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Exploring the Dynamics of Workgroup Fracture: Common Ground, Trust-With-Trepidation, and Warranted Distrust

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A temporary workgroup of trained British soldiers fractured and nearly lost members' lives when it encountered unexpected adversity in Low's Gully, Borneo. Although demography-oriented theories of group faultlines and diversity types offer useful cross-sectional baselines for predicting and explaining workgroup fracture, the authors examine the Low's Gully expedition to build theory exposing the longitudinal microfoundations of workgroup fracture under adversity. The authors incorporate the long-established concept of common ground among parties—information that is both mutually held and mutually understood to be mutually held—to uncover changes in group members' communications success, intragroup trust, tacit coordination, and fracture likelihood as the expedition's situation became increasingly tenuous. Their study of how this diverse workgroup faced extreme adversity shows how group trust can dissolve under adversity in a sequence moving from initial trust, to trust-with-trepidation, and then to distrust. Theoretical insights indicate that common ground arising from shared positive experiences increases workgroup resistance to fracture under adversity more than does common

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ground arising from similar backgrounds; a trust violation occurring among highly similar group members is perceived to be more severe and results in a greater increase in group fracture likelihood than does the same trust violation among dissimilar group members; perceived leader benevolence and integrity are more vital than ability for maintaining intragroup trust, even when ability is necessary for task success; and finally, distrust can sometimes be warranted and even vital for a workgroup's task accomplishment. The authors discuss the implications for future research and practice.

Keywords: *group fracture; trust; distrust; common ground; trust-with-trepidation*

Prosperity makes friends, adversity tries them.

—Publilius Syrus

Organizations increasingly rely on newly formed or temporary workgroups for accomplishing even essential tasks (e.g., Bechky, 2006; Bigley & Roberts, 2001; Grabowski & Roberts, 1999; Li & Hambrick, 2005). Meyerson, Weick, and Kramer (1996: 169) define temporary workgroups as those having members with diverse skills and a limited history together; having been assembled by a "contractor" who leads the group; and having the need for continuous interrelating to perform complex, interdependent, nonroutine, and consequential tasks on deadline. Temporary workgroups differ from newly formed workgroups only because their members have few prospects for future work together. The continuous interrelating in such groups requires coordination and, therefore, intragroup trust. Yet instead of basing trust on the quality of previous interpersonal exchanges, as is common in ongoing groups, members in newly formed and temporary workgroups must decide to trust quickly, without the benefit of direct interpersonal experience (Meyerson et al., 1996).

Our goal in this study was to build or refine longitudinal theory (Eisenhardt, 1989; Siggelkow, 2007) about the dynamic processes that can occur when newly formed, temporary workgroups are confronted by unexpected adversity. The relatively short life spans of most temporary workgroups make them ideal for exploring difficult-to-access process issues involving within-group changes in coordination and trust. The case study we analyzed began as a British Army "adventurous-training" exercise to Low's Gully in Borneo, Malaysia. The exercise was intended to build leadership skills and character in 10 soldiers. The volunteer participants in this temporary workgroup fractured into subgroups and separated, despite their having been individually trained by the army to work well with other soldiers and to follow "the golden rule for such expeditions—never split up" (Connaughton 1996, p. xi). Group members easily could have lost their lives when the planned 10-day exercise ended up lasting five weeks.

The Low's Gully case was selected because its features make it especially beneficial for analysis. For example, because a fracture under adversity is relatively unlikely among trained soldiers, even in a temporary workgroup, the mechanisms of this group's fractures may be particularly exposed and thus useful for theory building. Moreover, the Low's Gully case complements previous case studies of group processes under adversity, including the rapid loss of temporary workgroup viability among smokejumpers during the 1949 "blowup" fire in Mann Gulch (Weick, 1993) and the quick formation of a temporary workgroup by

United Flight 93 passengers to combat the 9/11 hijackers (Quinn & Worline, 2008). Whereas the smokejumpers were similar in culture, ability, and status, the soldiers in Low's Gully were diverse in culture, ability, and status. Whereas the smokejumpers had only minutes to evaluate their adverse situation and take action, the soldiers had days to assess their situation and to decide on effective actions. Whereas the smokejumpers' unit quickly broke into many individuals separately fleeing for their lives, the soldiers divided into subgroups. And whereas the strangers on Flight 93 came from disparate walks of life yet quickly built trust and organized collective action while under extreme duress, the soldiers in Low's Gully all worked for the same employer, had volunteered to join the training exercise, and previously had been trained and socialized in ways known to build trust in the army and its members. Moreover, the features of Low's Gully made it likely that the soldiers would experience trust dissolution and distrust development because the options of "no-fault" relationship termination or trust plateaus were unavailable. Finally, we were fortunate to obtain substantial data (contemporaneous, near-contemporaneous, and retrospective) on the officers' and soldiers' thoughts and actions from multiple sources within and outside the exercise.

Theories of group "faultlines" (Lau & Murnighan, 1998) and diversity types (Harrison & Klein, 2007) already have proven useful for predicting and partially explaining how and why workgroups fracture under adversity. Yet these theories, based on groups' demographic compositions, are inherently cross-sectional and are therefore limited in explaining longitudinal processes that may occur when pressure for fracture builds in a workgroup with stable composition (Priem, Lyon, & Dess, 1999). We build upon these existing theories using the constructs of common ground, intragroup trust, trust-with-trepidation, and distrust, which we found to be especially useful in our effort to build new theory that might further expose the more longitudinal, microfoundations of fracture in stable-membership, temporary workgroups facing adversity.

Our study contributes to the literatures on workgroups and group trust in several ways. First, researchers have noted the need for more longitudinal studies of groups to improve understanding of how groups change over time (e.g., Harrison, Price, & Bell, 1998). We develop a process model of workgroup fracture under adversity that incorporates, in combination, the concepts of intragroup common ground, trust, and distrust. This is useful because prior empirical studies have not examined these potentially fundamental mechanisms of group fracture or the potential effects when they change in longer term temporary workgroups. Second, although negative effects from trust dissolution and distrust development may be equally as important to group effectiveness as are the positive effects of trust, few studies to date have focused on the trust dissolution or distrust development processes at all (Jones & George, 1998, and Lewicki, McAllister, & Bies, 1998, are conceptual exceptions). Our study is a step toward identifying whether the trust development, trust dissolution, and distrust development processes are symmetrical. Third, scholars have noted a need for empirical studies that capture changes in trust and distrust over time (e.g., Lewicki, Tomlinson, & Gillespie, 2006) and the resulting need for case studies exploring trust in naturalistic settings (e.g., Gillespie & Dietz, 2009; Kramer, 2006; Weick, 2008). Our study provides a naturalistically grounded "peg" onto which others might tie future research on the underexamined topics of changes in workgroup common ground, trust, and distrust.

Theory Background

Common Ground

Models from economics, linguistics, philosophy, and psychology identify common ground as the bedrock underlying successful communication and coordination (Aumann, 1976; Clark & Schaefer, 1989; Fast, Heath, & Wu, 2009; Geanakoplos, 1992; Lewis, 1969). Yet little direct attention has been paid to common ground in the management literature until recently, when some scholars have begun linking common ground to communication success and effective tacit coordination (e.g., Bechky, 2003; Cramton, 2001). Puranam, Singh, and Chaudhuri note, for example, that "common ground enables coordination because it allows people who possess similar stocks of knowledge to accurately anticipate and interpret each other's actions" (2009: 317). This is why common ground is especially necessary for tacit coordination, which requires anticipating the actions of others.

Common ground is different from simple agreement or from shared beliefs, however; instead, it is defined as the entire backdrop of ideas, experiences, values, and information held in common by two or more parties, wherein each party knows that the other party also knows that they hold this information in common (Clark, 1996; Stalnaker, 2002). Thus, if information is to be part of the common ground underlying a communication act that can contribute to coordination, that information *must be mutually held and must be mutually understood to be mutually held*. These mutual understandings, accurately estimated, are the microfoundations of effective communication. Speakers in everyday conversation, for example, estimate their common ground with addressees and adapt what they say accordingly (see, e.g., Fussell & Krauss, 1992, for empirical support). These estimates of common ground—called *speaker presuppositions*—are usually taken for granted by speakers, yet their accuracy determines whether messages are understood as anticipated (Stalnaker, 2002). And just as speakers must draw upon presupposed common ground in selecting their utterances, addressees must reciprocally draw upon common ground in ascertaining speakers' meanings. Thus, we all draw upon common ground when formulating and interpreting communications. Indeed, *anticipated common ground* can be defined quite simply as that which everyone presupposes that the others presuppose (Stalnaker, 2002).

Clark (1996) categorized the sources of common ground as either communal or personal. *Communal* common ground is rooted in shared cultural communities, whereas *personal* common ground is built up when individuals share experiences together. Clark specified the contents of communal common ground as including knowledge related to human nature, language communities, cultures, and "ineffable experiences" (meaning situations that must be experienced personally to understand fully). For example, two strangers raised in the same city who like helicopter skiing will possess considerable communal common ground, obtained *separately,* that is unlikely to change with time. Personal common ground, on the other hand, develops differently; its content is built up as people experience things *together* over time, through things like conversations, joint activities, or joint perceptual events. Thus, common ground has a communal, cross-sectional component and also a personal, longitudinal component.

