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Communication, Discourse and Activity

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The article questions the separation of discourse from object-oriented productive activity, evident in both conversation analysis (CA) and critical discourse analysis (CDA). This separation leads to difficulties in the choice of a unit of analysis. It is argued that these difficulties may be overcome by focusing the analysis on situated activity systems. An activity-system analysis directs the attention to the intertwining of instrumental-productive and influence-power aspects of communication in organizations. Beyond that, the tension-laden and unstable nature of actions, seen in the context of the inherently contradictory activity system that generates them, invites the researcher to search for the dynamics and possibilities of change and development involved in mundane disturbances of organizational communication.

In their recent ethnographic study of teamwork and literacy at a manufacturing plant, Hart-Landsberg and Reder (1997, p. 365) give the following example.

The Rexford, a machine for grinding metal bars into components for automobile accessories, "crashed." Teresa was just concluding her first week operating it. Team members milled around, trying to figure out the cause of the crash. To anyone who was listening, Teresa expressed her guilty feelings: "It had to have something to do with the operator." Jeff disagreed. "The same thing has happened to all of us." Then he warned her that the tooling experts assigned to troubleshoot this problem probably would tease her as they teased all operators involved in such breakdowns. Immediately an expert arrived and took Teresa aside to talk to her. Later another young machinist of the team, Carrie, told the

observing author that the problem of Teresa's machine had *not been* her fault: It was the machine's. "Some of the best machinists come out from a situation where the machine crashes all the time," Carrie maintained. In the aftermath of the breakdown, an item on the team meeting agenda was: "Update on the Rexford." Chuck, the team's oldest worker, with years of experience operating and fixing the machine, recounted that after the crash he had "rebuilt," "remade," "realigned," and "recentered" all the Rexford parts which had been "wiped out really bad," "burnt up," "shoved back," and "had gullies in them." After participants stopped chuckling at the extent of Chuck's chores, he asserted, "It's not Teresa's fault." But Teresa still seemed worried about her culpability: "It was only the second time I've loaded bars . . . but Emily loaded a similar bar [with no resulting breakdown]." Participants then launched into a technical analysis of bar size and developed a new recording procedure for tracking undersize bars to prevent future breakdowns. Thus the team's response to the breakdown was to support Teresa and attempt to improve the production process by creating a new type of written record.

The example nicely illustrates the central point made by James Taylor and his colleagues in the articles of this issue: organization emerges in the interplay between conversation and text. More specifically, the fluid and passing events of conversation are fixated and made durable structures by turning them into texts. In this case, the team constructed a new type of written record as a response to the breakdown, while the tooling experts surely created their own textualizations of the event.

But the example also opens up a set of further questions. First, if organization emerges out of conversation, what is the communicative and organizational relevance of the productive material activity—in this case, operating a machine and having a breakdown—that gave rise to the conversation in the first place? What is the relationship between discourse and object-oriented productive activity?

Secondly, what is the nature of textualization? Taylor (this issue) writes:

The modal construction corresponding to a communication event has a sender and a receiver. An adjacency pair has a speaker and a respondent. If they choose, the participants in a conversation may interpret the intervention of the first as communicating a modal object, in that they treat it as an influence attempt, intending to affect the beliefs and/or actions of

the recipient. When that happens . . . , the organization has no longer merely been described but is being actualized—acted out. Roles get played, and the objects of organization realized, especially when the participants to the exchange have identified themselves as agents who speak with a corporate authority, and what they are speaking about is known to be a corporately valued object.

The example certainly contains conversational events that may be interpreted as attempts to influence the recipient's beliefs and actions: the team members reassured Teresa, and the tooling expert assumedly teased Teresa, making her feel guilty. These two influence attempts might be interpreted as parallel, competing ways of enacting organizational power structures by asserting authority over an individual worker. But this account seems to leave out of the equation the pressing issue for production, namely the Rexford machine and the metal bars. Taylor does mention the "corporately valued object," but in his account it comes somehow as a secondary consequence of an influence attempt. In the example provided by Hart-Landsberg and Reder, events seem to unfold in an opposite order: the influence attempts come as secondary consequences of the production breakdown. And the crucial outcome is a new production procedure for tracking the bars. So what is the role of objects and tools in textualization, as related to the role of influence and power?

Thirdly, the example seems to say something important about the nature of change and development. The team puts the breakdown into a historical perspective as a recurring nuisance and engages in a proactive design effort to prevent its reappearance. How is such continuous change and developmental struggle explained in Taylor's account of the emergence and evolution of the organization?

