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Between Conversation and Situation: Public Switching Dynamics across Network Domains

BY ANN MISCHE
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SOCIAL action is interaction that induces interpretations and thus builds continuing relations. Thus, discourse is the stuff of social networks. While this observation is not new, it has yet to trigger a coalescence between research subdisciplines that have until now operated mostly in isolation from each other.[1] Over the past few decades, network analysts have developed increasingly sophisticated measures and models around a bare-bones conception of social networks (Wasserman and Faust, 1995), while sociolinguists working from an interactionist perspective have helped to unpack the discursive patterning of the dyad (Milroy, 1987; Silverstein, 1979, 1993; Schiffrin, 1987). These approaches are ripe with mutual resonances and implications, yet they have so far maintained a skeptical aloofness from each other in regards to research strategy and design.

One reason for this aloofness is the absence of an adequate theoretical understanding of the commingling of network relations and discursive processes. It is not enough to say merely that these elements are dual and co-constitutive, that networks are constituted by stories, and vice versa. Rather, there are certain essential

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mediating constructs without which an understanding of this co-constitution is impossible. One such construct is the notion of *publics,* previously defined in this journal as interstitial social spaces that ease transitions between more specialized sets of sociocultural relations, designated as *network domains,* or *netdoms* (see White, 1995). In the current article, we continue the earlier inquiry into network "switching" and linguistic change by exploring how publics facilitate movement among the multiple sets of overlapping relations (and associated discursive patternings) that constitute the web of social life.

We also extend the earlier discussion by exploring the different kinds of switching dynamics that emerge in particular types of social settings. The historical emergence of publics, we argue, was essential to the development of *conversation* as a specific variety of social discourse. Here we depart from the more generic use of the term in most of the literature on conversation analysis as meaning simply talk or spoken encounters of all types involving two or more people (Wardbaugh, 1985; Sacks, 1992; Schegloff, 1992). Instead, we adopt a more specified understanding, referring to the relatively purposeless, free-floating discursive exchanges that help to smooth relational mixing in a variety of public settings (as familiarized in the phrase, "making conversation"). This narrower conception allows us to distinguish conversation from more specialized types of discursive interactions, and more importantly, to show how it constitutes an important mechanism for switching across network domains.

Yet we also argue that conversation in this restricted sense constitutes only one dimension of the network dynamics induced by publics. The flip side of conversation, providing interactions with social charge and mobilizing force, is the interanimation of talk and ties in *situations.* The analytical category of situations has long been essential to interactionist thought (Goffman, 1961, 1967; Denzin, 1974; Argyle et al., 1981) as well as to recent work in social and personality psychology (Ross and Nisbett, 1991; Mischel, 1990; Shoda, Mischel, and Wright, 1993) and feminist the-

ory (Haraway, 1988; Benhabib, 1992). However, like conversation, this category has generally been conceived with a kind of catchall immediacy, inattentive to the complex interleaving in situations of longer-term network and discursive patternings. Here, again, we adopt a more specified (although colloquially resonant) understanding of situations, referring not just to any social setting, but rather to those problematic, high-stakes episodes that cast our prescripted roles and trajectories into question.

The goal of this essay is to explore how both conversations and situations emerge from switching through publics, and how these in turn go on to sustain, challenge, and reformulate the network relations and discursive domains that underpin social institutions. We begin by exploring the phenomenology of situations as particular kinds of social interactions, which can be distinguished from conversations as well as from other types of discursive interplay. We then explore the relationship of both of these constructs to the notions of netdoms, publics, and "Bayesian forks" introduced in the earlier article (White, 1995). This in turn allows us to develop a schematization of different kinds of switching dynamics, as actors move across network domains and though publics over time. Finally, we close with a discussion of the challenges posed by these conceptualizations to further theoretical and empirical work.

Locating Situations

What is a situation? The answer is not as straightforward as might be imagined. Consider the following series of vignettes, drawn from academic life as well as from other social domains:

1. A university graduation ceremony is proceeding with the usual formal decorum and barely suppressed giddiness. As the president begins his address, several students with black armbands stand up and begin punctuating the speech with shouted denunciations of the university's diversity policies.

2. Two urban youths on a street corner entertain a cluster of friends by exchanging ritually accelerating insults, improvising imaginatively unsavory references to each other's mothers. One youth slips in a reference to a drinking problem in the other's family. The two previously jovial contenders suddenly find themselves at the point of bitter blows.
3. A business enterprise investing in research invites prominent academics to a special conference in which they report their findings to members of the firm. In the midst of a social scientist's presentation, the CEO receives some unexpected information about the firm, and demands an explanation from the startled managers.
4. A broad-based political rally is held to demand the resignation of a corrupt government in the name of civic ethics and accountability. A speaker representing one of the participating organizations causes ripples on the podium by inserting factional critiques of co-participants in the demonstration.
5. Two friends and colleagues at a conference are discussing their academic work, interspersed with gossip, over late night drinks. Suddenly the conversation dives down a level, fraught with double entendre, pushing guardedly toward intimacy.
6. Apollo 13 takes off into space heading toward the moon. Several hours into the flight the astronauts discover a faulty fuel valve. They radio mission command: "Houston, we have a problem."

