How Employees and Organizations Manage Uncertainty:
Norms, Implications, and Future Research

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Abstract

Navigating the borderlands between certainty and uncertainty presents an enduring challenge to organizations and employees alike. The Uncertainty Management Matrix (UMM) juxtaposes the uncertainty management strategies of employees and organizations. The Working Climate Survey operationalizes the UMM concepts. This research project focused on analyzing the data gathered from over 1000 employees in a wide range of organizations who have completed the survey. The analyses revealed that organizations that embrace uncertainty tend to foster more employee commitment, greater job satisfaction, and less cynicism than those that avoid or suppress uncertainty. Employees in uncertainty-embracing organizations are better able to cope with change than their counterparts in uncertainty-suppressing organizations. This pattern emerged regardless of how employees rated their own uncertainty management skills. The analyses also indicated that communication practices and protocols play an important role in cultivating uncertainty-embracing organizational climates. The paper concludes with a discussion of the implications of these and other findings.

"Our challenge in this new century is a difficult one: to defend our nation against the unknown, the uncertain, the unseen, and the unexpected. That may seem an impossible task. It is not. But to accomplish it, we must put aside comfortable ways of thinking and planning – take risks and try new things – so we can deter and defeat adversaries that have not yet emerged to challenge us."

-Donald H. Rumsfeld

The U.S. Secretary of Defense's exhortation could easily apply to almost any organization in this century. Effectively perceiving, managing and responding to uncertainty present enduring challenges to organizations. They can choose to either ignore or embrace uncertainty. Those who embrace uncertainty see it as desirable, stimulating and valuable. They do not try to artificially drive the ambiguities and contradictions out of the situation. Those who shun uncertainty tend to reduce complexity, chaos, and doubt, often by prematurely structuring ambiguous situations. Organizational practices, procedures, rituals, policies and a host of other activities create a de-facto uncertainty management strategy (Senge, 1990; Stacey, 1992). For instance, overly rigid planning processes suppress uncertainty, straight-jacketing the organization and hinder it from properly responding to quickly changing events (Clampitt & DeKoch, 2001). Yet, appointing a devil's advocate in meetings can increase uncertainty while inhibiting groupthink.

Employees face a similar tussle between certainty and uncertainty. Some scholars argue that humans have a fundamental need for certainty, even if it is based on mythology (Fry, 1987; Maslow, 1943). Yet, others have argued that humans have countervailing needs to escape the "iron grip of predictability and monotony" (Gumpert & Drucker, 2001, p. 27). On a behavioral level, the literature suggests that there are fundamental differences between employees who embrace and suppress uncertainty (Budner, 1962; Kirton, 1981; McPherson, 1983.)   Those with less tolerance for uncertainty tend to avoid ambiguous stimuli, rely on authorities for their opinions and act in a dogmatic manner (Bhushan & Amal, 1986; Furnham, 1995). An employee who avoids uncertainty may be hesitant to express a dissenting opinion, looking to the supervisor for specific direction. On the other hand those who embrace uncertainty tend be self-actualized and flexible, preferring objective information (Foxman, 1976). An employee who embraces uncertainty, for instance, would be comfortable critiquing a supervisor's decision because he or she entertains a different view of the facts.

The tension between uncertainty and certainty suggests some important questions. What are the consequences of an organization's de-facto uncertainty management strategy? What outcomes are associated with employee uncertainty management strategies? What role do organizational communication practices play in managing the conflicts between uncertainty and certainty? These are the fundamental questions addressed in this paper. We begin with a discussion of the Uncertainty Management Matrix (UMM) that provides a conceptual framework for these issues. Next, we discuss the development of an instrument designed to operationalize the concepts in the UMM. Then we describe the database of the 1000 plus employees who have completed the survey. We conclude with an analysis and discussion of our database.

The Uncertainty Management Matrix (UMM)

As past research has clearly indicated, people have a tendency to avoid or embrace uncertainty (Budner, 1962; Kirton, 1981; McPherson, 1983). Those who embrace it see uncertainty as challenging, invigorating, and useful. Those who avoid uncertainty tend to minimize complexities and novelty. Organizations, like employees, can also avoid or embrace uncertainty. The Uncertainty Management Matrix juxtaposes organizational and employee uncertainty management strategies, positing that these tendencies result in four types of organizational climates (see Figure 1):

- ? **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 the organization is perceived 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 the organization avoiding it.

