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Edward H. Powley

ABSTRACT

When external events disrupt the normal flow of organizational and relational routines and practices, an organization's latent capacity to rebound activates to enable positive adaptation and bounce back. This article examines an unexpected organizational crisis (a shooting and standoff in a business school) and presents a model for how resilience becomes activated in such situations. Three social mechanisms describe resilience activation. *Liminal suspension* describes how crisis temporarily undoes and alters formal relational structures and opens a temporal space for organization members to form and renew relationships. *Compassionate witnessing* describes how organization members' interpersonal connections and opportunities for engagement respond to individuals' needs. And *relational redundancy* describes how organization members' social capital and connections across organizational and functional boundaries activate relational networks that enable resilience. Narrative accounts from the incident support the induced model.

KEYWORDS

liminality ■ organizational crisis ■ organizational healing ■
organizational theory ■ resilience ■ social mechanisms

A few minutes after 4 p.m. on a Friday in May, an armed man broke through the rear entrance of a business school building and began spraying bullets with two semiautomatic weapons. After he shot and killed one student and wounded two others, the gunman held off police and forced approximately 95 faculty, staff, and students into hiding. As the standoff progressed, SWAT officers systematically swept the building and led organization members to safety. As they reunited with family members and colleagues, police officers cornered the perpetrator in an upstairs classroom where he was taken into custody.

Modern organizations in a complex and global environment encounter a multitude of risks, challenges, and potentially damaging setbacks that threaten the safety of organization members. Psychological research on post-traumatic disorder (Beigel & Berren, 1985; Katz et al., 2002; Norris et al., 2002a, 2002b) has emphasized the deleterious effects of crisis on individuals. Norris and colleagues, (2002a, 2002b) empirical review of 160 studies on disaster determined the potential range and magnitude of a disaster's effect on mental health and the experiential, demographic, and psychosocial factors influencing the most affected victims. Other scholars have examined death and dying, terminal illness, trauma, or life-threatening events to uncover the positive psychological effects and benefits of individual trauma and victimization (Janoff-Bulman, 1992; Janoff-Bulman & Berger, 2000; Lehman et al., 1993; Taylor, 1983; Tedeschi & Calhoun, 1995, 1996; Tennen & Affleck, 1999; Thompson, 1985; Tugade & Fredrickson, 2004). In a study on how students reacted to 9/11, for example, Fredrickson and colleagues (2003) found that positive emotions significantly mediated the relationship between psychological resilience and depressive symptoms as well as increases in psychological resources. Research at the individual level of analysis suggests that those deriving positive meaning from setbacks attribute less blame to others cope better long after the crisis, and express gratitude and appreciation for life and relationships.

LaLonde (2007) argues that crisis management and intervention research adopt a sociological framing to examine prevention and management of crisis and on organizing principles such as causal factors for disaster precipitation and disaster prevention (Meyer, 1982; Vaughan, 1996, 1999; Weick, 1991, 1996, 2001; Weick et al., 1999). These research domains emphasize anticipating, managing, and preventing crises to produce safety. In studies of high reliability organizations for example, organizational scholars seek to understand organizing processes underlying causes of failure and processes that might help prevent potential crises (Weick & Sutcliffe, 2001). Crisis management research tends toward the normative processes of

organizational design and structure, policies, communication strategies, and the like.

What we know about the positive *social* processes of emergency crisis, however, is limited. And while a few scholars have identified possible positive dimensions of crisis in large industrial accidents, citing critical factors for mitigating crisis effects (Pauchant & Mitroff, 1990; Rosenthal et al., 1989; Shrivastva, 1987), these pay little attention to social dynamics, that is, how people relate to one another in emergency situations as a way to enable recovery from setbacks. Weick points out that ‘noticeably lacking, at least at first, is nuanced perception, and especially any comprehension that there might be positive implications buried somewhere in the tragedies’ (2003: 68). The present study unpacks the positive implications of one disruptive event (the one described above), departs from the functional analysis of crisis management, and proposes a model to explain how resilience through social connections, defined as latent capacity to rebound from setbacks, is activated in emergencies.

This article presents an in-depth analysis of social mechanisms that enable an organization to resume operations and heal in the time immediately following crisis, and is organized into four main sections. The first section situates the study in the organizational resilience literature. I contend that the social connections among and between organization members, representing one dimension of resilience, enable an organization’s resilience. The second section outlines the qualitative method used to derive a model of resilience. Drawing from the grounded theory tradition, I analyze narrative vignettes from the university shooting incident, which provides a context to study social connections first-hand. The next section presents findings from the qualitative study demonstrating resilience; insights from the findings point to a model supported by extant literature. The fourth section explains the proposed model and discusses theoretical implications. The article concludes with a discussion of limitations and possible future directions for research.

Resilience and social connections

Resilience is a critical resource for individuals and organizations facing adversity (O’Leary, 1998; O’Leary & Ickovics, 1995; Rutter, 1987; Sutcliffe & Vogus, 2003). Primarily thought of as a characteristic of hearty individuals (Masten & Reed, 2002), or as a trait (Fredrickson et al., 2003; Tugade & Fredrickson, 2004), resilience has also been conceptualized as an organizational level phenomenon (Gittell et al., 2006; Sutcliffe & Vogus, 2003) as

the power of organizational units to resume, rebound, bounce back, or positively adjust to untoward events.

Scholars have proposed conceptual models that outline how organizations respond to threats (Staw et al., 1981), have identified strategic, operational, or financial resources critical for maintaining and restoring business functions (Bennis & Thomas, 2002; Hamel & Välikangas, 2003; Robb, 2000; Sheffi & Rice, 2005), and have suggested factors necessary for resilient organizational systems to persist despite setbacks (Worline et al., 2004). Wanting though, are process models outlining the mechanisms by which resilience emerges or activates when organizations confront threats, challenges, or unexpected emergency situations. I introduce the concept of *resilience activation* to describe this process.

Organizational resilience has been examined in the context of learning (Smith & Elliott, 2007; Sutcliffe & Vogus, 2003) and positive social relationships (Gittell et al., 2006). Organizational learning emphasizes positive adaptation and involves managing 'the tradeoff between growing (i.e., enhancing variation, innovation), and building competence (i.e., efficiency, honing existing competencies)' (Sutcliffe & Vogus, 2003: 104). Learning deals with the ability of an organization to adapt over time to stress and challenges, such that organizations learn from their experiences, which then enable them to adapt in future challenges. The propensity for adaptability 'restores feelings of efficacy because organizations can cope with a broader array of interruptions or jolts than their stock of capabilities might indicate' (Sutcliffe & Vogus, 2003: 105). In this case, resilience centers on the perspective of learning *in* crisis as an adaptive process rather than 'learning from crisis, learning for crisis, and learning as crisis' (Smith & Elliott, 2007). Learning, while *in* crisis, occurs through social connections and interactions that enable positive adjustment, as shown below, to ensure the persistence of relationships.

As an adaptive process, Sutcliffe and Vogus (2003) argue that a resilient response includes broader information processing, loosening of control, and utilization of slack capabilities. Competence for dealing with crisis is born in the social connective capacity of an organization; organizations use 'accumulated cognitive, emotional, and relational resources' (2003: 107) to enable positive adjustment. While Sutcliffe and Vogus identify two response patterns (resilient and rigid) to setbacks, they do not show *how* resilience is activated; this article articulates a process of how social resources (social, interpersonal connections) activate resilience.

Research suggests that positive interpersonal connections enable organizations to weather difficulty and resume operations more easily (Gittell et al., 2006). Gittell and colleagues' study of ten airlines after 9/11 demonstrates that organizational resilience results from positive social relationships.

