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# Organizational Discourse and the Appraisal of Occupational Hazards: Interpretive Repertoires, Heedful Interrelating, and Identity at Work

Clifton Wilson Scott & Angela Trethewey

*Scholars and practitioners have often conceptualized hazards as external to discursive processes, focusing instead on the role of strategic communication in representing pre-organized vulnerabilities to stakeholders rather than on the capacity of mundane discourse practices to shape how hazards emerge. In this study of risk discourse in one high reliability organization, a municipal fire department, we demonstrate how hazard appraisals emerged as intersubjective products of organizational discourse. Specifically, we explore how the interpretive repertoires firefighters used to make sense of hazards were medium and outcome of discursive identity formations. Firefighters employed preferred identity terms to amplify identity-enhancing dangers and attenuate vulnerabilities that were threatening to a preferred sense of self.*

*Keywords:* Heedful Interrelating; High Reliability Organizations; Occupational Safety; Organizational Discourse; Ontological Security

The liabilities of poor organizational risk management, most notably the loss of life, ability, or economic resources, have generated great concern among scholars and practitioners of safety, technology, risk analysis, operations management, and high reliability organizing (Covello, 1992; Gherardi, Nicolini, & Odella, 1998; Perrow, 1984/1999; Reason, 1997; Vaughan, 1996; Weick, 1993a; Weick & Sutcliffe, 2001; Wildavsky, 1988). Whether conceptualized as “complex interaction,” “heedful

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interrelating,” or “safety culture,” scholars of organizational reliability often point to internal communication processes as enabling and constraining the management—indeed the emergence—of a variety of hazards (McKinney, Barker, Davis, & Smith, 2005; Reason, 1997; Rochlin, 1989; Weick & Roberts, 1993). On the other hand, contemporary risk communication scholarship has often overlooked organizational phenomena that accompany threat *emergence* in favor of analyses that explore another important issue, namely the efforts of practitioners to explain pre-existent hazards to stakeholder groups after they emerge (Covello, 1992; Ulmer & Sellnow, 1997, 2000).

In this ethnographic case study of risk management at a large municipal fire department, we demonstrate how organizational discourse shapes the ongoing appraisal of occupational hazards. Our analysis suggests that members make sense of hazards not as stable, pre-existing features of their environments external to communication but rather by discursively organizing and managing ambiguities through the maintenance of interpretive repertoires that mediate risk appraisals.

### **A Dominant View: Hazards as Stable Objects External to Interaction**

Effective risk communication is often characterized as an exchange of information secondary to individual cognition and subjectivity. Arguably, such a perspective is not intended to recognize communication as a constitutive process with the potential to shape the ongoing management of the risk situation itself. In spite of their advantages, prevailing assumptions about the risk–communication relationship—most notably, their emphasis on individual cognition and subjective experience as loci of control (Deetz, 2003)—may limit the capacity of communication scholarship to account for the environmental ambiguity so central to theories of high reliability organizing (Gherardi et al., 1998; Rochlin, 1989; Sutcliffe, 2001; Weick & Roberts, 1993; Weick & Sutcliffe, 2006; Weick, Sutcliffe, & Obstfeld, 2005). Reliability scholarship has noted that risk appraisals are not mere products of individual interpretation (i.e., subjectivity) but rather *intersubjective*, communicative attempts to deal with ambiguity (Weick & Sutcliffe, 2001). Although material dangers (e.g., bullets, flames, bankruptcy) may exist in reality, organizational environments often provide only ambiguous cues about them before they emerge as obvious hazards (Sutcliffe, 2001), “leaving wide latitude for inference and interpretation” (Simpson, 1996, p. 550). Thus, vulnerabilities are often open to multiple, often conflicting, interpretations of their nature and significance (Gherardi et al., 1998; Ulmer & Sellnow, 1997, 2000).

In addition to their ambiguity, hazard conditions are also emergent and dynamic rather than static, so risk and safety are at least partially shaped by the actions of risk agents as they manage interpretations and consider interventions (Weick & Sutcliffe, 2001). Since safety is a dynamic non-event rather than a discrete state, members can only accomplish reliability by making sense of how local conditions relate to expectations of safety and danger. How, then, do members manage this ambiguity so as to appraise hazards more effectively in service of organizational reliability?

### **Risk Appraisals as Products of Discourse and Ontological Security Seeking**

Since it assumes that people, places, events, and objects only become meaningful in relation to selves and other objects (Fairhurst & Putnam, 2004; Weedon, 1997), a discourse-based theory of risk appraisal would acknowledge that members cannot manage appraisals of risk without simultaneously managing both their senses of self and interpretations of the events and objects around them.

#### *Discourse and Interpretive Repertoires*

Organizational discourse, defined here as organizational language use situated within social practices, “embodies cultural meanings that enable the social and the communicative” (Fairhurst & Putnam, 2004, p. 7). From this perspective, discourse among members of a collective (e.g., a group or an organization) forms the locus of control rather than individual cognition (Weick, 1995), including the mutual and ongoing coordination of risk, safety, and security (Collinson, 1999, 2003; Murphy, 2001; Trethewey, Scott, & Legreco, 2006; Zoller, 2003). Taking this view, communication is no longer a value-free means of referencing, representing, or reflecting an external, separate materiality (e.g., a hazard) but is instead process and product of those conditions (Ashcraft & Mumby, 2004; Deetz, 1996; Edley, 2001; Foucault, 1979; Trethewey, 1997, 2000).