In the following, I will analyze these questions as pervasive dilemmas not only in the work of Taylor and his colleagues but in studies of discourse in general. I will examine a recent debate between conversation analysis (CA) and critical discourse analysis (CDA) as a case in point. I will offer concepts from cultural-historical activity theory (CHAT) as a possible way to overcome and transcend these dilemmas. I will conclude by discussing the issue of generalization as a challenge to discourse- and activity-based studies of organizational communication.

DISCOURSE AND PRODUCTIVE ACTIVITY

Emanuel Schegloff, the leading representative of conversation analysis, recently characterized the problem of critical discourse analysis as follows.

[Critical discourse analysis] allows students, investigators, or external observers to deploy the terms which preoccupy *them* in describing, explaining, critiquing, etc. the events and texts to which they turn their attention. There is no guaranteed place for the endogenous orientations of the participants in those events; there is no principled method for establishing those orientations; there is no commitment to be constrained by those orientations. However well-intentioned and well-disposed toward the participants—indeed, often enough the *whole rationale of the critical stance* is the championing of what are taken to be authentic, indigenous perspectives—there is a kind of theoretical imperialism involved here, a kind of hegemony of the intellectuals, of the literati, of the academics, of the critics whose theoretical apparatus gets to stipulate the terms by reference to which the world is to be understood—when there has already *been* a set of terms by reference to which the world was understood—by those endogenously involved in its very coming to pass (1977, p. 167).

Margaret Wetherell responded to the critique by pointing out that conversation analysis practices theoretical imperialism in its own way:

for Schegloff, participant orientation seems to mean only what is relevant for the participants in this particular conversational moment. Ironically, of course, it is the conversation analyst in selecting for analysis part of a conversation or continuing interaction who defines this relevance for the participant. In restricting the analyst's gaze to this fragment, previous conversations, even previous turns in the same continuing conversation become irrelevant for the analyst but also, by dictat, for the participants. We don't seem to have escaped, therefore, from the imposition of theorists' categories and concerns (1998, p. 403).

Schegloff's methodological solution is to focus on the participants' orientations and understandings by means of a rigorous technical analysis of conversational turns. The participants' understandings must be inferred from their demonstrable conduct in the ongoing conversational interaction, "as revealed in ensuing talk which is built on just that understanding" (1997, p. 179). In other words, a conversation must be taken as "the object of inquiry in its own terms" (1997, p. 171).

You need to have technical analysis *first*, in order to constitute the very object to which critical or sociopolitical analysis might sensibly and fruitfully be applied. And then one may find it no longer in point (1997, p. 174).

For Wetherell, this is not enough. She maintains that in analyzing our always-partial piece of discourse, we should look also to the longer-term threads in the broader argumentative social fabric or argumentative texture—"the conversational or discursive history which makes this particular conversation possible" (1998, p. 403). Theoretical concepts are necessary for this kind of analysis. Wetherell (p. 405) suggests the concepts of positioning, interpretive repertoire, and ideological dilemma.

Organizations are communities of practice, collectivities in which practitioners indeed have their own orientations and understandings which are all too often ignored and erased by theorists of organizational communication. So it is easy to agree with Schegloff on the primacy of members' interpretations and the object in its own terms. But organizations are not reducible to small fragments of discourse; they carry histories and operate as meeting grounds of multiple argumentative threads. Thus, it is also easy to agree with Wetherell on the necessity of a broader unit of analysis.

This is where the trouble begins. "Argumentative social fabric" and "argumentative texture" are metaphors, not analytical concepts. And none of the analytical concepts suggested by Wetherell is presented or used as a comprehensive unit of analysis. So how are we supposed to bound and construct our research objects when conversational fragments are too narrow and argumentative textures are too vague?

This weakness in Wetherell's framework, shared by many variants of critical discourse analysis (see Fairclough & Wodak, 1997), seems to derive from an insistence on discourse as a privileged and more-or-less self-sufficient modality of social conduct and interaction. This insistence is largely taken for granted and shared by both conversation analysts and critical discourse analysts.

