Fuzzy at the edges

How amorphousness in organizational boundaries changes joining processes

Vaughn Tan

Organizations are groups of entities that act collectively—they organize—in pursuit of shared goals. Formal, clearly-bounded organizations have, during the relatively recent birth and early development of organizational sociology, been the type of organizations that have been most influential in social life. The clarity of their boundaries also make them easy to identify and practical to study. However, though clearly-bounded organizations are important to the structure and experience of modern life, they are not the only types of organizations that exist—amorphously-bounded organizations (or informal organizations, call them what you will) exist alongside them and are growing in number and importance. Many of these amorphously-bounded organizations do the same things as clearly-bounded organizations but are faster, cheaper, and more effective. In spite of this, amorphously-bounded organizations are generally both under-theorised and under-studied. One weakness of organizational analysis, particularly in the sociological tradition, is that it has focused predominantly on clearly-bounded organizations (and especially on large corporations).

In this paper, I attempt to fill part of this gap by presenting the beginnings of a theory of amorphously-bounded organizations. Specifically, I theorise about how organizations are affected by the amorphousness of their boundaries. Since groups that organize must have their genesis somewhere, I focus here on the foundational processes of group-ness: the processes by which individuals join organizations and cross organizational boundaries to go from non-members to members. I discuss how amorphous boundaries make joining processes more likely to be characterised by negotiation and mutual information exchange rather than compliance with a set of pre-determined guidelines. I begin by characterising the continuum on which organizational boundaries may be located (from completely unambiguous boundaries to completely amorphous boundaries) in the context of classical sociological theory about groups and closure. I then analyse how the amorphousness or clarity of an organization's boundary affects the joining processes for that organization and derive some implications and potential contributions of the theory for organizational analysis, network analysis, the study of knowledge-production in groups, and managerial practice.

A note on data and sources

This paper is an entirely theoretical exposition developed out of interviews, archival research, and observations of organizational processes in the open-source software community, R&D teams within corporations, the haute cuisine industry, and artisanal craft networks—these are domains of endeavour where amorphously-bounded organizations are relatively more prevalent. Concepts discussed are illustrated where appropriate by examples from the field and archives. The type of case-based (George & McKeown, 1985; Yin, 2002), inductive (Charmaz, 2006) qualitative research on which this paper is based has both the benefit and the disadvantage of making evident and explicit what quantitative research often makes implicit: that evidence is often an illustration of a process rather than proof that the process exists and works as it is reported to.

O Organizations defined; boundaries and joining

What is an organization?

The study of organizations as an abstract practice begins with the assumption that organizations in general share some commonalities that make the learnings derived from observing one organization or one type of organization applicable to other organizations. The most fundamental of the commonalities of organizations is that they are all, as Scott and Davis put it, "social structures created by individuals to support the collaborative pursuit of specified goals" (2007). Assuming this is true, organizations (the noun) exist wherever groups of entities organize (the verb) to pursue shared goals—organizations are defined not by the form of their social structure, but rather by the fact that they enable collective pursuit of shared goals. The assumption that organizations are defined more by what they do (share and pursue common goals) than what they look like (specific social structures) is one that is also implicitly adopted by the growing literature on social movements in organizational sociology (for a theoretical treatment, see McCarthy & Zald, 1977; for empirical research on social movements in organizations, see Rao, 1994; Rao, Monin, & Durand, 2003; K. Weber, Rao, & Thomas, 2009).

Groups of entities sharing a common purpose and having relatively clear and unambiguous boundaries are easy to identify as organizations. Consider a typical firm as an example: from the perspective of both the firm and the employee, it seems relatively clear who is an employee of a particular firm and who is not (employees have share the same email address domain, are on official payroll, have healthcare, etc), and thus it is concomitantly clear who is within the firm's organizational boundary and who is not. In the case of the firm, the set of entities (in this case employees) within the firm boundary overlaps neatly with the set of entities that share the same explicit primary purpose (the firm's motives of production, profit-seeking, etc). This is not to say that all employees share the exact same set of purposes—since each employee has different sets of motivation for being employed and different ideas about what he or she will get out of the employment relationship. Rather, saying that all employees in a firm share the same explicit primary purpose indicates that the salient commonality between the employees is that they are working collectively for the purposes of the firm; their other purposes and motivations are not relevant to, not considered by the organization and remain implicit. This apparent tautology is perhaps easier to grasp if illustrated as in Figure 1.

Organizational boundaries and organizational theory

In organizational analysis, organizational boundaries have primarily been useful in helping analysts identify objects of study; only infrequently are organizational boundaries objects of study in themselves. Consequently, the processes by which entities cross these organizational boundaries to become members of an organization. This paper explores organizational boundaries as phenomena in themselves, and also explores the joining processes by which entities cross organizational boundaries.

In the context of organizational studies, organizational boundaries separate organizations from the external environment and from other organizations. Santos and Eisenhardt (2005) present a clear overview of the state of theoretical research in this area, dividing the types of organizational boundaries currently recognised into those dealing with efficiency, power, competence, and identity. Conspicuously absent from their analysis is any indication that organizational boundaries might be anything other than clear and

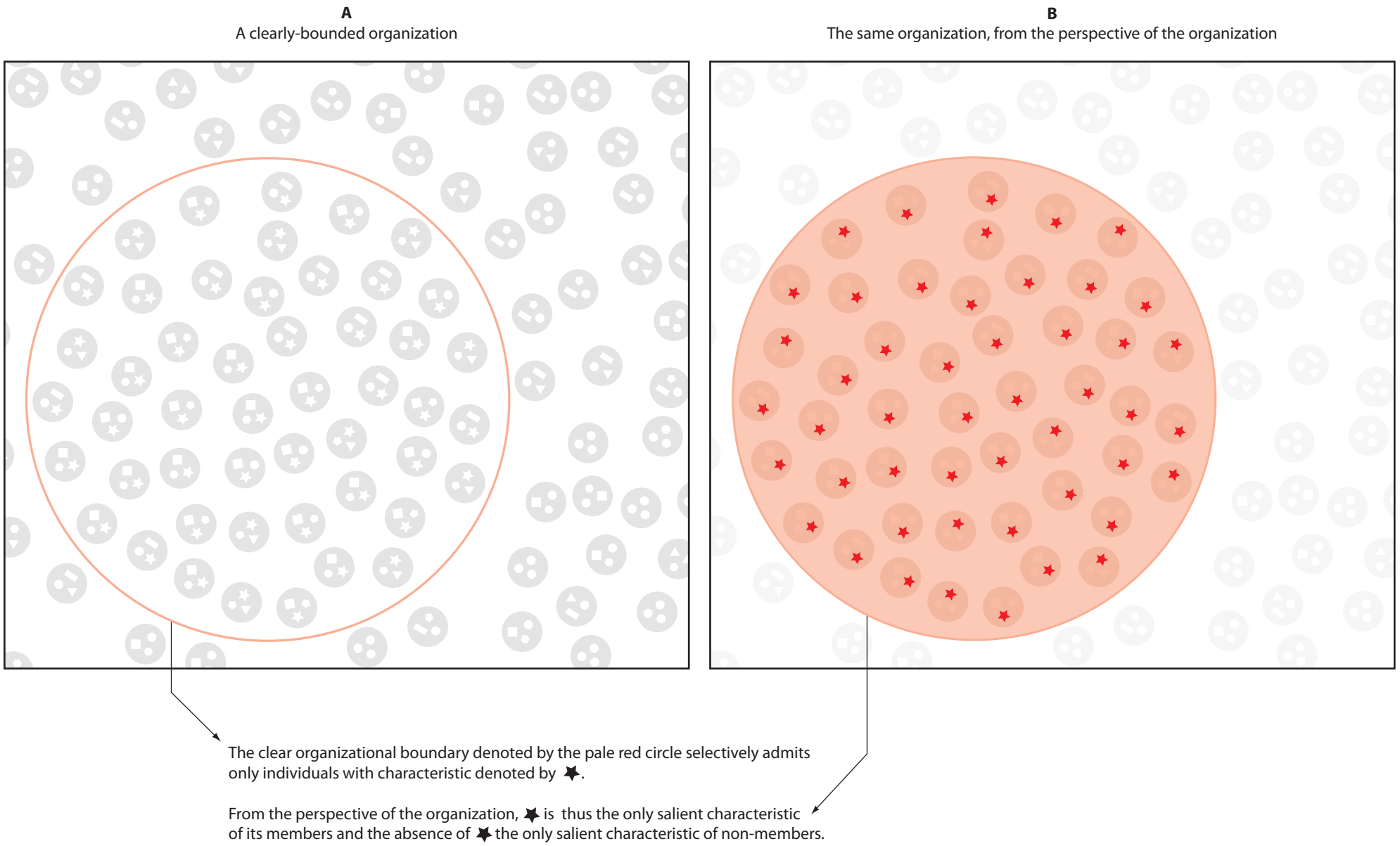


FIGURE 1
Salient member characteristics in a clearly-bounded organization

unambiguous. They also note that their analysis intentionally excludes forms of organizing activity other than large firms and corporations.

In their paper, they point out that an important source of often-unintentional change in identity boundaries is the hiring of new employees, a theme to which I will return throughout this paper. The theory I present here emphasises identity-related boundaries and focuses on small groups for clarity of exposition, but my intent is to complement their overview of the field of boundary research in organization theory. In particular, the approach I take in this paper responds to their call for a greater focus on processes in organizational boundary research, using multiple-case inductive methods applied in non-traditional settings. In this regard, I treat organizational boundaries as instances of social closure, mechanisms for separating what is contained from what is outside. As both Bourdieu and Zerubavel point out in different contexts, the classification process requires the classifier to draw boundaries between entities based on perceived differentiating characteristics (boundaries in the production of social classifications, see Bourdieu, 1984; boundaries in cognition and daily life, see Zerubavel, 1991).

Joining as the process by which entities cross boundaries: a minimal literature

Joining the group is an elementary process subsumed under the general domain of group formation processes—in order for the group to form, individual entities must join the group and cross the boundary between the outside and the inside. Group formation often takes place in the context of a complex network of pre-existing relationships. Due to this association with complex network analysis, group formation processes have become a significant research area in computer science and physics. These quantitative approaches to generally approach group formation as an outcome of the structure or morphology of the networks in which group formation takes place (McPherson, Smith-Lovin, & Cook, 2001; Backstrom et al., 2006; Kossinets & Watts, 2006)—they tell us little about the individual experience of joining a group.

Not much in the way of theory or empirical research exists about the processes that entities undertake in order to join groups in the social scientific literature. Though organizations are groups of entities sharing common purpose, the organizational literature has not yet begun to address the issue of what actually happens when groups form, much less the issue of what happens when groups that have amorphously-defined boundaries form. Organizational analysts to date have most often relied on descriptive studies of organizational groups and fields, with few studies exploring the formation of these organizations. The alliance-formation literature in organizational analysis (for example, see Gulati & Gargiulo, 1999) comes closest to looking at formation processes but the explanations often rely on existing network structure as the source of endogenous cues for entities in their alliance-formation decisions and does not provide plausible propositions about how individual entities find and join with each other before the inter-organizational network develops.

