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PARTICIPATION'S EFFECT ON ORGANIZATIONAL READINESS FOR CHANGE: AN EMPIRICAL STUDY

THESIS

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AFIT/GLM/ENV/03-04

DEPARTMENT OF THE AIR FORCE AIR UNIVERSITY

AIR FORCE INSTITUTE OF TECHNOLOGY

Wright-Patterson Air Force Base, Ohio

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PARTICIPATION'S EFFECT ON ORGANIZATIONAL READINESS FOR CHANGE: AN EMPIRICAL STUDY

Presented to the Faculty

Department of Operational Sciences

Graduate School of Engineering and Management

Air Force Institute of Technology

Air University

Air Education and Training Command

In Partial Fulfillment of the Requirements for the

Degree of Master of Science in Logistics Management

Jonathon F. Flanders, BS

Captain, USAF

March 2003

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As in all academic pursuits, I am grateful for the participation of the numerous individuals from [the organization] who took part in completing the attached questionnaire. Without the data provided by the respondents, this thesis would not have been possible.

Jonathon F. Flanders, Capt, USAF

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Abstract

Organizational change management is a principal issue in virtually every organization. This cross-sectional correlation study examined an array of variables (i.e., process, personality, and context-specific) that influence organizational readiness for change. Participation (process variable) was related to higher mean scores in each of the four distinct readiness for change scales and explained a significant amount of incremental variance in appropriateness, valence, and efficacy. Personality variables, when taken in total, explained a significant amount of variance in each hierarchical regression model ran on the four readiness factors. Three personality variables displayed significantly higher mean scores (i.e., positive affect, locus of control, and general attitudes toward change) for participants versus non-participants. Context-specific variables explained a significant amount of incremental variance above that explained by personality variables for each readiness factor. Moreover, participants displayed higher mean scores in all six contextual variables.

PARTICIPATION'S EFFECT ON ORGANIZATIONAL READINESS FOR CHANGE: AN EMPIRICAL STUDY

CHAPTER 1

Literature Review

Background

Properly managing organizational change is a quintessential element of long-term organizational success. Organizational change of every degree, from incremental to revolutionary, permeates virtually every organization. Practitioners and academics have written volumes of literature regarding the topic of change management (e.g., Armenakis, Harris, & Feild, 1998; Duck, 1993; Eby, Adams, Russell, & Gaby, 2000; Halal 2000; Huy, 2002; Mellina, 2002; Miller, Johnson, & Grau, 1994; Pietersen, 2002). A prominent reason for the vast scope of the body of literature surrounding change management is that change initiatives are frequently unsuccessful. According to Beer and Nohria (2001), the major institutional change failure rate is approximately "two out of every three" (p. 4).

It can be hypothesized that organizational changes fail due to a variety of forces; some of these forces are within management's immediate span of control and some are not. For example, change initiatives often fail due to the following reasons which are within management's span of control: approach taken by management, poor communication, and a lack of participation. On the other hand, a change initiative may fail due to forces that are largely external to management's control (viz., external business environment; cf. Armenakis, et al., 1998; Duck, 1993; Halal 2000; Mellina, 2002).

To ensure successful outcomes, a number of prescriptions designed to remedy the frequent failures encountered by organizations and targeted specifically toward those elements of

change that are within management's control have been put forth. For instance, Duck (1993) suggests the creation of a Transition Management Team (TMT). The TMT is responsible for more than the mere allocation of resources. It is responsible for addressing the emotional and behavioral aspects of change management. The TMT approach suggested by Duck (1993) has the nuance of a psychological influence being integrated into commonly accepted management practices; that is, create work teams and responsibility centers that pay particular attention to the group dynamics and psychological needs of each team member. Pietersen (2002) prescribes six rules (e.g., clarity of purpose, honest communication, maximize participation, eliminate resistance, generate short-term wins, and set the example) for successfully managing change. Each of these prescriptions for implementing successful change initiatives have common underlying themes, suggesting all leaders should have an appropriate change message, communicate that change message, and create an environment for employees to participate in change planning and implementation.

Armenakis et al. (1998) explicitly present a comprehensive model that theoretically explains the strategies that leaders might employ to help move through the change process. Their readiness for change model is composed of three strategies for creating organizational change readiness (viz., active participation, persuasive communication, and management of external information). Active participation is the process of getting organizational members involved in shaping the change initiative and influencing the change outcomes. Though participation is often touted as crucial to successful change management, there is little scientific evidence in the literature that verifies the claim that actual participation has the desired affect on outcomes related to a particular organizational change. The purpose of this empirical study is to investigate the influence of participation in creating organizational change readiness by

estimating the influence participation has on change readiness factors while controlling for personality variables (e.g., positive affect, negative affect, locus of control, rebelliousness, and general attitudes toward change) and contextual variables (e.g., trust in management, perceptions of management's ability, communication climate, perceptions of organization's change climate, perceived organizational support, and perceptions of coworkers).

In subsequent analysis, I will explore whether participants are more receptive to organizational change than non-participants. Further, participation's effect on each of the organizational readiness factors will be examined. Finally, the personality and contextual variables will serve as control variables for determining what incremental effect, if any, participation has on creating organizational readiness for change.

In the following sections of this chapter, I will develop the concept of readiness. After this, the change process, facilitation strategies, and participation will be discussed. This chapter will conclude with the enumeration of each of the five hypotheses that will be tested to determine the effects of participation in creating organizational readiness for change.

Readiness

Readiness for change, as presented here, is comprised of an individual's beliefs and attitudes that have arisen from one's perception of an organization's ability to effect change (Eby, Adams, Russell, and Gaby, 2000). Eby et al. (2000) state, "perceptions of the organization's readiness for change are based on an individual's unique interpretation of the organization's context" (p. 422). Moreover, Eby et al. assert that individual perceptions of organizational readiness generally evolve over time and that management intervention (i.e., communication, solicitation of participation, and active support) can help shape those perceptions.

Readiness is a precursor to successfully implementing a change initiative. Armenakis et al. (1998) hypothesize that readiness is a necessary, but insufficient condition for any organization desiring to implement programs of change. More specifically, an organization must first be unfrozen from the status quo in order to implement change. An important distinction is made in the necessity of discriminating between readiness and resistance "by considering readiness as a cognitive, emotional state and resistance as a set of resultant behaviors" (p. 18). Armenakis et al. (1998) suggest that an individual's state of readiness is a sound predictor for one's support for or resistance to a particular change. Furthermore, Armenakis et al. also assert that an individual's state of readiness can be influenced by management actions. For instance, they propose that management can increase individual readiness levels by consistently communicating five core messages (viz., the change is needed, is appropriate, is doable, is supported, and has personal value for the target; p. 18).

Readiness, therefore, is an important factor that can "facilitate or undermine the effectiveness" (Eby et al., 2000, p. 420) of proposed organizational changes. It is a key component in building momentum and creating organizational buy-in for change proposals (Eby et al., 2000). This suggests that management should be able to accurately gauge and appropriately influence organizational readiness through targeted facilitation strategies that are designed to increase the likelihood of organizational acceptance of change and ultimately its success. Of note, one of three fundamental strategies for the creation of readiness put forth by Armenakis et al. is active participation. Active participation will be discussed in a later section. *Change Process and Facilitation Strategies*

The change process can be described as being both dynamic and complex (Edwards, 2000). It is dynamic in the sense that each organization faces an ever-evolving environment and

has its own unique culture. The complexity aspect refers to the myriad of context- (e.g., strategic position of the organization, rationale for change, and the character or extent of the change) and individual-specific (e.g., dispositions, attitudes, and emotions) circumstances that are present in an organization at any given point in time. Due to the dynamic and complex nature of the change process, change management theories have arisen from various perspectives: management practitioners, psychological, scientific, and sociological (cf. Pietersen, 2002; Huy, 2002; Rapp, 2001; Zajac & Bruhn, 1999; Crossan). Still, other theories offer explanations and facilitation strategies that are primarily concerned with the organizational environment (cf. Crossan, White, Lane, & Klus, 1996). In the succeeding sections, each of these will be explored along with some examples of theories that were derived from each perspective.

Practitioner construct. As previously mentioned, Pietersen (2002), puts forth a practitioner's change manage ment theory that he developed from his experience as a senior executive in a number of multi-billion dollar corporations. His theory, termed *The Mark Twain Dilemma*, is so named because he suggests initiating change at a time when the organization is most successful and therefore most likely to be resistant. The nature of the dilemma that Pietersen proposes came from the supposition that an organization should change when it is successful precisely because this is the time when the stakeholders are satisfied with the organizational performance. As a result of stakeholder satisfaction and solid performance, an organization is most likely to have the requisite resources and talented personnel to implement a change at that time. However, the organization's members are least likely to feel the need for a change during flourishing times and are thus more resistant to any substantive changes.

Conversely, when an organization is faltering and the stakeholders are unhappy, the organization perceives the need for change. Unfortunately, Pietersen surmises, it is generally too late to

successfully implement change at this stage because fungible resources are scarce and talented people have already begun departing the organization. In essence, the nature of the dilemma is to promote change at the point when resistance is likely to be at its peak.

Interestingly, Pietersen (2002) incorporates psychological resistance factors into his theory and suggests that change resistance emanates from the "FUD Factor – Fear, Uncertainty and Doubt" (p. 33). He suggests that it is important to transform people's resistance to change into support for the change initiative and proposes "six golden rules for success" (e.g., clarity of purpose, honest communication, maximize participation, eliminate resistance, generate shortterm wins, and set the example; p. 34-37). He asserts that clarity of purpose (i.e., the rationale for the change) is the most important factor related to successful financial performance with regard to the change. Moreover, two of his six rules deal with the concept of participation. It is important to note that his rules for maximizing participation and eliminating resistance can essentially be viewed as two dimensions of the same concept. That is to say that maximizing participation may ultimately facilitate the elimination of resistance or conversely require those who continue to resist to be eliminated from the organization. When distilled to its most concise form, the essential elements of Pietersen's prescription for implementing change is focused on three basic themes for successful change management: the message matters, communication is fundamental, and participation is essential.

Psychological construct. One theory that draws heavily on the psychological field is Huy's (2002) theory of emotional filtering. Huy defined emotional filtering as "change recipients' emotionally charged interpretations of agents' actions that materially influence recipients' cognitive and behavioral responses to the proposed change" (p. C2). In his three-year field study, Huy employed the circumplex model of emotions to investigate the range of

emotional reactions that occurred during an organizational change process. The circumplex model has two basic dimensions that capture a wide range of human emotions (viz., hedonic value [pleasant-unpleasant] and activation readiness [low versus high activation])" (p. C2).

The two emotional dimensions of the circumplex model are driven by a dual-component motivational system. The first motivational system involves goal-oriented behaviors and is typified by people who embrace change as a means to capitalize on an opportunity. The second motivational system is threat-avoidance and is typified by the emergence of uncomfortable feelings (e.g., fear, anger, and discomfort). Huy (2002) suggested that the threat-avoidance motivation could stimulate a positive or negative reaction. Positive reactions to emotional discomfort could cause one to embrace change in order to avoid the perception of failure, whereas negative emotional responses resulted from a prolonged state of emotional distress that led to dysfunctional behaviors.