Since risky work often presents sense-threatening situations (Sutcliffe, 2001; Tracy, Myers, & Scott, 2006; Weick, 1993a; Weick & Sutcliffe, 2001), everyday discourse about work hazards presents moments in which identity may be sustained or transformed as members discursively identify and make sense of various threats through interpretive repertoires. As a “lexicon or register of terms and metaphors drawn upon to characterize and evaluate actions and events,” interpretive repertoires are a set of discursive resources that members may use to appraise the nature and extent of hazards (Potter & Weatherell, 1987, p. 138). Patterns of interpretation are derived at least partially from a desire to make sense of events, objects, and processes in ways that maintain individual and collective esteem (Ring & Van de Ven, 1989; Weick, 1995, pp. 18–24). Here, safety is seen as an “emergent property of a socio-technical system involving people, technologies, and texts assembled into systems of material relations” (Gherardi et al., 1998, p. 203).

#### *Ontological (In)Security*

The interpretive repertoires organization members use to make sense of the hazards around them can hardly be separated from the pursuit of ontological security. As Giddens (1991) noted, people deal with ambiguity, danger, and their attendant anxiety by developing “a framework of ontological security of some sort based on routines of various forms” involving “emotional and behavioral formulae” that enable them to interpret environments and simultaneously cope with various social and material hazards (p. 44). Individuals strive to maintain this robust, “stable sense of self-identity” that presupposes “an acceptance of the reality of situations and of

others,” but this ontological security is actually quite fragile, requiring ongoing maintenance through interaction (pp. 54–55).

Although insecurity may never be fully resolved, workplace identification is a means by which members and focal organizations attempt to manage it through techniques that have important implications not only for member selves but also for their ability to appraise ambiguous hazards (Collinson, 1999, 2003; Giddens, 1991; Pratt & Doucet, 2000). For example, some organizations seek to manage collective health and safety risks by attempting to fix what it means to be one kind of employee or another (i.e., identity) in health-related terms, and employees may appropriate and sustain these discourses through the accommodation of hazards in their own pursuit of ontological security (Collinson, 1999, 2003; Trethewey et al., 2006; Zoller, 2003).

The relations among discourse, identity, and ontological security are significant because of their capacity to shape interpretive repertoires with the practical, secondary effect of enabling and constraining particular risk management strategies. Unfortunately, few studies have attempted to explore empirically the relations among these processes, and even less attention has been given to the process by which these combine to amplify or attenuate perceived danger. This study attempts to address this need by attending to the role of discourse in the maintenance of interpretive repertoires and ongoing appraisals of material risk conditions. Specifically, we consider the capacity of discourse to amplify or attenuate risk appraisals.

RQ1: How does everyday organizational discourse enable amplified appraisals of risk?

RQ2: How does everyday organizational discourse enable attenuated appraisals of risk?

## Methods

This ethnographic field project includes qualitative data collected at the Plateau City Fire Department (PCFD),<sup>1</sup> a large, metropolitan fire department located in the southwestern United States.<sup>2</sup> Like many large metropolitan fire departments, PCFD provides not only traditional fire prevention and suppression services but also emergency medical service (EMS).

### *Participant Observation*

Participant observation enabled the first author to observe and experience emergency calls and fire station life so as to access the everyday discourse of members in its natural setting. He also conducted observations of training activities and accompanied battalion chiefs as they commanded fire incidents. “Ride alongs” were conducted by the first author at four separate stations in periods of four to six hours. In addition to life at the station, he also accompanied firefighters on fire and emergency medical service (EMS) calls. Throughout periods of participant observation, the first author also conducted ethnographic interviews—informal conversations with participants that were documented in field notes. A total of 131

hours of participant observation were conducted, generating 118 typed, single-spaced pages of field notes.

### *Semi-Structured Interviewing*

In addition to ethnographic interviews, the first author conducted exploratory unstructured informant interviews with a variety of members (including firefighters, captains, training coordinators, and senior administrators) early on in order to understand local conceptualizations of risk and safety that might inform the emerging research design. On the basis of these exploratory interviews, a more precise semi-structured interview protocol was developed to explore processes, issues, and meanings of risk in more depth. Sample semi-structured interview questions included: "Are there other hazards or dangers you face in your job?"; "Why is that a hazard?"; "How do you know when something is hazardous?"; "Does it matter how you talk about these hazards as a crew?"; "Is it possible to collectively misinterpret a hazard? If so, how?"; and, "Do people ever feel pressure to underestimate or overestimate a hazard?" A total of 38 semi-structured interviews were tape-recorded, generating 569 typed, single-spaced pages of text. This sample included 22 firefighters (58%), five captains (13%), and 11 department administrators (29%) with occupational safety responsibilities. Like the department itself, the sample was overwhelmingly white (82% Caucasian, 11% Latino, and 8% African-American) and male (6% female).