Elsewhere in the sociological tradition, several streams of research deal explicitly with group formation processes (with the understanding that group formation can also be thought of as the processes by which members join and constitute groups). The study of social movements pays some attention to the formation of communities of individuals sharing a common interest and frame of perception and motivated to common action (for example, Benford & Snow, 2000). Political sociology and studies of social stratification address the formation of groups of individuals sharing a common way of life using theoretical frameworks

derived from the Weberian status group formation tradition (Weeden, 2002). Exchange theorists similarly approach group formation processes from a structural perspective, emphasising the relationship between the network structure in which agents operate and the types of groups that emerge (for example, Cook & Emerson, 1978; Kollock, 1994). None of these systematically examine these processes from the perspective of the individual entity joining the group. From the perspective of boundaries and boundedness, much of the research in sociology emphasises macro- or meso-scale group boundaries (for review, see Lamont & Molnar, 2002), leaving a lacuna in the study of boundaries in smaller groups and individuals.

Where sociology leaves off, social psychology takes over. The social psychological literature on teams, theory and empirical studies seem invariably to begin with pre-existing groups and have largely ignored any stages or processes prior to the group's existence (Bennis & Shepard, 1956; Steiner, 1972; Tuckman & Jensen, 1977; Gersick, 1988). One research stream, specifically Clayton Alderfer's work on boundary effects on intergroup relations, is relevant though: Alderfer conceives of systems as being separated from the external environment by "physical and psychological boundaries which define what is inside and what is outside." The permeability of these boundaries influences the system's interactions with the external environment (which includes other systems), and Alderfer describes a curvilinear relationship between boundary permeability and system vitality. He further notes that boundary properties are applicable to open systems generally, "from the individual, through the small group to the large organization" (Alderfer, 1977), implying that the boundary around a group influences its interactions not only with other groups but with other individuals as well. The relevance of Alderfer's work to understanding membership processes in amorphously-bounded groups depends on a strong conceptual connection between permeability and amorphousness. The following section establishes this connection and develops a theoretical account of amorphousness by re-framing closure theory from classical and contemporary sociology.

1 Closure and organizational boundaries

Closure and boundaries in the classical sociological tradition

As discussed above, Scott (2007) and Santos and Eisenhardt (2005) both argue for an increased emphasis on studying organizational processes; one theoretical approach to this is through classical and well-established sociological theory.

Classical sociological theory about boundaries comes out of closure analysis. Closure operates through the creation of a boundary between the group closing (within the boundary) and the group closed against (outside the boundary). Since Weber and Durkheim, there have been significant theoretical developments in the domain of social closure, mostly focusing on the use of closure as an instrument used by groups to monopolise economic and social benefits, thus as a stratification mechanism. Particularly in the neo-Weberian tradition, these theories develop based on an assumption of relatively unambiguous bases for closure—clear group boundaries (for example, Weeden, 2002). In the organizational context, closure also is relevant to understanding the boundaries around organizations, in other words, the boundaries that denote collectivities that act in pursuit of shared goals.

In the tradition of closure analysis beginning with Weber and Durkheim, the nature of the boundary is always relatively unambiguous. I look first at the classical conceptions before defining and extending the definition of closure to account for how it might operate given an amorphous boundary and resulting state of diffusion.

Weber wrote explicitly about the connection between closure, group definition, and shared goals, specifically emphasising its use as a mechanism for controlling economic and social rewards. He describes closure in terms of a clear division on the basis of using "some externally identifiable characteristic of another group of (actual or potential) competitors—race, language, religion, local or social origin, descent, residence, etc.—as a pretext for attempting their exclusion" (M. Weber, 1978). The boundary's primary function thus is to distinguish between groups for the purpose of monopolising benefits; groups form based on the creation and extension of systems of classification.

Groups can be nested within each other, such that subgroups with their own systems of subclassification and subsidiary order then arise, as Durkheim points out in his preface to the second edition of *The Division of Labor in Society*. In the context of increasing economic specialization and importance, Durkheim points to the role of professional groups as intercalary organizations between the individual and the polity. He implies that populations ramify into groups as boundaries within that population emerge based on a need for effective regulation—an essentially functionalist view. Entities in a given group thus stratify based on a classification that is understood and accepted within the group (Durkheim, 1984).

Weber and Durkheim both emphasise the importance of boundaries in group formation and group life, whether motivated by a group-level desire for monopolization of benefits (Weber) or by regulatory necessity (Durkheim); but a key assumption both share is that these boundaries that form are relatively unambiguous and clearly defined. For Durkheim, this is implicit in his origination of the system of classifications in a division between immiscible groups of the sacred and the profane. For Weber, even though he acknowledges that openness and closure are both relative concepts between which "there are all manner of gradual shadings," close reading indicates that he considers openness and closure to be a matter of relative inclusivity rather than clarity and unambiguity of the closure boundary. In

the examples he cites (an exclusive club, a theatrical audience of ticketholders, a party rally), the group boundary and the criteria for inclusion in or exclusion from the group is assumed to be clear and unambiguous; the openness or closedness of groups is determined by their relative numbers (M. Weber, 1964).

The clear and unambiguous boundary that is taken for granted in the Weberian and Durkheimian closure-oriented traditions of understanding groups extends into much of organizational sociology. We classify and thus differentiate between groups that are organizations in a diversity of ways, but it is a generally unquestioned assumption—a conceptual given—that these groups be clearly identifiable as organizations and have clearly-defined group boundaries. In other words, the form of the group is often conflated with its action (of organizing for collective action): if it looks like an organization, it must be an organization. Arguably, this is what has happened with organizational sociology to date. Any analysis of firm behavior that classifies the organizations under study by their structure (eg separating firms by traditional or multidivisional) or identifies the boundary around a group of organizations based on a structural element implicitly takes organizational form as the sole determinant of what constitutes an organization. The only exceptions generally fall in the realm of theoretical perspectives that view organizations as coalitions of entities with diverse objectives, such as population ecology (Pfeffer & Salancik, 1978) or garbage can theory (Cohen & March, 1986). Even here, the focus remains on the coalition-ness of the organization rather than on the nature of the boundary that separates the coalition from the remainder of the environment.

Closure in the context of amorphously-bounded organizations

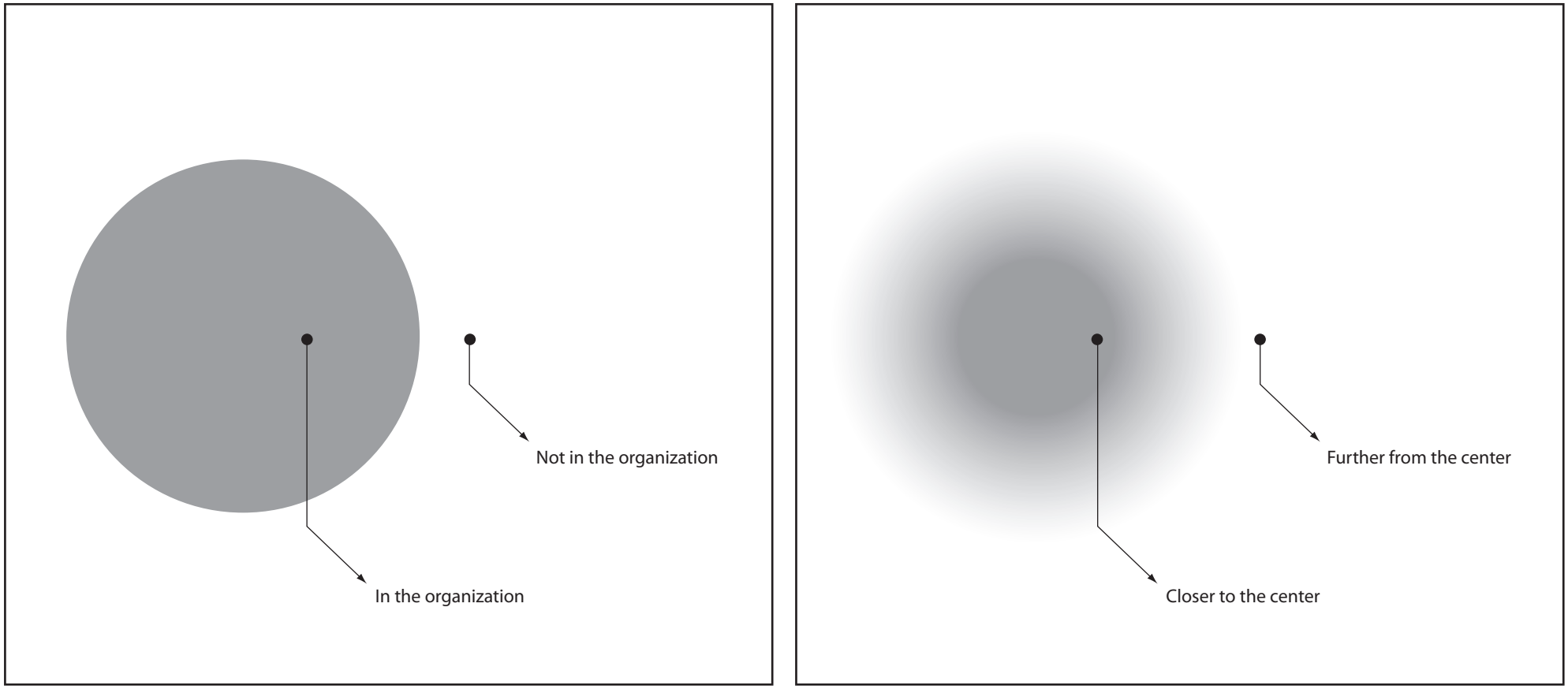
Given that closure has, to date, been generally thought of as a condition emerging out of clear boundaries and varying only in its relative inclusivity, I shift now to examining how our closure and our understanding of closure might be modified by thinking about groups where the nature of the boundary itself is ambiguous and uncertain—amorphous, in other words.

Describing membership in amorphously-bounded groups requires a different vocabulary or metaphor. Boundary amorphousness represents a situation in which membership in a group is a matter of degree rather than a binary state. Where the boundary around a group is clearly-defined, membership is a variable with relatively well-defined discrete states: an individual is either *in* or *out* of the group. Things get more complicated where the boundary is amorphously-defined. Amorphous organizations have centers of influence, so it makes more sense to think of membership as a continuous variable, or in terms of location more or less proximate to the center, as illustrated in Figure 2. The connections are clearest here between the amorphous organization as I have described it and Bourdieu's concept of a field as a space of positions and position-takings (Bourdieu, 1993).

