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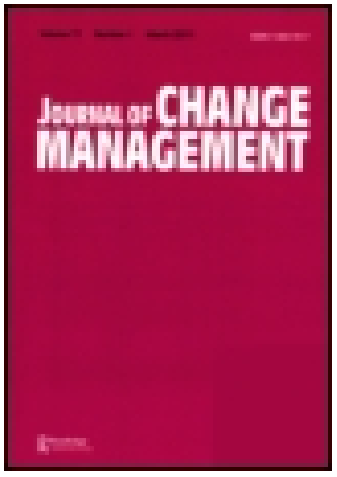

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Uncertainty during Organizational Change: Managing Perceptions through Communication

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ABSTRACT *Although uncertainty has been identified as a major consequence of organizational change for employees, there still remains a lack of understanding regarding the processes through which employees address such perceptions. This research examines the role that different sources of communication play in addressing change-related uncertainty for employees. Firstly, a qualitative study was conducted in which 25 interviews with employees from a range of organizations were undertaken. The goal of the first study was to examine how employees manage change-related uncertainties. From employee responses, it was revealed that specific change-related uncertainties may be best addressed by different sources of communication. Findings suggest that direct supervisors are the preferred sources of implementation-related and job-relevant information during change, while senior management typically provide more strategic information. Furthermore, results indicated that trust influences which sources employees seek information from and how they appraise the information they receive. Secondly, a quantitative field study was conducted in a large government department that was about to undergo a restructure of its corporate and human services divisions. This follow-up study was designed to provide a partial examination of the relationships identified in the qualitative study. Results indicated that employees who perceived they received quality change communication reported being more open toward the change. In addition, change-related uncertainty mediated this relationship. The results are discussed in terms of theoretical contributions to the change management literature, and the implications regarding effective communication strategies during change.*

KEY WORDS: Organizational change, uncertainty, communication

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In response to the introduction of new technologies, changing labour forces, and various environmental factors, many organizations are finding it necessary to engage in some form of reorganization or change in order to remain competitive. Despite this, many organizations are still struggling to successfully implement large-scale change efforts, with it being estimated that somewhere between 40% to 70% of change initiatives fail (Burns, 2000). The cost of such failures extends beyond the purely financial impact on the organization; there are also implications for the success of future change efforts and the culture of an organization. Consequently, with the increased instance of change within organizations, employees are being faced with unique workplace stressors outside their daily roles and tasks (Jimmieson *et al*., 2004). It is how best to manage and respond to these factors that is of importance to change management practitioners.

While much attention in the change management literature has been given to employee uncertainty and the importance of effective communication practices (Begley, 1998; Schweiger and Denisi, 1991), the majority of this literature has focused on the content of change communication disseminated by senior management (e.g., Armenakis and Bedeian, 1999; Armenakis and Harris, 2002; Barrett, 2002). There remains a dearth of research that examines the role of different sources of communication in delivering information during change. However, considering many organizations fail to provide employees with adequate information during change, employees are often left seeking information through other sources in a quest to resolve the uncertainty they are experiencing during change (DiFonzo and Bordia, 1998). Thus, it is important to identify the processes through which employees acquire information during change and the factors that influence their attitudes and intentions towards the change event.

This paper presents two studies both aimed at developing a better understanding of the processes through which employees manage their uncertainty during change. Firstly, the findings from a qualitative study are presented. Employees who had recently experienced organizational change were interviewed to identify the different uncertainties experienced during change and the effectiveness of information from different sources in addressing these concerns. Secondly, the findings from a quantitative field study are presented which sought to empirically examine some of the relationships identified in the first study. In particular, the relationship between the quality of change communication and change-related uncertainties was examined, in addition to the change-related outcome, openness to change. The second study also examined the role of trust in management in moderating the relationship between quality of change communication and uncertainty. Together, the results from both studies further our understanding of uncertainty during organizational change and the role different sources of communication play in addressing these specific concerns.

The Notion of Uncertainty

Uncertainty has been defined as 'an individual's perceived inability to predict something accurately' (Milliken, 1987, p. 136). Research has identified that this inability to predict events can be attributed to ambiguous (Putnam and Sorenson, 1982) or contradictory information, or a simple lack of information (Berger and

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Calabrese, 1975). Regardless of the preceding event, uncertainty has traditionally been considered to be a dis-preferred state which motivates people to engage in coping strategies aimed at reducing such perceptions (Berger and Bradac, 1982). Indeed, several theories reflect this proposition, viewing uncertainty as a motivational force. Berger and Calabrese's (1975) uncertainty reduction theory, and its more recent adaptation by Kramer (1999), propose that when individuals or groups experience uncertainty they are driven to seek information in an attempt to reduce this aversive state.

In contrast to uncertainty reduction theory, the theory of uncertainty management offers an alternative conceptualization of the construct, in which uncertainty is not solely defined as a negative state (Brashers, 2001). Instead, it is argued some individuals may perceive uncertainty positively in particular contexts. Evidence supporting the theory of uncertainty management has been found in health contexts, demonstrating information-seeking behaviours can be used to reduce the experience of uncertainty that is distressing or to increase uncertainty and consequently optimism and hope (Brashers *et al.*, 2002). It is argued that uncertainty may actually provide a sense of hope or optimism regarding the impending outcome, rather than the certainty of a negative outcome. The utility of the theory of uncertainty management theory is that it acknowledges the range of possible responses individuals may have when experiencing uncertainty, providing a more comprehensive understanding of the construct and how it operates across different contexts.