Symptomatically, the data examples analyzed by Schegloff and Wetherell respectively as demonstrations of their methodologies are surprisingly similar. Schegloff uses a transcript from a telephone conversation between a husband and wife, concerning their son's travel troubles. Wetherell uses a transcript from a small group interview conducted with three male students concerning their relationships

with women. Common to both examples is that they are situations of "pure talk," in that they are not ostensibly embedded in any practical activity. This "off-line" character of the examples makes it conveniently easy for the analysts to exclude from their analyses any empirical and theoretical consideration of the connections of this talk to action. The cost of this convenience is, I argue, seen in the dilemma of unit of analysis characterized above. Such off-line conversations as those used by Schegloff and Wetherell just are not particularly meaningful units of social life for the participants "in their own terms." They seem to either happen and disappear (the fragment problem) or go on and on endlessly (the fabric problem).

I argue that what organizes social life into meaningful molar units that have distinctive "argumentative fabrics" and "discursive histories" is practical object-oriented activity, which may also be called productive activity, understood in a broad sense (Leont'ev, 1978; Cole, 1996). Practical activities have this strong organizing potential due to their objects. Objects should not be confused with goals. Goals are primarily conscious, relatively short-lived and finite aims of individual actions. The object is an enduring, constantly-reproduced purpose of a collective activity system that motivates and defines the horizon of possible goals and actions (Engeström, 1995b).

The centrality of object-oriented activity is particularly evident in organizational life. Organizations may emerge through conversation, but they do not emerge for the sake of conversation. They emerge and continue to exist in order to produce goods, services, or less-clearly-definable outcomes for customers or users. If you take away patients and illnesses, you do not have hospitals. The object is not reducible to the raw material given or the product achieved. It is understandable as the trajectory from raw material to product in the emerging context of its eventual use by another activity system. Thus, the object of a hospital may be characterized as the trajectory from symptoms to treatment outcomes in the context of the patient's life activity. The object is projective and transitory, truly a moving horizon. But it is also specific and concrete, crystallized, embodied and re-problematized in every single patient and illness entering the hospital, time and time again.

I said above that the discourse examples offered by Schegloff and Wetherell are "not ostensibly embedded in any practical activity." A careful stepwise analysis that expands from those discursive actions in time and space might well uncover a less ostensible

embeddedness and object-relatedness, such as that found by Korvela (1998) in her study of how families construct their "homes" through their everyday actions.

Taylor's work seems somewhat ambiguous in this regard. On the one hand, he foregrounds conversation and "talking out," rather than productive activity and "acting out," as the privileged mode of organizational life. On the other hand, he writes that "organization is realized in the day-to-day as a set of activities." I believe that a theoretical integration of these two has not yet been accomplished.

There are different types of "distance" between practical activity and discourse. The off-line examples of Schegloff and Wetherell represent one end of the spectrum where talk and practical activity seem entirely divorced. At the other end, there are instances where practical activity and discourse seem to merge almost completely: preachers, auctioneers and talk show hosts would be examples of that. Most organizational activities fall in the middle where practical activity is accompanied and complemented but not replaced or accomplished solely by talk. Physicians conduct physical examinations and perform physical procedures on patients by means of physical artifacts, necessarily accompanied by talk and text. Machinists produce metal parts by using tools, an activity less frequently but equally importantly accompanied by talk and text. In these cases the relationship between discourse and practical activity, or between linguistic mediation and tool mediation, becomes a highly interesting, tension-laden problem, for both practitioners and researchers.¹

Wetherell refers to Laclau and Mouffe (1987; also Laclau, 1993) who make the problem disappear by proclaiming that speech actions and physical actions are essentially similar discursive acts. To me, this is evasion, not solution. Interestingly enough, some of the best minds coming from CA—not from CDA—have recently begun to develop promising ways to attack and analyze the problem, though still at a relatively molecular level of analysis (e.g., Heath & Luff, 1996; Heath & Nicholls, 1997; Goodwin, 1995; Goodwin & Goodwin, 1996).

ACTIVITY SYSTEM AS UNIT OF ANALYSIS

"Why this utterance here?" This is the classic question for analyses of conversations, according to Wetherell (1998, p. 388).

For Schegloff (1998, p. 416), the question "Why that now?" is central as a *member's* question, "as a/the key orienting issue for parties to talk-in-interaction." Returning to my opening example, the question might be: Why did Teresa say "It had to have something to do with the operator" and why did Jeff say "The same thing has happened to all of us"?