- ? **Dynamic Climate** – both employees and the organization embrace uncertainty. Consequently, the climate is dynamic, energetic, and ever-changing.

Each quadrant represents a different kind of organizational climate with varying beliefs, values, assumptions, and ways of communicating. The Working Climate Survey operationalizes these theoretical constructs, providing a useful tool to appropriately classify employee experiences. We turn to that issue in the next section.

Figure 1
The Uncertainty Management Matrix

	Organization's Approach to Uncertainty	
	Avoid	*Embrace*
Embrace	Stifling Climate 3	Dynamic Climate 4
Avoid	Status Quo Climate 1	Unsettling Climate 2

Employee's Approach to Uncertainty

Organization's Approach to Uncertainty

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Measuring Uncertainty Management

In 1999, we began developing an instrument, the *Working Climate Survey*, which measures how employees as well as organizations embrace uncertainty. Two separate studies reviewed theoretical constructs related to uncertainty, selected a pool of items for analysis, and refined the instrument (Clampitt, Williams, & Korenak, 2000). Employees (n=200 and n=239) from a wide variety of organizations across the United States completed two measures on the *Working Climate Survey*. The Personal Uncertainty Scale asked employees to indicate how they individually managed uncertainty in their organization. The Work Environment Uncertainty Scale assessed employees' perceptions of how their organization managed uncertainty.

Following principal components factor analysis, reliability assessments, and validity investigations, three factors were discovered for each scale (Clampitt, Williams, & Korenak, 2000). The three factors for the Personal Uncertainty Scale were: (1) *Perceptual Uncertainty* which addressed the individual's willingness to actively look at different perspectives, new ideas, or signs that the situation is changing, (2) *Process Uncertainty* which addressed the employee's comfort in making a decision on intuition or a hunch, and (3) *Outcome Uncertainty* which assessed the degree to which the employee needed detailed plans or a specific outcome before starting a project. The items on this scale were summed so that a high score indicated a greater tendency for the person to embrace uncertainty.
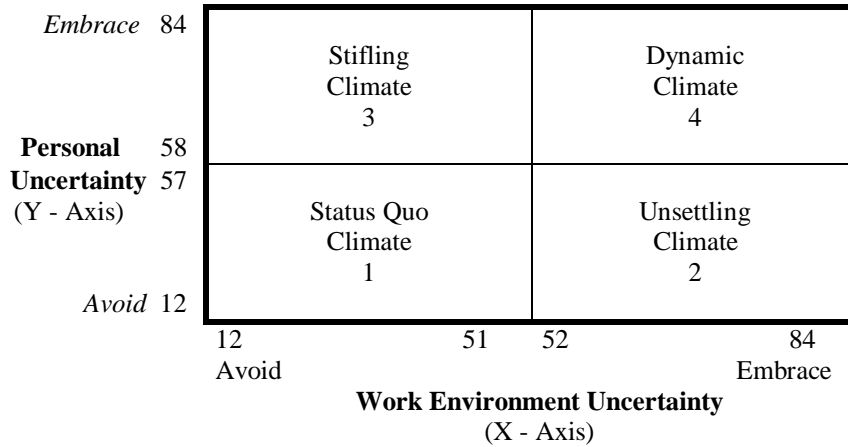
The three factors for the Work Environment Uncertainty Scale were: (1) *Perceptual Uncertainty* which assessed the degree to which the organization was willing to actively look for new ideas to address problems or signs that the situation is changing, (2) *Expressed Uncertainty* which assessed the degree to which the organization encouraged employees to express doubts or misgivings, and (3) *Outcome Uncertainty* which assessed the degree to which the organization needed detailed plans or a specific outcome before starting a project. The items on this scale were summed so that a high score indicated a greater tendency for the organization to embrace uncertainty.

Additional data were drawn in 2000, 2001, and 2002. New items were tested and further refinements were made to the instrument. The latest version of the *Working Climate Survey,* along with scoring procedures, is located in Appendix 1. The "final" form of the instrument has 47 items, which includes 12 personal uncertainty items, 12 work environment uncertainty items, and 7 demographic items. The remaining items are a mix of process-type items (e.g., "I'm satisfied with the communication in my organization" and end-product items (e.g., "I'm satisfied with my job".) The survey can be easily administered, tabulated and completed in less than 7 minutes. Respondents can take the survey on-line and have their results immediately tabulated (see www.iMetacomm.com/eu under the *Working Climate* tab).