The amount of common ground in workgroups (Clark, 1996), the pattern of common ground among group members, and changes in these factors have the potential to offer expanded insights into workgroup behavior. Common ground is especially important for two reasons: (1) The degree of common ground between any two workgroup members affects their communication effectiveness (Krifka, 2004), and (2) effective communication is necessary to solve the coordination problems endemic to task interdependence (Lewis, 1969; Thompson, 1967). Where common ground is inadequate among members, more communication effort is required for coordination to occur—in part to identify what little common ground there is, and in part to actually try to communicate—and the likelihood of communication errors increases (Fast et al., 2009; Krifka, 2004). Common ground is especially important when workgroups face novel and surprising situations; under adversity, inadequate common ground will tend to diminish intragroup trust, to which we turn next.

Trust, Trustworthiness, and Distrust

One well-known definition of trust is "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (Mayer, Davis, & Schoorman, 1995: 712). Another definition labels trust "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another" (Rousseau, Sitkin, Burt, & Camerer, 1998: 395). Yet another definition labels trust as "confident positive expectations regarding another's conduct" and distrust as "confident negative expectations regarding another's conduct" (Lewicki et al., 1998: 442). In the first definition, trust is a decision; in the second, it is a psychological state; and in the third, trust and distrust are expectations. In each definition, trusting necessitates the acceptance of some risk by a *trustor* (the party doing the trusting) that an outcome might not be as expected because of actions by a *trustee* (the party being judged as trustworthy and thus being trusted). And, according to Mayer et al. (1995), evaluations of trustworthiness depend upon the trustor's perceptions of the trustee's ability (to contribute to the task), benevolence (toward the trustor), and integrity (consistent behavior according to principles).

Some trust—accepting vulnerability to the actions of another—is essential for human cooperation (Gambetta, 1988; Luhmann, 1979). Yet trusting can expose one to considerable risk if a trusted person should turn out to be untrustworthy (Mayer et al., 1995). Members of established workgroups can assess other members' trustworthiness as they experience or observe ongoing exchanges with one another (Cook, 2005). In newly formed workgroups, however, members instead must decide quickly whether or not to trust relative strangers (Foddy, Platow, & Yamagishi, 2009; Meyerson et al., 1996). In such situations, the trustworthiness of other temporary group members is assessed initially "based on status characteristics (visible markers of group membership), on kinship status, or on stereotypical judgments of those who are similar or dissimilar to us" (Cook, 2005: 11), rather than on historical behavioral data. Indeed, research indicates that people are quite adept at estimating what

they have in common with others—even strangers—by categorizing others into stereotypical communities (Clark, 1996; Fussell & Krause, 1992). This suggests that communal common ground is related to the positive expectations necessary for initial trust, while the personal common ground that is developed through shared experiences will determine whether that initial trust continues or whether trust dissolves and distrust develops, which could lead to group fracture.

We next present a brief summary of the events that occurred in Low's Gully, Borneo, in 1994, and we discuss the data sources used in our study. We then examine in detail several key incidents that show how unexpected adversity and a lack of workgroup common ground contributed to trust dissolution, a trust-with-trepidation phase, distrust development, and ultimately, group fracture. Next, we offer propositions concerning these constructs and the process of workgroup fracture, and we discuss the implications of our findings from Low's Gully for researchers and for managers who may lead temporary workgroups that could face unexpected adversity.

Low's Gully Context and Main Events

Low's Gully is a 10-mile-long chasm that splits the north side of Borneo's 13,455-foot Mt. Kinabalu on the Malaysian part of Borneo island next to the South China Sea. Borneo lies southwest of the Philippines, southeast of Vietnam, and northwest of Australia. Low's Gully descends more than a mile in elevation, serving as a "drain" that conducts rainwater to the River Penataran at the mountain's base. The 1994 adventurous-training exercise was initiated by two British supply officers—Lieutenant Colonel Neill and Major Foster—who recruited five soldiers from units in Great Britain and three soldiers stationed in the British Army's Hong Kong Military Service Corps. The eight soldiers knew little or nothing about one another beforehand, and each voluntarily accepted the invitation to join the training exercise. The officers and five soldiers were British; the three Hong Kong soldiers were ethnic Chinese who had joined the British Army. To build group spirit, Neill instructed everyone to wear civilian clothes and to dispense with rank (instead, use given names) during the training exercise.

A decade earlier, the same officers led two training exercises that had tried to climb up the gully from the base of Mt. Kinabalu, but their efforts were thwarted by rain and the nearly impenetrable jungle along the river. The 1994 training exercise planned to reverse the route; instead of starting from the bottom of Low's Gully, they first would hike up to the mountain summit using a safe park trail frequented by tourists, and then they would descend through the previously untraversed gully. They would use a common mountaineering technique called abseiling in which they would repeatedly secure long ropes to the tops of cliffs in order to lower themselves and their rucksacks downward. When the group of 10 reached the gully floor, the soldiers would follow the river back to civilization. Neill planned a 10-day exercise: 5 days for descending to the river, a few more to follow the river out of the jungle, and slack for unforeseen contingencies. The British held a few sessions in Great Britain to practice abseiling and then picked up the Chinese soldiers in Hong Kong en route to Borneo.

Table 1
Group Members' Backgrounds, Arrayed by Assigned Partners

Name	Rank	Unit	Age	Fitness	Skills Training
Neill	Lieutenant colonel	RA	46	Fair	Mountain Leadership Certificate (20 years earlier); TR&A
Foster	Major	TA	54	Fair	Joint Services ski instructor
Mann	Sergeant	Elite, TA	37	Good	Parachute training; Commando Brigade
Mayfield	Lance corporal	Elite, RA	25	Tops	Joint Services rock-climbing instructor; Commando Brigade
Brittan	Corporal	Elite, RA	24	Tops	Parachutist; jungle experience; TR&A instructor
Page	Lance corporal	RA	26	Mid	TR&A instructor
Shearer	Lance corporal	RA	26	Good	Joint Services mountain expedition leader; trekking expert; TR&A instructor
Cheung	Lance corporal	HK	32	Good	Physical training instructor; prior jungle training in Brunei, including abseiling
Lam	Private	HK	27	Mid	Novice
Chow	Private	HK	24	Fair	Novice; some training in rock climbing and parachuting

Note: In the Unit column, elite = prestigious units such as Commandos; RA = regular army; TA = territorial army (part-timers); HK = British Army's Hong Kong Military Service Corps. In the Skills Training column, TR&A = top roping and abseiling.

Starting Off

Lt. Col. Neill established a buddy system wherein pairs of soldiers shared transport of bulkier items like cooking equipment. The pairings were assigned based on similarities in soldiers' backgrounds. Table 1 shows the soldiers' qualifications and the assigned pairings.

On Day 1 of the training exercise, the soldiers were dropped off at a trailhead of 6,200 feet elevation, and they hiked three miles up the tourist trail to overnight cabins at nearly 11,000 feet. Each soldier carried supplies in an 80-pound rucksack. Private Chow collapsed from dehydration halfway up the mountain trail and, when later discovered, was helped to the cabins by other soldiers. Neill, Foster, and Sergeant Mann also struggled. They lightened their rucksacks by leaving some contents beside the trail, to be recovered the next day. That evening, Lt. Col. Neill gathered the soldiers for a formal Orders Group meeting, chastising them for not staying with Chow on the trail so that they could have come to his aid more quickly. During this meeting Sgt. Mann and Lance Corporal Mayfield, having observed the relative lack of fitness in some soldiers, proposed an alternate plan where only the group's four best climbers would actually descend the gully to the river. The six less-fit members (including the two officers) would instead hike back down the tourist trail and then come upriver carrying the heavier supplies. They would meet the four abseilers at the gully's base. Neill rejected this proposal as an unnecessary change in plans.

Day 2 by necessity became a day for rest. The abandoned supplies were retrieved, and group members recuperated from dehydration and altitude sickness. The three Hong Kong soldiers told Lt. Col. Neill, and later Sgt. Mann, that they wished to withdraw from the exercise. They argued that they had volunteered for a mountain hike and had not been told about the rigorous rock climbing necessary for descending the gully. Neill dismissed their request.

Table 2
Progress of Reconnaissance (recce) and Main Groups

Day	Group Formations	Elevation (000s feet)	Comments
1	Together but hike on their own	6 up to 11	Tourist trail to cabin
2	Ten together	11	Recuperate
3	Together; recce formed: Brittan, Mayfield, Page, and Shearer	13	All hike to summit together, then recce camp ahead; Main 6 return to cabin
4-5	Recce waits	11	Sgt. Mann carries messages between main and recce
6	Main now 5: Neill, Foster, Cheung, Lam, and Chow		Mann stays with recce and assigned partner (Mayfield)
7	Recce (now 5) abseils to gully floor		Down sheer cliffs
8	Main fails to rendezvous with recce		Recce decides to go down river
9-13	Recce along river in jungle; main into cave on Day 13	Recce at 4; main at 6	Drenching rains begin on Day 9
14	Recce accidental split	3	Mayfield and Mann separated from Brittan, Page, and Shearer
19	Brittan, Page, and Shearer find a village	2	10 miles in 10 days
20	Mayfield and Mann find a village	2	Hospitalized; reunite with other 3 recce; sound alarm to rescue main group
25	Rescue teams arrive from United Kingdom		Neill and Foster twice try to climb out between Days 14 and 32
33	Main party of 5 found at cave	6	Helicopter lifts 5 out

By Day 3, the fitter soldiers were impatient and wanted to speed progress. They volunteered to do forward reconnaissance and establish a camp that evening, ahead of the main party. Neill told the four fittest soldiers he called "whippets"—Brittan, Mayfield, Page, and Shearer—to go forward as a reconnaissance party and report what lay ahead. Their proposal followed Neill's original concept, wherein the group would function as an elastic band:

> Because the group would be one of mixed abilities, and the young British and NCOs were likely to be fitter and more experienced than the Hong Kong soldiers, the team would work in two halves on the harder phases of the descent. The British, taking advantage of Mayfield's expertise (in rock climbing), would set up ropes on the difficult sections, while he [Neill] and Foster would concentrate on bringing the Hong Kong soldiers down. Every now and then the recce (reconnaissance) party would report back, and the expedition would go on down in one unit until another reconnaissance became necessary. (Neill & Foster, 1995: 41)

The four soldiers in the new "recce" party lowered themselves into the gully, and from Day 3 through Day 7 they probed further downward via an unexpectedly large number of dangerous abseils. Remaining with the main party, Lt. Col. Neill felt ill and little progress was made. Table 2 shows the daily progress of subgroups and their changing memberships.

