* approach to understanding collective action. Moreover, these two dimensions capture a dynamic set of influences that may weaken or strengthen the nature of boundaries and transitions between the private and public realms, and thereby respectively facilitate or impede collective action. Finally, they incorporate critical dimensions of collective action as expressed in past theory—specifically, theories of social capital and organizational change—and as represented in current collective action efforts. This collective action space is depicted in Figure 1, which illustrates four quadrants of collective action organizing derived from the intersection of the axes. These quadrants help illuminate an implicit structure in collective action that has not been recognized in the literature to date. This structure is the basis for several theoretical observations.

Mode of Interaction

The first axis of the collective action space captures the fact that citizen participation in collective action-related activities can fall along a continuum, labeled *mode of interaction*, which we arbitrarily identify as the horizontal axis of collective action space. Because the mode of interaction is not systematically associated with cultural communication differences, such as collectivism/individualism or high and low power distance, it is applicable to collective actions on a global as well as national or regional scale. *Personal interaction* involves repeated, organized interaction with known others over time and the development of interpersonal relations, in which interaction is centered on sustained relationships with others whose specific identities or personal attributes matter. Such sustained contact may generate "strong" ties

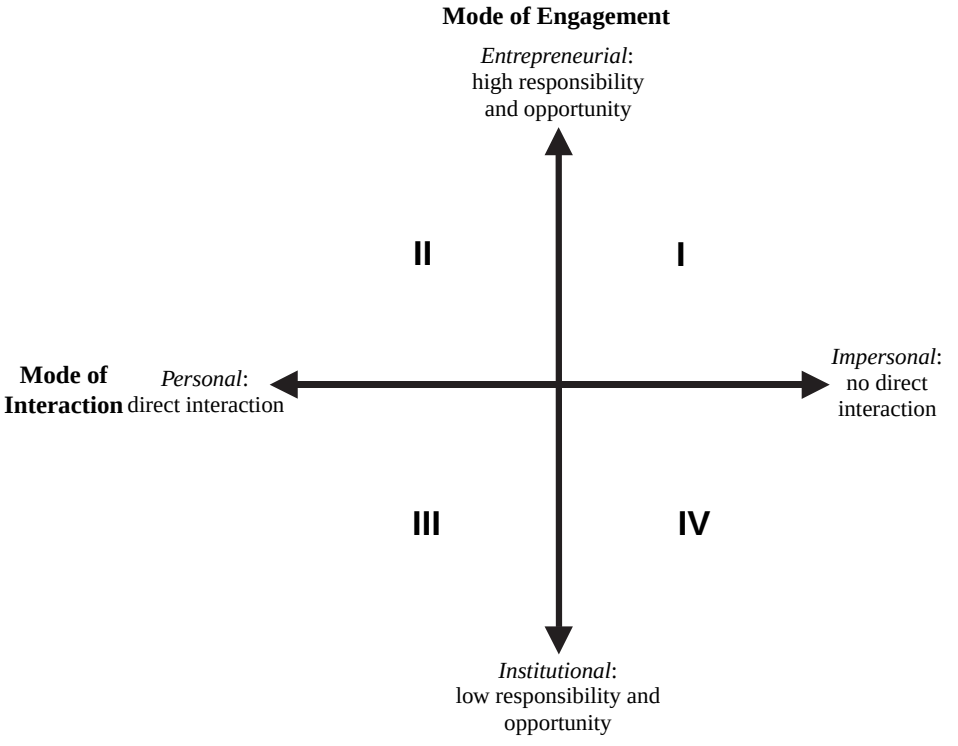

Figure 1 Collective action space.

among interactants, which typically embody mutual trust, shared norms, and close identification (Granovetter, 1973). Strong ties also tend to be homogeneous along relevant attributes, embody additional shared links with significant others, and are multiplex, thus including mutual involvement in other organizational and personal contexts. Moreover, such personal forms of interaction facilitate boundary crossing between the private and public realms.

In this mode of interaction, relational development and relationship-sustaining activities often become central to the purpose of the action or membership, though they need not be the only reason for engagement, as when a civic group such as a chapter of the Masons undertakes charitable activities in addition to regular face-to-face social interaction, or a cultural group such as the London Islamic Cultural Center conducts a food drive. Relationship-oriented activity of this kind may itself constitute relevant collective action, or it may involve the development of skills that are applied in other instances of collective action.

At the other end of the continuum is *impersonal interaction*. This type of interaction emphasizes the expression or pursuit of interests and concerns, and involves no personal, direct interaction with known others. Consequently, individuals remain largely unknown to each other in spite of their shared affiliation. Impersonal interaction tends to reify private/public boundaries and a great deal of effort must be expended to overcome these boundaries. Membership in an interest group such as the

World Wildlife Fund provides one example. Members belonging to this group participate in calls for collective action, such as saving threatened species through "adopting" an animal or protecting and preserving endangered habitats by sending money to support a wetlands reserve. Another example would be participation in World Vision's campaign to distribute food to starving families in Niger. In these types of activities members have no direct contact with other members and members' identities or personal characteristics are irrelevant to other members. Any social benefit or development of personal relationships from happenstance face-to-face contact, such as might occur at a protest or on a march, remain secondary to the goals of the group and its members. Such impersonal contact is sometimes deemed a "weak" tie (Granovetter, 1973), although, theoretically, weak ties are structurally defined within a particular network and represent acquaintances who are not linked or associated with other links in the focal actor's network. We prefer therefore to identify these impersonal relations as "affiliative" ties, rather than weak ties, in order to indicate a sense of common connection that occurs absent direct communication or other known linkages among individuals.

Within collective action literature groups are typically assumed to broker either one or the other distinct mode of interaction. However, it is important theoretically and practically to consider that many collective action organizations have elements of both interaction modes. Amnesty International, for example, is an issue-oriented organization that is designed to motivate its thousands of unacquainted members to become involved in large scale, isolated, noninteractive activities that are anonymous to other group members, such as letter writing campaigns and making individual financial contributions to "urgent actions." At the same time, local Amnesty chapters often have fund-raising activities, such as cookie sales or rock concerts, and regular chapter meetings to discuss strategy and cases. During these activities community members get to know one another, share interests, and often develop strong ties. Some interest groups, such as the Sierra Club, also rely on a chapter-based structure that provides opportunities for regular face-to-face meetings and outings with other members who would otherwise be anonymous. These personal relationships can be more than ancillary to the functioning of the otherwise-impersonal group at the national level as it pursues its interest-oriented agenda.

Other new and compelling examples of hybrid modes of interaction are in evidence. Some new social networking websites, such as Care2Connect, use information about citizens' membership in anonymous interest-based groups to foster the development of personal relationships. Care2Connect, and related groups, identifies citizens living near one another who share various characteristics, including common group memberships, on the premise that two people who both belong anonymously to the same half-dozen interest groups might be interested in personal, relationship-oriented interaction with one another.

