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Personality and Justice Predictors of  
Workplace Resistance to Organizational Change

by

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## Abstract

Organizational change has become a pervasive and reoccurring event for employees. Research evidence suggests, however, that not all organizational change efforts achieve their anticipated results. Instead, there is little research on those factors that predict successful change. A field study was conducted in which the employees' personality (ideas, actions, trust, compliance, angry hostility, vulnerability, and work locus of control) and perceived fairness of the organizational change were assessed as predictors of resistance to change. A resistance to change measure was created using the critical incident technique. A principal components analysis found three resistance factors: political resistance, resistance to learning, and avoidance responses. Independent regression analyses found ideas positively related to political resistance. Trust and compliance were negatively related to avoidance responses. Angry hostility was positively related to avoidance responses. When controlling for high perceptions of personal control over the change, external locus of control was positively related to political resistance.

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## Personality and Justice Predictors of Workplace Resistance to Organizational Change

Marketplace competition is forcing organizations to reduce costs through improved efficiency while maintaining a high level of product quality and service. To this end, organizations might change their corporate strategy, introduce new technology, reorganize their structure, change their employee reward systems, or attempt any number of change interventions (for a review, see Cummings & Worley, 1997). Successful change efforts are related to employee commitment, fewer productivity variations during the change effort, and abbreviated implementation times (Mariotti, 1996). Organizations that implement their change efforts most quickly also obtain the benefits from the change most quickly (Recardo, 1995). To facilitate change, employees need to be adaptable and flexible. Instead, however, organizational change often creates resistance in employees, which can be a significant deterrent to the success of corporate initiatives (Cummings & Worley, 1997). When employees resist the change, implementation times often become increased and the prolonged productivity variations typically confuse the employees. Consequently, resistance to change is likely related to employees speaking poorly of the change and organization. Furthermore, it may increase turn-over as employees become frustrated with the change. As a result, employee resistance is likely to decrease productivity thereby delaying any anticipated benefits from the change.

Employees tend to vary in their reactions to changes in a given situation -- their responses are not necessarily random, but instead may represent enduring personality traits of employees (Ross & Nisbett, 1991). Social cognitive theories (e.g., Mischel & Shoda, 1995) suggest that situations are influenced by the personalities of those people in

them. Thus, employees might react differently towards organizational change depending on their dominant personality traits. Empirical research, however, has yet to consider the relationship between an employee's personality and his or her resistance to organizational change.

Novelli, Kirkman, and Shapiro (1995), on the other hand, proposed that organizational change implementations frequently fail because fairness and justice concerns are not properly addressed. They argued that addressing organizational justice perceptions during the change is a way of fostering a sense of trust within the organization. Moreover, if employees perceive the outcomes and processes of the change to be just, they are more likely to experience increased commitment to the change.

The purpose of this study is to investigate both personality and justice as predictors of resistance to change. The following section provides an overview of resistance to change, the theoretical bases for the present study, and the research hypotheses.

### Resistance to Change

Organizational change has become a pervasive and reoccurring event for employees. In the past three decades, the economy has changed in an unprecedented manner due to increased foreign competition, globalization of markets, and swift technological change (Recardo, 1995). Most organizations have come to realize the importance of successful implementations of new management practices, technologies, and ideas to improve productivity and the organization's competitiveness in a global economy (Joshi, 1990).

Although these change initiatives could result in improvements to productivity or management, if the organization's employees do not support the initiative then they are likely to resist it and thus the implementation may fail. Yukl (1994) defined resistance as a situation where employees are opposed to the change, not just indifferent, and they respond by deliberately trying to prevent the change. He proposed that resistance is one of the possible outcomes when management uses its power to implement the initiative. Resistance to organizational change occurs when employees and/or organizations are not willing to adapt to new concepts (Greenberg, Baron, Sales, & Owen, 1995).

From a psychotherapist's perspective, Goldstein (1989) suggested that resistance is inevitable and an essential component of change; it is often an effort to sustain one's dignity and integrity as whatever needs to be modified may be considered 'flawed'. Goldstein argued that systemic equilibrium supports itself by resisting the change effort -- employees resist it because they are trying to defend a homeostatic environment.

It is interesting to compare the two differing perspectives. Yukl (1994) approaches resistance as a power issue whereby employees resist the initiative when it is being forced upon them. Goldstein (1989), however, assesses resistance as a natural yet defensive reaction for employees who want to protect their self-esteem since change may be seen as improving a problematic behaviour (see Table 1).

### Organizational Perspectives of Resistance to Change

Organizational research suggests that employees feel threatened by organizational change. Kyle (1993) suggested that when employees experience external change, they usually feel as if it is being 'done to them'. This belief commonly occurs when employees perceive that they have limited control over the size or outcomes of the

change. He proposed that the resulting emotions related to forced modifications are stressful and traumatic because employees are not often involved or properly informed of the process. Moreover, employees tend to prefer a sense of security, familiarity, and continuity. Kyle (1993) described resistance to change as a response to the doubtful, vague, and anxious state that forced alterations produces. He argued that the resistance is not to the change itself, but to the feelings of confusion, vagueness, and stress created by the forced alteration. Consequently, forcing a change disrupts the employees' preferred states.

Other researchers have similarly viewed resistance as employees' method of coping with uncertainty. Armentrout (1996) proposed that if the change is a surprise, then the employees' first reaction might be resistance. Moreover, due to technological advancement and international trade, employees can fear that their skills might become obsolete. He argued that even when retraining programs are available, employees might dislike the idea of being replaceable. This situation might occur particularly when employees do not understand the need for change. Armentrout argued that some employees feel insecure about the change, so they try to avoid failure instead of trying to be successful. Furthermore, change often requires that employees work together with employees who are unfamiliar to them. These new working relationships might result in interpersonal differences that might encourage employees to resist change.

Schlesinger, Sathe, Schlesinger, and Kotter (1992) reviewed the organizational change literature over the past two decades and identified four reasons why employees resist change: politics and power struggles, misunderstanding and lack of trust, different assessments of the situation, and fear. Power is defined as the potential to influence

another (Greenberg et al., 1995). Employees tend to exercise their power to maintain their best interests. Politics refers to employees who resist the change because they believe that they will lose something that is personally important to them (Schlesinger et al., 1992). Political behaviour occurs when employees behave in a way to maintain their self-interests, which might not agree with the organization's best interests. If the organization does not support the employees during the change effort, while expecting them to alter their behaviour, employees might feel that they are being used merely as a means to increase profit (O'Connell-Davidson, 1994). For example, employees might feel that management expects them to be dependable yet disposable, thus employees become cynical and resist the change. Consequently, employees and management have power struggles regarding the change.

Also, Schlesinger et al. (1992) proposed that employees tend to resist an organizational change when they perceive that they will lose more than they will gain from the change. This is likely to occur when there is a lack of trust between employees and management and when employees are unable to fully understand the reasons for the change. Similarly, employees who assess the change effort differently than management often see that they will lose more than they will gain and thus they resist the change. Similar to Armentrout (1996), Schlesinger et al. proposed that employees also resist change because they fear that they will not be able to acquire the new expertise and abilities that are necessary to perform their jobs effectively.

Harlan-Evans (1994), however, used the employees' self-concept to explain resistance. She argued that employees place considerable importance on their ability to make a choice, especially in events that will impact their lives. If management does not

offer the employees a choice regarding the change, employees tend to assert their choice through their behaviour. Additionally, employees can develop an unprecedented sense of entitlement, defined as a cherished right, and change affects the employees' valued expectations.