Huy's (2002) research pointed to the importance of recognizing and manipulating how emotional responses interplayed with the process of organizational change. He identified three key aspects that were influenced by emotional states (viz., receptivity, collective mobilization, and learning; p. C3). Receptive behaviors ranged from resignation to wholeheartedly embracing change. However, negative emotional states led to resistance that varied in scope from withdrawal to outright interference. Where negative emotional states lingered, Huy suggested that resistance behaviors took the place of receptive behaviors. Collective mobilization occurred when the spirit of cooperation was prevalent which led to widespread support for common goals. Finally, the learning aspect provided "the feedback loop" (p. C3) that tied the outcomes of receptivity and collective motivation together. An effective learning process allowed mid-course corrections to be identified and acted upon before mistakes in the process became intractable.

Armed with the knowledge that negative emotional states (viz., anger, discomfort, agitation, and frustration) are likely to arise and play a vital role in organizational change dynamics, Huy (2002) asserts that managers should attempt to juxtapose negative emotions and "inject positive energy into a change effort" (p. C5). Huy suggests that "soothing emotions" (p. C5), such as comfort and hope, should be infused into the organization by managers. Moreover, Huy even states that giving employees the mere perception of control and input (not necessarily actual participation) into the effort will benefit the organization's ability to collectively mobilize.

Scientific construct. No discussion regarding organizational structure, function, and change could be complete without addressing the origins of management science, a.k.a. scientific management. The most prominent of the founding fathers of scientific management are Frederick Winslow Taylor and Henri Fayol. Taylor (1916) said that scientific management involved the meticulous selection of workmen, the efficient division of labor, training the workforce, and applying the scientific method to the manner of work to be performed. Fayol (1949), building upon Taylor's (1916) inputs regarding scientific management, put forth 14 principles of management (viz., division of work, authority and responsibility, discipline, unity of command, unity of direction, subordination of individual interest to the general interest, remuneration of personnel, centralization, scalar chain (line of authority), order, equity, stability of tenure of personnel, initiative, and esprit de corps; p. 48). In fact, there have been a great number of authors expound upon and diverge from the notion of scientific management since its inception. I will provide a more contemporary example in the following paragraphs.

One author who provides a viewpoint in the contemporary scientific management vein is Rapp (2001) who asserts that managing change should be viewed through an evolutionary, not revolutionary lens. Rapp (2001) studied the U.S. Army Corps of Engineers during the early and

middle 1990s, a time when the Corps was experiencing a downsizing effort. He advocates a change management approach to the downsizing problem that applies a strengths, weaknesses, opportunities, and threats (SWOT) analysis: where strengths and weaknesses are internal to an organization and opportunities and threats are external to the organization. Rapp (2001) states that "changes in external opportunities and threats or internal strengths and weaknesses will compel changes in the [organization], and restructuring becomes essential if the organization is to remain viable" (p. 167).

The change process, according to Rapp (2001), is essentially an evolutionary cycle. He asserts that a systematic approach (viz., methodical SWOT analysis) is often impeded by bureaucratic roadblocks, such as the need for managers to show immediate results of a particular change initiative in order to generate favorable performance evaluations. This pressure to show instant results often runs contrary to a long-term, evolutionary implementation of the proposed change. Rapp's proposed solution for these shortsighted bureaucratic roadblocks to a major downsizing effort is a "combination of three mechanisms [which should consist of] some near-term reductions, mid-term redesign, and long-term cultural change" (p. 167-168). In this manner, it is proposed that an incremental approach to downsizing will yield far greater results than a sudden, sweeping restructuring effort. The following paragraphs explain why Rapp believes that the evolutionary approach is the more effective management methodology.

First, Rapp (2001) stresses the importance of avoiding an enormous organizational mistake. For instance, if senior leaders misread the change climate and subsequently take drastic actions based upon imperfect or flawed information, the erroneous decision-making process will likely lead to organizational decline. Second, drastic top-down driven change initiatives do not allow for employee participation. Participation can help garner the support of the "troops" who

implement the change and make it possible to institutionalize and may help senior leaders identify flaws in the plan earlier in the change process, which could save valuable time and resources (Rapp, 2001).

Ultimately, Rapp (2001) concludes that many smaller changes are much easier to manage and implement than a few larger, radical changes. Moreover, smaller changes allow managers to solicit employee input and build mutual trust in instituting the proposed changes. Lastly, Rapp purports that is a primary concern of managers to learn and communicate the principles of management theory to the employees of an organization.

Sociological construct. The sociological frame of reference regarding change implementation refers to the management of relationships and expectations among organizational members. In fact, one theory espoused by Zajac and Bruhn (1999) purports that it is the moral obligation of organizational leaders to encourage and elicit employee participation in the organizational change process. Moral theory breaks down into four basic schemata: deontology, consequentialism, justice-based ethics, and virtue-based ethics. These four basic schemata are applied to a participative approach to management in order to determine the moral obligations of managers and employees within a participative management construct.

Deontology is the aspect of morality that applies to notions of right and wrong. Arising out of these societal notions of right and wrong are duties or expected behaviors. Wrong behaviors are to be avoided and right behaviors are promoted as positive duties. A moral argument for the positive duty of participation in planned organizational change can be based "entirely on the premise of dignity, given that the duty to respect the inherent value of each human being is central to many systems of moral thought" (Zajac & Bruhn, 1999; pp. 710-711). Therefore, from a deontological perspective organizations have a moral obligation to facilitate

participation during times of planned organizational change. From this moral perspective, the right to participation holds even if the results of that participation lead to sub-optimal decision-making (Zajac & Bruhn, 1999).

Public organizations, and to a lesser extent private organizations, have a moral obligation to include the public (i.e., public participation) in planned organizational change. This view represents the consequentialism aspect of moral theory. The obligation of public participation comes from the concept of public trust. If the organization's endeavors affect the common good of the people, then the organization is obliged to keep the public abreast of planned organizational changes that may alter the current state of affairs. This is especially true if the organization has discovered a problem and has implemented a change designed to address the issue. For instance, new control mechanisms designed to deal with the widespread abuse of power by a policing agency. In this instance, the general public has a right to know what the new procedures are and what the organization has done to rectify the problem in the public interest (Zajac & Bruhn, 1999).

A justice-based approach to participation requires that the social context be configured in a manner that provides the maximum practical benefit to the most disadvantaged members of the social system, in this case an organizational structure. Organizational circumstances surrounding a planned change initiative must be conscientiously arranged in order to achieve the greatest good for members and clients who happen to be in disadvantaged positions (Zajac & Bruhn, 1999). As such, organizations are compelled to approach participation "by employees and appropriate external parties in planned organizational change as a right, so long as the least advantaged employees and clients have the greatest opportunities for such participation" (Zajac & Bruhn, 1999; p. 715). The justice-based approach to participation morally compels an

organization to seek out the disadvantaged organizational members and facilitate their participation, even at the expense of "extraordinary efforts" that may not produce commensurate returns on investment for these efforts (Zajac & Bruhn, 1999).

A virtue-based approach to morality focuses on the qualities of the individual. Virtue, as used here, is defined broadly as the pursuit of personal excellence. However, there is a more ominous side to virtue-based thought. The relentless pursuit of individual excellence can lead to megalomania where the individual comes to see herself as superior to others. This self-ordained superiority complex can take many forms and insinuate itself in varying degrees. Nonetheless, a virtue-based approach to participation can take one of two forms. First, an elitist approach may dictate that only those whom have proven themselves worthy of participation are allowed to participate in the change effort. On the other hand, a more egalitarian view of virtue-based participation may hold that the act of participating should be structured in a manner that is conducive to the development of the individual participant's virtue, that is to say participation that facilitates individual excellence (Zajac & Bruhn, 1999).

A moral argument for participation can be made by applying any of the four previously discussed moral schemata. However, Zajac and Bruhn (1999) suggest a blended approach to making the moral case. In fact, as a matter of pragmatism, they suggest that a utilitarian view may be a more expedient moral argument for managers to solicit and facilitate participation. The utilitarian view focuses on achieving outcomes that benefit the greater good of the organization and society at large. However, the authors caution against couching participation in a morally expedient light for the sole purpose of the "organizational imperative" (Zajac & Bruhn, 1999; p. 720). Recklessly applying a moral argument in this fashion comes at the expense of human dignity.

Environmental construct. The environmental construct referenced in this section refers to the business or organizational environment, as opposed to the weather, pollution, and climate. In other words, the environment comprises the external forces that influence a particular organization. Moreover, the environment is generally cast as being reasonably stable in the very near term and extremely dynamic in the mid- to long-term. Therefore, the organizational environment plays a very important role in dictating an organization's need to adapt to the ever-evolving environment that it faces.

Crossan, White, Lane, and Klus (1996) define the conventional or traditional change management paradigm as a manager's fundamental belief that the future can be controlled through the rigorous employment of forecasting, planning, and control functions. However, they assert "[t]he best companies distinguish themselves from all others by their ability to adapt to and capitalize on a rapidly changing, often unpredictable environment" (p. 20). These "best" companies are termed improvising organizations. An improvising organization is one that is "flexible enough to adapt, creative enough to innovate, and responsive enough to learn" (p. 23). However, managerial improvisation techniques are offered as a "link between the need to plan for the predictable and the ability to respond simultaneously to the unpredictable" (Crossan et al, 1996; p. 22). As such, managerial improvisation is not intended to be mutually exclusive with the functions of forecasting, planning, controlling, and analysis. Table 1 contrasts the traditional and improvising organizations by outlining the old and new assumptions about the organizational environment, offering examples of tasks undertaken by managers for each set of assumptions, and gives suggested tool sets to be utilized by managers for each set of assumptions. For instance, a primary assumption of the traditional organization is that the future is largely

knowable and predictable. By contrast, the improvising organization views the future as largely unknowable and as a result unpredictable (Crossan et al., 1996).

The authors go on to present a roadmap toward managerial improvisation. Crossan et al. (1996) assert that managerial improvisation is more than off-the-cuff decision-making; instead, it is a disciplined technique that can be learned and practiced. They present several approaches: role-playing, practicing theatrical improvisation techniques, analogies, and situation-based training. The point here is that managerial improvisation requires a commitment to training, practicing, and learning the requisite skills associated with the art of improvisation before it can be put in place as a management technique. Crossan et al. state that the most important element of improvisation management that enables its success as a managerial technique is communication.

Obviously, the reason that the concept of an improvising organization has significance to this study is in the nature of improvisation itself. If all factors influencing an organization were known and constant, then there would be no need to improvise. Indeed, organizational forces, both internal and external, are in a dynamic state of disequilibria (Eby et al., 2000). Therefore, the management art or practice of improvisation has potential significance in change management in that it offers a distinct alternative to managing and reacting to the inevitable forces of change.