The 12 items on the Personal Uncertainty dimension of the *Working Climate Survey* have a potential range from 12 to 84 with a mean score of 57.19, and a median score of 57 (n=1046). The 12 items on the Work Environment Uncertainty dimension have a potential range from 12 to 84 with a mean score of 51.41, and a median score of 51. A median split of the Personal Uncertainty Scale scores and a median split of the Work Environment Uncertainty Scale scores was carried out to divide respondents into high or low categories on each scale. It was then possible to place subjects into the four quadrants of the Uncertainty Management Matrix.

The Uncertainty Management Matrix displayed in Figure 2 joins the individual employee's tolerance for uncertainty (as measured by the Personal Uncertainty Score) and the organization's desire to embrace uncertainty (as measured by the Work Environment Uncertainty Score).

Figure 2
Plotting Scores on the Uncertainty Management Matrix

Embrace 84	Stifling Climate 3	Dynamic Climate 4
Personal 58 **Uncertainty** 57 (Y - Axis)	Status Quo Climate 1	Unsettling Climate 2
Avoid 12		
	12 51 52	84
	Avoid	Embrace

Work Environment Uncertainty
(X - Axis)

Databank

As of August 2002, 1046 subjects had completed the *Working Climate Scale* and were included in the database. Cronbach's alpha for the Personal Uncertainty Scale is .68 and .72 for the Work Environment Uncertainty Scale. Results indicate that 37% of the respondents are male and 63% are female. The average age is 39.79 years, with a range from 16 to 74 years old. Average job tenure is 7.0 years, with a range from 1 month to 45 years. Limited data are available for education since this demographic was added to a later version of the questionnaire. Of the 207 subjects reporting their highest education level, 13.5% completed high school, 6.3% have a professional certification, 15.5% have a technical college degree, 44.4% have some college, 15.9% have an undergraduate college degree, and 4.3% have a graduate degree.

Job position percentages are as follows: top management (10.0%), management (38.3%), non-management professional (27.0%), non-management/non-professional (19.8%), and other (4.9%). Organizations included in the database are located primarily in the United States, with some from Canada. The majority are non-profit (39.2%) with the rest distributed as follows: service (18.3%), industrial (17.5%), financial (13.9%), information technology (9.2%) and other (2.1%). We summarize the profile of the databank in Table 1.

Method

Based on their *Working Climate Survey* scores, respondents were placed in one of the four climates displayed in Figure 2. If an item on the survey was left blank, the mean score for that item was used to replace the missing value. Distribution of subjects across the four climates was

relatively equal: Status Quo Climate (n=298, 28.5%), Unsettling Climate (n=232, 22.2%), Stifling Climate (n=236, 22.6%), and Dynamic Climate (n=280, 26.8%).

A variety of analyses of variance were run on the data. In one set the independent variable was work climate, with the levels being the four separate climates (i.e., Status Quo, Unsettling, Stifling, and Dynamic). In another analysis, the independent variable was job position with three levels of top management, management, and non-management. The independent variable in an additional analysis was gender of the subject. The final analysis used type of organization as the independent variable, with the five levels being non-profit, service, industrial, financial, and information technology. In each analysis, the dependent variables were items 15-22, 36-39, and demographics identified on the survey (see Table 3). Because of the large n-size in the databank, results were considered most meaningful if the level of statistical significance reached $p < .001$.

Results

The results are divided into three sections: a) confirmatory findings, b) demographic tendencies, and c) mediating and outcome variables.   Each section presents a slightly different slant on the nature and features of the four Uncertainty Management climates.

Confirmatory Findings
As expected, employees in the Stifling ($M = 4.09$) and Dynamic ($M = 4.37$) climates reported greater "comfort with uncertainty" than those in the Status Quo ($M = 2.84$) and Unsettling ($M = 3.19$) climates, $F (3, 1042) = 55.16$, $p < .000$. Comfort with uncertainty was measured using a single item scale ranging from strongly disagree (1) to strongly agree (7). Also in line with expectations, the data revealed that employees classified in the Dynamic ($M = 4.11$) and Unsettling ($M = 3.89$) climates were more inclined to agree with the statement, "My organization is comfortable with uncertainty" than those in the Status Quo ($M = 3.18$) and Stifling ($M = 3.37$) climates, $F (3, 1042) = 21.32$, $p <.000$).   Both findings bolster the argument regarding the integrity of the category system.