Within the context of organizational change, research has demonstrated that uncertainty is often a major consequence for employees (Ashford, 1988; Schweiger and Denisi, 1991). During organizational change, employees are likely to experience uncertainty in relation to a range of different organizational issues, including the rationale behind the change, the process of implementation, and the expected outcomes of the change (Jackson *et al.*, 1987; Buono and Bowditch, 1989). Research has also indicated that employees may experience uncertainty regarding the security of their position, and their future roles and responsibilities (Bordia *et al.*, 2004a). Consequently, organizational change is a major stressor during which employees seek to gain some prediction and understanding over events in order to minimize their uncertainty (Sutton and Kahn, 1986). Thus, it is the degree to which these specific informational needs are addressed through communication during organizational change that is worthy of deeper investigation.

Change Communication

Researchers are in relative agreement that communication or the provision of information constitutes a vital component of any successful implementation plan (Schweiger and Denisi, 1991; Lewis and Seibold, 1998). Despite the general acceptance that communication is important during organizational change, strategies implemented by management often fail to fulfil their purpose of providing quality information to employees (Smeltzer, 1991; Armenakis and Harris, 2002). Consequently, employees are often left feeling uncertain and seek to resolve this aversive state by engaging in information-seeking behaviours

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(Terry, Callan and Satori, 1996). Yet, little research has examined the boundary conditions that are likely to influence how communication provided during organizational change is appraised by employees.

More recent research has demonstrated that the mere provision of information may not be sufficient to reduce employee uncertainty; rather it is the perceived quality of the information that influences employees' appraisal of change (Bordia *et al.*, 2004b). Furthermore, research has indicated that change communication can facilitate openness and positive attitudes towards change to the extent that it effectively addresses employee uncertainty (Bordia *et al.*, 2004a). These results demonstrate the underlying process by which change communication strategies are capable of facilitating employee openness to change. However, other contextual factors are likely to further influence how effectively communication addresses employees' concerns. Given communication involves some degree of social exchange, trust is likely to emerge as an important factor that is worthy of examination.

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The Role of Trust during Organizational Change

Considering change communication can be delivered through a variety of sources, there remains the question under what circumstances will change communication be effective in addressing employee uncertainty. The answers to these questions are likely, in part, to be dependent on perceptions of trust in the source of the information. Trust has been defined as: 'the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party' (Mayer *et al.*, 1995, p. 712). In addition to a willingness to be vulnerable, there is relatively widespread agreement on a further two conditions required for trust (Gillespie, 2003). It is argued that for trust to exist there must also be some degree of risk and interdependence (e.g., Zucker, 1986; Rousseau and Tijoriwala, 1998). Risk originates in interpersonal relationships when either party is uncertain of how the other will act, while interdependence occurs when the needs or interests of one party cannot be achieved without the assistance of the other party.

Management practices that facilitate participative decision-making (PDM), organizational support, and the meeting of expectations also have been shown to influence employees' perceptions of trust (Robinson, 1996). Indeed, the meta-analysis of empirical evidence for the antecedents of trust, conducted by Dirks and Ferrin (2002) identified several management practices through which trust may be increased. These management practices included using PDM, providing organizational support, and ensuring that expectations are fulfilled. Consequently, the existing practices of management or colleagues are likely to have a strong influence on employees' levels of trust and need to be considered when examining the role of trust in influencing employees' perceptions of change communication.

A study by Rousseau and Tijoriwala (1999) provides support for the important role of trust in the context of organizational change communication. The study examined how employees at a hospital undergoing a complex restructuring evaluated information presented by management regarding the reasons behind the

change. The results demonstrated the relationship between reasons used to justify the change and employee perceptions of the legitimacy of the reasons was stronger under conditions of high trust than under conditions of low trust. As the definition suggests, employees who trust management or their organization may be more willing to be vulnerable to the actions of management, believing the rationale for such decisions presented by management. In contrast, employees who do not feel they can trust management are more likely to be critical of the information or justification they receive in the context of organizational change. Thus, a major aim of the current study was to identify how trust influences the effectiveness of the information employees receive during change in addressing specific types of uncertainty.

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Study 1

Although it is recognized in the literature that information-seeking behaviours are the most common response to feelings of uncertainty, there still exists a lack of understanding of the sources of information employees utilize when engaging in such behaviours in the context of change. Research by Bordia *et al.* (2004a) demonstrated that only strategic uncertainty was reduced through quality change communication disseminated by management, while perceptions of structural and job-related uncertainty were only reduced by participative strategies, such as team meetings. However, their study only focused on management communication and did not examine the influence of change-related information disseminated via other sources. Consequently, research needs to explore the role different sources of communication play in influencing change-related uncertainties experienced by employees in order to inform change management.

When examining organizational communication, it becomes difficult to ignore the various sources through which employees may seek information. During organizational change, employees can potentially seek information from different sources, including their supervisor, co-workers, or even contacts outside the organization (Hargie and Tourish, 2000). Additionally, the information employees receive through various sources during change may not necessarily always work to reduce uncertainty. Consequently, it is important to further investigate if quality official information is sufficient to reduce specific change-related uncertainties during change, or if more attention needs to be given the specific source of information.

To begin to better understand the processes underlying how communication is received by employees during change, a qualitative study was conducted in which employees from a range of organizations were interviewed. A qualitative research interview approach was chosen to allow highly descriptive information to be gathered. The real value of qualitative research is it provides in depth description and understanding of tangible interactions and processes that occur in real-life organizational contexts (Seale, 1999). Thus, the aim of the first study was to examine in more detail the specific uncertainties experienced by employees during organizational change. In particular, a major goal was to gain a better understanding of the stages at which each type is most prominent.

Research Goal 1:
To determine the types of uncertainties experienced by employees during change, with a particular emphasis on how employees manage these uncertainties.