Schegloff would have us plunge into the details of a few preceding and following turns at talk, insisting that we show how the participants in their demonstrable conduct construe of the significance of those utterances for themselves. Wetherell would have us look for the answer in the overall power relations within the factory, both between workers and management and between male and female employees. While both exercises are probably useful, they ignore the crucial fact that we already know a fair amount (and can find out much more) of the local activity: who is producing what in collaboration with whom by what kinds of machines.

The clearer and more systematic our picture of this local productive activity becomes, the more obvious it makes many aspects of the conversation. As Goodwin (1997, p. 115–116) points out, taking a situated activity system as the basic unit of analysis makes a whole range of phenomena available for integrated observation and analysis: physical inscriptions in public, material environment and artifacts, roles for different kinds of participants, rules differentiating successful from unsuccessful action, relevant tasks of seeing, moving and performing, and systematic language practices. Goodwin's own study of color judgments in a team of geochemists monitoring a chemical reaction provides a nice illustration.

The situated activity system, within which the color judgments being examined here are lodged, provides organization for a range of phenomena. For example, as has long been noted by conversation analysts, a central issue in any analysis of human category use is that of *relevance*. Any entity can be accurately categorized in an indefinite number of different ways.... Issues such as how a category is to be defined or whether it is being accurately applied are thus analytically subordinate to the prior question of what organizes the selection of a particular category system (e.g., why do these parties choose to attend to these fibers in terms of their color, instead of, for example, their weight?). The answer is provided by the relevance of that specific category system to the activity they are engaged in: When the fibers reach jet black, the reaction being monitored has to be terminated. The encompassing activity thus provides a motivational framework within which color discrimination becomes a relevant

and expected thing to do. Simultaneously, the structure of that activity sets parameters for what will count as an acceptable solution to the task set by a relevant use of a color term. . . . In turn the successful accomplishment of that task leads to the deployment of a range of other practices and tools. . . . The use of these tools within the framework of the activity provides the participants with a visible texture of intelligibility, enabling them to make inferences about what each other is doing. By virtue of the encompassing activity, a heterogeneous collection of very diverse phenomena—color categories, spray bottles, descriptions of animal fur, sticks—is integrated into the accomplishment of a common cognitive task (1997, p. 133–134).

Thus, between the artificially-isolated fragment of discourse and the ambiguously-global argumentative social fabric, there is the middle ground of the situated activity system. While Goodwin's description captures some essential qualities of such a system, it fails to give it a coherent theoretical structure. This is where cultural-historical activity theory becomes the key resource.²

Leont'ev (1978, 1981) developed the concept of an activity system partly to answer the question "Why this action now?" In Leont'ev's account, activity systems arise with division of labor. He uses the example of a tribal hunt. When the object of the hunt is demanding enough, members of the tribe divide the labor: some chase the game away, while others wait in ambush and kill it. Taken in isolation, the action of chasing away the game makes no sense. Seen against the background of the collective activity system and its division of labor, the action is perfectly sensible.

Following Schegloff, one might argue that we don't need to study the activity system if we can show the sense the action makes to the participants themselves in their unfolding talk-in-interaction. However, as Leont'ev shows, in complex activities with fragmented division of labor, the participants themselves have great difficulties in constructing a connection between the goals of their individual actions and the object and motive of the collective activity. This is what gives rise to alienation and various tensions in organizations.

Consider again the initial example of this article. When Teresa kept saying "It had to have something to do with the operator," she displayed doubt, self-criticism and confusion. The whole incident may be interpreted as a fairly complex systemic disturbance in the activity, rather than just another demonstration of power relations. Using the model of an activity system (Engeström, 1987) already discussed by Taylor (this issue), the incident can be schematically described as a series of successive actions or action clusters in

the activity system of the machining team. The first step was the crashing of the Rexford machine as Teresa was operating it (Figure 1).

In Figure 1, the exclamation mark represents the breakdown of the machine as related to the objects to be ground. The question mark represents Teresa's doubts and confusion regarding her own possible contribution to the disturbance. The letter R represents reassurance and support from team members to Teresa.