Demographic Tendencies
A number of intriguing demographic findings emerged from the database (see Tables 2 and 3). Age, for instance, was not related to the type of climate, $F (3, 1020 = 2.79$, $p < .04$). However, there was an indication that more managers (top managers and managers combined) were in the Dynamic and Stifling climates (where employees indicate they embrace uncertainty) but more non-managerial employees in the Status Quo and Unsetting climates (where employees indicate they do not embrace uncertainty) $F (3, 985) = 4.08$, $p < .007$. Tenure in the organization also appeared to be related to the work climate. Those who had worked in their organization the longest were in the Stifling climate ($M = 8.45$ yrs.) compared to those in the Dynamic ($M = 6.81$ yrs.), Status Quo ($M = 6.73$ yrs.), and Unsettling ($M = 6.10$ yrs.) climates, $F (3, 1030) 4.01$, $p < .008$. In addition, gender was related to the type of climate, $F (3, 1040) = 6.49$, $p <.000$, with more females located in the Status Quo (70%) and Unsettling (67%) climates than in the Stifling (58%) and Dynamic (55%) climates. Females ($M = 3.44$) also indicated they were less "comfortable with uncertainty" than males ($M = 3.88$), $F (1, 1042) = 15.67$, $p < .000$. These findings reflect a general tendency for females to report less willingness to personally embrace uncertainty than males.

Table 1
Databank Profile

Gender:	Males: 37.1% Females: 62.9%
Average Age:	39.8 yrs. (range: 16 – 74 yrs. old)
Average Job Tenure:	7 yrs. (range: 1 month – 45 yrs.)
Job Positions:	Top management: 10.0% Management: 38.3% Non-management professional: 27.0% Non-management: 19.8% Other: 4.9%
Industries Represented:	Non-profit 39.2% *(Education, Government)* Service 18.3% *(Health care, Retail, Sales/marketing, Hospitality)* Industrial 17.5% *(Manufacturing, Construction, Utilities, Transportation)* Financial 13.9% *(Insurance, Banks, Financial institutions)* Information Technology 9.2% (Media/communications, Technology, Research/publishing Other 2.1%
Countries Represented:	USA, Canada

Table 2
Uncertainty Management Matrix
Percentage Norms

Embrace	**Stifling Climate**	**Dynamic Climate**
	73% Satisfied with Job 78% Committed to Organization 64% Identify with Organization 35% Satisfied with Org. Communication 50% Satisfied with Supervisor Comm. 59% Cynical about Organizational Life 60% Top Management and Managers 40% Non-Managerial 42% Male, 58% Female 22.6% of respondents in database	91% Satisfied with Job 96% Committed to Organization 89% Identify with Organization 65% Satisfied with Org. Communication 74% Satisfied with Supervisor Comm. 23% Cynical about Organizational Life 53% Top Management and Managers 47% Non-Managerial 45% Male, 55% Female 26.8% of respondents in database
Employee's **Approach to** **Uncertainty**	**Status Quo Climate**	**Unsettling Climate**
	77% Satisfied with Job 84% Committed to Organization 66% Identify with Organization 43% Satisfied with Org. Communication 44% Satisfied with Supervisor Comm. 46% Cynical about Organizational Life 46% Top Management and Managers 54% Non-Managerial 30% Male, 70% Female 28.5% of respondents in database	90% Satisfied with Job 94% Committed to Organization 81% Identify with Organization 63% Satisfied with Org. Communication 75% Satisfied with Supervisor Comm. 29% Cynical about Organizational Life 46% Top Management and Managers 54% Non-Managerial 33% Male, 67% Female 22.2% of respondents in database
Avoid		

Avoid   *Embrace*

Organization's Approach to Uncertainty

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Table 3
Uncertainty Management Matrix
Mean Score Norms

