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Tension and Resistance to Change in Organizational Climate: Managerial Implications for a Fast Paced World

Abstract

Climate is the atmosphere of the organization, a "relatively enduring quality of the internal environment of an organization, which is experienced by its members and influences their behavior." The organizational climate can be measured in terms of trust, morale, conflict, equity in rewards, leader credibility, resistance to change and scapegoating. Using a factor analysis, we found that the organizational climate can be described in two dimensions: "tension" and the resistance to change for a group of 245 Danish companies. High tension involves strained relationships, stress and a balance of the combined factors. High resistance to change is a preference for tomorrow to be like today. Change management has a long history and rests fundamentally upon Lewin's three phases: unfreeze, change and re-freeze. More recently, change management is seen as sensemaking and the creation of an organizational reality in which change is more usual and continuous.

Using the competing values framework, four organizational climates emerge:
- internal process, which is high on tension and resistance to change,
- rational goal, which is high on tension and low on resistance to change,
- developmental, which is low on tension and low on resistance to change, and
- group, which is low on tension and high on resistance to change.

The managerial implications are complex For a fast paced world, the resistance to change must be low. Lewinian episodic change is difficult, slow and costly. Continuous change can be managed, where change becomes the norm of the organization. However, tension does not have to be low. Individuals may prefer a low tension organization, but it may not be necessary for a fast paced world. Further, since the two dimensions are independent, managers cannot reduce tension as a means to reduce the resistance to change.

Introduction

The climate is a relatively enduring quality of the organization which is experienced by its members; it has an effect on their behavior, and how the organization functions. We measured the organizational climate using seven concepts: trust, morale, conflict, rewards equity, leader credibility, resistance to change and scapegoating. For a group of 245 Danish companies, the organizational climate can be summarized along two dimensions: "tension" and the resistance to change. Six of the seven variables load on the tension factor, where the resistance to change is independent. Using a competing values framework, the four organizational climates emerge: internal process, rational goal, developmental and group.

For a fast paced world, the resistance to change is critical as the traditional episodic Lewinian approach: unfreeze, change and re-freeze; is too slow and costly. Low resistance to change permits an organizational design which can be responsive for the fast paced and rapidly changing environment. Change must be continuous and ongoing. Eisenhardt and Brown (1998) argue that resistance to change is organizational, ie, change must be programmed, and it is easier to program change on a regular basis than intermittent.

For the fast paced world, low tension may be desired and preferred by individual members in the organization, but we suggest that it may not be crucial. Further, we argue that reducing tension and hoping for lower resistance to change is unlikely, since the two dimensions are independent for this study.

In the next section, we introduce the notions of tension and resistance to change in organizational climate. We then discuss empirical approaches to climate. The empirical measures depend upon individual responses about the organization: trust, conflict, morale, rewards equity, resistance to change, leader credibility and scapegoating. Next, we examine climate measures within a competing values framework. We then present our study of 245 Danish companies and compare our results with the Zammuto and Krakower (1991) study. We find the congruency is quite high. Using a factor analysis, tension and resistance to change emerge as the two independent factors. Utilizing a competing values approach, we found four types of organization: internal process, rational goal, developmental and group. Finally, we examine the managerial implications for a fast paced world.

Tension And Resistance to Change for a Fast Paced World

From our empirical study, we found that tension and resistance to change are two primary dimensions of the organizational climate. We measured the climate in terms of trust, conflict, morale, rewards equity, leader credibility and scapegoating: all of which combine into tension. The resistance to change is a second independent dimension of the organizational climate.

Tension is defined as: *a state of strained relations; uneasiness due to mutual hostility; stress: a balancing of forces or elements in opposition.* Webster's New World Dictionary

Tension involves stress and a balance of the combined factors. Tension is similar to and can include: anxiety, edginess, nervousness, stress, tightness and worry. It is the opposite of: amicability, calmness, laxness, looseness and relaxed atmosphere.

On the surface, tension is a pejorative: high tension is not desirable and low tension is good. But, is it possible that high tension can also be good for the organization and low tension might not be so good. Machiavelli's Florence was a city of high tension; yet, we know that it was also the birth place of a new intellectual era. In their framework article on learning, Crossan, et al. (1999) argue that tension is necessary for learning. Tension helps create the balance of exploration and

exploitation for learning. It then seems that tension can be desirable, at least, at some levels for the viable organization.