Their emphasis on relationships primarily concerns employment policies dealing with layoffs and strikes. They found that a firm's decision not to layoff employees, its internal positive relationships (as measured by fewer strikes), its adequate financial reserves, and a viable business model contribute to an organization's ability to recover from crisis. They argue that positive relationships account for a large portion of the variance in explaining organizational resilience: 'Positive relationships tend to produce lower costs and lower debt levels over time, making it easier to sustain external shocks without breaking commitments, thus further strengthening relationships and performance' (Gittell et al., 2006: 325). Whereas Gittell and colleagues' research uses proxies for gauging positive relationships (e.g. strike and layoff data), the present study attempts to deepen understanding of the social interaction and connections between individuals in crisis.

Organizational scholars studying social capital (Burt, 1997; Coleman, 1988) and social networks (Gibbons, 2004) also highlight the role of social connections in organizational adaptation. Interacting social actors draw upon their social capital to make connections, and those linkages often occur when organization members fill structural holes created in crisis situations. Scholars have shown that those with high degrees of social capital ('positive energizers') – those who form positive social connections – are more effective and successful at work (Baker et al., 2003). Moreover, social capital and relationships play a role in fostering resilience: 'organizations can tap into their networks when responding to adverse events for needed insight and assistance' (Sutcliffe & Vogus, 2003: 105).

Social networks form the underlying structure that arises from social connections and influences their future development. Social networks might be characterized as aggregations of formal and professional ties or of informal, friendship-based ties (Gibbons, 2004). Formal social networks represent idealized and prescribed interaction patterns for coordinating work. These types of networks are shaped by flows of advice and expertise between organization members. Professional interaction creates patterns of social exchange and dependency, both within and between organizational units. Informal social networks encompass social structure and interaction patterns involving trust and familiarity, and they might become more salient when the organization confronts adversity. Friendship ties generally take time to develop, but social connections that spontaneously emerge in the aftermath of crisis have the qualities of friendship. Friendship's voluntary, trusting, egalitarian connections (Bell, 1981) enhance cooperation and open communication (Jehn & Shah, 1997) because organization members might sense a high degree of attachment and positive affect (Brass, 1992) for others in the trauma situation.

The definition of resilience employed here builds on two assumptions. First, resilience is a latent capacity in organizations built overtime through social interaction and relationships. Second, resilience might be detected when organizations encounter setbacks. As a latent capacity or relational 'reserve' (Gittell et al., 2006), resilience is banked in the social relationships and ties of organization members and is employed when needed, like Khan's (1993) notion of a caregiver system. Post-9/11 research in several financial services firms suggests that resilience existed previously, and that through social relationships and connections resilience enabled one organization to resume work and begin to heal (Buenza & Stark, 2004; Freeman et al., 2004).

Drawing on resilience research, relationship connection, and social network theory, I propose a process for how resilience is activated in organizations facing major adversity or trauma. While typical interpersonal relationships at an individual level are present in organizational crises, this study examines deeper forms of social relations that enable resilience characterized by intimacy and closeness in connection, and heightened awareness of others. What seems to be lacking is any theoretical development about mechanisms informed by combinations of individual positive emotions, interpersonal interaction, individual desires, belief and actions and their intersection with the 'purposive actions' of other organizational members (Coleman, 1986: 1325). The present study contributes to the emerging literature on organizational resilience and healing (Powley & Cameron, 2006; Powley & Piderit, 2008) by inductively determining the social mechanisms that activate an organization's capacity to 'bounce back' from setbacks.

Method

To understand how resilience activates, I employed narrative inquiry (Ludema, 1996; Nye, 1997; Sutton, 1987) and grounded theory (Strauss & Corbin, 1998) to examine actual experiences and interactions of organization members involved in the university shooting incident described previously. Using interviews as the primary source of data, I inductively analyzed narrative accounts to uncover the social and relational dynamics. Such methods illuminate social mechanisms (Hedström & Swedberg, 1998) embedded in organizations members' thick descriptions of interactions, stories, and experiences (Gioia & Thomas, 1996).

The context for the study is an appropriate case to study resilience because the shooting incident tested the adaptational response of the organizational community (Creamer et al., 1991) and created a disruption to normal functioning for a short time, but did not produce lasting 'near-complete

disruption of ALL social processes [and] social structures' (Britton, 1986). To examine the mechanisms of resilience, the temporal framing for this study focuses on the 'critical period' (Stein, 2004), interpreted as the time of the crisis, its immediate aftermath, and a short time thereafter before the organization resumed day-to-day functions.

Data collection

Gathering data about the shooting involved a sensitive process to identify and interview participants. Due to the potential to arouse emotional trauma, participants were not proactively recruited; instead, faculty, staff, and nearly 600 students (including recent graduates and some alumni) received an invitation to be interviewed about the incident. As a member of the university organization where the shooting took place, I obtained access to participants using e-mail distribution lists from the Dean's office after securing approval from the human subjects research board. Within 72 hours of the sending the invitation, approximately 60 individuals voluntarily agreed to an interview; half were directly involved and represented about one-third of those held hostage.

While the respondent sample favors those willing to share their story and the voluntary recruitment procedure might have biased the interview sample, the distribution of participants was even across organizational units, positional role, and physical location during the incident, as well as demographics such as race and gender. Whereas concerns that only those with positive impressions would willingly participate, responses ranged from both positive to negative. According to research conducted after September 2001 (McNally et al., 2003; Miller, 2002), invitations allowed organization members to agree to participate in a non-threatening manner that was both comfortable and consistent with their experience.

Participants answered semi-structured interview questions, shown to be an effective way to capture experiences after traumatic events (Dutton et al., 2006). I introduced the study by relating my interest in learning what was remarkable and extraordinary, and my desire to understand processes that enable organizations to adjust positively after disruption. The interviews covered four broad areas; organization members: 1) shared their personal experiences in narrative form, 2) described individual and organizational responses, 3) discussed extra-ordinary stories, and 4) indicated how their background affected the way they experienced the incident. The concept of social connections in emergency situations was not preconceived as part of the study or interviewing process; rather the role of social connections in resilience emerged over time. While each interview provided similar

information about the incident, each additional interview was more focused to obtain further detail about the incident and aftermath.

Interviews were conducted as soon as was possible, but given the number of participants, colleagues recommended pacing data collection at a manageable tempo over several months. The levels of reliability and validity for the interview data are acceptable because the interviews did not occur too long after the incident (Motowidlo et al., 1992); all interviews were completed within approximately four months. One-on-one interviews served as the primary source of data; other sources (e.g. newspaper accounts, electronic mail correspondence, video footage and so forth) helped fill information gaps and clarify details. Interview data consisted of nearly 60 hours of audio-recorded data and 1200 transcript pages; the average length of an interview was about one hour.

Data analysis

The data analysis process followed three steps: developing narrative accounts, organizing a narrative mosaic, and deriving meaning.

Developing narrative accounts

The purpose of this step was to transform individual interview data into discrete stories about the incident. Individuals' experiences were identified from the interviews, and then collated (i.e. multiple retellings by participants of the same events were merged) into one- to two-page summaries. The collating process yielded 95 narrative accounts, or short vignettes describing discrete interactions, events, and responses to the incident. Five narrative accounts were omitted from the analysis because their content related to the physical structure of the building rather than social connections; the remaining 90 accounts are listed and summarized in Tables 1, 2 and 3.

Narrative accounts describe human action sequences or story schemata (Baumeister & Newman, 1994) comprising one or several individuals' interactions with each other. These accounts formed the basis to analyze social connections because they describe actions, interactions, and ways individuals related to each other in both the initial response and recovery. When collating individual's experiences into narrative accounts, three primary criteria were used: believability, referring to how well multiple voices were represented in a given account; coherence, referring to how well the statements in the accounts fit together and made sense for telling a particular perspective; and sequence, referring to whether the account was sequential with respect to its internal coherence and the other accounts.