Conceptualizing people's engagement in collective-action related activities as falling on a spectrum from personal to impersonal modes of interaction is the first step in forming a larger model of collective action that can accommodate contemporary changes in organizing for collective action. In the literature on social

capital, interpersonal trust, and civic engagement, for example, an ongoing debate is whether anonymous groups, which have grown in number and popularity, are the equivalent of classic relationship-oriented organizations (i.e., those fostering personal interaction that occurs primarily face-to-face). Some suggest social capital can only be developed within the classic personally interactive organizations such as the Masons (Putnam, 1993). Others argue that social capital may emerge from impersonal, online interactions (Lin, 2001). This debate, however, fails to acknowledge that there are many groups that represent hybrids that fall between the two poles. Collective action organizing can be found at any point along the continuum. Moreover, organizational modes of engagement may change intentionally or as a result of exogenous factors. Conceptually, organizations do not have to fit into or be excluded from either the traditional civic-group category or the modern interest-group category. In part, the use of continuous dimensions, as opposed to a typology of discrete forms, for example, can be used to capture the hybrid nature of collective organizing, as articulated in more detail later.

Mode of Engagement

The vertical axis of the collective action space represents the degree to which participants' individual agendas may be enacted within the group context, and the axis ranges from *entrepreneurial* to *institutional*. A great deal of literature about collective action and interest groups assumes a highly institutional organizational structure (Johnson, 1998; Walker, 1991) that constrains the degree to which individual members' agendas are likely to become the focus of the organization's efforts, as well as the form of any collective engagement undertaken. Indeed, collective action organizations often exhibit predictable structures within some broad parameters that are roughly hierarchical and bureaucratic (Bimber, 2003). These Weberian organizational modes have several classic characteristics, including central leadership that can make decisions and rules for the group; the accumulation and expenditure of resources on costly efforts to recruit and mobilize participants; employment of staff in various specialized and fixed roles, from substantive experts to financial managers to legal staff; clear boundaries between the private and public realms of social life; formal coalitions and institutional commitments; and the attachment of priority to protection and maintenance of the organization itself over time. A great array of collective action organizations fit some variant of this model, from the American Association of Retired Persons (AARP) to the National Rifle Association (NRA), Oxfam, and Doctors without Borders.

However, particularly in recent decades alternative forms of organization deviating from the bureaucratic type have also been well articulated (Davidow & Malone, 1992; Drucker, 1988; Fulk & DeSanctis, 1999; Galbraith & Kazanjiam, 1988; Heckscher, 1994; Nohria & Berkley, 1994; Powell, 1990). A consequence of these new forms is that collective action may be structured around the horizontal flow of communication and information among a greater diversity of individuals, occupying a greater diversity of organizational roles, through space and time (Monge & Contractor, 2003). Moreover, network-based collective action groups may exhibit many of the

classic characteristics of network forms and comparatively few of those associated with bureaucracy (Fulk, 2001). In such cases, fixed leadership and stable internal roles are less important, as are accumulated material resources. Boundaries are defined by communication patterns rather than by flows of material resources, and comparatively less effort is directed at protection and maintenance of the network as a structure over time. Consequently, opportunities, strategies, and commitments become relatively entrepreneurial, in that individual members enjoy both high opportunity and high responsibility with regard to both the agenda for, and the form of, collective action efforts.

Although it has been common in literature on organizations to portray differences between bureaucratic and network-based organizations in terms of variation in structure, we conceptualize the important variable as the *mode of engagement* among participants. Doing so emphasizes how people are engaged with the objectives and processes of the collective, not the observable structure of the collective itself. The two are often strongly correlated (Weick, 1979)—how people are engaged and what form the organization takes—but it is theoretically advantageous to maintain a focus on the actions of people rather than on the form or structure into which they fit. In some instances, people's engagement follows an *entrepreneurial* mode, in which participants have a high degree of autonomy and may design collective action in ways that are not sanctioned or controlled by a central authority. In the entrepreneurial mode, participant engagement is not well bounded by the constraints or rules of action associated with the organization or group. Coalitions are idiosyncratically enacted and likely to be short-lived. Self-organizing mechanisms predominate, whereas bureaucratic mechanisms of coordination and control are minimal. Individuals can move easily and are more likely to bridge the divide between the private and public realms. The circulation via e-mail forwarding of petitions and "signature" lists addressing policy issues is an example. Another is the network of protestors that converged on Seattle in 1999 during the meeting of the World Trade Organization (WTO). This loose coalition of environmental, human rights, antiglobalization, and antiestablishment supporters had the goal of expressing common opposition to trade policies pursued by the WTO, but lacked a central organization.

By contrast, *institutional* engagement involves a patterned set of normative rules of engagement, and practices that are expected to be followed by all participants. When action occurs in the institutional mode, individuals are embedded in a larger system that defines and controls opportunities for engagement. Organizational hierarchy—such as the classical Weberian ideal-type—plays a key role in influencing the shape and form of engagement, while also serving to reduce volatility.

An institutional mode of engagement situates members' actions in the framework of "what is good for the organization" as it is determined by central leadership rather than by the members themselves. When an environmental group, for example, issues a call to action by direct mail, e-mail, or in newspaper advertisements for members and interested citizens to send a letter to their member of Congress about an issue, the group is providing a formalized role for participants. This kind of collective action involves little initiative, creativity, or control on the part of individuals, and is

best thought of as collective action *by response to a request* initiated centrally. Collective actions that fall at this end of the continuum are more likely to have developed organizational routines, procedures, and artifacts that are intended to introduce members to the official organizational mission and standards of procedure. Formal communication artifacts such as magazines, newsletters, and annual reports function as socialization mechanisms providing members guides to the values, rules, and obligations of membership. Informal communication mechanisms, such as organizational stories and rituals, help develop an organizational memory that is collectively shared, mutually accepted, and a stable and influential force on member practices.

Institutional engagement also tends to develop enduring coalitions with other organizations for the purposes of furthering the organizational agenda. These institutional commitments often mediate organizational communication practices, constraining what members can and cannot do. For example, if a group is registered as a nonprofit or nongovernmental organization it is often subject to Federal regulations regarding donations, expenditures, reporting procedures, and organizational transparency. The Nuclear Age Peace Foundation, for instance, a registered nongovernmental affiliate, has consultative status to the United Nations and is designated by the United Nations as a Peace Messenger Organization. Members of this organization have severe restrictions on how to develop their own agenda or practices. Prior experience and expertise become more salient under these circumstances, as organizations need to maneuver within an interorganizational bureaucratic environment that requires special skills and knowledge.

As is the case with the mode of interaction, organizations may exhibit hybrid engagement, illustrating both institutional and entrepreneurial modes. An example is the presidential campaign organization of Howard Dean in 2003. In this case, a central campaign staff, with a hierarchical structure of roles and responsibilities, central strategic decision making, and a very important resource-accumulation effort combined with a free-wheeling, uncoordinated, network-based periphery that involved coalitions of poorly bounded local and regional groups, weblog (i.e., "blog") communities, and Meetups that were explicitly uncoordinated from the center. The Dean campaign thus illustrates a compelling instance of hybrid organizations that are extremely important theoretically. Rather than constituting mere outliers that do not fit theories, these hybrids represent an important area of change and development in collective action today. Indeed, such possibilities for change in the modes of interaction and the mode of engagement set the stage for more accurate conceptualizations of contemporary collective action.