The second step was the conversation between Teresa and the tooling expert (Figure 2). In Figure 2, the partially visible triangle

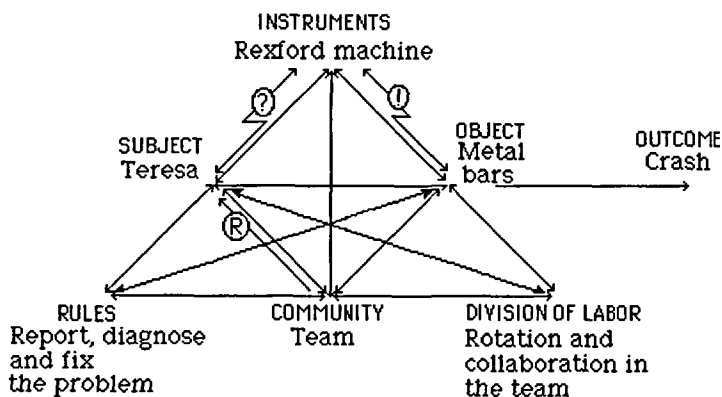


Figure 1 The first step of the Rexford incident.

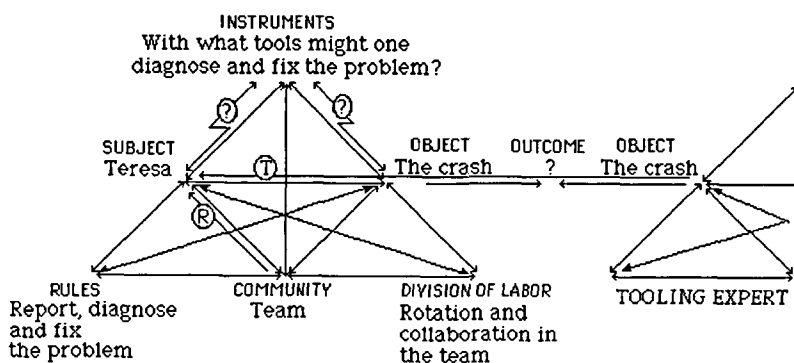


Figure 2 The second step of the Rexford incident.

on the right represents the activity system of the tooling experts. Both Teresa and the expert have now the crash itself as their object—the expected outcome, represented by a question mark, is diagnosis and repair. This causes a question mark between the crash and Teresa’s instruments: With what intellectual tools might one diagnose and repair the crash? The continuous arrow from the expert to Teresa, marked with the letter T, represents the teasing of Teresa by the expert.

The third step was the Chuck’s presentation of his repair work on the machine. Here the object was the Rexford problem, the outcome being a closure on the repair of the machine. The instrument was story telling, reminiscent of the war stories told by the repair technicians studied by Orr (1996). Chuck assumed the subject position while the rest of the team acted as his supportive audience and community. Notice that Chuck continued to express support to Teresa (Figure 3).

The fourth step was the development of the new recording procedure in the team meeting. Now the team itself assumed the subject position (Figure 4).

The team used an analysis of bar size as its intellectual instrument to resolve the Rexford problem in a preventive and proactive manner. The innovative effort is marked with a lamp symbol. The outcome was a new text, a recording procedure for tracking undersize bars. Figure 4 offers an interesting reading of

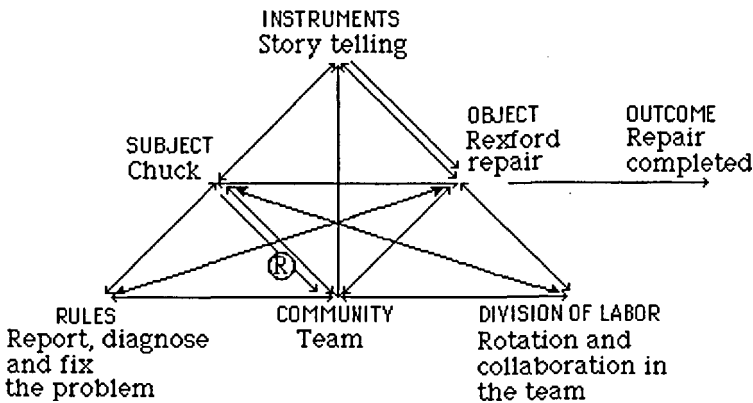


Figure 3 The third step of the Rexford incident.

