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SENSEMAKING

Framing and Acting in the Unknown

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This chapter introduces "sensemaking" as a key leadership capability for the complex and dynamic world we live in today. Sensemaking, a term introduced by Karl Weick, refers to how we structure the unknown so as to be able to act in it. Sensemaking involves coming up with a plausible understanding—a map—of a shifting world; testing this map with others through data collection, action, and conversation; and then refining, or abandoning, the map depending on how credible it is.

Sensemaking enables leaders to have a better grasp of what is going on in their environments, thus facilitating other leadership activities such as visioning, relating, and inventing. This chapter outlines ten steps to effective sensemaking, grouped under enabling leaders to *explore the wider system*, *create a map of that system*, and *act in the system* to learn from it. It illustrates how rigidity, leader dependence, and erratic behavior get in the way of effective sensemaking, and how one might teach sensemaking as a core leadership capability. The chapter ends with a student manual on sensemaking from an MBA leadership class.

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At the MIT Sloan School of Management we teach the "4-CAP" model of leadership capabilities. The four capabilities include sensemaking, relating, visioning, and inventing (Ancona, Malone, Orlikowski, & Senge, 2007).

While participants in our leadership workshops and classes are reasonably comfortable with the idea that *relating* is about building trusting relationships among people and across networks, *visioning* involves painting a compelling picture of the future and what is possible, and *inventing* means creating the structures and processes needed to move toward the vision, most scratch their heads at the term *sensemaking*. And yet our 360-degree survey data reveal that sensemaking is highly correlated with leadership effectiveness—even more than visioning. In addition, when people finish our programs—and even five years later—they report that sensemaking was one of the most valuable concepts and skills they have learned. "Sensemaking" lingers in organizational vocabulary long after our courses are over.

So what is "sensemaking," and why is it so central to effective leadership?

What Is Sensemaking?

Karl Weick, the "father of sensemaking," suggests that the term means simply "the making of sense" (Weick, 1995, p. 4). It is the process of "structuring the unknown" (Waterman, 1990, p. 41) by "placing stimuli into some kind of framework" that enables us "to comprehend, understand, explain, attribute, extrapolate, and predict" (Starbuck & Milliken, 1988, p. 51). Sensemaking is the activity that enables us to turn the ongoing complexity of the world into a "situation that is comprehended explicitly in words and that serves as a springboard into action" (Weick, Sutcliffe, & Obstfeld, 2005, p. 409). Thus sensemaking involves—and indeed requires—an articulation of the unknown, because, sometimes trying to explain the

unknown is the only way to know how much you understand it.

Finally, sensemaking calls for courage, because while there is a deep human need to understand and know what is going on in a changing world, illuminating the change is often a lonely and unpopular task. The leader who demonstrates that an organization's strategy has not been successful, for example, may clash with those who want to keep the image of achievement alive.

In the realm of business, sensemaking can mean learning about shifting markets, customer migration, or new technologies. It can mean learning about the culture, politics, and structure of a new venture or about a problem that you haven't seen before. It can mean figuring out why a previously successful business model is no longer working. Sensemaking often involves moving from the simple to the complex and back again. The move to the complex occurs as new information is collected and new actions are taken. Then as patterns are identified, and new information is labeled and categorized, the complex becomes simple once again, albeit with a higher level of understanding.

Sensemaking is most often needed when our understanding of the world becomes unintelligible in some way. This occurs when the environment is changing rapidly, presenting us with surprises for which we are unprepared or confronting us with adaptive rather than technical problems to solve (Heifetz, 2009). Adaptive challenges—those that require a response outside our existing repertoire—often present as a gap between an aspiration and an existing capacity—a gap that cannot be closed by existing modes of operating.

At such times phenomena "have to be forcibly carved out of the undifferentiated flux of raw experience and conceptually fixed and labeled so that they can become the common currency for communication exchanges" (Chia, 2000, p. 513). As such, sensemaking is about making the intractable actionable. But action is not a separate and later step in sensemaking. Rather, acting is one more way of understanding

the new reality, providing additional input for us to bracket and assign meaning (Weick et al., 2005).

Thus, sensemaking involves coming up with plausible understandings and meanings; testing them with others and via action; and then refining our understandings or abandoning them in favor of new ones that better explain a shifting reality.

Brian Arthur (1996) uses a gambling casino analogy to illustrate the kind of profound uncertainty we currently face that creates a great need for sensemaking:

Imagine you are milling about in a large casino with the top figures of high tech. . . . Over at one table, a game is starting called Multimedia. Over at another is a game called Web Services. There are many such tables. You sit at one.

"How much to play?" you ask.

"Three billion," the croupier replies.

"Who'll be playing?" you ask.

"We won't know until they show up," he replies.

"What are the rules?"

"These will emerge as the game unfolds," says the croupier.

"What are the odds of winning?" you wonder.

"We can't say," responds the house. "Do you still want to play?"