Resistance to change, however, might not necessarily imply dysfunctional behaviour. Fiorelli and Margolis (1993) argued that some level of resistance to change might be to the organization's benefit. They proposed that employees' resistance may be legitimate and productive, addressing both employees' and organization's needs by preventing the implementation of inappropriate change strategies. Furthermore, if employees do not resist, then it might be that they are simply conforming, naively obeying, and not thinking critically about the change. Fiorelli and Margolis suggested that resistance is more than just a response to change; employees also resist the change because it threatens their habits and relationships.

In summary, employee resistance is pervasive in organizational change. Resistance is often a natural response to change and is expected to take place particularly when employees feel: (a) that the change is out of their control, (b) pressured to change without feeling valued, (c) distrust towards the organization, and (d) that they are seen by the organization simply as resources towards the change. Employees' resistance is also related to their perceived losses and gains resulting from the change. Their perception of equity regarding the change can be a function of both the fairness of the implementation and outcomes of the change. Lack of information regarding the change might lead to employee discontentment. Importantly, employees often are not resisting the change per se, rather, the method in which the change is being implemented.

The preceding authors have attempted to provide causal explanations for employees' resistance to change. The following table (see Table 1) summarizes those explanations. I have also tried to identify some of the themes behind each explanation to make it easier to compare them.

Table 1

Summary of Resistance to Change Behavioural Explanations

<b>Author</b>	<b>Explanation for Resistance Behaviour</b>	<b>Motivation to Resist</b>
Yukl (1994)	<ul style="list-style-type: none"> <li>• attempt to resist management's power</li> <li>• display of personal power</li> </ul>	<ul style="list-style-type: none"> <li>• gain power</li> </ul>
Goldstein (1989)	<ul style="list-style-type: none"> <li>• effort to maintain personal dignity and integrity</li> <li>• expected and crucial element of change</li> </ul>	<ul style="list-style-type: none"> <li>• gain power</li> <li>• reduce fear</li> </ul>
Kyle (1993)	<ul style="list-style-type: none"> <li>• see external change as being 'done to them'</li> <li>• responding to the doubtful, vague, and anxious state that forced change produces</li> <li>• reacting to the feelings of confusion, vagueness, and stress created by the forced change</li> </ul>	<ul style="list-style-type: none"> <li>• reduce fear</li> <li>• lack of trust</li> </ul>
Armentrout (1996)	<ul style="list-style-type: none"> <li>• reaction to surprise or uncertainty</li> <li>• attempt to avoid failure</li> <li>• personality conflicts</li> </ul>	<ul style="list-style-type: none"> <li>• fear of obsolescence</li> </ul>
Schlesinger, Sathe, Schlesinger, & Kotter (1992)	<ul style="list-style-type: none"> <li>• politics and power struggles</li> <li>• misunderstanding and lack of trust</li> <li>• different assessments of the situation</li> <li>• fear</li> </ul>	<ul style="list-style-type: none"> <li>• gain power</li> <li>• lack of trust</li> <li>• reduce fear</li> </ul>
Harlan-Evans (1994)	<ul style="list-style-type: none"> <li>• believe they are entitled to a choice</li> <li>• assert their choice through their behaviour</li> </ul>	<ul style="list-style-type: none"> <li>• gain power</li> </ul>
Fiorelli & Margolis (1993)	<ul style="list-style-type: none"> <li>• legitimate and productive</li> <li>• threatens their habits and relationships</li> </ul>	<ul style="list-style-type: none"> <li>• reduce fear</li> </ul>

### Personality Theories of Resistance

An individual's personality consists of the person's social reputation and his or her inner nature (Hogan, 1991). Researchers argue that individuals tend to respond consistently when repeatedly faced with the same situation (Mischel, 1968). Moreover, Costa and McCrae (1992) argued that an individual's personality is stable across the person's life and that it has a significant genetic component. Because personality traits are enduring, it is plausible that individuals' reactions to change might depend on their disposition.

To date, there is no research examining the relationship between personality traits and resistance to change. Consequently, the following hypotheses are not based on empirical research, instead, this study's hypotheses are based on the theory underlying the personality traits being examined. A review of the related literature suggests four personality variables may be related to resistance to change: openness to experience, agreeableness, neuroticism, and locus of control.

The openness to experience trait assesses the degree to which an individual is willing to try novel experiences. More specifically, this trait determines "active imagination, aesthetic sensitivity, attentiveness to inner feelings, preference for variety, intellectual curiosity, and independence of judgment" (Costa & McCrae, 1992, p. 15). Costa and McCrae (1992) and McCrae and Costa (1997) argued that individuals high on the openness to experience trait are curious, live rich lives, enjoy thinking about diverse ideas and values, and tend to search for new and different experiences. Individuals low on openness to experience, however, tend to be conservative in their views and engage in ordinary behaviours (Costa & McCrae, 1992). In addition, they tend to participate in



familiar experiences rather than try novel activities and their emotional reactions are likely to be muted. Openness to experience has been found to predict willingness to participate in learning experiences (Mount & Barrick, 1995). Diamond (1993) proposed that successful organizational change depends on employees' openness to learn and change.

Two facets of the openness to experience trait relevant to resistance to change include ideas and actions. The ideas facet measures an individual's intellectual curiosity and open-mindedness to new ideas. A high ideas individual is willing to consider novel ideas regarding their organization (Costa & McCrae, 1992). Individuals low on ideas, in contrast, have been found to be limited in their curiosity and restrict their focus on their resources regarding limited topics (Costa & McCrae, 1992). This facet is related to employees' inclination to adopt change, particularly if they perceive the benefits from the change to outweigh the losses. Individuals low on ideas typically do not think very broadly, thus, they might not consider all facts when making a decision to buy in to the change. Consequently, this limited scope may affect how they weigh the costs and benefits of change. Since under normal conditions losses tend to loom larger than gains (Kahneman & Tversky, 1984), and losses may be observed before gains, (Rousseau, 1995), these individuals might not think beyond the losses, hence resist the change.

The actions facet assesses an individual's inclination toward engaging in novel activities. Individuals high on actions tend to try different activities at work. Individuals low on actions, however, find it difficult to change and would rather maintain the status quo (Costa & McCrae, 1992). Consequently, individuals low on actions are unlikely to participate in a change implementation. Because organizational change often confronts

individuals with new work activities, it is plausible that both the ideas and actions facets of openness to experience are relevant to employees' willingness to participate in or resist the change.

H1a: Individuals high on the ideas facet of openness to experience will demonstrate less resistance to organizational change than individuals low on this facet.

H1b: Individuals high on the actions facet of openness to experience will demonstrate less resistance to organizational change than individuals low on this facet.

The agreeableness trait is defined as being likable, cheerful, adaptable, and cooperative (Costa & McCrae, 1992). Graziano, Jensen-Campbell, and Hair (1996) argued that individuals high on agreeableness tend to want to sustain positive relationships with others. They argued that this motivation might influence those individuals high in agreeableness to develop positive perceptions even in the presence of potentially antagonistic behaviour. Individuals low in agreeableness tend to be less constructive and more negative in their responses to antagonistic behaviour than individuals high in agreeableness (Graziano et al., 1996).