The resistance to change and the management of change have a rich and vast history in organization science. Lewin's (1951) early work on change suggests that the change process must be managed. The three phases of change: unfreeze, change and re-freeze, remain the basis and starting point for our thinking about change. The underlying notion is Newtonian: the natural state of affairs is that things will not change. To realize change, we must supply energy and manage the change process. Lewin's notions on change remain fundamental to our understanding of change. Lewin asserted that one cannot understand an organization unless you attempt to change it. Weick and Quinn (1999), in their review of change, indicate that our current knowledge on change rests firmly upon Lewin's foundation. Two views of change are episodic and continuous. Episodic change, or punctuated equilibrium, tends to view change as an event to describe, explain and understand. For continuous change, we tend to focus more on the process of change and how we can intrude or manage it. Going beyond the Lewin process of change, Weick (1995) and Schein (1993) argue that change management involves the "sensemaking" and interpretation of change. Change management is a framing of reality for the organization; it is creation of reality for the organization so that the change process does make sense for the organizational participants. So, change management involves speech, the application of symbols and giving meaning to what is going on.

Eisenhardt and Brown (1998) make a compelling argument that continuous change is easier to manage than episodic change which requires the Lewinian change process of: unfreeze, change and re-freeze. The idea is to make change the norm of the organization. Change itself becomes the expected activity for a fast paced world.

Climate: Developing Empirical Approaches

Organizational climate has been defined as the "relatively enduring quality of the internal environment of an organization that a) is experienced by its members, b) influences their behavior, and c) can be described in terms of the values of a particular set of characteristics (or attitudes) of the organization." (Taguiri and Litwin, 1968, p. 27). The climate is the "ether" within which an organization exists. We outline different views and research directions that will allow us to integrate a measure of climate into the multi-dimensional contingency model (Baligh et al, 1996; Burton and Obel, 1998).

In the literature on climate there has been some confusion about the relevance and definition of the concept and its relationship with organization structure and organization culture (James and Jones, 1974, Schneider, 1990, and Denison, 1996), where the culture is a pattern of knowledge, belief and behavior that emerges including social forms. In the context of the organization social forms and knowledge in general, culture includes the organizational structure. The organizational culture is the organization itself...the form, beliefs, norms, social patterns, the way things are done, the symbols, rituals, etc.

One reason for the confusion in the literature can be found in use of climate to represent seemingly different concepts. Climate can be seen as organizational climate or psychological climate. Ekvall (1987) states that the organizational climate arises in the confrontation between individuals and the organizational situation. James and Jones (1974) say that the organizational climate can be viewed in two different ways: "a multiple-measurement-organizational attribute approach" or "a perceptual measurements-organizational attribute approach." Both of these approaches are confounded with organizational structure and processes and the general organization situation. The organizational climate is measured using variables like individual

autonomy, the degree of structure imposed as the positions, reward orientation, consideration, warmth, and support. This is also the case in the treatment of organizational climate dimensions presented in Litwin and Stringer (1968) where organizational climate is measured along the following dimensions: structure, responsibility, warmth, support, reward, conflict, standards, identity, and risk. Poole (1985, p. 84) states that climate seems to be a feature of, rather than a substitute for culture. That is, a comprehensive view of culture includes the organizational climate. It is obvious from the above that measures and dimensions of organizational climate and organizational culture can be confused. This has been discussed often in the literature (Schneider, 1990 and Denison, 1996). Denison concludes that although the two concepts on the surface look very different, at a deeper level the clear distinctions begin to disappear. With the exception of the first definition for psychological climate, the climate and the culture definitions and measures are confounded or overlapping.

For this study, the two concepts are quite distinct. The climate is the internal atmosphere of the organization. The culture is the pattern of behavior, which includes the organizational form. They are not the same, nor is one contained in the other. The organizational climate is the psychological climate of the organization.

The definition of the psychological climate is precise; it refers to the perceptions held by the individuals about the work situation. James and Jones (1974) summarize the psychological climate to be a set of summary or global perceptions held by individuals about their organizational environment. The psychological climate is a summary feeling about actual events based upon the interaction between actual events and the perception of those events. The psychological climate has been measured using dimensions such as disengagement, hindrance, esprit, intimacy, aloofness, production emphasis, trust and consideration.

Koys and DeCotiis (1991) define the psychological climate as "an experimental-based, multidimensional, and enduring perceptional phenomenon which is widely shared by the members of a given organizational unit." They state that the psychological climate is the description–and not the evaluation–of experience. As such, the psychological climate is different from evaluations, e.g. job satisfaction. In their survey Koys and DeCotiis report more than 80 different dimensions found in the literature which has been labeled a climate dimension.

They set out to find a theoretical-meaningful and analytical-practical universe of all possible climate dimensions. They established three rules for a dimension to be included in the universe:

· Has to be a measure of perception
· Has to be a measure describing (not evaluating)
· Must not be an aspect of organizational or task structure

These rules attempt to sort out the confusion and also distinguish the measures from the organizational climate and culture measures. The rules make sure that the psychological climate measure is not confounded with the organization's structural properties.