Sensemaking in such an environment involves "being thrown into an ongoing, unknowable, unpredictable streaming of experience in search of answers to the question, 'What's the story?'" (Weick, Sutcliffe, & Obstfeld, 2005). It means looking for a unifying order even if we are not sure if one exists. It requires figuring out how best to represent this order and continuing to play the game indefinitely even if we never know if we have found the order. This, according to Joseph Jaworski and Claus Otto Scharmer (2000), is the moral of Brian Arthur's casino analogy. "What distinguishes great leaders from average leaders is their ability to perceive the nature of the game and the rules by which it is played, as they are playing it" (p. 2).

Seen from this perspective, sensemaking is an emergent activity—a capacity to move between heuristics and algorithm, intuition and logic, inductive and deductive reasoning, continuously looking for and providing evidence, and generating and testing hypotheses, all while "playing the game." As such sensemaking requires that leaders have emotional intelligence, self-awareness, the ability to deal with cognitive complexity, and the flexibility to go between the "what is" of sensemaking and the "what can be" of visioning. Perhaps equally important, it also requires that leaders be able to engage others in their organizations in figuring out how to play the game.

How critical is sensemaking in today's world? We are certainly in the midst of enormous global change, whether we consider politics, economics, climate change, resource depletion, or dozens of other arenas. In the sphere of business, John Chambers, the CEO of Cisco, believes that "from a business model and leadership perspective, we're seeing a massive shift from management by command-and-control to management by collaboration and teamwork. You could almost say this shift is as revolutionary as the assembly line" (Fryer & Stewart, 2008, p. 76). Questions abound: How will global competition play out? Will China and India dominate this century? Is the economic crisis over? How will terrorism impact international trade relations?

But sensemaking is not limited to such cosmic problems. At an organizational level, leaders need to engage in sensemaking to understand why their teams are not functioning, why their customers are leaving, and why their operations are falling short on safety and reliability. At a personal level, sensemaking can help in understanding why you have not lived up to your own expectations as a leader, or why you don't seem to be getting along with your new boss. We teach sensemaking to undergraduates, MBAs, mid-level executives, and top

management teams since the ability to understand a changing context is needed at every level.

How Does Sensemaking Help?

So yes, sensemaking is an extremely useful skill, but how exactly does it work? Weick (2001) provides one answer, by likening sensemaking to cartography. Maps can provide hope, confidence, and the means to move from anxiety to action. By mapping an unfamiliar situation, some of the fear of the unknown can be abated. By having all members of a team working from a common map of "what's going on out there," coordinated action is facilitated. In an age where people are often anxious about their circumstances, mapmaking becomes an essential element of sensemaking and leadership. In a world of action first, sensemaking provides a precursor to more effective action.

As we try to map confusion and bring coherence to what appears mysterious, we are able to talk about what is happening, bring multiple interpretations to our situations, and then act. Then, as we continue to act, we can change the map to fit our experience and reflect our growing understanding.

It is important to note that in this sense of the word, there is no "right" map. Sensemaking is not about finding the "correct" answer; it is about creating an emerging picture that becomes more comprehensive through data collection, action, experience, and conversation. The importance of sensemaking is that it enables us to act when the world as we knew it seems to have shifted (Weick, Sutcliffe, & Obstfeld, 2005). It gives us something to hold onto to keep fear at a distance.

This use of sensemaking can be illustrated through a story (articulated in a poem by Holub, 1977) and elaborated here for illustrative purposes. A small military unit was sent on a training mission in the Swiss Alps. They did not know the terrain very well, and suddenly it began to snow. It snowed for two days. There were large drifts everywhere, and it was hard to see through the clouds and blowing snow. The men considered themselves lost. They were cold and hungry, and panic began to spread through the unit as they thought of what would become of them. But then one of them found a map in his pocket. Everyone crowded around trying to figure out where they were and how they could get out. They calmed down, located themselves, and plotted a route back to their base.

They pitched camp, lasted out the snowstorm, and moved into action. Of course they didn't always hit the landmarks they thought they would, so getting back involved still more sensemaking. They got help from villagers along the way, and shifted their path when faced with obstacles. And then, when they finally got back to base camp, they discovered that the map they had been using was actually a map of the Pyrenees and not the Alps.

The moral of the story? When you're tired, cold, hungry, and scared, any old map will do (Weick, 1995).

When I use this story with students, they protest that a bad map can be a disaster—especially when you are wandering around in the mountains in the middle of a blizzard—and of course that's true. Given a choice, we would all choose the best map possible. Yet the soldiers in the story were able to survive using a bad map because they acted, had a purpose, and had an image of where they were and where they were going, even though they were in many ways mistaken. The point is that in sensemaking, the map is only a starting point. One then has to pay attention to cues from the environment, incorporate new information, and in so doing turn what may be a poor map into a useful sensemaking device (Weick, 1995).

