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Learning Through Failure

A capacity crowd composed of tourists, space enthusiasts, students, and the astronauts' family members gathered at NASA's Kennedy Space Center on February 1, 2003, anxious to observe the shuttle Columbia's triumphant return from space. When the shuttle failed to appear, the crowd's emotions moved from confusion to alarm as a loudspeaker announced that there had been a major malfunction. The malfunction was a full-blown crisis. As Columbia moved through the earth's atmosphere, the spacecraft shattered, strewing debris for miles along the Nacogodches, Texas, area.

How could such a disaster have happened?

Seventeen years earlier, the shuttle Challenger exploded as it was launched, killing all aboard. After the Challenger explosion, the shuttle program was halted as the Reagan administration called for a thorough examination of the NASA program. Dramatic changes in leadership, shuttle structure, and communication procedures were enacted to remedy problems found during the Challenger investigation. Yet a review of the Columbia disaster reveals that many of the flaws in NASA's organizational culture that led to the Challenger disaster reemerged in the Columbia crisis. Why, with so much to lose, would an organization fail to learn from one crisis, only to create a similar event a decade and a half later?

Phillip Tompkins (2005) summarizes his extensive study of NASA in his book, *Apollo, Challenger, Columbia: The Decline of the Space Program.* Tompkins described a cautious and responsive organizational culture that had declined as the space shuttle program replaced the Apollo missions. A culture emerged that was less sensitive to safety and much more concerned with bureaucratic procedures and financial matters. Tompkins describes the impact of this changing culture:

> We saw that a culture can divide into two antagonistic cultures, two warring tribes with a cultural fence between them: in this case the managerial/bureaucratic subculture and the weakened engineering/concertive one. We watched a reversal of status, as the engineers became second-class members, forced to communicate through the formal channels, intimidated by the managers. The informal system of communication could no longer save the formal system. (p. 203)

The bitterest element of the Columbia disaster is the fact that the presence of this perilous culture was identified following the Challenger tragedy.

In this chapter, we identify several opportunities organizations have to learn from crises. We begin with an exploration of why some organizations fail to learn from them. We continue with a discussion of the process for learning through failure, the possibility for vicarious learning, the necessity of organizational memory, and the need for organizations to unlearn some unproductive habits.

❖ FAILING TO LEARN FROM FAILURE

Simply experiencing a negative event is not sufficient for learning. Think of the stories you may have seen about individuals who have acquired multiple citations and license suspensions for driving while intoxicated. The event alone is not enough to change behavior. That can only change when individuals choose to learn from an event. This learning requires individuals to change their beliefs and attitudes so that, in turn, their behavior is altered.

From an organizational perspective, learning can be a complicated process. The acquisition of knowledge and the shifts in behavior must occur at all levels in what can be a highly complex system. Bazerman and Watkins (2004) contend that, when organizations fail to learn from failures, they become vulnerable to predictable surprises. Bazerman

and Watkins distinguish *predictable surprises* from *unpredictable surprises*. Predictable surprises occur when an organization's leadership ignores or fails to understand clear evidence that a potentially devastating problem could occur. Unpredictable surprises occur with no clear warning signs.

Bazerman and Watkins (2004) identify four ways in which organizations fail to learn from the failures that occur around them:

1. *Scanning Failures*: failure to pay close attention to potential problems both inside and outside the organization; this failure could be due to arrogance, a lack of resources, or simple inattention.
2. *Integration Failures*: failure to understand how pieces of potentially complicated information fit together to provide lessons of how to avoid crises
3. *Incentive Failures*: failure to provide sufficient rewards to people who report problems and take actions to avoid possible crises
4. *Learning Failures*: failure to draw important lessons from crises and preserve their memory in the organization

Organizational leaders who experience one or more of these failures jeopardize the future safety of their organizations.

Mitroff and Anagnos (2001), in their book, *Managing Crises Before They Happen: What Every Executive and Manager Needs to Know About Crisis Management*, provide a convincing example of how an organization can fail to learn from a previous crisis. In 1982, Johnson and Johnson responded to a link between Tylenol capsules and several deaths due to cyanide poisoning by pulling the product from the shelves and communicating candidly with the media. Investigators later determined that the product had been tampered with while on a store shelf. During the investigation, both the FBI and the FDA advised against pulling the product. Nevertheless, Johnson and Johnson recalled 31 million bottles of Tylenol. Although the short-term losses for Tylenol were staggering, the product reemerged as a top seller. When a second Tylenol poisoning event occurred, Johnson and Johnson's response was equally effective. It's swift and forthright response to the crises established a standard for all organizations facing crises. Mitroff and Anagnos explain, however, that much of Johnson and Johnson's success was based on the fact that, even though the company was not to blame for the crisis, Johnson and Johnson

responded without hesitation in the hope that no more consumers would be injured or killed.