In addition to individual exploratory and semi-structured interviews, three focus group interviews were also conducted. Focus groups are considered advantageous because they may produce insights that would not be accessible in one-on-one interviews (Herndon, 1993; Lindlof & Taylor, 2002). Utilizing a critical incident technique (Flanagan, 1954), focus group interviews were conducted after fire incidents the group (i.e., crew of firefighters) had recently experienced. Sample focus group interview questions include: "What were you talking about on the way to the fire?"; "What did conditions look like when you arrived?"; "At this point, how were you predicting the fire would turn out?"; "How did your strategies and tactics change?"; "Did you learn any new information about conditions elsewhere?"; and "When did you sense that you were most at risk?"

### *Data Analysis*

Data analysis began at the site of its collection as inevitable, tentative, on-the-scene interpretations were recorded and explained in field notes in addition to more direct observations. Formal data analysis procedures employed the constant comparative method (Strauss & Corbin, 1998). The first author began with open coding, by reading and rereading the data line by line and tentatively assigning codes to passages of the field notes, interview transcripts, and organizational documents that brought to mind a category or theme. Many of these developed in a purely emic sense from the data (e.g., when a code is titled and defined by the phraseology of a participant), but these codes were also responsive to existing theory and sensitizing concepts.

Categorical definitions were constructed to distinguish related codes. Some of these definitions originated in on-scene theoretical memos articulated in field notes. The category scheme was refined through the coding process as unwieldy or redundant categories were divided, combined, redefined, or eliminated. This code system was eventually developed into a set of more sophisticated coding “trees” in which data grouped under one code were coded again to create subcategories. The analysis presented here addresses only those themes that relate directly to the manner in which hazards were appraised by groups of firefighters. Once a set of themes for this study had been constructed through the coding process, data exemplars were selected that typified and illustrated conceptual content.

### Findings and Interpretations

In the following pages, we describe how appraisals of the level of risk implied by a hazard were medium and outcome of organizational discourse, in particular the firefighters’ efforts to sustain a satisfying identity in a variety of risk situations. A relatively distinctive set of themes seemed to concern the issue of attempting to “play up” or “downplay” the danger of events and situations, terms the authors would later recognize as risk attenuation and amplification (Kasperson et al., 1988). For the purposes of this project, risk amplification concerns the process by which the perceived danger of a hazard(s) is highlighted and emphasized. Conversely, risk attenuation occurs when hazards are downplayed, minimized, and/or dismissed.

*RQ1: How does everyday organizational discourse enable amplified appraisals of risk?*

The preferred identity discourse of a “real” firefighter as someone who coolly and selflessly accommodates hazards in the course of saving dependent members of the public seemed to discourage members from engaging in cautious discourse that amplified risk by talking up the dangers of hazards. Nevertheless, firefighters employed a patterned interpretive repertoire in which members amplified risks by constituting occupational hazards as novel, ambiguous, and emergent.

#### *Portraying Hazards in Uncertain and Novel Terms*

Everyday talk at PCFD often characterized contemporary firefighting hazards in novel and uncertain terms. Both formal risk communication and seemingly mundane interactions appeared to amplify perceptions of risk by depicting hazards as involving new, emergent, and equivocal dangers.

*Talking up visible smoke content as uncertain.* Several firefighters referenced specific departmental efforts to communicate the risks of smoke exposure as amplifying their perceptions of this risk. Growing uncertainty about the danger of these hazards often served as a discursive resource for this amplification. Training sought to educate firefighters about these dangers, and these formal messages were supported by frequent comments in informal discourse about how fires were burning hotter than

ever, frequently producing gases with unknown content and effects. One captain, Tim, illustrated this well:

You know, they challenged us to look at that smoke. "Okay, look at that smoke. It looks different, right? Okay, now tell me about what's hazardous in this [smoke] versus what's hazardous in that [smoke]? Tell me which is more hazardous?" Well, of course, nobody can tell . . .

This description of ongoing firefighter training, which also included statistics about the incidence of cancer at PCFD and even pictures of members who had died prematurely from the disease, exemplifies how risk perceptions can be amplified by portraying a hazard as uncertain. Because smoke could not be appraised systematically through sight, touch, or smell, firefighters could not rationalize accommodation of the hazard through attenuation. Instead, all visible smoke in an active fire was depicted as suspicious because its contents could not be known practically.

*Talking up hazards as novel.* Here, the danger of toxic smoke was amplified not merely because of an uncertain and ongoing risk but because the source of this vulnerability—the increasingly toxic content of fire and smoke—was dangerous in a way that was new. In this discourse, smoke was considered risky because its contents posed threats that were new, not fully understood, and, perhaps most importantly, set apart from the hazards that the famed firefighters of yesteryear faced. As one firefighter explained, "We're not smoke eaters anymore." Thus, discourse also often highlighted the novelty of these hazards, distinguishing them from the more traditional hazards face by previous generations of firefighters. For example, consider these field notes from an ethnographic interview with a recruit training officer:

He says that today's buildings produce two times the heat of older buildings . . . [Oriented strand board] burns hotter and faster than plywood even though from an engineering standpoint, it is stronger. Another example is hybrid cars. It used to be that with car fires and/or car accidents, you always just cut the battery cables to disable the electrical system. Now you have to be really careful because the hybrids have capacitors that store energy. They've had air bags suddenly go off and injure firefighters who were trying to extricate someone from the car [because the capacitors weren't disabled].

In this exemplar, the firefighter alludes to novel, unseen, poorly understood hazards associated with new technologies that he considers difficult to anticipate. By using talk to code increasingly dangerous and novel building materials in the same class as the electrical systems of hybrid cars, he highlights as dangerous a class of novel hazards that the firefighters of long ago did not face.