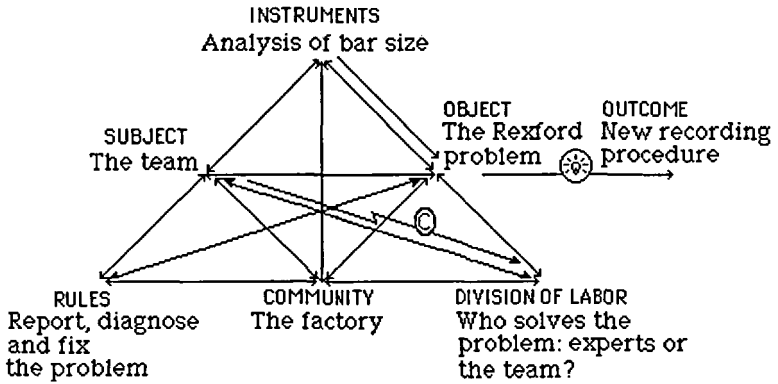


Figure 4 The fourth step of the Rexford incident.

the textualization performed by the team. The creation of the new recording procedure may indeed be seen as an influence attempt with which the team made the organizationally significant claim that it can take over the preventive design responsibility traditionally assigned to tooling experts. Thus, the lightning-shaped line marked with the letter C in Figure 4 represents the team's contestation of a division labor which expects the tooling experts to troubleshoot and fix problems while the operative work is left to the machinists. However, the textualization is not only an influence attempt or claim to power. We could continue the analysis by tracing how the new recording procedure was actually adopted and implemented as a *new instrument* in the object-oriented production practice. In fact, it would probably be all but impossible to separate the instrumental-productive aspect and the influence-power aspect of the textualization in this case. The recording procedure was a new productive tool that carried power and influence engraved into it. This very intertwining is crucial. We can easily imagine how much weaker the team's position would have been should they only have discursively asserted the team's competency without actually making and implementing a material artifact that changed the material practice. This necessarily sketchy analysis points toward the constantly changing and pulsating character of productive activity and communication in organizations (see also Engeström, 1996a). While automobile accessories are the relatively stable overall object and product of the factory, the

situated instantiations of the object as task-at-hand within a local activity system such as the team keep shifting. So does the subject position: from Teresa to Chuck to the team in this particular incident. The same applies to the tools, as well as the other components of the activity system. Yet, regardless of this constant flux, the activity system (of the team in this case) also shows remarkable robustness and continuity. The situated reconfigurations of the activity system are not arbitrary or unconstrained.

The analysis also points toward the importance of looking at interactions between, not just within, activity systems. The tooling expert entered the team's activity system, and subsequently the team contested the division of labor between itself and the tooling experts in the factory. This implies that activity systems can best be understood as interactive and internally dynamic nodes in networks. This opens up an interesting field of discussions between activity theory and actor-network theory (Engeström & Escalante, 1996; Miettinen, in press).

Using the activity system as a unit of analysis typically engenders intermediate hypotheses that may be tested and revised as the detailed data analysis proceeds. The triangular representations given above clearly contain a number of claims for which the scant account given by Hart-Landsberg and Reder gives little or no direct backing. However, those claims make sense as hypotheses and must be examined with more data. Such data analysis may plunge into the details of turn taking as recommended by Schegloff. But, following the lead of ethnographically-oriented analysts of discourse (e.g., Mehan, 1993), it also exploits complementary sources of data such as extra-linguistic features of the unfolding activity, interviews and participants' accounts, and historical and contemporary textual records.

INTERMEDIATE THEORETICAL TOOLS

A serious analysis typically requires theoretical concepts that fall between the specific data obtained and the general model of an activity system. Three sets of such data-sensitive intermediate theoretical tools have become particularly useful in activity-theoretical studies of organizational communication.

The first set, that of *disturbance*, *innovation*, and *contradiction*, is evident already in the treatment of the Rexford incident. The incident

itself was a systemic disturbance (Engeström & Mazzocco, 1995; Engeström, 1996b)—systemic in the sense that it was a recurring problem that required not only immediate technical repair but also preventive re-mediation in the functioning of the activity system. In the Rexford incident, the creation of the preventive recording procedure was a mundane innovation from below (see Engeström, 1995a; Middleton, 1996). The concepts of disturbance and innovation direct the analysis to often unacknowledged and “invisible” disruptions and creative efforts in activity and communication, thus making visible the scripts and boundaries of “normal operation” (see Nardi & Engeström, in press).

Beyond this, the analysis of disturbances and innovations leads to the conceptualization of contradictions within and between activity systems. While power and domination are at work in contradictions, it is important to distinguish contradictions from a general assertion of asymmetric power relations. A contradiction is a historically accumulated dynamic tension between opposing forces in an activity system (Il'enkov, 1977). It constantly generates disturbances which open up opportunities and call for novel solutions that can lead to transformations in the system (Engeström, 1987; 1995b). In the Rexford incident, we saw how the initial picture of a crash, seemingly involving just the object, the tool and the individual subject, evolved into contesting the existing division of labor between the expert engineers and the team of machinists. Even such a preliminary analysis of a single disturbance suggests that the inherent contradiction may reside just there, between the new problem-oriented and proactive mode of teamworking and the persistent division of labor that assigns mental work to engineers detached from the operative work on the shopfloor.

