

Embracing Uncertainty: The Executive's Challenge

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I feel a responsibility to proclaim ... that doubt is not to be feared, but that it is to be welcomed as the possibility of a new potential for human beings. If you know that you are not sure, you have a chance to improve the situation.

◆ Richard Feynman

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The old news is that organizations function in an increasingly chaotic and uncertain environment. The good news is that most employees want their organizations to embrace uncertainty rather than suppress it. Our research reveals that employees who work for organizations that embrace uncertainty tend to be:

- More satisfied with their job.
- More committed to their organizations.
- Less cynical about organizational life.
- More likely to identify with the organization. (see Table 1)

These tendencies occurred even when employees themselves did not fully embrace uncertainty. Therein lies the executive's challenge: creating and sustaining an organizational climate that *welcomes*, *utilizes*, and *exploits* uncertainty.

That's not an easy task because it means pushing an organization to come to grips with vagueness, complexity, randomness, the unknown and sometimes the unknowable.

For instance, how can executives encourage their organizations to:

- Recognize vagueness when reviewing market studies?
- Factor in complexity by reflecting on the ripple effects of a new organizational policy?
- Acknowledge randomness when planning crisis management strategies?
- Speculate about the unknown when projecting future business trends?

- Face the unknowable when contemplating the impact of endeavors they choose *not* to pursue?

Wise executives cultivate organizations with the intellectual dexterity, emotional toughness, and operational flexibility to embrace uncertainty implied by these various types of uncertainty. Doing so requires that they 1) recognize different organizational climates, 2) understand the reasons why their organizations suppress uncertainty, 3) determine how their organizations suppress uncertainty, and 4) develop appropriate uncertainty-embracing competencies.

The Uncertainty Management Matrix

We developed the Uncertainty Management Matrix to conceptualize the relationship between the way employees and organizations manage uncertainty (see Figure 1). The Matrix suggests four basic organizational climates:

- **Status Quo Climate:** Employees and the organization both avoid uncertainty. Employees want few surprises and they rarely get them.
- **Unsettling Climate:** Employees desire certainty while they perceive the organization as embracing too much uncertainty. Thus employees become unsettled and perhaps overwhelmed by the chaotic work environment.
- **Stifling Climate:** Employees embrace uncertainty but they perceive that the organization avoids it. The result: employees feel stifled.
- **Dynamic Climate:** Both employees and the organization embrace uncertainty. Consequently, the climate is dynamic, energetic, and ever-changing.

By studying over 1000 employees working in organizations ranging from Fortune 500 companies to small businesses, we developed a tool that allows us to ascertain which climate best described employee experiences.¹ (Place sidebar 1 about here.)

How do these climates impact employees? A sensible hypothesis might be that employees in the Status Quo Climate would be reasonably satisfied and committed to their organization. After all, these employees might find a stable and static organization compatible with their personal proclivities. But our research indicates otherwise. Even though employees may believe they are ill-equipped to manage uncertainty, they want their organization to do so. In fact, employees in the Unsettling Climate report approximately the same degree of job satisfaction and commitment as those in the Dynamic Climate. Overall, these results suggest the Dynamic and Unsettling Climates are more desirable than the Stifling and Status Quo Climates. The bottom line: leading an organization to embrace uncertainty turns out to be more important than ensuring that every employee *personally* accepts uncertainty.

Why Do Organizations Suppress Uncertainty?

Given our findings, executives should do everything in their power to build organizations that embrace uncertainty. They often don't. Why not? Some scholars speculate that there are some deep forces at work driving organizations and their employees to suppress the complexity, chaos, and turbulence.² But that does not imply that executives are paralyzed. They can exert some countervailing influence by understanding the following issues:

Illusion of Control - Artificially ridding organizations of uncertainty often creates an impression of greater control. We interviewed one manager who refused to talk to his employees about an impending change until he had "all the facts." He felt that "if I admit I don't know something, then I'll look stupid." Even when his employees asked him about rumors they read about on the company intranet, he "put them on hold."

Meanwhile, the rumor mill worked overtime. When he eventually announced the change,

he was astounded by all the "false and misleading rumors." He operated under the illusion that he could control the flow of information and how employees interpreted events. Consequently, he lost credibility in the eyes of his employees as well as an opportunity to build commitment for the endeavor.

Quest for Efficiency - Companies that embrace uncertainty encourage dialogue, tolerate mistakes, and spawn learning. These activities all take time away from the "primary" tasks. Frederick Taylor would not be one to encourage employees to think "outside the box" when there was "one best way." But efficiency often compromises the ability of the organization to innovate. Uncertainty is inherently linked to innovation.