### *Depicting Hazards as Ambiguous and Emergent*

In addition to portraying hazards in terms of uncertainty and novelty, firefighters also amplified hazards by constructing them as ambiguous and emergent. Rather than drawing attention to a lack of information about a hazard or its novelty, this discourse enabled perceptions of vulnerability by leaving the meaning of the hazard

unfixed and thus open to a variety of plausible interpretations. This approach was particularly useful when the hazard was already portrayed as emergent.

*Talking up MRSA as equivocal.* One vulnerability about which a number of firefighters expressed concern was an unusual staph infection called methycillin resistant *Staphylacoccus aureus* (MRSA), which several members had recently acquired. Members did not seem to be lacking information about MRSA. The department had published information about the infection in its employee newsletter, indicating that MRSA was highly resistant to antibiotics, very difficult for doctors to treat, and most often acquired in hospitals, particularly the emergency rooms where firefighters brought EMS clients. Discussion of the infection, which arose in a variety of contexts (e.g., on the fire truck, at the dinner table, and during training sessions), seemed to heighten the apparent ambiguity of MRSA.

In these conversations about MRSA, members attempted to make sense of how the infection was acquired in relation to the seemingly random set of peers who had been infected. This talk amplified concern by portraying the hazard ambiguously, enabling multiple plausible interpretations of the hazard. For example, consider the following field note:

I mention that I heard something yesterday about staph infections that firefighters are getting, apparently from exposure in emergency rooms. Ralph said the infection is . . . not airborne, though one of the recruit training officers at the training academy told me it was. Ralph says twelve "guys" have had MRSA recently, and several have come very close to dying. I had heard a much smaller number [at the training academy]. Both Captain Simpson and his brother [also a firefighter] got it . . . One of the Simpsons was so close to death that the doctors said that if the final antibiotic they were trying didn't work, there was nothing else they could do.

As this field note suggests, discourse about MRSA characterized the hazard in highly ambiguous and conflicting terms that made the level of risk all the more difficult to ascertain. Multiple meanings and potential interpretations existed. Was it airborne or not? Was it being transmitted in emergency rooms only or also at fire stations? How many people had been infected?

Thus, members may have perceived great vulnerability to the MRSA hazard because their talk continuously raised multiple interpretations that only partially overlapped, if at all, and often conflicted, therefore adding to the ambiguity. For example, the first author witnessed repeated talk at four fire stations and the training academy about the two brothers mentioned in the field note above, one of whom nearly died from the MRSA infection. Members seemed to develop and share multiple explanations for why both of these men—who did not live together, work at the same station, or frequent the same emergency room—had been infected. Some firefighters speculated that the brothers were genetically predisposed. Alternatively, some observed that both men worked with a particular material in their part-time side business that had made them vulnerable. Still others argued that it was simply a freak coincidence. As more members became infected through the course of the research, talk of MRSA appeared to sustain this ambiguity and portray MRSA as

a danger that was lurking and growing. Thus, efforts to fix the meaning of MRSA (e.g., distinguishing rumor from fact) seemed to have the unintended consequence of amplifying its perceived risk.

Discursive amplification of the MRSA hazard was also accomplished by associating the hazard with the most identity-threatening EMS clients. Explanations of how to deal with MRSA rarely mentioned the emergency rooms that the department and the county had identified as the primary source of firefighter exposure. Instead, members often portrayed EMS clients out in the field as a source of lurking MRSA danger. Indeed, talk about MRSA often emerged in conversations that also included narratives about homeless and HIV/AIDS-infected EMS clients. For example, the first author observed two interactions among firefighters at separate stations in which talk of MRSA quickly led to discussions about HIV/AIDS transmission. In both instances, a story was (re)told about a PCFD firefighter who was inserting an IV into an EMS patient who suddenly pulled the IV out of his arm and stabbed a firefighter with it, thus transmitting HIV. Curiously, when asked, no-one could remember where the incident took place or which member had been infected. Moreover, in the course of a separate research project at another fire department over a thousand miles away, the first author had heard a nearly identical story about a firefighter. In all renditions of this apparent legend, the EMS client was described as a gay man in spite of the probable inability of the speaker to confirm that inference. Discourse that situated this HIV/AIDS legend within discussions of MRSA employed the stigma associated with what was apparently assumed by the speakers to be a gay man's disease in characterizing MRSA as dangerous. Providing emergency medical services was portrayed as involving threats that might unexpectedly emerge and infect, like MRSA or HIV/AIDS.

*Talking up emergent possibilities.* Risk discourse also often played up hazards as unexpected, emergent possibilities. The possibility that a hazard might emerge rapidly and without warning was a persistent theme in hazard discourse. At the training academy, recruits were shown videos of real fires in which conditions deteriorated very quickly, often through some explosion within the structure or the sudden collapse of a roof or ceiling. As training tools, these videos were played for the newcomers repeatedly in an effort to highlight the possible dangers that might emerge unexpectedly. While all films were dramatic, some of this footage was also graphic, for example showing one firefighter emerging from an explosion with fragments of his skin falling off.