Despite the evident differences in these six scenarios, each should be intuitively recognizable to most readers as a "situation." Each involves a previously predictable, stylized interaction that suddenly becomes fraught with uncertainty, danger, and/or opportunity. But before elaborating more deeply on what these incidents have in common, it is useful first to pose a counterquestion: What makes what went on before or after these situ-

ations *not* a situation? When actors are not in situations, where are they?

Here we must step carefully, since there are important distinctions to be drawn. The first four scenarios all involve some kind of public ceremony or performance, ritualized to a greater or lesser degree, with attentive third-party audiences. Before the situational interruption, all of the participants know what is going on, understanding their own roles as well as the contextual limitation of those roles in regard to other sets of (provisionally suspended) involvements. Within the short time period of that performance, participants are ritually connected to all of the others in that setting; this connection in turn overrules any other ongoing relations (or lack of relations) they may have outside of that setting. The projected ending of the performance is reasonably well scripted, although it also allows for some degree of improvisation, which can impress but not startle as long as everyone adheres to a minimal set of public norms. Despite the energy and excitement generated, little is genuinely at stake, except perhaps confirmation of status and/or solidarity. All four episodes can be seen as prime examples of what we describe in more detail below as "publics," which are unexpectedly destablized in the subsequently erupting situation.

While the last two examples do not involve the same sort of ceremonious public performance, they do involve a prescripted set of relations and/or trajectories that are called into question in the situation that follows. They begin with either a set of previously prescribed roles (colleague, friend) or established procedures (technological steps to reach the moon) that are specialized in relationship to particular fields of social interaction, which we describe below as "network domains." (However, as we shall show, even these ostensibly specialized and directed exchanges shade over into publics, by means of conversational role-mixing, in the first case, and the third-party spectators, in the second case, which heighten the sense of possibility and promise involved.)

What happens to turn such ritualistic, prescripted, and/or specialized exchanges into uneasy and portentous situations? There are several common characteristics that we can isolate and propose as defining elements of situations:

1. Situations are stochastic and uncertain; possible causes and consequences are thrown into question, generating a search for accounts and entailments; the future is perceived by the actors as problematic and unresolved.
2. Situations involve intersections of multiple sets of relations and stories, including those normally suppressed or held in abeyance in a given social setting; these in turn demand reinterpretation and realignment on the part of those involved.
3. Situations impose stakes; ties and positions are put at risk, along with accompanying interpretations and projects; the outcomes are felt to matter to the actors engaged.

Conceived in this way, a situation is not simply a social setting or interaction, but rather constitutes a particular kind of interaction, distinguishable from (but interwoven with) the interactions around it. Situations can be seen as the direct opposite to "conversations," a peculiar form of talk in which, at least in its extreme form, 1) the future is nonexistent, 2) actors are fully connected with arbitrary choice of stories, and 3) there are no stakes for the participants involved. Conversation, as we discuss further below, is not predetermined in topic by the context, and so entails continuing movement from one topic to the next without implication or call for change, either in partners or in discursive domain.

Conversations and situations are both born of intersections between multiple networks and cultural domains. Both are closely related to the development of publics as mediating devices for switches across complex sets of relations. Whereas conversations create relatively neutral spaces of cross-network exchange (constituting a "research and development" use of publics), situations mobilize action. The social force and relevance of situations comes from their capacity to trigger realignments and reinter-

pretations across more specialized sets of sociocultural relations. Here we must pause briefly to elaborate the concept of switching processes across network domains, before going on to describe how such processes interpenetrate with both conversations and situations.

Switching across Network Domains

Modern social relations are composed of crosscutting sets of ties and accompanying story sets, which constitute specialized, self-reflective domains of discursive interactions. *Discourse* is a general term embracing communicative interaction of all sorts: the bore's monologue, business talk, the writer's narrative to a reader (Bruner, 1991), internet messages, and of course gossip of all sorts. Discourse is always constitutive of (and by) ongoing sets of relations, which it continually constructs and reconstructs in response to the perceived (but negotiable) boundaries of particular social settings. Within discourse, reactions can shape perceptions merely in terms of momentary topics of talk, without changing the perception either of connectivity in social space or of coherent connections within cultural space.