The first study also sought to identify the important dimensions along which employees evaluate the quality of change communication and the role different sources of communication may play during organizational change.

Research Goal 2:
To identify the dimensions on which employees evaluate change communication and the different sources of communication employees utilize during organizational change.

Finally, the study aimed to further explore the role of trust in influencing how employees appraise the information they receive during organizational change, focusing on how employees evaluate the trustworthiness of different sources of communication, rather than just focusing on management.

Research Goal 3:
To identify the role of trust on employees' appraisal of the communication they receive from different sources during change.

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Method

Sample characteristics

Twenty-five participants were recruited from a variety of organizations that had recently undergone change to participate in this study. Sixteen organizations were invited by the researchers to take part in the study. The six organizations that agreed to participate consisted of private, non-for-profit, and government organizations. The sample consisted of employees from varied occupations, including: Consultant Physiotherapist, Administration Officer, IT Project Manager, Community Relations Officer and Director of Nursing. The sample consisted of 16 females and nine males. The employees had been working for their organizations from nine months to 32 years. The managerial responsibility of the employees interviewed ranged from supervising no staff to managing up to 65 other employees.

Change events

Organizations selected to participate in the study had recently undergone some form of transformational or transitional change. Transformational change is characterized by reformed vision, strategy or reorganization of internal processes within an organization, while transitional change is typically less disruptive and often involves the implementation of a new product or system (Kleiner and Corrigan, 1989). The change events described by interviewees included major restructures, new budget systems, introduction of new IT systems, new business planning

programs, realignment of business focus, new technology, and building relocations.

Interviews

Semi-structured interviews were conducted with employees; these interviews lasted from 30 to 90 minutes. Interviewees were first asked several general questions regarding their position and tenure within the organization. Employees were asked to describe a change that had some personal relevance and had occurred within the last 12 months. Questions asked during the interviews were phrased to minimize leading the participants or making assumptions about their experiences. To gather evidence in relation to the first research goal regarding the different uncertainties experienced by employees during change, the following questions were asked:

1. 'Why did the change occur?'
2. 'What did the change mean for you and your job?'

In addition, to assess the second research goal regarding the different sources of communication utilized by employees, the following questions were asked:

1. 'How did you first hear about the change?'
2. 'What information did you receive regarding the change?'
3. 'Was this information effective?'

To examine the role of trust in influencing how employees evaluate the information they received, interviewees were asked:

1. 'What influences who you go to for information in the organization?'
2. 'How did you evaluate the information you received in relation to the change?'

In some instances, inconsistencies or contradictions were made by interviewees during the interviews. To ensure the information being gathered was accurate, clarification regarding these issues was sought (Seale, 1999). Throughout the study, the interview questions were continually reassessed based on new literature and information from previous interviews to ensure the questions remained appropriate. In addition, each interview was recorded and then transcribed to ensure the collection of information was accurate (Rubin and Rubin, 1995). Finally, each interviewee was provided with a copy of their own interview to check it for accuracy and verify their responses.

Data analysis procedure

After all interviews were transcribed, thematic data analysis was employed to examine employees' responses in relation to the specified research goals. A systematic approach was adopted ensuring a clearly defined analysis method was consistently applied to the data (Hartley, 1994). Preliminary categories were first

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developed to organize employees' responses, reflecting the central aims of the study, informed by the change management literature. This enabled statements to be initially coded based on the key themes relating to the research questions (Rubin and Rubin, 1995).

Concepts and themes were then identified and coded using nouns and verbs frequently repeated by employees, in addition to concepts from the literature. At this stage of the analysis, the stability of the themes being used was examined by identifying the extent to which themes held under different conditions by drawing comparisons within participants' responses (Hartley, 1994). The data was then grouped based on the identified themes and concepts to draw comparisons across responses and examine the differences and similarities. Finally, the coding was used to draw links between the different themes, to examine the second and third research goals of the study.

Results

Uncertainty during change

The responses from the interviews indicated that during organizational change, employees experienced uncertainty about a range of different issues. The uncertainty experienced by employees differed based on the change event, in addition to their position in the organization. These differences gain greater meaning when examining employees' responses regarding the different communication sources. The descriptions of uncertainty provided by employees support existing research that has suggested the need to adopt a multiple-factor conceptualization of uncertainty during organizational change (Bordia *et al.*, 2004a). In the analysis of the interviews, uncertainty described by employees was classified into three specific types, namely; strategic, implementation, and job-related uncertainty. Illustrative quotes of each type of uncertainty are presented in Table 1. Overall, perceptions of implementation and job-related uncertainty were the most common, with strategic uncertainty being the least frequent type of uncertainty identified in employees' responses. The evidence addressing the first research goal will now be discussed in greater detail.

Strategic uncertainty

Responses from interviews indicated that 12 employees experienced some from of uncertainty regarding the rationale for change and the future direction of their organization. Strategic uncertainty was particularly prevalent during the initial stages of change when employees first heard of the change, with employees indicating it typically reduced with time as more information became available. Strategic uncertainty is illustrated in a quote presented in Table 1 from an employee who indicated that she lacked a clear understanding regarding the reasons behind the implementation of a new budget system.