In addition, less formal discourse also portrayed hazards as materializing without warning. Three senior firefighters on separate occasions told mealtime stories about sudden roof collapses they had witnessed as junior firefighters. A fourth recounted with great excitement an incident in which a roof collapsed on one peer firefighter who was fortunate enough to have been standing directly beneath a skylight, emerging from the rubble with just a few glass lacerations. In these conversations, an ability to detect that fine line between manageable conditions and those that are declining rapidly was portrayed as a form of tacit knowledge that distinguished senior

firefighters. For example, several firefighters mentioned the importance of being able to distinguish a roof that is merely “hot and soft” from one that is “squishy” as the only real means of predicting whether the roof a firefighter was walking across might collapse.

*RQ2: How does everyday organizational discourse enable attenuated appraisals of risk?*

As might be expected of an organization situated in a high risk occupation, members often attempted to minimize their sense of collective vulnerability to occupational hazards. Specifically, discursive attenuation techniques downplayed the dangers of traffic, dismissed vulnerabilities that were invisible but familiar, and relied upon and sustained a value for speedy intervention that arguably reduced the margins of safety.

### *Managing (In)Security Behind the Wheel*

Several recent incidents had raised concern that traffic hazards were becoming a serious vulnerability. A number of drivers at PCFD did not follow the standard operating procedures for driving in emergency conditions, both in ambulances and fire trucks. For example, some fire truck engineers drove in the more dangerous “code three” mode even when the emergency call was minor and not dispatched at this level, voluntarily elevating the code level of the call, which enabled them to drive more aggressively than necessary.

There was considerable evidence to suggest that firefighters attenuated traffic hazards as a means of resolving insecurity about their identities as authentic firefighters. In spite of the concern among department leaders and an internal safety campaign on the topic, participants very rarely mentioned driving when describing the array of hazards faced in their work. As Captain Marsha claimed, this kind of driving, particularly as a method of speedy intervention, was an accepted, indeed valued, practice at PCFD:

They call it swooping a call. And so what you do is that you listen to the radio and even if it's not in your . . . [station's geographic territory of responsibility], you hear a fire come out, you break every driving regulation to get that fire before anybody else does . . . It's a lot more fun to go fast and have the lights on and swing around corners and wonder if you're going to hit that car or, you know, that's, that's fine! I mean that's, that's exciting, and it's not fun to just manage yourself, because all of this is about managing yourself and it's nobody wants to have to do that because then it is truly like work and it's not fun, you know.

As described here, driving aggressively in a relatively unbridled fashion was a key part of the emotional experience of enacting the firefighter identity, and the risks associated with violating driving rules were minimized accordingly. Thus, aggressive driving was a means of managing firefighters' ontological security through attempts to minimize or reframe identity-threatening situations and tasks.

For example, the task of driving an ambulance was portrayed in informal discourse and formal structure as the antithesis of the preferred, interventionist identity described above. Newcomers to the occupation spend their probationary year trying

to prove themselves worthy as firefighters (Myers, 2005). Once their probationary status has been shed, junior firefighters' authenticity as "real" members of the fire service remains threatened through their automatic assignment to an ambulance (rather than a fire engine) for almost two years. This low-status work mostly concerns being dispatched to EMS calls when medical emergencies have already been brought under control by other firefighters, generally for the purpose of transporting clients to hospitals. When the department began investigating the problem of driving rule violations by ambulances, it conducted a series of focus group interviews with over a hundred ambulance personnel. A feeling among these firefighters that they did not count as "real" firefighters in the hierarchy of values at the station level emerged as a major theme in the department's internal research report.

Serious concern was expressed that Rescue personnel were treated as second-class citizens and sometimes as outsiders ("Rescue trash" or "Rescue rats") . . . . Rescue personnel also report that they want to "show hustle" to demonstrate that they are worthy firefighters and good personnel. They want to demonstrate they are "not slugs"; they can arrive fast, mop up fast, clear [the call] fast. Also, Rescues make a special effort to "add on" to fires; feeling that the time on the Rescue takes them away from their original [fire suppression] training, they hurry to fires "to at least watch." This latter observation seems to reinforce the notion that Rescue personnel are a "class apart from *real* firefighters." . . . Some—not all—said they were labeled as "Rescue trash" and that their real identity would come when they "got off Rescues and into a station."

As this report suggests, ambulance personnel were discursively organized into an insecure role (i.e., rescue "trash," "rats," or "slugs" that are "a class apart from *real* firefighters"). In order to attempt to resolve this insecurity, rescue drivers showed "hustle" through aggressive driving, as a means of proving worthiness. Since aggressive driving was an accepted cultural practice, the hazards of proving self in this manner were attenuated.

### *Invisible Familiarities*

Firefighters also tended to downplay hazards that were less visible but with which they had significant experience. Often these attenuations would take place in spite of formal training about these dangers. For example, many members were reluctant to wear their self-contained breathing apparatuses (SCBAs) during overhaul, the period immediately after a fire has been stopped during which firefighters clean up and secure the structure. Even firefighters who have worn their SCBAs during fire suppression are vulnerable to significant toxic exposure during the overhaul phase because they rarely wear their SCBAs during this task (Welbourne & Booth-Butterfield, 2005). As Safety Administrator Terry explains:

T: I think respiratory protection is used when there's a tangible hazard. In other words, when they can taste something, feel something burn, feel their eyes burn, feel their nose burn, um, cough smoke, something like that, or, you know, active fire. Um, once the fire goes away and has been extinguished, there's still a significant amount of respiratory hazards . . . . And it's new

now that the protocol has changed and the ... [standard operating procedure] has changed that you should keep your SCBA on in the clean up or the mop up phase. But if you go to any fire, I'd bet you'd be lucky to find 50% of the people complying with that, if even that much . . .