Applying these rules to the more than 80 dimensions used in climate measurements and combining dimensions that were actual the same despite the fact they had different names reduced the number of dimensions to 45. Koys and Decotiis were then able to categorize these 45 dimensions into the eight summary dimensions shown in Table 1. Koys and DeCotiis (1991) tested the validity and reliability of their summary scales and found that they were both valid and reliable.

They further discuss whether some of the dimensions should or could be combined into a single dimension to further reduce the dimension of psychological climate. They suggest that trust and support may be combined bringing the dimension of psychological climate down to seven.

These dimensions of climate developed by Koys and DeCotiis fit the notion by Rousseau(1988)

where she says that "climate is a content-free concept, denoting in a sense generic perceptions of the context in which an individual behaves and responds."

From these dimensions it is seen that the concept of psychological climate does not interfere with the measures of organizational structure and thus more readily can be candidates for measuring climate in a contingency model for organizational design. We will develop these notions in the later section on managerial implications.

Table 1. Definition of Each of the Eight Dimensions of the Universe of Psychological Climate Perceptions (Koys and DeCotiis, 1991).

Dimension name	Definition
Autonomy	The perception of self-determination with respect to work procedures, goals, and priorities.
Cohesion	The perception of togetherness of sharing within the organization setting, including the willingness to members to provide material aid.
Trust	The perception of freedom to communicate openly with members at higher organizational levels about sensitive or personal issues with the expectation that the integrity of such communications will not be violated.
Pressure	The perception of time demands with respect to task completion and performance standards.
Support	The perception of the tolerance of member behavior by superiors, including the willingness to let members learn from their mistakes without fear of reprisal.
Recognition	The perception that member contributions to the organization are acknowledged.
Fairness	The perception that organizational practices are equitable and nonarbitrary or capricious.
Innovation	The perception that change and creativity are encouraged, including risk-taking into new areas or areas where the member has little or no prior experience.

The research on psychological climate has tried to relate the measure to other concepts such as job satisfaction, job attitude etc. The important issue is whether the psychological climate influences the behavior of the individuals and the organization and if there exist interaction effects with contingency factors and/or structural factors of the organization. Ekvall (1987) concludes his paper by stating that "In an overall organizational model climate can be seen as an intervening variable in the process between input and output, and one that has a modifying effect on this process. Climate affects organizational and psychological processes, and thus acquires an influence over the results of organizational operations."

We conclude that the organizational climate can be measured as the individual's perception of the organization's psychological climate.

The Competing Values Framework and Climate

The initial development of the competing values framework by Quinn and Rohrbaugh (1983) examined organizational effectiveness criteria. It has proven to be a very versatile typology for capturing the complexity of a variety of management issues. The applications include strategy (Bluedorn and Lundgren, 1993), human resource policies (Yeung, et al, 1991, Giek and Lees, 1993), organizational change (Hooijberg and Petrock, 1993), management information systems, (Cooper and Quinn, 1993) as well as culture (Denison, 1990, Cameron and Freeman, 1991), and climate (Zammuto and Krakower, 1991). Further, the competing values approach has been robust across these many applications and reliable as a measurement instrument. In particular, it has been used to measure the organization's climate. The competing values approach enables us to sort out variations in climate and categorize climates according their major characteristics.

Zammuto and Krakower (1991) use the competing values framework to measure climate and relate it to organizational characteristics.. They find different climates are correlated with different organizational characteristics, ie, there is a fit between the climate and the organizational characteristics. They use organizational characteristics (centralization, formalization, long-term planning), climate measures (trust, conflict, morale, equity of rewards, resistance to change, leader credibility, and scapegoating) and strategy dimensions (reactive/pro-active orientation) to categorize the culture into group culture, developmental culture, internal process culture, and rational culture. They concluded that cultural type is related to differences in organizational climate. For each of these four types of culture their study allows us to develop four types of climates that correspond to the four types of culture and thus allow us to obtain relationships between climate dimensions and organizational characteristics. For their study, Zammutto and Krakower define climate as part of culture. Cullture is made up of: organizational characteristics, organizational climate and strategy. We use their climate definition and measures, but not their culture definition. We define climate and culture as separate concepts.

Measuring and Categorizing Climate Using the Competing Values Approach

The psychological climate refers to the beliefs and attitudes held by individuals about their organization. The climate is an enduring quality of an organization that (1) is experienced by employees, and (2) influences their behavior. It should be thought of and measured "at the organizational level of analysis." (Glick, 1985, p. 607). Climate is an organizational characteristic–not a characteristic of each individual in an organization. However, we do look to individuals as the source of information on the climate. It is their perception about the organization that we measure.