But there also are abrupt transitions in networks accompanied by switches of speech register (Halliday, 1973).[2] A coffee break, for example, can yield a whole new staging of sociocultural action, perhaps with juice drinkers to one side and smokers shunted away to talk of their own. Always being negotiated in such switches is the extent of tangible social surroundings, in network strings or clusters, which are shifting to other domains, with additional relations being activated and other ties being dropped. Switching is as much problematic as it is routine; it offers opportunity as well as constraint; it is constructed ex post as much as enacted ex ante.

In earlier historical periods, switches between idioms or dialects were ceremonial and lockstep, occurring jointly across popula-

tions and/or role-sets according to fixed cycles and calenders. Such lockstep transitions contributed to the reproduction of social and linguistic patterns of domination, such as those found in aboriginal kinship systems (see White, 1963, 1998). In such systems, any given tie *entails* (some) compound role-relations with other structurally equivalent members of that subgroup, as evident in tribal marriage partitions with their accompanying linguistic markers. Actors are continually subject to the hegemonic pressure of others engaged in the social and discursive construction of that subgroup, pressure that remains steady as actors move within and across social settings.

Modernity brings numerous and specialized domains for talk and process, with transitions among them being problematic, diffuse, and scattered, and yet still socially coordinated, now in networks. Within discourse grown more flexible and diverse, we need to determine which particular conventions in discursive signaling hold among which particular crowds. Distinct registers of speech appear for different domains, such as in family, business, church, or politics (Halliday, 1976; Tannen, 1993). And we can also construe discourse for semiotics other than language—for example, in matches between soccer teams in a particular league—in which individual and group motions and voicings support evolving stereotypes. Such stereotypes, along with the shared stories (or narrative "scriptings") that they make possible, are the signals that constitute discourse for that league and period. All discourse depends on and leads to rules-of-thumb for joint reference, including their elaborations as stories.

We define *domain* as the perceived array of such signals—including story sets, symbols, idioms, registers, grammatical patternings, and accompanying corporeal markers—that characterize a particular specialized field of interaction.[3] Such domains are jointly perceived and produced by (at least some subset of) actors, who sustain those domains across the flow of social settings in more or less routinized or self-reflective ways. As sociolinguists of various sorts came to examine ongoing dis-

courses with care in detail (for a survey, see Levinson, 1982), they made the great contribution of uncovering a deep problem in the taken-for-granted. Discourse could not be construed as going on inside heads, but rather discourse was an ongoing interpersonal construction—reflexive and indexical in its interactions.

Meshing with social networks is what is distinctive in this use of domain. A domain must be seen as a joint production across particular strings of actors. Social networks can be defined as sets of actors jointly positioned in relation to a given array of ties (for example, friendship, advice, cowork, church membership, political alliance, business transactions, information exchange, and so on). Each type of tie is accompanied by a set of stories (along with associated discursive signals) that are held in play over longer or shorter periods of time, usually not limited to single setting or episode (White, 1992). An array of signals is taken for granted during periods of activation along temporal stretches in networks of relations, stretches not known or calculated in advance. In switchings come realizations, ex post, of what strings of ties were holding a network domain together. Sometimes talk occurs as in waves across a field of interaction, sometimes it really is just the two of us in an auto on an empty road, and often, of course, the "talk" remains inside your head.

Networks tend to have evolved along with discourse into looser, freer structures, different from the rigidly associated role sets of earlier times. In recent years, substantial empirical findings on network ties have been derived by anthropologists, sociologists, psychologists, organization analysts, and others. These findings have come from, and stimulated, a remarkable array of techniques for the mathematical analysis and computer processing of structural data. Yet despite these efforts, the phenomenology and theory of network ties has thus far remained ad hoc, casual, indeed largely implicit, because networks have not been understood as embedded in domains.

Domain is intercoordinated with social setting, which we specify in network terms, so that switchings are transitions between network domains. Such netdoms are constituted by an array of network ties along with associated signals and stories, which give them narrative extension forward and backward in time. Such stories are stochastically unresolved within a given temporal duration, with accounts and entailments held in play over time across a particular configuration of social settings. The ties in a network are connected in, and thus shaped by, that network as a social space, which has a broader temporal-relational extension that can be abstracted from cumulated (short-term) interactions. Network tie is thus different from the dyad discussed by linguists, who are primarily concerned with the subtleties of interaction over time only within the given dyad. There is similarity in an insistence that the domain—that is, the cultural content of action—be specified; the difference is our insistence that domain is always interpenetrated with network extension.