CS: Well why don't they want to? If you explain that this is when you know there's all this stuff in the air, why don't they—

T: I think the newer, younger people are appreciating that more than the guys that have been on the job twenty years. Some of the guys have been on the job before they had SCBAs, or when maybe the department had four SCBAs. Now, they've got one for every guy, you know, so they've seen the full circle so to speak. Years ago, the firefighters had big mustaches and beards and everything, and that was supposed to filter everything out. So, I mean, if they're fire eaters, that's even more macho, or smoke eaters or whatever . . . If you're the only guy on your crew that wears SCBA in overhaul, you run the risk of being razzed back at the station that you were a wimp or a wuss or something because you didn't you weren't strong enough to go without it.

Here, Terry explains that safe procedure is ignored in part because wearing an SCBA constitutes a threat to one's security as a manly, authentic member of the occupation. Firefighters run the risk of being called a "wuss," a "wimp," or, as the first author observed, worse. Terry also makes a clear link to historically-constituted occupational identity discourses that have been bound to the way firefighters breathe around hazards. SCBAs were few and far between in fire departments for decades, not merely because they were uncomfortable but also because they ran counter to the masculine image of the heavily-mustached firefighter as "smoke breather" or "smoke eater" (Kaprow, 1991; Tebeau, 2003), a factor that Terry links to the continued resistance to SCBAs in overhaul today. As George put it, "It's [the SCBA] uncomfortable. It's a pain in the butt . . . But there's also an air about the thing when you're there that says, 'What are you, a wuss, that you have to wear your bottle in here? That fire's out.' We're not wearing them."

### *Speedy Intervention*

Firefighters were particularly adept at downplaying hazards by emphasizing the importance of speed in managing incidents, particularly fires. Since medical and fire emergencies often involved hazards that intensified rapidly (e.g., heart attacks, house fires), there was considerable pressure to respond quickly before conditions deteriorated further. In these cases, discourse often promoted the idea that swift intervention was more important than calculated and cautious intervention. Consider the following field note:

Carlos, Captain Christopher, and I are chatting in the office area, and Carlos is talking about a recent technical rescue in which a construction worker fell in a very deep trench. Carlos is complaining about how the safety officer "of all people" was rushing them, saying to them impatiently, "Come on guys, just get this guy out of there." Carlos felt that the safety officer was actually jeopardizing the safety of the victim by trying to rush the technical rescue personnel. Since the injured client's condition was under control, and since trenches like this one have a tendency to

collapse, Carlos thought it was worth it to take the time to first assure the structural integrity of the trench, but the safety officer wanted to rush them.

In this example, we have safety-minded firefighter/paramedics who specialize in technical rescues being hastened by a safety officer in spite of their assurances that the patient was in good condition. Given the situation, Carlos explained and Captain Christopher agreed that there was no reason for the firefighters to take the risk of removing the client without assuring that the structure of the trench was sound. However, the safety officer still considered a swift rescue more important.

This bias for swift action would also emerge in station conversations about the department's growing emphasis on safety. On several occasions, firefighters provided unsolicited critiques of the department's recent safety efforts. For example:

We return to the station to finish lunch. Captain Mitch asks me about my research project, and when I tell him . . . he says that he thinks the department has gotten too risk averse, that they want to make decisions slowly and then they usually "go defensive." He says this is bad because by that point, the risk is greater than if they had acted more quickly. "Seems like all they want us to do lately is surround and drown."

Whenever firefighters suggested incident management was becoming more conservative, the first author asked them to describe the specifics of the incident, particularly whether there had already been an "all clear," meaning that the premises had been cleared of potential victims (i.e., savable lives). In all cases, an "all clear" had been called. There was no-one to save, yet firefighters were upset that the incident commander had shifted to a defensive strategy in which the fire would be fought less aggressively and more conservatively from the exterior ("surround and drown"). This bias towards speed served as an interpretive resource for claims that firefighters could better manage fire incidents if they were not hamstrung by cautious risk management protocols.

Bias towards speedy intervention could also be seen in the admitted tendency of some firefighters to talk as if they could have brought a fire under control (and thus ended loss more quickly) if the incident commander had just given them a little more time to fight the fire aggressively from the interior before going defensive. For example, consider this passage from a focus group interview.

- G: We felt like we were going to get it [under control] . . . Our minds are always offensive, I think.
- T: Yeah.
- R: That would be in the back of the mind, and it's hard to make it defensive and get everybody on the same page, to want to do that.
- CS: So the instinct is—
- T: Stay offensive.
- F: Absolutely always.
- M: The initial action is always offensive. We go defensive in two ways. We got there too late, and it's not even possible [to fight from the interior]. Or, we will always try, and even in that building, even in real big house fires that are defensive, we'll go to the front door and make entry, try to get through the front door.

- R: Yeah, it's really that's what we all have signed up for, you know? We all signed up to make a difference, you know? We didn't sign up to *try* to make a difference. We signed up to make an impact on something.
- CS: Why is it that going offensive is making a difference, but going defensive feels like you're not making a difference?
- G: It's the difference between being successful and not.
- R: If you're being defensive, then you're losing the battle.