Zammuto and Krackover(1991) measured climate using the following dimensions:

· Trust

An organization has a high level of trust when the individuals are open, sharing and truthful, where individuals place their confidence. An organization has a low level of trust when the individuals are closed, guarded, unsharing, untruthful, and creates an atmosphere of anxiety and insecurity.

· Conflict

An organization has a high level of conflict when there is a high opposition of forces, goals and

beliefs, which are experienced in friction and disagreement among the individuals. An organization has a low level of conflict when there is harmony in goals, beliefs, which yields a spirit of cooperation among the individuals.

· Morale

An organization has a high level of employee morale when the individuals are confident and enthusiastic about the organization–an Esprit de Corps. An organization has a low level of employee morale when the individuals lack confidence and enthusiasm about the organization and individuals lack a sense of purpose and confidence about the future.

· Rewards

An organization is equitable in its rewards when individuals accept rewards as fair and just without bias or favorism. An organization is inequitable in its rewards when individuals see favorism, bias, and non work related criteria as the basis for rewards.

· Resistance to change

An organization has a high resistance to change when individuals believe the inertia is high and presume and desire that "we will do things tomorrow as we did them today." An organization has a low resistance to change when individuals embrace change as the normal circumstance and relish that "tomorrow will be different."

· Leader credibility

The leader credibility is high when individuals have belief in its leadership; there is a sense of respect, inspiration and acceptance of decisions and actions. The leader credibility is low when the individuals lack respect and do not accept the legitimacy of authority.

· Scapegoating

An organization has a high level of scapegoating when individuals believe that the responsibility for actions will be shifted to others - top management, staff, employees, or outsiders. An organization has a low level of scapegoating when individuals believe that the resposible individuals assume the responsibility for the failure of actions.

It is interesting that Zammuto and Krackover (1991) and Koys and DeCotiis (1991) both define climate using seven relatively similar dimensions. Table 2 shows the two sets of climate dimensions.

Table 2 Dimension of Climate

Koys and DeCotiis (1991)   Zammuto and Krackover (1991)

Autonomy	Credibility
Cohesion	Conflict
Trust/support	Trust
Pressure	Scapegoating
Recognition	Morale
Fairness	Equitable Rewards
Innovation	Resistance to change

The dimensions are very similar and the totality of the seven dimensions are indeed quite alike. Trust appears in both measures as well as fairness and equity. Recognition is one means to achieve morale. Cohension and conflict are opposites. Innovation can be thought of as the opposite of resistance to change; at least, low resistance to change can be a precursor to innovation. Similarly, autonomy can lead to credibility in the organization. Finally, one can imagine that high pressure in the organization could lead to scapegoating. The match is not perfect, but clearly related and informally we can say that the totality of the measures are similar.

Zammuto and Krackover (1991) mapped their seven dimensions of climate into the competing values framework and in that way created four different climate types which they labeled:

· The Group Climate
· The Developmental Climate
· The Rational Goal Climate
· The Internal Process Climate

Hooijberg and Petrock(1993) characterize the four corresponding climate types from the point of view of the competing values: "The group climate could be described as a friendly place to work where people share a lot of themselves. It is like an extended family. The leaders, or head of the organization, are considered to be mentors and, perhaps even parent figures. The organization is held together by loyalty or tradition. Commitment is high. The organization emphasizes the long-term benefits of human resource development with high cohesion and morale being important. Success is defined in terms of sensitivity to customers and concern for people. The organization places a premium on teamwork, participation, and consensus.

The developmental climate could be described as a dynamic, entrepreneurial and creative place to work. People stick their necks out and take risks. The leaders are considered to be innovators and risk takers. The glue that holds organizations together is commitment to experimentation and innovation. The emphasis is on being on the leading edge. Readiness for change and meeting new challenges are important. The organization's long-term emphasis is on growth and acquiring new resources. Success means having unique and new products or services and being a product or service leader is important. The organization encourages individual initiative and freedom.

The rational goal climate could be described as a results-oriented organization. The leaders are hard drivers, producers, and competitors. They are tough and demanding. The glue that holds the organization together is the emphasis on winning. The long-term concern is on competitive actions and achievement of measurable goals and targets. Success is defined in terms of market share and penetration. Competitive pricing and market leadership are important. The organizational style is hard driving competitiveness.

The internal process climate is a formalized and structured place to work. Procedures govern what people do. The leaders pride themselves on being coordinators and organizers. Maintaining

a smooth running organization is important. The long term concerns are stability, predictability, and efficiency. Formal rules and policies hold the organization together."

The organizational climate can then be meassured using these seven variables and further the climate can be categoized into the four types using the competing values framework.