Implementation uncertainty

Coding of the interviews revealed 15 separate descriptions of uncertainty related to implementation issues. Specifically, this form of uncertainty appeared to be centred on issues concerned with the implementation of proposed changes and

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Table 1. Examples of different change-related uncertainties

Uncertainty type	Narrative
1. Strategic	'I didn't have a clear understanding, initially of why it was being introduced.'
	'I mean they knew, they understood what was they were saying and they knew what was happening but I just feel a lot of us, because you would look around the room and people were going, "What are they talking about?".'
2. Implementation	'More specifically, I was concerned about the quality of service we would be able to give, the staffing levels, how we could possible cope with the increase in workload and resources needed to do that, that weren't available.'
	'Yeah but people didn't know that was the biggest thing, no one knew how it was going to happen.'
	'Which one are we going to be? What's going to happen? Who's going where? A lot of uncertainty.'
3. Job-related	'There were some questions, I guess I had some questions in respect to, it was difficult to gauge how intensive or resource intensive it was going to be and what the requirements on us were.'
	'It's basically like starting a new job all over again, but your still functioning here and you're still doing what you know you do and the way you do it is right, but then you get someone else in over the top of you and you start to question even some of the things you do yourself.'
	'So there was that uncertainty straight away of will they change the services that sit under me to the way they see it and therefore then basically make my position redundant.'

how the change would affect the inner structure of the organization, appearing more prominent once the change was underway. As illustrated in Table 1, one employee expressed uncertainty regarding the impact of an expansion to a work unit, while another employee detailed the uncertainty they experienced in relation to regionalization of services.

Job-related uncertainty

Uncertainty regarding job-related issues such as work load, job role, and job security were the most common uncertainties during change, with all 25 employees interviewed describing experiences of uncertainty that were categorized to be about job-related issues. In this respect, a total of 31 separate descriptions of uncertainty were categorized as pertaining to job-related issues. Responses indicated that job-related uncertainty was typically first experienced early in the implementation phase of change, and represented concerns regarding very specific aspects of the change directly affecting individual positions. The first illustrative quote of job-related uncertainty presented in Table 1 is taken from an employee who during the implementation of a new technology system, indicated they were uncertain about exactly what the change meant for their individual job and responsibilities. Another employee described their experience of a corporate restructure as being similar to commencing a new job, describing the uncertainty they had in relation to how best to perform their job. Finally, as presented in

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Table 1, an employee describes feeling uncertain about the security of their position after the announcement of an organizational restructure.

Quality of Change Communication

Employees' evaluation of the quality of the information they received also was examined. Employees who perceived the information to be high in quality reported having a clearer understanding of the change, suggesting a reduction in their uncertainty. The following employee's statement highlights this point:

> I think it was very well set down to us what was going to happen. You know we saw floor plans of where we were going to sit and that's when we first heard about it. So we had a fair idea of where we were going to sit or where the team was going to sit anyway. The real information was given to us so it wasn't whisper, getting the real information stops that.

This highlights the importance of providing employees with detailed and accurate information during change. In terms of the specific dimensions on which employees evaluated the quality of the communication they received, responses indicated that employees placed importance on the timeliness, accuracy, and usefulness the information. This is illustrated by an employee's comment with regard to the information they received from senior management announcing an organizational restructure:

> I think what that indicated was that at a very strategic level, the communication process worked out really well, but when you throw a human factor in, that's where it came unstuck. In individual situations like mine, and I know there were others, where something could have been communicated more timely, but wasn't, created a lot more pain for people, more uncertainty.

This quote indicates that in some situations information presented may clearly explain strategic aspects of a change even, yet for individual employees this information lacks utility as it is more job-relevant information which they require in a timely manner.

Employees who perceived the information they received to be poor in quality, were more likely to describe feeling uncertain about aspects of the change. Several employees indicated that the information disseminated by management clearly presented the reasoning behind the change, which was viewed by employees as being important. However, it often failed to provide more job-relevant information and, therefore, potentially heightening perceptions of uncertainty. In addition, nearly all responses from employees described the communication process from senior management to be very top down in nature, with little participatory strategies made available, as this quote demonstrates:

> We were informed of a timeframe, there was little consultation with people on the ground as to what should happen, we tried to convey lots of concerns to management

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> as to what actually needed to be implemented before that change, just as far as getting the rooms and equipment ready, which they ignored.

In terms of the quality of information employees' received from their supervisors, again the majority indicated it was more accurate, timely, and useful than the information disseminated by senior management as illustrated by the following quote:

> I guess the divisional director [Supervisor] puts it in more layman's terms and also gives information that she's obviously received in her position where she gets a lot more reason, just more detail around changes that are happening.

It was also demonstrated by employees' responses that communication with supervisors was more effective as it was usually two-way, allowing employees to ask questions and make suggestions.

These findings were further confirmed with those participants who supervised staff, indicating they played an important role in communicating information to front-line staff during changes. Several managers described their role as a filter of information in which they were required to ensure staff received information regarding changes but in such a way that was relevant and understandable. This is illustrated with the following quote by a manager discussing how they communicated the strategic changes within the organization to front-line staff:

> So I took it along with some examples of what feeds into it from an operational perspective which would make sense to the staff, which was relevant to what they do, instead of core capabilities which they wouldn't have been able to work out anyway and that's no disrespect that's just they wouldn't have time and they wouldn't be able to see the relevance.

Finally, responses demonstrated that after the implementation of change, employees often used their co-workers as sources of useful information regarding day-to-day issues surrounding the change. This information was typically centred on job-relevant aspects of the change, with employees sharing their problems and developing solutions to issues that arise after the change. Similar to the information exchanged during the implementation of change this process of communication appeared to primarily serve a support role as the following quote demonstrates:

> Yes, very supportive and it's also a time to just you know swap stories and what hasn't been working for you and what issues have come up and then everybody else goes, oh yeah I can relate to that, so you can have a bit of a chat, so for the most part it is positive.

This was particularly evident during a change event where an employee's direct manager was removed as part of a restructure:

> We didn't have anyone, but then the service managers supported each other as a group, and you sort of form your own little network and lines of communication and support.