Mitroff and Anagnos (2001) assert that, in later years, Johnson and Johnson has been far less effective in its crisis management. In the past decade, Johnson and Johnson has faced several crises resulting from predictable surprises. The company's products have been linked to overdose problems with children. Tylenol has also been associated with liver damage. In these cases, Mitroff and Anagnos found that Johnson and Johnson's response has been comparatively slow and much less effective. Mitroff and Anagnos explain that, "ironically, because J & J did so well in handling its two major crises, it did not learn the proper lessons" (p. 19).

Using Bazerman and Watkins' (2004) foregoing list of failures, we can speculate about Johnson and Johnson's failure to learn. Since the Tylenol poisonings were caused by a criminal, they were unpredictable surprises. The poisonings offered no incentive for scanning the environment for potential product failures. Second, the criminal cases did not provide an obvious link to other types of failures. Thus little integration of information was inspired by them. Third, the Tylenol poisonings clearly revealed incentives for responding immediately to a criminal assault on a product. Yet the events gave little incentive to Johnson and Johnson employees for closely monitoring and reporting potential failures related to the daily consumption of its products. Last, Johnson and Johnson experienced a learning failure when it did not draw lessons from the crises that reached beyond the criminal level.

Mitroff and Anagnos (2001) characterize the dwindling effectiveness of Johnson and Johnson in its crisis management as a "failure of success" (p. 20). The company was so successful in its initial Tylenol crises that it failed to respond effectively when faced with crises of a different type.

❖ LEARNING FROM FAILURE

Most of us can think of a sport, a school subject, or a project of some sort where we learned from our mistakes. Our failures help us better understand what we need to do if we want to improve. We learn from the mistakes or near misses that occur in the world around us. We may not even be aware of a risk until some crisis or near crisis occurs. For example, several teens were recently exploring an unsupervised cave near the Mississippi River in Minneapolis, Minnesota. The cave was a popular summer spot for adolescents in the area. On this occasion,

however, something went terribly wrong. As many had done numerous times in the past, four teens entered the cave anticipating a daring adventure. This excursion, however, ended tragically, with three of the teens dying from asphyxiation due to the poor air quality in the cave. The fourth struggled against losing consciousness and eventually crawled from the cave. The story raised community awareness of the cave's danger. Parents in the area, who previously either overlooked or were unaware of the cave, now monitor the progress of authorities as they attempt to seal the cave and to patrol the area. The community learned a painful lesson about such caves. The media carried the story throughout the state and region, thereby spreading the lesson to authorities, parents, and teens that would not have otherwise been aware of the danger.

Organizational learning can function in much the same way. Sitkin (1996) details the way organizations of all kinds may learn through failure, going so far as to argue that failure is an *essential* part of the learning process for organizations. He insists that failures, especially minor ones, should not be avoided or concealed. Mittelstaedt (2005) agrees. In his extensive study of organizational crises, Mittestaedt makes the seemingly paradoxical observation that making mistakes is essential to success. A company that appears to operate free from disruption may simply be operating from an unrealistic and uniformed perspective. Mittestaedt contends that "learning to identify mistakes in an analytic and timely fashion is often the difference between success and failure" (p. 287).

Sitkin (1996) extends this claim: Too often, he explains, employees and managers are unwilling to admit small failures for fear of reprisal from organizational leadership. The unwillingness to recognize and embrace failure is also a failure to recognize and respond to a potential crisis. The longer a failure is allowed to continue, the more likely it will intensify into a full-blown crisis.

Sitkin (1996) explains further that, in successful organizations, failure creates a recognition of risk and a motivation for change that otherwise would not exist. He describes this recognition as a "learning readiness" (p. 548) that, without failure, is very difficult to produce in most organizations. Sitkin cautions, however, that not all failures are equally effective in fostering good risk management. He claims that organizations learn best from *intelligent failures,* which have the following five characteristics: (1) They result from thoughtfully *planned actions* that (2) have *uncertain outcomes*, (3) are *modest* in scale, (4) are executed and responded to with *alacrity* (eagerness), and (5) take place in domains that are *familiar* enough to permit effective learning.