Group Fracture

Because they had no two-way radios, the two parties communicated only sporadically when members either descended or climbed from one party to the other. Sgt. Mann descended twice from the main party to rendezvous with the reconnaissance party, and he ultimately stayed with the reconnaissance party to rejoin his assigned climbing partner, Mayfield. Major Foster descended partway and left urgent (but unseen) notes on the trail telling the reconnaissance party to regroup with the main party. Early on Day 7, Mayfield climbed back up to the main party's camp. Foster told him that Neill seemed to be having mood swings. Mayfield met separately with Lt. Col. Neill and reported that more abseils would be required to reach the gully floor than they had anticipated; the reconnaissance party therefore would be forced to pull down some ropes from earlier descents if they were to proceed further. This would cut off any possible retreat back up the gully. Mayfield also told Neill that because of dwindling food the reconnaissance party could wait only until the following morning for Neill's main party to join them. Neill scheduled a rendezvous with the reconnaissance party at the gully floor for that evening. Mayfield rejoined the reconnaissance party, and the party resumed descending the gully. After a harrowing abseil down a 525-foot waterfall, the reconnaissance party had no choice but to pull down the ropes in order to continue. The soldiers executed five more abseils only to discover they had reached a "false bottom" and even more abseils would be required. By the end of the day, the reconnaissance party had completed 11 difficult abseils and reached the gully floor—a feat never before recorded in history—but escape back up the gully was now impossible for the soldiers. On the morning of Day 8, with no sign of the main party and rations for only three days, the soldiers decided they could wait no longer. They began their trek toward civilization, 10 miles downriver.

Downpours on Day 9 turned the sheer cliffs into cascades and transformed the river into a life-threatening obstacle. Conditions deteriorated as the rain continued. During the traumatic days that followed, Shearer suffered a concussion when he slipped and fell 60 feet, headfirst, down the canyon wall. Malaria struck Mann, Brittan, and Mayfield. The soldiers' wounds became infected, and rain-soaked clothes and sleeping bags rotted. These conditions resulted in a frustratingly slow pace, where a day of exhausting effort might yield progress of only one mile downriver.

Mayfield and Mann set off together on Day 14, wanting an early start. They accidentally became separated from Brittan, Page, and Shearer. After struggling another five days downriver without food or water, Brittan's weary subgroup emerged from the jungle on Day 19. Mayfield and Mann stumbled out of the jungle the next day at another location. All were in wretched physical condition.

Awaiting Rescue

Lt. Col. Neill's main party also was in dire straits. The reconnaissance party had assumed that the main party had retreated back up the mountain to park headquarters, but that assumption was incorrect. Instead, Neill's party had continued abseiling down the gully, but

at their slower pace the soldiers failed to reach the rendezvous as scheduled. On Day 8, the main party completed the big abseil and had to pull down the ropes, just as the reconnaissance party had done. “They had passed their point of no return” (Connaughton, 1996: 92). Progress slowed even more when the heavy rains began on Day 9. Footing became slippery and abseiling treacherous. Foster fell and cracked a rib, but the main party reached the false gully bottom on Day 13, taking refuge in a small cave discovered by Kevin Cheung. Neill decided they could neither retreat nor advance, given ill health, pulled-down ropes, and few supplies. Instead, they awaited rescue in “Kevin’s Cave.”

While awaiting rescue, the officers set out twice in hopes of finding an alternate escape route from the gully. Each time, they were thwarted by dense vegetation and steep gully walls and returned to the cave. If successful, either of these attempts would have permanently split the main party. Neill’s sense of defeat after the first attempt is shown in his diary entry: “I am now content to stay in my sleeping bag, awaiting events. I will never go alone into the jungle again” (Neill & Foster, 1995: 143). Nevertheless, they tried once more, leaving the Chinese soldiers behind again even though the Chinese repeatedly asked to accompany the officers (Connaughton, 1996). The officers were defeated yet again and returned to the cave.

Rescue

When Brittan and Mayfield were reunited on Day 20, they quickly realized that the main party was still in the gully. They immediately raised the alarm with park rangers. A Royal Air Force mountain rescue team was assembled in Great Britain, flew to Malaysia, and began searching by Day 25. Simultaneously, hundreds of Malaysian armed forces personnel searched by land and air. Newspapers and television focused global attention on the adventures of the reconnaissance party and on the massive rescue efforts for the five members who remained missing. Unaware of this activity, the main party of Neill, Foster, Cheung, Lam, and Chow remained huddled and wet in Kevin’s Cave until their discovery and rescue on Day 33, when a courageous Malaysian helicopter pilot extracted them from the gully. Neill’s weight had dropped from 172 pounds to 137 and Foster’s from 196 pounds to 154. The “10-day” training exercise had lasted nearly five weeks.

Epilogue

Half of the group members actually accomplished the initial objective: They were the first people to descend the dangerous, uncharted gully. Nonetheless, recriminations followed as to whom should be blamed for the overall failure and near-catastrophic ending of this training exercise. The two officers publicly blamed the other soldiers. Some of the soldiers privately blamed the officers. On a BBC program, Lord Hunt, who led the 1953 expedition that conquered Mt. Everest, criticized Neill’s planning and leadership (Mayfield, Mann, & Dunning, 1997: 270).

An official board of inquiry was commissioned to evaluate the performance of each member of the training exercise. Headed by a British Army major general, the board of

inquiry severely criticized the conduct of senior officers Neill and Foster. The transcript of the major general's press conference to explain the board's conclusions (Mayfield et al., 1997: 281) noted "that Lt. Col. Neill's judgment and leadership during parts of the training exercise were flawed and that the decision to take the less experienced members of the group into Low's Gully was over-ambitious." It also criticized Major Foster's passive command behavior as "contributing to the situation of jeopardy which developed." By contrast, the board recommended "that the conduct and performance of Corporal Brittan, Lance Corporal Mayfield and Lance Corporal Cheung was such as to deserve formal recognition." These three soldiers were awarded commendations. The soldiers learned at the inquiry that Lt. Col. Neill's qualification was the less-demanding Mountain Leadership Certificate, rather than the more rigorous Royal Marine Mountain Leadership (ML) qualification they thought Neill claimed to possess (Connaughton, 1996; Mayfield et al., 1997). The former is a civilian mountain-walking qualification, while the latter qualifies a soldier to lead troops safely in mountains by findings routes and fixing ropes.

Major Foster left the part-time army following the public criticism of his role. Lance Corporal Mayfield, disillusioned, also left the army. The Hong Kong Military Services Corp disbanded shortly before 1997, when British rule ended in Hong Kong.

Data Sources and Procedures

We obtained data about the Low's Gully exercise from multiple sources. Archival sources included two books written by exercise members following their rescue: one by the officers who led the exercise (Neill & Foster, 1995) and another from a pair of soldiers (Mayfield et al., 1997). These books had the advantages of the participants' direct observations before, during, and after the adventurous training exercise. As one might expect, however, we encountered differences in interpretations of events between these two books. A third book was written by a retired British Army colonel, not involved with the training exercise, who tried to provide an objective evaluation (Connaughton, 1996). Richard Connaughton seems well qualified for this task: His stint in the British Army included seven years in Asia with the Brigade of Gurkhas; he also had commanded Hong Kong Chinese soldiers; he had researched and written two previous books; and he holds a PhD. Connaughton traveled throughout the United Kingdom, Hong Kong, and Malaysia conducting interviews. His interviewees included many of the British participants; support personnel who directly observed activities before and after the mission; Malaysian Army officers, government officials, and pilots involved in the rescue; civilian mountaineers who had unsuccessfully attempted to traverse Low's Gully; park rangers and others who had tried to warn Neill; and various outside experts and journalists. Connaughton's book was especially helpful to us in resolving discrepancies in participants' accounts because he gathered information soon after the training exercise from many sources involved directly or indirectly in the events under study. This helped us to triangulate from multiple sources to verify important facts.

Beyond these books, the exercise attracted especially intense media attention in Hong Kong because of Hong Kong's proximity to Borneo and acute local interest in the lost Chinese soldiers. We obtained all articles about the Low's Gully incident that were published in the *South China Morning Post* (the major English-language newspaper in Hong Kong).

These articles provide immediate, post-rescue quotations from the British and Hong Kong soldiers, plus comments on the training exercise from various independent experts. Also, Neill and Foster each maintained a diary during the training exercise. Excerpts from these diaries later were published in various archival sources. The diaries' excerpts provide contemporaneous data regarding the officers' thinking during the training exercise. And finally, the board of inquiry was held just one month after the rescue. The detailed record of this proceeding was sealed, but a transcript of the press conference held to report the board's conclusions provided us with yet another source of archival data. Thus, we had multiple archival data sources regarding events prior to, during, and after the training exercise.