There are many reasons why a poor map may be "good enough." First, a poor map may actually enable leaders and teams to move ahead with assurance toward goals that might seem unattainable if their view of

the world was actually more accurate. Under some circumstances, accuracy may immobilize, while partial reality may motivate. Indeed, the very idea that accuracy is possible pertains more to the "object" world where situations are constant, than to the flow of organizational life in a shifting context. Second, enabling people to get some sense of a situation, calm down, and act may be more important than finding "the" right answer, which we can never find anyway. Third, in a rapidly changing environment speed may trump accuracy. And finally, it is very difficult to know whether our perceptions will prove accurate or not, because these perceptions and the actions they promote will themselves change our reality, and because different perceptions can lead to the same actions.

In short, plausibility as opposed to accuracy is more important in sensemaking—stories and maps that explain and energize, that invite people to discuss, act, and contribute ideas trump those that are more exclusively focused on trying to achieve the best possible picture of a reality that is changing and elusive (Weick, 1995).

How Does Sensemaking Connect to Other Leadership Capabilities?

Once we have a better grasp of what is going on in our world through sensemaking, then we have a much clearer idea of how to engage our other leadership capabilities of visioning, inventing, and relating. With a clearer sense of the external terrain, our visions and execution capabilities improve because they "fit" current circumstances. With the focus and energy that come with a plausible map, relating, visioning, and inventing can flourish. With a greater understanding of the people with whom we work, communication and collaboration proceed more smoothly. In a society that values action, effective leaders must rely on and reward the sensemaking

that helps direct and correct that action. On the other side, a vision for the future helps to focus sensemaking on areas of importance to the organization; inventing provides more data for sensemaking; and relating provides the interactive network through which sensemaking can occur.

For example, Victor Fung, the Chairman of the Li & Fung Group, a global sourcing, distribution, and retail enterprise, engages the company in a planning process every three years. The unique element of this process is that once the plan is set, it does not change for the three-year period. This allows the company to focus on results with a long enough runway to achieve significant stretch goals over the plan period.

Given the uncertainty in the current environment, prior to the planning process for 2011–2013, twenty-six manager teams were formed to engage in sensemaking and inventing new directions for the firm. Some looked at trends in the Chinese economy, some benchmarked best practices in HR and IT in companies around the world, some looked at better ways to collaborate globally to serve customers, while others re-examined internal cultural artifacts to determine their fit with changed conditions. Through shared sensemaking in teams including people from different geographies and parts of the organization, new ideas emerged and pilot projects were tested and fed—real time—into the planning process. The result: a new three-year plan better suited to changed external conditions.

How Do You Do Effective Sensemaking?

While sensemaking is quite a complex concept, it can be broken down into three core elements: exploring the wider system (steps 1 to 4), creating a map of the current situation (steps 5 and 6), and acting to change the system to learn more about it (steps 7 to 9). Each element can be further broken down into a set of suggested behaviors.

Explore the Wider System

This aspect of sensemaking is perhaps best captured in the words of Marcel Proust: "The real voyage of discovery consists not in seeking new landscapes but in having new eyes." The key here is to work with others to observe what is going on, to tap different data sources and collect different types of data, and to keep prior biases from interfering with your perceptions. Some helpful tips include the following:

1. Seek out many types and sources of data. Combine financial data with trips to the shop floor, listen to employees as well as customers, and mix computer research with personal interviews.

We learn the most about events or issues when we view them from a variety of perspectives. While each may have its own particular flaws, when the different modes of analysis reveal the same patterns, we can feel more confident as we converge on an interpretation of what is really going on (Weick, 1995).

At IDEO, a product design company, this aspect of sensemaking is a key ingredient in innovative design. One team that was redesigning a hospital emergency room put a camera on the head of a patient and left it on for ten hours to add some visual data from a key stakeholder to the other information they had. The result: ten hours of ceiling! This new perspective completely changed the mental models of the designers, who up to this point had not fully considered the patient experience. Armed with this new mindset they shifted the design to include writing on the ceiling and other spaces most visible to patients. Without the additional data, which greatly enriched the designers' understanding of what was really happening in the ER environment, the final design would have been far less effective.

2. Involve others as you try to make sense of any situation. Your own mental model of what is going on can only get better as it is tested and modified through interaction with others.

Sensemaking is inherently collective; it is not nearly as effective to be the lone leader at the top doing all the sensemaking by yourself. It is far better to compare your views with those of others—blending, negotiating, and integrating, until some mutually acceptable version is achieved. Soliciting and valuing divergent views and analytic perspectives, and staying open to a wide variety of inputs, results in a greater ability to create large numbers of possible responses, thus facilitating resilient action (Sutcliffe & Vogus, 2003).

In a recent sensemaking exercise, the members of a team charged with determining how much the economic downturn had affected their firm all started out with very different estimates. All of these estimates suffered from a lack of knowledge about certain parts of the business. By listening to the input of the finance, HR, engineering, and marketing groups, and discussing the very different assumptions and data sources of each group, the team eventually converged on an estimate and a cooperative response across functions.