Table 1

Old and New Assumptions About the Environment

	Environment	Managers' Tasks	Tools	
Old Assumptions	1) Future is largely knowable, predictable, objective, quantifiable, and controllable.	To predict changes in the environment, develop short- and long-term plans to deal with those changes, and control the execution	 Pre-1970: Decision Trees, Managerial Grid, Brainstorming. 1970-1980: theory Z, conglomeration. 1980-present: Diversification, Experience 	
	 Long-term strategic plans can be made successfully within its framework. 	of the plans. Success largely arises through accurate and rigorous analysis and forecasting.	Curve, Strategic Business Unites, Zero-Based Budgeting, Value Chain, Decentralization, Quality Circles,	
	3) Although turbulent management processed can navigate through with relative certainty.		Excellence, Restructuring, Portfolio Management, MBWA, Matrix, Kanban, Intrapreneuring, Corporate Culture, One- Minute managing,* EVA, Game Theory.	
New Assumptions	1) Future is largely unknowable, unpredictable, fast moving, and messy.	1) To explore, interpret, develop meaning, and participate in the creation of a changing	Key Elements of the Improvising Organization:	
	2) Subjective; reality is socially constructed and negotiable.	environment.	• The learning process of practice and performance.	
	3) Displays many characteristics found in natural chaotic systems (i.e., weather system). Long-term predictions impossible.	2) To facilitate the development of an organization that engages opportunities for learning, innovation, and creativity.	 Leadership focus of serving and role changing. Listening and communicating Unique role of story development (strategy), cast (organization members), 	
	4) Change constantly buffets the organization.		ambiance (culture), and audience (customers).	

^{*}This list of tools suggested by Richard Pascale, *Managing on the Edge* (New York: Simon & Schuster, 1990), pg. 20 **Source:** Slightly adapted from Crossan et al. (1996, p. 24)

Participation

Participation is active involvement in the decision-making process of an organization. It is important for a variety of reasons (e.g., fosters mutual trust between employees and management, gives employees a sense of control in the change process, and gives employees a feeling of process ownership). Active participation includes a variety of experiences (e.g., vicarious learning, participative decision making, and enactive mastery; Armenakis et al., 1998). Two essential elements of active participation are internal and external information. Armenakis et al. suggest that management should take care to effectively present and make readily available both types of information. Managing external information can include cooperating with media outlets and making outside expert analysis of an organization's processes available to potential participants (Armenakis et al., 1998). As illustrated in the preceding sections, participation is a key facilitation strategy in both garnering support for change and institutionalizing change.

Participative management styles are comprised of many nuances and complexities that are often organizationally dependent. Organizational structure, environmental factors, and the individual psychological profiles of each organizational member all combine to determine the feasibility and applicability of a participative management style. Turner (1991) conducted a quasi-experimental field study that found participative management to be less desirable in the aggregate though a number of individual employees preferred a participative process. The implication of this study's findings seems to indicate that the task for managers is to methodically identify those who desire a participative approach in lieu of a peanut butter spread application of participative management (Turner, 1991).

The process of identifying the individual attributes that serve as antecedents to willingness to participate in organizational change was advanced by Miller, Johnson, and Grau (1994). Miller et al. postulated that participation could come in two forms: active participation or active resistance to change. Miller et al. developed a model that suggested two significant causal pathways that lead to openness to change in a participative environment. The significant influencing factors were need for individual achievement and quality of information.

Interestingly, they found that anxiety toward change did not play a significant role in determining one's openness to change (Miller et al., 1994). Moreover, the authors found that informal communication networks play a significant role in participation and communication.

The significance for management practitioners of the antecedents (e.g., individual need for achievement and quality of information) to an individual's willingness to participate were summarized by Miller et al. (1994) in the following manner, "[the] results of this study indicate that employees who received ample information in a timely and appropriate fashion and who had a high need for achievement were willing to participate in an organizational change" (p. 72). Armed with this information, the task for managers in garnering participation during a change initiative would be to accurately identify and solicit participation from organizational members that display higher degrees of the personality traits that constitute the proposed antecedents to willingness to participate.

Pasmore and Fagans (1992) advanced the idea of participation as a mediating strategy to advance organizational citizenship behaviors within the framework of organizational development. Pasmore and Fagans suggest that participation has a dual purpose (i.e., transform social systems and transform individual participators). The two purposes of participation work in harmony with each other to create "a life of meaning" (p. 385). Furthermore, Pasmore and

Fagans assert that there are three moderating variables that affect the outcomes of participation in organizational change (viz., organizational receptivity, individual ego development, and knowledge availability). When an organization, through conscientious intervention, has achieved high stages of development in each of the three moderating variables participation is likely to lead to positive and productive organizational citizenship behaviors (e.g., contributing, collaborating, self-esteem, self-efficacy, and personal engagement).

An article written by Wanberg and Banas (2000) was instrumental in shaping the hypotheses presented below and the manner in which the participation question was framed. The article essentially developed and tested a conceptual model that showed the linkage between predictor variables and individual outcomes that flowed from organizational openness to change. The predictor variables were divided into two distinct sub-sets: individual difference variables and context-specific variables. The individual difference variables consisted of scales designed to measure self-esteem, optimism, and perceived control. The context-specific variables consisted of information, participation, change self-efficacy, social support, and personal impact (Wanberg & Banas, 2000). Wanberg and Banas suggested that certain individual and context-specific variables explained a significant amount of variance in openness toward organizational change.

One important difference in the design of this thesis is that participation was viewed as a moderator on organizational change factors that was distinct from either individual or context-specific variables. However, the study conducted by Wanberg and Banas guided the decision to use a number of individual and context-specific variables as control variables for this thesis.

Hypotheses

As evidenced by the literature, there are at least three common and prominent themes in the change management process: the message, communication, and participation. Once again, it is the focus of this study to measure the effects of two significant domains of change: participation and the extent that people have viewed or received the message. The case for or against participation's effectiveness and the measurement of organizational members view of the change message will be developed through testing six hypotheses. The hypotheses are:

Hypothesis 1a: Participants will be more likely to display positive personality traits than non-participants.

Hypothesis 1b: Participants will be more likely to display positive corporate citizenship behaviors than non-participants.

Hypothesis 2: Participants will be more ready for the change than non-participants.

Hypothesis 3a: Participation will explain an additional portion of variation in employees' perception of the appropriateness of the change over that explained by disposition and context.

Hypothesis 3b: Participation will explain an additional portion of variation in employees' perception of management's support of the change initiative over that explained by disposition and context.

Hypothesis 3c: Participation will explain an additional portion of variation in employees' perception of their efficacy in implementing the change initiative over that explained by disposition and context.

Hypothesis 3d: Participation will explain an additional portion of variation in employees' perception of the change having value or being personally beneficial to them over that explained by disposition and context.

Summary

There are numerous constructs and prescriptions designed to facilitate the effective implementation of organizational change. These prescriptions are not mutually exclusive. In fact, major change facilitation themes appear throughout the literature: the importance of the

change message, communication, and participation. The purpose of this paper is to estimate the influence of one of these major themes, namely participation. In the succeeding sections of this thesis a number of issues will be broached; the methodology employed in this study in presented in Chapter 2, the results are presented in Chapter 3, and Chapter 4 offers a discussion of the findings.

CHAPTER 2

Method

The data for this study were collected as part of a larger study that was designed to explore the validity and reliability of a measure to gauge organizational readiness for change.

The data were collected from members of a large Department of Defense organization preparing to undergo a restructuring effort. This group was administered a questionnaire that gauged readiness, individual attributes, and specific contextual factors.

Sample

The sample consisted of 264 employees that were members of the organization; this constituted a 53 % response rate. Of these, males represented 59% of the sample and the age of the average participant was 47.6 years. The sample appeared to be a fair cross section of employees with participants indicating that 2.9 organizational levels, on average, separated their position from the organization's most senior leader. In addition, an array of job titles was represented ranging from illustrator to quality assurance. However, computer analysts and programmers represented the largest portion of the sample. This result was not surprising considering the organization was responsible for developing and fielding information systems for the Department of Defense.

Organizational setting

The organization under study had an annual budget of nearly \$300 million, which it used in carrying out its stated mission. In an effort to fulfill this mission more effectively and efficiently, the organization's senior leadership group developed nine organizational leadership objectives in January 2000. One of these leadership objectives, termed "Organize for success," was intended to design a new organization structure that facilitated high performance and quality

service. The new structure, designed to clarify lines of authority and eliminate duplicate functions, was developed in June 2000 and the executive director agreed to implement the new structure on 1 January 2001.

Change Process and Procedures

Organizational members were told about the change in a number of different ways. The change was first announced six weeks prior to the implementation at an organization-wide meeting (i.e., a "town-hall" meeting) where the organization's executive director provided the outline of the new structure, addressed employees' initial questions, and announced the questionnaire. Within the next week, each division chief held meetings with the members of his or her division and provided employees with the details of the new structure and the implications it would have for each individual. In order to address individual concerns in a more private setting, the executive director subsequently held several "brown bag" lunches open to any organizational member that was interested.

In view of the fact that all organizational members had access to the World Wide Web, members of the organization were administered a web-based questionnaire. Organizational members that did not feel comfortable completing the on-line version of the questionnaire were offered the option to print a traditional paper version and return it directly to the researcher upon completion. As noted, this web questionnaire was announced at the initial group meeting (approximately six weeks prior to implementation of the new structure) and all data were collected three weeks prior to actual implementation.

In an effort to maximize the response rate, many strategies recommended by Simsek and Veiga (2000) for bolstering the response rate of electronic questionnaires were used. First, organizational members were given advance notice of the web questionnaire via an electronic

message sent to each person's personal e-mail account one week prior to the web questionnaire being available. The web address was distributed to each organizational member through an e-mail message from the organization's executive director and passed on through verbal announcements during managers' weekly staff meetings. Finally, follow-up messages were sent out to the potential respondent pool on two occasions.

Measures

Scales used in this questionnaire were selected to be specific, reliable, and valid. It is important to note that some of the scales were shortened based on the belief that many organizational leaders would be reluctant to use questionnaires that are lengthy and time consuming in the work setting. Moreover, it was believed that the participants completing the questionnaire would probably object to answering many questions that they believed were similar in nature. Even though some of the scales were occasionally abridged, efforts were made to select scales that had been widely used in related areas of research and have considerable empirical data to indicate that they were reliable and valid.

In order to make the questionnaire as simple as possible and minimize confusion a 7-point response format that ranged from 1 (*strongly disagree*) to 7 (*strongly agree*) was used for each scale, unless otherwise noted. As previously mentioned, some minor alterations were made to a few of the response formats that were originally used with some of the scales. For instance, one measure was developed with a 4-point response format ranging from 1 (*strongly agree*) to 4 (*strongly disagree*) while others used 5-point response formats that ranged from 1 (*strongly disagree*) to 5 (*strongly agree*) or 7-point response formats. In general, research has suggested that these types of alterations do not affect the reliability and validity of the scales (Matell & Jacoby, 1971).

Process Variable

Change participants was a categorical variable coded as a 0 = non-participant or 1 = participant. The primary contact person within the organization provided a list of change participants. Change participants were those that attended the off-site meetings held weekly through June 2000 to develop the new structure that was to be implemented. In all, the organization's contact person identified 50 people that had participated in the off-site meetings (this list was larger than expected because a name was included if a member attended any one of the four meetings). Of these, 43 change participants completed the questionnaire.