Two facets of the agreeableness trait that are relevant to resistance to change include trust and compliance. The trust facet assesses an individual's tendency to believe that others have good intentions and are honest (Costa & McCrae, 1992). This facet predicts employees' inclination toward believing that their supervisor is well meaning. In contrast, someone low on trust tends to be skeptical and assumes that others may be

dishonest (Costa & McCrae, 1992). Thus, it is plausible that this facet predicts an employee's willingness to accept a supervisor's direction to adopt change. Individuals low on trust would be expected to resist the change because they lack trust; they are cynical of the organizational change and tend to distrust their supervisor.

The compliance facet assesses an individual's typical reactions to interpersonal conflict. Someone high on compliance is likely to inhibit aggression, forgive, and forget (Costa & McCrae, 1992). Someone low on compliance is aggressive and would rather compete than cooperate (Costa & McCrae, 1992). Change implementations often requires the full cooperation of all employees to ensure the change is successful (Mariotti, 1996). Low compliance refers to the tendency to not work well with others. Because change is often associated with confusion and possibly conflict, the compliance facet would likely predict employees' predisposition to constructively work through the conflict to successfully adopt the change. Thus, both these facets are likely to determine employees' willingness to adopt an organizational change.

H1c: Individuals high on the trust facet of agreeableness will demonstrate less resistance to organizational change than individuals low on this facet.

H1d: Individuals high on the compliance facet of agreeableness will demonstrate less resistance to organizational change than individuals low on this facet.

Neuroticism is defined as the tendency to display improper emotional adjustment and experience negative affect. More specifically, neuroticism is the tendency to

experience “fear, sadness, embarrassment, anger, guilt, and disgust” (Costa & McCrae, 1992, p. 14). Someone low on neuroticism tends to be even-tempered, calm, and able to face stressful events without getting upset (Costa & McCrae, 1992). Digman (1996) found that individuals high on the neuroticism trait were rigid, unadaptable, and timid. Furthermore, they were disposed to anxiety such as being afraid of new situations. Considering that employees need to be flexible and open to new ideas during organizational change, those high on the neuroticism trait might have difficulty adapting to new situations.

Two facets of the neuroticism trait that are relevant to resistance to change include angry hostility and vulnerability. The angry hostility facet measures an individual’s willingness to experience anger in response to frustrating experiences. This facet assesses employees’ intentions to experience frustration and bitterness (Costa & McCrae, 1992). Individuals high on angry hostility tend to be disagreeable whereas individuals low on angry hostility are generally easygoing and slow to anger (Costa & McCrae, 1992). Because change is often associated with ambiguity and confusion (Kyle, 1993), this facet would likely be relevant to the tendency to become angry and frustrated in response to the chaos, resulting in resistance to change. Furthermore, individuals high on angry hostility are likely to become disagreeable during times of confusion, which can be interpreted as resisting change.

The vulnerability facet refers to an individual’s feelings of being unable to cope with stress. This facet is related to employees’ feelings of panic, dependency, and hopelessness when confronted with new situations (Costa & McCrae, 1992). Individuals high on vulnerability tend to feel unable to cope with stress. In contrast, individuals low

on vulnerability consider themselves as being resilient and able to handle themselves in stressful situations (Costa & McCrae, 1992). Because there is the potential for lack of control and confusion associated with change, employees high on vulnerability can feel desperation and blame the change for their chaotic feelings on the organization. This process precipitates a need to resist the change as an attempt to control their environment. Therefore, the following hypotheses are proposed:

H1e: Individuals low on the angry hostility facet of neuroticism will demonstrate less resistance to organizational change than individuals low on this facet.

H1f: Individuals low on the angry hostility facet of neuroticism will demonstrate less resistance to organizational change than individuals low on this facet.

As noted earlier, a central issue appearing in the resistance to change literature is one of control. Individuals tend to resist change when they perceive that they have no control over their environment. A personality type most relevant to assessing individuals' sense of control over their environment is locus of control. Rotter (1966) defined locus of control as a generalized belief regarding a person's perception that he or she can control outcomes of importance. Rotter proposed that individuals could vary on a continuum from external (the belief that events are not determined by your own actions but rather luck, chance, fate, or powerful others) to internal (the belief that events are determined by your own actions) locus of control.

In situations that are controllable, individuals with an internal locus of control are likely to take charge of their situation and influence their outcomes (Rotter, 1966).

Individuals with an external locus of control, tend to, by definition, believe that events are not contingent upon their actions but upon luck, change, fate, or powerful others who control their outcomes (Rotter, 1966). Thus, during controllable situations, individuals (i.e., internal vs external) are likely to differ in their actions depending on whether they believe that they can influence their situation.

In situations that are uncontrollable, individuals with an internal locus of control are likely to exert a different type of control whereby they try to accommodate themselves to the uncontrollable event by changing their perspective of the event (Folkman, 1984). For example, individuals high on internal locus of control may associate themselves with individuals who are powerful to feel as though they have achieved a certain level of control (Folkman, 1984). However, in the same uncontrollable situation, individuals with an external locus of control tend to believe that their actions do not influence their situations (Rotter, 1966), therefore, they are likely to be used to not having control over uncontrollable situations.

In highly ambiguous situations (i.e., not obvious whether the situation is controllable), such as those associated with organizational change, an individual with an internal locus of control is likely to appraise the situation as controllable where as an individual with an external locus of control is likely to appraise the situation as uncontrollable (Folkman, 1984). Specifically, those high on internal locus of control are likely to appraise the situation as controllable (Folkman, 1984) and thus their actions will be consistent with a controllable situation (i.e., they will act as though their behaviour

influences their situation). However, if the situation suddenly becomes uncontrollable or fluctuates between controllable and uncontrollable, as it often does during organizational change, then those individuals high on internal locus of control will become frustrated as their behaviour may no longer influence their situation (Folkman, 1984). This frustration may manifest itself as resistance to the change.

In contrast, individuals high on external locus of control will be less impacted by ambiguity because, by definition, they do not expect to be able to control their environment (Rotter, 1966). Taken together, individuals high on internal locus of control will experience greater frustration in changing environments and resist more than individuals high on external locus of control. This hypothesis is tenable, however, to the degree that individuals in fact see the change as out of their control.

H1g: To the degree that the situation is perceived as ambiguous,  
 individuals high on internal locus of control will resist change more  
 than individuals high on external locus of control.

### Organizational Justice Theory

Organizational justice considers peoples' perceptions of fair treatment on the job (Novelli et al., 1995). Cobb, Wooten, and Folger (1995) argued that justice issues are intrinsic within any organizational change. Organizational change creates feelings of stress, frustration, and perceptions of loss among employees. Research to date has focused on two general types of fairness: distributive and procedural justice. The following sections define each form and address how employees are influenced by each type of justice.

### Distributive Justice

Distributive justice refers to an employee's perceived fairness of the outcomes received (e.g., pay, recognition, job assignment). Distributive justice is based on Adams' (1963) equity theory, which suggests that individuals assess fairness as the ratio of rewards (i.e., pay, promotion) to their contributions (i.e., effort, talent) relative to the ratio of a referent other. Adams proposed that the referent can be a coworker or their own previous experience. Equity theory proposes that when an individual perceives an inequitable ratio, he or she experiences distress. In response to this distress, the individual attempts to restore equity by altering their contributions, increasing their rewards, and perceptively distorting their rewards and contributions to eliminate the inequity. Redistribution of resources is one of the inherent components of organizational change (Cobb et al., 1995). Management's attempt to reallocate the resources fairly and functionally is often plagued with difficulty and frustration. Consequently, the employees are likely to be concerned that their outcomes are unfairly distributed.