Organizing a narrative mosaic

The primary purpose of this step consisted of developing what one might term a 'narrative mosaic' or evolutionary storyline (Strauss & Corbin, 1998) of the incident and its week-long aftermath. Instead of immediately coding for themes, the intent of the first two steps was to bring the larger story of the organization's resilience into relief, which prevented moving too quickly from specific data to theoretical generalizations. Throughout the second step, consideration was given to questions about the relationships between accounts: what common threads hold the accounts together? And, what is the sequence of the stories?

Once the accounts were categorized, three distinct categories of narrative accounts became apparent. The first category represents narrative accounts from the undoing of organization, dealing with the crisis in the moment, and responding to immediate concerns. These narrative accounts describe how the initial event affected individuals and small groups within the organization. The second category includes accounts where individuals responded to colleagues, organizational leaders tended to individuals' needs, and small groups and departments gathered to share their stories of the events. These accounts describe dynamics at the individual level of analysis: colleagues responding to each other. The third category highlights accounts reflecting the combination and configuration of responses indicative of macro-level phenomena. These accounts describe how individuals and small groups impact the organization.

Deriving meaning

Once narrative accounts were developed and categorized, data analysis proceeded in an iterative fashion based on recommendations by Glaser and Strauss (1967) and Miles and Huberman (1984). To make sense of the narrative accounts and to explain how organizational resilience activates, each set of narrative accounts was inductively coded, repeatedly answering the question: how do these accounts help to explain resilience? This process yielded codes about organization members' interactions and connections, small groups and departments that showed resilience, and organizational manifestations of resilience.

What this and the previous steps revealed was – according to Coleman's (1986) concepts of collective action and methodological individualism – a progression from individual action to resilience at an organizational level such that social or organizational phenomena derive from individual action. This analysis began with individual level data, but then

moved to extrapolate theoretical categories, expressed as social mechanisms, from the narrative accounts (Hedström & Swedberg, 1998).

Describing resilience through narrative accounts

Resilience activation occurs through three mechanisms: *liminal suspension*, *compassionate witnessing*, and *relational redundancy*. The shooting incident set in motion actions, interactions, and behaviors that activated the organization's capacity to positively adapt in the midst of the incident, and thus 'turned on' the organization's resilience (see Figure 1).

The crisis induced a critical period (Stein, 2004) – a temporal space in which the organization restores order, recovers, and begins to heal (the central circle in Figure 1). In the first mechanism – liminal suspension – the organizational structure temporarily collapsed thus enabling compassionate witnessing and relational redundancy. Taken together these three mechanisms describe the process of resilience activation in organizations.

Liminal suspension

Liminal suspension is the alteration of relational structures and the emergence of new relational patterns. That is, suspended relational structures encouraged new and different kinds of interaction among organization members – interactions that would not have occurred otherwise – and those opportunities to engage included ways to support others in the organization and connect beyond functional and organizational boundaries. Moreover,

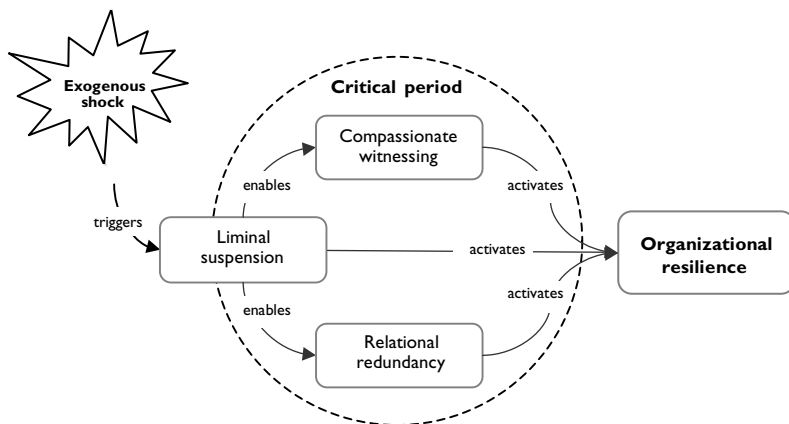


Figure 1 Mechanisms of resilience activation

changes in relational structures (e.g. new bonds, a sense of community, and so forth) as well as alterations in work routines and patterns (e.g. suspension of work tasks) allowed for collaborative organizing of new routines and relationships. Liminal suspension lays the pathway (through the crisis, rupture of normal operations, rescue process, and time following) to begin resilience activation by enabling changes in relationships and ensuring the persistence of relationships within the organization. Altering relational structures draws out the latent capacity for connection.

Liminal suspension activates an organization's resilience in two ways. First, liminality functions as a temporal holding space where organization members have time to readjust psychologically, emotionally, and relationally – a space to care for, help, and support each other without work constraints. Second, being suspended in liminality means that relational structures shift and thus place organization members in positions to form new and strengthen existing relationships – opportunities created because of the crisis. Narrative accounts listed and summarized in Table 1 support these findings for liminal suspension.

Temporary holding space

A temporary holding space is a brief, unresolved period in which work activities 'suspend' thus creating a space for organizational members to readjust and reorient themselves. Moreover, the holding space provides the initial structure for organizational operations and interactions. In this case, the temporary holding space lasted about 10 days because the building's closure forced people away from their day-to-day routines. These changes in routine gave organization members time to stay away, to work from home, or not to work at all. Some individuals took on more work or volunteered to perform out-of-the-ordinary duties to help the school return to operations. Administrators and support staff performed essential functions (e.g. organizing and preparing graduation, or contacting families), and for some, helping with these essential activities was not part of their regular jobs. And even though, the school attempted to maintain some normal operating processes, 'things were not expected to be done right away':

The period before getting everybody back in the building . . . was enough for about a week or so before people really started to pick up the pace again and get back into the swing of things.

[06–014].¹

Without a physical place to call 'home', relationships between organization members were magnified, because 'time off' from work opened many

Table 1 Liminal suspension narrative accounts

<i>Narrative account</i>	<i>Summary</i>	<i>No.</i>
911 connection	A staff member makes contact with 911 and reports what he knows about the building and potential hiding places the gunman might use	01
A little light came into the room	PhD student notices the smile of one person trapped in the same room and feels a desire to connect with that person, to express appreciation	05
A sacred time and space	The death of the student and immediate crisis event created a somber and sober mood where organization members felt a particularly close bond	06
Alive or dead	A faculty member descends to the main level, sees the victim and wonders if he is alive or dead. He goes for help	08
Appreciating life and relationships	Individuals reflect on the importance of their relationships and during the shooting realize that upholding differences are not worth the effort	11
Ben's story	Before a wheelchair-bound professor finds refuge the gunman tries to fire on him, but he plays dead	12
Bulletproof vest	A police officer offers his bulletproof vest to a staff member and escorts her from an exposed area	16
Come out with your hands up	Shock and surprise and then calm of individuals when confronted by the police and SWAT officers	23
Dean welcomes at nearby university building	Dean hugs individuals as they come off a bus that was at the building	25
Forgetting the students	A staff member forgot to send email about the shooting to students	30
Get the secretaries in an office	A faculty member realizes the danger to his staff and motions for them to get into his office for a safe hiding place	31
He actually took a message	Faculty member answers the phone calmly during the shooting and takes a message from a student about an upcoming class	36
High meets low	While waiting for the incident to end, the Mayor personally visited with students on the campus	39
I was thinking about you	Once into a safe area of the building, individuals greet each other by saying, 'I was thinking of you.'	40
Lockdown and evacuation	A neighboring building was locked down and evacuated and police officers used the roof as a lookout	49
Mobilizing counselors	A university counselor acted as the primary contact and coordinated the initial mobilization of help across campus	51
My 911 operator	A staff member made contact with a 911 operator who stayed on the phone for most of the standoff offering reassurance and contacting family members	52