As this retrospective discourse about one fire incident suggests, the value of speedy intervention served the preferred identity of firefighters as agentic "difference-makers." Firefighters were said not to have made an "impact" or "difference" or achieved the "success" that they "signed up for" unless they defeated this opponent from within (i.e., offensively). Thus, slowing down was considered a threat to the firefighters' ontological security, their sense that they were brave problem-solvers. Slowing down might lead to more rational risk assessment and more effective long-term intervention, but this possibility could be resisted, indeed subordinated, through appeals to the value of speedy intervention. As Captain Marsha put it, "To operate safely and to slow down just even a little bit; it's wrapping yourself in cowardice."

### Theoretical Implications

This case study addresses calls to consider how material hazards and other seemingly objective phenomena emerge as intersubjective products of communication (discourse, in this case) at the group and organizational level rather than as outcomes of individual, psychological processes merely reflected in communication (Ashcraft & Mumby, 2004; Deetz, 2003; Eisenberg et al., 2005; Gherardi & Nicolini, 2000; Gherardi et al., 1998). Rather than characterizing risk and safety as static outcomes of policy and regulatory practices (Wildavsky, 1988), corporate culture (Erickson, 2000), safety climate (Zohar & Luria, 2005), or society (Beck, 1992; Tulloch & Lupton, 2003), these data suggest that safety culture can also be understood as a product of organizational discourse generally and the risk appraisals it enables specifically.

More targeted analyses of the situated communication that comprises hazard discourse are needed to substantiate these claims about the role of communication. The importance of "*continuous talk*" (Rochlin, 1989), "heedful interrelating" (Weick & Sutcliffe, 2001), sensemaking (Weick, 1993a,b), and information flow (Erickson, 2000) are often highlighted by scholars of safety and high reliability as self-evident solutions. However, as Eisenberg et al. (2005, p. 409) note, increases in the clarity of communication or amount of information flow do not automatically translate into cultural or behavioral change, so the management of ambiguity through interaction is likely more complex than these high reliability organizing constructs currently allow. Extant constructs like those listed above are particularly problematic when we consider that communication and cultural processes in general—and these phenomena in particular—are as likely to create vulnerabilities as they are to prevent or control them. Future work should explore more specifically how identity discourse

can be employed in the service of safety and risk management, particularly in terms of how hazards are negotiated while they remain in process.

This study demonstrates how ongoing appraisals of risk may function as resources for members' efforts to manage their ontological security (Collinson, 2003; Giddens, 1991), with the unintended consequence diminishing physical safety and security. It extends other studies that have mentioned the role of occupational, social, and organizational identities in risk management as a sidenote (Klinenberg, 2003; Vaughan, 1996; Weick, 1993a). As Helms-Mills and Weatherbee (2006) note, high reliability scholarship often stops short of considering the role of identity in empirical studies, in spite of suggestions by some of its most prominent theorists that identity processes are at the heart of reliability concerns (Weick, 1995, pp. 20–39). This study indicates that more empirical analyses are needed that consider directly the capacity of identity discourse to shape everyday risk management through group- and organization-level interpretive practices. While this study has provided some descriptive evidence that this situated communication potentially amplifies and attenuates appraisals of risk level (i.e., how more or less dangerous one should consider a hazard), future research should go a step further and explore how discourse might mediate not just how hazards are *perceived* but also how risk agents collaboratively *intervene* to manage them.

This study also exemplifies how health and safety discourse may also be analyzed not only from a critical perspective but as a *constructive* phenomenon. That is, just as identity discourse may constrain the ability of members to protect adequately their personal health and safety (Murphy, 2001; Zoller, 2003), this everyday talk may also usefully produce and sustain more productive risk orientations. Organizational culture is often viewed pejoratively by scholars of risk as facilitating blindness to the early signals of disaster (Turner & Pidgeon, 1997; Vaughan, 1996). Alternatively, safety culture (Erickson, 2000) and high reliability culture (Roberts, 1989, 1990) are typically presented in a favorable light as sources of constructive imagination leading to accident-free operations (Pidgeon, 1992; Rochlin, 1989; Weick & Sutcliffe, 2001). While most would surely agree that cultural phenomena both enable and constrain, each of these approaches tends to conceptualize culture as a unitary phenomenon free of contradiction (for critiques see Gherardi et al., 1998; Martin, 2002). Similarly, with some exceptions (Ashcraft & Mumby, 2004; Bastien, McPhee, & Bolton, 1995; Fairhurst & Putnam, 2004), organizational discourse is usually highlighted for its capacity to constrain or marginalize and overlooked in terms of its ability to facilitate constructive communication processes, values, structures, and action—in spite of more balanced approaches among early leaders of the discursive “turn” in social theory (e.g., Foucault, 1980). As this analysis demonstrates, discourse—and the cultural values and practices it shapes—cuts both ways, both amplifying and attenuating hazard perceptions with a variety of potential consequences—functional and dysfunctional, enabling and constraining, safe and dangerous.