Research has found that distributive justice is related to employees' responses to restructuring. Lowe and Vodanovich (1995) surveyed non-faculty employees of a medium-sized state university who had recently undergone a restructuring. They found that distributive justice predicted employees' satisfaction and commitment to the restructuring.

Greenberg (1988) found that distributive justice predicted changes in employees' performance following changes in the workplace. He temporarily changed employees' status variables (i.e., number of people in an office, office size) and measured their performance following the change. He found that employees who had a temporary



decrease in workplace status reduced their performance, while the employees who had a temporary increase in workplace status, improved their performance. Greenberg reported that the effects of improved performance due to an increase in workplace status were not sustained. In contrast, the effects of decreased performance due to a decrease in workplace status were sustained. Thus, people care not only about pay inequity, but, also about fair status variables in change situations.

Equity theory predicts that employees will evaluate organizational changes with respect to a ratio of the perceived rewards and required contributions. Changes that employees deem as positive (perceived increase in rewards relative to contributions) are likely to be seen as fair. Changes considered negative (e.g., perceived increase in contributions without a similar increase in rewards or a reduction in rewards while contributions are maintained), however, are likely to be seen as unfair. Therefore, the employees are likely to feel upset when they perceive an inequitable ratio, as they can believe they are under-rewarded. The greater the inequity of responsibilities to rewards, relative to their referent, the more likely the employees will perceive an outcome loss. These employees might feel indignant and hesitant of the change and respond by withdrawing their effort.

Furthermore, Cobb et al. (1995) argued that many organizational change efforts are 'transformational' processes. These processes require employees to perform more than their explicit responsibilities, try novel tasks, learn new tasks, and tolerate the hard times associated with organizational change. These demands placed on employees are often unrewarded. Therefore, employees might consider that they are not being adequately compensated for their efforts, perceive unfairness, and resist the change.

### Procedural Justice

Procedural justice is defined as employees' perceived fairness of the process used to make allocation decisions (Leventhal, 1980). Leventhal (1980) identified six rules to assess if an organization's procedures are fair: (a) consistent procedures are followed (consistency), (b) without self-interest (bias suppression), (c) based on accurate information (accuracy), (d) with opportunity to correct the decision (correctability), (e) with all parties' interests being represented (representativeness), and (f) moral and ethical standards are followed (ethicality).

Researchers have examined the psychological processes underlying procedural justice. Thibaut and Walker (1978) proposed an instrumental model which states that individuals are interested in receiving favourable outcomes from their relationships with organizations (e.g., money, promotions). Fair procedures are believed to be instrumental in gaining favourable outcomes.

As an alternative explanation, Lind and Tyler (1988) proposed the group-value or relational model, which states that individuals care about fair procedures because they have implications for their sense of self-identity and self-worth. Lind and Tyler (1988) argued that group memberships provide individuals the chance to validate the appropriateness of their beliefs and behaviour, creating a clearer self-identity. Furthermore, Lind and Tyler suggested that fair treatment is symbolic of the degree to which individuals are accepted and respected. Thus, fair procedures in themselves can be seen as favourable outcomes.

Brockner et al. (1994) found that when corporations are downsized, employees tend to perceive low levels of procedural justice. This finding was explained by the

sensitivity with which employees were notified about their lay-offs, where employees who did not receive sensitive interpersonal treatment perceived lower procedural justice than employees who were treated with respect and dignity. Similarly, employees who did not receive an explanation for their lay-off perceived less procedural justice than employees who did receive an explanation. Consequently, employees who perceived low levels of procedural justice were most likely to experience resentment based on the treatment they received. As well, there was a strong relationship between employees being laid off and their reactions regarding organizational trust and support. Alternatively, when employees perceived high levels of procedural justice, there was no relationship between being laid off and the employees' negative reactions.

A second component of procedural justice consists of the interpersonal treatment with which the procedures are implemented, often labeled interactional justice (Bies & Moag, 1986). Cobb (1992) found that leaders tend to represent the organization to their employees. Consequently, employees tend to determine the fairness of the procedures by the sensitivity and justification given by the leaders when implementing procedures. Explanations for the change in and of themselves, however, are not enough to be perceived as fair by the employees (Daly & Geyer, 1994). Instead, management's explanations need to: (a) address those concerns that the employees feel are important to them, and (b) do so in a courteous manner. Additionally, if the change is not framed in a manner that empathizes with the employees while explaining reasons for the change, the employees are not motivated to change. If the reasons management provides are not seen as fair, the change is likely to fail (Rousseau, 1996).

Daly and Geyer (1994) studied organizational restructuring by assessing employees' perceptions of distributive and procedural justice regarding the change and the employees' level of resistance to change, defined as intention to leave. They surveyed employees whose work facilities were being relocated due to structural and strategic changes. They found that providing a justification for the change was positively related to employees' perceptions of procedural fairness and commitment to the change, and negatively related to intentions to leave. Both procedural and outcome fairness were found to be related to behaviours exhibiting intention to leave. Distributive justice was found to be more effective than procedural justice in assessing individuals' satisfaction with the outcome of a decision, yet, procedural justice is more influential than distributive justice in measuring individuals' evaluations of the procedures used in the decision-making (Lind & Tyler, 1988).

Other researchers have similarly found support for perceptions of procedural justice being associated with organizational change reactions. Cobb (1992) found that employees determined the level of fairness of the change by the treatment received from management. Schweiger and DeNisi (1991) found that employees of organizations that fostered open communication during a merger exhibited lowered levels of uncertainty and stress along with improved job satisfaction, commitment, and trust. The authors proposed that to successfully implement change and reduce resistance to change, employees need to receive realistic communications of the effects of the merger over time in the form of a realistic merger preview (similar to a realistic job preview). By providing realistic information, employees will develop a thorough and complete understanding of why this change is necessary, and how it will be carried out.

Research has also shown that employees who had an opportunity to voice their opinions regarding the change had higher perceptions of fairness than those employees who did not have an opportunity to do so (Tyler & Folger, 1980). Of the employees who had voice, however, those that perceived that management disregarded their opinions had lower perceptions of fairness.

#### Interaction of Distributive and Procedural Justice

Referent cognitions theory (RCT) (Folger, 1993) proposes that employees use both outcomes and procedures in determining fairness. Folger (1993) argued that particularly under conditions of low outcomes (e.g., getting fired, not getting a raise), employees use counterfactuals, defined as “thoughts about imaginable alternatives” (p. 164). Folger described counterfactual simulations as “people act[ing] as directors of their own mental home movies by cognitively undoing some past event (by imagining it otherwise) and continuing the situation to imagine how the end results would have turned out” (p. 164) if they had been involved in the decision-making process. Consequently, if the outcomes are negative, employees resent the decision-maker because they tend to believe that the outcome would have been more positive and fair if they had been permitted to participate in the decision-making process.