Table 1 continued

<i>Narrative account</i>	<i>Summary</i>	<i>No.</i>
Bill's impact	The slain student made an impact on many; some said he went toward the gunman to calm him down as he was being shot	54
Out the back door	An adjunct faculty member evacuated executive education students by leading them out a back door and away from the scene	60
Reclaiming our building	Ceremony when organization members reentered the building	63
Reentering the building	A couple of days afterward, individuals reenter the building to retrieve their personal effects	64
Rescued at the elevator	A student attempting to leave the building is stopped by staff member aware of the shooting; the student retreats to a faculty office to hide	67
Sujoy	The slain student's friend leaves the building in a hurry and tries to get help; he is greeted by university counselors and a faculty member	68
Safe at last	Greeting people in the 'safe room' in the building was a welcome reunion for those trapped in the building during the incident	69
She had to go	Due the to length of the standoff, individuals needing to use the restroom made makeshift arrangements	73
So you talked to 911	A student spoke with a 911 operator and was one of the first to give an eyewitness account of the victim and his location	76
Spontaneous support groups	Students stepped outside of previously established groups and came together to share and to learn from each other	79
Warning and escape	A staff member and his colleague spotted another staff member unaware of the shooting and warned him to flee the building	87
We really saved each other	A group of staff members found a closet and waited until late in the night and without knowing what was happening outside, these individuals supported one another throughout the incident	88
Who else is in this building anyway	Email contact between those in the building was frequent and one faculty member in the building queried others to find out who was there	91
Who's the person	A student who fled the building stays around the building curious to see what will happen	92
You're in e-mail contact	Police learned about email contact with those inside the building and begin to communicate with some people inside	95

opportunities for unplanned gatherings [79]. A number of alternative events replaced work routines. Memorial services, multiple departmental gatherings, and counseling services took precedence over regular work. School administrators met regularly to define and carry out courses of action to return to the building and help staff, students, and faculty back to work. One faculty member remembered going to the executive education building (set up as a temporary workspace) and noticed people simply milling around. The Dean was 'working with a couple of people in a bunker mentality'. He described it as a time when 'the rules were off' [06–025]. The 'no-rules mentality' reflected a temporary, transitional time in which to reorient. The temporary holding space structured the critical period to enable social connections unique to the incident.

Shifting relational structures

Within the temporary holding space, the suspension of operations allowed organization members to see each other out of their structured roles and thus provided a way for individuals to relate in new ways. The shift in how individuals related to one another was a marked reaction. Students described the shift in the structure of their relationships:

So we just kind of instantly formed our little support groups. And people – it's funny how cliques have emerged throughout the semester, and I would say that this was one of those moments where the cliques definitely *became less* you know, just very transparent in that people were reaching out to whoever to talk to them and share information and just have the momentary connection.

[79–012]

The narrative accounts reveal that crisis created new relational patterns and illuminated others – patterns that emerged because organization members' social status and structures were suspended as when organization members appreciated relationships and looked past differences [11] or a faculty member quickly secured vulnerable staff members [31]. Higher status positions temporarily became low status, and in some cases, the converse was true:

We're not professor, faculty, staff, or student, you know we were all equal hostages, and we were all treated the same that night . . . We all suffered through it, so we had this bond all of the sudden that none of us ever, ever had, and we'll have for a lifetime.

[06–031]

Because of the crisis, everyone involved was on equal footing: care for physical safety and survival took precedence over structured roles and positions. Social boundaries became more permeable and students engaged with each other in ways they would not have done before: the Dean and university administrators spoke directly with students, held hands, and embraced those unknown to them [25].

Not only did the incident produce new bonds [52, 68, 73, 76], but also during the intense moments of the shooting, positional status in the organization lessened such that junior faculty or staff quickly took on responsibilities typically assigned to senior administrators (i.e. communicating critical information or gathering people to safety) [31, 91, 95]. The crisis attenuated the formal relational structures and enabled the emergence of a kind of equality to preserve life because relational concerns became more primal when the threat of loss loomed. The shift in relational structures meant initial bonding to protect others' lives and doing what was possible to meet the physical, emotional, and social needs of affected individuals or organizational units:

The community – especially the business school community – got closer from this incident. From my perspective, there was a sense of belonging. I actually felt that my personal sense of belonging was stronger.

[06–034]

Liminal suspension structured a way for organization members to feel a 'sense of belonging' or 'sense of community'. As relational structures shifted, opportunities for new relating and social connections emerged. It is in this context that the second mechanism, compassionate witnessing, operates.

Compassionate witnessing

Compassionate witnessing involves noticing and feeling empathy for others. The narrative accounts for this mechanism portray compassionate actions, interactions, and behaviors of individuals and groups. As the emergency induced a temporary equality between organization members and structured a space wherein organization members were on equal footing (through liminal suspension), they extended compassion and acted in ways to foster caring and supportive relationships.

These expressions and actions demonstrated organization members' re-recognition of the value of human life, their relationships to others, and coming together. Narrative accounts point to two ways compassionate witnessing activates organizational resilience: being carefully mindful, and sharing and connecting (see Table 2). When organization members shared

Table 2 Compassionate witnessing narrative accounts

<i>Narrative account</i>	<i>Summary</i>	<i>No.</i>
A core competency	Response is attributed to the 'softer side' of the school, known for its emphasis in organizational behavior	02
Acts of civil reconciliation	A couple of staff members work through personal differences because of going through the incident together	07
Backup quarterback	A student employee (university football team's quarterback) stays extra hours to provide any assistance during the next week	13
Bringing graduate students to safety	A faculty member seeks out students hiding in open or exposed study carrels	14
Career and student life	The career center had had some problems previously, but really came together after the incident; this change was noticed by those visiting the center later	17
Caring faculty members	Faculty members make contact with a staff member during the incident	18
Caring for a family	A faculty member and his wife visits the family of a student who was inside the building	19
Caring staff	A staff member who earned the annual staff award is hailed as someone who took control of the situation and reached out to others	20
Department coffee pot	A staff member realizes that the students come first and decides to leave out extra coffee for the students	26
Getting back to work	Faculty and staff return to work within a week or so of the incident; some feel the process was appropriate, others feel the leadership was disingenuous	32
Getting Sue back	One department works very hard to help one of their colleagues (one who had been shot) back to work	33
Group counseling	University counselors offer sessions for organization members to come together to talk about their experiences	35
It brings out that mother instinct	Faculty and staff sense a greater desire to see each other in a humanized way, seeking people out to hug them, touch them, and listen to them	42
Just how caring people are	Staff members rally around a fellow employee and her husband who had ties to the gunman and his motives	44
Leaders vicariously suffering	Institutional leaders feel the pain and worry of those involved even though they themselves were not part of the school nor in the building	47
Listening to others' stories	A faculty member sincerely listens carefully to his department and staff members to understand what they had been through	48
Meaningful interaction	The Dean approaches a faculty member at a university cafeteria 50 where they ate and talked together about how each other was doing	