Personality Variables

Affect. The Positive Affect and Negative Affect Schedule (PANAS; which consists of two, 10-item sub-scales for each dimension) was used to measure each of the respondents' affective disposition (Watson, Clark, & Tellegen, 1988). The positive affect (PA) items measured the extent to which respondents were generally in a positive mood (e.g., enthusiastic, active, inspired, and alert). The negative affect (NA) items measured the extent to which respondents were generally in a negative mood (e.g., irritable, angry, afraid, and guilty). Participants in this questionnaire responded to each item using a 5-point Likert-type response format that ranged from *very slightly or not at all* (1) to *extremely* (5); Watson, et al., 1988).

Additionally, Watson et al. (1988) varied the time frame of reference to assess both affective states and traits. Specifically, instructions asked participants to respond to how they felt for each item, given a specific time reference (i.e., at the moment, today, past few days, past few weeks, year, and generally). Watson et al. (1988) found that framing the question in a manner that prompted respondents to answer each item on the scale in general or average terms produced the most accurate estimate of the individual's affective disposition for both dimensions

of the PANAS scale. As a result, the general time instruction was used in this questionnaire in order to tap into the more stable aspect of the affect personality trait as opposed to an individual's current feelings (e.g., at the moment or today).

Watson et al. (1988) reported two internal consistency estimates (Cronbach's alpha), one for each sample in their study, for the PANAS scale (.86 and .90 for PA and .84 and .87 for NA). Test-retest reliabilities were conducted to determine the scale's stability over time. The test-retest data indicated that the PANAS scale was acceptably stable and that the general time instruction produced the strongest test-retest coefficient of .68 and .71 for PA and NA, respectively (Watson et al., 1988). Internal consistency estimates for this sample were .92 and .87 for PA and NA, respectively.

Locus of control. The 7-item mastery scale was used to measure the extent to which respondents believed that they controlled the "forces that importantly affect their lives" (Pearlin, Menaghan, Lieberman, & Mullan, 1981; p. 340). High scores indicated feelings of control over the respondents' situational environment and their potential success, whereas low scores indicated a feeling that external factors were more likely to influence personal outcomes (e.g., "What happens to me in the future mostly depends on me" and "There is little I can do to change many of the important things in my life" [Reverse scored prior to analysis]).

Internal consistency estimates were not reported in the original article. However, confirmatory factor analysis was conducted and deemed to be satisfactory by the authors. Also, the correlation between the two different time measures used in the study was .44 (Pearlin, Menaghan, Lieberman, & Mullan, 1981). The internal consistency estimate in this sample was .76.

Rebelliousness. The refined 11-item Hong Psychological Reactance Scale (Hong & Faedda, 1996), which measures the concept of psychological reactance or the extent to which respondents are inclined to be defiant, was used to measure rebelliousness. High scores indicated frustration when exposed to regulations and situations where participants felt their ability to make independent decisions was constrained by organizational policy or regulations (e.g., "I become frustrated when I am unable to make independent decisions"). The refined scale, which Hong and Faedda (1996) shortened from 14 items to 11 items, exhibited an improved factor structure. Furthermore, the refined scale produced only fractionally reduced internal consistency estimates when compared to the original 14-item scale (from a = .80 to a = .80) .77). Hong and Faedda suggested that the refined scale might be a more practical instrument when measuring the construct of psychological reactance, because it did not appear to cede any significant portion of the scale's validity or reliability. Even though the response format was expanded from its original 5-point version to a 7-point format to accommodate this questionnaire, the consistency estimate (a = .85) compared favorably to Hong and Faedda's (1996) original findings.

General attitudes toward change. The participants' generalized attitudes toward change were measured by Trumbo's (1961) change scale. The change scale was designed to measure the extent to which participants were inclined to accept and seek change (Trumbo, 1961). Four items of the nine-item change scale were selected in the interest of brevity (e.g., "I like a job where I know that I will be doing my work about the same way from one week to the next"). Prior to any analyses, the items used were reversed scored so that high scores indicated a willingness to seek or accept work-related change. Trumbo reported a reliability coefficient of .79. Moreover, Trumbo conducted further analysis to determine if the change scale had

predictive validity by assessing "responses to questions about specific past, current, and anticipated future change events" (p. 339). He concluded that the scale did have predictive validity. Trumbo also suggested that the scale had discriminant validity, especially when the respondent believed that the organization was facing sweeping changes. Although the scale was shortened in this particular application, this sample achieved a comparable estimate of internal consistency ($\mathbf{a} = .77$).

Contextual Variables

Trust in management. Mayer and Davis's (1999) 4-item trust scale was used to measure the extent to which respondents were willing to allow organizational leaders to control issues that were important to them (e.g., "I would be willing to let top management have complete control over my future in this organization"). High scores indicated a willingness to allow management to effectively exercise control. In contrast to the current questionnaire, the response format put forth by Mayer and Davis used a 5-point Likert-type scale.

Mayer and Davis (1999) reported internal consistency reliabilities of .59 and .60 for the trust scale, which they administered to two different waves of respondents. The alpha value initially reported for this trust scale by Schoorman, Mayer, and Davis (1996) was .82. Mayer and Davis were concerned about the relatively low internal consistency measures. However, they believed that random measurement error was the cause. In order to ascertain the stability of the trust scale over time, Mayer and Davis performed a test-retest reliability analysis between three different waves of respondents with a 5-month time lag and found that the scale was sufficiently stable (.75 between wave 1 and 2 and .66 between wave 2 and 3). Mayer and Davis also expressed concern about the theoretical construct of trust being a "first-degree construct"

(p.123). Confirmatory factor analysis was performed to ensure that the scale accurately tapped into the construct of trust, which the authors' suggested that it did (Mayer & Davis, 1999). Internal consistency reliability for the trust scale in this sample achieved a higher consistency estimate ($\mathbf{a} = .73$) than that reported by Mayer and Davis.

Perceptions of management's ability. The 6-item ability scale, developed by Mayer and Davis (1999), was used to measure the extent to which respondents felt managers had the skills, abilities, and characteristics to be successful. High scores indicated that employees perceived management to be competent (e.g., "Top management has specialized capabilities that can increase our performance").

Mayer and Davis (1999) reported internal consistency reliabilities of .85 and .88 for the ability scale, which they administered to two different waves of respondents. This sample produced an even higher internal reliability estimate (a = .94) than that reported by Mayer and Davis (1999).

Communication climate. The communication climate was gauged by the 4-item informal communication scale that was previously used in a study by Miller, Johnson, and Grau (1994). The informal communication scale was designed to measure the extent to which participants felt that they received useful and necessary information via unofficial or informal information networks. Three of the four items were reversed scored such that high scores for this scale indicated the presence of an effective informal communication network (e.g., "The people who know what's going on here at [organization's name] do not share information with me" [Reverse scored prior to analysis]). The original 4-item informal communication scale produced an acceptable internal consistency estimate (a = .79; Miller et al., 1994). This sample yielded a slightly lower, but reasonably sufficient internal consistency estimate (a = .77).

Perceptions of organization's change climate. Five items were taken from the 9-item readiness for change scale developed by Eby, Adams, Russell, and Gaby (2000). The scale reflected the extent to which respondents felt that the organization was generally open to change. High scores indicated general feelings of innovativeness while low scores indicated general resistance to management's change initiatives (e.g., "Employees here are resistant to change [Reverse scored prior to analysis]; Employees here act as agents of change"). This scale was adapted from various sources (e.g., Daley, 1991; Jones & Bearley, 1986; Tagliaferri, 1991).

Eby et al. (2000) reported that the 9-item readiness for change scale produced a reliability estimate of .80. This sample produced an appreciably lower internal consistency estimate (a = .64) than Eby et al. reported. The lower reliability estimate computed in this questionnaire may be problematic as it suggests that the scale's reliability is deficient, or possibly, that this questionnaire captured a higher than expected amount of random error.

Perceived organizational support. Six items, taken from the widely used 36-item survey of perceived organizational support (Eisenberger, Huntington, Hutchison, & Sowa, 1986), were used to assess the extent to which respondents feel that the organization values their contributions, treats them favorably, and cares about their well-being. High scores indicated that respondents felt that the organization was committed to them (e.g., "The organization is willing to extend itself in order to help me perform my job to the best of my ability").

Internal reliability estimates and factor analysis were performed in each of two studies reported by Eisenberger et al. (1986). The first study yielded an exemplary internal reliability estimate ($\mathbf{a} = .97$), in addition to "quite high" (p. 503) factor loadings. In the second study, the POS scale continued to display high internal reliability ($\mathbf{a} = .93$; Eisenberger et al., 1986). Again, factor analysis was conducted and the results led the authors to conclude that this scale

was indeed reliable and valid. In this sample, the abbreviated 6-item version of the POS scale produced an internal consistency estimate of .89.

Perceptions of coworkers. Three items were taken from the 4-item perceptions of coworkers sub-scale, developed by Spector (1997). The perceptions of coworkers sub-scale is included as a facet in Spector's 36-item Job Satisfaction Survey (JSS) and represented the extent to which respondents' were satisfied with their coworkers. High scores indicated general satisfaction with one's coworkers (e.g., "I find I have to work harder at my job because of the incompetence of the people I work with." [Reverse scored prior to analysis]). Spector reported an internal consistency estimate of .60 and pointed out that this scale's reliability estimate falls below the conventionally accepted reliability of .70. In spite of the low reliability estimate, this scale was used in this questionnaire and it achieved an internal reliability estimate of .62.

Readiness For Change Factors

As noted, the data for this study were collected as part of a larger study that was designed to develop a scale to assess readiness for change. As such, the readiness for change factors measured were newly developed. For a detailed discussion of this development process, validity evidence, and reliability evidence see Holt (2002).

Appropriateness. Ten items measured the appropriateness of change. The appropriateness scale measures the extent to which one feels that the change effort was legitimate and appropriate for the organization to meet its objectives. High scores indicated a general belief in the suitability of the change (e.g., "I think that the organization will benefit from this change"). The internal reliability estimate in this sample was quite high (a = .93).

Management support. A 6-item management support scale was used to measure the extent to which one feels that the organization's leadership is committed to the prospective

change. High scores indicated a perception that top management actively supported the change (e.g., "Our senior leaders have encouraged all of us to embrace this change"). This sample produced an internal consistency estimate of .86.

Efficacy. In order to measure personal efficacy, a 6-item scale designed to tap the extent to which one feels that he or she has the skills and is able to execute the tasks and activities that are associated with the implementation of the prospective change was used. High scores indicated a conviction that one possessed the requisite skills to effect change (e.g., "I have the skills that are needed to make this change work"). This sample produced a reliability estimate of .81.

Valence. Three items measured the extent to which one feels that he or she will benefit from the implementation of the prospective change. High scores indicated a sense of personally beneficial consequences arising from the change (e.g., "I am worried I will lose some of my status in the organization when this change is implemented" [Reverse scored prior to analysis]). This sample found an internal consistency of .64.