We first worked individually, each immersing ourselves in these archival data. We each independently took notes recording group members' actions, developed timelines, and identified critical incidents. We then came together to identify similarities and differences in the actions, timelines, and critical incidents we had recorded. Additional iterations resulted in a detailed initial description of the events that transpired at Low's Gully in early 1994, along with a detailed timeline.

Still, we became concerned because the viewpoints of the three Hong Kong soldiers were represented only sparsely in the archival records when compared to the British officers' and soldiers' viewpoints. We therefore scheduled interviews with two of the former Hong Kong soldiers, Kevin Cheung and Helius Chow, in Hong Kong. (Victor Lam could not be located, even with assistance from a friend who is a retired Hong Kong police constable.) Prior to the interviews, we developed general areas for questioning, guided in part by remaining contradictions in the archival records. We first asked questions verifying the facts of the case and then asked for the soldiers' interpretations of these facts and about their feelings at the time and later, after reflection. The interviews were conducted by the first author on December 18, 2003. Each was tape-recorded and lasted about one hour. A translator was present, and the interviews were conducted in a combination of English and Cantonese to ensure the most complete understanding possible for questions and answers covering the more complex issues and events in Low's Gully. The recordings were later transcribed. We separately examined and took notes from these interview transcripts and then we came together to identify the Chinese soldiers' agreed-upon recollections of members' actions and to see how those recollections matched the initial description we had developed from our secondary sources. Agreements on the facts of the training exercise—its timing, members' actions, and events such as rainfall or members moving from the main party to the reconnaissance party—were highly consistent across our multiple sources and across group members. This consistency may result in part because such factual elements are less subject to retrospective biases in life-or-death situations such as Low's Gully (Bacharach & Bamberger, 2007) and in part because some of our data (e.g., the officers' diaries, the newspaper quotations, the board of inquiry) were quite contemporaneous with events. These procedures also reinforced sharp disagreements among some members as to the meanings and motives ascribed to events or other members' actions. These disagreements were useful in our analyses, but we used the times and events that were agreed upon by multiple group members and multiple sources to finalize the timeline for the training exercise.

Dynamics of Workgroup Fracture

Attempting to traverse an uncharted, unconquered, and hostile territory has the potential to stress any temporary group. Yet for the 1994 Low's Gully training exercise, these natural challenges were amplified into acute adversity through a series of misjudgments by Lt. Col. Neill and Major Foster. These misjudgments clearly were leadership failures. Our interest is not in simply enumerating the straightforward failures of planning and leadership in Low's Gully, however. Instead, we focus on examining the less obvious and more interesting processes of trust dissolution and distrust development that occurred among subgroups of soldiers during the exercise. The misjudgments by the leaders provided us with important context information, however (Bamberger, 2008), because they amplified the adversity facing group members and because in such acutely challenging situations trust is especially important in facilitating the open communication necessary for successfully addressing the crisis (Mishra, 1996).

In one pre-trip misjudgment, Neill estimated the amount of rope required for abseils from a newspaper account of an earlier, unsuccessful attempt to descend Low's Gully by two civilians. But these civilians were physically-fit climbing experts who minimized abseils by simply sliding down some formidable rock formations on their posteriors. Carrying heavy loads required the soldiers to do many more abseils than had the lightly loaded civilians and, thus, required more ropes than Neill had thought. This miscalculation led to the reconnaissance party needing to pull down previously used ropes, which eliminated any escape back up the gully. Several of the soldiers who were most proficient in rock climbing questioned Neill's judgment in requiring such heavy rucksacks, but he assured them the rucksacks were necessary. These misjudgments may have stemmed from the cognitive bias of insufficient anchor adjustment (Bazerman & Moore, 2008).

Similarly, Neill had planned to purchase walkie-talkies during three days in Hong Kong intended for training, getting to know the Chinese soldiers, and purchasing some key supplies. He changed this plan when the group unexpectedly was offered a free flight to Kota Kinabalu that required leaving Hong Kong immediately; he saw this flight as an opportunity to save money for the group's tight budget (Neill & Foster, 1995). As a result of this change, although the reconnaissance party and main party could sometimes see one another in the distance while descending Low's Gully, they could not communicate even by shouting (Mayfield et al., 1997).

In yet another misjudgment, Neill began the training exercise during the rainy season, when weather is known to change rapidly and unpredictably. The resumption of heavy rains on Day 9 made escape from the gully nearly impossible. One of the civilian climbing experts warned Neill about it still being the rainy season. Neill failed to heed this warning, as well as several similar warnings offered by a variety of experts. He said that he trusted his own intuition (Neill & Foster, 1995). Neill's stated rationale also was based on his having been on prior training exercises to this location. He apparently felt confident that his knowledge was better than that of the people who were providing him with advice and warnings.

These serious misjudgments contributed to the acute crisis the soldiers experienced in Low's Gully, which in turn led to trust dissolution and distrust development across exercise subgroups. Each misjudgment reflected the leaders' overconfidence in their own

judgment—a cognitive bias that can distort managerial decision making (Bazerman & Moore, 2008; Nystrom & Starbuck, 1984). The leaders also may have been influenced by other cognitive biases, such as the illusion of control, escalation of commitment, wishful thinking, and overoptimism (Staw, 1976; Tversky & Kahneman, 1974). Other questionable decisions are described as we proceed with the analysis.

Starting Off

Initial trust. The soldiers' trust in one another and in their leaders at the exercise's start could be expected to be strong, for several reasons. First, everyone previously had been trained and socialized by the British Army to follow orders and to handle emergencies by working together. They therefore could be expected to coordinate effectively based on both hierarchical and clan control (Kirsch, Ko, & Haney, 2010). Second, all were soldiers who had volunteered for the training exercise and wanted it to be successful. This common ground is likely associated with general trust in and identification with the army as an organization and with its individual members (George & Chattopadhyay, 2005; Luo, 2005; Six & Sorge, 2008). Third, rank-based roles are clearly specified by the army; every soldier knows that the scope of these roles by rank is part of their common ground at work. Such clear role definitions contribute to the development of initial trust in newly formed groups (Meyerson et al., 1996) and also allow the role deindividualization that facilitates coordination (Klein, Ziegert, Knight, & Xiao, 2006). Fourth, the perceived ability, benevolence, and integrity (i.e., trustworthiness; Mayer et al., 1995) of the leader are vital for trust in temporary workgroups. Nevertheless, the trustworthiness of the leader is generally assumed in newly formed groups, absent evidence to the contrary (McKnight, Cummings, & Chervany, 1998). In Meyerson et al.'s words, "The reputation of the contractor [leader] and the expectation of goodwill on his or her part may be all that is necessary to create the general background expectation of goodwill, independent of information about the other participants" (1996: 184). Moreover, the soldiers believed that Lt. Col. Neill had passed the prestigious Royal Marine ML training course, indicating expert climbing skills. In sum, the combination of (1) trust in the army as an organization (Luo, 2005), (2) initial trust in others who are similar to oneself (Cook, 2005; Foddy et al., 2009), (3) the assumption of goodwill from the leader (Meyerson et al., 1996), and (4) the training certification of the leader's climbing ability (Mayer et al., 1995) suggests that trust would form quickly among the Low's Gully soldiers and would be strong at the start of the training exercise. Of course, trust in leadership is especially important to group performance (Dirks & Ferrin, 2002).

Comments by the soldiers repeatedly confirmed their strong initial trust, even as they began to develop doubts about the leaders. Sgt. Mann's reactions to Lt. Col. Neill's often unexplained changes in the exercise's schedule, for example, included "I shrugged my shoulders and carried on, figuring that this must be some sort of test to see how fit we were" and "I was still trying to work out the reason for the change of plan. There seemed to be no need for it, but he obviously had a good reason—I was just too stupid to see it, that was all" (Mayfield et al., 1997: 117, 118). Similarly, Mayfield, the most highly qualified rock climber in the group, dispelled his initial doubts:

> The Colonel was an ML (a very rusty one, it appeared, but still an ML) and a lot of these expeditions are a lot less demanding than they appear to inexperienced eyes. In fact the army vetted this sort of thing thoroughly, and wouldn't let a group overreach itself; it had always been drummed into me, while on courses, that safety was paramount, a sentiment with which I wholeheartedly concurred. (Mayfield et al., 1997: 42)

And as Private Chow (2003) said later, "I remember I follow them, because it started from the army, they have the ranking. Because they know the whole planning. We don't know the whole planning." Each of these responses indicates willingness to be vulnerable to others' decisions. Thus, there are numerous indications that trust formed quickly and was strong at the exercise's first day on Mt. Kinabalu.

Emerging doubts. We now examine key incidents that contradicted group members' expectations and transformed the initial trust among Low's Gully soldiers into ongoing concerns that led to cautious watchfulness of other group members. We label this stage *trust-with-trepidation,* which we define as the continued willingness to be vulnerable in a specific context while nevertheless becoming increasingly concerned and fearful over future events in that context. During trust-with-trepidation, trust declines and distrust develops, yet the trustor's conscious decision remains to trust the trustee. Trust-with-trepidation differs from ambivalence because it does not describe high trust–high distrust "multiplex social relationships, [wherein] selected facets of a relationship can be characterized by varying degrees of trust, whereas others can be characterized by varying degrees of distrust," which can result in ambivalence toward a target (Lewicki et al., 1998: 450). Instead, trust-with-trepidation involves a decision to continue trusting in a specific "uniplex" context despite emerging evidence that trust may not be warranted in that context. We argue later that this phase likely is extended when strong normative and legal institutional elements prescribe trust (as for soldiers in an army) but is shortened as the penalty for misplaced trust increases (to, potentially, death). Next, we present key incidents that denied group members' positive trust expectations of either their leaders' or other members' trustworthiness.