Table 2 continued

<i>Narrative account</i>	<i>Summary</i>	<i>No.</i>
'No Fear'	A department met for a softball game and had a cake; as a show of levity, the department chair had 'No Fear' printed on the top	53
Not enough time	A faculty member disturbed because he could not rescue the fatal victim is contacted by the university president and hospital indicating that nothing more could have been done for the slain student	55
Organizing a compassionate response	A department chair organizes his department members into 'compassion teams' to offer help to the school to contact students, families, alumni and so forth	57
Reinforcing existing organizational relationships	A staff member describes the family-oriented organizational culture as being reinforced through the incident	65
Remembering the victim	A student organization in the management school created an online memorial and scholarship for the victim	66
Sharpshooter on adjacent university building	A police officer on an adjacent building afterward seeks out specific individuals to let them know he was watching over them	72
She needs some cigarettes	A faculty member finds a pack of cigarettes for a staff member who could not get to her car	74
Spontaneous gun control petition	Two faculty member initiates a petition on gun control and distributed it to the school	78
Supporting a staff member	Several faculty members contact a staff member who had trouble attending the events	81
Supporting groups together	A department party with pizza brought people together to talk about their experiences; the wife, a student, made sure the whole family went	82
There may be others	After learning of one student who had come face to face with the gunman and received no help, an administrator realizes that others may have fallen through the cracks	84
Walking the space together	A department chair walks with the members of his department through their office space talking about what happened	86
MgmtSchool family	Faculty, students, and staff describe the culture of the organization as a family	89
Where's Megan?	Organization members express concern for the whereabouts and well-being of the staff member stationed at the main entrance	90

their individual experiences communally, members of the school community experienced themselves in context with the whole system, they mindfully related to others and performed actions that alleviated suffering or honored

others' pain. These attitudes and actions are hallmarks of close personal relationships, such as friendship and kinship that support ongoing helpfulness and reciprocity. This helpfulness and reciprocity strengthens the organization's ability to cope with adversity.

Carefully mindful

When organization members are carefully mindful they see and notice others differently. Being *carefully* mindful illustrates how, as individuals consider their colleagues, they are more likely to find ways to reach out and help them. Being *mindful* represents a concern for the social dynamics in organizations, such that responding to others' concerns is synonymous with thinking about and wondering about the collective well-being of organization members. Whereas a typical response to trauma might be to turn inwards and deal with the pain individually and alone, as was the case for a few individuals here – unless called upon to do something for others – this case demonstrates that mindfulness of others' well-being represents turning outwards to help and offer support.

Several examples illustrate what it means to be carefully mindful. A faculty member wrote an e-mail expressing concern for a particular staff member he had not heard from since the incident [81]. Another faculty member considered someone who had been traumatized by offering help to get cigarettes for her [74]. When people in the building reunited in a safe room before being escorted from the building, several students expressed thoughts about each other:

When I told him, 'I've been thinking a lot about you. I was concerned,' he said, 'I was also thinking about you and if you were okay.' That was something for me. The thing about being in the mind of someone in a situation like this, where your mind could be in many different places, somehow implies that a person cared for you.

[40–001]

Similarly, other staff members and faculty were mindful of the building receptionist who hid under an exposed desk in the atrium [90]. They called her, visited her, offered encouragement, and brought her to community events. Another staff member who had been in the building during the shooting was mindful of the students. She related that students had been sneaking coffee from her department's supply, which had become somewhat problematic, but after the shooting, she realized something about them: they often studied in the building long after staff members and faculty had left

each evening. The building, she said, 'It's the students', and it's their home, and we're part of *their* family' [26–017]. Instead of locking up the coffee, she decided to leave out extra packets for the students; in so doing, she was mindful of the students and responded to their needs.

One school administrator expressed concern for a student who had come face-to-face with the gunman, escaped the building, and then left the scene without anyone knowing what had happened to him. When the administrator learned his story, he called the student personally and then related the following:

He was very grateful that somebody was paying attention first of all, but it triggered for me that there may be others out there that we didn't know about so I was very concerned and tried very hard to get a list of people and then we tried to call. I know we didn't get everybody and so there are still going to be some folks who probably didn't go to graduation, and we'll never see them again.

[84–045]

His doubt revealed his concern and mindfulness for each organization member who might have been affected, but unaccounted for.

Careful mindfulness is not solely a cognitive exercise, but involves discerning others' emotions, which then enables a direct response to the emotional, physical, and social needs. A staff member had a necklace made with the date on one side and the word 'Unity' on the reverse [85], which she personally distributed to nearly everyone trapped in the building. In many departments people wondered about each other and then contacted each other. Faculty members in the department for example, were concerned about a staff member who had had a particularly difficult time:

She was really shook up and she really needed some help and I don't know if there was anybody in the department that would have been well enough connected to her to do that. But another faculty member and I are the two that I know worked well with her significant other – to sort of bring her into what we were doing as a group. And I suspect there was also a role for her church pastor as well.

[81–037]

In this case, being carefully mindful meant being attuned to impressions to help and to consider others who are better suited to handle the situation and how to meet individuals' social and emotional needs. The examples demonstrate that thinking about others and then responding to thoughts and impressions enables individuals' ability to heal.

Sharing and connecting

When faculty, staff, and students gathered several days afterward, they shared their experiences with others and expressed gratitude for help they received from police and that the gunman spared their lives. While their pain was individual, unique, and special, the collective experience of sharing was characteristic of shared expressions of empathy. Sharing stories of the trauma helped them feel relief, not isolation. Sharing and connecting enabled a focus on relationships and social connections, and the collective experiences of sharing provided a space to connect with others, to reconnect and foster confidence in working together again.

Part of sharing and connecting is to be willing to disclose experiences. Organization members had several opportunities to share, listen, and observe others experiences. Efforts to reconnect people began the process of restoring ruptured working relationships. Individual departments met collectively two or three different times to reconnect and hear stories again. But not all individuals felt a desire to share immediately. For the first few days following the incident, staff members stayed home. One remained home, closed the curtains, only wanting to be alone. When she did come to gatherings and met with others later, she indicated that she felt better when she shared her story and learned about others' experiences. A few never returned to the organization or otherwise took several months before reentering the building.

For others, making personal connections made an impression. In one instance, an assistant professor who had been in the building was having lunch in a school cafeteria when the Dean approached him and asked if they could eat together. They talked for 45 minutes. At the end, the Dean asked him how he was doing, how he was recovering, and how things were going. 'It made me feel like this guy does care about how I responded to this thing,' the faculty member said [50-020].

Personal connections occurred outside the organization as well. A PhD student's wife and children waited nervously, but she was not left alone because a professor in the student's department came over with his wife, ordered pizza, picked up toys, and stayed with the family until everyone was let out of the building. 'There was somebody to talk to. She really appreciated that,' the student later said.

And because the professor knew the building, he could say, 'Well, they're probably safe. They're in this part of the building.' He really comforted and reassured my wife. I know it was a lot harder for my wife. To me they really went out of their way. They could have just

called and said, 'Are you okay?' and that would have been it, but I think they just maybe called and then came over. They didn't say, 'Can we come over?' They just did.

[19-002]

Ensuring and fostering personal connection also came in the form of helping those closely affected by the incident. One department supported a husband and wife whose prior history with the perpetrator was a primary reason for the shooting. The support staff sought to respect the couple's privacy and protected them from the media. They also stayed in contact and brought food over for a few weeks [44]. Connection was not in the form of sharing experiences, but their continued support helped the couple eventually to return to work.

Meeting in small groups, talking with, and listening to others' stories gave organization members a chance to express empathy. A department chair and his wife exemplified sharing and connected as they showed compassion toward individual colleagues. Two days following the incident (on Mother's Day), they opened their home to department members and their families. He had not been in the building and so he quietly listened to each of his colleagues' experiences. Throughout the next week, he was available for those who needed his help and then later returned to the building to walk through their office space to hear each of the stories again. Department members appreciated his intense efforts to listen, connect with department members, and encourage them; his actions promoted a sense of community and camaraderie among his faculty and staff [48]. Another department chair acted similarly, offering members of his department to share their experiences and determine ways they could help the school [57].

In contrast, faculty and staff in departments that did not gather reported a particular level of disconnection and frustration with the way the organization and the administrators responded to them personally. For example, one faculty member commented that it would have made a difference to him had the Dean personally called him or sent a personal note acknowledging his difficulty and the fact that he had to be back teaching so soon. One department did not hold a faculty, student, and staff gathering or meeting. Interviews from individuals in that group reveal frustration toward the school and administration for not receiving more attention.