CHAPTER 3

Results and Analysis

Descriptive Statistics

Descriptive statistics and the correlations among study variables are shown in Table 2. Interestingly, participation was significantly related to optimistic personality traits (e.g., positive affect, locus of control, and general attitudes toward change). Conversely, there were no significant correlations between participation and the personality traits of negative affect or rebelliousness. Overall, those with a positive disposition tended to participate whereas those with a negative disposition tended to refrain from voluntary participation. As for the contextual variables, participation was significantly correlated to all six measures used in the study. In consideration of the Armenakis, Harris, and Feild (1998) model, it was believed *a priori* that participation would be strongly correlated to communication in a positive direction. Surprisingly, communication climate displayed the smallest degree of correlation to participation $(\alpha = .17; p < .05)$ among the contextual variables.

Assumptions

The analyses required t-tests, F-tests, one-way analysis of variance (ANOVA), and hierarchical regression tests to be conducted. ANOVA was used to test for any significant differences in mean scores among the participants and non-participants in each of the personality and contextual factors and for organizational change factors. Before conducting the ANOVA, the data were tested to ensure it met the fundamental assumptions associated with this analytical procedure. After ensuring the underlying data were sufficiently normal, which proved to be the case, skew and kurtosis were checked for each variable. Positive affect displayed the largest absolute value in terms of negative skew (-.597) and had a kurtosis of 0.06 for N = 231.

Table 2

Means, Standard Deviations, Coefficient Alphas, and Correlations Among Study Variables

Variable			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	\mathbf{M}	SD																
1. Participation	0.19	0.40	-															
2. Positive Affect	3.71	0.74	.15*	.92														
3. Negative Affect	1.54	0.53	13	33**	.87													
4. Locus of control	5.36	0.90	.14*	.54**	43**	.76												
5. Rebelliousness	2.89	0.82	13	35**	.31**	47**	.85											
6. General attitudes toward change	4.37	1.19	.23**	.32**	29**	.40**	33**	.77										
7. Trust in management	4.12	1.17	.25**	.30**	20**	.30**	47**	.28**	.73									
8. Perceptions of management's ability	4.66	1.31	.28**	.31**	18**	.34**	40**	.33**	.71**	.94								
9. Communication climate	3.99	1.21	.17*	.21**	18**	.24**	34**	.20**	.44**	.55**	.77							
10. Perception of change climate	4.00	0.98	.21*	.18**	16*	.28**	33**	.21**	.46**	.56**	.63**	.64						
11. Perceived organizational support	4.24	1.25	.25**	.31**	26**	.38**	40**	.29**	.57**	.72**	.65**	.68**	.89					
12. Perceptions of coworkers	4.76	1.16	.17*	.23**	31**	.30**	43**	.24**	.44**	.53**	.47**	.52**	.58**	.62				
13. Appropriateness	4.52	1.16	.44**	.16*	06	.25**	17**	.30**	.42**	.53**	.37**	.40**	.52**	.25**	.93			
14. Management Support	5.26	1.11	.26**	.19**	13*	.32**	30**	.13*	.42**	.65**	.45**	.50**	.52**	.35**	.49**	.86		
15. Personal efficacy	5.35	0.97	.31**	.44**	23**	.45**	27**	.27**	.33**	.47**	.30**	.25**	.40**	.29**	.48**	.40**	.81	
16. Personal valence	4.90	1.15	.34**	.27**	20*	.39**	36**	.34**	.39**	.42**	.39**	.42**	.45**	.28**	.44**	.36**	.50**	.64

Note. All scales represent time 1 measures. The bold diagonal represents the alpha coefficients for each scale. *p < .05, **p < .01 (two-tailed). *N* ranged from 221 to 262.

Negative affect had the largest absolute value for positive skew (1.24) and had a kurtosis value of 1.24 for N = 231. The data did appear suitable for ANOVA analysis. All of the values for skew and kurtosis were within the acceptable range suggested by Larsen and Marx (2001).

Each hierarchical regression model was tested to ensure sufficient normality of the underlying data with P-P plots. The underlying data proved to be reasonably normal after inspecting the P-P plots, residuals plot, and histograms for evidence of normality. Each of the previously mentioned techniques was analyzed to ensure normality by comparing the empirical measures with theoretical measures of the normal distribution. The empirical data compared quite favorably to the normal distribution with only a few outlying data points and appeared to approximate the normal distribution in each of the three instances. The equality of variance assumption seemed to be reasonable after checking each scatter plot for the appearance of the "cloud" shape with no discernable pattern. Also, each regression model was checked for outliers by plotting the standardized predicteds vs. the studentized residuals. A minimal number of potential outliers did appear. However, the vast majority of the predicteds was within tolerance (i.e., +/- 2 SD). Additionally, to assess multicollinearity the VIF statistic was computed in order to ensure that it did not exceed the recommended value of 10 (Neter, Kutner, Nachtsheim, & Wasserman, 1996). In my analysis none of the independent variables exceeded 3.27 (e.g., perceived organizational support). As a result, I concluded that multicollinearity did not appear to be a problem. Ultimately, the data did appear to be suitable for each of the analytical procedures used in this thesis.

Participants and Non-Participants

To test the hypotheses that participants were more likely to display positive personality traits and corporate citizenship behaviors than non-participants a one-way analysis of variance (ANOVA) was conducted. The ANOVA test compared means for participants and non-participants with regards to personality and contextual variables (see Table 3). Participants, as opposed to non-

Table 3

Means, Standard Deviations, and One-Way Analyses of Variance (ANOVA) for Effects of Participation on Personality and Contextual Variables and on Organizational Readiness for Change Factors

Variables	Partic	ipants	Non-Pa	articipants	ANOVA
	M	SD	M	SD	$F(\mathrm{df_1,df_2})$
Personality Variables					
Positive Affect	3.91	0.65	3.64	0.75	F(1, 218)=4.88*
Negative Affect	1.41	0.43	1.58	0.53	F(1, 218)=3.69
Locus of control	5.60	0.83	5.23	0.91	<i>F</i> (1, 219)=4.67*
Rebelliousness	2.70	0.81	2.96	0.81	F(1, 219)=3.61
General attitudes toward change	4.95	1.21	4.25	1.16	<i>F</i> (1, 219)=12.45**
Contextual Variables					
Trust in management	4.74	1.23	4.02	1.12	<i>F</i> (1, 219)=14.02**
Perceptions of management's ability	5.39	1.24	4.46	1.28	<i>F</i> (1, 219)=18.64**
Communication climate	4.37	1.34	3.85	1.15	<i>F</i> (1, 219)=6.66*
Perception of change climate	4.38	0.84	3.86	0.97	<i>F</i> (1, 219)=10.55**
Perceived organizational support	4.85	0.19	4.07	1.22	<i>F</i> (1, 219)=14.19**
Perceptions of coworkers	5.10	0.20	4.63	1.07	<i>F</i> (1, 219)=6.17*
Change Factors					
Appropriateness	5.62	1.07	4.29	1.07	F(1, 219)=53.00**
Management support	5.77	0.97	5.08	1.02	<i>F</i> (1, 219)=16.19**
Efficacy	5.97	0.73	5.22	0.96	<i>F</i> (1, 219)=23.17**
Valence	5.69	0.89	4.70	1.14	F(1, 219)=28.55**

Note. **p* < .05. ***p* < .01.

participants, tended to have significantly higher scores for positive affect (M = 3.91 and M = 3.64; p < .05), locus of control (M = 5.60 and M = 5.23; p < .05), and general attitudes toward change (M = 4.95 and M = 4.25; p < .001). Conversely, negative affect (M = 1.41 and M = 1.58; p > .05) and rebelliousness (M = 2.70 and M = 2.96; p > .05) were not significantly different for participants vs. non-participants.

As Table 3 shows, all six of the contextual variables (e.g., trust in management, perceptions of management's ability, communication climate, perception of change climate, perceived organizational support, and perceptions of coworkers) displayed higher means for participants than non-participants and all were statistically significant. For example, the mean score for trust in management was significantly higher (p < .01) for participants (M = 4.74) than non-participants (M = 4.02). Participants had a higher mean (p < .01) for perceptions of management's ability (M = 5.39) than non-participants (M = 4.46). Participants had a higher mean (p < .05) for communication climate (M = 4.37) than non-participants (M = 3.85). Participants had a higher mean (p < .01) for perception of change climate (M = 4.38) than non-participants (M = 3.86). Participants had a higher mean (p < .01) for perceived organizational support (M = 4.85) than non-participants (M = 4.07). Lastly, participants had a higher mean (p < .05) for perceptions of coworkers (M = 5.10) than non-participants (M = 4.63).

An ANOVA test was performed to ascertain the influence participation had on each of the readiness for change factors (e.g., appropriateness, management's support, efficacy, and valence). It was believed, *a priori*, that participants would display significantly higher levels for each of the readiness for change factors. Participants had significantly higher scores in each of the four readiness factors than non-participants (see Table 3). For example, the mean score for appropriateness was significantly higher (p < .01) for participants (M = 5.62) than non-participants (M = 4.29). Participants had a higher mean (p < .01) for management support (M = 5.77) than non-

participants (M = 5.08). Participants had a higher mean (p < .01) for personal efficacy (M = 5.97) than non-participants (M = 5.22). Moreover, participants had a higher mean (p < .01) for personal valence (M = 5.69) than non-participants (M = 4.70). Thus, the belief that participants would display a pre-disposition toward higher levels of readiness for change proved to be very accurate. *Participants*

Hierarchical regression was used to test whether participation made an incremental contribution to the explanation of organizational readiness for change factors after controlling for individual and contextual variables. For each regression model, the first step was to regress the five personality variables against each dependent variable. The second step was to add the six contextual variables to the five personality variables in the model. The first two steps were done to account for the variance that could be explained by personality and contextual variables. Finally, participation was added to each regression model to determine the incremental amount of variance in the dependent variable that could be explained by participation. The results of each regression model appear in Tables 4-7.

The results where personality, context, and participation were regressed on appropriateness are provided in Table 4. Personality traits explained 13% of the variation in appropriateness ($R^2 = .13$; p < .01). When contextual factors were added to the model a total of 41% of variation in the dependent variable of appropriateness was explained ($R^2 = .41$; p < .01), representing an increase of 28%. By adding participation to the model, a significant amount of additional variance in appropriateness was explained ($\mathbf{D}R^2 = .07$; p < .01).

When considering all of the variables, the standardized beta coefficients for three of the five personality variables were significant and each had a positive slope. For instance, negative affect and rebelliousness had a beta coefficient of .12 and .14 (p < .05), respectively. General attitudes toward change had a beta coefficient of .15 (p < .01). As for the contextual variables, two variables

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Table 4

Hierarchical Regression Results Predicting Participation's Effect on Appropriateness of Organizational Change

Variables		Dependent Variable	
	Model 1	Model 2	Model 3
Step 1: Personality Variables	Standardized β	Standardized β	Standardized β
Positive Affect	.01	07	08
Negative Affect	.10	.10	.12*
Locus of control	.16	.09	.12
Rebelliousness	03	.15*	.14*
General attitudes toward change Step 2: Contextual Variables	.28**	.19**	.15**
Trust in management		.20*	.18*
Perceptions of management's ability		.20*	.13
Communication climate		01	.01
Perception of change climate		.03	.00
Perceived organizational support		.33**	.33**
Perceptions of coworkers		09	07
Step 3: Process Variable			
Participation			.28**
R^2	.13**	.41**	.48**
ΔR^2	-	.28**	.07**
Adjusted R ²	.11**	.38**	.45**

Note. N = 231. The dependent variable was appropriateness of change in all three models. *p < .05. **p < .01.

were significant. For instance, trust in management had a beta of .18 (p < .05) and perceived organizational support had a beta of .33 (p < .01). Moreover, participation was also significant ($\boldsymbol{b} = .28, p < .01$).