Switchings between network domains are discontinuities in sociocultural process, appearing like "zaps" between television channels when viewed externally in successive cross-sections. But switching is not merely a function of individual will or purpose: a person can be said to have "switched" when the new setting considers as relevant a different set of discursive signals than the previous set, even if that individual's entire set of ties and signals hasn't changed. But when that person thinks about it after-the-fact and describes the experience to others, the anomalous experiences "drop out," because they can't be woven into the story—just as the immediate social pressure of the new situation washed out the old and imposed the new set, willy nilly. Lines in a story are scripted by and with domain, in relation to place and time, physical objects, role-occupying others, and network choices.[4]

Conversations via Publics

The fluid ties and talk familiar to us in modern times appeared only with the emergence and spread of new constructions within social process. Publics emerged as special, reduced varieties of network domain that ease transitions between more specialized, longer-term sets of ties and stories. Publics can be defined as interstitial social spaces characterized by short-term copresences, as well as by intersections between multiple network domains. They function by reducing the uncertain and problematic nature of such spaces by positing minimally recognizable identities, maximally decontextualized from the complex array of relations and story sets that each actor brings to the occasion. Publics create temporary social scaffoldings in which fully connected actors (who may be tied either through equivalence or hierarchy) engage in highly ritualized interactions. While publics may in some cases involve local drama and/or heightened emotion, they are usually relatively innocuous and inconsequential in terms of underlying sociocultural patternings. Time is provisionally suppressed in publics, decoupling actors from the multiple temporalities in which they are embedded.

In previous work, we have described different varieties of public that have come into play over the course of history, including the *ceremonial, carnival, assembly, rally,* and *salon,* perhaps in that order (White, 1995). These types of publics vary in relation to their degree of formalization; the high ritual of public ceremonials is inverted in the ritualized mayhem of carnival, and takes the form of staged deliberation and/or challenge in public assemblies and rallies. However, all of these publics have in common a sort of liminal reduction of ambiguity, allowing for decontextualized passages through complex and uncertain transitions in role sets and institutional trajectories, much like the liminal dramas described by anthropologist Victor Turner (1974). In the sense

used here, publics are not equivalent to audiences, since they encompass both the watcher and the watched, equally engaged in enacting the performative rituals of netdom passage.

With the development of the salon form of public during the Enlightenment, formal conversation arrived as a new variety of discourse. Over centuries, we conjecture, the salon form appeared more and more frequently and with less and less protection of boundaries via formal decorum, allowing for mixing among previously segmented social groups. As noted by social historians such as Habermas (1989), such social mixing in salons and coffeehouses gave rise to a form of deinstrumentalized and proto-egalitarian discourse underlying the idea of the modern "public sphere." It also, we argue, gave rise to the more mundane cocktail party genre, along with casual, free-floating conversational exchanges in a variety of social settings. It was a major sociocultural invention to break out this more flexible and topically unconstrained form of discourse from the specialized social rooting of domain. Conversation seems to arise mainly in those urban settings in which rigid government and social convention is shaken up continuously by busy mercantile activity with other urban centers. Conversation comes in only with new switching mechanisms for talk in social organization, which eventually suggested the network constructs familiar to social science today.

This more specified understanding of conversation as a modern form of interstitial public discourse—relatively free-floating, purposeless, and egalitarian—finds support in the work of Goffman, who describes "the special sense in which the term tends to be used in daily life":

> Thus conversation, restrictively defined, might be identified as the talk occurring when a small number of participants come together and settle into what they perceive to be a few moments cut off from (or carried on to the side of) instrumental tasks; a period of idling felt to be an end in

> itself, during which everyone is accorded the right to talk, as well as to listen and without reference to a fixed schedule; everyone is accorded the status of someone whose overall evaluation of the subject matter at hand—whose editorial comments, as it were—is to be encouraged and treated with respect; and no final agreement or synthesis is demanded, differences of opinion to be treated as unprejudicial to the continuing relationship of the participants (Goffman, 1981, p. 14, fn. 8).

Conversations are reached via publics, not by direct switchings. We hypothesize that conversations and multiple netdoms arise in history together, along with publics of new sorts, which we call *Goffman publics.* Goffman (see, for example, 1963, 1974) presupposes a sort of transparent bubble surrounding his speakers, a social space-state that magically suspends for a moment the embeddings of the talkers in the ongoing but longer-term processes that we have represented as network domains. Such conversational micropublics help to buffer the ambiguities invoked by the immediacy of cross-netdom interaction. Distinct domains in community life had been recognized for aeons prior to conversation; what had to be called into existence were newly flexible ways to move between increasingly specialized domains. Such flexibility came to supplant lock-step movement based on calendar and custom in the social process of a community, as was the case in premodern and tribal configurations. Publics thus come both to reflect shifts in sociocultural formations and to enable shifts through easing management of ambiguity.