Preserving the "Peace" - Organizations that embrace uncertainty not only tolerate conflict, they encourage it. In one medical clinic, a senior member of the executive team advocated hiring a new specialist. He also knew "just the right person" for the job. Other members of the team readily agreed on the need to create the new position, but they had doubts about this particular person. Yet when the team formally considered the decision, no one shared doubts about the candidate. In the name of harmony, they silently acquiesced to the senior executive's wishes. One year later they fired the "right" person, while the clinic endured setbacks to their credibility and finances. At that point, other team members acknowledged their uneasiness with the decision. Yet, they justified their own silence by stressing their desire to be a "team player" and avoid upsetting the senior executive. By placing too much value on harmony, they avoided constructive debate and resulting uncertainty.

Inertia of Tradition – To avoid the discomfort of change and uncertainty, an organization can overly worship past successes, reinforce antiquated perceptions, and unknowingly become more and more dysfunctional. In effect, the organization over time becomes

more simple than complex.³ Many executives innocently operate by the familiar maxim: "If ain't broke, don't fix it." Continuous improvement efforts typically focus on problem areas while sometimes ignoring new opportunities. For instance, while Microsoft was perfecting their office suite of programs, they came close to missing the opportunities of the Internet. They only introduced software exploiting the Internet well after many other companies did. Clearly, the Internet introduced even more uncertainty into a business already fraught with complexity, chaos, and the unknown.

How Do Organizations Suppress Uncertainty?

Many organizations suppress uncertainty, often unwittingly, through an array of seemingly important activities.

Over-Emphasis on Planning Processes – Proper planning clearly benefits organizations.

However, few people address the potential dangers of over-planning. The CEO of the Southwest Airlines, Herb Kelleher, is one exception. He explains:

"Reality is chaotic; planning is ordered and logical. The two don't square with one another.... The meticulous nit-picking that goes on in most strategic planning processes creates a mental straightjacket that becomes disabling in an industry where things change radically from one day to the next."⁴

In short, the company can become a *victim* of its planning processes.

Traditionally the management planning process works like this:

Step 1: End point objectives are developed.

Step 2: Gaps between current positions and the objectives are identified.

Step 3: Action plans, timetables and outcome measures are created to close the gaps and drive toward the desired results.

The process often works well. But taken to extremes, managers may drive out even more uncertainty by making the plans more specific and detailed. This quest can turn into a single-minded crusade that builds momentum, but blinds the organization to opportunities and dangers. Managers may become less open to input from others along the way and more blind to new information that might suggest a needed change in direction. Ironically, complete deterministic planning makes outcomes *more* unpredictable because they are not flexible enough in adapting to new information. *The more they attempt to drive out the uncertainty, the more unpredictable the results really are.* Why? Because they systematically avoid information that might alter or change their plans.

Over-Use of Research Studies – A research study can provide insight into a difficult problem, but sloppy research studies can deceive. Merely changing the order of the words in a survey question can elicit vastly different responses. Moreover, surveys are often not accurate predictors of actual behavior. For instance, a detailed analysis of 100 marketing studies revealed that consumers are generally not very good at forecasting their own purchasing behaviors.⁵ A consumer might tell a researcher that she is going to purchase a car in the next year, but that response often does not correspond to an actual sale. Consumers may not be lying; they may just be responding in socially acceptable ways. A mother is unlikely to tell a female researcher that she spends more on dog food than baby food. But that is exactly what some studies reveal.⁶ Skillful researchers can deal with many of these concerns. But unprofessional researchers can administer surveys and analyze data in such a way as to create a false sense of certainty. The bottom line is that if executives want “scientific” research to bolster their claims, then it usually can be

produced.⁷ Hence, some research can be dismissed as a mere tactic to increase the organization's confidence in something that is essentially uncertain.

Over-Reliance on Computer Modeling and Forecasting - Computer models are always based on assumptions, many of which are arbitrary. Moreover, there is usually pressure to make the model conform to the prevailing wisdom. Two noted business scholars concluded that, “misinforming the public under the guise of forecasts and computer models, appears to have taken firm root in the culture of many organizations”.⁸

According to their research, senior management frequently asks for adjustments in some base-line figures in order to make the projections appear more favorable. Over 60% of the forecasters reported that these adjustments decreased the accuracy of their models. Even independent analysts can fall prey to these pressures. One study reported that corporate earnings projections had an error rate of over 65%. Even one of the pioneers of mathematically-based forecasting, Thomas Naylor, admitted that, “there is increasing evidence that the *politics* of model building may be the single most important factor in determining the success or failure of a particular corporate modeling project”.⁹ The underlying lesson: the computer can be just another sophisticated tool to produce artificial certainty.

Inappropriate Deadlines – Deadlines may be necessary but they also can be arbitrary. This does not mean they are unimportant, only that they are often artificial. Thus, a deadline acts as a bridle on uncertainty. Consider these quips:

- ✓ “*We don’t have time to discuss options; we have to make a decision.*”
- ✓ “*If we delay any longer, we won’t even have the one opportunity we’ve already identified.*”

These verbal gibes crack the whip, keeping the discussion on a narrow track. They act as

a stinging reminder to focus and “keep the blinders on.” But what if you are not involved in a horse race? Can harnessing a freewheeling discussion be harmful? Absolutely. Reining in a discussion slows the creativity of all participants as options are not explored, doubts are not expressed, and artificial certainty is created.