In summary, the two dimensions of the collective action space—mode of interaction and mode of engagement—capture the traditional focus on organizational relations and structures, but are different insofar as their internal/external organizational boundaries are not drawn a priori. Organizations are not distinguished by their formal or informal characteristics, as many organizations have at least some of both, but rather by the ways in which personal relations and activities are enacted. In other words, our theory of the "organization" of collective action

focuses on what people do and how they communicate rather than on organizational structure per se. It is the signal characteristic of collective action in the contemporary environment that form is flexible and may be adapted to fit context. Most traditional conceptions of structure emphasize semifixed, predictable organizational structure and examine how these shape behavior (for exceptions see, for example, Weick, 1979); contemporary collective action requires working as much the other way causally: emphasizing what people are doing, how they are relating to one another, and what opportunities are afforded them, and from these examining what organization and structure fit their behavior and help facilitate collective action.

These two dimensions provide a meaningful space for comparing members' experiences of collective action across both "traditional" and new modes of organizing (Figure 2 illustrates the approximate location of selected organizations). For example, on an upward diagonal through the intersection of the axes (from left to right), one can compare the American Legion and the WTO protest network. These differ on both dimensions: The American Legion (quadrant III) is a chapter-based organization with strong in-group identity, sustained social interaction over time, a patterned set of normative rules of engagement and routine practices, and formal and informal mechanisms for socialization; the WTO group (quadrant I) was primarily a loose, ephemeral, unbounded, self-organizing coalition of extant and new networks. On an upward diagonal through the intersection of the axes (from right to left) one

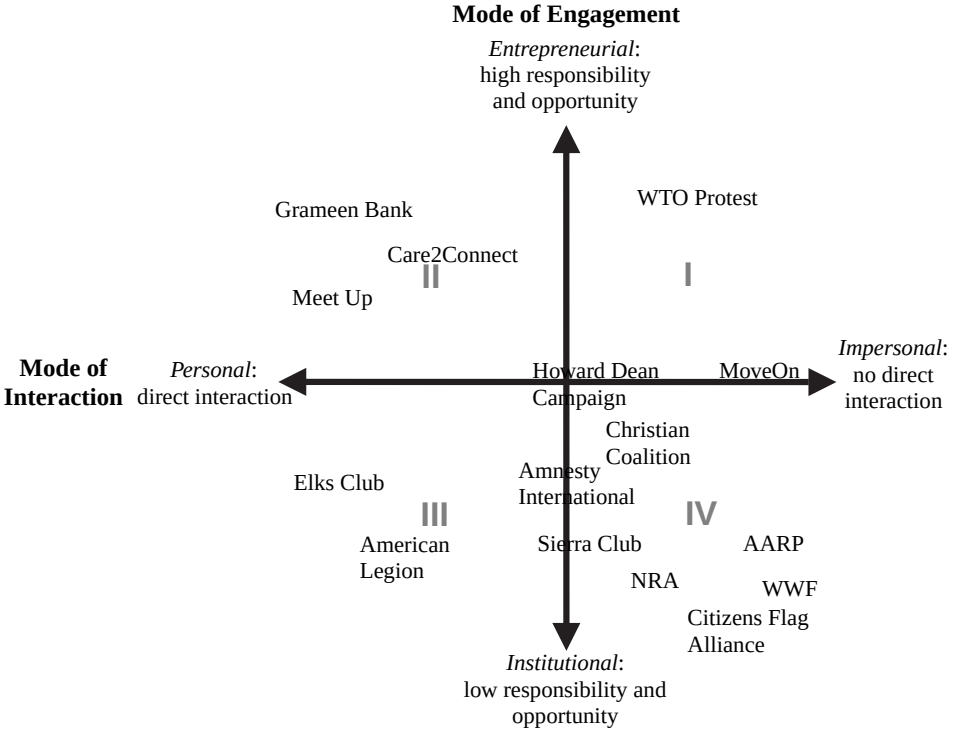

Figure 2 Groups in collective action space.

can compare quadrant IV organizations, such as the National Rifle Association (NRA) to quadrant II organizations such as Care2Connect. Quadrant IV organizations will likely exhibit the most rigid private/public boundaries. The high costs of transcending these constraints will help reproduce the characteristic concerns of collective action theory (i.e., discrete and intentional free-riding decisions, reliance on formal organizations). Quadrant II organizations will likely be the least rigid and most permeable. Collective action in this quadrant is least likely to exhibit or produce traditional constraints or forms of collective action.

The space also enables the exploration of each dynamic separately. For example, the theoretical and pragmatic implications associated with entrepreneurial and institutional modes of engagement can be compared across organizations or pairs of organizations. For example, the WTO protest network and Meet Up, which are similar in their entrepreneurial practices but different in the degree of personal interaction (quadrants I and II), compare with the Masons and the NRA, which share similar institutionalized communication practices but which differ in degree of personal interaction among members (quadrants III and IV). Through such applications, the characteristic dynamics of the collective action space are explored next.

Theoretical Features of the Collective Action Space

Several theoretical dynamics become apparent when collective action is considered in this way. These are: (1) the changing population density of groups across the quadrants over time; (2) variation and change in the area occupied by any one group over time; and (3) variation in the experiences and motivations of people engaged in collective action across the quadrants.

Changing Population Density Across the Quadrants Over Time

Theoretical work on the distribution of collective action groups has focused almost exclusively on the kinds of public goods sought, and especially on the disproportionate representation of certain interests in the collective action system (Baumgartner & Leech, 1998, 2001; Schattschneider, 1960; Schlozman & Tierney, 1986). Explanatory mechanisms addressed to the composition of collective action groups have rested on factors such as the behavioral predictors of civic engagement, economic power, strategic choices by groups to occupy niches in the context of competition, and the structure of policy-making institutions on which groups are often focused (Baumgartner & Leech, 2001; Goldstein, 1999; Gray & Lowery, 1996; Heinz, Laumann, Nelson, & Salisbury, 1993; Walker, 1991).

The collective action space model provides a new pair of dimensions for theorizing about causes of the distribution of collective action. In particular, it highlights mechanisms by which some quadrants should be expected to grow more densely occupied over time. One consequence of the increasing permeability of boundaries between private and public domains over time should be an increase in the occurrence of entrepreneurial engagement, which entails increasing density in quadrants I and II. As boundaries are more easily crossed between private and

public, the mechanisms of collective entrepreneurship become available to a larger array of actors, especially those with fewer resources. Digital technologies are able to augment, with relatively low cost to most users, the intensive coordination challenges of collective action in flexible and self-organizing structures. Emerging media, in the form of avatars, "knowbots," and other digitized "intelligent agents," for example, can become active knowledge creators, performing organizing and coordinating functions that remain essential in highly entrepreneurial collective action efforts but traditionally are carried out by organizational actors in formal roles in face-to-face contexts (Contractor, 2002). Technological innovation thus facilitates viable actions in the upper entrepreneurial quadrants and collective action becomes more likely to be comprised of loosely coupled systems with minimal central organization and greater autonomy for members. Coordination costs are not only lower but less necessary, centralized leadership is being displaced, hierarchies are minimized, and technical expertise substitutes for leadership skill and experience. Furthermore, in this mode of engagement small and large organizations can more easily tailor side payments and incentives to individual needs as well as reduce the cost of participation, minimizing traditional concerns regarding free-riding. In this manner, the invention of new technologies, the end of existing organizational arrangements, and the rise of new organizational forms are linked.