Relational redundancy

Relational redundancy refers to the how interpersonal connections intersect and span beyond immediate social reference groups. Whereas

liminal suspension introduces an altered social structure, and compassionate witnessing reveals small group or one-on-one social interactions, relational redundancy describes the effect of individual action on larger social entities within and without the affected system. During and after the incident, individuals found ways to connect with large numbers of people and extend to others outside of their usual relationships. The increased interaction explains how resilience became activated through multiple actions taken by organization members who shared critical information, connected with others beyond their immediate social reference group, and expanded their influence to build relationships. Relational redundancy also draws together a range of narrative accounts to describe the systemic effect of group and departmental independent and overlapping action. (See Table 3 for a summary of narrative accounts on relational redundancy.)

Information connection

Information connection refers to interactions bridging individuals and groups. The shooting created information gaps within and across social reference groups – knowledge about the location of friends or colleagues prevented connection initially. Acting quickly though, organization members – based on their relative position with respect to the events – shared critical information about those inside and the safety of colleagues and friends. Information spread regarding the school's closure, access to resources, memorial services, and coordination with the university. E-mails not only kept them informed and connected, but allowed school officials to share messages of compassion and concern broadly to nearly everyone in the organization, regardless of a person's level of impact and involvement in the incident. For example, individuals relayed critical information to police, colleagues, or family outside the building. Using her office phone, one staff woman shared with the Dean's office what was happening at the main entrance [41]. This resulted in a broadcast e-mail message informing many about the shooter [30]. Another staff member and his colleague trapped inside who were both uncommonly familiar with the building (because of their jobs) informed a 911 operator of possible places the gunman might hide [01] – information that was eventually shared with police. Some faculty elsewhere wrote e-mails to police about their colleagues in the building [95]. These actions and others enabled the police to identify who, how many, and where people were in the building.

Outside the building, MBA students, faculty, and counselors used their cell phones to locate nearly all their colleagues. Students knew very quickly who was or was not in the building because many dialed their entire phone

Table 3 Relational redundancy narrative accounts

<i>Narrative account</i>	<i>Summary</i>	<i>No.</i>
A fact-based presentation	University administrators make presentations to individual schools about the incident in order to pass along important information about campus security	03
All our neighbors came over	A staff members' neighbors expressed concern as they came to visit and she realized what they had done for her family while she was trapped in the building	09
University and city	The university president and mayor established a stronger connection as they met with the family, the school, and police	21
City Hall	Sometime following the incident organization members attended a celebration at City Hall to honor the police and SWAT officers who helped during the incident	22
Counseling coordination	A mixed group of psychologists, psychiatrist, university counselors, and administrators met to discuss the welfare of those affected as well as plan ways to meet future needs	24
Department meeting	A department chair held an information meeting with his staff and faculty	27
ExecEd gathering	The university held a gathering to allow anyone in the university community to learn about what happened	28
ExecEd-MgmtSchool connection	The management school held its own time for organization members to share information	29
Greeting the family	An MBA student who first alerted the victim's family of his probable death formally met his family at the wake	34
He brought us together	The university memorial service was celebration of the slain student's ability to bridge boundaries and to bring a wide range of people together	37
Information mediated messages	Staff members and faculty had phone links to police and others outside the building who shared information and let them know what to expect	41
Julie's leadership	A faculty member who had first-hand knowledge of what was going on assumed a leadership role to help her department members stay safe	43
Keeping the train moving	Getting the school back to operative status involved the work of several key groups and individuals including internal and external communications personnel, a campus minister, and the administrations of the school and university	45
Late night call	Students vacationing in St Thomas heard about the incident via CNN, but then finally a late night call confirmed the end of the standoff and what the outcome was	46
Offers of support	Counselors and responders from the community contacted university officials and the counseling center offering support and resources	56

Table 3 continued

<i>Narrative account</i>	<i>Summary</i>	<i>No.</i>
Organizing for crisis – University	The university drew in help from the community and a public relations firm; they reached out to various university communities, the victim's family, and the community at large	58
Organizing for crisis – MgmtSchool	The management school orchestrated a response alongside the university with help from a public relations firm; they connected with alumni, family, and advisory groups	59
Personal touch at the funeral	University president's overture to the family and community of the victim	62
Security concerns	Organization members express their concerns about the security of the building and classes	70
Security Task Force	Students and faculty in the management school met to discuss security needs for the school	71
So we met and had dinner	A group of staff members later had dinner with the police officers who helped them during the incident	75
Speed dial	MBA students used speed dial on their cell phones to connect with as many of their fellow students as possible	77
Spontaneous support groups	Students from across the university spontaneously gathering in various restaurants immediately following the incident to support one another	79
University auditorium	A university auditorium became a central meeting place for family and friends of those in the building; it represented a meeting place for anyone seeking information about the shooting	80
The girl who made the call	An MBA student listening to the radio learned of the shooting, then called several people before she realized who had been shot; she then called the victim's family to let them know	83
'Unity'	A staff member had necklaces made for everyone who had been trapped in the building	85
MgmtSchool-University administration connection	Both the university and management school responses overlapped and at one point, the latter was taking directions from the former	93
You owe it to yourselves to celebrate	A faculty member encouraged students at graduation to see this as a time of celebration	94

list and shared their location with fellow students [77]. One MBA student who learned of the shooting from a radio news program during her drive home was part of a chain of events that provided critical information to the slain student's family:

I picked up the cell phone, and called my friend to find out. She was just one of our classmates from our section, and she just happened to be the first person on speed dial – ‘B’ for Barbara – I had just put her in my phone the week before. And immediately when she picked up, she said ‘Okay, I already talked to [Sujoy], and he saw [Bill] go down. We’re worried about some other friends.’ And she gave me the scoop.
[83–012]

The MBA student then called a friend who happened to be the victim’s cousin, who then contacted family members. After several attempts to contact the family, university officials were unsuccessful because fellow students had already established contact with the family. Her singular, initial actions had affected a network of people on the periphery who were eventually at the center of the tragedy.

Similarly, the actions of a university counselor (one of the first to arrive at the scene) affected a number of individuals and university organizations. He first organized backup care in his office across campus, and then headed toward the building where he met faculty who introduced to him to Sujoy, the student who had escaped the building and saw his friend gunned down. The counselor’s pager and cell phone rang continuously and soon he was inundated with offers of help. He quickly realized that his role was to mobilize counselors and resident assistants across the university to meet with and provide encouragement to students or staff, rather than dealing one-on-one with affected individuals. Orchestrating the counseling response also involved the university’s efforts to meet with family members and those in the university community. This counselor became an important node to provide critical information for counselors across the campus about where to be and when.

Overlapping social connections

Overlapping social connections draws together narrative accounts reported within other mechanisms, but in a different way. Stepping back from the individual actions and interactions, the proliferation of connections emerged as a central pattern in the narrative accounts. Collectively, the gatherings and multiple social connections represent a holistic, panoramic view of the total interactions within the organization. These independent social connections across boundaries illustrate redundant relational patterns throughout the system.

A timeline of the planned and spontaneous gatherings and their attendance following the incident reveals significant overlap in opportunities for

individuals to connect within and without one's social reference group. Beginning on the day after the incident (a Saturday), administrative teams in both the university and school met separately, then to together to coordinate specific actions knowing organization members would need time to heal from the trauma. These meetings continued for the next 10 days [58, 59, 93]. On Sunday, students and friends of the slain victim held a vigil while departments began planning their own gatherings. On Monday and Tuesday mornings, there were meetings for university and school to talk about what happened and to obtain help if needed. Large numbers of people attending both the school and university meetings, and smaller, departmental meetings hosted a wide range of members. Simultaneously, departments continued to meet and there were opportunities to reenter the building to collect personal effects. A wake was held on Wednesday evening and a memorial service and Thursday; both attended by many students, faculty, and staff [37]. On Friday and the following Monday (after work crews completed significant repairs), organizational leaders officiated at two ceremonies to reopen and rededicate the building [63].