An Empirical Analysis of Organizational Climate

Based on data from about 1000 Danish companies we investigated the competing values typology for climate. The data come from a study of small and medium sized production companies in western part of Zealand, Funen, and the southern part of Jutland. The data collection procedure and the data are described in Eriksen and Døjbak (1998a,1998b). The data used in this study are data from 245 production companies with 50-499 omployees.

Assigning climate type to the companies

The seven dimensions describing climate type were implemented using the following variables:

Trust:
Question: Our staff members can always trust each other.
Answer: On a scale from 1 to 5 (full disagreement to full agreement).

Conflict:
Question: there are great disagreement among the involved staff members when decisions are made.
Answer: On a scale from 1 to 5 (never to always).

Morale:
Question: Our staff members have a high working morale.
Answer: On a scale from 1 to 5 (full disagreement to full agreement).

Rewards equitability:
Question: Our staff members find that rewards for their effort are given in an equitable way.
Answer: On a scale from 1 to 5 (full disagreement to full agreement).

Resistance to change:
Question: It is often difficult to implement organizational changes.
Answer: On a scale from 1 to 5 (full disagreement to full agreement).

Leader credibility:
Question: The staff members consider the management to be credible.
Answer: On a scale from 1 to 5 (full disagreement to full agreement).

Scapegoating:
Question: It is good form that staff members accept the responsibility, also when things fail.
Answer: On a scale from 5 to 1 (full disagreement to full agreement).

Table 3 Comparing the results by Zammuto and Krackover (1991) and Burton and Obel (1998).

Climate type N	Group 47	Developmental 138	Rational goal 38	Internal process 22
Trust	H *H* 2.98	M *H* 2.93	L *L* 2.45	L *L* 2.58
Conflict	L *L* 2.18	L *L* 2.21	H *H* 3.09	H *MH* 2.69
Morale	MH *H* 2.96	MH *H* 2.93	M *L* 2.23	L *M* 2.66
Rewards equitability	H *H* 2.67	M *H* 2.67	L *L* 1.75	L *L* 1.86
Resistance to change	M *H* 3.00	L *L* 1.36	M *L* 1.50	H *H* 2.89
Leader credibility	H *H* 4.64	H *MH* 4.40	LM *L* 3.77	L *L* 3.88
Scapegoating	L *L* 1.06	LM *L* 1.05	H *H* 2.00	H *MH* 1.55

Using a simple non-hierarchical cluster analysis, a 4-cluster solution was derived, with the cluster means provided in Table 3. For each dimension, the 4 means on the 4 groups (clusters) are compared. The group with the lowest mean is assigned the score "L", the group with the highest mean is assigned the score "H". The distance between the highest and the lowest scores is divided into equal intervals to assign M, ML, and MH. The scores are high(H), medium/high(MH), medium(M), low/medium(LM), and Low(L). The Zammuto and Krakower results are shown in bold; our results are in *italics*.

Table 3 shows that the two studies resulted in very similar results and that the data fits well with the four climate categories, except for a some difference on the resistance to change. Our results sort out high resistance to change for the internal process and group climates, where the resistance to change is low for the rational goal and developmental climates. Zammuto and Krakower found less pronounced differences. A close look at the data also shows that the group climate and the development climate have almost identical scores, except for the score on "Resistance to Change". Similarly the internal process climate and rational goal climate are similar, except for the score on "Resistance to Change". The dimensions trust, conflict, morale, rewards equitability, leader credibility, and scapegoating seem to co-vary within each cluster group. This observation suggests that we may have only two underlying factors here, rather than seven. Informally, the dimensions of conflict and scapegoating vary in the same direction; and trust, morale, rewards equity and leadership credibility vary in the same direction, but opposite to the conflict and scapegoating. When conflict and scapegoating are high and the others low, intuitively we can think of an organizational which has high conflict, low trust and low morale - tension, if you will.

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Our study can also be considered as a replication of the Zammuto and Krakower study in a different setting. They studied non-for-profit institutions of higher education in the United States; we studied small and medium sized production companies in Denmark. The competing values framework describes and categorizes the organizational climate for both types of organization.

Tension and Resistance to Change - The Two Dimensions of Climate

The analysis above is confirmed more formally by examining the corrleation matrix for the seven climate measures in Table 4. Looking first at the signs, trust, morale , rewards equity and leader credibility are all positively correleated; and then, conflict and scapegoating are negatively correleated with four variables above, and positively correlelated with each other. More closely, trust and morale, morale and rewards equity, rewards equiity and leader credibility, are highly corrleleated.