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Sources of Communication

Nearly all of the employees interviewed indicated that their direct supervisor was an important source of information during the change. With reference to the content of information employees received from their supervisors, responses indicated that typically supervisors provided more detailed and job-specific information and were thus capable of addressing issues about which employees were uncertain. In addition, employees often referred to their supervisors as being well-positioned to clarify or address any rumours that may have arisen during the change. For example, one employee described their supervisor as being a valuable source of information during change as they are capable of providing accurate and useful information:

> He is a very approachable person and you could if you'd heard a rumour, if you wanted to check anything, whether it's true or not or any sort of information; they're very approachable and I have done that in the past and that worked out fine.

The content of the information shared between co-workers in the context of change appeared to vary according to the stage of the change. Employees' responses indicated that prior to the implementation of change; the majority of information received from co-workers was in the form of rumours and speculation about the nature and ramifications of the change. It was evident from employee responses that it was this communication that was used by some to prolong uncertainty, rather than actually minimise their uncertainty. For example, an employee described the information exchanged between co-workers prior to implementation as being mainly centred on speculation:

> That's when you don't have enough information, people tend . . . we all do it . . . you make up your own interpretations then and all you need to do is say that to someone . . . you know it's like a rumour.

In contrast, during implementation numerous employees reported the communication with co-workers was focused on airing of views and sharing the burden of changes. This was seen to be a positive process for many employees despite the information not necessarily being useful in terms of addressing change-related uncertainties; rather, it provided support through allowing employees to air their grievances and problems. The following quote illustrates this point:

> The anecdotal stuff I think is part of the cathartic getting it out there . . . . I don't know how useful it is otherwise, would have been a lot of that negativity, we did that!

Trust During Organizational Change

Responses from the interviews demonstrated that perceptions of trust played an important role in influencing employees' behaviours when seeking information. Supporting existing research, the data indicated that employees' perceptions of trust are primarily influenced by prior experiences and the relationships they

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develop with other members of the organization. Employees described trust as being largely dependent on the history of a relationship, with the majority perceiving a trusting relationship to be characterized by a willingness to be open, whilst maintaining confidentiality and loyalty. One employee described trust in the following way:

> So honesty and truthfulness and then confidentiality, and if people demonstrate that, they're the people who if they told me something, I would believe them.

This statement highlights the potential role trust plays in influencing who employees go to for information. In addition, responses indicated that trust influenced how employees appraise the information they receive during organizational change. Specifically, responses suggested that the source of information was an important consideration for employees when evaluating communication during change, as raised in the following quote:

> Well you probably look at who's sending it to start with as well, if it's coming from a manager you've got to expect it's pretty accurate, I think you've got to trust them.

In addition to the history of a relationship, the actions of the referent also appear to influence employees' perceptions of trust. In particular, when describing their trust in senior management, several employees described the role that past behaviour had played in their decisions to trust or, in most cases, not trust management. An example of this is a comment made by an employee who was invited to participate in a steering committee, which was responsible for generating suggestions regarding the best approach for the implementation of a new budget system:

> Screwing them [staff representatives on steering committee] totally . . . on a whole range of issues, asking for comments and then disregarding the comments and stuff like that.

This confirms the importance of actually following through with strategies such as PDM as it is not enough to simply appear to value employees' opinions. Further, employees indicated that the actions of management during change influenced the extent to which the felt they could trust the information they were receiving.

Discussion

Addressing the first research goal, responses from the interviews confirmed that employees are likely to experience uncertainty in relation to the strategic direction of the organization, the implementation process and more job-related issues such as job roles. In addition, the evidence supported existing theoretical perspectives relating to the reduction of uncertainty, which stipulate uncertainty is a stressful psychological state which individuals are motivated to reduce through seeking information (Berger and Calabrese, 1975; Schweiger and Denisi, 1991; Kramer, 1993). The majority of employees described that when they were uncertain about change-related issues, they attempted to gain the necessary information to

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reduce these perceptions. The findings also indicated that the source of communication played an important role in determining how effectively employees were able to reduce their uncertainty.

The second research goal of the study was addressed by first identifying the dimensions on which employees evaluate the quality of change communication. Previous research has defined quality change communication as being information that is delivered in a timely manner so as to provide employees with accurate information, allowing them to deal with change (Schweiger and Denisi, 1991; Bordia *et al.*, 2004a). Indeed, from employees' responses, it appears that the quality of change communication was evaluated along similar dimensions. Examining the type of information employees received from different sources, results demonstrated that communication disseminated from senior management is typically centred on strategic issues like the reasoning behind the change or the future direction of the organization. In contrast, employees indicated that they typically utilized their supervisor for information regarding more job-related issues during the various stages of the change, while it was evident from the interviews that employees utilized their co-workers not necessarily as sources of useful change-related information, but instead as peer support, providing an opportunity to share problems or grievances after the implementation of change.

In addressing the third research goal, the factors influencing employees' perceptions of trust within an organizational context were identified. These findings are in line with those relating to which sources employees preferred to receive their information from, as the vast majority of employees indicated it was supervisors who they preferred as a source of change-related information. Specifically, employees consistently mentioned trust also as a factor in determining why they showed a preference for seeking information from their supervisor. Previous research has demonstrated the important role such strategies as PDM and the meeting of expectations can play in establishing employee trust in senior management (Robinson, 1996; Dirks and Ferrin, 2002). The results from this study provide additional support for these findings as employees frequently cited a lack of such practices as PDM, meeting expectations, and provision of support as reasons why they felt they could not trust senior management.