The amorphously-bounded organization is also connected to the idea of nested groups and subclassification as developed in the stream of labour relations research dealing with new forms of employment such as part-time, temporary, and contract work (Kalleberg, 2000). Figure 3 shows how nested organizational boundaries might appear for employees of a firm with full-time, part-time, and contract employees. To take just one example, access to privileges of employment—such as equity grants, paid vacation and sick time, healthcare, and childcare—tend to vary based on employment type, creating a view of the organization where

A
A clearly-bounded organization, where membership is binary

B
An amorphously-bounded organization, where membership is continuous



Grey zones denote organizational extent

FIGURE 2
Membership in clearly- and amorphously-bounded organizations

A
Before A approaches and secures a position in the central region

B
After A secures a position in the central region (new edges highlighted)

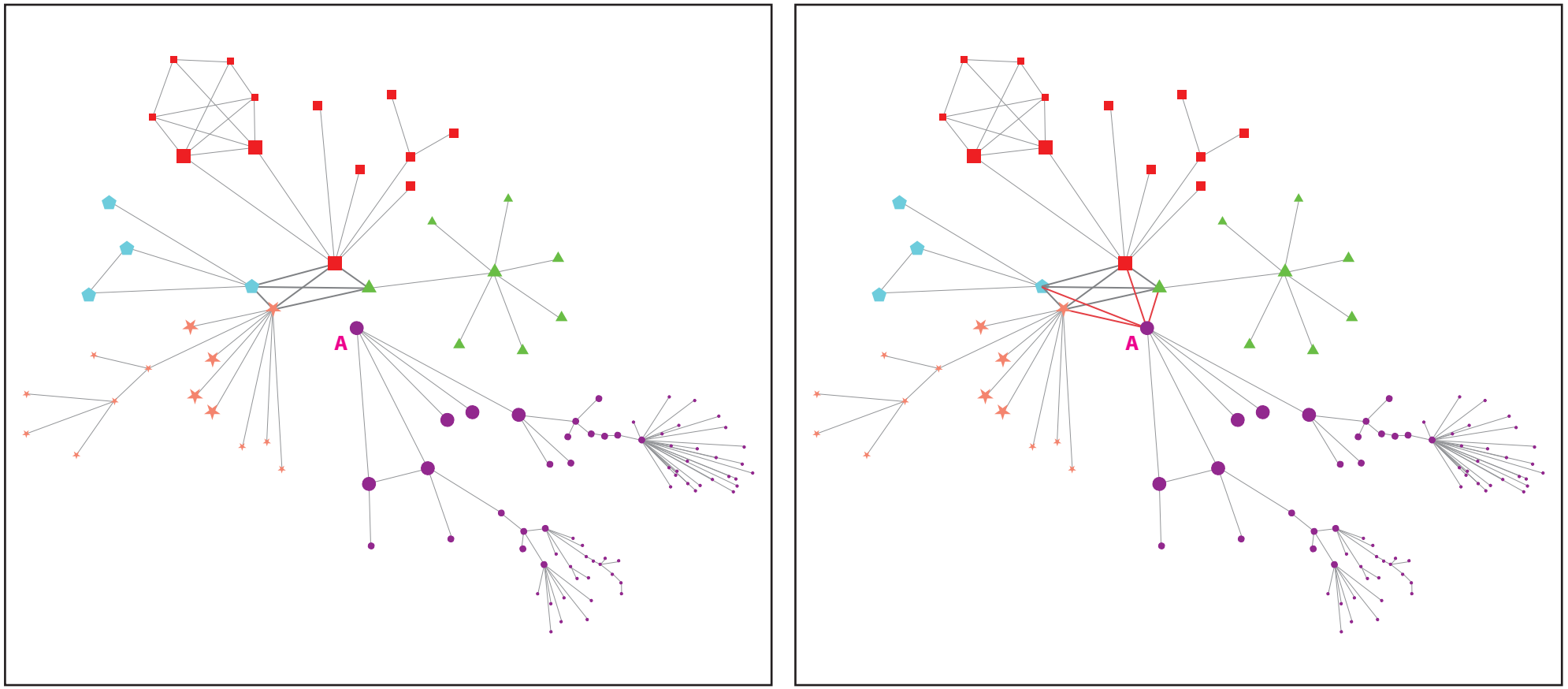


FIGURE 3
An amorphously-bounded organization with connectivity across five distinct domains and a central region populated with structural holes (edges between nodes in the central region indicated by heavier lines).

full-time employees are more central and privileged (enjoying the benefits of more exclusive closure), while contract workers are marginal.

The amorphousness of the organizational boundary also has theoretical implications for process and group dynamics. Simmel was perhaps the first to consider the relationship between group definition (ie, the nature of the boundary around the group) and group dynamics (Simmel, 1964). He distinguishes between groups bound by accidental coexistence and those bound by freely-chosen affiliation. The former may be interpreted as groups that are defined through characteristics imposed upon members by the group; the latter as groups defined jointly by negotiation between the group and its members. Binding (and exclusion) based on accidental coexistence is an ideal-typical clear group boundary—a locality or some other externally-obvious shared characteristic. In contrast, groups bound by freely-chosen, negotiated affiliations are bounded by negotiable and amorphous boundaries.

Extrapolating from this, closure should be interpreted as not only varying on the *degree of relative inclusivity*, but also on the *degree of boundary clarity or amorphousness*. Figure 4 shows a distribution of some groups in terms of where they might be located on a continuum of closure interpreted as relative inclusivity and exclusivity (4A) compared to within a space of inclusivity and amorphousness (4B) where, as previously discussed, inclusivity in the classical sense refers simply to group size relative to the greater population.

In the context of closure as a tool for monopolizing benefits, the boundary characteristics are imposed upon members as a condition for entry; where the group is formed based on imposed characteristics, the group and its members are clearly and unambiguously defined by those imposed characteristics and thus undifferentiated for the purposes of group definition.[1] In an amorphous group formed out of a process of negotiation and free choice between group members, the group definition is collectively-defined and its members can be more ambiguously characterised in terms of the commonality of the group affiliations each of them embodies. From the perspective of the individual, seeking membership in an amorphously-bounded group is not an unambiguously good thing. If the criteria for membership in a group is amorphous and uncertain, those seeking membership undergo a degree of psychological stress in negotiating membership that those facing more clearly-defined criteria can avoid. But as amorphousness takes away, so does it give back: the element of mutual choice in amorphously-bounded group formation grants significantly more agency to the individual. This is the focus of the next section.

Amorphousness and unambiguity as ideal-typical states

The clarity of an organizational boundary is relative because no actual organizational boundaries are either completely clear or completely amorphous. Both the unambiguously-bounded organization and the amorphously-bounded organization are ideal types located at opposite ends of a continuum; most actual organizational boundaries will fall somewhere on the continuum between complete amorphousness and complete unambiguity. I refer in this paper to amorphously- and unambiguously-bounded organizations as discrete organizational states for convenience of exposition, but my intent is to propose that organizational boundaries can be located on a continuum between unambiguousness and amorphousness.

A
Traditional conception of closure, in one dimension

B
Closure in two dimensions

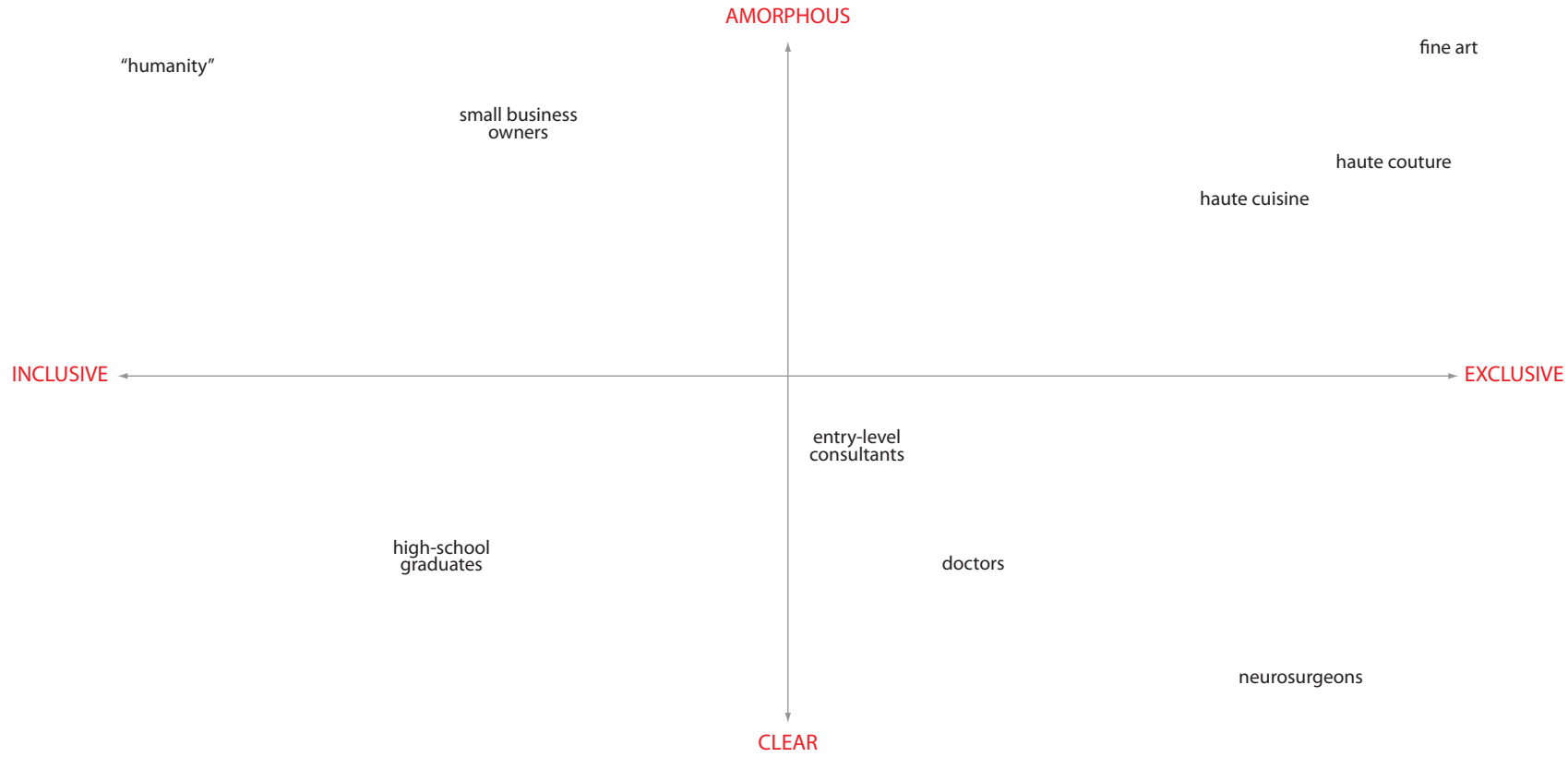


FIGURE 4
Closure in one and two dimensions

2 Joining processes in amorphously-bounded groups

Joining clearly-bounded groups (or, crossing clear boundaries)

As previously discussed, membership in clearly-bounded groups is relatively unambiguous even when the membership characteristics or affiliations are attained rather than ascriptive: Individuals choose to subordinate themselves to those characteristics and affiliations in order to gain membership. Thus, to become a member of the group of practicing lawyers, individuals go through law school and sit for the bar exam in the state in which they wish to practice. Individuals are technically free to reject group characteristics and thus to reject membership in these clearly-defined groups, but there is relatively limited room for the agent to define those boundaries, to deploy his own resources in the act of negotiating membership. In order to join the group, they must fulfill the requirements that define the group; they accept the definition of the group boundary and shape themselves and their affiliations accordingly. Joining processes in a clearly-bounded group are characterised by prospective member compliance with criteria established by the group, and are largely asymmetrical. Under conditions of clearly-bounded closure, only a small number of predetermined affiliations or characteristics is salient to the identity of an individual as a group member and that these predetermined affiliations are relatively homogeneous across the other members of the group.