### Practical Implications

If we assume that safety arises from a set of embodied organizational practices (Gherardi et al., 1998; Zohar & Luria, 2005), the primary concern for practitioners is how to encourage practices that are more safe and discourage those known to be less safe. It is common at this point for us to suggest that the findings underscore the need for organizational leaders to craft strategic risk communication with the values and assumptions of the occupational community in mind. While such advice may indeed find support in the data presented here, we believe a more important implication may be that safety practices do not merely emerge as a consequence of formal or strategic communication (e.g., safety campaigns) but are also embodied in the mundane communication practices of safety agents (i.e., discourse). From this perspective, safety is not merely a static outcome of attitudes and perceptions (i.e., safety climate) or values (i.e., safety culture) potentially shaped by formal communication, but a dynamic phenomenon that must be continually re-accomplished in the everyday discursive practices of safety agents. Thus, these findings suggest that the leadership and management of safety is achieved (or not achieved) in the patterned interpretive schemes and repertoires sustained through informal talk. These findings highlight the active role members play in continually re-accomplishing safety and risk, suggesting three implications for practitioners.

First, safety training should highlight the significant role that everyday talk plays in ongoing risk management. We have demonstrated here that interpretive repertoires safety agents employ in the moment arise from discourse. Organizations should not only implement safety policies and rules but also encourage members to consider the impact of formal and informal talk. Does the dominant linguistic framework organizational leaders use to discuss safety practices and hazards appropriately amplify or attenuate hazard perceptions? Does it privilege or inhibit interpretive repertoires that will best minimize hazards? For example, management and supervisory training should specify the discursive practices leaders might follow as they discuss hazards with their members (e.g., during post-incident critique meetings). Moreover, while further study of discursive amplification and attenuation processes is necessary, this analysis indicates that occupational hazards can be amplified when discourse draws attention to the novelty, emergence, and ambiguity of hazards. Furthermore, organizations should be concerned about discursive practices that highlight identity-threatening hazard qualities to employees, that attenuate hazards inappropriately by dismissing invisible vulnerabilities, and that overemphasize the importance of speedy intervention.

Second, this case suggests that attempts to manage a satisfying sense of self through participation in various occupational communities cannot be practically separated from the interpretive repertoires members use to make sense of risky work. Therefore, practitioners should consider how the occupational identities of their risk agents are positioned in everyday talk. The potential for reliability is enhanced when safety administrators can explain how occupational discourses reflect and sustain safety values in use, and demonstrate through example how to frame preferred

safety practices within these constraints (Fairhurst & Sarr, 1996). This suggestion is a far cry from dominant approaches to safety (e.g., safety climate and culture), which often conceptualize bureaucracy (Wildavsky, 1988), information sharing (Erickson, 2000), and molar perceptions (Zohar & Luria, 2005) rather than communication as loci of control. For example, it has been suggested that highly reliable organizations have members who are imaginative, speculative, and preoccupied with failure (real or potential) and near misses (Weick & Sutcliffe, 2001). This analysis underscores the central role of identity discourse in sustaining these desired characteristics. While attitudes, perceptions, and beliefs about safety are no doubt important (and perhaps more easily measured), they may be secondary to the symbolic, interpretive discourse practices that shape, sustain, and transform them over time, enabling and constraining particular risk management strategies and interventions.

Finally, practitioners should consider how occupational identity themes constrain perceptions about the practices available and acceptable in a given organizational or occupational culture. As Perrow (1984/1999) originally noted, the drive for efficiency and profit means that most organizations will always be in danger of pushing systems toward dangerous limits. While the firefighters in this case do not seek material profit or even efficiency in the traditional sense, we have begun in this analysis to highlight the role of an unequal distribution of power in shaping how hazards are understood. As we note above, this case suggests that interpretive repertoires rely upon and often sustain (through discourse) systems of meaning that privilege certain identities asymmetrically, in this case historically situated notions of occupational identity. This situation is only advantageous to the extent that it enhances the effectiveness of risk management by enabling members to intervene safely in situations where others would not. When organizational discourse appropriates and sustains broader discursive practices that characterize only one narrow form of personal risk management as natural, normal, and good (e.g., unchecked speedy intervention), then the potential effectiveness of risk management is compromised by an association with one group (in this case, men). While some early risk management theorists considered issues of power (e.g., Perrow, 1984/1999), this original discussion of power has been "detoxified," watered down by an interest in group and organizational culture that rarely questions the motives of management. As Perrow (1984/1999) argues, efforts to theorize safety and risk management that ignore these macro-level concerns may "miss a great deal" when they "substitute culture for power" (p. 379). Therefore, the future work of both practitioners and theorists should consider specifically how these interpretive repertoires shape and are shaped by the conflicting interests of various stakeholders. Here, we refer not to power differences that can be explained by formal rank or authority alone. Rather, we are referencing the discursive resources of an organization and/or occupation that privilege and circumscribe the material and symbolic actions of members.

## Conclusion

The analysis we have presented here indicates that organizational discourse is one communication process by which individual selves, human–technological systems, and discursive texts are dynamically appropriated, (re)accomplished, and potentially transformed. While further study is needed to explore the relationships among material hazards, discourse, and risk management practices, this case underscores the need for both practitioners and scholars to consider how everyday talk highlights emergent dangers through practices that potentially shape material risk management practices and interventions.

## Notes

- [1] The names of this department and its members are pseudonyms.
- [2] This research design was reviewed and approved by the university human subjects review committee.

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