Trust and distrust of the leaders. Several soldiers who were proficient in rock climbing repressed early doubts that arose because Neill's climbing ability was not up to his stated qualifications. For example, after a few minor rock-climbing exercises before the group left England, Mayfield thought "briefly about withdrawing myself from the expedition—how could I approach a very senior officer and question his ability? . . . By far the easiest option for me was to place my trust in him" (Mayfield et al., 1997: 44-45). This was the beginning of trust-with-trepidation for Mayfield.

Neill and Foster also were seen as unresponsive to multiple warnings they received—from both outside the group and from the soldiers themselves—before descending into the gully. For example, an Outward Bound mountaineer warned Neill, and separately Mayfield, that many abseils would be required, the soldiers' rucksacks were too heavy for the task, and "people will die" if they went ahead with their plan (Mayfield et al., 1997: 79). Neill discounted these warnings with the rationale that this person was just a tourist guide, whereas

he actually was an expert mountaineer concerned for the soldiers' safety (Neill & Foster, 1995: 77). Similar warnings came from a jungle-trained British soldier (not in the training exercise) and from the park warden about the folly of proceeding without maps, star charts for the Southern sky, radio beacons to broadcast their location, or at least some flares to guide rescuers. The park warden judged Neill's plan to be overambitious and stated that Neill was overconfident (Connaughton, 1996). All these warnings were ignored by Neill and Foster. They even turned down as unnecessary the typical precautionary offers from the park warden and the Outward Bound mountaineer to sound an alarm if the group members did not appear at the mouth of the river after 10 days. The officers' discounting of warnings exemplifies a cognitive bias—overconfidence—that occurs in many business situations (Kahneman & Lovallo, 1993; Malmendier & Tate, 2005; Moore & Cain, 2007). The overconfidence bias likely led to another cognitive bias, in which the officers ignored disconfirming evidence (Bazerman & Moore, 2008).

Another indicator of overconfidence was the officers' view of the Low's Gully adventurous-training exercise as a "ground-breaking venture of derring-do" that "would be to the Corps what the conquest of Everest had been to the Coronation of Queen Elizabeth II" (Connaughton, 1996: 3). They desperately wanted to complete the mission successfully. As Mann put it, "These are two officers on their last great hurrah. The expedition is something that they are determined to complete" (Mayfield et al., 1997: 42; see also Neill & Foster, 1995: 10). But while Neill reflected in Kevin's Cave, waiting to be rescued, he wrote in his diary that his plan had been "over-ambitious"—the same term used a month later in the board of inquiry's criticism of his leadership (Connaughton, 1996; Neill & Foster, 1995). Neill and Foster's pushing ahead despite warnings and deteriorating conditions also could be interpreted as escalating commitment to a course of action (Bazerman & Moore, 2008; Staw, 1976). From the soldiers' viewpoint, however, the officers' unresponsiveness to serious warnings of danger could be attributed to a lack of benevolence—that is, inadequate concern for the soldiers' well-being.

Neill's interactions with the soldiers led them to further doubt his benevolence. Chow's collapse along the trail on Day 1, for example, exposed mismatched expectations of common ground between Neill and the soldiers. Neill had told the soldiers to "take their own time" on the relatively casual hike up the mountain tourist trail "and make their way individually to the Panar Laban hut," but he "assumed that the men would walk in pairs or small groups" (Neill & Foster, 1995: 67). Neill later expressed anger because no one had stayed with Chow during the hike. He had assumed that never leaving your assigned partner under any circumstance was commonly understood among the soldiers (Neill & Foster, 1995), which it wasn't (Mayfield et al., 1997).

When the group hiked to the summit, starting at 3:00 a.m. on Day 3, Neill said they would hike back down and that Mayfield should take a group and go on ahead to find a good location where the soldiers could practice abseiling. Mayfield and the "whippets" arrived at the practice spot by 8:30 a.m., expecting Neill's party to be following close behind. Neill's party didn't arrive until 1:30 p.m., however, with Chow and Lam in bad shape, because Neill had decided they would explore the summit area further to see what Major Foster had called the "spectacular views." Mayfield noted, "Yet again, I couldn't believe what I was hearing; we were now thirty-six hours behind schedule, already short of food, and they had gone sightseeing,

wasting the whole morning and picking up two casualties into the bargain" (Mayfield et al., 1997: 104). In sum, Neill's inconsistencies and apparent thoughtlessness toward the soldiers led them increasingly to question his benevolence.

Integrity-based doubts also surfaced as the training exercise unfolded. For example, the British soldiers were dismayed after the initial walk up the mountain when they discovered that Neill's and Foster's rucksacks were lighter than their own. When the officers arrived and had gone into the cabin, Brittan asked Mayfield, "Did you feel the weight of Neill's rucksack? It wasn't even a third of ours! I'm telling you, there was no weight in their bags. They must have ditched things" (Mayfield et al., 1997: 74). By not informing the soldiers of their decision to lighten their loads and return later to retrieve items—which might have been a sound idea given the officers' poor conditioning—Neill and Foster compromised their integrity with the soldiers. Moreover, the increasingly apparent differences between the task Neill outlined before the trip and the reality of Low's Gully also contributed to integrity-based doubts. Driving partway up Mount Kinabalu to reach the tourist trail, the British soldiers were surprised at the steepness of the cliffs and thickness of the vegetation. As Mayfield recalled,

> The mountain grew larger as we rounded each bend and the sparse jungle increased in density to such a degree that it seemed almost impenetrable. . . . I mulled over the possibility of escape through such dense vegetation. . . . Glancing up at the mountain, I noticed that the cloud that had been on the northern side had slowly crept around to the south side to form a halo around the summit. In all our briefings the weather, other than the monsoon rains, had never been mentioned, yet clearly the mountain did have its own weather system—all mountains of any size do and Kinabalu, at 13,455 feet, was no exception. (Mayfield et al., 1997: 59-61)

Neill's written communication to Hong Kong in 1993 requesting volunteers listed the exercise requirements merely as "a head for heights, an ability to swim and abseil" (Connaughton, 1996: 31). As Lance Corporal Cheung later explained, "I asked what sort of kit I should take with me and was told to pack as if I was going on a mountain hiking exercise. So I thought the expedition was going to be another mountain walk" ("The Expedition From Hell," 1995). But after climbing to the top of Mt. Kinabalu and literally peering over the edge of Low's Gully, the Chinese soldiers realized the challenges and uncertainty of their mission. They felt they had been misinformed about the rigor of the task, and they wanted to withdraw. Private Chow (2003) noted later that "the features and the challenges, we had not seen in Asia. I think we are madmen! I think we are crazy! But we are a team and we follow the decision, the order, because it is coming from the army."

As early as Day 1, several soldiers sensed that the challenges would be far greater than initially anticipated and suggested a less-risky alternative that was rebuffed by Neill. Some soldiers became convinced that Neill had misrepresented his climbing qualifications as the more demanding Royal Marine ML certification (Mayfield et al., 1997). The Chinese soldiers asked twice to be discharged from the training exercise, once in the Orders Group meeting on Day 1 and once later in private, but each time Neill refused. Cheung stated that Neill told them, "You are soldiers and you can and must go down the gully. If you don't, you will be sent back to Hong Kong and your Colonel will be informed and there may be some punishment" (Connaughton, 1996: 55). As the exercise progressed, doubts grew about their leader's integrity.

Rank disparities likely contributed to communication problems that fueled such doubts. For example, army norms discourage soldiers from challenging senior officers, as shown in Mayfield's reluctance to challenge his senior officer's ability and Mann's unwillingness to speak up during the Orders Group. Sgt. Mann thought to himself,

> If I told them my true thoughts, complete with doubts, . . . that would put me on the firing line and probably end my ten years in the TA. I didn't really know what to say. I tried to convince myself that everything was going to be alright. (Mayfield et al., 1997: 122)

Lance Corporal Cheung (2003) later reflected, "We follow the army way of doing things. Our rank is very, very low down. How should I say, to raise it, there's not much point to raise suggestions" (Cheung, 2003). In fact, with the large gap in rank between the officers and soldiers, there was no one of middle rank to act as an effective intermediary.

Major Foster's behaviors also had a role in rank-based communication issues. Although he was second in command, Foster did not step in to provide direction even when it was clearly needed as Neill's illness delayed them in joining the reconnaissance group (Neill & Foster, 1995). Mann noted that Foster did not question Neill's inexplicable decisions and that Foster had been "keeping a very low profile whenever there was a discussion about plans or a decision to be made" (Mayfield et al., 1997: 128). Similarly, Mayfield concluded about Foster: "When there was an important decision to be made, he was nowhere around, whether through a dislike of conflict or a fear of compromising himself in front of a senior officer, I don't know" (Mayfield et al., 1997: 142).

These communication barriers, combined with interactions that defied the soldiers' positive expectations of their primary leader's ability, benevolence, and integrity, contributed to a reduction in trust across the officer and enlisted subgroups. The initial unconditional trust (Jones & George, 1998) the soldiers held for Neill due to communal common ground dissolved during a period when they trusted with growing trepidation until distrust developed. The soldiers willingly continued to be vulnerable, yet they felt and expressed increasing fearfulness concerning possible future events.