This view of contextual membership-seeking action becomes clearer through a symbolic interactionist lens that accounts for the importance of context in the individual's formulation of her identity. Though Goffman's analysis of self-representations was intended as a theory of literal face-to-face interactions, it is relevant here in application to interactions between agents and the groups they seek to locate themselves in by presenting and negotiating a valid identity. Goffman frames external identity (the so-called "line" presented by the actor) as a changeable construct influenced by the individual's intent and his perception of the action environment created by other agents in the social environment—a space "surrounded by fixed barriers to perception in which a particular kind of activity regularly takes place" (Goffman, 1959). The actor controls only part of her identity as perceived by the group. This identity emerges out of the interaction between the actor and the group she confronts; how the line presented is interpreted by those receiving it (the audience) constitutes "face," or the identity attributed to the agent by the group (Goffman, 1967). Identity construction is thus the outcome of an exchange or negotiation between the agent and the group she confronts, a situation illustrated in Figure 1.

A clearly-bounded social establishment has predetermined rules for the kinds of identity that are valid within it, and almost no room for identities that are not pre-determined. An actor confronting a clearly-bounded group thus receives unambiguous signals for the type of line to present, and the face perceived as a result of that line is closely connected to that line. On the other hand, an amorphously-bounded group may have extensive preset rules for valid identities but, importantly, will also have room for unfixed identities that can then be incorporated as valid identities through negotiation processes. It can give mixed signals about the line-face relationship but as a result has greater potential for as-yet-unknown lines to be presented and the resultant faces accepted as valid identities. If the newcomer presenting a novel identity is eventually accepted, the amorphously-bounded group's set of valid identities naturally expands.

The construction of lines that express a desired identity requires that the actor selectively highlight and conceal facts and aspects of himself—expressing or conveying a desired identity is thus an active process managed by the actor. In the context of a clearly-bounded group, the set of acceptable or desirable lines for the actor to express are pre-determined by the group and clearly understood by the actor. Take, for instance, job openings and descriptions published by a company. These requisitions are developed within the company to describe the type of person (education, previous work experience, preferred style of working) who the hiring manager and the human resources group think will best fill the role. Individuals both self-select on the basis of these descriptions and selectively present aspects of their histories when they apply. Objective criteria like minimum educational qualifications are the basis for self-selection: individuals holding only a bachelor's degree are unlikely to apply for a job stipulating a minimum of a Master's degree in public policy for consideration. The responsibilities detailed in the description are the basis for selective presentation of the candidate in the form of a resume tailored to the application. Internally, resumes are reviewed in the context of these job descriptions and those that display plenty of relevant skills, qualifications, and experience are regarded more favourably than those that do not. Self-selection and selective presentation here push individuals in the direction of adopting a strategy of compliance with the boundary-crossing criteria defined by the organization.

Joining amorphously-bounded groups (or, crossing amorphous boundaries)

Contrast the process described above to the joining process in an amorphously-bounded group. Because the boundary separating the group from the outside is not pre-defined, the set of affiliations or characteristics justifying locations closer to the center is not largely predetermined (as is the case in more clearly-defined and bounded groups). There is room for the individual to choose from the range of group affiliations she already has (or could acquire) and to selectively make some more salient than others in the identity she chooses to present to the group in order to locate herself favourably. Her actions in pursuit of membership are thus efforts to position herself relative to the group's perceived center, to negotiate a favourable location within the context of the group. Compared to clearly-bounded groups, joining processes in amorphously-bounded groups are characterised by negotiation and bidirectionality rather than compliance and asymmetry. Membership in an amorphously-bounded group is a position-seeking, dynamic process and an entity's position in relation to the group is constantly being negotiated and re-negotiated. Amorphously-bounded groups may have extensive predetermined rules for valid identities but will also have room for unfixed identities that can then be incorporated as valid identities. This latter unstructured and indeterminate—hence amorphous—space of potential valid criteria for obtaining a position in the group is the main distinguishing characteristic of amorphously-bounded groups; with this stochasticity comes more potential degrees of freedom for the group and its members.

The individual confronting an amorphously-bounded group faces fewer clear and predetermined criteria for crossing the organizational boundary and entering the organization. The joining processes here thus follow a different logic, one characterised more by bidirectional negotiation than asymmetrical compliance. Like the individual described above, applying to join the clearly-bounded organization, the individual seeking membership in an amorphously-bounded organization goes through a process of self-selection and selective representation. However, the bases for self-selection and selective representation are not

decided upon in advance by the organization. Rather, and because they are not necessarily pre-established, this individual develops an understanding of these by approaching and examining the group.

The actions undertaken by the individual seeking to join the group are thus both strategic (long-term, following general rules) and tactical (based on his analysis and interpretation of the organization) in nature, in the sense proposed by Certeau (1984)[2]. I observed this negotiated joining process in organizations of relatively small size ranging from open-source software development teams to groups of artists and chefs. Constant across these contexts was the relative unimportance to each group of predetermined criteria for joining the group. Examples from both haute cuisine restaurants and open-source software development groups illustrate the negotiated aspect of joining processes in amorphously-bounded organizations. Over several years of interviews and observations of chefs and other professionals in various haute cuisine milieux in North America, I saw the pattern described above—of individuals justifying a place in an amorphously-bounded organization by negotiation through action—emerge repeatedly.

There are few pre-established criteria for someone hoping to join a successful restaurant's staff. Referrals and introductions are a good way to get in the door, but prospective staff members must figure out how to fit into and add value to the restaurant to earn their position on the team. One woman chef who worked her way into a 2-star Michelin restaurant in New York without any formal culinary training captured the sentiments of many chefs I talked to when she noted that: "If you want to get anywhere in the restaurant industry you have to be enterprising and willing to put some skin in the game and invest time in figuring out your value proposition. A diploma from a culinary school might get you an interview at a great restaurant where you'll learn a lot and get great experience, but once you're in the kitchen during service it's entirely down to how you respond. It's about how fast you learn, how willing you are to be taught, how you show that you're useful to the team and worth keeping around. The moment service starts, it's all about action and proving yourself."[3]

Very similar sentiments are expressed in groups of software developers in the Sourceforge open-source software online community who evaluate individuals as potential developers on the same software project. Sourceforge is a community of hundreds of thousands of developers and users of varying experience levels and skill sets. Few of the software development teams that form on Sourceforge have pre-determined criteria for membership. This developer's account recalls the experiences of many members of the community when finding and joining a development team: "I don't usually set out intending to join a team that does something very specific. Usually, I'll have been using an early version of some [team's] software for a bit, sending in bug reports or fixes before thinking 'This is something I think I can help with.' Then I get in touch with the project lead and ask how I can help and explain what kind of coding background I have. I've never had any project team give me commit privileges [formal permissions to make changes to the project codebase] without vetting a bunch of my code first. Honestly, I'd be wary of any team that wanted me that badly."[4]

When the individual composes a membership-seeking line based on the context in which it will be deployed, she is developing an argument that certain affiliations and characteristics—her story about herself—justifies her occupying a relative position in the group. In each case, the individual that manages to cross the group boundary will have an

identity well-aligned with that of the group. For the individual, the uncertainty inherent in the process of negotiating a valid group identity requires tactical behavior on her part, and individuals who seek to negotiate membership in an amorphously-bounded group engage in a form of action conditioned by contingency and constantly in flux. Certeau points out that an individual narrative is "not just a document that does not know what it says, cited (summoned and quoted) before and by the analysis that knows it. On the contrary, it is a know-how-to-say ('*savoir dire*') exactly adjusted to its object" (Certeau, 1984).

An individual constructing a self-narrative designed to appeal to the target organization thus has a greater or lesser opportunity to exercise agency, depending on the degree to which the characteristics of acceptable narratives have been predetermined by the target organization. For the individual seeking membership in a clearly-bounded group, this self-narrative about the member (the criteria she must fulfil for membership) is constructed for her. For the individual seeking membership in an amorphously-bounded group, is successful in doing this, he has made the group change itself to accommodate him, to incorporate what he brings in terms of a previous unshared history as a valid part of the group's history. Agents construct narratives about themselves themselves through this mix of strategies and tactics; their design is to disrupt the target group's definition and change it in their favor. If the applicant's narrative is successful in winning him a position in the group, his narrative then becomes part of the history of the group and reconstructs the group by his inclusion. For the group, he becomes a brother from a different mother, so to speak.

The process is far more bidirectional or symmetrical in amorphously-bounded than clearly-bounded groups. In other words, where the clearly-bounded group pre-defines its criteria for joining (ie, determines the nature of the boundary around itself) and imposes these criteria on new members as a condition of them joining the group, the amorphously-bounded group seeking to incorporate a new prospective member can engage in this process of identity construction to make itself the kind of group that member might want to be a part of. The image to have in mind is of the group and the individual mutually shaping and being shaped by each other, rather than the individual being shaped by the group.

The symmetric expectation of negotiation and testing in the joining process is especially clear in the open-source software case. These two project leaders are often in the position of managing new additions to their relatively mature project teams: "When I'm looking at someone as a potential team-member, I care almost nothing for his formal qualifications. I always ask him to submit a piece of code he's written that he really likes, and then I give him a few specifications and ask him to write me a piece of code. But more often, at least in my experience, it's been the case that I find someone who's been really helpful with bug reports, patches, or just answering questions on the forum pages. I'll have to really make a pitch to that guy to join the team. Some of our best people have come in through that kind of thing." Or (from a different individual) "I always check to see how involved they've been in the community around [our software]. Have they been active on the community forums helping people with tech support? Have they been opening bugs? Actually, even more important than that, have they been filing bug patches? If they've been committed and been useful to the project even before officially getting commit privileges, I'm much more inclined to invite them to join the team."[5] Implicit in their description of the evaluation and recruitment process is the bidirectionality and symmetry previously mentioned: Not only do they evaluate applicants

who approach them requesting to join the team, they also seek out and invite individuals that they think will be valuable for the team.