| Item* / Factor	Overall (n=1046)	Status Quo Climate (n=298)	Unsettling Climate (n=232)	Stifling Climate (n=236)	Dynamic Climate (n=280)
15. I'm comfortable with uncertainty.	3.61	2.84	3.19	4.09	4.37
16. I'm satisfied with my job.	5.55	5.17	5.92	5.07	6.05
17. I'm committed to my organization.	5.94	5.61	6.22	5.51	6.42
18. I'm satisfied with the communication in my organization.	4.08	3.64	4.52	3.48	4.70
19. I identify with my organization's values.	5.29	4.77	5.62	4.83	5.95
20. The longer I work in this organiza-tion, the more cynical I become.	3.60	4.09	3.11	4.42	2.78
21. I'm satisfied with the communication from my supervisor.	4.63	4.00	5.29	4.11	5.18
22. I'm a highly productive member of my organization.	6.16	6.04	6.06	6.12	6.41
36. Many employees in my organization are cynical.	4.41	4.87	3.82	5.30	3.68
37. My organization is concerned about employee satisfaction.	4.66	3.91	5.47	3.89	5.45
38. Many employees in my organization feel overwhelmed by the degree of change.	4.34	4.53	4.05	4.82	3.99
39. My organization is comfortable with uncertainty.	3.63	3.18	3.89	3.37	4.11
41. Age	39.79 yrs	40.95 yrs	38.40 yrs	40.46 yrs	39.11 yrs
42. Job Tenure	7.00 yrs	6.73 yrs	6.10 yrs	8.45 yrs	6.81 yrs
Personal Uncertainty (12 items)	57.19	50.31	51.01	63.39	64.41
Personal Perceptual Unc.	21.80	20.22	20.62	22.99	23.44
Personal Process Unc.	20.19	18.03	17.48	22.81	22.54
Personal Outcome Unc.	15.20	12.06	12.91	17.60	18.43
Work Env. Uncertainty (12 items)	51.41	43.97	57.92	43.71	60.43
Work Env. Perceptual Unc.	18.67	16.24	20.59	16.57	21.45
Work Env. Expressed Unc.	18.45	15.14	21.98	14.56	22.32
Work Env. Outcome Unc.	14.29	12.59	15.35	12.58	16.66

* Items were scored on a 7-point Likert scale (from 1 "Strongly Disagree" to 7 "Strongly Agree"). A score of 4 indicated "No Feeling." A larger score indicates greater agreement with the statement.
Note: ANOVAs for items 15-22 and 36-39 confirmed significant differences ($p<.001$) across climates.

The type of organization also appears to be an important variable. As seen in Figure 3, a higher percentage of employees in non-profit organizations work in the Status Quo Climate (37%) than in other types of organizations. As might be expected, the information technology (36%), financial (34%), and industrial organizations (32%) have a higher percentage of employees in the Dynamic Climate. These organizations have more dynamic and rapidly changing environments than non-profit organizations. Thus, their employees and organizational practices may reflect that reality. Additional results indicate that proportionately more females (78%) work in non-profit organizations compared to males (23%). Since more non-profit organizations are in the Status Quo Climate and since this climate includes employees who are less inclined to embrace uncertainty, an interesting question to consider is whether females seek out non-profit organizations or whether non-profit organizations tend to create in females a disposition to avoid uncertainty.

Figure 3

Climates by Types of Organizations
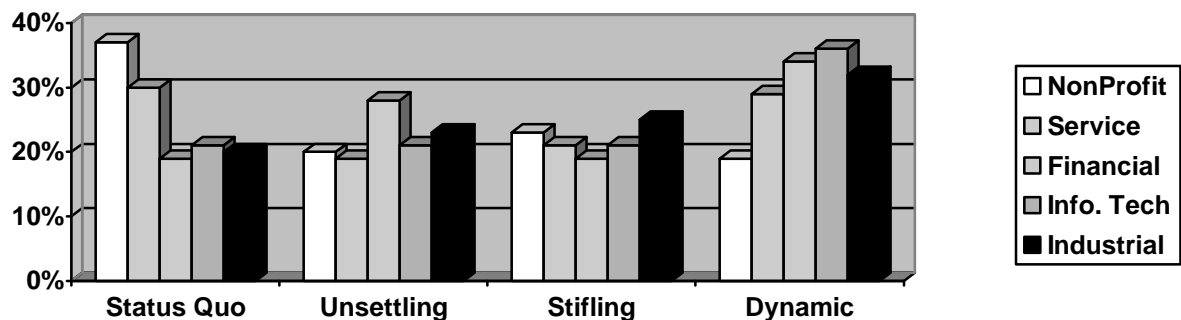
Mediating and Outcome Variables

A traditional view of organizations suggests that communication practices act as mediating variables. Issues like job satisfaction, productivity and employee commitment are viewed as outcome, or end-result variables (Likert, 1967; Downs, Clampitt, & Pfeiffer, 1988). This schema provides a convenient way to report the results of the analyses.