3. Move beyond stereotypes. Rather than oversimplifying—"Marketing people are always overestimating the demand"— try to understand the nuances of each particular situation.

"Seeing with new eyes" requires that we look at each new situation with an open mind, understanding it in all of its unique aspects. Relying on stereotypes is the opposite of this approach, attributing qualities to the situation that belong to a stereotype but are not really present in the situation itself. Our political process, for example, seems to be stalled at the moment by the inability of many politicians (and citizens) to understand and respect other points of view. Rather than see with new eyes, people rely on labels ("Democrat," "Republican,"

"liberal," etc.) as if these stereotypes alone represent the views, policies, and solutions of all members of the other group. The result, ultimately, is an inability to come up with fresh and widely acceptable solutions to our very real problems.

4. Be very sensitive to operations. Learn from those closest to the front line, to customers, and to new technologies. What trends do current shifts portend for the future? What's behind the trends that we see recurring in different parts of the world?

Andy Grove, the former CEO and chair of Intel, believed in being "paranoid." By that he meant that you always have to be worried about new trends that can destroy or enhance your business, and new competitors that can win in the market. So he designed Intel to monitor many trends—to do ongoing sensemaking. This involves watching what customers are buying and where they go if they drop Intel, finding out what new research is being done at key universities, continuously tracking quality, and checking constantly that this information is accurate and up to date. Why? Because in his industry it is important to respond to changes in markets and technologies early, not when others have already captured a competitive advantage.

CREATE A MAP OR STORY OF THE SITUATION

As mentioned earlier, sensemaking can be likened to cartography. The key is to create a map/story/frame that—at least for a brief period of time—adequately represents the current situation that an organization is facing. Furthermore, it is not really useful for each person to have his or her own map; a team or organization needs to have a shared map to enable shared action.

5. Do not simply overlay your existing framework on a new situation. The new situation may be very different. Instead, let the appropriate map or framework emerge from your understanding of the situation.

Despite telling people that they have to let a map emerge, in many subtle ways old maps reassert themselves. If you go to an interview with a set of fixed questions, those questions will frame and in some ways restrict the information you obtain. Contrast that with an open-ended question, such as "What do you think about x?" In this case you are more likely to uncover unanticipated and potentially valuable viewpoints and information.

Take, for example, the leaders of a large global company operating in China. Because they had always understood their competitors to be other large global companies, they could not understand their falling profits and loss of market share. After all, their competitors were not gaining market share, so what was happening? It was only after local operators explained that small, local, Chinese companies were exploding on the scene and taking away business that they understood. These competitors had not even been on the company's radar screen, despite having been on the scene for a number of years. The established pattern of sensemaking remained limited to the large, global players.

Or consider Costco managers who viewed their scope of responsibility to be sales, marketing, and distribution. Issues of the myriad players in the supply chain were just not part of the picture. However, as managers came to be increasingly worried about reliability of supply, this old, and in many ways limited, framework no longer seemed to work. Suddenly, as they saw for the first time their connection to all points along the supply chain, the managers found themselves concerned with the sustainability of bean-grower communities on the other side of the world. Their mental model had changed and they were better prepared to act.

6. Put the emerging situation into a new framework to provide organizational members with order. Use images, metaphors, and stories to capture the key elements of the new situation.

It is not always easy to move from a complex and dynamic situation to a singular image or metaphor. "To consolidate bits and pieces into a compact, sensible pattern frequently requires that one look beyond those bits and pieces to understand what they might mean" (Weick et al., 2005). Often it is necessary to move outside a system in order to see the patterns within. When John Reed, the retired chair of Citigroup, was in charge of the back office he came to categorize their operations as more of a "factory" than a "bank." This new image became a reality as he hired managers from car companies, reorganized work in assembly lines, and consequently greatly improved efficiencies.

Or consider the experience of Gandhi when he left South Africa and came to India. When asked to join the Indian Independence Movement, he refused, saying that he knew nothing about India. His mentor then suggested that he get to know India, so he spent months riding the trains from village to village. When he returned he told the Indian National Congress that they did not understand the "real India," which was not made up of lawyers and merchants in Delhi, but "700,000 villages" with millions of people that "toil each day under the hot sun." Then Gandhi courageously told the party leaders that they were not so different from their British rulers, that they needed to discard their limited maps and substitute one based on a new picture of India based on real information about the common man, not the privileged few.

Of course, there is always more than one metaphor that can capture a situation, which means that any given metaphor is likely to be contested. In Egypt, for example, the battle between government leaders and the crowds in Cairo's Independence Square involved competing metaphors: were those occupying the square traitors who should be punished or patriots fighting for freedom and democracy who should be celebrated.