Publics into Situations

Despite the apparently inconsequential and formalistic character of publics, they serve an important social function, particularly

in modern times, in which patterns of intersection, nesting, and disjunction among netdoms are much more layered and complex. Publics lend dynamism to networks by facilitating switching between distinct ties and registers, creating neutral buffer zones that can reduce the "zapping" effect of direct netdom switches, as well as static interference between crosscutting netdoms. Some kinds of publics accomplish this in relatively bland and unproblematic ways, such as conversation exchanged in an elevator, or else the collective "zone out" and/or amused smiles briefly shared in a subway. These types of publics are created by otherwise disconnected actors who suppress their "outside" ties and story sets to negotiate the immediacy of co-presence. Such publics are sturdy but not invincible, and can be subject to situational breaches, such as a homeless person's passing or a technological breakdown.

Other types of publics are much more fragile and portentous, due to the greater density of overlap among network domains that must provisionally be kept in check. Such multilayered publics (in which actors are tied in multiplex ways) are inherently more unstable and can turn unexpectedly into situations; hence they are also subject to higher degrees of ritualization. Take, for example, two of the examples discussed in the opening series: the graduation ceremony and the protest rally. At first glance, it would be hard to call either of these two publics "inconsequential," since they are designed to herald major transitions (passage from youth into adulthood) or to voice contending positions (claims from social movement challengers). Both, however, are highly ritualized and ceremonious performances, which in fact (if all goes well) should issue no surprises; all of the necessary evaluations and negotiations have been carried out previously to the public occasion itself. In both cases, many dimensions of the densely overlapping ties of the coparticipants must be held in abeyance, including rivalries, critiques, or resentments, as well as factional alliances and future designs and calculations. Yet within the ritualized and reduced bubble of the public, these provisionally suppressed netdoms are

still there hovering in the background, constituting a crosscutting array of latencies that may veer off into situations.

There are also publics intermediate between these two extremes, such as the previously discussed salon or cocktail party, in which conversation among loosely tied actors flits between topics equally low-stakes or inconsequential in terms of the ongoing relations of the participants (except perhaps for general impression gathering, as well as local status acquisition in regards to conversational cleverness and imagination, much like the verbal duel on the street corner described earlier). The business-sponsored conference of academics invokes a similar genial mood, since the presentations are not supposed to matter (except in some vague, friendly, "that's interesting" sort of way) either to the businessmen or to the academics, who leave their respective netdoms at the door. When the business netdom is unexpectedly reintroduced by the CEO, invoking latent ties among half of the audience, it provokes a panic of accountability among the suddenly role-endowed managers.

Situational Interanimations

Situations are triggered by contingencies that spark interanimations among network domains. These contingencies may be endogenous to the interaction (for example, when a given story line breaks down, or a previously suppressed—but nevertheless available—set of ties and stories suddenly swings into focus). But they may also be exogenous, coming from unexpected occurrences, such as an invasion, a natural disaster, a chance encounter (which may in turn result in narrative breakdown within a network domain). Whereas publics make possible relatively implicit and routine "passages" between netdoms, situations demand active response. They may thus provide opportunities for entrepreneurs to seize action in more projective and practically evaluative ways (Emirbayer and Mische, 1998), enabling them to

recombine story lines and reconfigure relations with a relatively greater degree of reflection and intentionality.

Sometimes situations may emerge not through publics, but rather from the expansion or constriction of the available ties and story sets *within* a network domain. We can call such switching processes "cascades," since, unlike "zaps," they involve partial or graduated changes, rather than abrupt turnovers. This dynamic was evident in the final two examples described in the opening series, when a friend/colleague relation set becomes fraught with romantic possibilities, or a space mission in progress suffers a technological breakdown. The resulting situation does provoke a switch, since the netdom-in-process undergoes a reconfiguration that must be accounted for post hoc. However, there has been no complete disjunction from the set of roles and scripts that were previously engaged, but rather these have had to respond to inclusions or exclusions in the elements of those particular network domains.

Most often, as we have described above, situations emerge from publics, which suppress ambiguity but also increase what White (1992) has called *ambage,* or social "roundaboutness," leading to expanded mobility and flexibility among social connections. Such mobility—and the possibility for decoupling and social mixing it implies—may allow switches-in-progress to erupt into problematic interanimations. Third-party audiences may increase the stakes and charge of a cross-netdom situation, pushing toward resolution through eventual switching and subsequent accounting processes (Leifer, Gibson, and Rajah, 1998; Gibson and Mische, 1995). In this sort of public-induced situation, there is a greater possibility of disjunctive solutions, often involving cross-domain recombinations of ties and interpretations, drawn from the various netdoms that cross path in the public. This in turn requires the post hoc construction of narrative "ratchets" (Padgett, 1981), that is, normalizing accounts of historical transitions that smooth over sometimes jagged sociocultural realignments.