A number of single-scale items (1 = strongly disagree to 7 = strongly agree) underscore the role of communication in cultivating different climates (see Table 3). For example, employees in the Dynamic ($M = 4.70$) and Unsettling ($M = 4.52$) climates tend to be more satisfied with "communication in my organization" than those in the Status Quo ($M = 3.64$) and Stifling ($M = 3.48$) climates, $F(3, 1042) = 31.25$, $p < .000$. A similar pattern emerges with an item about satisfaction with supervisor communication. Employees in the Dynamic ($M = 5.18$) and Unsettling ($M = 5.29$) climates tend to express more agreement with the statement than those in the Status Quo ($M = 4.00$) and Stifling ($M = 4.11$) climates, $F(3, 1042) = 36.94$, $p < .000$. These finding suggest that communication practices are intimately linked to the types of uncertainty management climates cultivated in organizations.

The analysis of the relationship between the climates and outcome variables produced some surprising findings (see Tables 2 and 3). In particular, the Dynamic and Unsettling climates

tended to result in more desirable employee experiences than did the Status Quo and Stifling climates. For example, employees in the Dynamic ($M = 6.05$) and Unsettling ($M = 5.92$) climates expressed greater job satisfaction on a single-item (strongly disagree (1) to strongly agree (7) scale) than those in the Status Quo ($M = 5.17$) and Stifling ($M = 5.17$) climates, F (3, 1042) = 30.85, $p <.000$. The survey includes similar single-item scales to measure employee commitment to their organization, whether they identify with organizational values and their degree of cynicism about their organization. As seen in Tables 2 and 3, all these items fit a similar pattern. Employees in the Dynamic and Unsettling climates are more committed to their organizations, F (3, 1042) = 30.83, $p < .000$; identify more strongly with their organizations, F (3, 1042) = 42.75, $p < .000$; and are less cynical, F (3, 1042) = 47.98, $p < .000$, than their counterparts in the Status Quo and Stifling climates.

Some intriguing trends emerged around two other single-item scales. In response to the item, "I'm a highly productive member of my organization," employees in the Dynamic ($M = 6.41$) climate expressed a greater degree of agreement than those in the Unsettling ($M = 6.06$), Status Quo ($M = 6.04$) and Stifling ($M = 6.12$) climates, F (3, 1042) = 9.20, $p < .000$. Another survey item stated "Many employees in my organization feel overwhelmed by the degree of change". In this case, employees in the Dynamic ($M = 3.99$) and Unsettling ($M = 4.05$) climates expressed a lesser degree of agreement than those in the Status Quo ($M = 4.53$) and Stifling ($M = 4.82$) climates, F (3, 1042) = 14.70, $p < .000$. These findings suggest that employees in the Dynamic climate believe they are more productive than those in other climates, and employees in the Dynamic and Unsettling climates believe organizational members are better equipped to manage change than those in the Status Quo or Stifling climates.

Limitations

All surveys that use perceptual data are subject to limitations. This is particularly true of self-reports about productivity. Supervisors, for instance, might have very different views of the workers' productivity. Also while the database is large, males and senior executives may be underrepresented. Even though the single-item scales are strongly correlated with more comprehensive measures, some scholars may question their use to measure "end-product" variables. Despite these limitations, the analyses suggest some intriguing implications worthy of further discussion and exploration.

Discussion and Future Research

The Uncertainty Management Matrix juxtaposes the uncertainty management strategies of employees and their organizations, resulting in four distinct climates. The *Working Climate Survey* allows researchers and practitioners to objectively classify an employee's working experience into one of the four climates. The analyses suggest a number of important implications reviewed below.

First, the data suggest that an organization's management of uncertainty is more important than individual employee uncertainty coping skills. Organizations that embrace uncertainty tend to foster more employee commitment, greater job satisfaction, and less cynicism than those that avoid or suppress uncertainty (see Tables 2 and 3). This pattern emerged regardless of how employees rated their own uncertainty management skills. Specifically, the more positive

working environments occurred in the Dynamic and Unsettling climates. These findings imply that organizations could best use their scarce resources to improve their uncertainty management practices rather than build individual employee skills. For instance, an exercise designed to identify organizational obstacles to embracing uncertainty would be preferable to a training program focused on building employee uncertainty management skills. Presumably, such an exercise would help identify organizational practices, procedures and policies that suppress uncertainty. These might include overly formal presentations, authoritarian edicts, and rigid planning processes (Clampitt & DeKoch, 2001).