Trust and distrust among subgroups. We now consider two incidents involving members' trust and distrust of other subgroups. These incidents show how a shortage of communal common ground among the British and Chinese soldiers led to communication problems that reduced trust and increased distrust across these subgroups. The earliest incident started with a communication problem concerning food rations. To British eyes, the Chinese appeared to have too few rations, even though everyone had received detailed instructions on what to bring for the 10-day adventurous-training exercise. Mann was drawn to a commotion when the ration shortage was discovered and said later, "The Colonel was ranting and raving, and Lam and Chow were also ranting and raving, in Chinese" (Connaughton, 1996: 57). Some British soldiers accused the Chinese soldiers of discarding rations to lighten their rucksacks. Two factors contributed to what became an ongoing misunderstanding. First, Lam had expressed earlier, "I can't eat this, and I don't like that" when selecting rations, and so the Chinese soldiers replaced what they considered some unpalatable British

rations with noodles. This made their rations seem light to the British. Second, the Chinese did not understand what the British soldiers all assumed they knew: that they should not begin eating their rations until they actually descended into the gully. Instead of joining the British eating in the restaurant near the cabins during the days before they entered the gully proper, the Chinese assumed the training exercise had started as soon as they arrived in Malaysia and therefore began eating their rations. This is one example of how miscommunications due to nationality-based and language-based differences spurred doubts about ability, benevolence, and integrity across the subgroups (Von Glinow, Shapiro, & Brett, 2004).

Similarly, the Chinese soldiers' trust in the British was shaken once they realized the difficulty of their task. They tried to express their strong desire to withdraw, but the result was an impasse. Such delicate communications require common ground regarding equity and face (Clark, 1996), and it may be that the lack of communal common ground contributed to the communication failure. These and other miscommunications reduced trust across the British and Chinese subgroups.

In sum, during this phase of the training exercise, early doubts about the leaders' and different subgroups' ability, benevolence, and integrity spurred intragroup watchfulness. Subsequent incidents amplified doubts and further increased watchfulness. Each successive incident contradicted members' prior expectations (Lewicki et al., 1998; Mayer et al., 1995; Phillips, 2003), increased their emotional responses (Jones & George, 1998; Williams, 2001), and led to growing trepidation despite a continuing decision to trust (Jones & George, 1998; Quinn & Worline, 2008; Sitkin & Roth, 1993). We next examine the outcomes of this downward spiral toward distrust.

Group Fracture

As the exercise continued, the initial doubts became certainties and trust-with-trepidation became distrust. Surprisingly, however, the soldiers continued to show a remarkable willingness to give the officers the benefit of the doubt—that is, to suspend their belief that the officers were untrustworthy (Jones & George, 1998)—if only the situation would improve. But things only got worse.

The first split in the group of 10 began on Day 3 when, following Neill's reconnaissance plan, the 4 fittest soldiers (Mayfield, Brittan, Shearer, and Page) abseiled hundreds of feet downward and hiked to a large flat rock in the jungle. There they waited for the main party, growing increasingly impatient as they consumed rations, without the main party making any progress to catch up. Mann descended from the main party to the reconnaissance party, bringing Neill's authorization for further exploration down the gully. On Day 7, Mayfield climbed up to the main party and reported to Neill. This key interaction was the basis for later public complaints by Neill that the reconnaissance party had disobeyed his orders and abandoned the main party. But evidence from others' books and the conclusions of the board of inquiry dismiss Neill's claim. Mayfield's recollection of his conversation with Neill is as follows:

[Neill:] Corporal Mayfield, how far have you got?
[Mayfield:] I think we're at the start of New's abseils.
[Neill:] Good, excellent! So how far is that from the gully floor?
[Mayfield:] I don't know. Yesterday I abseiled down three more pitches and still didn't get to the bottom. . . .
[Neill:] So what's between our two camps?
[Mayfield:] At least four more abseils. That's six altogether, and we're still not at the bottom. If we carry on we'll have to pull the ropes through as we go down. That means we'll be totally committed—no escape back up as was planned.
[Neill:] Yes, that's OK, Corporal Mayfield.
[Mayfield:] This is day six! We've only got four days' food left. . . .
[Neill:] See you at the RV. [RV means rendezvous.]
[Mayfield:] Okay sir. We'll wait until tomorrow morning.
[Neill:] Yes. Wait at the bottom.
[Mayfield:] Until tomorrow.
[Neill:] Yes. We'll meet up at the bottom.
[Mayfield:] We'll wait until tomorrow morning. Then we will go. We will have only three days' food left. We can't afford to wait any longer.
[Neill:] I'll meet you tonight at the bottom, Corporal Mayfield.
[Mayfield:] Okay sir—see you tonight. (Mayfield et al., 1997: 139-141; speaker identifications in brackets are added for clarity)

Much of this conversation was simple description from Mayfield in response to inquiries from Neill. But his statements about having no escape route after pulling the ropes down and having only three days' food left clearly were "perlocutions," wherein he was asking Neill to draw inferences beyond the simple communication itself (e.g., We could be in trouble!) and to take action based on those inferences (Austin, 1962, discussed in Krifka, 2004). Mayfield apparently wanted Neill to either (1) scrap the mission, (2) order that no ropes be pulled through if that would leave them past the point of no return, or at the very least (3) express some recognition of a problem. Mayfield was attempting to convey meaning with a specific purpose in mind—raising an alarm. That is how Grice (1957) viewed speech: as a purposive attempt to achieve understanding or action in the addressee. Following Grice's thinking, Stalnaker argued, "This idea leads naturally to a notion of common ground—the mutually recognized shared information in a situation in which an act of communication takes place" (2002: 704).

The inferences Mayfield was asking Neill to make during their communication required mutual understanding among speaker and addressee of the overall information available in the situation and of one another's positive expectations of behaviors—that is, common ground and some level of trust. To be clear, agreement is not required in situations of adversity; indeed, differences are likely if not inevitable. But considerable common ground—the backdrop of information available for effective communication in a situation—is necessary if differences are to be surfaced and resolved so that trust is reinforced and coordinated action can take place. Thus, common ground supports the mutual expectations that are necessary for trust by providing the mechanism through which differences can be surfaced and resolved.

Lacking sufficient common ground, neither Neill nor Mayfield was able to step into "the other fellow's shoes" (Lewis, 1969: 27), even though both parties had good intentions and wanted the mission to go well. Mayfield's purposive communication failed, and concordant expectations were not established concerning pulling the ropes through. Similarly, the exchange about the reconnaissance party waiting for the main party was an instance of mutual refusal to take up the action intended by the other speaker. To coordinate meaning and understanding requires reference to the common ground between persons (Clark, 1996). Neill and Mayfield could not accomplish such coordination, even though it was desperately needed, likely because the initial trust between them already had dissipated and distrust had developed. Their lack of shared prior experiences, combined with recent task conflicts resulting from Neill's skills falling short of his stated certifications and interpersonal conflicts resulting from Neill's intransigence, must have led both Mayfield and Neill to question the degree of common knowledge, suppositions, and beliefs they actually held. They simply were unable to verify and exploit any common ground that might have allowed them to communicate more effectively for coordination of the training exercise (Fast et al., 2009). This failure may have been particularly detrimental because organizational members like Mayfield often are essential in aiding organizations' leaders in interpreting rare and unusual events such as those faced in Low's Gully (Beck & Plowman, 2009).

Awaiting Rescue

The physical fracture in the main party was intermittent, but the cultural and psychological divide was pronounced and permanent. As Connaughton noted,

> There was little empathy or camaraderie between the British officers and their Chinese subordinates. Even solutions to their problem were rigorously distinct. The Chinese chose to eat little and undertake the minimum of activity, thereby saving energy. The officers preferred to be active for some of the time, to take their minds off their predicament. Consequently, it was they who were doing most of the chores around the camp site: something which deep down, albeit irrationally, annoyed Foster. (1996: 94)

At the cave, Foster wrote a diary, the tone of which "continued in a distinctly 'them and us' manner, the Chinese soldiers and he and 'Robert' [Neill]" (Connaughton, 1996: 98). The cultural diversity and rank-based diversity presented barriers that, due to a lack of common ground among the multicultural subgroups, hindered communication and conflict resolution (Von Glinow et al., 2004). This is because language communities represent a particularly important area of communal common ground among people, encompassing a vast shared knowledge of the meanings of signs, symbols, and utterances among speakers of the same first language. Similarly, those from the same culture share an intimate knowledge of a particular set of community norms and procedures (Clark, 1996). The absence of these key components of communal common ground contributed to communication failures and the dissolution of trust across cultural subgroups. The officers' actions showed distrust of their subordinates. And although the Chinese soldiers previously had shown a high level of trust

in the British Army as an organization (Luo, 2005; Six & Sorge, 2008), by this time their trust in these two officers had dissolved and become distrust.

Epilogue

While standing next to Corporal Brittan at the first post-rescue press conference in the United Kingdom, Lt. Col. Neill forcefully asserted, "Personally, I am extremely angry that half of my expedition proceeded on down Low's Gully without my authorization" (Connaughton, 1996: 130). This reflects the perceptual differences between the officers and the other British soldiers. The other post-rescue perceptual gulf, between the British officers and the Chinese soldiers, is exemplified by Foster's action in selling his diary for publication by the *London Daily Mail*. The diary's comments that the Chinese soldiers were "a tremendous liability" and "acting almost like children" caused an immediate furor in the Hong Kong press. When we later asked Lance Corporal Cheung why the British officers had offered postexercise criticisms of the Hong Kong soldiers' performance, he conjectured, "Maybe even more it is something that you have to protect, your image, protect your status that being an officer, being British, you can do no wrong" (Cheung, 2003). Cheung's interpretation suggests that the failure of the Low's Gully exercise may have threatened the identities of two officers who had been dreaming of their "last hurrah."