Table 4 Correlation matrix for climate measures

1. Trust
2. Morale
3 Rewards equitability
4. Credibility
5. Conflict
6. Scapegoating
7. Resistance to change

	1	2	3	4	5	6
1	1.0000	0.4158	0.2026	0.2806	-.1567	-.3949
2	0.4158	1.0000	0.3730	0.2728	-.1206	-.5001
3	0.2026	0.3730	1.0000	0.5145	-.0846	-.4065
4	0.2806	0.2728	0.5145	1.0000	-.1122	-.3072
5	-.1567	-.1206	-.0846	-.1122	1.0000	0.1294
6	-.3949	-.5001	-.4065	-.3072	0.1294	1.0000

We then did a factor analysis on these six dimensions to determine whether they could be combined into one dimension; which we called "Organizational Tension." Formally, these six variables were combined into one linear (combination) factor in such a way that the maximal amount of variation in the original variables is captured in the linear factor. Using the Iterated Principal Components method, a factor accounting for 76 per cent of the variation was found. (See Sharma,1996) for details on the method.) The 76 per cent of the variation explained is quite high, indicating that most of the information in the six dimensions is captured in the single factor.
This linear combination is:

TENSION = -0.48*TRUST + 0.17*CONFLICT - 0.62*MORALE
            - 0.65*REWARDS_EQ - 0.62*LEADER_CR +0.64*SCAPEGOATING .

The coefficients are as expected - positive for CONFLICT and SCAPEGOATING, and negative for the TRUST, MORALE, REWARDS EQUITY and LEADER CREDIBILITY.

Earlier, tension was defined as: *a state of strained relations; uneasiness due to mutual hostility; stress: a balancing of forces or elements in opposition.* Webster's New World Dictionary.

We posit that the word "tension" captures well the multidimensionality of these related climate factors into a single word. Tension involves stress and a balance of the combined factors.

The results of performing a cluster analysis on TENSION and RESISTANCE TO CHANGE are reported in Table 4, showing a nice correspondence to the results in Table 3: Group climate firms had high scores on 4 of 6 dimensions in Table 3 and a low score on TENSION in Table 4. Developmental climate firms had high scores on 4 of 6 dimensions in Table 3 and a low score on TENSION in Table 4. Rational Goal climate firms had low-to-medium scores on 4 of 6 dimensions in Table 3 and a high score on TENSION in Table 4. Internal Process climate firms had low scores on 4 of 6 dimensions in Table 3 and a high score on TENSION in Table 4. The correspondence between scores on RESISTANCE TO CHANGE from Table 3 and Table 4 is clear. The number of cases for each climate type varies between Table 3 and Table 4, but the representation with two large groups (Developmental and Group climate) and two small groups (Rational Goal and Internal Process climate) is preserved.

Table 4: Climate types in terms of tension and resistance to change

Climate type N	Group climate 108	Developmental 78	Rational Goal 24	Internal Process 35
Tension	L (-0.37)	L (-0.36)	H (0.93)	H (1.33)
Resistance to Change	H (3.66)	L (1.73)	L (1.83)	H (3.76)

These descriptions fit very well with the scores in Table 4.

Our data indicate that a group climate is low on tension and high on resistance to change. The developmental climate is similarly low on tension, but is also low on resistance to change. Here, the climate entertains change and is much more oriented to the outside world with a sense of adventure. The other two climates are higher on tension. The rational goal climate has a low resistance to change, driven by an external orientation to success as measured by outside measurements and competition. The internal process climate also has high tension, but is resistance to change; it sees change as threatening to current ways of doing things. Our data indicate that the concepts of tension and resistance to change capture well the basic aspects of the organization and can be used as basic dimensions of climate.

Each of the four climates can be effective and yield high desired organizational outcomes. In particular, both rational goal and the internal process climates, both with high tension, can perform well when each is matched with the appropriate environment and other contingency factors (Burton and Obel, 1998).

Trust and Tension

Trust is an element in organizational tension and climate. We measured trust quite simply as an individual's response to the question about openness, sharing and truthfulness, where the individual can place his/her confidence. We asked the respondents to rank on a scale of 1 (disagree) to 5 (agree), "Our staff members can always trust each other."

Trust is a natural and intuitive concept; nonetheless, formal definitions help. In a recent special issue of the Academy of Management Review, Rousseau, et al. (1998, p. 395) define trust:

Trust is a psychological state comprising the intention to accept vulnerability based upon positive expectation of the intentions or behavior of another.

In this defintion, there are a number of important points. Trust is a psychological state; it is not a behavior or outcome. But, there is an expectancy of an outcome which is not adverse to the trustor's interest. There is a vulnerability in that the expectation is presumed *a priori* without evidence or fact.

We found that trust is high when morale, equity in rewards and leader credibility are high; and trust is low when conflict and scapegoating are high. It is a part of a package; trust does not stand alone. Trust is high when tension is low. Tension and resistance to change are then two dimensions for categorizing the organizational climates: internal process, rational, development and group. Trust is not high for all of these climates. Trust is high in a developmental and group climate; and trust is low in an internal process and rational goal climates.