Brockner and Weisenfeld (1996) reviewed over 40 studies in field and laboratory settings and found that distributive and procedural justice function interactively. They found that when individuals received negative outcomes, procedural justice was highly predictive of individuals’ reactions as defined as peoples’ cognitive, affective, and behavioural reactions to a decision. For example, if an employee did not receive a raise but she was given a justification then she may have less negative feelings and reactions

than if she had not received the explanation. Similarly, when procedures were implemented unfairly, distributive justice was highly related to the individuals' reactions. Thus, in situations where the procedures used are perceived as unfair, the employees' reactions and behaviours are largely determined by whether the outcome received is positive or negative. Finally, when both negative outcomes and unfair procedures were experienced, individuals experienced strong negative cognitive, affective, and/or behavioural reactions to the decision. For example, if this same employee did not receive the raise and did not receive a justification then she will likely experience more negative emotions than if she had received an explanation.

Lowe and Vodanovich (1995) assessed the relationships of distributive and procedural justice, satisfaction, and commitment among university administration and support staff shortly after a restructuring. They found when employees perceived fair outcomes from a change, they were satisfied regardless of the methods used and they were more committed to their organization's values. Thus, based on previous findings, distributive and procedural justice are expected to interact to predict resistance to change.

H2: Procedural justice moderates the relationship between distributive justice and resistance.

### Person By Situation Interaction

Considerable debate has occurred regarding the relative influence of individual differences versus situational factors on human behaviour. Research first focused on personality to demonstrate its effects on behaviour. Scholars (e.g., Mischel, 1968) then questioned the limited consistency and reliability of personality traits. They argued that

the poor predictability of personality was not due to inappropriate measuring techniques, rather it demonstrated the strong effect of the situation.

Researchers have also reported that individuals' behaviour is predictable and consistent to some degree, despite individual differences (Ross & Nisbett, 1991). Ross and Nisbett (1991) argued that individuals assume some level of consistency in others' behaviour through the observation of roles and relationships between other individuals. In this way, they are able to broadly predict others' behaviour to a limited degree.

Bowers (1973) was among the first to propose the interactionist perspective and stated that "situations are as much a function of the person as the person's behaviour is a function of the situation" (p. 327). He argued that individuals' perceptions of situations depend on the manner in which individuals interpret the situations. Therefore, the situation is dependent on a person's perceptions such that his or her cognitive plans filter and organize situations such that situations are inseparable from individuals. Moreover, because individuals choose to locate themselves in environments that are similar to their behavioural tendencies, the person and situation are tightly linked to predict behaviours. Bowers proposed that to understand the person and situation interaction, researchers need to pay close attention to the reciprocal nature of the relationship in defining one another.

Of particular relevance to this study is research that has found the ability to predict how people will behave in specific situations is extremely limited when people encounter new situations. For example, Ross and Nisbett (1991) argued that the maximum statistical correlation between a measured personality trait and a person's behaviour in a new situation is .30. Consequently, the majority of variance in people's behaviour is unaccounted for, since a personality trait might only account for up to 9% of

the variance. It is likely that this minimal amount of variance is accounted for by the failure to examine the interaction between individual differences and environmental differences. For example, two people are likely to respond to a situation differently because of their personality traits.

Based on this literature, this study investigates whether personality moderates the relationship between fairness (i.e., the situation) and resistance to change. As referent cognition theory and its empirical support suggests, fairness is defined as the statistical interaction of: (a) the ratings of distributive justice and (b) the ratings of procedural justice. As described earlier, individuals who are low on openness to experience (i.e., ideas and actions facets) tend to not think positively about new and unconventional ideas and find trying new activities difficult so they prefer the status quo (Costa & McCrae, 1992). Thus, it is likely that they will resist change, notwithstanding its fairness. Relatively greater relation between fairness and resistance is expected when individuals are high on openness to experience than when they are low. On the basis of the preceding discussion, I predict a 3-way interaction between distributive and procedural justice and ideas to predict resistance to change.

H3a: Individuals who are low on ideas and perceive low distributive and procedural justice are more likely to resist organizational change than individuals who are high on ideas and perceive high distributive procedural justice.

H3b: Individuals who are low on actions and perceive low distributive and procedural justice are more likely to resist organizational change



than individuals who are high on actions and perceive high distributive procedural justice.

Individuals who are low on agreeableness, as described earlier, are characteristically both less trusting and compliant than individuals high on agreeableness (Costa & McCrae, 1992); they are also likely to resist change even if it is implemented fairly.

H3c: Individuals who are low on trust and perceive low distributive and procedural justice are more likely to resist organizational change than individuals who are high on trust and perceive high distributive procedural justice.

H3d: Individuals who are low on compliance and perceive low distributive and procedural justice are more likely to resist organizational change than individuals who are high on compliance and perceive high distributive procedural justice.

Individuals who are high on neuroticism are generally emotionally unstable, disagreeable, and unable to cope with change (Costa & McCrae, 1992). Because their disruptive emotions interfere with adaptation behaviours, they are prone to irrational ideas and poor coping skills. Individuals low on neuroticism, in contrast, are generally emotionally stable, relaxed, and even-tempered (Costa & McCrae, 1992). Skarlicki, Folger, and Tesluk (1999) found that the relationship between perceptions of fairness and retaliation was stronger for employees high on neuroticism than for those low on this

trait. Hochwarter, Amason, and Harrison (1995) similarly found that employees high on neuroticism tended to have higher perceptions of inequity than employees low on neuroticism. Based on previous research, it is predicted that neuroticism (i.e., angry hostility and vulnerability facets) moderates the relationship between fairness and resistance to change.

H3e: Individuals who are high on angry hostility and perceive low distributive and procedural justice are more likely to resist organizational change than individuals who are low on angry hostility and perceive high distributive procedural justice.

H3f: Individuals who are high on vulnerability and perceive low distributive and procedural justice are more likely to resist organizational change than individuals who are low on vulnerability hostility and perceive high distributive procedural justice.

As described earlier, individuals who are high on internal locus of control tend to believe that they can control situations through their actions, while individuals high on external locus of control tend to believe that control of situations is beyond them – it is left to chance, luck, and powerful others (Rotter, 1966). To the degree that change is perceived as out of an individual's control, individuals high on external locus of control are unlikely to believe they can control a situation regardless of its fairness. In contrast, individuals high on internal locus of control are likely to believe that they can gain control of an ambiguous situation. If they cannot do so, they are likely to look to the fairness of the change for attributional cues. Thus fairness will predict resistance to

change more so for those high on internal locus of control than for those high on external locus of control.

H3g: Individuals who are high on internal locus of control and perceive low distributive and procedural justice are more likely to resist organizational change than individuals who are high on external locus of control and perceive high distributive procedural justice.

### Dimensionality of Resistance to Change

Little research has been done regarding the dimensionality of resistance. To date, only Collinson (1994) has found support for two distinct types of resistance based on two qualitative studies conducted in England. The first form, described as, 'resistance through distance' is the method whereby employees try to "escape or avoid the demands of authority and to distance themselves...from the organization." (p. 25). The second form, described as, 'resistance through persistence' is the method whereby employees try to "demand greater involvement in the organization and [make] management more accountable" (p. 25) by getting information, watching their activities and questioning their decision-making.

Other than Collinson (1994), no other researchers have discussed the dimensionality of employee resistance to organizational change, thus there is little literature discussing possible factors. Thus, one of the objectives of this study is to assess the factor structure of resistance and explore it within a technological change.

## Methods

### Organization

The organization used in this study was located in Calgary. This organization provides rehabilitative (i.e., physiological and psychological) services for individuals injured in the workplace. This company has approximately 60 employees. The organizational change under study consisted of the implementation of a new, customized software program, entitled “Reach” that was instituted to centralize reports and patient information. This program was implemented over three months. The implementation had begun six months prior to this study and it had finished three months prior to this study.