Spontaneous and planned opportunities to gather occurred within a number of departments, schools, staff organizations, and administrative levels. Faculty, staff, and students met in a neighboring university school [03]. Independently departments held meetings [27, 53] to offer a supportive environment [17, 18, 82], and attempt to organize compassion teams [56]. MBA students drew together their own network [79]. The university and school organized gatherings for family, friends, and colleagues [63]. The several memorial events also served as opportunities to gather [37]. Other organizational units, not involved with the incident yet affected by the events, received reports and held meetings to learn and ask questions about security, safety, counseling resources, and services for troubled employees and students [24, 70, 71]. All the examples reflect a multitude of efforts to connect across boundaries so that even though unknown to each other and independent in their execution, these meetings enabled organizational units to return to work assured of their safety and security.

Explaining resilience activation

The narrative accounts from the shooting incident suggest three distinct yet interrelated mechanisms of resilience activation. These mechanisms reveal the role of relational resources embedded in an organization's social connections. Through the alteration of social relations in the organization, support and care for individuals, and linkages across organizational and functional

boundaries, an organization's capacity for adjusting and bouncing back from trauma is activated. Whereas social connections that produce support and help for others link the three mechanisms, the focus and translation of action by organization members differentiate them. Following Coleman's (1986) macro-micro-macro proposition system, the narrative accounts shown here suggest a model of macro to individual level dynamics, individual level dynamics, and translation from individual to macro. Liminal suspension involves individual dynamics arising from social conflict (Coser, 1956). Compassionate witnessing focuses on individuals interacting in supportive and helpful ways. Relational redundancy deals with actions occurring in parallel among individuals and across functional or organizational boundaries. While liminal suspension deals with altering relational structures, compassionate witnessing and relational redundancy see the re-emergence of social structure through a process akin to healing the organizational body.

Liminal suspension

Liminal suspension is a *situational* mechanism where 'individual actor[s] [are] exposed to a specific social situation [the crisis], [which] will affect [them] in a particular way' (Hedström & Swedberg, 1998: 23); that is, the crisis situation affects how individuals choose to act and interact toward others. Liminality (Turner, 1967; Van Gennep, 1960), from the Latin *limen*, involves unexpected separation, death, fear, or 'various dangerous ambiguities' (Turner, 1974: 273). The shooting, representative of social conflict broadly (Coser, 1956) – a macro-level phenomenon – induces the liminal period where typical organizational routines and patterns suspend for a time and individuals and groups act and interact in new ways to form and re-establish important social connections. Suspension in this sense is analogous to an experience of metaphorical death (Turner, 1969) – in this case, feared and actual death – that lifts social actors out of structured social patterns and organizational roles forcing them to take on new identities, status, and relationships. The liminal suspension mechanism initiates resilience activation by undoing formal social and organizational arrangements (suspension) for a period of time when status is nearly absent and deep bonds form (liminality). In this space, relational boundaries temporarily collapse, new relational structures and patterns emerge, and organization members unite in a common bond.

In liminality, social action transforms routines and structural patterns and influences how those organizational routines reconnect and recreate organizational structures and patterns. Liminal suspension activates resilience by creating time and space for relational structures to shift thereby

'loosening control' to 'reduce defensive perceptions' (Sutcliffe & Vogus, 2003: 108) between organization members. This temporary transition transforms the physical, emotional, and relational aspects of organization members; it loosens the social structure and thus enables new relational patterns to emerge, as when individuals recognized a common bond with others because the social structure had been temporarily undone. Liminal suspension does not make meaningful role distinctions obsolete; on the contrary, those social differences play a role in reestablishing ties among organization members. For example, those in positions of importance might represent ritual elders who lead others through the traumatic passage. During this time, organization members' social relationships and the relational structures affect the ways in which they interact and the actions they perform, thus strengthening existing relationships and forming deep and lasting bonds.

In effect, liminal suspension structured a 'holding space for pain' (Frost et al., 2006) such that organization members connected to process their pain together. As shown in the narrative accounts, the school and groups within the school provided a range of opportunities for people to get together and express personal emotions, empathy, and support. These holding spaces occurred in a safe environment where individuals could share, which gave them space to acknowledge each other empathically. Holding spaces also enabled rational thought and action by focusing on work, making sense with others of what happened, and reflecting on personal experiences (Kahn, 2001).

Although the onset of crisis is often abrupt and usually highly visible, liminal suspension can be subtle and in some cases almost imperceptible. It automatically takes effect when changes in equilibrium occur, thus loosening control and reducing defensive perceptions. In such a space, organization members are more apt to join together, share, connect emotionally, and think about and consider others as well as take on new responsibilities, share critical information, and extend beyond their functional areas – a segue to the second and third mechanisms.

Compassionate witnessing

Compassionate witnessing, a term adopted from research on violence and violation (Weingarten, 2003), 'shows how a specific combination of individual desires, beliefs, and action opportunities generate specific action' (Hedström & Swedberg, 1998: 23) – an *action formation* mechanism. Induced into the liminal space, organization members' social connections reflected compassion, 'suffering together with another' and 'participating in suffering', and acting as witnesses for each other, 'to be present as an

observer' noticing and responding to the situation (Simpson, 2004). Compassionate witnessing activates resilience, thus enabling the organization to bounce back as individuals notice and support one another by responding to individual needs (Frost et al., 2006; Kanov et al., 2004; Weingarten, 2003) and providing encouragement through positive connections.

Compassionate witnessing differs from Dutton and colleagues' conception of compassion organizing (Dutton et al., 2006) in the sense that compassionate witnessing does not coordinate or organize behavior. Rather, it focuses on the role of deep personal and interpersonal emotions, thoughts, and concerns for individuals in their relations one toward another that enable healing of individuals from trauma, either by being mindful or sharing and connecting at an interpersonal level. Consistent with post-9/11 research: active coping (with others) versus disengaging (or withdrawing from others) decreases distress in times of trauma (Butler et al., 2002; Silver & Wortman, 1980; Silver et al., 2002). As organization members compassionately witnessed others' trauma, they offered multiple opportunities for healing and transition back to work.

Mindfully caring for organization members is the heart of compassionate witnessing, and it encompasses Kanov and colleagues' (2004) description of compassion's three interrelated processes (noticing, feeling empathy, and responding). Mindfulness represents a cognitive approach to empathy (Davis, 1996) where individuals make efforts to understand another through imagining the other's perspective. Harvey et al. (2002) note that minding is as an important part of relationship connection; mindfulness is about noticing, feeling, and reaching out (connecting) to others. Mindful individuals draw distinctions between taken-for-granted realities and new awareness, which distinction produces several consequences including greater sensitivity, increased openness to new information, new perceptual categories, and enhanced awareness (Langer & Moldoveanu, 2000). Organization members demonstrate mindfulness as they become attuned to one another in ways that foster sensitivity for surroundings and the organization as new relational structures emerge and enable them to share and connect. They are open to new information about others and others' circumstances thus enabling the restoration of work relationships and opportunities to work together.