Whitener, et al, (1998), in their review article which focuses on management, develop a number of propositions about trust in organizations. Their first proposition (p. 520) is that: Organizations that are highly centralized, formalized, hierarchical, and focused on efficiency will be less likely to generate managerial trustworthy behavior - in particular, communication and delegation of control - than will organizations that are decentralized, less formal, less hierarchical and focused on effectiveness.

In our study, we found lower trust in the internal group and rational goal climates than for the developmental and group climates (Tables 3 and 4). Zammuto and Krakower (1991, p. 95) found that the internal group climate is formalized and reactive oriented. Burton and Obel (1998) argue that the internal process organization also focuses on efficiency and can be centralized as well. But, we also found that trust is low in a rational goal climate which may be less centralized, less formalized and less hierarchical, at least on some characteristics. Here, efficiency is replaced with external measures of economic success of profits, market share, etc. Our results suggest that Whitener, et al's proposition is too limited as it focuses only on the internal structure; an organization's focus on external success can also be consistent with low levels of trust. In both situations, the managerial concern is on control. More generally, we found that high tension and low trust are consistent with high demand for control.

Trust and control are related in a non simple way. Control can be seen as a managerial substitute for trust, ie, "legal" mechanisms are substituted for trust. Control can also be a complement to trust, as it is evidence of the management's support of the individuals; and, thus, trust is enhanced by some control, ie, control can reduce uncertainty and thus, vulnerability. Das and Teng (1998) tend to see trust and control as managerial substitutes as both require time and effort, or cost to realize in an organization. Our evidence would support the notion that trust and control are managerial substitutes. For a given level of predictability in an organization, managers can either use control mechanisms or develop levels of trust. Trust is likely to take much longer and is more fragile. With an emphasis on the short run, we can understand management's tendency towards more formal control mechanisms, even though there is a call for new forms of flexible organization in the face of increased uncertainty and hypercompetition (Volberda, 1996). These new forms call for less centralization, formalization, hierarchy as means to cope with increased uncertainty and rapid change. Low resistance to change is found in both the development climate

which has low formalization, centralization and hierarchy, and also in the rational climate which focuses on external measures of success and can be more formalized and centralized.

Whitener, et al's third proposition (p. 520) states:

> Organizations with cultures characterized by risk taking, inclusiveness, open communication, and valuing people will show greater trustworthy behavior, particularly delegating control, communicating openly, and showing concern, than will organizations with cultures that do not share these values or norms.

The development climate is similarly described: dynamic, creative, risk taking, encourages initiative and individual freedom (Hooijberg and Petrock, 1991). Here, we found that trust is high and tension is low (Table 3). In contrast, the internal process climate does not support such behaviors.

Their second proposition (p. 520) relates to rewards:

> The more an organization's HR policies and procedures incorporate (procedural) justice principles into performance appraisal and reward systems (e.g., regular and timely feedback and mechanisms for employee input into performance appraisal), the more likely it will be that managerial trustworthy behavior, especially communications and behavioral consistency, will occur.

Equity in rewards is associated with a high level of trust (Table 3). Our results do not, however, address the procedural mechanisms to obtain rewards equity, nor how the trust will manifest itself.

Managerial Implications

The managerial implications are many and complex. Managing tension and the resistance to change suggests new ideas and approaches. Further, the organization and its use of information depends upon the organization's climate.

Using an information processing framework, Burton and Obel (1998) develop a multi-contingency model for organizational design. Organizational climate, which we can describe in terms of tension and resistance to change, is one of the contingencies which determines the organizational design, which includes the configuration, level of centralization, formalization, complexity, coordination and incentives. The climate implications for the organization can be summarized using the competing values framework and in particular for the four climate types: internal process, rational goal, developmental and group.

For a climate with a high tension, with low trust, morale, equity in rewards and leader credibility and high conflict and scapegoating, the organization needs lots of documentation and lots of information which relates to the implementation of the plans or rules and the verification of what occurred. Managment wants the documentation in order to control and verify their plans and rules. Employees want documentation to know what to do, to justify what they did and also to protect themselves from capricious behavior of others. There is a need for lots of data and record keeping and these records constitute the formal memory for the organization.

For a climate with a low tension, with high trust, morale, equity in rewards and leader credibility with low conflict and scapegoating, the organization needs much less documentation of what is to occur and what has occurred. The information needs will much less formal. Nonetheless, the organization will process lots of information, oral and unkept written notes. The organizational

memory will be with the individuals in the organization and much less in the formal records of the organization.