Second, the data indicate that communication practices and protocols play an important role in cultivating uncertainty-embracing organizational climates. In particular, employees in the Dynamic and Unsettling climates are significantly more satisfied with communication from their supervisors and organizations. Past research has indicated that supervisors who cultivate open relationships, listen to employee concerns, and exert upward influence tend to foster greater employee satisfaction (Jablin, 1979; Pelz, 1952). These behaviors and skills may also be associated with cultivating uncertainty-embracing climates. But that remains an open question, providing a fertile ground for future research. Future researchers might investigate what specific supervisory behaviors build uncertainty-embracing and uncertainty-suppressing climates.

Historically, supervisory communication has been strongly linked to perceptions of the adequacy of the organization's communication system (Downs, Clampitt, & Pfeiffer, 1988). So we were not surprised to discover that employees in the Unsettling and Dynamic climate were also more satisfied with "communication in their organization". Clearly on a conceptual level, employees can make distinctions between supervisory and organization-wide communication. What remains unclear is exactly what organization-wide communication practices, policies, and procedures foster uncertainty-embracing and uncertainty-suppressing climates. This presents a potentially fruitful area of future research for two interrelated reasons. First, a number of organizational development specialists and business strategists have advocated the necessity of creating uncertainty-embracing organizations (Schoemaker, 2002; Courtney, 2001; Stacey, 1992). Second, these advocates have largely avoided detailed discussions of how the communication system must change in order to accommodate the new structures and culture. How should the CEO communicate when environmental uncertainty prevails? These questions are only occasionally discussed in the literature (Clampitt, DeKoch, & Cashman, 2000).

Third, the data suggest that two demographic variables, gender and organizational type, are linked to particular climates. Males and females had similar perceptions of their organization's willingness to embrace uncertainty. Yet, females tended to report a lower willingness to personally embrace uncertainty than males. This finding appears to resonate with research reporting that males tend to be greater risk-takers than females (Byrnes, Miller, & Schafer, 1999; Veevers & Gee, 1986). While biological explanations for gender differences have been offered (Reiss, 2000; Schwartz & Cellini, 1995; Walsh, 1978), socialization and speech community patterns appear to have a dominant influence on male and female behavior (Coats & Cameron, 1989; Doyle, 1997). Masculine versus feminine norms are established early in life, and these blueprints seem to persist into adulthood. Males are encouraged to be more competitive, individualistic, goal directed, aggressive, and achievement oriented (Maccoby, 1998; Maltz & Borker, 1982). Conversely, females are reinforced for being collaborative, maintaining relationships, responding to other feelings, and asking for help (Wood, 2003). Further research

is needed to determine which factors best explain why women are less inclined to embrace uncertainty.

The databank also indicates that employees in non-profit organizations are disproportionally represented in the Status Quo Climate. These employees work in universities, county or state government and other agencies often dominated by overly bureaucratic and arcane procedures. Given such organizational constraints, it should not be surprising that these employees report their organizations suppress or ignore uncertainty. But why do these employees report less willingness or ability to personally embrace uncertainty than their counterparts in profit-making organizations? No doubt, a number of factors such as recruiting practices, selection processes, self-selection, and training procedures, can help explain this tendency. Future research efforts could shed further light on this question.

Fourth, the data suggest that uncertainty-embracing organizations are better able to cope with change. Employees in the Dynamic and Unsettling climates felt less overwhelmed by change than those in the Status Quo and Stifling climates. Since this finding related to only one item, there is clearly room for more research. However, the results are consistent with views of other researchers, theorists and practitioners (Clampitt & DeKoch, 2001; D'Aprix, 1996; Kotter, 1996; Stacey, 1992) Organizations that artificially suppress uncertainty tend to avoid frequent discussions of changing events, waiting to have their "ducks in a row" before announcing an initiative. Their leaders often fear admitting, "they don't know precisely where they are heading". The cumulative impact is that changes tend to be introduced in large-scale "chunks" as opposed to incrementally. This deprives employees of the opportunity to influence responses to change and hinders their ability to make appropriate psychological adjustments. Change management specialists might further advance their understanding by examining in more depth the role of uncertainty management practices.

Fifth, the Working Climate Survey and databank provide useful tools for practitioners. The *Working Climate Survey* can be easily completed in less than seven minutes. The normative data and trends allow practitioners to quickly ascertain what climates best describe a work group or organization. By plotting the employee scores on the matrix, practitioners can easily spot underlying tends. The data, then, can suggest appropriate intervention strategies. For example, if the data indicate that most employees describe the climate as Stifling or Status Quo, then interventions can be designed to foster an uncertainty-embracing organizational climate. The key finding in this study was that the organization's uncertainty management strategy mattered more than an individual employee's strategy. So the practitioner would be on firm ground addressing the organizational climate issue. On the other hand, if the data revealed that most employees were in the Stifling or Dynamic climates, then the intervention should take on a different character. For example, the practitioner may seek to identify signs that the organization has embraced too much uncertainty and has become too unwieldy.