Inappropriate Use of Consultants - A consultant's credibility may create artificial certainty for an organization - “The consultant said we should execute this plan; therefore, we must do it.” A consultant’s credibility flows from past successes, experiences or credentials. The problem is that the consultant’s ethos rather than *logic* may be at the crux of the persuasive appeal. Credibility is something that the consultant does not possess but an attribution assigned by those who do the hiring. The consultant may have expertise, but the value of that expertise is based on the *perceptions* of the organization.¹⁰ In a weird twist, the company *buys* the certainty by the very act of assigning high credibility to the consultant. It is a perfectly subtle method of self-deception. Organizations drive out the uncertainty by letting the “expert” do it for them, whether it is warranted or not. In fact, some consultants are hired for the unstated purpose of putting their stamp of approval on a predetermined solution that minimizes complexity or randomness.

Executives, who inappropriately use any of the techniques described above, can simultaneously suppress their own uncertainty (creating an Unsettling Climate), while stifling their employees' uncertainty (creating a Stifling Climate). For example, excessive planning may make the senior management team feel more secure but discourages employees from expressing their concerns and uncertainty. When the inevitable implementation failure occurs, each side blames the other. The executives argue, "if only

they had followed the plan, then it would have worked,” while employees think, “if only they had listened to our concerns, then we could have made it work.” Such destructive cycles of accusation and blame permeate organizations that overlook the value of developing a dynamic climate in which all employees seek to embrace uncertainty.

How Can Executives Build Uncertainty-Embracing Organizations?

We discovered that organizations embrace uncertainty by mastering three basic competencies¹¹ (see Figure 2):

- Cultivating an awareness of uncertainty.
- Communicating about the uncertainty.
- Catalyzing action in an uncertain environment.

While these competences may be learned and understood separately, their value emerges when implemented simultaneously. Therefore, executives must not only modify organizational policies, alter procedures, and change behaviors, they must also coordinate these activities in a meaningful way. As a result, plans may be in flux, the rules of the game might vary from day-to-day and leaders may need to quickly determine when it is time to adjust focus. This is like the quarterback who has studied the training films, called the play, but realizes at the line of scrimmage that he should call an audible to change the play. He *cultivated an awareness* of the uncertainties while watching the game tapes, *communicated the alternatives* in the huddle but *acted according to the dictates of the situation by changing the play*.

This model departs from the traditional approach to decision making (see Figure 3). Typically managers are taught to think in a linear fashion by planning first and then implementing the plan. Organizations using this approach often lack the flexibility to

rapidly adapt to changing conditions, just like the quarterback who sticks with the called play regardless of the defensive alignment. Our approach emphasizes more fluid movement. We explore each of these competencies in more depth below.

Cultivating an Awareness of Uncertainty

The first challenge executives face lies in shaping an environment in which the organization not only recognizes uncertainty but actually cultivates it. (Place sidebar 2 about here.) They can plant the right seeds by using the following strategies and techniques:

1. **Occasionally “shake the platform.”** “Platforms” represent the set of beliefs and practices about “how things are done best around here.” Sometimes, in the quest for certainty, groups get a little too comfortable. This is precisely the time to “shake the platform.” Consequently employees begin to think about the unknowns, complexities, ambiguities and conflicting perspectives implicit in the status quo. Consider the case of a senior executive who shook the platform during an off-site strategic planning meeting. For several days, one executive after another laid out the strategic plan for their division using well-crafted slides and highly organized notebooks. But this executive’s handouts weren’t in any particular order. He watched in amusement as the buzz grew around the room. “What order are these supposed to be in?” they queried. As he approached the podium, the murmurs faded and he said:

I watched what happened when I passed out the handouts. You wanted to know what section they went in. This is a perfect illustration of what I want to talk about today. The truth of the matter is that I don’t know. No one knows the precise steps that we have to take to develop this new business. *We do not know* because we *can not know* at this point. We know the general direction we want to

go, but we simply can't provide you all the details at this time. So let me talk about our direction....

At the end of his presentation, someone raised his hand and asked, "I enjoyed your presentation, but what order **do** the handouts go in?" Clearly, some times the innate desire for certainty proves to be overwhelming.