For a climate with a high resistance to change, the organization needs for information focus on the history of the organization, its traditions and values. There is a need to view the present in terms of the past and maintain the continuity of stability. This can be accomplished through formal records, or less formally through the memories of the individuals in the organization.

For a climate with a low resistance to change, the organization needs for information will be more to the outside of the organization and more on the future of what can be. The information needs will be quite varied from many sources in many different forms. Information about the future and what might be becomes very salient. The present and the past are interpreted in terms of the future and what might be realized.

Then, for each of the four climate types, the information demands will be varied:

- internal process with high tension and high resistance to change.
The information demands require formal documentation for the high tension and many rules and plans which keep the organization much the same as it has been.

-rational goal with high tension and low resistance to change.
The information requirements are very demanding. The high tension requires documentation of ongoing activities; yet, the low resistance to change suggests external information about what others are doing and also what might be possible for this organization. This dual emphasis on two different kinds of information requires a formal documentation of what is occurring with a parallel demand for varied information from many sources.

-developmental climate with low tension and low resistance to change.
The information requirements are varied. The low tension climate suggests that a low need for formalized documentation on what occurs; the individuals in the organization will maintain the organizational memory. The low resistance to change suggests a focus on the environment to know what others are doing and also to focus the organization on what it might become.

-group climate with low tension and high resistance to change.
The information requirements must focus on values, symbols and understanding of what the organization is and what it does. There is less need to understand well what others are doing or what this organization might do. There is less need for formal documentation for control and protection. The history of the organization is maintained by the individuals themselves.

For a fast paced world, we suggest that a low resistance to change is highly desirable, if not mandatory. The rational goal and developmental climates have low resistance to change. Zammuto and Krakower (1991) found that a developmental climate had a proactive strategy, and low formalization and the rational goal climate was centralized. The proactive strategy looks to the future. The low formalization permits the required change without rules impeding the change. High centralization is one means to move the organization. In contrast, Volberda (1996) calls for less centralization and more flexibility to cope with greater uncertainty. For the fast paced world, low resistance to change is required to take future oriented action which is different than what the organization does today.

In this environment, a high resistance to change can be disastrous, even if the organization has low tension and high trust. Earlier, we presented results that the tension and resistance to change are independent; management cannot obtain low resistance to change by reducing tension. Low resistance to change requires a different approach. This does not argue that low tension and

high trust are bad, but they may not be either first priority and even necessary for a successful organization. For today's fast paced world, the first priority is to keep the resistance to change low and build flexibility.

Change management is very important for a fast paced world. The pace of our world means that we are always in a state of change; the issue is how to manage it for the benefit of the organization. Eisenhardt and Brown (1998) provide a novel view of change and how to manage it. The time paced organization is one of continuous change. The organization plans to change in a clockwork fashion and implements those planned changes according to the clock. Intel, who builds a new factory every eighteen months, is a well known example. Here, change is programmed and become part of the normal activities of the organization. Change has been turned on its head; it is a normal and continuing activity. The managerial sensemaking is re-interpret change as normal and expected. The Lewin three stage process: unfreeze, change and re-freeze, has been robbed of its first and last phase. Change is; it persists. In this topsy turvey world, stopping change would be introduce change. It is what Weick and Quinn (1999) call sensemaking. In brief, Eisenhardt and Brown argue that change as a norm is a way to survive, indeed thrive in a fast paced world. Clearly, they make the case that the Lewin episodic view of change is too slow and too costly for the fast paced world.

Management's first priority should be to keep the resistance to change low for today's fast paced world. Keeping tension low and trust high are laudable, but of secondary importance for today's environment.

Conclusion

We found that the organization's climate can be categorized along two dimensions: tension and resistance to change. Lewin's three phase change management process of unfreeze, change and re-freeze remain fundamental in our understanding of organizational change. Tension is a new and less developed concept. In our study, we found that trust, conflict, morale, rewards equity, leader credibility and scapegoating can all be summarized into a single dimension that we call "tension." These elements come as a bundle. High tension involves low trust, high conflict, low morale, low rewards equity, low leader credibility and high scapegoating. Low tension is the opposite.

Tension and resistance to change can be then categorized into four organizational climates using the competing values framework:

- S the developmental climate which has high trust, low tension and low resistance to change,
- S the rational climate which has low trust, high tension and low resistance to change,
- S the internal process climate which has low trust, high tension and high resistance to change,

and,
- S the group climate which has high trust, low tension and high resistance to change.

Depending upon the contingencies, each organizational climate can be appropriate and effective. For today's fast paced world, a low resistance to change is first priority. Low tension in the organization may also be appropriate and desired for other priorities, eg, individuals like to work in a low tension and high trust organization.

The managerial implications suggest that continuous change makes good sense for today's fast paced world.

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