Table 5 shows that participation did not have a significant effect on perceptions of management's support for the change. The personality and contextual variables explained a significant portion of variation in the perceptions of management support for change ($R^2 = .46$; p < .01). The personality trait that contributed most to the management support model was locus of control ($\mathbf{b} = .18$; p < .01). The contextual factor that contributed most to this model was perceptions of management's ability ($\mathbf{b} = .57$; p < .01). The two findings regarding the standardized beta coefficients are intuitive and were expected. Unexpectedly, participation in a change initiative did not explain a substantial amount of incremental variance on one's perception of management's support for the change initiative.

As seen in Table 6, participation did have a significant effect on personal efficacy in implementing the change. The regression analysis indicates that approximately 38% of the variation in one's perceived efficacy or ability to implement an organizational change initiative is explained by the personality, contextual, and process variables that are included in the model ($R^2 = .38$; p < .01). Moreover, a significant amount of incremental variation ($\mathbf{D}R^2 = .03$; p < .01) was explained by the process variable of participation.

In the full model for participation's effect on personal efficacy in implementing the change, two personality variables displayed significant and positive slopes. That is, positive affect ($\mathbf{b} = .21$; p < .01) and locus of control ($\mathbf{b} = .22$; p < .01) explained a significant amount of variance, respectively. Only one contextual variable (i.e., perceptions of management's ability) displayed a significant beta coefficient ($\mathbf{b} = .27$; p < .01). Once again, the process variable had a significant beta coefficient ($\mathbf{b} = .17$; p < .01).

Table 5

Hierarchical Regression Results Predicting Participation's Effect on Management Support for a Change Initiative

Variables		Dependent Variable	
	Model 1	Model 2	Model 3
Step 1: Personality Variables	Standardized β	Standardized β	Standardized β
Positive Affect	01	08	09
Negative Affect	.04	.01	.03
Locus of control	.23**	.18**	.18**
Rebelliousness	23**	05	05
General attitudes toward change Step 2: Contextual Variables	.01	10	12*
Trust in management		.00	01
Perceptions of management's ability		.57**	.52**
Communication climate		.08	.10
Perception of change climate		.12	.09
Perceived organizational support		02	.00
Perceptions of coworkers		07	05
Step 3: Process Variable			
Participation			.10
R^2	.14**	.46**	.45**
ΔR^2	-	.32**	.01
Adjusted R ²	.12**	.43**	.42**

Note. N = 231. The dependent variable was management support for a change in all three models. *p < .05. **p < .01.

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Table 6

Hierarchical Regression Results Predicting Participation's Effect on Perceived Efficacy to Implement a Change Initiative

Variables		Dependent Variable	
	Model 1	Model 2	Model 3
tep 1: Personality Variables	Standardized β	Standardized β	Standardized β
PA	.26**	.21**	.21**
NA	.01	.01	.02
Locus of control	.24**	.22**	.22**
Rebelliousness	05	.05	.04
General attitudes toward change tep 2: Contextual Variables	.11	05	.02
Trust in management		.02	01
Perceptions of management's ability		.29**	.27**
Communication climate		.06	.07
Perception of change climate		11	13
Perceived organizational support		.06	.04
Perceptions of coworkers		.03	.04
tep 3: Process Variable			
Participation			.17**
2	.26**	.35**	.38**
\mathbb{R}^2	-	.09**	.03**
djusted R ²	.24**	.32**	.34**

Note. N = 231. The dependent variable was efficacy in all three models. *p < .05. **p < .01.

Lastly, participation explained a significant amount of variation in the perception personal valence. When all variables were added to the equation, 39% of total variation in personal valence $(R^2 = .39; p < .01)$ was explained (see Table 7). While personality and contextual factors accounted for 34% of total variation in the dependent variable, the addition of participation to the model contributed an incremental 5% of explained variation in personal valence $(\mathbf{D}R^2 = .05; p < .01)$. Locus of control $(\mathbf{b} = .16; p < .05)$ and general attitudes toward change $(\mathbf{b} = .15; p < .05)$ exhibited significant standardized beta coefficients. Trust in management was the only contextual variable that displayed a significant beta coefficient $(\mathbf{b} = .16; p < .05)$. The standardized beta coefficient for participation in this model was .19 (p < .01).

Summary

The ANOVA tests suggested that participants were likely to have significantly higher means with regards to positive personality traits (e.g., positive affect, locus of control, and general attitudes toward change). Additionally, participants were more likely to demonstrate positive corporate citizenship behavior as evidenced by significantly higher means in all six of the contextual variables (e.g., trust in management, perceptions of management's ability, communication climate, perception of change climate, perceived organizational support, and perceptions of coworkers). Lastly, participants displayed significantly higher means in their perceptions of the organization's change culture. As a result, Hypotheses 1a, 1b, and 2 were supported.

As expected, personality and contextual variables explained a significant amount of variation in each model. Moreover, participation explained a significant amount of incremental variation in each of the three supported hypotheses: Hypothesis 3a (i.e., participation's effect on appropriateness of the change), Hypothesis 3c (i.e., participation's effect on personal efficacy in implementing the change), and Hypothesis 3d (i.e., participation's effect on the change will be

Table 7

Hierarchical Regression Results Predicting Participation's Effect on Expected Personal Benefits of an Organizational Change

Variables		Dependent Variable	
	Model 1	Model 2	Model 3
Step 1: Personality Variables	Standardized β	Standardized β	Standardized β
PA	.03	.00	.00
NA	.01	.01	.00
Locus of control	.20**	.17*	.16*
Rebelliousness	17*	05	06
General attitudes toward change Step 2: Contextual Variables	.22**	.17**	.15*
Trust in management		.17*	.16*
Perceptions of management's ability		02	01
Communication climate		.12	.14
Perception of change climate		.12	.11
Perceived organizational support		.14	.07
Perceptions of coworkers		09	08
Step 3: Process Variable			
Participation			.19**
R^2	.23**	.34**	.39**
ΔR^2	-	.12**	.05**
Adjusted R ²	.21**	.31**	.35**

Note. N = 231. The dependent variable was valance in all three models. *p < .05. **p < .01.

personally beneficial). However, Hypothesis 3b (i.e., participation's effect on management's support for the change) was not supported. This finding was the most surprising discovery and was contrary to my *a priori* beliefs.

CHAPTER 4

Discussion

One objective of this paper was to examine the extent to which individual differences (i.e., personality variables) effect or predict individual participation. Interestingly, the results appear to indicate that individuals with a higher degree of positive affect, locus of control, and general attitudes toward change might be more likely to participate in organizational decision-making if given the choice. Also, respondents who displayed higher scores on the general attitudes toward change scale may be predisposed to take an active role in shaping organizational change initiatives. On the other hand, negative affect and rebelliousness were not significantly correlated with participation and may not, therefore, be good indicators of a probable willingness to participate. Moreover, the regression analysis indicates that the control variables represented by individual differences, without the participation variable included, do explain a statistically significant portion of variation among the five personality variables for the appropriateness change factor and in the personal efficacy change factor.

A second objective of this paper was to assess the extent to which contextual variables influenced participation. As expected, the addition of contextual variables explained an extra, significant amount of variation in each of the change factors over and above that explained by individual differences alone. However, perceptions of management support did not explain a significant amount of additional variance in terms of management support for the change. This may indicate that perceptions of management's support for a change initiative are shaped considerably by contextual-specific variables, particularly in light of the fact that the analysis suggests that participation does not explain a significant amount of additional variation when added to the regression analysis for the management support dependent variable. However, it cannot be ruled

out that participation plays no role in perceptions of management support since the one-way analysis of variance (ANOVA) indicates that participants do have a significantly higher mean score for the perception of management support dependent variable.

The final objective of this study was to examine the influence participation has on readiness for change factors. The results of the ANOVA presented in Table 3 clearly show that all four readiness for change factors (i.e., appropriateness, management support, efficacy, and valence) are influenced by participation. Participants displayed a significantly higher mean score in each category as compared to non-participants. Moreover, participation explained a significant amount of additional variance for the appropriateness, personal valence, and perceived efficacy change factors in each of the regression models. However, possibly due to the substantial influence that context-specific variables appeared to exert in the management support regression model, participation does not explain a significant amount of additional variance for this change factor.

These findings are noteworthy because actual participation is highly correlated to many facets of the readiness for change construct. Moreover, participants only constituted 43 of the 262 respondents. This might suggest that participation need not be organization wide in order to garner support for a particular change proposal.

Implications

These results have implications for both practitioners and researchers. For managers, the results provide empirical support to existing anecdotal evidence vis-à-vis participation's influence on organizational readiness for change. This should not be misconstrued as implying that all employees in a given organization, especially large organizations, must participate in an organizational change initiative in order for that initiative to be successful. In fact, some employees may be averse to participating in organizational decision-making in the arena of fundamental change. Instead, it may be more important to solicit participation from both formal and informal

organizational leaders to "spread the word" and garner support for the change. Managers armed with this information may selectively solicit key organizational leaders based on their knowledge of individual attributes and context specific factors related to their organization.

For researchers, the findings provide empirical evidence that the active participation strategy theorized by Armenakis et al (1998) may be a valid approach to change management. Moreover, it adds to the body of knowledge for measuring and implementing a participative change management approach by focusing on an actual measure of participation.

Limitations

It is important to note that the participation measure used in this study is not a perception measure of participation. Participation was an actual, quantifiable measure. A participant was so designated by the organization's contact person based on his or her attendance at an organizational off-site meeting that dealt with the change initiative. While this type of participation measure captures a quantifiable facet of participation, it fails to discriminate between the quality and degree of participation for each individual. It would have been better to have a reliable measure of the perceived or observed level of participation in conjunction with the binary measure used in this study. Moreover, this study constitutes a cross-sectional correlation design that may fail to capture certain temporal aspects of participation with regard to change initiatives over time.

Furthermore, this study relied heavily on self-report measures of attitudes. Self-reporting is known to be a source of bias. However, great care was taken in the selection of scale-items and administration of the questionnaire to minimize bias. Moreover, self-report bias is an acceptable risk in light of the benefit of obtaining primary data regarding individual behaviors, perceptions, and attitudes. A ubiquitous form of self-report bias is an affect known as social desirability, a self-explanatory phenomenon that is frequently found to occur in measures pertaining to characteristics of one's job (Kline, Sulsky, & Rever-Moriyama, 2000). In fact, Kline et al. (2000) assert that

failure to include meaningful sources of variance related to social desirability would constitute a specification error.