2. **Challenge existing heuristics or rules-of-thumb.** Organizations, like people, have fairly well-developed heuristics designed to reduce complexity. Unfortunately, these rules-of-thumb can lead to systematic thinking errors. Moreover, researchers have also determined that most people are over-confident in estimating the accuracy of their judgments.¹² Challenging existing heuristics can break the spell of over confidence. For instance, conventional wisdom in the 1940s was that only the wealthy would invest in the stock market. Merrill Lynch tested that rule-of-thumb by deploying mobile brokerage offices in refurbished buses and marketing services to those on "Main Streets" of cities and towns all across the land. Consequently, they built one of the largest and strongest brokerage businesses in the United States. That never would have happened without executives cultivating an awareness of uncertainty by challenging the existing heuristic.
3. **Orient organizational identity around core competencies not particular products or services.** Consider the position of The Oscar J. Boldt Construction Company. Over a 100-year period, the organization grew from a small family-owned company operating in Wisconsin to a large national enterprise with offices located around the United States. They have a world-class reputation in the construction industry. Several years ago, executives recognized an industry shift from a value-driven market to a price-driven one. As a result, they decided to exploit their knowledge of the

construction process, repositioning the company as a beginning-to-end provider of services to help customers wisely spend their construction dollars. This means the company will become involved in strategic planning, analysis, design and even facilities maintenance.

Such a change required a shift in identity both internally and externally. A new branding scheme based around The Boldt Company rather than The Boldt Construction Company provided the external tool. Internally, the identity shift required a more fundamental understanding of how the company can serve customers. Currently executives do not merely focus on building the hospital or constructing the paper mill. They emphasize the more powerful and fundamental core competency; namely, *knowing how* to build the hospital, paper mill, and stadium. Consequently, the company has entered into new markets. In short, as the identity shifts to more fundamental competencies, new company processes, procedures and services have emerged that embrace the complexities and possibilities of the changing marketplace.

4. **Monitor the internal and external environment.** Perhaps the most fundamental survival skill in an uncertain environment is effectively monitoring changes. Only a foolish sailor expects the wind to always blow from one direction. Indeed, one of the great disservices of certainty-providers is that they create a false sense of security by decreasing our watchfulness for relevant changes in the environment. In contrast, a reliable monitor warns of shifting winds. Internally, it may mean taking into account subtle shifts in the needs of recently hired employees. Externally, it may mean astutely assessing changes in the marketplace. The bottom line: monitoring encourages organizations to make quick adjustments to the new contingencies.

Communicating about the Uncertainty

Creating greater sensitivity to uncertainty is the easy part. Executives often find communicating about uncertainty more challenging because it requires time and special discipline. It means encouraging employees to discuss opportunities, perceive nuances and play around with fuzzy ideas. Below we review some of the specific ways to foster this kind of dialogue.

1. De-emphasize formal presentations. In the typical hour-long presentation, only five to ten minutes are devoted to questions. These questions are often perfunctory or merely asking for clarification. Allocating half the allotted time for discussion changes the nature of the questions and allows for alternative viewpoints to be entertained. Or, leaders could decrease the formality of the presentation by allowing more discussion *during* the presentation, instead of at the end. This encourages more give-and-take. Assumptions can be challenged, critical relationships explored and core values tested. The core objective is to change the nature of presentations from a stereotypical “sales pitch” to a more engaging consideration of possibilities. In fact, the Chairman of the Joint Chiefs of Staff, General Hugh Shelton, recently took on the "PowerPoint Rangers" and issued an order calling for more brevity and sanity in briefings; fewer bells and whistles, more salient information.¹³ He, no doubt, recognized that monologue tends to support convention, while dialogue fosters innovation, flexibility and mental acumen.

2. Modify organizational language. How executives talk about things has a powerful way of structuring employees' views of the organization. Those who typically talk in bipolar terms tend to create a world full of artificial certainty. For instance, an executive who insists that employees either *accept* or *reject* his plan discourages the creation of alternative plans. Yet the executive who says, “if we assume X, then I

think this plan is best,” has created an opportunity to modify the plan should employees feel different assumptions are operative. Even this minor stylistic change can open the door to some uncertainty (see Table 2).

Metaphors also exert considerable but tacit influence on an employee’s tolerance for uncertainty. Contrast these statements:

- ✓ The wheels are set in motion; we will be at full production in a month.
- ✓ The plan should go off like clockwork.
- ✓ We don’t see any storm clouds on the horizon. As we see it, the forecast is for full production next month.

The first two statements allude to a machine metaphor. Machines are linear and predictable - the outcome is certain.¹⁴ The last statement is based on a weather metaphor. The weather is dynamic and not very predictable. The outcome is less certain. If an executive wants to reach a specific deadline, a linear metaphor might be best. However, an executive seeking to prepare employees for a more uncertain world would find the weather metaphor superior. In fact, our experiences have revealed some remarkable results when management makes a conscious effort to use the weather metaphor as opposed to certainty metaphors. Employee expectations are tempered and they express a greater willingness to adapt to the unexpected. They become less dependent and committed to a single plan while becoming more adept at sensing changes in the business climate. They are less disappointed when projections don’t pan out and they don’t blame management.