Sharing traumatic stories and personal experiences served as one forum for organization members to restore order and bounce back. The interpersonal work of compassion carried out in organization members' social relationships (Frost et al., 2006) or relational practice (Fletcher, 1998) draws on and replenishes the relational reserves and thus enabling resilience. As Herman notes, 'sharing the traumatic experience with others is a precondition

for the restitution of a sense of a meaningful world'. Moreover, 'the response of the community has a powerful influence on the ultimate resolution of the trauma' (Herman, 1997: 70). Recovery, bouncing back, and healing from trauma takes place 'only within the context of relationships; it cannot occur in isolation' (Herman, 1997: 133). Sharing stories and connecting with others occurs primarily through face-to-face interactions (Hallowell, 1999), being physically available for another (Frost et al., 2006), and represent deeply emotional acts between organization members. The personal, face-to-face connection involves empathy and compassion – a source of strength for organization members' psychological health – and is a foundation for compassion work in organizations (Kanov et al., 2004; Frost et al., 2006). Moreover, compassion eases the 'arousal effects of the stress syndrome' (Boyatzis et al., 2004); thus, when another's suffering or distress creates an emotional response that moves a person to action, one is acting with compassion.

Relational redundancy

The third mechanism, relational redundancy, derived from the narrative accounts is 'an emergent consequence' of the actions and interactions of organization members and groups (Coleman, 1986) – a *transformational* mechanism that is more macro in scope (Hedström & Swedberg, 1998). This mechanism points to the redundancy of relational connections that emerge in crisis. Relational redundancy activates resilience through intersecting interactions that ensure the persistence of relationships within the organizational system. As individuals and groups reach across functional and organizational boundaries to help others and make important connections, they produce redundant actions through these interactions and thereby 'enlarge informational inputs' in the form of new and critical information that enables organization to reorient itself to a new organizational reality (Sutcliffe & Vogus, 2003). Enlarging informational inputs occurs as individuals share critical information with their colleagues and those outside their immediate social reference group.

Relational redundancy shows how organization members draw on their social capital to use cognitive, emotional, and relational resources. Counter-intuitively, the focus turns from organizational efficiencies toward redundancy, excess relational capacity, and slack relational resources; that is, redundant partnerships and relationships run deeper and perhaps have greater staying power than parsimonious relationships. Moreover, with multiple points of contact and overlapping opportunities for making connections, information within the whole enlarges thus expediting healing and positive adjustment.

In relational redundancy, organization members play key roles in finding, generating, and rapidly transmitting critical information widely to others in the organizational system. As organization members pass information along weak and strong ties, they become nodes between different functional areas to establish connections with others in the system (Burt, 1992, 1997; Coleman, 1988; Granovetter, 1973). When they do so, organization members draw on their social capital to make important connections. They develop stronger relationships that transcend their own individual concerns and immediate social groups and thus turn outward towards their colleagues and friends (Oh et al., 2004) rather than maintaining a heavy investment in and near-complete alliance to their own reference group at the expense of others. As organization members share information and provide opportunities to recover and rebuild social relations, resilience is enabled.

As groups and departments within the school pulled together, they made connections among groups and individuals and across functional and organizational boundaries. Thus through both internal and external connections, organization members connected individuals and groups to each other. As they drew upon their social capital to connect with others and help them to safety, they drew upon their social capital as they stepped out of their typical roles and established relationships outside their immediate social reference group (Oh et al., 2004).

The proliferation of connections furthermore created an intersecting and overlapping web of connections, which meant that individuals had multiple opportunities to share their experiences, connect with others, express empathy, and develop new relationships. Together the abundance of connections helped reorient individuals, develop positive emotions about the organization, and encourage people back to work (Fredrickson et al., 2003). The organization through the collective efforts of its individual members enabled resilience activation.

Discussion

By developing the concept of organizational resilience manifest in systems that experience set backs and where trauma touches individual organizational members, this study contributes in an important way to understanding mechanisms organizations and their members display and develop through a crisis event. This work articulates the capacity of connections that enable individuals and organizations to overcome, to pass through difficulty, and to adapt to untoward events (Sutcliffe & Vogus, 2003). In the domain of relationship science (Berscheid, 1999) and high quality connections (Dutton, 2003; Dutton & Heaphy, 2003), this study emphasizes a multi-disciplinary

approach to the study of interpersonal connections and their relationship to organizational levels. It unites anthropological conceptions of time and space (liminality) with empathic responses to trauma (compassion). This work also draws out non-rational and emotional aspects of networks and connection, which have followed primarily a rational, instrumental paradigm (Burt, 1992; Granovetter, 1973). Like recent work on compassion in organizational life, this study acknowledges the presence of painful realities amidst emergency crises, and thus helps to 'fill a gap in the organizational literature that often fails to portray organizations as human institutions' (Kanov et al., 2004: 810), and provides nuanced understanding of the role of social connections in crisis.

From the perspective of social relationships and connection, resilience is a socially enacted and embedded phenomenon. Moreover, the process of the resilience activation intimates the nature of socially constructed safety. According to Wildavsky (1988), safety emerges through adaptation to and coping with the unexpected, and dealing with vulnerabilities. Safety then is socially conferred, based on contextual cues and markers that social actors shape and reshape through a crisis event. During the crucial period of crisis, the social processes suggested in resilience activation quite possibly represent one foundation of safety. The social construction of safety might then occur through the dynamics of relating, witnessing, and connecting. In liminal suspension, relational structures shift, thus opening pathways by which social actors might find safe conditions with others. Compassionate witnessing affords caring, mindfulness, sharing and connecting among organization members, thus enabling safe conditions on emotional, personal, and interpersonal levels. In addition, relational redundancy suggests that the multiple redundant connections form a kind of safety net such that organizational operations might continue despite compromised functionality until healing takes place.

Limitations and future directions

The study design involved in-depth analysis of a single case. With a single case study there is greater chance that the findings might not be generalizable to other situations or contexts, though the rich description serves as one 'vehicle for claims of uniqueness' (Martin et al., 1983). Given recent and similar incidents, more cross case comparison has the potential to provide a stronger basis for generalization. One of the primary assumptions guiding this study is that organizations are resilient systems; that is, organizations as social systems possess flexibility and coherence amidst chaos during and after crisis (Adger, 2000; Holling, 1973). As such, organizations demonstrate

capacity to adapt and change, yet remain coherent (not completely undone by crisis) under a multitude of circumstances. Future studies might need to account for situations where organizations might be defined as resilient social systems, but due to other financial or operational concerns, are unable to remain a viable business entity.

This study examined the social or relational aspect of resilience and does not account for strategic and operational resilience. In the wake of 9/11, many airlines suffered significant losses, yet evidence suggests that those companies with both financial reserves *and* positive social relationships fared better than their counterparts (Gittell et al., 2006). Further study of organizational resilience would do well to link the social and financial more tightly. Furthermore, this research points to linkages between the social networks, social capital literatures, and resilience. The perspective taken in this article is that resilience is socially constructed through the interactions and connections among organization members. By extension, potential accrual of social capital further enhances the organizations relational reserves and has the potential to enable a positive response. Future research might include questions about the type and quality of relational networks that enable relational resources necessary for resilience.

Conclusion

Resilience develops as 'enabling conditions (i.e., competence, growth, and efficacy) increase the likelihood of positive adjustment' (Sutcliffe and Vogus, 2003: 107). Resilience manifested through social connections and interactions enables positive adjustment to ensure the persistence of relationships and contributes to the emerging field of positive organizational scholarship (Cameron et al., 2003). Resilience activation opens new understanding for the potential of how organizations and organizational systems begin the healing process after trauma or major disaster, restore important and critical organizational relationships, and reestablish and strengthen organizational practices that promote effectiveness through relational processes. Whereas past research has examined characteristics of operational, system or individual resilience, the present study draws particular attention to the deeper relational issues and answers the question: how do organizations as social collectives enable positive responses to rupture in organizational life? Resilience activation implies the beginning of a larger process of healing and rehabilitating from crisis and traumatic events.

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Note

- 1 References to narrative accounts are identified in brackets with a two-digit number (e.g. 06); if accompanied by a direct quote, a three-digit participant number follows (e.g. 014). Where appropriate, pseudonyms replace names of specific individuals.

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