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Study 2

The second study sought to provide converging evidence for the findings of the first study, adopting a quantitative research methodology to empirically examine the key relationships identified in the interviews. Increasingly, organizational research is being conducted using mixed methods designs (Leahey, 2007). The advantage of utilizing a mixed methodology approach is that it assists in uncovering divergent and unexpected findings, strengthening our understanding of different phenomenon (Chen, 1997; Creswell, 2003). Study 2 examined the relationship between quality of change communication and the specific types of uncertainty experienced by employees during organizational change, whilst also investigating the role of trust in influencing employees' appraisal of communication. Furthermore, the second study aimed to extend the findings of

the first study by incorporating a change-relevant outcome measure, namely, openness to change.

Openness to change has been conceptualized as the extent to which employees are willing to support the proposed changes and how positive their attitudes are regarding the potential consequences of the change (Miller *et al.*, 1994). Further, openness to change is seen to be an important precursor to readiness for change and consequently critical in determining the ultimate success of organizational change (Armenakis *et al.*, 1999). Therefore, identifying the processes that facilitate employee openness to change constitutes an important step at better understanding how organizations can ensure employees are willing to support and engage in change initiatives.

It was expected that quality change communication would display a positive relationship to employees' level of openness to change (Hypothesis 1). In addition to this direct effect, it was expected that quality change communication would be indirectly related to openness to change via its negative relationship with change-related uncertainties (Hypothesis 2). Finally, it was predicted that trust in management would moderate the negative relationship between quality of change communication and change-related uncertainty (Hypothesis 3). It was expected that, under high levels of trust in management, the quality of change communication would display a stronger negative relationship with uncertainty in contrast to when employees displayed low levels of trust in management.

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Method

Change context

The second study was conducted in a government department undergoing a review of all government services, with the aim of centralizing services shared across different departments. The rationale behind the change was to increase efficiency and ensure standardization of service provision across departments by bringing together similar services, and reducing the number of people who performed similar roles. At the time of this project, the organization was in the process of the initial review stage of the change, during which current processes were being examined to inform the actual change event.

Participants and procedure

Data were collected from employees of a government department that was undergoing change. Questionnaires were distributed electronically, with employees receiving an initial email from the Human Resource Management Department inviting them to participate in the project. Employees who did not have access to email were sent paper-and-pencil surveys. In total, 700 questionnaires were sent to employees, with 174 completed questionnaires returned, constituting a 25% response rate. Of the 174 respondents, 104 were female and 70 were male. Further, respondents had an average tenure at the organization of 9.3 years. Finally, 24.7 % of respondents were aged 30 years and under, 32.7% were aged between 30–40 years, 29.9% were aged between 40–50 years, and 12.6% were over the age of 50.

Measures

Sources of change communication

Respondents were required to indicate the percentage of information about the change they received via different communication sources then the amount of change communication they would prefer to receive through each source. Sources of change communication included branch manager, union, and implementation team.

Quality of change communication (QCC)

QCC was assessed using nine items based on the characteristics of effective change communication as detailed in existing measures of quality change communication (Miller and Monge, 1985; Miller *et al.*, 1994). Employees were required to rate the change communication they received in relation to: (1) job-related; (2) implementation; and (3) strategic issues on three dimensions, namely: usefulness, timeliness, and accuracy (1 = strongly disagree to 7 = strongly agree). A sample item assessing the usefulness of job-related information was: 'Overall, the official communication I received about the potential job-related changes that may result from the outcomes of the change within [the current organization] has been useful'. An item assessing the timeliness of implementation-related information was: 'Overall, the official communication I received about the implementation of the change within [the current organization] has been timely'. Finally, a sample item used to assess the accuracy of information about strategic issues was 'Overall, the official communication I have received about the strategic direction of this change has been accurate'.

Uncertainty

In line with the existing typologies of uncertainty (Buono and Bowditch, 1989; Bordia *et al.*, 2004a), the current study assessed three types of uncertainty: strategic, implementation, and job-related. Employees were required to rate the extent to which they agreed (1 = strongly disagree to 7 = strongly agree) with nine different statements regarding the three types of uncertainty. For example, in relation to job-related uncertainty respondents were required to indicate the extent to which they agreed with: 'I am uncertain about whether I will have to learn new job skills'. A sample item assessing implementation-related uncertainty was: 'I am uncertain about the timeline for implementation of the outcomes of the change'. Finally, a sample item used to assess strategic uncertainty was: 'I am uncertain about the strategic direction of this initiative'.

Trust in management

Trust in management was assessed using seven items based on the measure used by Robinson and Rousseau (1994). Respondents were required to indicate the extent to which they agreed or disagreed with each of the statements (1 = strongly disagree to 7 = strongly agree). A sample item is: 'I can expect management to treat me in a consistent and predictable fashion'.

Openness to change

To assess employees' attitudes towards the proposed changes, openness to change was examined using nine items. Respondents were required to indicate the extent

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to which they agreed or disagreed with each of the statements (1 = strongly disagree to 7 = strongly agree). A sample item is: 'I would consider myself open to these changes'.

Results

Descriptive data

The means and standard deviations for the source of change communication measure are presented in Table 2. Only respondents that correctly allocated 100% across the communication sources were included in the final analyses. From the table, it is clear that employees received the most information from their branch managers. The pattern of results was very similar when respondents were asked to rate their preferred communication source, with employees indicating they preferred receiving change information from their branch manager compared to other sources.