Propositions

We next develop propositions concerning workgroup fracture in acute stress situations stemming from unexpectedly daunting challenges. We do this by combining inductions from the Low's Gully case with previous management literature. Our evaluations of communications in Low's Gully between group members during critical incidents exposed the deleterious microeffects that an absence of common ground can have on communication and thus on the ability to coordinate joint action. Other research suggests that surface-level demographic diversity in groups can lead to negative effects on group functioning (Mannix & Neale, 2005) and more specifically to conflicts across faultlines (Lau & Murnighan, 1998, 2005), which in turn can reduce group cohesion and performance (e.g., Harrison et al., 1998; Webber & Donahue, 2001). But the causal mechanisms behind the resulting conflict and lack of workgroup viability are not entirely specified, according to Balkundi and Harrison (2006). The common-ground perspective supplements these earlier approaches by offering fundamental, cognitive-linguistic mechanisms that explain inabilities to communicate and thus coordinate across subgroups. Where common ground is negligible, it becomes difficult or even impossible for one party to take up another's intended communication and thereby engage in joint action. And common ground provides finer grained predictions, encompassing demographic, skill, and value-based factors, of where, and often whether, any fractures are likely to occur. Thus,

Proposition 1: Communication failures due to a lack of common ground speed trust dissolution and distrust development across cultural subgroups when a temporary workgroup faces acute stresses.

The Low's Gully workgroup differed along all three diversity types identified by Harrison and Klein (2007). Variety diversity represents differing information held by different group members, which is typically viewed as positive for groups solving complex and novel tasks (Klein & Harrison, 2007). Separation diversity represents diversity in attitudes and beliefs across subgroups. Disparity diversity represents diversity in power due to status differences. Both separation diversity and disparity diversity negatively affect group processes (Klein & Harrison, 2007) and also decrease the likelihood of developing and maintaining trust across subgroups (e.g., Cook, 2005).

The group faultlines perspective (Lau & Murnighan, 1998, 2005) suggests that an accumulation of stress along preexisting faultlines can cause a group to divide into conflicting subgroups. Studies of faultlines' effects upon group processes have focused on differences in observable demographic characteristics such as age, gender, or ethnicity (Gibson & Vermeulen, 2003; Li & Hambrick, 2005). Subgroups that differ from one another along several salient attributes display stronger faultlines (Shaw, 2004; Thatcher, Jehn, & Zanutto, 2003) and are believed more likely to experience process losses from such things as reduced behavioral integration or increased factional conflict because members identify primarily with their subgroups (e.g., Chattopadhyay, George, & Lawrence, 2004).

Viewing the Low's Gully training exercise through the lenses of diversity types (Harrison & Klein, 2007) and group faultlines (Lau & Murnighan, 1998) immediately calls attention to differences in members' backgrounds across subgroups (see Table 1). The wide range of military ranks and the absence of midlevel officers such as lieutenants or captains could reduce communication in the temporary group due to disparity diversity. Group members also differed in ethnicity, and their differing cultures and first languages also could impede communication effectiveness (Von Glinow et al., 2004) due to separation diversity. Group members ranged from 24 to 54 years old, which could increase variety diversity. And finally, they differed substantially in physical fitness levels and skills. Lau and Murnighan (2005) suggested that future faultlines research be extended beyond surface demographic variables to consider deeper attributes such as skills. For the Low's Gully exercise, both physical fitness and mountaineering skills were important, task-salient variables that became even more vital as the initial task of adventurous training morphed into a crisis with life-or-death consequences.

The reconnaissance party consisted of young, physically fit British soldiers, with several possessing key skills in climbing or jungle survival. Homogeneity of membership within only one subgroup is sufficient to strengthen a faultline and to lower trust between subgroups (Polzer, Crisp, Jarvenpaa, & Kim, 2006). This discussion suggests the following:

Proposition 2: Separation diversity and disparity diversity are more likely to lead to trust dissolution and workgroup fracture than is variety diversity when a temporary workgroup faces acute stresses.

Interpersonal trust is based on confident positive expectations (Lewicki et al., 1998; Mayer et al., 1995; Rousseau et al., 1998), and such expectations are facilitated among strangers by first verifying and then building common ground. Upon group formation, people use external cues to estimate the communal common ground that they may hold with other group members (Cook, 2005; Yuki, Maddux, Brewer, & Takemura, 2005). These

initial estimates of communal common ground influence both the subsequent pattern of intragroup communications and the perceptions of trustworthiness among particular pairs of group members. When strangers meet, the initial mutual expectations of trustworthiness are estimates of communal common ground based on easily visible characteristics such as gender, ethnicity, and culture (e.g., Yuki et al., 2005). But as group members over time communicate with one another—in itself a joint experience—and share other task-related experiences, they develop personal common ground. It is only through this experience-based personal common ground that mutual expectations for behavior are reinforced or denied. In contrast to this 1994 training exercise, Neill and Foster's previous failed trip to Low's Gully in 1982 encountered heavy rains but did not experience group fracture, even though it also had five British soldiers and three Chinese soldiers. One difference was that all the soldiers in 1982 were stationed in Hong Kong and had trained together for months before the 1982 exercise, thereby establishing personal common ground and trust among group members. Compared to communal common ground, personal common ground is (1) more tangible, (2) more salient and consequential to the person, (3) more immediate temporally, and thus (4) more memorable and accessible during information searches for internal guidance. For these reasons, the behavioral expectations resulting from personal common ground are likely stronger than are those resulting from communal common ground. Personal common ground appears to enable better communication and adaptation when task groups face unexpected adversity.

As we saw in the 1994 Low's Gully case, for example, the positive expectations for communal common ground from everyone being a British soldier were soon overwhelmed when negative personal common ground developed—through experience—during the exercise. The soldiers lost trust in their leaders' abilities, benevolence, and integrity as they experienced Neill's lack of rock climbing expertise, Neill and Foster's unwillingness to listen to others' warnings, and Neill's clear understatement of the exercise's perils. Moreover, as the exercise progressed, the soldiers increased watchfulness during the trust-with-trepidation phase, and they experienced additional events—such as Neill's response to Chow's collapse and his lack of response to Mayfield's strident communications regarding the danger of "pulling ropes through" and thereby cutting off retreat—that continued trust dissolution and, finally, produced distrust. A similar pattern occurred across the cultural subgroups. The British and Chinese became increasingly watchful following, among other experiences, the rations incident and Neill's threat of punishment if the Chinese withdrew. Trust dissolved, and continued negative experiences—such as the officers' leaving the Chinese despite their protests—produced negative personal common ground that finally spurred strong distrust.

The Low's Gully case suggests that under adversity people will place greater confidence in personal common ground (whether the experiences are positive or negative) because it creates indelible behavioral markers that are elemental to trust and distrust. As Mayfield stated after escaping the jungle, "Bob [Mann] and I are older and wiser and because of our shared experience now have an unbreakable bond between us—the one positive outcome of an expedition which nearly cost us everything" (Mayfield et al., 1997: 276). This sentiment illustrates how quickly personal common ground can be built up in dyads or in groups and how important it is to trust. This in turn affects the likelihood of group fracture when adversity presents itself. Thus,

Proposition 3: Groups with little communal common ground at formation can develop personal common ground over time through shared experiences and thereby increase their resistance to trust dissolution and group fracture.

The greatest sense of distrust and disloyalty when expectations went unmet in Low's Gully occurred within the British subgroup rather than between the British and the Chinese. This suggests that expectations play a key role in both trust-building and coordination, but also in trust dissolution and the development of distrust. The expectations for particular behaviors likely were greatest among individuals in each culture, and the effects of inaccurate expectations in Low's Gully were most damaging when trust was given based on high expectations. For example, Neill and Mayfield had clear expectations of one another's behaviors under the army's rank system, with its established hierarchy (Krifka, 2004). The suggestion to ignore rank during the training exercise altered this common ground in a way that was interpreted differently by each party. Ambiguities were introduced into their communications as each estimated more (or different) common ground with the other than they actually shared, and this resulted in suppressed interpersonal conflict and growing distrust. Yet because of their common language, common culture, and common experience (in the army), Neill and Mayfield had higher initial expectations of common ground among one another than they did with the Chinese. These expectations were not borne out by events. Even more, Mayfield had expected considerable communal common ground regarding rock-climbing skills, based on Neill's stated climbing qualifications. These expectations were dashed as Neill's uneven technical abilities became apparent during the training exercise (Mayfield et al., 1997). Thus, personal common ground again superseded communal common ground. Due to their shared language-based and culture-based communal common ground, the Chinese soldiers also likely had greater expectations for common ground within their subgroup rather than across subgroups, although in Low's Gully we did not see unmet expectations within the Chinese subgroup. In sum, the Low's Gully violations of expectations were more damaging to trust, and more likely to result in distrust, if the violation was within rather than across subgroups. Thus,

Proposition 4: When common ground is initially estimated to be high by group members, a perceived untrustworthy act magnifies distrust and severely decreases group resistance to fracture under adversity.