These various forms of situational switching may interpenetrate; in fact, a closer look reveals that the effects of the two net-

dom cascades noted above are heightened by certain public dimensions. In the first case, the chance of a romantic segue is increased by decontextualized conversational interanimation (that is, talk occurring at a conference, away from the usual settings defined by work and friendship). In the case of Apollo 13, stakes are driven up by the intensive media attention involving legions of (earth-bound) third-party observers, not to mention extensive interagency collaboration. In both of these examples, such public dimensions expand the mobility, social reach, and crosscutting stakes of previously domain-bound interactions, which may transform a cascading set of relations and stories into a ratchet-demanding reconfiguration.

Conversations also constantly risk transformation into situations, when a given free-floating conversational terrain is threatened by a netdom intrusion perceived as loaded or risky for one or more of the conversational partners. Despite the flexibility in shifts among topics, conversations are not complete free-for-alls, but rather involve a limited set of topics considered fair game in a particular setting. Within the bounds of a given conversation, we might say that all acceptable topics are equally available, but not all available topics are equally acceptable (and some topics may simply be unavailable within a given historical time-space). If acceptable topics are fully connected (at least potentially) within a conversational public, then what a situation does is shake up configurations of acceptability and availability, perhaps opening up new spaces (drawn from crosscutting netdoms) as "running grounds" for conversations, while others are closed off, and transitional possibilities are rearranged.[5]

Bayesian Updating to and from Situations

Within a given network domain, and prior to switches, there is always a continual juggling of the possible story sets implied by a given set of ties, described by the imagery of the *Bayesian fork* (White, 1995). The term is drawn from Bayesian inference in sta-

tistical science, in which an observer explicitly allows for her own uncertainty about the theoretical framing for a given measurement, which is continually updated as new observations are added (Berk, Western, and Weiss, 1995; Western, 1996). We extend the notion of Bayesian updating to what goes on within a network domain, as the array of ties and story lines in play—involving a sort of "suspension set" of unresolved possibilities—are continually adjusted in relation to the inflow of new information. At issue is the degree of applicability of each story in a set for the accounting of an ongoing series of interactions. This process is temporarily resolved at a fork, that is, a netdom switch that in turn invokes a new setting of the inferential process (that is, a new configuration of possible accounts and entailments).

Bayesian forks structure durations in time, since resolutions result in turning points (Abbott, 1997) that in turn constitute periodizations, over long historical *durees* as well as shorter temporal divides. Within a given temporal duration, there is a continual process of Bayesian updating in regard to the signals supplied by social setting and interaction partners. These signals, however, are not stable within a network domain, but as we have seen, are subject to endogenous and exogenous contingencies. They are susceptible to impingements from neighboring and/or overlapping netdoms, as well as from sudden interruptions and exigencies. Such contingencies may be triggers to situations, in which the available story sets poised to resolve the fork are suddenly expanded, collapsed, or challenged by crosscutting domains.

In this conception, a Bayesian update does not in itself create a situation, since the inherent stochasticism (that is, the play of unresolved possibilities) within a given temporal duration has not necessarily turned dangerous. In contrast to the destablizing uncertainty of situations, the juggling of options within a given network domain is relatively specialized and constrained; one does have the impression of moving "in a given direction" (for example, toward the moon or along an academic career), even if the outcome of the projected trajectory is still unresolved in absolute terms. A situation can thus be seen as a radicalization of the

temporal-relational uncertainty of all social interactions. Because situations impose unforeseen reconfigurations of ties and stories, they challenge the directional logic previously in play, provoking a sense of discontinuity and transition. Such discontinuities in turn make it necessary to carry out continued Bayesian updatings, in the attempt to account for the switch and bring it into line with the new set of relations and narratives now being juggled.

The various types of switching described above, and their relationship to Bayesian updating, can be schematized in Figure 1. What we see here are different paths by which the possible futures being juggled within a Bayesian fork are resolved by switching. Whereas a *zap* entails a direct move from one netdom to the next (abruptly canceling the juggling motion), a *passage* through a public may ease that switch, or else provide the means for a ceremonious transition that keeps a variety of possible futures in play. In a *cascade,* a given netdom suffers an expansion or constriction without the buffering effect of a public, which may in turn provoke a situation; likewise, public ceremonies may result in