Some of the scales had internal reliability measures below the commonly accepted threshold of .70 (viz., valence, perception of change climate, and perceptions of coworkers). However, each of these scales had alpha coefficients that were only marginally below the commonly accepted threshold (i.e., alpha values in the range of .62 to .64). Moreover, these scales are commonly used measures in this field of study.

It should be noted that the potential presence of non-observation bias was not explicitly tested, nor systematically controlled. However, on its face the sample appeared to be reasonably representative with roughly three-fifths of respondents being male, averaging 48 years old, with about 3 levels of organizational hierarchy between the respondents' job position and the most senior organizational leader. Furthermore, the 53 percent response rate achieved for this questionnaire compares quite favorably to a number of studies in this field of research (cf. Allen & Meyer, 1990; Fullagar, Clark, Gallagher, & Gordon, 1994; McGee & Ford, 1987; Meyer, Allen, & Gellatly, 1990). Nonetheless, Dooley (2001) suggests that if non-observation bias is present, then the desirable property of generalizability may be adversely affected.

Opportunities for future research

Future research on potential ways to ascertain the quality of the actual participation measure would be useful. Such research might benefit managers and researchers alike by illuminating the degree to which participation is a worthwhile change facilitation strategy. It is hoped that the development of an actual participation measure that is both quantifiable and quality-discriminant may ultimately help organizations and academics better understand and manage their change initiatives. Furthermore, it may be profitable to design a blended measure of participation. For instance, an actual measure (such as attending meetings or conferences) could be combined with a

self-report or third-party measure of an individual's perceived level of participation. This could provide a better depth of understanding regarding the usefulness of participation as a change facilitation strategy. Additionally, it would be useful to determine the degree to which participation is causally linked to communication.

It could be useful to develop a longitudinal study design to account for potentially missed temporal aspects that may be masked in a cross-sectional design. For instance, if a longitudinal design were to confirm or refine the significant findings of the present cross-sectional correlation design, the present findings' generalizability could be greatly improved.

Conclusion

As with most studies that try to tap into complex constructs of human behavior in order to make sense of individual actions and decision-making processes, this study was not without its limitations. Nonetheless, it is an important finding that "actual" participation seems to be highly correlated to organizational readiness for change. Additionally, the results provide strong support that individual and contextual factors play a significant role in a change initiative. These findings suggest that organizations must accurately gauge and, if necessary, manipulate their organizational specific factors prior to overlaying a participative change management style on an organizational culture that may be resistant to such efforts. Further research is needed to assess the individual and contextual factors that create a willingness or desire to participate in change initiatives in order to evaluate and expand the generalizability of this study.

APPENDIX A

USAF SCN 00-61 Expires August 2001

Readiness for change survey

<u>Purpose</u>: Our research team is investigating readiness for [organization] to restructure its organization. Our goal is to more fully understand the [organization's] readiness for its upcoming reorganization and give leaders information that will help them understand your concerns about the upcoming reorganization.

<u>Confidentiality</u>: We would greatly appreciate your completing this survey. Your input is important for us to completely understand this change. ALL ANSWERS ARE STRICTLY CONFIDENTIAL. No one outside the research team will ever see your questionnaire. Findings will be reported at the group level only. We ask for some demographic and unit information in order to interpret results more accurately, and in order to link responses for an entire unit. Reports summarizing trends in large groups may be published. Although no one will have access to your data, your name is needed so that we can match your responses with those provided in a second questionnaire that will be administered in a few months.

Last Name (Print)	First Name	Office Symbol

<u>Contact information</u>: If you have any questions or comments about the survey contact Captain Daniel Holt at the number, fax, mailing address, or e-mail address.

Captain Daniel T. Holt *AFIT/ENV BLDG 640*

2950 P Street Wright-Patterson AFB OH 45433-7765 Email: daniel.holt@afit.af.mil

Phone: DSN 785-3636, ext. 4574, commercial (937) 255-3636, ext. 4574 Fax: DSN 986-4699; commercial (937) 656-4699

INSTRUCTIONS

- Base your answers on your own feelings and experiences
- Read directions carefully and mark only one answer for each question
- Please write clearly making dark marks (feel free to use a blue or black ink pen that does not soak through the paper)
- Avoid stray marks and if you make corrections erase marks completely

MARKING EXAMPLES

Right Wrong

Solution Wrong

PART I

ATTITUDES

TOWARD CHANGE

We would like to understand how you feel about the organization's plan to reorganize. The following questions will help us do that. For each statement, please fill in the circle for the number that indicates the extent to which you agree the statement is true. Use the scale below for your responses.

(1	D	2	3	4	5		(6			7	
Stroi Disa		Disagree	Slightly Disagree	Neither Agree or	Slightly Agree		A	gree			rongl Agree	-
Disa	gree		Disagree	Disagree Of	Agree					P	igree	
1.		long run, I feel zation adopts tl	it will be worth	while for me if	the	1)	2	3	4	\$	6	7
2.	This c	hange is clearly	needed.			1	2	3	4	(5)	6	7
3.		ganization is gonent this chang	oing to be more se.	productive wh	en we	1	2	3	4	(5)	6	7
4.	It does	doesn't make much sense for us to initiate this change.				1	2	3	4	(5)	6	7
5.	I think	that the organi	zation will bene	efit from this cl	nange.	1	2	3	4	(5)	6	7
6.		Management has sent a clear signal this organization is going o change.				1	2	3	4	(5)	6	7
7.	This c	hange makes m	y job easier.			1	2	3	4	(5)	6	7
8.	I feel a	anxious about t	he implementati	ion of this chan	ige.							
9.		this change is ing for me to ga	mplemented, I oin.	don't believe th	nere is	1	2	3	4	(5)	6	7
10.		we adopt this cour customers'	hange, we will needs.	be better equip	ped to	1	2	3	4	(5)	6	7
11.		•	nior leader has a blementation of	•	nally	1	2	3	4	(5)	6	7
12.	This c	hange will give	me new career	opportunities.		1	2	3	4	(5)	6	7
13.	• •		make me confid after this chang		be able to	1	2	3	4	(5)	6	7
14.		this change is ir ny job.	nplemented, I a	m confident I v	will be able	1	2	3	4	(5)	6	7
15.	My fu	ture in this job	will be limited	because of this	change.	1	2	3	4	(5)	6	7
16.	This c	•	rove our organiz	zation's overall		1	2	3	4	(5)	6	7

<u>(1</u>	2	3	4	(5)		(6			7	
Stroi Disaș		Slightly Disagree	Neither Agree or Disagree	Slightly Agree		A	gree			rongl Agree	•
17.	I am worried I will lowhen this change is in	•	status in the org	anization	1	2	3	4	(5)	6	7
18.	I am sure that our ser we actually implement		change their mi	ind before	1	2	3	4	(5)	6	7
19.	There are some tasks don't think I can do v		uired when we d	change I	1	2	3	4	(5)	6	7
20.	I do not anticipate any have when this change		sting to the wor	k I will	1	2	3	4	(5)	6	7
21.	•	The effort required to implement this change is rather small when compared to the benefits I will see from it.					3	4	(5)	6	7
22.	When I set my mind to it, I can learn everything that will be required when this change is adopted.					2	3	4	(5)	6	7
23.	I am not concerned about working in the new environment that is brought about by the change.					2	3	4	(5)	6	7
24.	I believe managementhis change.	t has done a gre	eat job in bringir	ng about	1	2	3	4	(5)	6	7
25.	I think we are implem	nenting this cha	nge just because	e we can.	1	2	3	4	(5)	6	7
26.	When we implement benefits coming my v	-	an envision fina	ncial	1	2	3	4	(5)	6	7
27.	I have the skills that a	are needed to m	ake this change	work.	1	2	3	4	(5)	6	7
28.	This change matches	the priorities of	our organizatio	n.	1	2	3	4	(5)	6	7
29.	This organization's n change.	nost senior leade	er is committed	to this	1	2	3	4	(5)	6	7
30.	I am intimidated by a change.	ll the tasks I wi	ll have to learn	due to this	1	2	3	4	(5)	6	7
31.	The senior leaders ha	ve served as rol	e models for thi	is change.	1	2	3	4	(5)	6	7
32.	The time we are spen something else.	ding on this cha	ange should be s	pent on	1	2	3	4	(5)	6	7
33.	Our organization's to support behind this c		ers have put all	their	1	2	3	4	(5)	6	7
34.	I think we are spendi senior managers don'	•	_	when the	1	2	3	4	(5)	6	7
35.	Our organization will adopt this change.	lose some valu	able assets when	n we	1	2	3	4	(5)	6	7
36.	When we implement	this change, I fe	el I can handle	it with	1	2	3	4	(5)	6	7

ease.

(I	0 0	3	4	(5)			6			7	
Stro	ngly Disagree	Slightly	Neither	Slightly		A	gree		St	rongl	.y
Disa	gree	Disagree	Agree or Disagree	Agree					A	gree	
37.	There are legitimate	reasons for us to	make this cha	nge.	1	2	3	4	(5)	6	7
38.	Every senior manage change.	very senior manager has stressed the importance of this anange.								6	7
39.	There are a number of rational reasons for this change to be a made. ① ② ③ ④								(5)	6	7
40.	This change will disr have developed.	upt many of the	personal relati	onships I	1	2	3	4	(5)	6	7
41.	When I heard about t perfectly.	his change, I the	ought it suited i	my skills	1	2	3	4	(5)	6	7
42.	Our senior leaders have encouraged all of us to embrace this change.						4	(5)	6	7	
43.	No one has explained why this change must be made. ① ② ③ ④							(5)	6	7	
44.	The thought of this c	hange worries n	ne.		1	2	3	4	(5)	6	7
45.	Right now, I am som	ewhat resistant t	to this change.		1	2	3	4	(5)	6	7

PART II

ATTITUDES

TOWARD YOUR

We would like to understand how you feel about [organization] and your job. The following questions will help us do that. Unless specifically told otherwise, the terms "organization" refers to [organization] and "top management" refers to [organization's] executive staff (e.g., two letters). With that in mind, you should answer each statement by filling in the circle for the number that indicates the extent to which you agree that the statement is true.