The second set of intermediate concepts focuses on the multi-voicedness of discourse, drawing on Bakhtin's (1976, 1981) rich theoretical legacy (R. Engeström, 1995; Wertsch, 1991). Ritva Engeström (1995) has shown the exciting potential correspondence between Leont'ev's hierarchy of activity, action, and operation and Bakhtin's notions of *social language*, *voice*, and *speech genre*. When applied to the Rexford incident, we could probably identify at least two broad but historically distinctive social languages at work, namely the social language of the machinists and the social language of the expert engineers. A more refined analysis of the situated

discourse would lead us to identify qualitatively different ways in which these social languages are invoked in the voices, or speech actions, of the individual participants. At times, a participant's voice would blend different social languages, "whereby one voice speaks through another voice or voice type, that is, a process of heteroglossia and ventriloquation" (R. Engeström, 1995, p. 199). Thus, we might find beginnings of new, hybrid social languages emerging in response to the contradictions in the activity system.

The third set of intermediate concepts deals with transitions in the overall pattern of object-oriented interaction in a given activity system. Raeithel (1983) and Fichtner (1984) coined three basic types of such interaction, namely *coordination*, *cooperation*, and *reflective communication* (later also called co-construction by Raeithel; see Wehner, Raeithel, Clases & Endres, 1996). Coordination refers to the normal flow of events where the actions of the different actors are regulated by a script. In the Rexford incident, work immediately preceding the crash may be interpreted as an example of coordination. The disturbance caused a discoordination and demanded a regrouping, which led to cooperation in the team to analyze and resolve the problem. In cooperation, the participants focus on a shared problem or object, and the script fades into the background.

Cooperation may lead to innovative external solutions but being a relatively short-lived sequence of intense shared problem solving it is not likely to leave permanent marks on the self-understanding and identity of the participants. However, as shown in our study of disturbances and expansive transitions in a court (Engeström, Brown, Christopher & Gregory, 1997), there are moments when members of an activity system not only face an external problem but also make an attempt to look at themselves in relation to the problem, engaging in reflective communication and an effort to transform their own activity as a community.

DISCOURSE AND DEVELOPMENT

The key question "Why this utterance here?" or "Why that now?" is relevant for activity-theoretical studies of organizational communication as it pertains to the problematic relationship between actions and activity, mediated by the division of labor in an activity

system. Analysis of the activity system makes seemingly irrational actions understandable. If my hypothesis is correct, Teresa's utterance "It had to have something to do with the operator" and Jeff's "The same thing has happened to all of us" are understandable as steps toward expressing, working out and contesting a deep-seated contradiction in the activity system between a new mode of team-working and a traditional division of labor that privileges expert engineers, cutting the team off from proactive design.

The tension-laden, unstable and open-ended nature of actions, seen in the context of the inherently contradictory activity system that generates them, prompts us to reformulate the key question. Instead of just retrospectively asking why an action or an utterance occurred, activity theory invites us to ask: "What dynamics and possibilities of change and development are involved in this action?" In particular, every disturbance-related cluster of actions and voices offers a window into the emerging zone of proximal development of the local activity system (see Vygotsky, 1978; Engeström, 1987).³ Zones of proximal development may be understood as spaces of potential radical transformation of the activity system, achievable through resolving and transcending its contradictions.

The zone of proximal development can be articulated by the practitioners when they look back to the history of their activity and forward to its future, engaging in future-oriented experimentation. A small module of such time travel and experimentation may be seen in the Rexford example. There are numerous instances of recollecting and reconstructing past events in the description provided by Hart-Landsberg and Reder.

"The same thing has happened to all of us."

"Some of the best machinists come out from a situation where the machine crashes all the time."

Chuck, the team's oldest worker, with years of experience operating and fixing the machine, recounted that after the crash he had "rebuilt," "remade," "realigned," and "recentered" all the Rexford parts which had been "wiped out really bad," "burnt up," "shoved back," and "had gullies in them."

"It was only the second time I've loaded bars... but Emily loaded a similar bar [with no resulting breakdown]."