Narratives in the joining process

Organizations, their members, and potential members are constantly modifying themselves and their salient characteristics in response to a changing internal and external environment. Narratives connect disparate elements into meaningful wholes and allow communication of these wholes. Narratives are thus a useful way to think about how individuals and groups present themselves and their histories during the joining process (for a theoretical framework addressing narrative in agency, see Somers, 1994; for an empirical account of narratives in making sense of and transmitting personal and group histories, see Ewick & Silbey, 2003). The individual and group narratives discussed above refer not just to spoken or written narratives, but to the totality of the presentation of self, the sense-making that the agent and his audience retrospectively applies to a set of otherwise unconnected objects.

These narratives thus allow stocks of diverse capitals (in the sense introduced by Bourdieu) to be integrated into the story with which he confronts the group. These capital stocks can be brought to bear on the narrative effort, if the story told about their applicability to the new, hoped-for context is sufficiently compelling. An individual's effort to win a desired location in an amorphously-bounded organization (or, conversely, an amorphously-bounded organization's effort to win a desirable new member for itself) is a strategic and tactical deployment of capital of various sorts, in the form of a narrative designed to make these stocks of various capitals valid in this new context.

The attempt is to transform his diverse capitals into capital valid in the target group, which then, as Bourdieu and Wacquant note, "confers a power over the field, over the materialized or embodied instruments of production or reproduction whose distribution constitutes the very structure of the field, and over the regularities and the rules which define the ordinary functioning of the field, and thereby over the profits engendered in it" (Bourdieu & Wacquant, 1992).

The capital stocks possessed and mobilized by individuals and groups derive value from the contexts in which they are exercised. Bourdieu points out that the three forms of capital he posits (economic, cultural, and social) are interconvertible through strategies of varying costliness in terms of the capital being converted (Bourdieu, 1997)—ie, that the process of converting a stock of one type of capital to another involves some element of loss of the original stock of capital. In addition, capital stocks have contextual, not absolute values, that depend on the field in which they are deployed. Thus, not only is converting between capital types costly, converting capital stocks from one context to another is potentially costly as well. Narratives provide justification for, in a sense, more favourable exchange rates for capital stocks as they are moved between contexts.

An illustration: Bringing cultural capital across borders

The preparation and appropriate consumption of classical Japanese *kaiseki* (traditional seasonal banquet cuisine) represents the pinnacle of cultural capital in Japanese food circles, and top Japanese *kaiseki* chefs collaborate frequently with—and are ranked among—the artisans who are formally recognised as living national treasures of Japan[6]. In America in the 1960s and 1970s, however, a top Japanese kaiseki chef would not have been recognized as being worthy of belonging to the haute cuisine elite. Up until the late 1970s, the only legitimate gourmet cuisine in America came out of the French tradition (Hess & Hess, 2000). Only in the 1980s did the portability from Japan to America of the cultural capital embodied in kaiseki increase, and it did so both rapidly and dramatically, in a way that illustrates much of the theoretical framework presented so far.

This rapid, dramatic change was largely accomplished through the 1981 publication of a book designed for the American readership that conveyed the techniques, philosophical underpinnings, and history of Japanese cuisine. Shizuo Tsuji's *Japanese Cooking: A Simple Art* translated the previously unknown culinary style and aesthetic philosophy of Japan into something comprehensible to American haute cuisine circles. An interviewee commented that it is "the book that any chef worth his salt will tell you made Japanese food big in America."[7] In so doing, it dramatically lowered the cost involved in translating Japanese cultural capital (in the form of kaiseki) to the American context. Along with a few other factors (not least of which being the economic growth Japan experienced during those decades), *A Simple Art* was an important element that helped swiftly modify the boundary around American haute cuisine such that Japanese chefs could negotiate a position within the group beginning in the 1980s. As another interviewee put it, Japanese food "suddenly became like French food. People thought it was incredibly refined, and they still do today."[8]

The rapidity and success of the change may be attributable in large part to intervention and sponsorship by MFK Fisher, a pioneering American gastronome who was centrally-located in American haute cuisine. She had been approached by Tsuji to advise his team such that the selection and presentation of information in the book would be optimised for the American audience, and also to write the preface. As her personal correspondence shows, she became convinced of the quality of the Japanese culinary tradition after returning from her research trip to Tsuji's cooking school in Osaka, and similarly convinced of the importance of American haute cuisine recognizing that quality. On returning to America, she wrote to Julia Child that "If I could eat the unprocurable things that Tsuji managed to present to us as lessons in what present Japanese cooking is based on, I would gladly eat nothing else for the rest of my life. I would forgo every subtle dish I have ever tasted in the past seventy years. This is a shattering statement to make, and of course there is no risk of its ever happening, but it is *true*."[9]

She proceeded to recommend the book to her extensive network of influential major newspapers and industry publications, most notably the *New York Times* and *Food and Wine Magazine.* As a *New Yorker* staff writer, she also arranged with William Shawn, the editor at the time, for a detailed *New Yorker* profile of Tsuji, in his own right a member of the Japanese culinary elite. In doing so, she used her social and cultural capital and position close to the center of the American haute cuisine community to modify the interpretive frame of American haute cuisine (Figure 5). Fisher thus made it much more likely that Tsuji and his story about Japanese haute cuisine (and thus the capital stocks represented by top kaiseki chefs in Japan)

would be appropriately received and validated by haute cuisine elite and the literati in America[10].

This example demonstrates that the validity of a narrative results from both the teller's art and knowledge, as well as the knowledge and interpretive frame of the hearer. Particularly, the Fisher/Tsuji case illustrates how the process of negotiated membership can be moderated by connections within the group. Agents with connections close to the center of a amorphously-bounded group gain an advantage in that they have greater access to information about how to configure their narrative from elements available to them so that it has a higher chance of success when presented to the group (as Tsuji did from Fisher). Those close to the center with an interest in an agent's validation can also exert themselves through the mobilization of their social and cultural capital stocks to ensure that the group is primed to interpret the story appropriately (as Fisher did for Tsuji). A well-regarded author writing the introduction to an unknown author's book, for example, transfers some measure of cultural capital to the unknown author; a well-regarded author endorsing an unknown author through her network of contacts amplifies the impact of that transferred cultural capital. When Tsuji won MFK Fisher as a supporter of Japanese food, he successfully joined the amorphously-bounded organization that is the central, highly influential region of the American haute cuisine intelligentsia. Figure 6 shows a generalized visualization of similar amorphously-bounded organization.

Joining processes in amorphously-bounded groups—a summary

A position in an amorphously-bounded group generally results from the group's evaluation of an agent's position-seeking narrative, the story created to explain his position in relation to the center. A position may also be offered to an individual by an amorphously-bounded group, which then creates a narrative that makes the group attractive to the individual. Figure 7 shows two stages in the life of the central regions of an amorphously-bounded organization: before (A) and after (B) a new member of the wins a position in the central region.

Often, the process of group formation is a combination of these two processes, a negotiation between group and prospective member. While joining a group is often a strategic exercise, formulating these joining narratives is also an exercise in tactics much more so than when joining clearly-bounded groups: the entity (whether agent or group) draws upon diverse resources—the stocks of various capitals previously accumulated—and attempts to transform them into a story about itself that is valid for the party it seeks to entice. The process of negotiating positions within amorphously-bounded groups involves mutual negotiation to construct both individual and group narratives, then connecting and integrating them. This contrasts with the asymmetrical, compliance-oriented joining processes of more clearly-bounded organizations. Amorphously-bounded groups may have extensive predetermined rules for valid identities but will also have room for unfixed identities that can then be incorporated as valid identities. This latter unstructured—hence amorphous—space of potential valid criteria for obtaining a position in the group is the main distinguishing characteristic of amorphously-bounded groups.

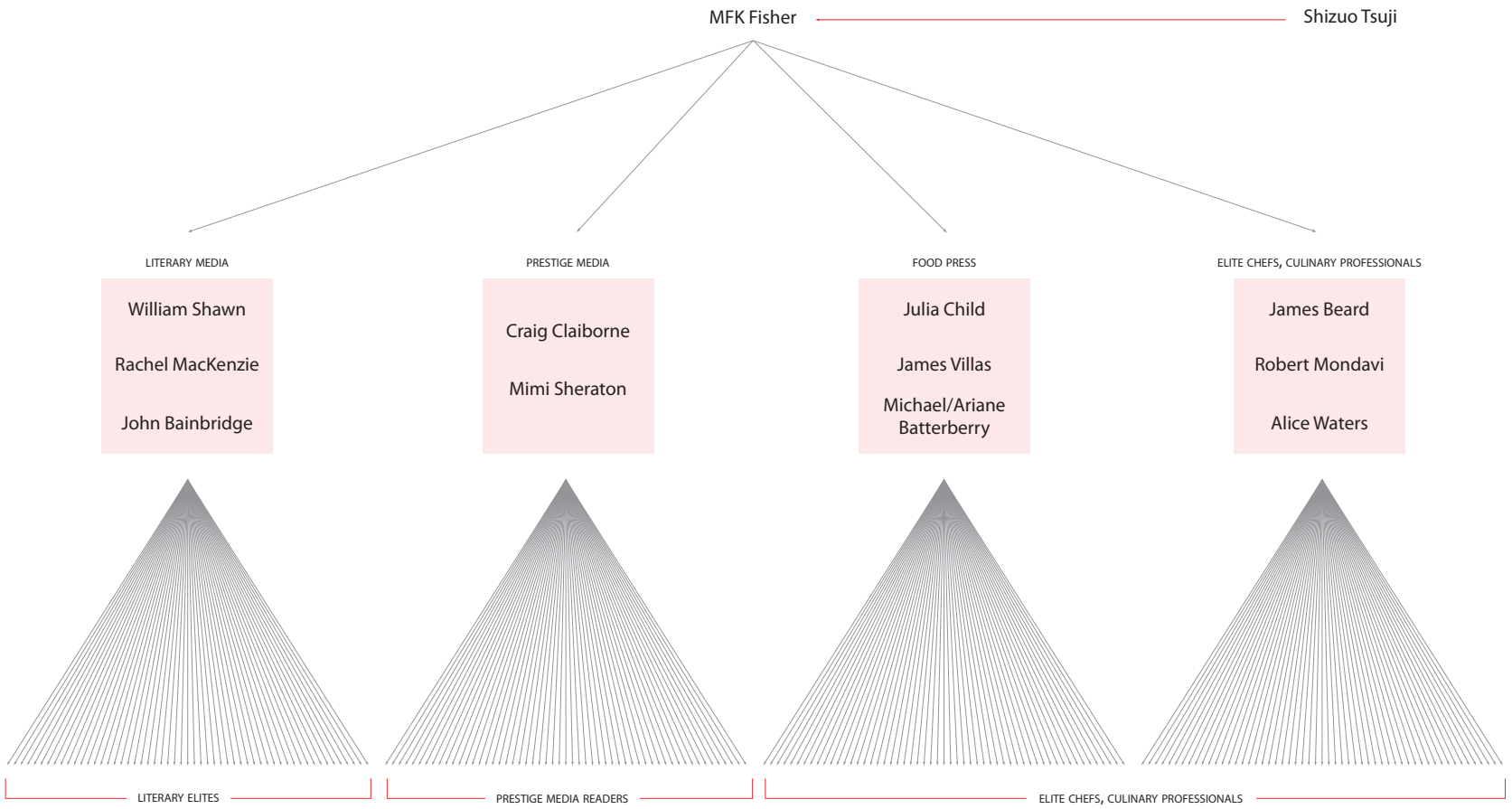


FIGURE 5
Representative view of MFK Fisher's local network and its reach

3 Implications for theory and practice

The amorphously-bounded organizations that form as a result of negotiation-oriented joining processes should have a wider variety of resources for collective knowledge-production and potentially interesting network structures both within the group and in the context of the larger group in which it is located. The types of joining processes amorphously-bounded organizations use thus have implications for both organizational theory and management practice.