<u>(1</u>	2	3	4	5		6		7					
Stron Disag	· ·	Slightly Disagree	Neither Agree or Disagree	Slightly Agree		Agree		Agree		Agree S		Strongly Agree	
46.						2	3	4	(5)	6	7		
47.	I do not feel emotionally attached to [organization].				1	2	3	4	(5)	6	7		
48.	When changes are malose out in the end.	hen changes are made in [organization], employees usually se out in the end.						4	(5)	6	7		

(I	D	2	3	4	(5)			6			7	
Stro		Disagree	Slightly	Neither	Slightly		A	gree			rongl	•
Disa	gree		Disagree	Agree or Disagree	Agree					A	Agree	
49.	I do not	feel a strong	sense of belong	ging to [organiz	ation].	1	2	3	4	(5)	6	7
50.			harder at my jo eople I work w	b because of the ith.	e	1	2	3	4	(5)	6	7
51.	I think I now.	will be work	ing at [organiza	tion] five years	from	1	2	3	4	(5)	6	7
52.	There is	too much bio	kering and figh	ting at work.		1	2	3	4	(5)	6	7
53.		would be willing to let top management of [organization] ave complete control over my future in this organization.						3	4	(5)	6	7
54.	Employ	ees here are r	esistant to chan	ge.		1	2	3	4	(5)	6	7
55.	[organiz		ouldn't let top m ny influence ov	nanagement of er issues that an	re	1	2	3	4	⑤	6	7
56.			0 0 1	anagement a pr t monitor their a		1	2	3	4	3	6	7
57.	Employ	ees here act a	s agents of char	nge.		1	2	3	4	(5)	6	7
58.	The org	anization care	es about my gen	eral satisfaction	n at work.	1	2	3	4	(5)	6	7
59.	I really	feel as if [orga	anization's] pro	blems are my o	wn.	1	2	3	4	(5)	6	7
60.	The org	anization care	es about my opi	nions.		1	2	3	4	(5)	6	7
61.		hat I could ea ation as I am t	•	attached to ano	ther	1	2	3	4	(5)	6	7
62.	The org	anization real	ly cares about n	ny well-being.		1	2	3	4	(5)	6	7
63.	I feel ve	ery confident a	about top manag	gement's skills		1	2	3	4	(5)	6	7
64.			ld improve if I at's going on h			1	2	3	4	(5)	6	7
65.	In gener	ral, I don't like	e my job.			1	2	3	4	(5)	6	7
66.		ees do not ha in [organizati		unity to influen	ce what	1	2	3	4	(5)	6	7
67.	•	I really wish I had a good way to keep an eye on [organization's] top management.					2	3	4	(5)	6	7
68.	As soon	As soon as I can find a better job, I'll leave [organization].					2	3	4	(5)	6	7
69.	All in a	All in all, I am satisfied with my job.					2	3	4	(5)	6	7
70.		feel like no one ever tells me anything about what's going round here.					2	3	4	(5)	6	7
71.	Top ma	nagement is v	vell qualified.			1	2	3	4	(5)	6	7

<u>(1</u>	2	3	4	(5)		6			7		
Stro			Slightly		Agree			St	rongl	. y	
Disa	agree Disagree Agree or Agree Disagree								A	gree	
72.	Top management is	ob.	1	2	3	4	(5)	6	7		
73.	I am thoroughly satisfied with the information I receive about ① ② ③ ④ ⑤ ⑥ ⑦ what's going on at [organization].										
74.	I am actively looking	ng for a job outsid	de of [organizati	ion].	1	2	3	4	(5)	6	7
75.	It's really not possil	ble to change thin	ngs around here		1	2	3	4	(5)	6	7
76.	I could be very happer [organization].	py to spend the re	est of my career	with	1	2	3	4	3	6	7
77.	Top management has specialized capabilities that can increase our performance.						3	4	3	6	7
78.	Top management han needs done.	ork that	1	2	3	4	(5)	6	7		
79.	In general, I like working here.							4	(5)	6	7
80.	I enjoy discussing [e it.	1	2	3	4	(5)	6	7		
81.	The organization takes pride in my accomplishments at work. ① ((5)	6	7
82.	I like the people I w	ork with.									
83.	This organization ha	as a great deal of	personal meani	ng for me.	1	2	3	4	(5)	6	7
84.	Even if I did the best to notice me.	st job possible, th	ne organization v	would fail	1	2	3	4	(5)	6	7
85.	I do not feel like pa	rt of the family a	t my organizatio	on.	1	2	3	4	(5)	6	7
86.	Top management is	very capable of	performing its jo	ob.	1	2	3	4	(5)	6	7
87.	The organization is willing to extend itself in order to help me perform my job to the best of my ability.							4	(5)	6	7
88.	I am seriously thinking about quitting my job.						3	4	(5)	6	7
89.	Top management is known to be successful at the things it tries to do.									6	7
90.	I often think about of	quitting my job a	t [organization].		1	2	3	4	(5)	6	7
91.	The organization sh	ows very little co	oncern for me.		1	2	3	4	(5)	6	7

PART III

GENERAL ATTITUDES

We would like to understand whether individuals with different characteristics view organizational change in different ways. The following questions will help us do that.

(1)	2 3 4 5		<u></u>			6			7		
	ongly Disagree Slightly Neither Slightly agree Disagree Agree or Agree Disagree			A	gree			rongl Agree	-			
92.		a job where I kr me way from o	1)	2	3	4	(5)	6	7			
93.		When something is prohibited, I usually think "that's exactly ① ② ③ ④ what I am going to do."								(5)	6	7
94.	There is really no way I can solve some of the problems I (1) (2) (3) (4) have.									(5)	6	7
95.	What	happens to me	in the future mo	ostly depends on	me.	1	2	3	4	(5)	6	7
96.	I have	little control o	ver the things th	nat happen to me	e.	1	2	3	4	(5)	6	7
97.	If I could do as I pleased, I would change the kind of work I ① ② ③ ④ do every few months.						4	(5)	6	7		
98.	It irritates me when someone points out things which are obvious.						4	3	6	7		
99.	I often feel helpless in dealing with the problems of life. ① ②						2	3	4	(5)	6	7
100.	When I get used to doing things in one way it is disturbing to 1 2 3 4 have to change to a new method.							(5)	6	7		
101.	I would prefer to stay with a job that I know I can handle than to change to one where most things would be new to me.							3	6	7		
102.	Regul	ations trigger a	sense of resista	nce in me.		1	2	3	4	(5)	6	7
103.	I find	contradicting of	thers stimulatin	g.		1	2	3	4	(5)	6	7
104.	I become frustrated when I am unable to make independent decisions.					(5)	6	7				
105.		When someone forces me to do something, I feel like doing ① ② ③ ④ the opposite.					(5)	6	7			
106.		There is little I can do to change many of the important things ① ② ③ ④ in my life.							(5)	6	7	
107.		an never feel at are always bein		here the ways o	of doing	1	2	3	4	(5)	6	7
108.	Some	times I feel that	I'm being push	ned around in lif	e.	1	2	3	4	(5)	6	7

1	D 2 3 4		(5)		6			7			
Stroi	ngly Disagree	Disagree Slightly Neither Slightly		Agree				Strongly			
Disag	gree	Disagree Agree or Agree Disagree		Agree					A	gree	
109.	I consider advice from	n others to be an	n intrusion.		1	2	3	4	(5)	6	7
110.	110. I become angry when my choices are restricted ① ② ③ ④								(5)	6	7
111.	111. I resist the attempts of others to influence me. ① ② ③ ④								(5)	6	7
112.	112. Advice and recommendations make me want to do just the opposite ① ② ③ ④									6	7
113.	I can do just about anything I set my mind to.							(5)	6	7	
114.	It makes me angry who follow.	makes me angry when another person is held up as a model ① ② ③ ④								6	7

The following scale consists of a number of words that describe different feelings and emotions. Please read each item and then fill in the circle that best reflects the way you generally feel, that is, how you feel on average. Use the following scale to indicate your answers.

	1	(2			3)	4	(5)				
	Very slightly Or not at all	A li	ttle	Mode	erately	Quite a bit	Extremely				
Interested	1	2 3	4	(5)	Ir	ritable	1	2	3	4	(5)
Distressed	1	2 3	4	(5)	A	lert	1	2	3	4	(5)
Excited	1	2 3	4	(5)	A	shamed	1	2	3	4	(5)
Upset	1	2 3	4	(5)	Ir	spired	1	2	3	4	(5)
Strong	1	2 3	4	(5)	N	ervous	1	2	3	4	(5)
Guilty	1	2 3	4	(5)	D	etermined	1	2	3	4	(5)
Scared	1	2 3	4	(5)	A	ttentive	1	2	3	4	(5)
Hostile	1	2 3	4	(5)	Ji	ttery	1	2	3	4	(5)
Enthusiastic	1	2 3	4	(5)	A	ctive	1	2	3	4	(5)
Proud	1	2 3	4	(5)	A	fraid	1	2	3	4	(5)

PART IV BACKGROUND

This final section contains items regarding your personal characteristics. These items are very important for statistical purposes. Respond to each item by WRITING IN THE INFORMATION requested or CHECKING THE BOX ☑ that best describes you.

1.	Describe your primary career field or profession (e.g., programmer, personnel specialist, etc.)?
2.	Are you a supervisor? • Yes (How many people do you supervise?) • No
3.	How many levels of management separate you from [organization's] executive director?
4.	How long have you worked for [organization]? years months
5.	How long have you been in your current job? years months
6.	Please indicate the highest level of education that you have attained.
	 Some High School High School Diploma Associate's degree Bachelor's degree Master's degree Doctorate degree Other (please specify)
7.	What is your age? years
8.	What is your gender?
	• Male • Female

PLEASE FEEL FREE TO MAKE ANY ADDITIONAL COMMENTS ABOUT THE REORGANIZATION & OTHER CHANGES ON THE BACK OF THESE PAGES

Thank you for your participation!

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Vita

Captain Jonathon F. Flanders graduated from Warren County Senior High School in McMinnville, Tennessee in 1992. He entered undergraduate studies at the University of Tennessee at Knoxville where he graduated *cum laude* with a Bachelor of Science degree in Marketing, Logistics, and Transportation in May 1997. While at university, he enlisted in the United States Army Reserves in 1993 where he served approximately two and a half years in the 844th Combat Heavy Engineering Battalion located in Knoxville. He was commissioned in May 1997 through Detachment 800 AFROTC at the University of Tennessee where he served as Arnold Air Society commander and cadet wing commander. He was recognized as a "Blue Chip" graduate.

His first assignment was at Warner Robins AFB, Georgia as the vehicle management flight chief. While stationed at Warner Robins, he deployed overseas in September 1999 to spend five months in Stuttgart, Germany as an action officer on the J-4 staff in support of OPERATION ALLIED FORCE. In April 2000, he was assigned to the 631 st Air Mobility Support Squadron, Osan AB, Korea where he served as the passenger terminal officer-in-charge. In August 2001, he entered the Graduate School of Engineering and Management, Air Force Institute of Technology, Wright-Patterson AFB, Ohio. Upon graduation, he will be assigned to Headquarters, Pacific Command, Hickam AFB, Hawaii as a staff officer.

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13. SUPPLEMENTARY NOTES

14. ABSTRACT

Organizational change management is a principal issue in virtually every organization. This cross-sectional correlation study examined an array of variables (i.e., process, personality, and context-specific) that influence organizational readiness for change. Participation (process variable) was related to higher mean scores in each of the four distinct readiness for change scales and explained a significant amount of incremental variance in appropriateness, valence, and efficacy. Personality variables, when taken in total, explained a significant amount of variance in each hierarchical regression model ran on the four readiness factors. Three personality variables displayed significantly higher mean scores (i.e., positive affect, locus of control, and general attitudes toward change) for participants versus non-participants. Context-specific variables explained a significant amount of incremental variance above that explained by personality variables for each readiness factor. Moreover, participants displayed higher mean scores in all six contextual variables.

15. SUBJECT TERMS

Organizational Readiness for Change, Participation, Personality Variables, Context-Specific Variables, Organizational Meetings, Hierarchical Regression, Change Facilitation Strategies, Change Management, Organizational Theory

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