Some groups exhibiting entrepreneurial modes of engagement do so without reliance on modern technology, such as the Grameen Bank, established in 1983 in Bangladesh, because they are unable to exploit the advantages of new communication technologies for reasons of accessibility and economics. Such groups rely almost exclusively on informal networks and personal interaction for their entrepreneurial engagement (quadrant II; see Bornstein, 1997). But for many newer groups now located in these quadrants, such as MoveOn and Meet Up, the affordances of technology permit these new modes of engagement. Thus, although technology is not a necessary condition of quadrants I and II, there is strong evidence that technological innovations contribute to the increasing density of this half of the space.

As a consequence, the "once uncontroversial assumptions" (Lupia & Sin, 2003, p. 315) of collective action theory regarding the need for formal organizations and leadership are no longer tenable. At the organizational level there is no longer a need for large budgets, and communication is no longer necessarily costly, difficult, time consuming, or as limited by cognitive constraints of individuals. At the membership level, lower costs of participation suggest there may be less free-riding but also less commitment to and identification with the group. Members have greater ability to define and control their involvement, hence the intensity of interaction and the number of members may also wax and wane.

Invoking the collective action space also sheds light on the unresolved relationship between size, organizational dynamics, and free-rider issues within collective action theory. On one hand, Olson (1965) claimed that collective free-riding would be more rampant in large groups wherein it would be assumed that sufficiently motivated and resourceful individuals would take charge, and where free-riding would be difficult to

observe. Marwell and Oliver (1993; Oliver & Marwell, 1988), however, suggest that larger, heterogeneous groups are actually *better* able to supply nonrival public goods, due to the smaller critical mass of contributors required for successful collective efforts.[1] The two dimensional collective action space introduced here resolves the issue of size, insofar as size of collective action groups is less relevant to the modes of interaction and engagement, which instead are the focus of explanation. The issue of the visibility of individual contributions, for example, becomes salient only when interactions are predominately impersonal and institutionalized. In the entrepreneurial/personal modes, by contrast, social connections will tend to minimize free-riding because of increased visibility and responsibility.

Other trends affecting the distribution of groups over time involve movement of extant groups. Those in quadrants III and IV should prove more stable than those in quadrants I and II. The reasons for this are straightforward: High costs are associated with location in quadrants III and IV. Building organizations in these quadrants is difficult and expensive, and so such organizations are infrequently established for temporary purposes or single efforts. On the contrary, they are built over time, and an important consideration in the strategic choices of groups located in these quadrants is how to sustain the group across individual events or efforts. On the other hand, groups are comparatively inexpensive to establish in quadrants I and II. This facilitates the building of groups for single collective action events, and it contributes to potentially greater volatility in the upper quadrants. In these parts of the space, groups should be expected to come and go more rapidly than in the lower quadrants.

Another result of this model is counter to traditional organizational theory, which predicts that organizations generally become more institutionalized over time (Jablin, 1987). In terms of collective action space, this amounts to a prediction of downward movement along the vertical axis. For example, the Million Mom March moved down the vertical axis by merging with a quadrant IV group, The Brady Campaign to Control Gun Violence. This has enabled this group to formally lobby Congress and develop systemic long-term national campaigns while simultaneously maintaining an entrepreneurial mode of interaction amongst members. Yet, technological affordances make viable collective action sustainable above the horizontal axis, and indeed lead to the prediction of increasing stability there. In practice we find examples such as the WTO network, which arose in quadrant I, was successful at a single goal, experienced no apparent impetus to institutionalize, then dissolved and reappeared later for subsequent events.[2]

Variation in the Area Occupied by Groups

In two-dimensional collective action space, all groups occupy some theoretically specifiable area. Some groups occupy small "footprints" in collective action space, meaning that they offer little variation in the mode of engagement or interaction. In a small-footprint group, all participants interact with one another and engage in the collective process in similar ways, with the limiting case being a point at which all participants have identical forms of engagement and interaction. Many interest

groups, such as the World Wildlife Fund (WWF), are good examples of small footprints. WWF membership is anonymous, and the group offers no substantial opportunity for participants to interact in any personal way, despite their utilization of new technologies and their impressive presence on the web. Moreover, members are afforded few entrepreneurial opportunities: The group establishes opportunities for engagement only through donating or contacting public officials. Similarly, the Citizens Flag Alliance provides resources for individuals who support the passage of the Flag Desecration Amendment to the US Constitution (e.g., pointers on contacting news media or political representatives), without providing mechanisms for interaction among these individuals, or any entrepreneurial means of action or goal formulation.

The area in collective action space occupied by other groups is larger, because they offer variation in opportunities for engagement and interaction. The Sierra Club offers a useful illustration. Like members of the World Wildlife Fund (WWF), Sierra Club members can choose to engage strictly in impersonal, institutional modes by simply responding to calls for action in an environment of anonymity with respect to other members. But the Sierra Club's chapter-based structure also provides a variety of opportunities for members to meet with one another at the local level and engage in social as well as political activities—especially outings in nature in small groups. These activities entail a good deal of personal interaction and only a modest level of entrepreneurial activities; local activities are still managed and organized by local group leaders, but they involve more opportunities for entrepreneurialism than traditional national-scale membership groups. Thus, the Sierra Club occupies a larger footprint in collective action space.

In theory, the area occupied by a group might be discontinuous. An example of this might be the complex footprint of the Howard Dean campaign for president discussed earlier. The Dean campaign appears to have begun at two distinct locations in collective action space. The official Dean campaign in early 2003 was located in quadrant IV, the typical location of election campaigns. It offered mainly institutional, mainly anonymous modes of engagement, but with some opportunities for volunteership and personal interaction. By the middle of the year, people not connected officially with the campaign initiated a variety of personal, entrepreneurial modes of engagement on behalf of Dean. These activities involved meet-ups that were located in quadrant II, and blogs and other websites, which for the most part were located in quadrant I and were reported to number about 900 (Wolf, 2004). Within a few months during the middle of the year, the Dean campaign embraced and encouraged these independent activities. Without exerting any centralized control over them, the quadrant IV campaign endorsed and supported them by providing links to the unofficial activities in quadrants I and II, and Dean himself reported using the content of blogs as feedback on his speeches and campaign appearances. During the campaign, in October, Howard Dean described the process: "If I give a speech and the blog people don't like it, next time I change the speech" (Wolf, 2004, par. 1). By late in 2003, the official and unofficial Dean campaigns had amalgamated into a complex collective action process with elements in all four quadrants.

The actual location and area of any real group in collective action space presents an interesting empirical question. Our examples here are intended to be theoretically illustrative but, in practice, specifying location and area is made complex by several characteristics. Not only are some groups likely to move or change area over time, but elites in an organization may hold a different view of location than would be demonstrated by measurement of the behavioral experiences of actual participants. Disjunctions between the beliefs or desires of leaders and the actual measured experiences of participants, for example through survey research, are intriguing. It is likely that the greater the heterogeneity of substantive membership and goals in a collective action group, the greater the likelihood of a mismatch between elite and participant views about the group's own location. Mismatch may have implications for success and innovation within the group. Also, leaders of a group may face incentives to present location variously to different constituencies. To their own members, institutional and impersonal groups often seek to appear entrepreneurial and personal; to targets of collective action such as policy makers, groups may face incentives either to appear institutional or entrepreneurial.