ACT TO CHANGE THE SYSTEM TO LEARN FROM IT

People learn about situations by acting in them and then seeing what happens (Weick, 1985). Children often learn the rules in a family by pushing boundaries and then looking for the point at which they get reprimanded. Doctors sometimes learn what is wrong with a patient by starting a treatment and seeing how the patient responds. In short, directed action is a major tool with which we learn about situations and systems.

7. Learn from small experiments. If you are not sure how a system is working, try something new.

While action is a key sensemaking tool, it is often wiser to begin with—and learn from—small experiments, before broadening the action to drive change across the larger system. Sensemaking involves "acting thinkingly," which means that people "simultaneously" interpret their knowledge with trusted frameworks, yet "mistrust those frameworks by testing new frameworks and new interpretations. . . . " Or, put another way, "[A]daptive sensemaking both honors and rejects the past" (Weick et al., 2005, p. 412).

Several companies we work with at the MIT Leadership Center have had business models in which they sell products, services, or technology to organizations that then brand and sell them to the ultimate customer. In many cases, the companies eventually decided that they could make the finished products or services themselves and sell them at much higher margins. But this new business model would put the companies in direct competition with their

own customers—a risky move and a whole new way of acting in the marketplace. The solution: small experiments. Try the new approach in one product domain, see what happens, determine what works and what doesn't work, and then expand to other product domains, operating with a much greater sense of what it actually means to work under this new business model.

8. People create their own environments and are then constrained by them. Be aware and realize the impact of your own behavior in creating the environment in which you are working.

Sensemaking involves not only trying out new things but also trying to understand your impact on a system as you try to change it. In one organization, for example, the leaders launched a new initiative to encourage lower-level employees to offer suggestions and ideas for new ways of working. They toured the plants, held meetings, and approached employees in informal settings. However, these actions were read differently by the employees. One employee, for example, explained that when a meeting is held in a conference room with arranged seating, the formal atmosphere prevents people from speaking up. Others explained that an apparently informal conversation with a leader is viewed as a "test," not a true inquiry. In other words, the leaders' attempts to listen to the voice of the employee were seen by the employees through an "authority-ranking social frame," and hence they did not have the desired effect (Detert & Treviño, 2010). For their part, the leaders in this example did not really examine the impact of their new role as "empowering leaders," and did not do the necessary sensemaking to understand how employees really felt. Hence a well-intentioned attempt at empowerment actually increased the sense of centralized control, with neither party realizing how their conditioned thinking impacted the system and inhibited change.

The ideas outlined above can help a leader improve his or her sensemaking skills, but leaders should never forget that sensemaking is not a one-and-done activity. Operating in a complex and uncertain world means needing to course-correct quickly when (not if) things go wrong. This means that you have to detect, contain, and bounce back from errors. You need to improvise solutions to problems as they appear rather than letting them escalate and get out of hand. Thus, sensemaking in a new situation can help you understand and act in that situation, but rapid sensemaking is also needed when your actions do not have the predicted consequences or when what you thought was coming around the corner is not there at all. Systems that are better able to deal with these surprises do not get bogged down in finding blame or wishful thinking about what might have been. Instead they work to restore, invent, improvise, and recover in creative ways (Sutcliffe & Vogus, 2003).

What Gets in the Way of Effective Sensemaking?

If sensemaking is such an important leadership capability in a world of complexity, uncertainty, and continuous change, then why is it that we stumble at doing it at all, much less doing it well? Part of the answer lies in the fact that sensemaking may be most needed when we feel under threat or crisis, and the very mechanisms that get engaged to deal with fear are the ones that can hamper sensemaking. Thus far this chapter has emphasized that sensemaking involves exploring our changing world through multiple kinds and sources of data, selecting new frameworks and new interpretations to form new maps and mental models that offer plausible explanations of the changes going on, then acting with resilience, verifying and updating our maps as needed to better our understanding and achieve more desirable outcomes. Yet if sensemaking is most often needed when our understanding of the world seems inadequate and we are

surprised by events, then such times are also moments of threat and fear that may reinforce existing maps and mental models, increase our reliance on old information, and inhibit action. Threat and fear are associated with rigidity, a need for direction, and erratic behavior—which work against effective sensemaking.

RIGIDITY

Ever since the classic article by Staw, Sandelands, and Dutton (1981) it has been shown that threat and fear lead to rigidity. Thus, in individuals, teams, and organizations, threat often results in the consideration of fewer external cues and a reliance on tried and true modes of operating. As a result, threat is often more associated with inertia, protection of the status quo, and sometimes even inaction—the deer in the headlights syndrome. Threat is seen as the time to batten down the hatches, keep outsiders away, and get back to business as usual. Yet, threat conditions are when high levels of sensemaking and change are most needed. Thus, leaders at all levels within an organization need to fight against this rigidity in order to enable active sensemaking and inventing.