3. **Discuss contingencies.** It’s not always possible to “plan with the end in mind,” because executives only have a vague sense of the end point. Instead, when there is uncertainty, we must learn to “plan” with possibilities in mind. Exploring possible

contingencies is one way to embrace uncertainty. Scenario-based training focuses a team's attention on the uniqueness of an ever-changing situation. Indeed, this is why officers of the Marine Corp are exposed to hundreds of hours of cases and scenarios in their elite training schools. The rationale is simple: This is the only way to develop the fundamental pattern recognition skills necessary to flexibly respond to truly chaotic situations riddled with incomplete and often erroneous information.¹⁵

Therefore, scenarios and case studies encourage us to see critical relationships, anticipate various courses of action, and discover the core patterns of success.

4. **Ask penetrating questions.** The right question can unmask artificial certainty.

Consider the following:

- ✓ How certain are you of that fact, projection or idea?
- ✓ Do we really need to know all this before proceeding?
- ✓ Can we draw another map of the same situation?
- ✓ Are we rushing to a decision?

Answers to these questions have a way of introducing more doubt into conversations.

It may even foment some temporary confusion, which is another way of increasing the uncertainty.

5. **Focus the internal communication system on thinking routines and speed.**

Traditionally, organizations have treated communication as a highly scripted affair based on formal quarterly meetings and monthly newsletters. The messages focus almost exclusively on *what* the company *knows* rather than *how it thinks* about issues.

There is a more effective alternative.

By reorienting the communication system, we assisted one paper manufacturer in encouraging its 1,000 employees to more readily embrace uncertainty.¹⁶ We did this

by first introducing a bi-weekly “pulse” survey that systematically questioned a random group of employees about several key plant issues. For instance, employees were asked to respond to the question, “If you could ask the plant manager one question, what would it be?” We then issued a report, the Pulse Report, which summarized several key issues that emerged from the survey.¹⁷ Supervisors in the plant received a separate “Talking Points” document that briefed them on the responses to Pulse Report issues and served as the basis for discussions with their crews. The standard format of the document contained four basic pieces of information:

- The key issues
- A story or learning opportunity
- What the company knows *now* about the issue
- What the company *does not* know *now* about the issue

What did this achieve? We used the Pulse Report to increase the *speed and focus* of communication efforts. Checking the “pulse” of the plant and issuing employees a rapid response addressed issues as they emerged rather than unveiling them in the bi-annual climate survey. Also, the “story” or learning opportunity tapped in to how management thought about these issues; in essence their “thinking routines”. Unlike most information, the “thinking routines” tend to endure, providing employees with a greater sense of stability. Initially employees were shocked to see management admit that there were things they did *not* know. Over time, though, the employees developed trust in the communication system, realizing that partial, but fast information could provide the necessary degree of comfort. In short, we discovered that speed trumped completeness. In fact, as a result of the Pulse Report, Talking

Points and related procedures, the percentage of employees who reported they “understood the direction of the plant” increased from 30% to 80% over a two-year period.

Catalyzing Action

Merely fostering an awareness of uncertainty and talking about it is not enough. (Place sidebar 3 about here.) Executives can catalyze action by considering the following practices:

- 1. Hire the right people.** Recently researchers have coined terms like "emotional intelligence" or the "adversity quotient" to explain the differences between successful and unsuccessful employees. The researchers have concluded that even very intelligent people can fail because they lack these qualities.¹⁸ Regardless of the label, the more fundamental quality of successful people appears to be the ability to act in the face of uncertainty. "Emotionally intelligent" people can work with others to reach a consensus solution that satisfies *most* if not all of their aims. People with a high "adversity quotient" can overcome the inevitable setbacks associated with attempting new tasks. One company executive, focusing on becoming an innovative leader, put it this way: "We used to hire people who were great at implementing our long-term plans. Now our long-term plan lasts for one quarter (of a year). We've got two alternatives: either change the thinking of the people we have or hire people who think differently. And, frankly, I don't think we'll be able to transform our implementers into innovators."
- 2. Look for the deeper pattern.** Often times the only way to deal with complexity is to look for a deeper pattern. For instance, making accurate weather forecasts is notoriously difficult. There are a host of factors to consider: wind speed, wind

direction, moisture, temperature, and atmospheric pressure, to name a few. Then, of course, all these factors interact, making the task of prediction even more daunting. Yet, despite the many improvements in technologies and mathematical models, the accuracy of a typical 5-day forecast did not significantly improve until the discovery of jet streams. Meteorologists soon learned that the position of a jet stream was a pivotal factor that influenced temperatures, wind directions and humidity levels. The discovery of the deeper pattern provided a viable way to understand the immense complexity of our local weather. Likewise, prescient businesses look for deeper patterns in their environment. For instance, executives at several leading breweries in the United States are quietly seeking ways to avoid the same calamities experienced by tobacco companies.¹⁹ They have discerned a pattern that begins with warning labels and ends in debilitating lawsuits.