A further complexity in establishing any particular group's empirically verifiable location arises from the fact that what constitutes the boundaries of any particular group may vary across issues or events. In one instance, some national collective action organizations, such as Environmental Defense, have emphasized the practice of mobilizing subgroups around particular regional public-goods questions (Bimber, 2003). To the extent that this practice of targeted collective action brings with it differentiation in the mode of engagement and interaction that various members experience, it may mean that the working location and area of a group vary by issue. To the extent that shape, area, and location may have consequences for the kinds of public goods readily attainable, for the development of thin ties or social capital, or for the generation of social identities, then predictions from the dynamics of collective action space may tie to a range of theoretically interesting phenomena.

Variation in Members' Experiences and Motivation Across the Quadrants

The changing distribution of groups in collective action space is also related to important changes at the level of individual citizens. As our interpretation of social capital theory above suggests, people heavily engaged in quadrant III activities are likely to derive a different set of resources than those engaged exclusively in quadrant IV. As useful as the social capital construct is, however, it does not provide a purchase on the differences along *both* axes because of its singular concern with the personalness of ties. A better concept is that of strong and weak ties (Granovetter, 1973). The type of ties involved in various locations of collective action space varies in a systematic way. Quadrant III sustains strong ties through personal interaction in formalized structures. Quadrant I, its diagonal opposite, is the domain of weak ties, where citizens engage in thin, impersonal interaction with sometimes very large networks of others.

The remaining two quadrants are intriguing. Early in the development of the internet, when visible new forms of personal interaction appeared in online settings, a

number of critics argued that strong ties of community could not be established or sustained online (Stoll, 1995). This argument, however, has also come under substantial question by scholars who have demonstrated the existence of a variety of forms of strong-tie relationships online (Rice & Love, 1987; Walther, 1996). We characterize quadrant II as a domain of both weak and strong ties, reflecting the variety of experiences people have in entrepreneurial, personal settings. Quadrant IV differs in that it involves neither strong nor weak ties. Rather, it is best characterized as a zone of "affiliative" ties, as already mentioned. Members of groups in this quadrant typically never see or interact with one another, and have essentially no opportunities for exploiting their common affiliation in strategic or intentional ways. Indeed, two members of the same quadrant IV group may feel the same sense of affiliation with the group and other unknown members, but have neither strong ties to them nor weak-tie networks that they can employ.

Carrying this network logic forward further demonstrates that specific tenets of collective action theory are outmoded. For example, the degrees of members' long-term commitments to collective action organizations have typically been seen to result from the strong ties developed in quadrants II and III. Homogeneity has been associated with quadrant III. But now the ability to socialize members and tailor organizational messages to member characteristics is possible across all four quadrants. Thus, organizational commitment and homogeneity may no longer be associated with organizational location in the collective action space.

Relevant Theoretical Integration

The dynamics implied by the collective action space presented here help resolve some of the theoretical problems identified at the outset. The first of these involved traditional collective action theory, which is challenged by the presence of collective efforts lacking formal organization and discrete free-riding calculations. Classic collective actions are often the domain of certain communicative conditions, namely those found most predominantly in quadrant IV. However, scholars suggest that new technologies have created an environment in which time and space are compressed, events are disembodied from location, and geographic borders and personal boundaries are easily transcended (Giddens, 1990). The personal computer, portable computing and communication devices, electronic mail, the Web, peer-to-peer tools such as Napster and its progeny, chat rooms, web logs, cell phones, mobile messaging, and digitized databases are suggested to have contributed to increasingly decentralized information sharing and processing, mediated means of self-organization, and the blurring of private and public boundaries (Bimber et al., 2005). As Bimber et al. (2005) argue, contemporary collective actions do not always exhibit what have been theoretically foundational aspects of collective action. Rather, emerging communication technologies enable easy and sometimes even unintentional transitions from private to public domains, reducing or negating the need for closely coordinated participation and costly contributions.

Under these conditions, coordination costs can be drastically reduced and organizational demands can be met through loosely coupled networks without reliance upon fixed hierarchies or formal organizational infrastructures. Moreover, collective actions may emerge spontaneously from interactive processes rather than from the explicit pursuit of a goal, and the free-riding metric is neither obvious nor consciously constructed. New approaches to collective action thus need to include those situations where the boundaries between the private and public domains are permeable, porous, and easily transcended. From this perspective, collective action represents a broader range of theoretical possibilities beyond situations where there are solid, well-demarcated boundaries between private and public.

One can also gain insight into theoretical problems associated with social capital theory using the collective action space. Putnam (1993, 2000), for example, argues that we are witnessing a decline in social capital in the US, from a personal mode of interaction to an impersonal one. Putnam's focus is particular, on the kinds of groups to which people belong. He notes that at the same time that relationship-oriented groups, many of which date from the American industrial revolution and Progressive eras, have suffered nearly universal declines in membership (often declining 50% from peak twentieth-century levels), anonymous interest-oriented groups have grown rapidly. Environmental groups, civil rights groups, groups on both sides of the gun control debate, identity groups for seniors and members of particular racial or ethnic categories, and others have gained members, funding, influence, and visibility on the American social and political scene. These groups involve typically anonymous membership, the exchange of some kind of value such as dues for political representation or information and newsletters, but typically no personal interaction or accountability among members. The absence of personal interaction is believed by Putnam to be substantial and ominous for society, although this claim is doubted by others (Edwards, Foley, & Diani, 2001; Paxton, 1999; Schuller, Baron, & Field, 2000).

Putnam is describing a decay in the vitality of quadrant III combined with the growth of quadrant IV. He has evaluated the consequences of the Internet for social capital and has come to rather ambivalent positions, claiming, for instance, that "very few things can yet be said with any confidence about the connection between social capital and Internet technology" (Putnam, 2000, p. 170). Others have been less equivocal. Wellman, Quan-Haase, Witte, and Hampton (2001) note a positive correlation among internet use and involvement in both online and offline voluntary organizations and political activity. Lin (2001) and others argue that there is "clear evidence that social capital has been on the ascent in the past decade in the form of networks in cyberspace" (p. 211). Resnick (2005) goes even further, suggesting that new technologies enable "sociotechnical capital," where information technology helps people connect with information and other people, and share and exchange resources and coordinate interdependent action. "Introducer" and "recommender" systems, for example, match people on the basis of common values, matching tastes, and similar sensibilities, all important in the early identification stages of collective action. Similarly, reputation systems help establish trust and credibility, important components of collective action. This suggests the possibility that social capital can

be built just as readily in quadrant II as III, because of the high level of personal interaction in both. Moreover, it implies that the features of quadrant I for the development of affiliative ties and information-richness may also lead to socially productive networks with norms and shared values and some bases for social trust even in the absence of traditional personal ties.