The evidence is clear: Companies that make changes during economic downturns, that offer new products and services for a new set of circumstances, and that prepare for the moment when things will change in a more positive direction are the ones that not only survive but prosper. For example, right now many companies are coming out with less expensive versions of products in the United States and looking to move more of their sales to countries such as China, India, and Brazil where economies are still growing at high rates. But seeing what changes are actually taking place and knowing which actions will be most useful requires sensemaking and an ability to push against the rigidity that comes with threat.

DEPENDENCE ON DIRECTION

Threat and fear also can result in constriction of control and a felt need for direction (Meindl, Ehrlich, & Dukerich, 1985; Staw, Sandelands, & Dutton, 1981). In the face of uncertainty, people look to others to show them the way. When people are afraid, they look for direction and reassurance. In such instances leaders do need to be reassuring, to communicate what they know and what they don't know, and to show care and concern. They also need to indicate how they plan to move ahead and mobilize for the new times ahead. However, the last thing that leaders should do is to treat their employees like children, dependent upon the one leader—even if there is a pull to do so.

People need to be treated as capable adults. If sensemaking is inherently social, and if more and different kinds of data are important, especially from the front lines during times of threat, then leaders at the top of the organization need to encourage others further down in the organization to assist in ongoing sensemaking. For example, at Best Buy it wasn't top management, but a young marketing manager, who began to see what a lack of communication was doing to relationships with employees. She decided to use social media technologies to get employees (there are 160,000) to participate in polls, brainstorm new ideas, and attend town-hall meetings with management. The result was a greater level of dialogue, more new ideas for increased sales, and a 32 percent drop in turnover (Tucker, 2010).

ERRATIC BEHAVIOR

Threat and fear can also result in erratic behavior as leaders try one solution and then another in a frantic search for something that works. However, such dramatic shifts in behavior make it very difficult to engage in effective sensemaking. In order

to assess if action in a new environment is working, you need to have time to determine the outcomes of your actions and to examine key feedback loops as multiple factors play out over time.

In medical crisis simulations new interns attempted to diagnose patients with symptoms that did not conform easily to clear-cut diseases. Some displayed rigidity responses, leaping to the most likely diagnosis and ignoring signals that the diagnosis was incorrect. Others engaged in erratic behavior, trying new treatments but never holding to them long enough to determine if they were working. The most successful doctors engaged in effective sensemaking by paying attention to the cues that a treatment was not working and then trying the next one long enough to determine if it might work (Rudolph, Morrison, & Carroll, 2009). Thus, leaders need to help themselves and others to act and limit the effects of rigidity and dependency, while avoiding erratic action where learning is minimized.

Of course it is not only threat and fear that inhibit effective sensemaking. In a globally competitive environment our reward structures are geared toward rewarding immediate action and hence we may be signaling that sensemaking is not a valued activity. Also, while the leadership literature and leadership training tend to concentrate on interpersonal skills, negotiating, visioning, execution, decision-making, charisma, and collaboration, sensemaking is seldom seen on the list. If organizations want to see more effective sensemaking then they will have to create the kinds of practices, structures, vocabulary, and rewards that encourage it.

TEACHING SENSEMAKING AS A LEADERSHIP CAPABILITY

Any program or class that includes sensemaking as a leadership capability should use multiple teaching modes to bring this complex concept to life and create capacity in this domain. Combining theory, role models, action learning, feedback, and class assignments can result in a rich curriculum that students will enjoy. At MIT, we teach sensemaking as one of four leadership capabilities so that students can see how it is intricately interwoven with creating connections, building a vision, and implementing change.

We have also found that providing a safe environment for students to learn about leadership theory, get feedback on their capabilities, practice new skills, reflect, and plan is best done outside the framework of regular classes. With this in mind, we believe that a workshop format—one to three full days—works best. If this format is not possible, we have taught this sequence in three-hour blocks once a week.

THEORY

Since students seldom have an existing knowledge base on sensemaking, some theoretical introduction is necessary. While there are a number of excellent books on the subject (see the reference list at the end of the chapter) we find it more productive to provide short lectures on sensemaking coupled with some of the other learning modes. Lectures often follow the format of this chapter: They start with a brief discussion of the core concepts, describe the role of sensemaking in today's world, then provide an overview of what makes for effective sensemaking and what gets in the way.

To give concepts more meaning, we ask our students to think of an instance when they had to engage in active sensemaking—starting a new job, moving to a new city, or trying to do economic forecasts in a recessionary environment. Students also meet in groups to discuss leaders they have seen who do sensemaking well or poorly, and probe for what these leaders actually did in their sensemaking. They can then apply the concepts to their own experiences.

ROLE MODELS

One of the most effective ways to learn about sensemaking is either to listen to current leaders talk about their own sensemaking activities, or watch videos of leaders in action and analyze their sensemaking activities. In either case, students should be encouraged to push for specifics: How did the leader know that sensemaking was needed? What types of data did he or she collect? Who else was engaged? What forms did exploration and mapping take? What experiments were run?