While these mundane recollections may not look like emancipatory historical analysis, they probably served as important resources for

establishing the team's position with regard to the disturbance. They seem to tell the team: We have competence, we know what causes this problem, we can solve it for the future.

In a similar fashion, there was future-oriented anticipation on the part of the team members.

Then he [Jeff] warned her that the tooling experts assigned to troubleshoot this problem probably would tease her as they teased all operators involved in such breakdowns.

The anticipatory action culminated in the design of the new preventive recording procedure. Here the team in effect engaged in bold experimentation—first in the form of discursively-performed collective thought experiments, later in actual material practice.

Surely the design and implementation of the new recording procedure did not overthrow the old division of labor. What it probably did was make the contradiction more visible and articulated, as well as open a horizon of possibilities beyond the contradiction. Developmental transformations are not one-step events. This is why activity-theoretical studies of organizational communication prefer longitudinal designs.

In his article, Taylor (this issue) writes about organizational evolution "as a result of local variety and global diffusion." These notions easily acquire the character of something inherently gradual and involuntary, reminiscent of natural forces. What seems to be missing in Taylor's account, as well as in most varieties of CA and CDA, is an explicit interest in and analysis of radical transformations.

Local variety may be interpreted to correspond to the CHAT notion of multi-voicedness. Global diffusion may correspond to the CHAT interest in networks extending in space. A crucial difference comes with the idea of contradictions as the driving force of change and development in human organizations.

WHAT KINDS OF GENERALIZATIONS?

The emerging field of discursive studies of organizational communication faces a difficult issue in the generalizability of its findings. Conversation analysts solve the issue by focusing on relatively universal structural features of conversations. Critical

discourse analysts tend to seek the solution in broad social, political and ideological structures that are seen to underlie local discourse events. More ethnographically-oriented discourse analysts tend to produce sophisticated case studies, largely avoiding the question of generalization. What has CHAT to offer in this regard?

Paradoxically, it is Schegloff's (1997, p. 167) insistence on the "endogenous orientations of the participants" that leads us to an alternative view of generalization. Activity theory indeed takes the participants, the local practitioners of organizational communication, very seriously. But it does not assume that the researcher has a magic formula with which he or she can objectively decipher how the participants understand and judge the unfolding events. Instead, the practitioners themselves are asked to look at, comment on and make sense of the researcher's initial data and provisional analysis. Ever since our initial workplace studies in the early 1980s (e.g., Engeström & Engeström, 1986), we have routinely shown the work sequences we have videotaped to the workers themselves and asked them to interpret the events. The ensuing dialogue itself becomes a new layer of data that gives voice to the practitioners' interpretations (Engeström, *in press*).

In such a dialogical and longitudinal relationship, the researcher is interested in the practical, material generalization of novel solutions and developmental breakthroughs. These solutions are articulated with the help of new concepts and models—textualizations, if you want. For the researcher, such new concepts and models of new organizational solutions become findings that can acquire significant theoretical import. For the practitioners, those concepts and models are tools that either die out or stabilize and spread. In the latter case, they are typically borrowed and hybridized with other concepts and conditions in other activity systems. This complex process of generalization through practice-bound hybridization is itself a fascinating object of study. More importantly, it represents an alternative way to look at generalizability.

NOTES

- 1 Trognon and Grusenmeyer (1997, p. 107) describe the situation at a machine in a paper mill: "The two laborers working on a machine in 3 eight-hour shifts must exchange information and share their respective actions. They are required to construct a common history regarding their relationship with the machine, which is not too far removed from reality. The intricacy of the textual and logical

processes of this operative conversation is thus also the overall accomplishment of their work, this time, however, on a social and economic level."

- 2 While acknowledging CHAT as an important source of ideas, Goodwin draws primarily on Goffman's (1961, p. 95–99) work in his characterization of situated activity systems. One limitation of that tradition is the insistence on face-to-face interaction as a defining criterion of activity systems.
- 3 Vygotsky (1978) discussed the zone of proximal development from the point of view of the individual, as the distance between what a person can accomplish alone and what she or he can accomplish in collaboration with or aided by a more experienced or competent person. I have expanded the concept to the analysis of developmental transformations in collective activity systems: "It is the distance between the present everyday actions of the individuals and the historically new form of the societal activity that can be collectively generated as a solution to the double bind potentially embedded in the everyday actions." (Engeström, 1987, p. 174; italics in the original)

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