A major problem in this debate so far has been the confounding of different definitions of social capital and the failure of scholars to recognize the distinctions among quadrants with regard to social capital. When social capital refers to the institutions, relationships, and norms that shape the quantity and quality of a society's social interactions, then social capital is most likely to be developed within quadrant III and IV organizations. It is in these quadrants that strong and affiliative ties enhance the emergence of shared norms and relational trust. Any organizational movement from these lower quadrants to the top will therefore minimize social capital, since the new modes of participation will be more likely to develop weak ties and less likely to evoke a homogeneous value system. Definitions such as that proposed by Putnam ("connections among individuals—social networks and the norms of reciprocity and trustworthiness that arise from them," 2000, p. 19) even more restrictedly assume that it is only personal interaction that enables people to build communities and develop a sense of belonging, trust, and commitment. Therefore, even the movement from quadrant III to quadrant IV is problematic for civic engagement. Yet, the prevalence of contemporary collective action efforts suggests that social capital has developed in other ways within the entrepreneurial and impersonal modes that have not yet been identified or fully articulated.

Theories of organization have a similarly direct relationship to the dynamics of collective action. Two main precepts are relevant, the first of which involves new possibilities for engagement. Toward the end of the twentieth century scholars and practitioners alike took note of radically new forms of organization that were developing (e.g., Nohria & Berkley, 1994; Powell, 1990). Network forms of organization, for example, are considered to be the archetypal new organizational form, enabling organizations to rapidly adjust and maintain flexibility to meet the volatile demands of change within the global system (Stohl, 2001). Organizations are increasingly turning to network forms that stress complementarity, relational communication, interdependence, and high trust over more contractual or formal relations (Miles & Snow, 1984, 1986; Powell, 1990). These new forms transcend traditional boundaries (personal, national, institutional) and are built around symbolic, informational, and material flows that link people together, often for short periods of time. In other words, the formal, centralized organizations with identified leaders, prescribed roles, and quantifiable resources that are fundamental to collective action theory are no longer the only, nor even the primary, means of contemporary organizing.

This evolution is captured in the collective action space in the following way. Dynamism in organizational structure represents increasing density upward, rather than downward, along the vertical axis of collective action space. Theoretically, the mechanisms for this are twofold: Quadrant III and IV groups spread their footprints

upward by providing new opportunities for engagement and interaction to their members; and the emergence of new groups centered in quadrants I and II may either persist there or disband without experiencing traditional downward movement. This argument is analogous, though not precisely parallel, to the social capital argument about the historical shift in the US (but not all other nations) from quadrant III to IV since the 1960s.

The second precept of research on organizations is that over time organizations tend to become more formal and embedded within and constrained by inter-organizational relationships (Aldrich, 1979). Traditionally, organizational dynamics were expected to move from informal face-to-face contexts to more formal and impersonal modes of engagement (Hage, 1980), thus moving down and to the right in the collective action space. Activity coordination and control are critical issues in maintaining an association (Barnard, 1938) and control is associated with organizational predictability and reproducibility (Ritzer, 2001). In other words, as organizations get larger and older, they become more bureaucratic and structured (Hickson, MacMillan, Azumi, & Horvath, 1979).

Institutional theory (DiMaggio & Powell, 1983; Scott, 1995; Scott & Christensen, 1995; Scott & Meyer, 1994) is instructive for exploring at least one way in which the collective action space helps enrich understanding of collective action organizing. Institutional theory posits that "organizational environments elaborate rules and requirements to which individual organizations must conform if they are to receive support and legitimacy" (Meyer & Scott, 1983, p. 149). DiMaggio and Powell (1983) go further, suggesting that the "startling homogeneity of organizational forms and practices" (p. 148) is a result of both competitive isomorphism, which assumes a rationality that emphasizes market competition, niche change, and fitness, and institutional isomorphism. Institutional changes occur through three communicative mechanisms: Coercive mechanisms stem from political influence and legitimacy and may be felt as force, as persuasion, or as invitations to join in interorganizational alliances. Mimetic processes (e.g., modeling after other organizations) result from standard responses to uncertainty. Normative mechanisms are associated with professionalization, the formal education of the managerial class, and the development of an interconnected matrix of information flows and personnel movement across organizations. In terms of the collective action space, these processes suggest that individual collective action organizations should exhibit a tendency to shift downward over time along the vertical axis.

Yet, as we have argued, there is evidence of collective action organizations not becoming more formal and embedded within interorganizational relationships. The political advocacy group MoveOn is an example, especially with respect to lack of formalization. Formed in 1998 by political novices seeking to organize a protest of the impeachment proceedings against President Clinton, the group succeeded in mobilizing about a half-million people to write Congress (Bimber, 2003). Seven years later, MoveOn proved a substantial force in the 2004 presidential election, with a self-reported 3 million members. Clearly larger in membership and influence, MoveOn still has no office or headquarters. Despite the increased uncertainty, need

for partnerships, and lobbying efforts, there is ample evidence that coordination is less centralized, top-down leadership is being displaced, hierarchies are minimized, and technical expertise effectively substitutes for leadership skill and experience. Indeed, partnerships and collaborations are often ad hoc, ephemeral, and volatile. This dynamism in organizational structuring represents a population flow mainly upward along the vertical axis of collective action space.

Moreover, the collective action space illustrates that although organizations are adopting more entrepreneurial modes of interacting (moving upwards along the vertical axis) they are not necessarily giving up institutional modes. Rather, boundaries between modes are becoming blurred. Organizations operate in less unidimensional and more complex ways (Castells, 1997). Thus, not only is the population of groups changing locations in faster and more diverse ways than traditional collective action or organizational theory suggest, but individual organizations are also evolving in systematic yet unforeseen ways.

In this manner, theories of collective action, social capital, and organizations intersect in fundamental ways in the two dimensions of collective action space. Combined in this way, these theories suggest a great deal of dynamism and change at present in the landscape of collective action. This dynamism has up to this point been recognized independently in these literatures, or has been attributed loosely to technological change without clear connections to basic behavioral processes enabled by technology that need not be necessarily connected to technology. Most importantly, the dynamics of collective action space reveal that apparently disparate phenomena reported by scholars working in various disciplines and on apparently distinct topics—social capital trends, technology and collective action, organizational change—are in fact different facets of the same underlying process: changes in the modes of human interaction and engagement in collectivities.

Conclusion

Our observation of changing collective action associated with technology, and the inadequacy of existing theory to account for it, was the initial stimulation for this exploration. Our approach to the problem involved setting aside for the moment the classic explanatory mechanisms of collective action theory: free-riding problems and the capacity of organizations to marshal various resources to overcome those problems. Having set them aside temporarily, we posited that the key processes at work involved what we believe to be fundamental features of human behavior that are inherently communicative in nature: how people interact with one another and the opportunities for engagement afforded them in collectivities. This led us to recognize that these same underlying processes appear central to other established claims—about social capital and organizational change.

The unity we find among these various bodies of thought may in fact extend further. The collective action space model does not imply that everything is collective action, or that all of social capital or organizational change can be understood as collective action. On the contrary, we have been concerned here simply with the

production of public goods and how public goods production relates to other theories. However, we suspect that modes of interaction and engagement characterize a much broader class of human behavior, and may in fact provide a means for identifying connections across a variety of private actions and various social and public processes.