Opportunity 1

Organizations should treat failure as an opportunity to recognize a potential crisis or to prevent a similar crisis in the future.

In summary, organizations learn to recognize risk by accepting and acting on their failures. They learn best when the failures result from competent actions, are not yet crises, and are within the comfort zone of employees who are eager and experienced enough to respond wisely and quickly. Learning from failure leads to the following opportunities:

❖ VICARIOUS LEARNING

Organizations do not necessarily need to fail themselves in order to learn. Successful organizations engage in *vicarious learning* in order to recognize risk, wherein organizational leaders observe the failures or crises experienced by similar organizations and take action to avoid making the same mistakes. A few examples will emphasize the value of vicarious learning. When a perpetrator mailed a letter claiming that he or she had infected cattle in New Zealand with foot and mouth disease (FMD), the country's agricultural ministry was faced with one of the world's greatest fears. Biological terrorism or bioterror on the world's food supply has long been a worrisome prospect for world leaders. New Zealand's government was worried that its worst fears had been realized. If FMD spread, its cattle industry would be decimated. The country responded swiftly to calm its citizens and to avoid losing the confidence of consumers worldwide. Eventually, the letter was proven to be a hoax. The disruption New Zealand faced prompted bioterror experts in other countries, such as the United to States, to fortify their plans for managing false claims of terrorist activity. By so doing, many countries learned from New Zealand's successful response.

When college students organized a boycott of all Nike products in response to accusations of worker abuse in its shoe factories in Vietnam, Nike initially failed to react. When the boycott rapidly spread to additional universities and Nike sales figures began to decline, the company responded dramatically. Admitting that he should have responded sooner, Nike's chief operating officer announced that the company was setting a new standard for worker safety and safety inspections in its Asian factories. Nike also raised the minimum working age and provided educational opportunities for workers. In order to avoid parallel boycotts, companies such as Adidas and Reebok began implementing similar standards.

Both the New Zealand and Nike examples offer evidence that organizations can learn and learn well without experiencing a crisis or failure within their corporate boundaries by monitoring other members of their industries. This demonstrates our second learning opportunity:

Opportunity 2

Organizations can avoid crises by learning from other organizations' failures and crises.

❖ ORGANIZATIONAL MEMORY

Without learning from their own and others' mistakes, organizations stagnate and fail to respond to potential threats in an ever-changing world. Yet as any student of any subject knows, learning is of little use if the knowledge is not retained. In organizations, this retention of knowledge is referred to as *organizational memory*. From the perspective of crisis communication, organization memory consists of an accumulation of knowledge based on the observation of successes and failures, both within the company and through vicarious observation. If an organization's members do not remember and act upon their knowledge of previous failures, a crisis is much more likely to occur.

A horrific example of a failure in organizational memory occurred at a Union Carbide plant in Bhopal, India, in 1984. Early on a December morning, the plant leaked a deadly cloud of gas that settled over part of the sleeping city of 900,000. Within hours, 2,000 residents were dead and thousands more were injured.

How could such a crisis occur? Union Carbide was a reputable company. The plant had many safety procedures in place to detect and prevent such leaks.

Part of the answer is in a loss of organizational memory. The plant had been slated for closure. Many of the experienced staff had already been transferred to other locations, leaving a minimal crew with little experience. The training program for the workers who remained had been reduced to the minimum. The crisis was eventually traced to staff reductions and oversight failures. Much of the blame for the tragedy rests with a rapid reduction in experienced staff that took with them a large share of the organization's memory.

Bhopal represents one of the most dismal failures in organizational memory to occur in the past century and offers compelling motivation for understanding how to maintain it. In its most general sense, organizational memory consists of the following three stages:

1. *Acquiring knowledge*, as we discussed earlier, is done by recognizing failures within the organization and by observing the failures of similar organizations.
2. *Distributing knowledge* is the key to organizational memory. Inevitably, highly experienced employees will leave the organization. Unless these people are given an opportunity to share their knowledge with other employees, the knowledge will leave the organization along with the departing personnel. Thus the organization is doomed to repeat previous failures.
3. *Acting upon knowledge* is essential for organizational memory to serve an organization. If new employees are unwilling to learn from departing ones, the organization's accumulated knowledge is lost. Thus new employees who want to do things their way could be destined to repeat previous organizational failures.

As the three steps to organizational memory show, employees have many opportunities to disregard hard-earned knowledge.