The means, standard deviations, inter-correlations and internal consistency coefficients for the measures are presented in Table 3. As illustrated in Table 3, employees' mean rating of QCC, uncertainty, trust, and openness to change were all around the mid-point of the respective scales. In relation to uncertainty, the mean level of strategic uncertainty was higher than both implementation-related, paired-sample $t\ (171) = 3.98,\ p < .001$, and job-related uncertainty paired-sample $t\ (172) = 3.35,\ p < .001$. While there was no difference in the mean level of job-related and implementation uncertainty, paired-sample $t\,(171) = .14$, *ns*. Inspection of Table 3 also demonstrates the majority of bivariate correlations were significant and in the expected direction. The exception to this was the measure of trust which was not correlated with openness to change. The internal consistency of all measures was above 0.82.

Main analyses

To examine the direct effect of QCC on openness to change, in addition to the extent to which the QCC was indirectly related to openness to change, via its

Table 2. Descriptive data (means and standard deviations) for sources of change communication

	%			
	Actual		Preferred	
Communication source	*M*	*SD*	*M*	*SD*
Branch Manager	44.47	28.63	39.51	27.16
Change Implementation Team (Organization)	23.97	23.27	22.05	21.97
Senior Management (Organization)	3.78	6.64	6.27	13.19
Change Implementation Team (Across Organizations)	12.69	16.40	15.49	17.26
Change Implementation Office	6.05	11.15	6.72	12.49
Union	4.91	9.13	5.45	10.20
Senior Management (Department)	4.13	10.19	4.51	7.58

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Table 3. Descriptive data (means and standard deviations) and intercorrelations among variables ($n = 174$)

Variable	*M*	*SD*	1	2	3	4	5	6
1. QCC	3.98	1.32	(.95)					
2. Job-related uncertainty	4.10	1.63	−.37 [b]	(.82)				
3. Implementation-related uncertainty	4.11	1.54	−.50 [b]	.44 [b]	(.86)			
4. Strategic uncertainty	4.54	1.46	−.37 [b]	.39 [b]	.50 [b]	(.85)		
5. Trust in management	4.50	1.34	.38 [b]	−.15 [a]	−.20 [b]	−.20[a]	(.89)	
6. Openness to change	3.98	1.23	.33 [b]	−.43 [b]	−.32 [b]	−.39 [a]	.11	(.91)

Note: Cronbach's (1951) alpha coefficients are presented in parentheses along the main diagonal.
[a] $p < .05$; [b] $p < .01$.

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direct effect on change-related uncertainty, hierarchical multiple regression analysis was performed. As illustrated in Table 4, employees who perceived they received quality change communication reported being more open towards the change, $\beta = .33$, $p < .001$, $R^2 = .11$, $F(1, 175) = 21.78$, $p < .001$, supporting the first hypothesis.

Table 4 also presents the results from the analyses examining the extent to which QCC was indirectly related to openness to change, via its relationship with change-related uncertainty. In order to establish full mediation, the effects of QCC on openness to change need to be no longer significant when the mediator variable (change-related uncertainty) is entered into the model on the subsequent step (Baron and Kenny, 1986). As illustrated in Table 4, the inclusion of the change-related uncertainty variables into the second step of the hierarchical multiple regression analysis did account for a significant proportion of additional variance in employees' openness to change scores, $R^2_{\text{change}} = .12$, $F(3, 175) = 9.25$, $p < .001$. In addition, the observed positive relationship between QCC and openness to change was no longer significant with the addition of the change-related uncertainty variables to the equation ($\beta = .16$, *ns*). The Sobel test confirmed that this mediated effect was statistically significant, $z = 5.31$, $p < .001$. However, it was only strategic and job-related uncertainty that mediated the relationship, with implementation-related uncertainty not being a significant

Table 4. Direct and indirect effects of QCC predicting openness to change ($n = 174$)

Predictor	Openness to change β	
Step 1		
QCC	.33 [b]	.16
R^2	.11 [b]	
Step 2		
Job-related uncertainty		−.20 [a]
Implementation-related uncertainty		.03
Strategic-related uncertainty		−.28 [b]
ΔR^2		.12 [b]

[a] $p < .01$; [b] $p < .001$.

predictor when included in the equation. Further support was given to this finding in additional analyses in which the change-related uncertainty variables were entered into the equation before QCC. After the effects of the change-related uncertainty variables were controlled for, QCC did not account for any additional variance in openness to change scores.

To examine the hypotheses relating to the moderating role of trust in management on the relationship between QCC and the different types of change-related uncertainty, an additional set of hierarchical multiple regressions analyses were performed. To test the potential moderating effect of trust in management, a multiplicative two-way interaction term was computed between trust in management and QCC. However, entry of the two-way interaction term at Step 3 of the equation failed to show support for the moderating role of trust in management on the relationship between QCC and any of the change-related types of uncertainty.

Discussion

Consistent with Hypothesis 1, employees who indicated they received quality change communication demonstrated a more positive attitude towards the change. In addition, in relation to Hypothesis 2, change-related uncertainty fully mediated the positive relationship between QCC and openness to change. More specifically, quality change communication demonstrated a positive relationship with employees' openness to change to the extent that the communication addressed employees' uncertainty regarding strategic and job-related issues. Finally, in relation to Hypothesis 3, no support was found for the moderating role of trust in management on the relationship between QCC and change-related uncertainty.

The results supporting the first hypothesis, confirm the well-established finding that the provision of information is important in facilitating acceptance of change by employees (Kramlinger, 1998; Armenakis and Harris, 2002). However, it is the quality of the information employees receive rather than the mere provision that appears to be critical in influencing their openness to change. Despite finding a direct effect of QCC on employees' openness to change, the finding that change-related uncertainty mediates this relationship provides useful information. The mediation effects illustrate that QCC facilitates openness to change by reducing employees' uncertainty regarding change.