3. **Experiment.** Experiments are a useful alternative when faced with complexity or the unknown. The chances are good that the company can learn something and discover a useful principle or rule-of-thumb. One company facing a declining market for its traditional product line embarked on a series of new product launches designed to test the marketplace. Some products were miserable failures, others were not. But they expected this and used the "failures" to hone their marketing and production skills (see Sidebar 2).
4. **Use technology as a lever.** Technological progress almost always outpaces organizations' capacity to effectively utilize the innovations. Herein lies an opportunity to build an uncertainty-embracing organization that readily adapts to a subtly changing business climate. During the mid-1980s Schneider National Inc., a national trucking firm, seized such an opportunity. Just-in-time manufacturing was

evolving from an enticing concept to a practical expectation. The only problem was that manufacturing in this manner often required tight coordination between geographically dispersed plants, warehouses, and the like. Trucks provided the link but it was difficult to ascertain when deliveries would actually occur. At the time drivers would rely on (land-based) phones to get further instructions or provide information about their location. Every time they stopped the truck to make a call, they further delayed delivery. But that was how every trucking company operated at that time.

Executives at Schneider recognized the opportunity as well as a potential solution; namely, equipping each rig with satellite technology to track location and communicate vital information. There was internal resistance to the idea. Drivers were concerned about the “big brother” aspect, financial analysts grouched about the potential return on the investment, and others were doubtful because “no one else had done this.” But executives pressed on, fostering “creative discontent” by routinely arguing that the technology presented an incredible opportunity to embrace a market shift. An executive with the company, Wayne Lubner explained, “We listened to the market, trusted our gut instincts and strategically used the technology to adjust our organization in that direction. Consequently, we developed tremendous flexibility; our customers depend on it and our organization profits from it”.²⁰ In fact, since Schneider National led the industry into this new era, the company has enjoyed a 10% annual rate of growth.

5. **Decide at the last possible moment.** When matters are complex, making a hasty decision may be the worst possible decision. Sometimes postponing a decision allows organizations the opportunity to discern the deeper issues. Delaying decision-making

can also provide more flexibility in meeting challenges. For instance, four-star general Dick Cavazos perceptively observed:

... most savvy tactical commanders wait until the last minute to decide something. Why is that? Well, that gets back to what you are trying to do. That gets back to this: you want to stay out ahead of the enemy. That means you don't want to decide too far in advance what you're going to do. If you do that, by the time you execute, the situation may have changed, and you may have another option available to you. ... What the [commander is] looking for is the right intuitive moment to act. Then he executes very forcefully without looking back.²¹

6. **Play the odds.** In some cases, there is a pattern to the randomness that allows some level of prediction. Professional odds-makers do a pretty good job. Even though they are often wrong with their individual predictions, over time they are pretty close to the mark. In the long run, the casino wins. So if organizations can ascertain the general odds in an uncertain situation, it would be wise to play them. For instance, general managers of professional football teams routinely make personnel decisions on this basis. They may not know *who* will be injured but they make decisions about the number of backups based on *the odds* of injuries. For these reasons, few teams carry backup punters.

Likewise, businesses cannot expect every marketing initiative to pay off. For instance, Rockwell Automation has used traditional marketing distribution channels for many years. Recently, they made a major investment into another approach based on an e-commerce model while simultaneously augmenting the traditional distribution channels by investing in electronic automation. Julie Sadoff, manager of e-business communication explains, "We've hedged our bet by investing in both the

traditional system and e-commerce. This dual investment strategy distinguishes us from our competitors.”²² Given the underlying nature of B2B commerce, the odds are that one or both approaches will pay off.

Conclusion

As members of Special Operations, the United States Air Force’s air para-rescue units (PJs) are the “elite of the elite.” Their mission involves extracting pilots from hostile territory and they are trained to handle virtually any medical situation in almost any circumstance ranging from perilous mountain ranges to violent seas. But no matter how rigorous, the training regimen could not possibly include all the potential situations a unit could encounter. One officer explained it this way: “ We’ve been put in so many ‘what if’ situations that I know I’ll find a way out.”²³ He explained that his team might be dropped into a treacherous mountain range for a mission and then asked to perform their task under a variety of conditions such as:

- ◆ What if we had no air support?
- ◆ What if our food supply runs out?
- ◆ What if our communication equipment malfunctions?

By routinely dealing with uncertainty, his team develops an enormous capacity to think of innovative solutions. *They develop a unique confidence NOT from knowing all the answers ahead of time, but from their ability to creatively and quickly solve problems.* Despite the low pay and hazardous duty, the Navy creates a climate that PJs find motivating, satisfying and meaningful. Such are the rewards of embracing uncertainty.