Group formation research in social psychology

Social psychological research on the stages of group life indicates that the early phases of a group's existence have a significant influence on its performance through its lifespan (Gersick, 1988; Gersick, 1990; Ancona & Chong, 1999). But, as mentioned previously, the bulk of group research investigates the dynamics of already-established groups or groups where membership is by assignation (as an example, the studies of aircraft cockpit crew dynamics conducted by Ginnett, 1987). Little, if any, research has been done on true group formation out of previously-unconnected individuals and how the formation and joining process affects subsequent group performance. The negotiated joining processes described above suggest that it might be fruitful to examine the phase of group life before the group has fully formed, and its effects on group performance.

Specifically, bidirectional negotiation-based joining processes may hold a key to the unusual levels of organizational efficacy some of these amorphously-bounded groups demonstrate (for example, innovations in technique spread unexpectedly quickly through the wider community of craftsmen and artists in North America). Woolley *et al*'s research on what they call "group brain," or collective cognition and deployment of information held within a group indicates that groups are effective to the extent that group members have 1) accurate understandings of what expertise is held in the group, 2) an accurate map of who in the group holds that expertise, and 3) norms that allow individuals to weight inputs from different people appropriately given their expertise and the task at hand (2008). This is analogous to each member having an accurate mapping of the relevant relationships and capitals distributed within the organization (see Figure 8). Because negotiations about mutual value preferentially surface these relevant capitals and relationships as part of each member joining the group, amorphously-bounded organizations are more likely both 1) to generate these accurate maps among members and 2) to share the norm of using these mappings in the activity of the organization.

Knowledge production and innovation.

Successful story-telling falls into two conceptual spaces. One is guided generally by the strategy of identifying areas where similarities may be made more salient (associated with membership processes in clearly-bounded groups); the other, at the other end of the spectrum, is guided by the strategy and tactics of constructing a narrative and an argument that that narrative fits into the larger narrative of the target group (associated with negotiated joining processes in amorphously-bounded groups). The amorphousness of the organizational boundary calls forth the position-seeking tactics previously discussed and also implies potentially greater diversity in amorphously-bounded groups compared to more clearly-bounded, less diffuse

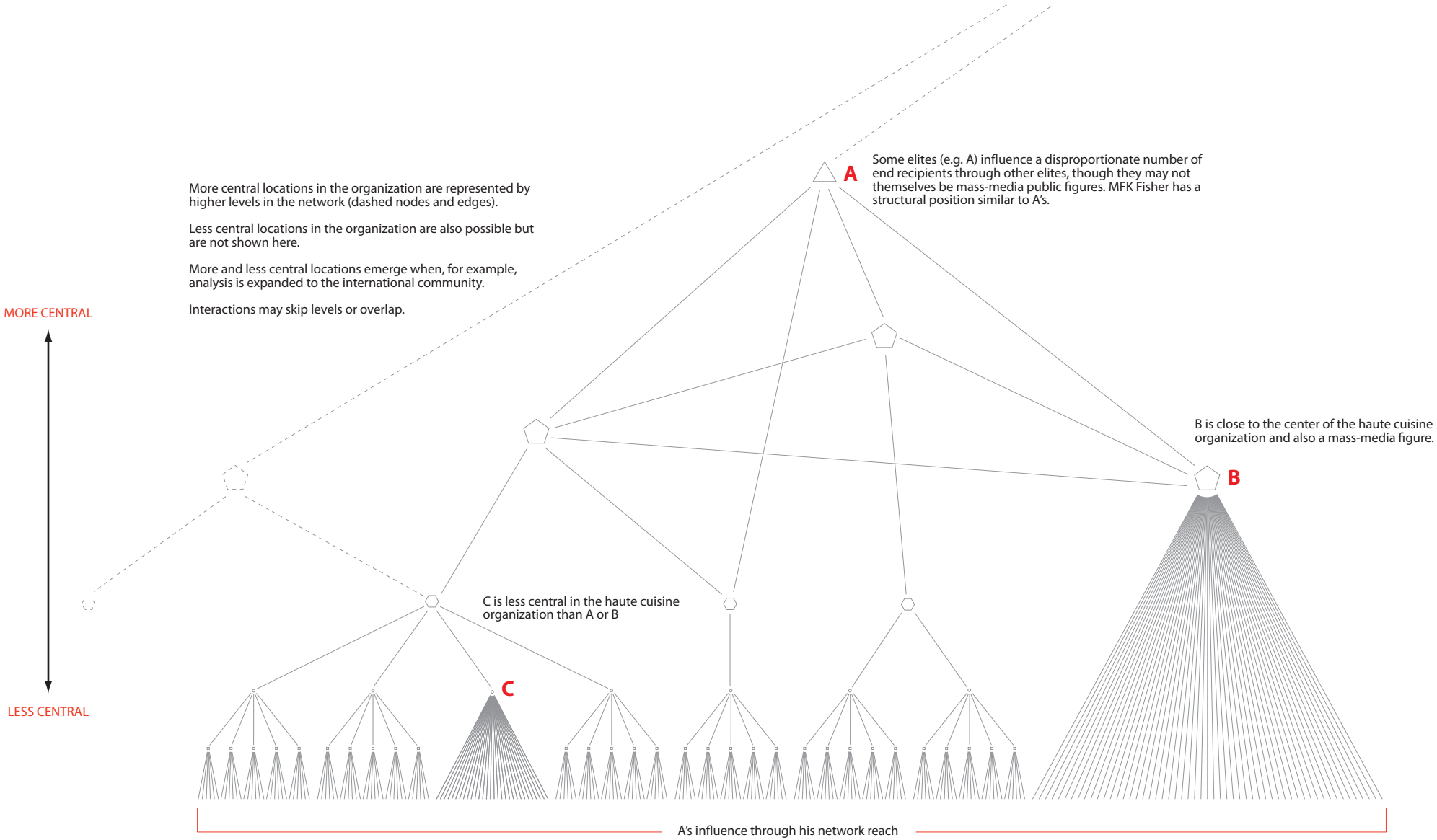


FIGURE 6
An illustrative section of the haute cuisine organization

A
Before A approaches and secures a position in the central region

B
After A secures a position in the central region

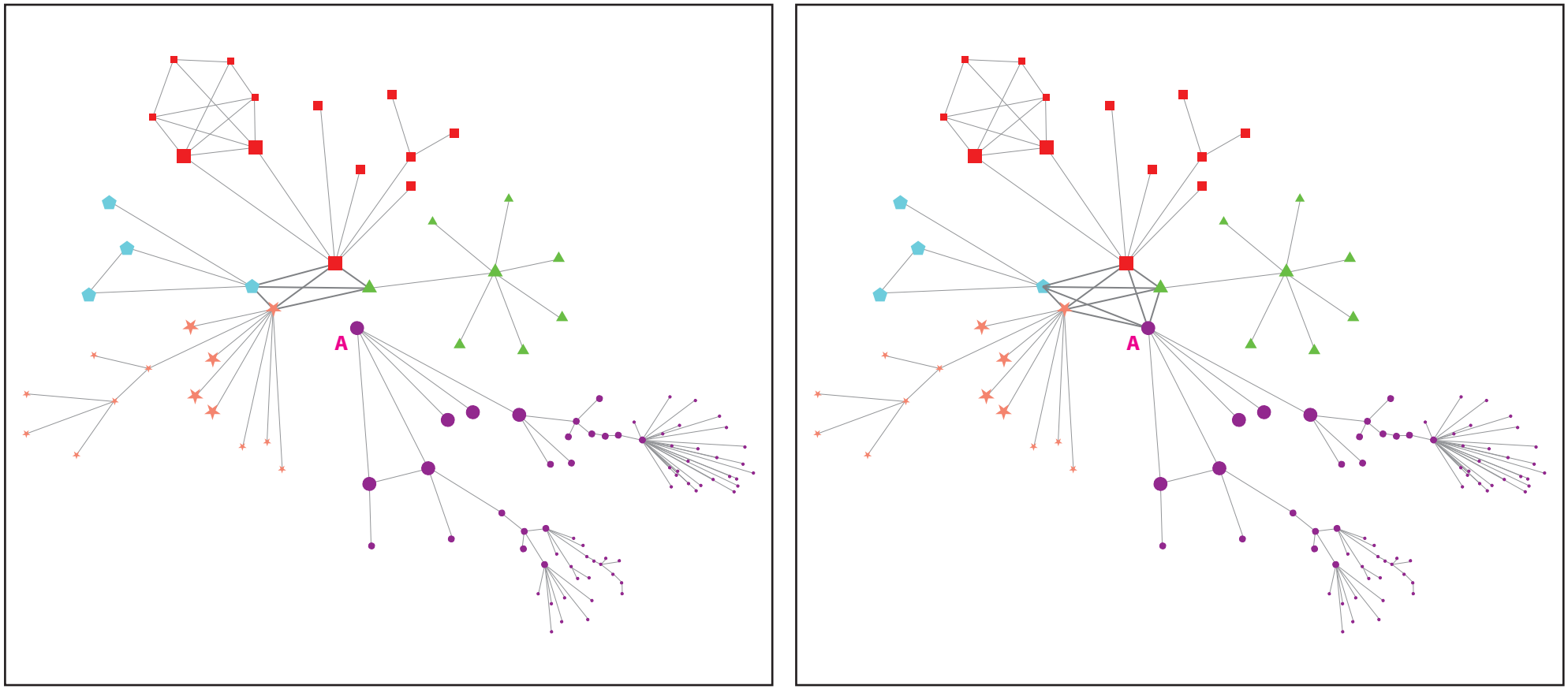


FIGURE 7
An amorphously-bounded organization with connectivity across five distinct domains and a central region populated with structural holes (edges between nodes in the central region indicated by heavier lines).

organizations. This then has implications for innovation and the production of knowledge in these amorphously-bounded organizations, as well as the dissemination of such knowledge once it has been produced.