Andy Grove of Intel once said, "When Columbus sailed across the Atlantic, he didn't have a business model." Such sentiments suggest the importance of building uncertainty-embracing organizations. Our research has shown that these organizations tend to inspire greater employee commitment, foster more job satisfaction, and generate less cynicism than uncertainty-suppressing organizations. The challenge for communication scholars is

to determine the proper set of communication practices, procedures, policies and behaviors that can build dynamic uncertainty-embracing organizations. In order to meet this challenge we may have to "put aside comfortable ways of thinking and planning – take risks and try new things", just as Secretary Rumsfeld suggested.

Working Climate Survey

Objective: The purpose of this survey is to accurately describe your working climate. Please note: your responses are confidential, this is **not** a test, and there are no right or wrong answers.

Instructions: Below you will find 24 statements about your approach to various situations. Some items may sound similar, but they address slightly different issues. Please respond to all items. *Indicate your degree of agreement with each statement by placing the appropriate number in the box next to each item.* Please use the following scale:

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	No Feeling	Slightly Agree	Moderately Agree	Strongly Agree

Section A: These questions concern your preferred individual style of working.

1. I'm comfortable making a decision on my gut instincts.	
2. I actively look for signs that the situation is changing.	
3. I need precise plans before starting a job.	
4. When I start a project, I need to know exactly where I'll end up.	
5. I'm comfortable using my intuition to make a decision.	
6. I'm always on the lookout for new ideas to address problems.	
7. I need to know the specific outcome before starting a task.	
8. I'm quick to notice when circumstances change.	
9. I'm willing to make a decision based on a hunch.	
10. I easily spot changing trends.	
11. I don't need a detailed plan when working on a project.	
12. I'm skilled at making decisions when information is limited.	
13. I need a definite sense of direction for a project.	
14. I'm comfortable deciding on the spur-of-the-moment.	
15. I'm comfortable with uncertainty.	
16. I'm satisfied with my job.	
17. I'm committed to my organization.	
18. I'm satisfied with the communication in my organization.	
19. I identify with my organization's values.	
20. The longer I work in this organization, the more cynical I become.	
21. I'm satisfied with the communication from my supervisor.	
22. I'm a highly productive member of my organization.	

Section B: The following questions concern your work environment.

23. My organization is always on the lookout for new ideas to address problems.	
24. My organization flexibly responds to different situations.	
25. In my organization, being unsure about something is a sign of weakness.	
26. My organization easily spots changing trends.	
27. My organization doesn't need a detailed plan when working on a project.	
28. Even after my organization makes a decision, it will reevaluate the decision when the situation changes.	
29. My organization needs to know the specific outcome before starting a project.	
30. My organization doesn't encourage employees to discuss their doubts about a project.	
31. When my organization starts a project, it needs to know exactly where the project will end up.	
32. My organization actively looks for signs that the situation is changing.	
33. My organization doesn't want employees to admit that they are unsure about something.	
34. My organization wants precise plans before starting a job or project.	
35. My organization discourages employees from talking about their misgivings.	
36. Many employees in my organization are cynical.	
37. My organization is concerned about employee satisfaction.	
38. Many employees in my organization feel overwhelmed by the degree of change.	
39. My organization is comfortable with uncertainty.	

Scoring Instructions

Step 1: Reverse score items 3, 4, 7, 13, 25, 29, 30, 31, 33, 34, and 35 so that
1=7, 2=6, 3=5, 4=4, 5=3, 6=2, and 7=1.

Step 2: Sum items 1, 2, 4-11, 13, 14 to get the Personal Uncertainty Score.

Step 3: Sum items 23, 25-35 to get the Work Environment Uncertainty Score.

Personal Uncertainty Factors:	Work Environment Uncertainty Factors:
Perceptual Uncertainty – items 2, 6, 8, 10	Perceptual Uncertainty – items 23, 26, 28, 32
Process Uncertainty – items 1, 5, 9, 14	Expressed Uncertainty – items 25, 30, 33, 35
Outcome Uncertainty – items 4, 7, 11, 13	Outcome Uncertainty – items 27, 29, 31, 34

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