This technological change was implemented because top management thought the program would improve efficiency and centralize information. Consequently, the initiative was forced via top-down management. The employee responsible for training the employees on the change, however, made an effort to provide information to the employees regarding the need for the program, the benefits of the program, and when and how it would be implemented. Thus, most employees found the change reasonable and were aware of the positive outcomes relating to the program (as demonstrated by their responses to demographic questions on page 39). This technological change was not related to significant changes in work assignments or job losses. Instead, the employees used this program as a replacement for a previous database program.

### Participants

Forty-five employees (21 male and 24 female) participated in this study. Participants’ ages ranged from 22 to 49 years with an average age of 32.7 years (SD = 7.15). Ninety-three percent of the participants were White/Caucasian. The participants

consisted of 11 administrative staff, 25 clinical staff, 5 managers, and 4 who did not indicate their position. All participants had some level of post-secondary education, ranging from 1 to 12 years with an average of 5.13 years ( $SD = 2.19$  years). Participants had worked for the company ranging from 3 months to 10 years with an average of 3 years ( $SD = 2.59$  years). Participants had worked in the same job ranging from 3 months to 13 years with an average of 3.5 years ( $SD = 3.15$  years).

### Procedure

Permission to approach participants was secured from the appropriate management personnel and participants were personally canvassed to volunteer in the study. The surveys were administered and collected by the main researcher. The participants were run in groups ranging in size from 4 to 8 participants. The managers were then solicited by the main researcher to complete the resistance to change measure regarding their employees.

### Measures

Resistance to Change. Four managers, who had observed their employees' reactions towards the change, participated in a focus group to identify behaviours that defined resistance to change in their organization in regards to Reach. The critical incident technique (Flanagan, 1954) was used because it facilitates the development of a content-valid measure of behaviour (Levine, Ash, & Bennett, 1980).

Before being asked for critical incidents, the four managers were given the following definition of resistance to change: a situation where employees are opposed to the change, not just indifferent, and deliberately try to prevent the change (Yukl, 1994). Each manager was asked to generate a maximum of five examples of resistance that he or

she observed more than once over the past 3 months. A total of 9 incidents were generated.

Similarly, the managers were given the following definition of acceptance of change: a situation where employees support the change, are not just indifferent, and actively try to adopt the change. Each manager was asked to generate a maximum of five examples of acceptance of change that he or she observed more than once over the past 3 months. A total of 9 incidents were generated.

Duplicate incidents were discarded and two lists of behavioural items were created: one for resistance and one for acceptance of change. The managers were then asked to identify from each list the three items that they considered the most representative examples of resistance and acceptance of change in their organization that they had observed at least once in the past three months. The final resistance measure consisted of those incidents that the managers gave the highest number of votes. This measure consisted of nine resistance to change items and four acceptance of change items. Examples included (e.g., “How many times over the past three months has this person showed that he/she is not using Reach.” and “How many times over the past three months has this person complained about the time commitments of using Reach.”).

A Behavioural Observation Scale (BOS) (Latham & Wexley, 1977) was created using the critical incident items ( $x = 13$ ). The 5-point response scale was developed with the assistance of a subject matter expert (e.g., 0 “never”, 1 “seldom”, 2 “occasionally”, etc.). A composite approach was taken because studying clusters of behaviours provides more reliable and valid measures of the underlying theoretical constructs than do single behaviours (Fisher & Locke, 1992). Managers were then asked to rate their employees’

resistance to change using the BOS (see Appendix A). The manager was chosen as someone familiar with the employee's job performance and goals, and who was able to observe the ratee's behaviour on a regular basis (i.e., daily).

Distributive justice. Distributive justice was measured using a general, outcome fairness scale. It was not directly related to procedural justice or to the technological change. It was measured using an 11-item scale developed by Sweeney and McFarlin (1995). The scale (see Appendix B) asked participants about their perceptions of global outcomes such as the performance appraisals and rewards received since the organizational change (e.g., "At my job, promotions usually depend on how well a person performs his/her job." "I will get a tangible reward if I perform especially well."). The response scale for all measures is a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Previous research has reported internal consistency estimates of .70 (Sweeney & McFarlin, 1995) for this scale.

Procedural justice. Procedural justice was measured using 17 items used in previous research (Folger & Konovsky, 1989; Skarlicki and Folger, 1997). Eight items assessed the six rules of procedural justice identified by Leventhal (1980), namely, the extent to which an organization's formal procedures illustrate consistency, bias suppression, accuracy, correctability, representativeness, and ethicality (e.g., "The information used for the change is accurate." "The decisions regarding the change are consistent for all employees."). Nine items assessed whether the procedures used in the change were implemented fairly (see Appendix B), (e.g., "My supervisor deals with me in a truthful manner regarding the change." "My supervisor provides consistent treatment

to all employees during the change.”). Previous research (e.g., Skarlicki & Folger, 1997) has shown internal consistency estimates of .90 for this scale.

Openness to experience. Two subscales of openness to experience from the Revised NEO Personality Inventory (Costa & McCrae, 1992) were used: actions and ideas (see Appendix C). The ideas subscale, comprised of 8 items, asked whether participants think about new or different concepts (e.g., “I have a lot of intellectual curiosity.” “I have a wide range of intellectual interests.”). Previous research has shown internal consistency estimates of .80 (Costa & McCrae, 1992). The actions subscale, consisting of 8 items, asked whether participants are willing to try new activities (e.g., “I think it’s interesting to learn and develop new hobbies.” “I often try new and foreign foods.”). In previous research, this scale has shown internal consistency estimates of .58 (Costa & McCrae, 1992).

Agreeableness. Two subscales of agreeableness from the Revised NEO Personality Inventory (Costa & McCrae, 1992) were used: trust and compliance (see Appendix D). The trust subscale, consisting of 8 items, asked whether participants trust others (e.g., “My first reaction is to trust people.” “I tend to assume the best about people.”). Previous research has shown internal consistency estimates of .79 (Costa & McCrae, 1992). The compliance subscale, composed of 8 items, asked whether participants are cooperative (e.g., “I would rather cooperate with others than compete with them.” “I hesitate to express my anger even when it’s justified.”). In previous research, this scale has shown internal consistency estimates of .59 (Costa & McCrae, 1992).



Neuroticism. Two subscales of neuroticism also from the Revised NEO Personality Inventory (Costa & McCrae, 1992) were used: angry hostility and vulnerability (see Appendix E). The angry hostility subscale, consisting of 8 items, asked whether participants are easily angered (e.g., “I often get angry at the way people treat me.” “I am known as hot-blooded and quick-tempered.”). Previous research has shown internal consistency estimates of .75 (Costa & McCrae, 1992). The vulnerability subscale, composed of 8 items, asked whether participants feel helpless (e.g., “I often feel helpless and want someone else to solve my problems.” “When I’m under a great deal of stress, sometimes I feel like I’m going to pieces.”). In previous research, this scale has shown internal consistency estimates of .77 (Costa & McCrae, 1992).

Locus of Control. Locus of control is considered to be a domain specific construct (Phares, 1976). Thus, to measure locus of control as it pertains to the work environment, Spector (1988) developed the Work Locus of Control Scale (see Appendix F). This scale consists of 16-items relating to agents of control (self, powerful others, luck) (e.g., “A job is what you make of it.” “Getting the job you want is mostly a matter of luck”). Participants responded using a 6-point Likert-type scale ranging from 1 (disagree very much) to 6 (agree very much). High scores on the scale indicate an external locus of control. Previous research has reported internal consistency estimates of .75 (Spector, 1988) for this scale.