The negotiated nature of positions within an amorphously-bounded group mean that the narratives of members have been, as a necessary consequence of the validation process, been accepted and incorporated into the group—these narratives embody origins, values, and diverse capitals. The act of locating an individual within any group thus causes the transactive memory of the group (Wegner, 1986) to grow by the size of that individual's marginal non-redundant contribution. Assuming that diversity is correlated with possession of heterogeneous stocks of knowledge, Simmel's heuristic about the relationship between the clarity of group boundaries and the differentiation and diversity of group members—"the elements of a distinctive social circle are undifferentiated, and the elements of a circle that is not distinctive are differentiated" (Simmel, 1964)—suggests that this marginal contribution to transactive memory is potentially large in the case of amorphously-bounded groups which permit the diverse affiliations embodied within individuals to become valid bases for membership.

Schutz's phenomenological approach sheds some light on the value of this larger base of information for knowledge production by the group: He points to how new information can only be made sense of with a relational bridge to existing information (Schutz, 1970)—this holds true for entities as it does for persons. If we take amorphously-bounded groups and consider that they, all else equal, are richer in differentiated and diverse individuals, then it follows that amorphously-bounded groups are likely to have a greater diversity of past experiences with which signs can be made use of and made sense of.

Additionally, the process of locating an agent within an amorphously-bounded group involves the validation of the capitals he brings with him and thus their inclusion into the capital makeup and structure of the group—while economic capital is almost always important, more often than not the significant capitals for knowledge production are cultural and social in nature. The accumulated capitals each member of the amorphously-bounded group brings then becomes part of the capital stock of the group and available for use by others (again recalling the mapping of the group brain previously discussed).

Recent research also supports the inverse hypothesis, that highly homogeneous groups perform worse at knowledge production and learning: Golub and Jackson show that rates of learning in both the linear-update model and the Markov random walk model are slowed by homophily in a given network (2009), implying that the reverse may be true in a network characterised by high variation (something amorphous boundaries should produce. In sum, a case may be made that amorphously-bounded organizations experience a high rate of knowledge incursion from other domains, creating knowledge that is essentially new to the group. The pattern of such innovative activity based on knowledge arbitrage across diverse networks should map closely to the distribution of social and cultural capitals brought in from outside the group, and overall rates of innovation should increase (with some lag) when organizations and networks become more amorphously-bounded, other things being equal.[11] Boundary amorphousness should have a positive effect on organizational heterogeneity and innovation, but Uzzi's work on creativity in small world networks (Uzzi & Spiro, 2005) suggests that the relationship between amorphousness of boundary and innovation is likely to be parabolic, due to coordination problems at extremely high levels of heterogeneity.

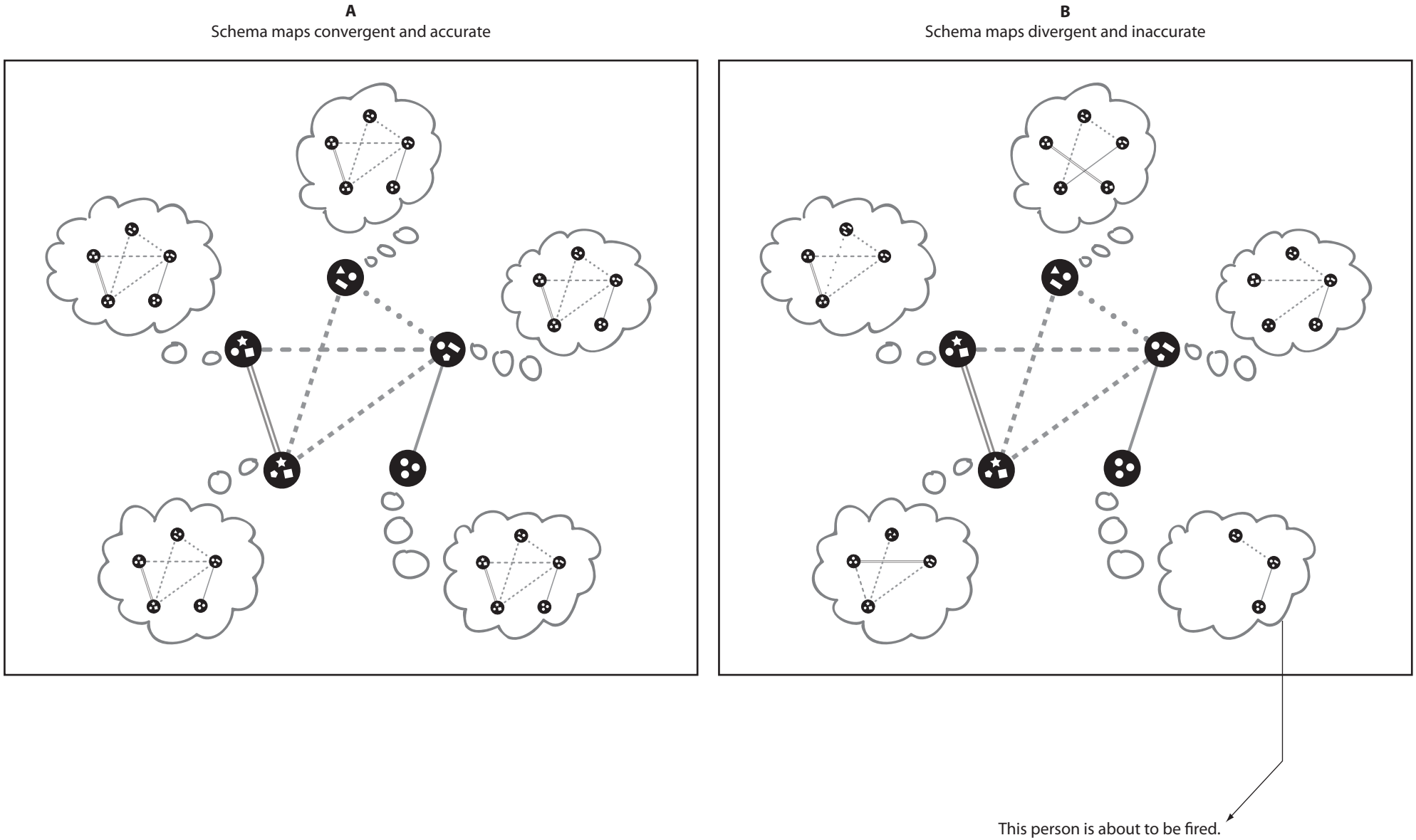


FIGURE 8
Convergent and divergent schema maps

Network structure and inter-organizational effectiveness

Ties in amorphously-bounded groups are negotiated bonds of shared interest, circuits of commerce (Zelizer, 2005) or freely-chosen affiliations (Simmel, 1964). Yet if the group also admits a diverse membership, the ties are also potentially full of connections to heterogeneous information, the traditionally-understood "strength of weak ties" (Granovetter, 1983). As a result, the networks of relationships that form at the centers of some kinds of amorphously-bounded organizations have a curious combination of ties that have characteristics of both strong ties (carrying trust) and weak ties (carrying heterogeneous information) at the same time. The social network that emerges out of the formation activities of amorphously-bounded groups thus may electively favor desirable outcomes for members and the group as a whole. Specifically, the reach of the group as a whole within the larger group of which it is a part is more extensive as a result; over multiple periods, this should increase the group's ability to monopolise rewards and attract new and diverse members to seek positions within the group. This is yet another instance of what looks like a Matthew Effect (Merton, 1968), but one which has a clear mechanism by which the effect is produced.

The network structure of amorphously-bounded organizations in fact closely recalls the network forms of organization Powell theorised about two decades ago (Powell, 1990)—but in this interpretation, understanding the formation process of those structures suggests that the causal aspect of those types of organizations lies less in the structures themselves but in the processes (such as joining processes) that generate those structures in addition to system outcomes. Figure 9 illustrates how joining processes can affect organizational structure. The figure shows two views of the same amorphously-bounded organization, emphasizing the composition of the central region and the implications of such composition on influence and information dynamics in the whole organization. In Figure 9A, the declining intensity of the shading represents declining connectivity distal from the central regions which are highly connected.

Whole network. As previously noted, the position-seeking process in amorphously-bounded groups tends to enrich these groups with individuals who are strangers in the sense of the social types Simmel proposed, whose role in the network is at least in part that of the trader who arbitrates across networks (Simmel, 1971). Another way to look at the end state of amorphously-bounded groups is that they tend to be rich in individuals Burt calls structural holes (Burt, 1995). An amorphously-bounded group, itself inevitably located within a field or a larger amorphously-bounded organization, is therefore a potential nexus for the intersection of many diverse groups—in a sense, an entity that is itself a structural hole within the larger network of which is a part. Not only does this have the implications for within-group knowledge production and innovation alluded to previously, it also has implications (social, cultural, and economic) for the dissemination of the knowledge so created. The network structures that appear to emerge out of negotiated joining processes are thus remarkably similar to the structural properties of small-world networks—ie, they have small average shortest path lengths combined with large clustering coefficients (Watts, 1999)[12]. The negotiated joining processes in amorphously-bounded groups may help explain the positive relationship observed between small-world network structure and system performance (Uzzi & Spiro, 2005). Only further empirical research will show if domains that are generally amorphously-bounded also have small-world network structures (and specifically, scale-free

A
Central region populated by structural holes from each domain

B
Central region structurally equivalent to a node that is itself a structural hole