Notes

[1] Specifically, Marwell and Oliver (1993; Oliver & Marwell, 1988) argue that when groups are heterogeneous and the public good is highly nonrival (i.e., its use by one person does not diminish its value to other users), larger interest groups can have a smaller critical mass. This is the case because large, heterogeneous groups (versus smaller, homogenous ones) contain "more total resources and larger numbers of highly interested people" (Marwell & Oliver, 1993, p. 46). Therefore, it is more likely in such groups that people will have more resources to contribute, thus increasing the total contributions and reaching critical mass sooner. However, if the cost of a public good increases in proportion to the number of those who benefit from it, larger groups are less likely to supply public goods, as Olson (1965) argued. Most public goods with low nonrivalness (i.e., use by one person diminishes the value to others), though, are also highly excludable, and thus constitute private versus public goods.

[2] The formation, maintenance, evolution, and dissolution of interorganizational relationships (IORs) complicate charting the distribution of groups over time and predicting the movement of extant groups. As Oliver (1990) argues, there are several determinants of IOR formation (necessity, asymmetry, reciprocity, efficiency, stability, and legitimacy), all of which may apply to collective action organizations under the right circumstances. As one example, in the case of the Million Mom March merging with The Brady Campaign to Control Gun Violence group, these groups enjoyed a reciprocal relationship where each benefited from coalition building as a result of the merger. Thus, the formation of IORs can alter a group's location and degree of variation in both the mode of interaction and the mode of engagement, in many cases quickly and radically. Moreover, depending on the nature of the IOR, such alterations may be short term (e.g., a strategic alliance) or long term (e.g., a federation).

References

Aldrich, H. (1979). *Organizations and environments*. Englewood Cliffs, NJ: Prentice Hall.

Alexander, S. C., Peterson, J. L., & Hollingshead, A. B. (2002). Support at your keyboard: A study of on-line support groups. In L. Frey (Ed.), *Group communication in context*, Vol. 2 (pp. 309–334). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Barnard, C. (1938). *The functions of the executive*. Cambridge, MA: Harvard University Press.

Barry, B., & Hardin, R. (Eds.). (1982). *Rational man and irrational society*. Beverly Hills, CA: Sage.

Baumgartner, F. R., & Leech, B. L. (1998). *Basic interests: The importance of groups in politics and in political science*. Princeton, NJ: Princeton University Press.

Baumgartner, F. R., & Leech, B. L. (2001). Interest niches and policy bandwagons: Patterns of interest group involvement in national politics. *Journal of Politics*, *63*, 1191–1213.

Bimber, B. (1994). Three faces of technological determinism. In M. R. Smith & L. Marx (Eds.), *Does technology drive history? The dilemma of technological determinism* (pp. 79–100). Cambridge, MA: MIT Press.

Bimber, B. (2003). *Information and American democracy: Technology in the evolution of political power*. Cambridge, UK: Cambridge University Press.

Bimber, B., Flanagin, A. J., & Stohl, C. (2005). Reconceptualizing collective action in the contemporary media environment. *Communication Theory*, *15*, 389–413.

Bornstein, D. (1997). *The price of a dream: The story of the Grameen bank*. Chicago: University of Chicago Press.

Castells, M. (1997). *The rise of the network society*. Oxford, UK: Blackwell Publishers.

Chamberlin, J. (1974). Provision of collective goods as a function of group size. *Political Science Review*, *68*, 707–713.

Coleman, J. S. (1990). *Foundations of social theory*. Cambridge, MA: Harvard University Press.

Connolly, T., & Thorn, B. K. (1990). Discretionary databases: Theory, data, and implications. In J. Fulk & C. Steinfield (Eds.), *Organizations and communication technology* (pp. 219–233). Newbury Park, CA: Sage.

Contractor, N. (2002). Introduction: New media and organizing. In L. Lievrouw & S. Livingston (Eds.), *Handbook of new media* (pp. 201–205). London: Sage.

Davidow, W. H., & Malone, M. S. (1992). *The virtual corporation*. New York: Harper Collins.

Deetz, S. (1992). *Democracy in an age of corporate colonization: Developments in communication and the politics of everyday life*. Albany, NY: State University of New York Press.

DiMaggio, P., & Powell, W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, *48*, 147–160.

Drucker, P. F. (1988). The coming of the new organization. *Harvard Business Review*, January–February, 45–53.

Edwards, B., Foley, M. W., & Diani, M. (2001). *Beyond Tocqueville: Civil society and the social capital debate in comparative perspective*. Hannover, NH: Tufts University Press.

Flanagin, A. J. (2000). Social pressures on organizational website adoption. *Human Communication Research*, *26*, 618–646.

Fulk, J. (2001). Global network organizations: Emergence and future prospects. *Human Relations*, *54*, 91–99.

Fulk, J., & DeSanctis, G. (Eds.). (1999). *Shaping organizational form: Communication, connection, and community*. Newbury Park, CA: Sage.

Fulk, J., Flanagin, A. J., Kalman, M., Monge, P. R., & Ryan, T. (1996). Connective and communal public goods in interactive communication systems. *Communication Theory*, *6*, 60–87.

Fulk, J., Heino, R., Flanagin, A., Monge, P., & Bar, F. (2004). A test of the individual action model for organizational information commons. *Organization Science*, *15*, 569–586.

Galbraith, J. R., & Kazanjiam, R. K. (1988). Strategy, technology, and emerging organizational forms. In J. Hage (Ed.), *Futures of organizations: Innovating to adapt strategy and human resources to rapid technological change* (pp. 30–41). Lexington, MA: Lexington Books.

Giddens, A. (1990). *The consequences of modernity*. Stanford, CA: Stanford University Press.

Goldstein, K. (1999). *Interest groups, lobbying and participation in America*. New York: Cambridge University Press.

Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology*, *78*, 1360–1380.

Gray, V., & Lowery, D. (1996). *The population ecology of interest representation: Lobbying communities in the American states*. Ann Arbor, MI: University of Michigan.

Hage, J. (1980). *Theories of organizations: Form, processes, and transformation*. New York: John Wiley.

Hardin, G. (1968). The tragedy of the commons. *Science*, *162*, 1243–1248.

Hardin, R. (1982). *Collective action*. Baltimore, MD: Johns Hopkins University Press.

Heckscher, C. (1994). Defining the post-bureaucratic type. In C. Heckscher & A. Donnellon (Eds.), *The post-bureaucratic organization: New perspectives on organizational change* (pp. 14–62). Thousand Oaks, CA: Sage.

Heinz, J. P., Laumann, Nelson, & Salisbury (1993). *The hollow core: Private interests in national policy making*. Cambridge, MA: Harvard University Press.

Hickson, D., MacMillan, C., Azumi, K., & Horvath, D. (1979). The grounds for comparative organization theory. In C. Lammers & D. Hickson (Eds.), *Organizations alike and unalike* (pp. 153–189). London, UK: Routledge & Kegan Paul.

Jablin, F. (1987). Formal organization structure. In F. Jablin, L. Putnam, K. Roberts, & L. Porter (Eds.), *Handbook of organizational communication: An interdisciplinary perspective* (pp. 389–419). Newbury Park, CA: Sage.

Jennings, K., & Zeitner, V. (2003). Internet use and civic engagement: A longitudinal analysis. *Public Opinion Quarterly*, *67*, 311–334.