Demographics. Participants also provided their position, level of participation in the change implementation, amount of knowledge regarding the change, and the degree to which they felt that they had control over the change (see Appendix G). This information was collected to control for potential differences among participants in the measures due

to their position and their perception of situational control. These measures were collected as potential covariates in the analyses.

## Results

All of the analyses were run using individual mean substitution. Examination of the missing values indicated that they were random with no more than 3 participants not answering any particular item.

### Scale Development

Principal components analysis with a varimax rotation was conducted to determine if the resistance to change measure was a unitary construct or whether there were unique factors underlying the resistance to change measure. Based on the scree plot results it was concluded that a three-factor solution best explained the factor structure. One item, “How many times over the past 3 months has this person avoided learning about updates regarding Reach” was not retained as it loaded on all three factors. Table 2 lists the factor loadings for the items in the resistance to change scale.

The results showed that six items referred to resistance in the form of political resistance whereby employees demonstrated their resistance (e.g. “How many times over the past 3 months has this person: complained, in general, about having to use Reach.” “How many times over the past 3 months has this person: used Reach as a basis to complain about other issues.”). This factor accounted for 36.65% of the variance (eigenvalue = 4.40) in the resistance measure.

Another three items focused on employees’ resistance in the form of resistance to learning the new technology and showing positive interest (e.g., “How many times over the past 3 months has this person: asked questions on how to use Reach.” (R) “How many

times over the past 3 months has this person: demonstrated positive interest when Reach was being explained.” (R)). It accounted for 20.45% of the variance in the resistance measure (eigenvalue = 2.45).

Four items referred to employees’ resistance in the form of avoidance responses whereby employees would delay or delegate using the new technology (e.g., “How many times over the past 3 months has this person: delayed using Reach in his/her work.” “How many times over the past 3 months has this person: delegated the Reach task to others.”) It accounted for 11.78% of the variance (eigenvalue = 1.41) in the resistance measure.

These three factors are consistent with previous research. Collinson (1994) found support for a resistance factor where individuals adopt an avoidance style to ‘distance’ themselves from the change, labeled resistance through distance. His finding supports the avoidance responses factor. Yukl (1994) found a resistance factor where individuals tend to actively make excuses about why they cannot adopt the change. His factor supports the political resistance factor. Finally, technological research, Diamond (1996), has shown that learning new technology is a component of resistance as individuals may be insecure about the change and resist by not learning about the change. His finding supports the resistance to learning factor.

Table 2

Factor Loadings for Resistance to Change Scale

Item	Factor 1	Factor 2	Factor 3	% Variance Explained
<b><u>Political Resistance:</u></b>				36.65
1. Demonstrated inaccuracy in his/her recording of data entry.	<u>.751</u>	.100	-.122	
2. Complained about the time commitments of using Reach.	<u>.860</u>	-.289	.102	
3. Used Reach as a basis to complain about other issues.	<u>.879</u>	.092	.037	
4. Complained, in general, about having to use Reach.	<u>.764</u>	.059	.399	
5. Displayed negative reactions (e.g., anger towards teammates/mgmt) regarding Reach.	<u>.791</u>	.218	.251	
<b><u>Resistance to Learning:</u></b>				20.45
1. Asked questions on how to use Reach. (R)	.014	<u>.900</u>	-.090	
2. Requested further education/information on how to use Reach. (R)	-.079	<u>.758</u>	.236	
3. Demonstrated positive interest when Reach was being explained. (R)	.335	<u>.796</u>	.091	
<b><u>Avoidance Responses:</u></b>				11.78
1. Delayed using Reach in his/her work.	.442	.162	<u>.583</u>	
2. Showed that he/she is not using Reach.	.327	.388	<u>.613</u>	
3. Delegated the Reach task to others.	.038	-.320	<u>.712</u>	
4. Demonstrated an effort to learn how to use Reach. (R)	-.110	.400	<u>.624</u>	
Total Variance Accounted for:				68.88

Note. R = reverse coded.

Cronbach's coefficient alpha was used to assess the internal consistency reliability of the scales. Table 3 displays the means, standard deviations, zero-order correlation coefficients, and reliability estimates for the justice, personality, and resistance variables.

### Hypothesis Testing

Hypotheses 1a to 1g proposed that personality predicts resistance. As shown in Table 3, ideas was related to political resistance and trust, compliance, and angry hostility were related to avoidance responses. However, they were all in the opposite direction to the hypotheses. A tertiary mean split (i.e., one standard deviation above and below the mean) was conducted to control for participants' perceptions of personal control over the change when testing the relationship between work locus of control and resistance. When controlling for high perceptions of personal control over the change (i.e., one standard deviation above the mean), external work locus of control was positively related to political resistance. Again, this finding was in the opposite direction to the hypothesis. No other personality – resistance correlations were significant. Thus, Hypotheses 1a – 1g were not supported.

Hypothesis 2 proposed that distributive and procedural justice interact to predict resistance to change. As shown in Tables 4, 5, and 6, the interaction between distributive and procedural justice was not significantly related to any of the three forms of employee resistance to change. Thus, Hypothesis 2 was not supported.

Hypothesis 3 predicted a distributive by procedural justice by personality interaction to predict resistance to change. The sample, however, does not have sufficient power to test 3-way interactions.

Table 3  
Correlation Matrix

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Political Resistance	1.90	0.80	(.88)											
2. Resistance to Learning	2.70	0.79	.114	(.79)										
3. Avoidance Responses	2.11	0.70	.401**	.281	(.62)									
4. Distributive Justice	3.13	0.64	.003	.139	.073	(.83)								
5. Procedural Justice	3.45	0.55	-.238	-.050	-.061	.458**	(.86)							
6. Ideas	3.47	0.58	.310*	-.203	.157	.087	-.177	(.79)						
7. Actions	3.33	0.55	.229	-.238	.030	.071	-.089	.396**	(.75)					
8. Trust	3.77	0.53	.228	-.040	.507**	.159	.373**	.047	-.003	(.88)				
9. Compliance	3.39	0.39	.203	-.100	.339*	.008	.039	.100	.010	.412**	(.46)			
10. Angry Hostility	2.32	0.48	-.135	-.022	-.335*	-.217	-.008	-.136	-.231	-.438	-.408**	(.69)		
11. Vulnerability	2.13	0.45	-.262	.148	.010	-.015	-.058	-.286*	-.403**	-.046	.128	.384**	(.74)	
12. Work LOC	2.36	0.54	.186	.003	-.121	-.449**	-.395**	.034	-.245	-.302*	.053	.223	.141	(.84)

Note. N = 45. \*\* $p < .01$  \* $p < .05$ . Reliability estimates are provided in parentheses along the diagonal. All of the scales, but the Work Locus of Control scale, have a range of 1 – 5. The Work Locus of Control scale has a range of 1 – 6.