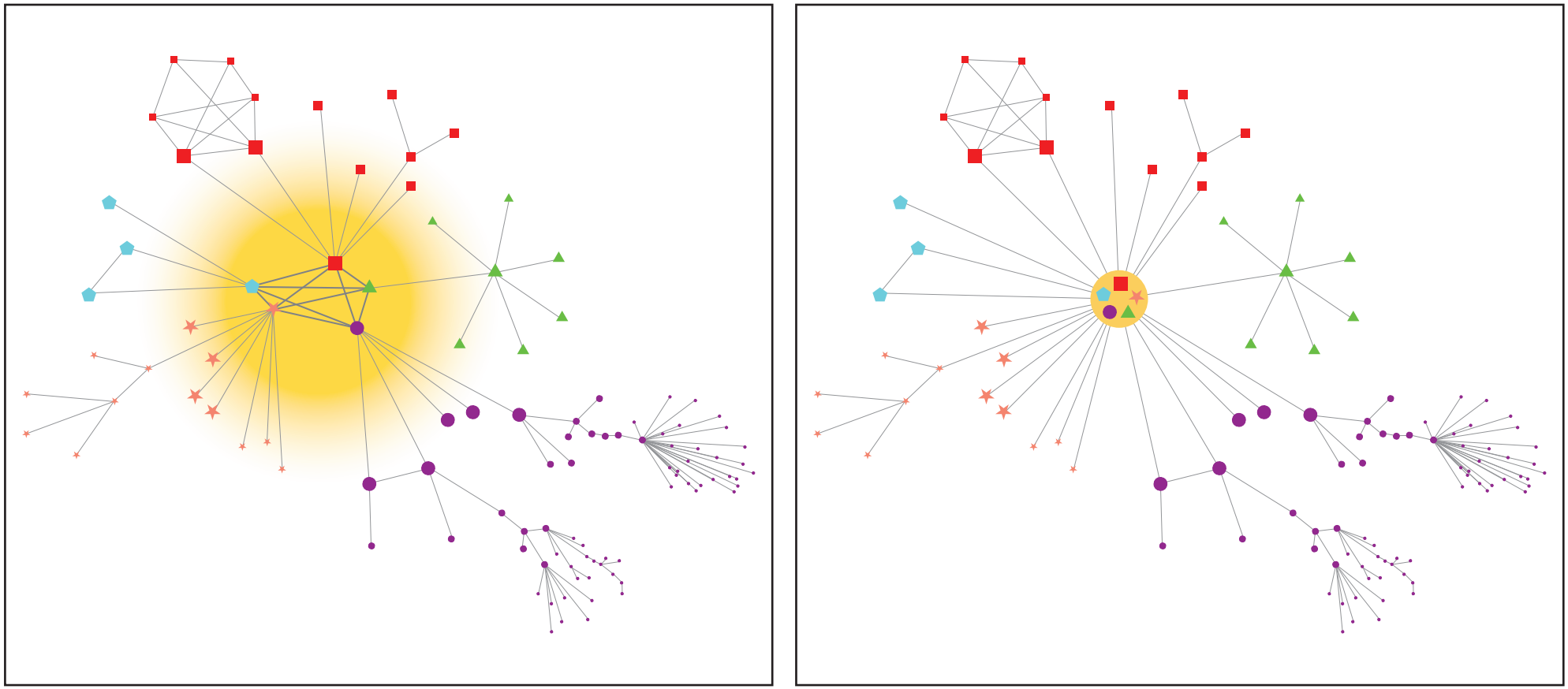


FIGURE 9
Two views of the central region of an amorphously-bounded organization with connectivity across five distinct domains.

network structures). This leads then to another testable hypothesis: Negotiated joining processes in amorphously-bounded organizations help produce organizational network structures with small-world qualities.

Egocentric network. In Burt's analysis of network structures that optimise heterogeneous information transfer, he argues that individual agents optimise their networks by seeking simultaneously to both maximise the range of their networks and minimise engagement (Burt, 1995). From the agent's point of view, seeking and maintaining a position in an amorphously-bounded group consisting of multiple individuals representing heterogeneous networks is an optimising activity in terms of managing his egocentric network.

Inter-group arbitrage. An amorphously-bounded group located within a larger amorphously-bounded group is potentially adept at inter-group arbitrage within the larger group. This is illustrated in Figure 9B, where the central region functions as an entity equivalent to a structural hole with the potential to broker between all the regions for which it constitutes the sole bridging tie. The success of an amorphously-bounded group at arbitrage is tied to the capital stocks brought into the group by its members. While cultural and social capital stocks embodied in group members tend to operate in interrelated ways (as in the Fisher/Tsuji example), their contributions to a amorphously-bounded group's capacity for inter-group arbitrage are conceptually different. The more stringent the requirements regarding the quantity and quality of cultural capital imported into the group, the more successful the group will be at exporting its cultural capital (ie, validating the knowledge it creates to the other groups it is connected to). Individuals positioned within amorphously-bounded groups potentially have transubstantiative power; they transform capital in one domain into capital in another. The more stringent the requirements regarding social capital (operationalized as network reach imported into the group), the more extensive the reach of the amorphously-bounded group as a whole and, consequently, the more likely that the group will be able to widely disseminate the knowledge it produces.

Organization and management theory and practice

Much thought and managerial activity goes into designing organizations and groups to achieve desired outcomes, whatever those might be (increased workforce diversity, greater R&D productivity, etc). But organizations are complex social systems that work in non-deterministic ways, such that designing for a definite outcome is usually a fruitless venture. Aristotle noted (1355 b12) that the non-determinate nature of stochastic systems implies that the practitioner's role in managing them is not to seek to produce a particular outcome but rather to seek to increase the likelihood that a particular outcome will occur. One approach might be to recognise and embrace other ways of influencing outcomes than dictat—the negotiated joining processes that emerge in amorphously-bounded groups are one example of a process that copes with stochasticity by relying on atomic individuals (both those in the group and those approaching the group) instead of top-down management to evaluate the environment and make both strategic and tactical decisions about membership and capital assessment. The tactical aspect of these negotiated joining processes is the key to their ability to cope with stochasticity, because of the nature of tactical action implies far greater responsiveness to the real-time environment. (return to fig 8) Benefit to the organization is that these processes cope with uncertainty that is real, rather than certainty that is unreal.

The success of self-organizing work groups is by now well-known. Perhaps now it is also time to allow for self-forming work groups as well. One of the main implications of the negotiated entry joining process is that the amorphously-bounded group is more likely to form and be successful when the group is given autonomy to manage the joining process. Where possible, allow groups to find their own members (or members to find their own groups) instead of assigning members and composing teams. This seems to work to particularly good effect in areas like research and development. If it sounds like there is a free lunch here, there isn't—considerable time and energy is spent in the joining negotiations. Fortunately, this investment of time and energy is what develops the useful small-world network structures in groups and enables the comprehensive and validated schema mapping discussed above.

4 An open-ended conclusion

What this theory is not

It's perhaps best to begin by stating this explicitly. I do not claim this to be a theory of joining processes that applies uniformly to all amorphously-bounded organizations and groups. There are presumably conditions that determine whether or not amorphous boundaries generate the systemic benefits identified above. Two that spring to mind include 1) norms within the group that allow prospective members to be fairly evaluated—a high degree of security about social status among incumbent group members seems to be a necessary precondition (Blau, 1964) for fair evaluation; and 2) accurate evaluation of the amorphousness of the organizational boundary. Future research should attempt to understand what modifies of the effects of amorphous boundaries on various organizational processes.

Recapitulation

In this paper, I've attempted to present a theory of how amorphousness in organizational boundaries affects joining processes. We have focused overmuch on studying organizations that are clearly-bounded and easy to identify. There is a whole other set of amorphously-bounded organizations that exists to be understood. The behavior and dynamics of these types of organizations have previously been difficult to explain with existing theories of organizational behavior. I propose here to begin by looking at joining processes—the processes by which these amorphously-bounded organizations form—in order to better understand how they operate.

An amorphous boundary here is, by necessity of the nascence of the theoretical construct, loosely defined as a boundary 1) which is selectively permeable, and 2) where the nature of selectivity criteria is not pre-determined. This introduces many more degrees of freedom into the interaction between group and member. This is a different type of amorphousness than uncertainty in the conventional economic understanding of the term, wherein the interaction and information is once again asymmetrical.

I advance some theoretical propositions about how the amorphousness of the organizational boundary—in other words, the extent to which boundary criteria are not pre-determined—modifies the behavior of both the organization and potential members in the joining process. Joining processes become bidirectional processes of negotiation rather than asymmetrical processes of compliance. These bidirectional negotiated joining processes give members and prospective members more room for agency and the ability to bring more aspects of themselves into the group. Amorphously-bounded groups should thus be predisposed to increased integrated diversity.

Current organizational theory and practice often takes as a given that the best way to achieve organizations that work as desired is to design for increased control: deciding how to compose groups and organizations is a strategic task that has become one of the key managerial roles described in both classical organization theory and actual management practice. The joining processes I have observed in amorphously-bounded groups suggest that both theoretical and applied research should focus less on designing and forming groups and more on designing the environments in which organizational processes—such as joining—occur.

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[1] The distinctiveness and lack of differentiation of a group and its members are salient only when the group is the unit of analysis. For example, a group may consist of a highly diverse group of individuals, but if its declared sole boundary or locus of closure is a particular credential, then the diversity of its members is not relevant to the group. For the purposes of the group, the group is distinctive and its members undifferentiated; their only relevant characteristic to the group is their possession of the credential, not their other characteristics and group affiliations. By defining the closure boundary so clearly, the group has literally imposed a characteristic upon its members and made their other characteristics irrelevant to the group. In reality, however, these other characteristics almost inevitably come into play within a clearly-bounded closed group, creating a state of diffusion in the status hierarchy that exists within the group.

[2] Certeau (1984) offers a fuller exposition of the distinction between strategy and tactics in action, both articulated as ideal types in the Weberian sense. Specifically, a strategy is predicated on certainty and clarity in the actions being strategised, and is "the calculus of force-relationships which becomes possible when a subject of will and power … can be isolated from an 'environment.' A strategy assumes a place that can be circumscribed as *proper* and thus serve as the basis for generating relations with an exterior distinct from it." A tactic, on the other hand, is opportunistic and relies on the agent's immediate perception of the environment in which the action is to take place. Thus a tactic "has at its disposal no base where it can capitalize on its advantages, prepare its expansions, and secure independence with respect to circumstances … it is always on the watch for opportunities that must be seized 'on the wing' … the intellectual synthesis of these given elements takes the form, however, not of a discourse, but of the decision itself, the act and manner in which the opportunity is 'seized.'"

[3] Interview conducted by the author, Nov 2009.

[4] Interview conducted by the author, Mar 2009,

[5] Interviews conducted by the author, respectively February 2009, March 2009.

[6] Interview with Yoshiki Tsuji, conducted by the author, Aug 2004 in Osaka, Japan.

[7] Interview with Barbara Haber, conducted by the author, Dec 2002.

[8] Interview with Clark Wolf, conducted by the author, Nov 2004.

[9] Fisher to Julia Child, 11 December 1978, Julia Child Papers, Schlesinger Library, Radcliffe Institute for Advanced Study, Cambridge, Mass.

[10] For a full account of the development and subsequent diffusion of the book through large portions of the American haute cuisine intelligentsia, see Tan (2005).

[11] The social psychological literature abounds with findings that group efficacy decays with increasing size. Keeping other characteristics (including organization size) constant, amorphously-bounded groups should produce knowledge new to the group at a higher rate than clearly-bounded groups.

[12] Watts and Strogatz further note that "Models of dynamical systems with small-world coupling display enhanced signal-propagation speed, computational power, and synchronizability" (1998). The question to ask is whether small-worldness is doing it or is it some process that contributes to small-worldness (eg, joining under amorphous boundary conditions) that simultaneously produces both small-world structure and superior system performance.