Perceptions of ability, integrity, and benevolence provide cognitive reasons to trust a person and also can tap affect, such as when a trustor feels an emotional attachment to a trustee (Colquitt, Scott, & LePine, 2007; Mayer et al., 1995; McAllister, 1995; Williams, 2001). Our analysis suggests that perceived leader trustworthiness is vital if trust and group viability are to be maintained when a temporary workgroup faces adversity. In the Low's Gully case, however, lack of confidence in the leader's ability alone was insufficient to dissipate goodwill and trust, even though leadership ability and mountaineering ability were central to successful task completion. The soldiers' many comments about Neill's ability indicate that, even after they were quite certain that Neill's ability as a climber and as a leader was lacking, they nevertheless were willing to place their trust in him and actually

were hoping that they could continue to do so. Only after the soldiers' watchfulness during the trust-with-trepidation phase confirmed that their initial positive perceptions of their leaders' benevolence and integrity were misplaced was the initial goodwill lost and turned fully into distrust. In fact, their direct comments suggest that the soldiers would have been willing to continue working well with Neill, even knowing the limitations of his planning and climbing abilities, if they believed in his benevolence and integrity. This indicates that causal attributions related to benevolence and integrity are especially important to trust dissolution and distrust development as well as to trust development and repair (e.g., Tomlinson & Mayer, 2009). Thus,

Proposition 5: Trust dissolution and distrust development are more likely and occur faster when group members perceive benevolence and integrity shortcomings in a leader than when they perceive ability shortcomings, so long as others in the group possess the requisite abilities.

Lewicki et al. (1998: 5) argued effectively that "trust and distrust can exist [together] within multiplex relations," wherein one partner may trust another in some contexts but not in others. They argued further that mature, multiplex relationships require long duration and frequent interactions across multiple challenging contexts and that each of these conditions is necessary but not sufficient in itself for multiplexity. For example, if partners "have an issue-rich and frequent exchange but do so only around a limited and bounded problem" (Lewicki et al., 1998: 6), their relationship remains immature and uniplex.

The Low's Gully case presents just such a situation: The soldiers expected only a short time together, had no preexercise and expected no postexercise time together, but during the exercise had intense exchanges about the single common problem of getting down the mountain. In this situation, we saw a phase we characterized as trust-with-trepidation, wherein subgroup trust dissolved and distrust developed, yet the soldiers continued to make the conscious decision to remain vulnerable to the other parties. Why did this phase last so long? One factor likely was the army's strong institutional norms to not separate from the group or contradict a superior officer. Another was the likely legal repercussions for doing so. Moreover, in closed networks such as that of the soldiers in Low's Gully, the threat of punishment for norm violations is especially strong (Coleman, 1988). Yet if this is the case, why did the reconnaissance party finally break away? As the exercise progressed, the soldiers' situation became more and more dire and ultimately threatened their survival. Thus,

Proposition 6: If trust dissolves and distrust develops in a temporary workgroup, the trust-with-trepidation phase will be extended if strong norms supporting trust are present and punishment for distrust is likely, and it will be shortened as the severity of negative outcomes from misplaced trust increases.

The positive aspects of workgroup trust have long been noted (Gambetta, 1988; Luhmann, 1979; Mayer et al., 1995), but in the Low's Gully case *dis*trust was highly functional—even vital for survival—when the temporary workgroup was faced with untrustworthy leaders. By breaking away, the reconnaissance party was able to succeed in the original mission of traversing the gully, in part because members' common ground and trust together allowed

coordinated action within their subgroup. They shared the superordinate goal of survival (Sherif, Harvey, White, Hood, & Sherif, 1961) when they were confronted by life-threatening circumstances, they were inextricably interdependent in a positive manner (i.e., a non-zero-sum game), and they faced a common fate in an extreme situation of depleting resources (Kramer & Brewer, 1984). Thus, the reconnaissance party serves as a microcosm of the fundamental basis of any "organization": Individuals could not achieve their goal unless they trusted one another, planned and decided together, and acted cooperatively.

The distrust between the reconnaissance party and the officers led the reconnaissance party to engage in an act of constructive deviance (Warren, 2003) in order to complete the mission. They went against their common army training and socialization when they proceeded down the gully. Their decision to continue toward civilization after Neill's party did not arrive at the gully floor by the appointed time ultimately enabled them to raise the alarm that initiated rescue of the main party. This indicates that in the Low's Gully case the trust-with-trepidation phase was useful in allowing all the reconnaissance party members to determine that distrust was warranted in that particular context and then to take action. Had they continued to give Neill and Foster the benefit of the doubt by continuing to trust them, it is conceivable that some group members could have perished. Thus,

Proposition 7: Distrust can be functional in groups facing adversity when a key member is seen as being untrustworthy.

Discussion

We began our study of the Low's Gully training exercise seeking to clarify longitudinal mechanisms that contribute to group fracture under adversity. We now discuss the implications of our theory integration and theory building for future research and for management practice.

Implications for Research

Four issues are highlighted for future research. First, could the relative importance of trustworthiness dimensions be a function of the resources available to satisfy environmental demands? A contingency theory could be developed. In Low's Gully, expertise in climbing downward became much more important than the leaders had anticipated. Yet perceived deficiencies in the leaders' mountaineering abilities did not trigger workgroup fracture because other group members (Mayfield and Brittan, in particular) had abilities that filled this critical need.

Second, in what situations does distrust serve a positive function? A review of trust development research notes that "much of the literature within the unidimensional [i.e., trust–distrust continuum] approach assumes that trust is good, and the more trust the better" (Lewicki et al., 2006: 1016). Yet in the context of the Low's Gully temporary workgroup, distrust was the appropriate response and may even have saved the soldiers' lives. Perhaps

the most important implication of our work for scholars is that future research might more fully illuminate group trust processes not only by studying warranted trust formation and repair (e.g., Aquino, Tripp, & Bies, 2006; Gillespie & Dietz, 2009; Kim, Dirks, & Cooper, 2009; Robinson, 1996; Tomlinson & Mayer, 2009) but also by examining warranted distrust, unwarranted trust, and unwarranted distrust, and particularly the sequences in which these trust-related perceptions are experienced by members of various group types facing differing contexts.

Third, do workgroups facing greater adversity require more common ground to sustain viability? For example, much research on group decision making has determined that diverse knowledge among members contributes to higher quality decisions and better group performance (e.g., Mannix & Neale, 2005; Nemeth, 1986; Webber & Donahue, 2001). Thus, knowledge diversity can be a good thing. But our results suggest at least one caveat: When workgroups might be subjected to acute adversity, some base level of common ground is necessary to avoid group fracture. That is, it may be that a certain level of common ground must be achieved in a workgroup in order to maintain viability under adversity, and that diversity will aid performance only after this fundamental level of common ground is present. Mutual understandings of shared knowledge facilitate communication and joint action. Beyond surface demographic indicators, though, *communal* common ground also encompasses the broader effects on group fracture from factors like deep-level skills and ineffable experiences. Further, the *personal* dimension of common ground explains how diverse workgroup members can come together over time, as they build shared experiences and familiarity, to form a group that communicates effectively and trusts one another (e.g., Krifka, 2004). Thus, common ground helps to explain how and why workgroup functioning changes over time as familiarity and shared experiences increase. Therefore, common ground makes a start, at least, toward the needed integration of attribute-based and relations-based approaches to group performance called for by Balkundi and Harrison (2006).

Fourth, do rank effects and culture effects on trust and distrust differ depending on the context? In Low's Gully, the behaviors of the British and Chinese soldiers often contradicted common stereotypes. For example, the Hong Kong soldiers spoke directly and forcefully with the highly ranked Lt. Col. Neill when they asked to exit the exercise, while the British soldiers were less direct and initially hid their concerns. The Low's Gully training exercise offers some naturalistic support for the recent experimental findings of Weber and Morris (2010). They argued that culture, viewed solely as a value orientation and an enduring personality trait, cannot account for people readily changing behaviors under differing conditions. Their experiment found that Chinese exhibited greater overconfidence and risk taking than Americans and showed a greater likelihood than Americans "to avoid conflict and compromise with friends but not with strangers" (Weber & Morris, 2010: 412).

Implications for Practice

Generalizability is an important issue in case studies such as ours (Eisenhardt, 1989). Our propositions and other insights from the Low's Gully training exercise are most directly generalizable to newly formed or temporary workgroups that are composed of culturally

diverse members and that also encounter surprising and daunting challenges. Nevertheless, these findings also may apply to other temporary workgroups of well-trained individuals facing novel and ambiguous tasks in high-stakes environments. For example, groups as varied as the top management teams at many international joint ventures (Li & Hambrick, 2005) or researchers engaged in multiyear National Science Foundation projects (O'Connor, Rice, Peters, & Veryzer, 2003) frequently can be classified as culturally diverse as well as temporary or newly formed. Moreover, because those of the Low's Gully group engaged in their work activities at least 18 hours a day for a month, they likely learned about one another and developed common ground and trust–distrust relationships more quickly than would more typical groups working together 8 hours (or fewer) per day. Thus, our findings regarding trust dissolution and group fracture could be helpful for many workgroups facing adversity emanating from paradigm shifts in their tasks or environments.

Managers of such groups may be wise to consider the counterintuitive nature of some of our propositions. As workgroups mature, for example, personal common ground appears to overtake communal common ground in importance for cementing groups facing unexpected adversity. Thus, efforts to build personal common ground among all members of workgroups likely can overcome an initial lack of communal common ground. And the negative effects of an untrustworthy action will likely be greater if initial trust expectations are high rather than low. Moreover, a leader's task ability shortcomings may be less important in certain contexts than are shortcomings in benevolence or integrity. And, furthermore, in times of adversity intra-workgroup *dis*trust can be highly functional, as we saw in Low's Gully.

We also offer a cautionary note about organizations increasingly relying on temporary workgroups. Managers who seek flexibility via widespread use of temporary workgroups may be increasing their organizations' exposure to trust dissolution, distrust development, and the loss of workgroup viability during adverse situations of punctuated change—the precise times when effective performance is most critical to organizational success. Thus, managers in such situations should consider achieving flexibility by building it into intact workgroups, where possible.

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