The results pertaining to the indirect effects of change communication on openness to change provide additional support to the existing research that has demonstrated employees are likely to experience uncertainty in relation to a range of change-related issues during organizational change (Jackson *et al.*, 1987; Buono and Bowditch, 1989). In particular, it is how well these perceptions of uncertainty are addressed that is of central importance in determining the effectiveness of change communication. It is interesting to note that QCC was shown to have a negative relationship with all forms of change-related uncertainty, yet it was only employees' perceptions of strategic and job-related uncertainty that mediated the relationship between QCC and openness to change. This is not surprising given the change process was still in the initial phases and the actual centralization of

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services was yet to be implemented. Consequently, drawing a distinction between the various issues about which employees are likely to experience uncertainty is likely to be very important when developing targeted communication strategies designed to facilitate employee acceptance of change.

Despite displaying a positive relationship with QCC and negative relationships with all forms of change-related uncertainty, trust in management was not shown to moderate the negative relationship between QCC and uncertainty. This is somewhat surprising, given the existing research that has demonstrated that trust in leadership is associated with a range of positive organizational behaviours, in addition to a willingness to believe that the organization or management are acting in the best interests of employees (Dirks and Ferrin, 2002). In contrast, low levels of trust have been associated with employees being less willing to accept the decisions of management as they perceive doing so will put them at some level of risk (Mayer *et al.*, 1995). Thus, it would appear that trust should play an important role in influencing how employees appraise information during organizational change and how effective communication is in addressing uncertainty.

The lack of support for the moderating role of trust in management found in the second study may, in part, be due to the nature of the change under investigation. In this respect, it was a whole-of-government initiative and employees may have not have perceived the change to have been initiated by their management, but rather more broadly by the government. Consequently, during the initial phases of the change process, employees' trust in management may not have had a strong impact on their appraisal of the information they received. It is also worth noting that the descriptive results detailing how much change communication employees received from different sources indicated that employees received the majority of their information from their branch manager. Therefore, it may have actually been employees' specific relationship with their manager that influenced their appraisal of the information and not the extent to which they were willing to trust management more broadly. These findings confirm what was revealed in interviews from the first study that the focus needs to be widened when examining change communication to include a range of different sources through which employees receive communication, in particular when considering how trust may influence how the information is appraised.

General Discussion

There exists wide support for the importance of communication during organizational change in determining how a change is received by employees (Armenakis and Bedeian, 1999), yet there remains a predominate focus on the communication disseminated by management, ignoring the role specific sources of communication play in addressing employee uncertainty. Furthermore, little research has examined the contextual factors that are likely to influence how information disseminated during change is received and interpreted by employees. To begin to address the lack of research in this area, two studies were undertaken which demonstrated, that despite the provision of communication being important in

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facilitating employee openness to change, it is how well the information addresses employees' concerns that ultimately determines its effectiveness. In addition, it appears that more consideration needs to be given to the source of information during organizational change and employees' trust in the particular source, as the results from both studies illustrate the distinct roles various sources may play in reducing employees' uncertainty.

The results of this study provide further explanation as to why many change efforts still struggle to implement effective communication strategies. The reason why many organizations may encounter difficulties in reducing employee uncertainty during change is the often one-way nature of communication strategies, and a predominate focus on providing employees with information regarding strategic issues. While this approach may be effective during the initial stages of the change process, as illustrated by the results of the second study, it is unlikely that it will remain successful as employees' concerns shift to more job-related issues. Instead, a continued focus on strategic issues surrounding a change may in fact heighten employee uncertainty as they are not receiving the important job-relevant information, when changes are first announced. Consequently, employees are often left seeking additional job-relevant information through alternative sources such their supervisors or co-workers.

In particular, the results of the first study suggest that it may be the source of information that may be an additional important predictor of employees' attitudes towards a change rather than simply the quality of information alone. This appears to be in part due to the existing trust employees have in specific sources of information, such as their supervisors or managers. Consequently, it is important for further research to empirically examine whether information employees receive from different sources is capable of reducing uncertainty, and if so which types of change-related uncertainty are most effectively addressed by each source.

Future Directions

There still remains a large gap in the change management literature regarding the role different sources of communication play in influencing employees' attitudes and intentions towards change. Consequently, there are numerous areas for future research. Future research should examine how the various sources of communication are utilized by employees throughout the course of a change event. By adopting a longitudinal design, research would allow more meaningful conclusions to be drawn in regard to the influence of information from different sources on employees' attitudes and intentions at different phases of the change. Results from the first study suggest that different sources of communication may serve quite distinct roles during organizational change, so it is important to empirically examine this. Specifically, it would be useful to examine how employees' readiness for change and stress outcomes such as anxiety and dissatisfaction are influenced by the information they receive from different sources during the change process. In addition, future research could include analysis of individual

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difference variables such as tolerance for ambiguity and dispositional trust in employees' responses toward change-related uncertainties.

Practical Implications

The present findings have various practical implications for the management of communication during change. For example, a cascading approach when developing change communication strategies may be most beneficial. Specifically, ensuring senior management provide the more strategic component of change communication, whilst ensuring supervisors are provided with more practical information that is can be disseminated to employees. The communication of practical information surrounding the change should be done in such a way as to allow questions from employees, ensuring the more job-relevant issues surrounding the change are clearly articulated. Such an approach would avoid wasting time in attempting to have senior management deliver all information, whilst at the same time provide employees with clear and detailed practical information from sources they are more likely to trust. Such participative strategies need to be focused on establishing two-communication between employees and management using supervisors or managers as facilitators of this process. The implementation of participative strategies, if done correctly also, is likely to facilitate the development of trust within the organization and assist the success of future change events.

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