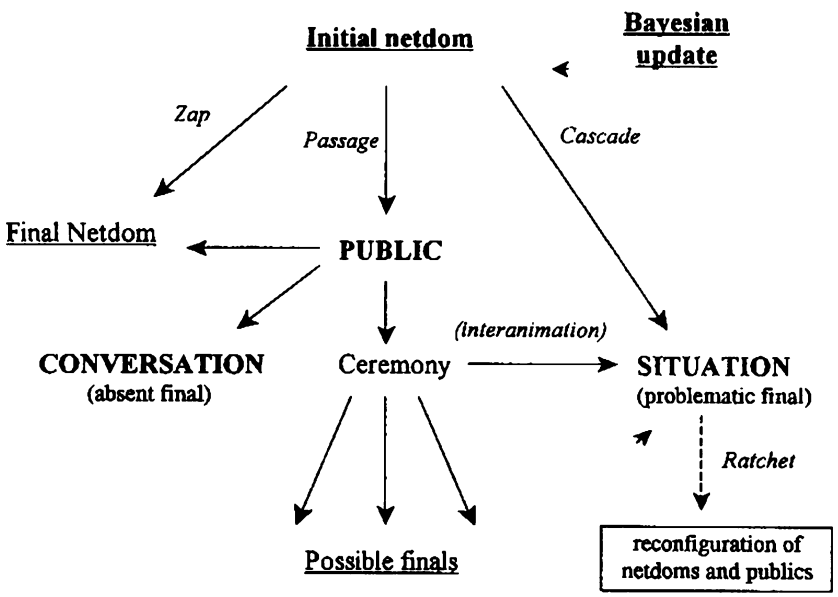

FIGURE 1. Switching Types and their Relationship to Bayesian Updating.

interanimations that erupt into situations, requiring the construction of narrative *ratchets* to smooth over the resulting realignments. Conversations ostensibly have no future (and no effects on surrounding netdoms), although they may surreptitiously allow actors to accumulate cross-domain information and impressions, thus providing material for situational mobilizations.

Future Challenges

We have presented here only a preliminary sketch of some of the mediating constructs necessary for a more adequate theorization of network relations in terms of discursive processes. We are aware that this analysis is highly speculative and raises as many questions as it answers, posing a host of challenges for future theoretical and empirical work. On a theoretical level, these include the following queries:

1. *How do discursive domains and network ties concatenate over time into institutions?* This question requires an analysis of institutions as self-reproducing configurations, able to sustain themselves through switchings across streams of temporal-relational settings. How do netdoms become *rooted* in regard to each other and/or to the physical ecology of particular social settings? In what way are publics essential to the creation and maintenance of institutions? Here we must look to the work on linguistic submarkers in social networks by Milroy (1987), as well as Gumperz (1992) and Goffman (1961, 1974); also how this work ties into the research on organizations (Powell and DiMaggio, 1991; Morrill, 1995). We must also track and embed the distinct levels and scopes of actors: organizations also can "talk." This in turn raises the question of what variation we might find regarding the resistance of particular kinds of institutions to the destablizing effects of situations, which can themselves be compared in terms of strength, density, and complexity.

2. *How do dominance and control, as well as agency and innovation, reverberate across netdoms?* Here we need to explore how institutionalized dominance orders, as well as collective and individual challenges to those orders, become enacted in and across network domains, as well as into publics and/or situations. As Bayesian forks careen through publics into situations, they may provide opportunities for transformative agency on different scales, such as that studied by analysts of revolutions, social movements, and the public sphere (Tilly, 1995; McAdam, Tarrow, and Tilly, 1997; Skocpol, 1979, 1992; Cohen and Arato, 1992; Emirbayer and Scheller, forthcoming), as well as organizational innovation (Clemens, 1997; Powell, 1996; Powell and Brantley, 1992, 1996; DiMaggio, 1988, 1991) and sociolinguistic evolution (Gumperz, 1992). Domination means interlinking, mutually reinforcing relation sets; when shaken up in publics, these may provide opportunities for social movement entrepreneurs to trigger situational convergences of independent projects and story lines, which in turn coalesce into higher-level challenges (Mische, 1998).
3. *What is the relationship between setting, situation, and events?* If the concept of "situation" does not refer just to any social setting or interaction, neither is it identical with "event." Since events are frequently used units of social research (see Abbott, 1983, 1984, 1990; Abbott and Hrycak, 1990; Tilly, 1995; Tuma and Hannan, 1984), an important step toward operationalization of the constructs presented here will be to specify the relationship of netdoms, publics, and situations to the notion of event. Unfortunately, much event-based research has relied upon a flattened conception of events as mere occurrences, as elements in a sequence, without a deeper phenomenological understanding of what these elements entail. Here we can draw upon recent work by Abbott (1997) on "turning points," as well as by Sahlins (1991) and Sewell (1996) on events as transformative episodes involving the articulation of differ-

ent levels and registers (for example, long and short term, local and global, individual and collective), which cues into switching and interanimation across network domains.

In the interplay between language use and network process, staggering problems of combinatorics and connection, both everyday and strategic, are being variously resolved, or not, from an observer's standpoint, as they are being woven by actors into accountings and contentions. The challenge is to measurement. There is a very large and excellent corpus of detailed empirical studies of discourse by linguists and others.[6] What is still overlooked in most of their accounts is the active multiplicity among the networks being invoked and involved in discourse, from which social ambage results (White, 1992). Measurement will be challenging in the complex, messy contexts of actual social research (see De Gennes, 1979).