Few corporate executives devote the amount of resources to training that military units do. Yet, they can still build the PJ mindset into their organizations by cultivating awareness of possible situations, communicating about them, and catalyzing decisive

action. Like a PJ unit, such organizations learn to trust their processes, procedures, and personnel to face uncertainty. In short, skilled executives can build a dynamic climate in which their organizations thrive on ambiguity, change, and challenges. Nothing less fulfills the executive's challenge.

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Figure 3

Traditional Management of Uncertainty

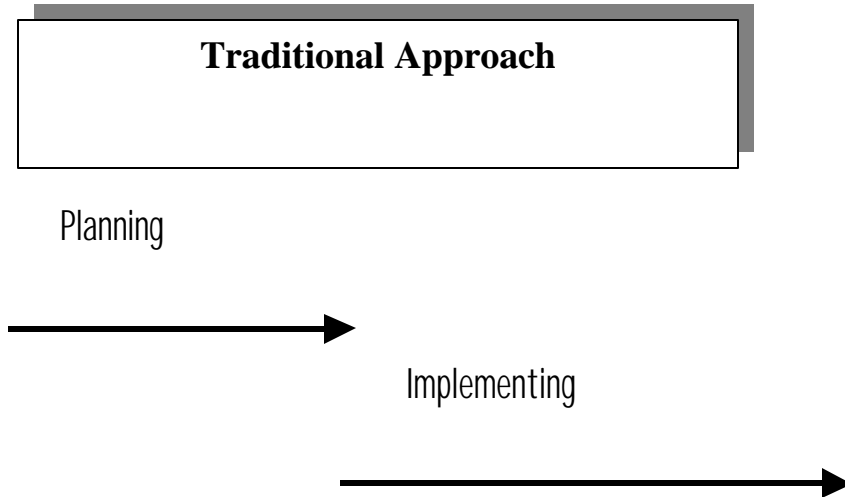


Table 1

Uncertainty Management Matrix Database Findings

<i>Embrace</i>	Stifling Climate	Dynamic Climate
	78% Satisfied with their Job*	89% Satisfied with their Job
Employee's	80% Committed to their Organization*	98% Committed to their Organization
	58% Cynical about Organizational Life*	23% Cynical about Organizational Life
Perspective	70% Identify with the Organization*	90% Identify with the Organization
	22% of Employees	28% of Employees
<i>Avoid</i>	22% of Executives & Managers	35% of Executives & Managers
	Status Quo Climate	Unsettling Climate
<i>Avoid</i>	68% Satisfied with their Job	96% Satisfied with their Job
	74% Committed to their Organization	96% Committed to their Organization
<i>Avoid</i>	42% Cynical about Organizational Life	29% Cynical about Organizational Life
	59% Identify with the Organization	88% Identify with the Organization
<i>Avoid</i>	30% of Employees	21% of Employees
	26% of Executives & Managers	17% of Executives & Managers
	<i>Avoid</i>	<i>Embrace</i>
	Organization's Perspective	

* Percent of employees in the database who agreed with the statement.

Table 2

Communicating to Foster Uncertainty

Statements to Avoid	Alternative Expressions
That's the way it is, period.	This is the way I see it.
The complete	One of the answers is ...
The final word on the subject is ...	If we assume X, then Y follows.
My way or no way.	One alternative is
This is the definitive answer.	This answer is based on these facts:

Side Bar 1

Research Methodology

Our research spanned several years and involved four phases. In *phase one* we developed a pool of 45 survey items designed to measure how employees managed uncertainty. We developed a corresponding set of items relating to how their organizations managed uncertainty. Organizational liaisons in various states distributed the survey to over 200 employees. We used factor analysis, tests of reliability and other statistical procedures to refine the survey. Items were then clarified, replaced or deleted.

In *phase two*, we administered the survey to another group of employees (n=239). We also included items from other related instruments designed to test the validity of our constructs. Using standard psychometric techniques we confirmed the validity and reliability of our instrument. Our nearly final "Working Climate" survey was composed of 12 questions designed to measure how employees managed uncertainty. These items were grouped into three factors. Another 11 items measured employees' perceptions of how their organizations measured uncertainty, which also clustered into three factors. (For more details see the research paper at www.imetacomm.com)

In *phase three*, we had two objectives. First, we wanted to fine-tune the instrument, so we tested several additional questions to create a 12-item scale for both the employee uncertainty and organizational uncertainty dimensions. Second, we sought to build a large employee database. We successfully completed both objectives. Our "final" version of the instrument has 12 items that measure each dimension, resulting in a more aesthetically pleasing and understandable tool. Using organizational liaisons, we administered the "final" version to approximately 800 employees across the United States and Canada. Consequently, we were able to use the data to make empirical judgements

about where employees fit into the Uncertainty Management Matrix. By using other measures we were also able to determine how uncertainty management practices related to other critical organizational issues like job satisfaction and employee commitment.