Because organizational memory depends on the exchange of information from one person to another, the process will always be imperfect. Rivalry among employees, perceived mistreatment of employees by the organization, or a simple unwillingness by new employees or organizational leaders to learn from their predecessors all disrupt the preservation of organizational memory. Mittelstaedt (2005) offers this blunt assessment: "Not only must we continue to learn, but until we develop 'plug-compatible' brain dumps, each new generation must start learning from scratch but at a higher level" (pp. 120-121). This higher level involves learning and retaining what we can from previous experience, while embracing the learning process.

Opportunity 3

Organizational training and planning should emphasize the preservation of previous learning in order to make organizational memory a priority.

The enormous impact of organizational memory on the crisis prevention process leads us to the third opportunity:

❖ UNLEARNING

To this point, we have seen the importance of organizational learning and organizational memory. On occasion, however, effective organizational learning depends on an organization's ability to unlearn practices and policies that have become outdated by environmental changes.

In Chapter 8, we discussed the ruinous flood that occurred along the North Dakota and Minnesota border. For decades prior to the 1997 flood, the communities had focused their flood-fighting energy on the construction of mammoth dikes. Flooding had become a normal occurrence in the expansive valley. The dikes gave residents confidence that, each spring, the waters could be held back from the cities and homes in the region. After 1997, this flood-fighting philosophy had to be unlearned. The 1997 flood revealed that some neighborhoods were simply too close to the river and at too low an elevation to be protected by dikes. Homeowners who had lived in their houses for 40 or more years were asked to accept government buyouts and move to safer ground. The magnitude of this flood brought the realization that simply adding dikes was a losing proposition. Accordingly, the community leaders were inspired to unlearn their previous dike-building policy for lowland areas. In its place, they adopted a policy that required residents to move to locations where they could be better defended against future floods.

Changes like those adopted after the Red River Valley floods do not come easily to organizations. Employees, management, and other stakeholders become comfortable with the way things are done. This comfort, however, can blind organizations to the urgency of an impending crisis. As Huber (1996) explains, unlearning is much more than simply discarding knowledge. Unlearning occurs when organizations recognize that existing procedures constrain the organization's ability to respond to crises. From this perspective, three results may occur from unlearning:

1. *Expanding Options*: When organizations are unwilling to forego routine procedures during crisis or potential crisis situations, they lose the capacity to react to unique circumstances. Unlearning enables the organization to expand its options.

2. *Contracting Options*: In some cases, organizations may respond to a crisis with a strategy that has worked well in the past. In the current situation, however, the strategy from the past may actually make matters worse. In such cases, organizations must be willing to reject some strategies in favor of others.

3. *Grafting*: In the previous section, we discussed the need for organizations to hand down existing knowledge to new employees. If the socialization of new employees is so intense that they cannot bring new knowledge to the organization, however, the organization is doing itself a disservice. Although organizational memory is essential, some degree of unlearning

in favor of the ideas new employees bring may be helpful in predicting and responding to crises.

Opportunity 4

Organizations must be willing to unlearn outdated or ineffective procedures if they are to learn better crisis management strategies.

Although we may seem to be contradicting ourselves by extolling the benefits of unlearning in organizational crisis communication, we are convinced that unlearning can be a necessary step in the learning process and thus in the crisis management process.

Unlearning, then, can be an essential ingredient. Thus, we offer the fourth risk opportunity:

❖ SUMMARY

Conventional wisdom suggests that failures are negative events that should be avoided at all costs. This chapter makes the opposite argument. From the perspective of organizational learning, failing and responding to failure are essential steps in both crisis prevention and crisis management. Effective organizations learn directly from their own failures and vicariously from the failures of similar organizations. The knowledge thus acquired produces organizational memory. If organizations are able to preserve this memory, they have a better repertoire for managing or avoiding crises. Although organizational memory is an essential component of crisis prevention and management, there are times when unlearning is needed. If routine procedures fail, organizations must abandon some strategies and seek out others. One means of developing new strategies is to hire new employees who can bring fresh ideas. If organizations are willing to devote themselves to effective organizational learning, they may experience the following four opportunities:

Opportunity 1: Organizations should treat failure as an opportunity to recognize a potential crisis or to prevent a similar crisis in the future.

Opportunity 2*:* Organizations can avoid crises by learning from the failures and crises of other organizations.

Opportunity 3: Organizational training and planning should emphasize the preservation of previous learning in order to make organizational memory a priority.

Opportunity 4: Organizations must be willing to unlearn outdated or ineffective procedures if they are to learn better crisis management strategies.

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