We should turn to other sciences, and to mathematics—geometry and algebra alike—for more flexible formulations of such multiplexity, along with the concatenations of sociocultural structure that these imply. Blockmodels in network analysis were derived from semigroup algebras (White, Boorman, and Breiger, 1976; Pattison, 1993) and can be extended to uncover cultural structure (Mohr, 1994). Likewise, algebraic techniques for studying inclusion and intersection in multiple data arrays, such as Galois lattices (Freeman and White, 1993), can be applied to the interpenetration of cultural repertories and network relations, along with how these cross paths in events (Mohr and Duquenne, 1997; Mische, 1998). To study the patterning of events over time, Andrew Abbott (1983, 1984, 1990) argues for new ways to measure sequences from algorithms devised variously for genetic evolution, antibody function, and other specialties within biologies; such methods can also be extended to the study of sequence in talk (Gibson, 1998) as it catenates into emergent status and work relations over the course of group discussion processes. A new generation of random graph models (Wasserman and Pattison, 1996; Pattison and Wasserman, 1998; Robins, Pattison, and

Wasserman, 1997) is being designed to examine interdependencies between lower and higher levels of network configurations; these can be applied to the study of how different types of netdom structures intersect across particular social settings.

The application of such recently emerging techniques to the problems of netdom dynamics outlined here constitutes a rich and ample field for exploration and measurement. The network approach has so far, however, centered on formal techniques to the detriment of substantive theoretical grounding. Early structuralisms in linguistics, as well as in sociology and anthropology, focused on the conjecture that sets of rules and roles fitted together to yield coherent, if not cohesive, structure. But little of such coherent structure is in fact to be found in the modern civilization that is the actual (if unacknowledged) subject and context of social science.

Instead, in our civilization there are domains and networks that coalesce over time into recognizable genres and institutional forms. Ordering among netdoms, and their reflections in language, emerge from locally varying identities of actors, in sociocultural formations that, we suggest, are decoupled by switching in publics. Social process, in this view, cumulates from shifting overlays of constituent sociocultural processes. We have argued in this paper that such processes are reflexively self-shaping in the ongoing interplay between netdoms, publics, and situations. The study of this interplay, as well as its theoretical and mathematical elaboration, is an emergent horizon whose contours in social research are just now becoming visible.

Notes

1. For some recent attempts to explore the cultural dimension of networks, see Ansell, 1997; Brint, 1992; Carley, 1992, 1993; Emirbayer and Goodwin, 1994; Emirbayer, 1997; Mische, 1998; Mohr, 1994; and Mohr and Duquenne, 1997.

2. For assistance with Halliday on speech register, see Dejoia and Stenton, 1980.

3. A host of other terms are used in the literature for somewhat the same discrimination within the social world at large: some of broad usage—*realm, world, sphere, frame,* and so on—others not broad—for example, *syntax* (Runciman, 1989). The discrimination can also be within a particular overarching field such as the professions (Abbott, 1988), or more narrowly such as between mother and child (see format of Bruner in Forgas, 1985). The term *domain* itself was emphasized in early diglossia studies, as by Fishman, 1972, as well as in many sensible overviews, such as Edwards, 1976. The current description of domain is compatible with the essentials of Halliday, 1973, on "speech register."

4. We are indebted to a graduate student collaborator for clarifying this issue. He comments: "When I tell the story of going home to my family after several months at school, to make my story coherent I speak *as if* I made the switch 'as if by magic,' because in going home I walk into a particular story line (my brother can't determine what to do with his life, my mother has retorn a repaired ligament, my father is looking for another job after having been forced to retire), and it is this story line which I am likely to relate to you when asked upon my return to school. What I am *not* likely to describe is the difficulty I had in switching; indeed, after a time I am not likely to remember it myself—even after I've been home for a few days this difficulty seems alien and unaccountable. Wittgenstein comes to mind. The experience of difficulty in switching is a profoundly personal experience. Whatever behavioral manifestation this personal experience may have (for example, I describe my work to my family in academic terms) will have no public effect, for the public I've wandered into (my family) is not geared to respond to those particular cues" (David Gibson, personal communication, February 25, 1995).

5. We are grateful to David Gibson and Philippa Pattison for these obervations (personal communication, June 27, 1998).

6. Surveys are offered by Brown and Yule, 1983, and Levinson, 1983. Outstanding guidance as to playing out of linguistic form in discourse comes also from Forgas, 1985; Perinbanayagam, 1991; Schiffren, 1987; and Shuman, 1986.

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