In terms of media as opposed to "live" presentations, commercial films sometimes provide excellent examples of sensemaking and other leadership capabilities. In the movie *Gandhi,* for example, Gandhi must engage in sensemaking when he goes to South Africa and has to try to understand a new culture, when he goes to India and must prepare for the fight for independence, and when he must strategize about how to deal with setbacks to his goals for the country. Whether traversing India on the roof of a train, talking to people of all walks of life, figuring out not only conditions within India but the aspirations and weaknesses of the British colonial rulers, Gandhi's sensemaking is constant and critical to his relating, visioning, and inventing.

The movie *Apollo 13* has a wonderful sensemaking sequence as both the astronauts and mission control try to make sense of what has gone wrong with the mission when it is rocked by explosives. Pitting old mental models—you can't have such a failure, it must be instrument error—against incoming data—alarms going off, the rocket shaking, gas leaking—the film shows the difficulties of effective sensemaking during a crisis. A more recent film, *Social Network,* provides an outstanding picture of ongoing sensemaking by the various players in the unfolding drama of the Facebook phenomenon.

In the absence of guest speakers or videos, current news stories can be analyzed.

Examining the sensemaking of President Obama as new crises emerge, or the Secretary of the Treasury during the economic crisis, or the marketing group of a global company as they see China, India, and Brazil emerging as economic powerhouses can all help students understand the concept.

ACTION LEARNING

While it is valuable to analyze the sensemaking of others, the best way to learn sensemaking is to actually do it. One way to accomplish this is by having students pretend they are about to take over another person's job. The students can each put together a plan for sensemaking about the job and then compare their plans to those of others, discuss the differences, and combine approaches to improve their sensemaking approach. They can then interview the person to test how their approach worked.

Students might also do the sensemaking necessary to decide if a particular venture capital company should buy a new start-up and then ask a member of the company to comment about how his sensemaking differed from theirs.

Sensemaking, however, is done best in the context of real world projects, and at the team level where the social aspect of sensemaking becomes apparent. In some of our projects we challenge students to come up with a consulting plan or design a new product. The students are formed into x-teams (Ancona & Bresman, 2007)—externally oriented teams that must build connections outside of the team as well as inside—and asked to first explore their environment. They investigate their own capabilities; the organizational terrain; the organizational strategy; potential allies and adversaries; customers and competitors; and current trends that might affect their success. They interview each stakeholder in the project and try to

understand expectations for the team and its product, desired outcomes, and his or her view of the situation. After this exploration phase, they create a map of what they have discovered and begin to act to assess if the map is plausible. As they go through this process, team members are asked to keep track of their initial assumptions and whether those assumptions are confirmed or negated. Workbooks are used to guide these activities. Finally, they move into actually doing the project. Such projects result in students having a real appreciation as to how they might incorporate sensemaking into their own leadership toolbox.

FEEDBACK

Many of our students participate in our 360-degree feedback process using the 4-CAP leadership framework. The sensemaking segment asks raters from the students' former employers to evaluate the student on *exploring the wider system,* e.g., uses a broad array of types of data and analytic lenses; *mapping,* e.g., is able to consolidate bits and pieces into a coherent whole; and *acting in the system,* e.g., tries small experiments to determine if they understand the organization. Students get feedback on how their sensemaking was viewed by managers, peers, subordinates, and possibly other outside groups such as customers and suppliers. After examining the feedback, students are coached on what the data might mean and they are asked to put together an action plan on how they can continue to hone their skills and improve on their weaknesses. In addition, their sensemaking capabilities are compared to the other capabilities to determine its relative strength in the student's repertoire of skills and behaviors. Through this external assessment and self-evaluation and planning, students develop a better sense of who they are as leaders and how they

can move forward in their leadership development.

ASSIGNMENTS

Another assignment that helps students learn about sensemaking is to have them consolidate everything they have learned into a "leadership change manual." The goal is to create a pragmatic tool for carrying out organizational change—a tool that must include a section on sensemaking. An example of a student change manual can be found in Figure 1.1.

Another assignment asks students to describe their "leadership signatures" or their unique way of leading. One section of this assignment is focused on how students actually engage in sensemaking—for example, Are they over-reliant on computer search and not so good at face-to-face communication? Are they good at analysis but not so good at action?—and includes a section on how to hone strengths and improve on weaknesses.

By linking theory, role models, action learning, feedback, and assignments in class, students can and do improve their ability to carry out effective sensemaking.

Conclusion

In a world that is growing "smaller" but ever more complex, where unpredictable events and shifting political, economic, environmental, and social conditions challenge us at every turn, we all need to make better sense of what is going on. We should all explore the wider system, create maps that are plausible representations of what is happening, and act in the system to improve our understanding of reality. We will never capture it all, and never know how close we are. The best we can do is to make sensemaking a core individual, team, and organizational capability so that we can break through our fears of the unknown and lead in the face of complexity and uncertainty.