In *phase four*, we further analyzed the data. The Uncertainty Management Matrix (UMM) database spans the organizational hierarchy: 9% top management, 40% management, 27% non-management professional, 19% non-management, and 5% other. The average age is 39.4 years, with employees ranging from 16 to 74 years old. The average tenure at their current job is 7.0 years, with time on the job ranging from 1 month to 40 years. The organizations represented include manufacturing, high tech, health care, financial services, government, and transportation.

An analysis of these climates indicates that a larger proportion of top managers and managers are in the Dynamic Climate and Stifling Climate. These are climates where employees embrace uncertainty. Proportionately more women are in the Unsettling and Status Quo climates (both of which are climates where employees avoid uncertainty) than in the Dynamic and Stifling climates. Employees in the Dynamic and Unsettling climates (both of which are climates where employees see their organization embracing uncertainty) express more satisfaction with their job, commitment to their organization, identification with their organization, satisfaction with organizational communication, satisfaction with communication with their supervisor, and less cynicism about organizational life. Employees in the Status Quo and Stifling climates (both of which are climates where employees see their organization avoiding uncertainty) express less job satisfaction, less commitment, less identification, less satisfaction with organizational communication, less satisfaction with communication with their supervisor, and more cynicism. Overall, these results suggest the following order, from

most to least desirable organizational climates: Dynamic Climate, Unsettling Climate, Stifling Climate, Status Quo Climate.

Side Bar 2

Cultivating Uncertainty at Appleton Papers Inc.

For years, Appleton Papers has been a dominant force in the Carbonless paper market. Consumers use this kind of paper whenever they sign their credit card receipt or fill out a multi-part form. But all the industry players recognize that because of the greater use of computer technology, the Carbonless market is on slow but definite downward trend.

Appleton Papers' legendary commitment to Customer Focused Quality (CFQ) provides the company with a powerful edge in the marketplace. But the marketplace trends suggest that the company's customers and product focus might change in the future. Even the notion of quality might evolve in a different direction. Making such a transformation requires a considerable infusion of uncertainty.

The company decided to "shake the platform" by developing the "GO" (Growth Opportunities) process. Their objective is to find an array of new products that the company could produce that exploits their unique knowledge and capabilities to coat paper. Their five-year "plan" is based on a dozen different initiatives designed to transform the company. They are challenging long-established rules in a number of ways:

- Creating a higher profile for new products.
- Developing new positions and teams around the "GO" process.
- Revamping training efforts to focus on experimentation and flexibility.

Cultivating uncertainty has proven challenging. Some employees cling to the security of the "good old days" when "Carbonless was King". Others appear overly anxious for the next big success; the GO projects appear to be slow-moving pawns. But executives are encouraged because these are signs that everyone recognizes that the game has changed.

Side Bar 3

Catalyzing Action at a Medical Clinic

Years ago, a group of medical specialists maintained offices in the two major city hospitals. Their clinic was thriving from word-of-mouth referrals by patients to their family and friends. But the 1980s changed all that with the growth and power of HMOs. The doctors discerned a new pattern emerging in the marketplace: patients would now need a referral from their primary doctor to see these specialists rather than have the freedom of choice they had under traditional insurance plans. The group recognized that referring physicians would exert greater influence on patients' choices of specialists, and in effect, these referring physicians were becoming the "customers". This change in referring patterns produced a lot of uncertainty at the clinic.

The executive team recognized that despite all the changes in the business environment, the fundamental issue was how to form better relationships with referring physicians. If those relationships could be further developed, then the clinic could continue to thrive and expand. Sensing this underlying trend proved helpful but no one knew exactly what to do. So the clinic started experimenting with a number of ideas, "playing the odds" that one or two would prove particularly effective.

One idea involved establishing other satellite offices, strategically located around primary care physicians and staffing them on a part-time basis. In the past, they would not have considered such an option. But over time the satellite offices proved an important tool in forming relationships with the referring physicians. Currently they are hiring new physicians to staff an ever-growing number of satellite offices. Ironically, now the executive team views the strategy as relative straightforward and inevitable. But during the initial discussions about the uncertainties in the medical field, the path forward

was not at all clear. In fact, there was a great deal of hesitation to do anything. But by selectively experimenting, the executive team allowed a viable strategy to emerge.

About the Authors

Phillip Clampitt received his Ph.D. in organizational communication from the University of Kansas. He is a full professor at the University of Wisconsin-Green Bay in the Information Sciences Program. He has published in various journals including *The Academy of Management Executive*, *Journal of Communication Management*, *Journal of Business Communication*, *Management Communication Quarterly*, *Journal of Broadcasting*, and *Communication World*. He also is on the editorial board of numerous professional journals. His most recent book, *Communicating for Managerial Effectiveness* (2nd edition) is based on the research from past communication assessments. Professor Clampitt is also the founder of **MetaComm**, a consulting firm that enables organizations to take their communication practices to a “higher plane”. He has consulted with numerous organizations over the past fifteen years.

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