Johnson, P. E. (1998). Interest group recruiting: Finding members and keeping them. In A. J. Cigler & B. A. Loomis (Eds.), *Interest group politics* (5th ed., pp. 35–62). Washington, DC: CQ Press.

Lin, N. (2001). *Social capital: A theory of social structure and action*. Cambridge, UK: Cambridge University Press.

Lupia, L., & Sin, G. (2003). Which public goods are endangered? How evolving technologies affect the logic of collective action. *Public Choice*, *117*, 315–331.

Markus, M. L. (1990). Toward a critical mass theory of interactive media. In J. Fulk & C. W. Steinfield (Eds.), *Organizations and communication technology* (pp. 194–218). Newbury Park, CA: Sage.

Marwell, G., & Oliver, P. (1993). *The critical mass in collective action: A micro-social theory*. New York: Cambridge University Press.

Melucci, A. (1996). *Challenging codes: Collective action in the information age*. Cambridge, UK: Cambridge University Press.

Meyer, J., & Scott, W. R. (1983). *Organizational environments: Ritual and rationality*. Beverly Hills, CA: Sage.

Miles, R. E., & Snow, C. C. (1984). Fit, failure, and the hall of fame. *California Management Review*, *26*, 10–28.

Miles, R. E., & Snow, C. C. (1986). Organizations: New concepts for new forms. *California Management Review*, *28*, 62–73.

Monge, P. R. (1998). Communication structures and processes in globalization. *Journal of Communication*, *48*, 142–153.

Monge, P. R., & Contractor, N. S. (2003). *Theories of communication networks*. Oxford, UK: Oxford University Press.

Monge, P. R., Fulk, J., Kalman, M., Flanagin, A. J., Parnassa, C., & Rumsey, S. (1998). Production of collective action in alliance-based interorganizational communication and information systems. *Organization Science*, *9*, 411–433.

Neustadtl, A., & Robinson, J. P. (2002). Social contact differences between internet users and nonusers in the General Social Survey. *IT and Society*, *1*(1), 73–102. Retrieved September 11, 2005, from http://www.stanford.edu/group/siqss/itandsociety/v01i01/v01i01a06.pdf

Nohria, N., & Berkley, J. D. (1994). The virtual organization: Bureaucracy, technology, and the implosion of control. In C. Heckscher & A. Donnellon (Eds.), *The post-bureaucratic organization: New perspectives on organizational change* (pp. 108–128). Thousand Oaks, CA: Sage.

Oliver, C. (1990). Determinants of interorganizational relationships: Integration and future directions. *Academy of Management Review*, *15*, 241–265.

Oliver, C. (1991). Network relations and loss of organizational autonomy. *Human Relations*, *44*, 943–961.

Oliver, P. E., & Marwell, G. (1988). The paradox of group size in collective action: A theory of the critical mass III. *American Sociological Review*, *53*, 1–8.

Olson, M. (1965). *The logic of collective action*. Cambridge, MA: Harvard University Press.

Paxton, P. (1999). Is social capital declining in the United States? A multiple indicator assessment. *American Journal of Sociology*, *105*, 88–127.

Powell, W. W. (1990). Neither market nor hierarchy: Network forms of organization. *Research in Organizational Behavior*, *12*, 295–336.

Putnam, R. (1993). *Making democracy work: Civic traditions in modern Italy*. Princeton, NJ: Princeton University Press.

Putnam, R. (2000). *Bowling alone: The collapse and revival of American community*. New York: Free Press.

Rafaeli, S., & LaRose, R. J. (1993). Electronic bulletin boards and "public goods" explanations of collaborative mass media. *Communication Research*, *20*, 277–297.

Resnick, P. (2005). Impersonal sociotechnical capital, ICTs, and collective action among strangers. In W. Dutton, B. Kahin, R. O'Callaghan, & A. Wyckoff (Eds.), *Transforming enterprise* (pp. 486–499). Boston: MIT Press.

Rice, R. E., & Love, G. (1987). Electronic emotion: Socioemotional content in a computer-mediated network. *Communication Research*, *14*, 85–108.

Ritzer, G. (2001). *The McDonaldization of society*. Thousand Oaks, CA: Pine Forge Press.

Samuelson, P. A. (1954). The pure theory of public expenditure. *Review of Economics and Statistics*, *36*, 387–390.

Schattschneider, E. E. (1960). *The Semi-sovereign people: A realist's view of democracy in America*. Holt, Reinhardt, & Winston.

Schlozman, K. L., & Tierney, J. (1986). *Organized interests and American democracy*. New York: Harper & Row.

Schuller, T., Baron, S., & Field, J. (2000). Social capital: A review and critique. In S. Baron, J. Field, & T. Schuller (Eds.), *Social capital: Critical perspectives* (pp. 1–38). New York: Oxford University Press.

Scott, W. R. (1995). *Institutions and organizations*. Thousand Oaks, CA: Sage.

Scott, W. R., & Christensen, S. (Eds.). (1995). *The institutional construction of organizations: International and longitudinal studies*. Thousand Oaks, CA: Sage.

Scott, W. R., & Meyer, J. W. (Eds.). (1994). *Institutional environments and organizations: Structural complexity and individualism*. Thousand Oaks, CA: Sage.

Shah, D., Kwak, K., & Holbert, R. L. (2001). Connecting and disconnecting with civic life: Patterns of internet use and the production of social capital. *Political Communication*, *18*, 141–162.

Stohl, C. (2001). Globalizing organizational communication. In F. Jablin & L. Putnam (Eds.), *The new handbook of organizational communication* (pp. 323–375). Thousand Oaks, CA: Sage.

Stoll, C. (1995). *Silicon snake oil: Second thoughts on the information highway*. New York: Doubleday.

Sweeney, J. W. (1973). An experimental investigation of the free-rider problem. *Social Science Research*, *2*, 277–292.

Walker, J. (1991). *Mobilizing interest groups in America: Patrons, professions, and social movements*. Ann Arbor, MI: University of Michigan Press.

Walther, J. B. (1996). Computer-mediated communication: Impersonal, interpersonal, and hyperpersonal interaction. *Communication Research*, *23*, 3–43.

Walther, J. B., & Bunz, U. (2005). The rules of virtual groups: Trust, liking, and performance in computer-mediated communication. *Journal of Communication*, *55*, 847–863.

Weick, K. E. (1979). *The social psychology of organizing*. Reading, MA: Addison-Wesley.

Wellman, B., Hogan, B., Berg, K., Boase, J., Carrasco, J., Côté, J., et al. (in press). Connected Lives: The project. In P. Purcell (Ed.), *Networked neighbourhoods: The online community in context*. Guildford, UK: Springer.

Wellman, B. A., Quan-Haase, J., Witte, J., & Hampton, K. N. (2001). Does the internet increase, decrease, or supplement social capital? Social networks, participation, and community commitment. *American Behavioral Scientist*, *45*, 437–456.

Wolf, G. (2004). How the internet invented Howard Dean. *Wired*, *12*(1). Retrieved February 16, 2005, from http://www.wired.com/wired/archive/12.01/dean.html

Yuan, Y., Fulk, J., Shumate, M., Monge, P. R., Bryant, J. A., & Matsaganis, M. (2005). Individual participation in organizational information commons: The impact of team-level social influence and technology-specific competence. *Human Communication Research*, *31*, 212–240.