Figure 1.1   Example of a Student Change Model

2.0 *Sensemaking: Identifying Specifications*

Sensemaking can be thought of as the process by which leaders gather data about the problem facing the organization, much like engineers gather information about a technical problem by soliciting engineering specifications.

Sensemaking is often one of the first steps managers take to help understand the context in which a company and its people operate. Sensemaking partners closely with relating, and together they form the Axis of Enablement. In a dynamic business environment, sensemaking efforts must be continually updated throughout the change process.

Installation Hints:
- ❑ Get data from multiple sources
- ❑ Pursue opinions that differ from your own
- ❑ Test your assumptions with experiments
- ❑ Seek out multiple perspectives
- ❑ Iterate, but also remember to act on your data

Troubleshooting:
- ❑ Build credibility by Relating in interviews
- ❑ Don't be afraid to talk to people outside the company/industry for advice

Cut out and keep

Installation Steps

To conduct effect sensemaking, a leader must:

Explore the wider system

It is important to listen and broadly question all internal and external stakeholders that have been identified. If the nature of the problem or change is not already explicit, then it is important to use this information to help define the issue. Formal and informal interviews, reports, social media and other online content are all valuable sources of information that can be leveraged. The data gathering process dovetails closely with relating and so provides an early opportunity to build rapport with employees.

Pursue opinions that differ from your own

Leaders must keep an open mind when building a sensemaking map. An important part of this is to quickly identify your own mental models and assumptions and realize how these may bias your approach to data collection. Questioning these underlying assumptions is also critical to ensuring that cognitive biases do not interfere with your sensemaking process. Leaders should delay the formation of opinions until sufficient data has been gathered, including information

from those that may disagree with his/her perspective. Never be afraid to ask, "What am I missing here?"

Test your assumptions

Sensemaking is an iterative process and because of this, leaders will need to evaluate their progress periodically to see if they are headed in the right direction. This is especially important when confronted with adaptive, rather than technical changes, as the nature of the solution may need to change over time as the environment changes. Once enough balanced data is gathered to form an initial hypothesis, leaders should 'learn by doing' through low-risk experiments to test their understanding and add the data gathered from these trials to their sensemaking map.

Adopt multiple perspectives

Try to see the issues from multiple perspectives. If a leader has reached his/her conclusions independently and the conclusions seem 'too easy' then the leader's ideas may simply be reiterating organizational stereotypes. Leaders should make use of teams and committees of key stakeholders comprising those with power, those in opposition to the change, and also those without authority (but who will be affected), to ensure their initiatives incorporate multiple perspectives. Viewing the issues from only one or two perspectives is unlikely to capture enough information for complex changes.

Iterate and Act

Sensemaking is an ongoing process that extends beyond just initial data gathering and implementation, but also captures feedback on the change's success after completion. As more data is obtained, a leader must update his/her map of the organization or issue and the leader's vision or invented options also refined. However, it is important for a leader not to be paralyzed by masses of data such that no action or progress is made and the initiative stalls. Therefore, once sufficient balanced information is gathered it will be time to take action and secure those early victories to help the change process gain momentum.

Troubleshooting Tips

The sensemaking process can be daunting as data becomes overwhelming and initially unknown gaps in understanding are illuminated. Leaders should keep in mind the following tips to facilitate the sensemaking process.

Build credibility

If a leader is brought in to turn around a new group or section, then there is a strong chance that any past credibility they have built up, may not travel directly with them to the new group. However, the sensemaking process provides an excellent opportunity to establish rapport, find out about employees' concerns, and also to explain and advocate the purpose of the change. Listening to employees, showing empathy and understanding, and demonstrating that their views have been heard and incorporated can help enormously. Noting down salient points

Figure 1.1 (Continued)

during interviews can not only help leaders to recall facts later, but also demonstrate their commitment to listening. Through the sensemaking and relating processes, leaders can often build credibility by demonstrating trustworthiness, competence, and dynamism.

Identify who to talk to

Leaders should try to map out likely stakeholders and include a balance of those that may support, oppose or be indifferent to the change initiative. During these initial interviews seek recommendations from each of these people regarding whom to talk to next. However, leaders should be aware that these referrals may be designed to reinforce the stakeholder's own positions. If possible, leaders should talk to others that have been in similar situations, perhaps outside of their companies and ask experts what sources of information they found most valuable.

Real World Example: Chuck Vest's Leadership as President of MIT

When Charles Vest was appointed as President of MIT he inherited a complex organization that required considerable sensemaking to navigate. One particular organizational change he implemented centered on ensuring gender equally at MIT. While a committee of female faculty members highlighted the need for change, Mr. Vest set about conducting hundreds of interviews, often by referral, to help build his map of the institution. When he heard that women were discriminated against within the faculties he reviewed the data and addressed the problem in a "just do it" fashion that helped him secure an early and meaningful victory to build upon.

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