Demographic variables were tested as covariates for all of the analyses but their inclusion did not change the results. Overall, the participants found that the change was a reasonable event ( $\underline{M} = 4.04$ ,  $\underline{SD} = 0.98$ ), the change process was clear ( $\underline{M} = 3.60$ ,  $\underline{SD} = 1.19$ ), and the desired outcomes of the change were non-ambiguous ( $\underline{M} = 2.15$ ,  $\underline{SD} = 1.08$ ). However, they felt that they had no to some control over the change ( $\underline{M} = 2.06$ ,  $\underline{SD} = 0.92$ ) but they did have a high level of information regarding the change ( $\underline{M} = 3.17$ ,  $\underline{SD} = 0.89$ ). Consequently, those high on internal locus of control may not have resisted the change because the change was not ambiguous and they may have felt some control over the change.

Table 4

Summary of Hierarchical Regression Analysis for Distributive x Procedural Justice in Predicting Political Resistance (N = 45)

Variable	<u>B</u>	<u>SE B</u>	$\beta$
Step 1			
Distributive Justice	.097	.116	.141
Procedural Justice	-.193	.108	-.303
Step 2			
DJ x PJ	.017	.013	1.454

Note.  $\underline{R}^2 = .072$  for Step 1;  $\Delta \underline{R}^2 = .038$  for Step 2 ( $p > .05$ ). \* $p < .05$ .

Table 5

Summary of Hierarchical Regression Analysis for Distributive x Procedural Justice in Predicting Resistance to Learning (N = 45)

Variable	<u>B</u>	<u>SE B</u>	$\beta$
Step 1			
Distributive Justice	.084	.070	.205
Procedural Justice	-.055	.065	-.144
Step 2			
DJ x PJ	.007	.008	1.043

Note.  $\underline{R}^2 = .036$  for Step 1;  $\Delta \underline{R}^2 = .020$  for Step 2 ( $p > .05$ ). \* $p < .05$ .

Table 6

Summary of Hierarchical Regression Analysis for Distributive x Procedural Justice in Predicting Avoidance Responses (N = 45)

Variable	<u>B</u>	<u>SE B</u>	$\beta$
Step 1			
Distributive Justice	.058	.080	.127
Procedural Justice	-.051	.074	-.119
Step 2			
DJ x PJ	.004	.009	0.562

Note.  $\underline{R}^2 = .017$  for Step 1;  $\Delta \underline{R}^2 = .006$  for Step 2 ( $p > .05$ ). \* $p < .05$ .



### Exploratory Analyses

As described earlier, the sample does not have sufficient power to test 3-way interactions. However, it was possible to conduct exploratory, post-hoc analyses to test for an interaction between some perceptions of fairness and personality in predicting resistance. Specifically, these analyses were conducted using hierarchical regression to test the predictability of the 2-way interactions of distributive justice and each of the personality variables on each of the three resistance factors. None of the interactions of distributive justice and personality variables accounted for a significant portion of unique variance. Similarly, hierarchical regressions were conducted on the 2-way interactions of procedural justice and each of the personality variables to test their predictability of the three resistance factors. None of the interactions of procedural justice and personality variables accounted for a significant portion of unique variance.

### Discussion

An objective of this study was to investigate the dimensionality of employee resistance to organizational change. Second, I was interested in assessing whether personality predicts resistance to change among employees in the workplace. Moreover, a goal of this study was to test whether personality interacts with perceptions of fairness to explain variance in employees' resistance. Acknowledging that the present study did not have enough power to adequately test the hypotheses, I offer the following tentative conclusions.

First, the results suggest that resistance to change may consist of more than one factor. One form of resistance - political resistance - was characterized as actively complaining and showing negative reactions. A second form of resistance focuses on

resistance to taking on new learning, such as not asking questions and not demonstrating interest in the change. The third factor is characterized by actively avoiding the change, such as delaying using the change and delegating the change to others.

These three forms of resistance are consistent with previous research. As previously described, Collinson (1994) found support for a type of resistance called 'resistance through distance', whereby employees try to "avoid the demands of authority and distance themselves...from the organization." (p. 25). One of the three forms of resistance that were found in the present study parallel Collinson's findings. Avoidance responses seem to be similar to 'resistance through distance' because it also focuses on individuals distancing themselves from the change by avoiding it (e.g., "Delayed using Reach in his/her work."). Additionally, Yukl (1994) proposed six resistance responses and two of his responses support avoidance responses. One response suggested that individuals are likely to react to change by refusing to perform the task. Another response suggested that individuals might delay the task, hoping that the change initiator will have forgotten about their request to perform the task.

Political resistance also appears to be consistent with Yukl's responses whereby individuals make excuses regarding why they cannot adopt the change. Similarly, political resistance describes individuals as having "Complained about the time commitments of using Reach." Thus by expressing their grief regarding the time commitments, individuals are making excuses for not using the program.

The third resistance factor, resistance to learning, is also consistent with previous research. Diamond (1996) argued that the "successful adoption of innovations and technology transfer depends on the individuals' openness to learning and change." (p.

224). He argued that employees are interested in learning the new technology to be competent. However, they also need to feel secure and free of anxiety. As described earlier, implementing a change often results in employees feeling overwhelmed and fearful. Therefore, they need to balance this fear and insecurity with the need to learn the new technology. Thus, resistance to learning may be a contextually specific resistance factor.

Although insufficient sample size precluded adequate testing of the hypotheses, the results suggest that personality predicts resistance. Specifically, ideas (i.e., those who are willing to consider novel ideas) was found to be positively related to political resistance. It appears that individuals who are open-minded to new ideas are more likely to protest the change by complaining about it, using the change to complain about other issues, and made mistakes while using the new technology.

Those who scored high or low on the ideas measure, however, did not resist to learning the new technology. It may be that although individuals high on ideas are open-minded, they may not be willing to act. Furthermore, the individuals high or low on ideas may have been interested in the new technology and thus did not mind learning about it. In addition, they did not use avoidance responses. Instead, the individuals high on ideas preferred to be open about their dislike for the change. It is possible that those who scored high on ideas supported the use of the new technology, however, they may have disagreed with the way it was being implemented. These individuals like to consider things in a new light and they may have discovered a better way that the technology could have been delivered, thus they resisted politically by complaining about the current

implementation of the change. Unfortunately, the issues that the employees complained about were not assessed.

As well, trust (i.e., those who believe that people have good intentions) was found to be positively related to avoidance responses. It appears that although individuals might trust that others are well meaning regarding the change, they are not willing to accept the change itself and thus they avoided the change by showing that he/she is not using Reach or by delegating the Reach task to others. It may be that these individuals may trust the opinions of their co-workers who are resisting the change and therefore those who score high on trust may be trusting their co-workers over their supervisor.

It is interesting to note, however, that those who scored high or low on the trust measure did not choose to use political resistance or resistance to learning. Rather, those high on trust seemed to participate in passive resistance. Perhaps those individuals with high levels of trust believed that their supervisors were well meaning regarding the change and would not want the change to negatively affect anyone. Despite their belief in their supervisors' good intentions, these individuals might be cautious and/or suspicious of the change or they trust their resisting peers; thus, they avoid using it. They might also demonstrate avoidance resistance instead of political resistance because they do not want to appear distrustful of their supervisors. Furthermore, they may have considered learning about the change unimportant because they may have already decided to avoid it.

This finding may be partially explained by the way that trust is measured. The trust scale focuses on individuals' willingness to trust other individuals (i.e., "My first reaction is to trust people." "I tend to assume the best about people."). Thus, the scale appears to focus on relationships between people. However, this study attempted to

investigate individuals' willingness to trust their supervisors regarding the change. It is possible that individuals who score high on the trust measure believe that people are well meaning regarding the change, which was unrelated to whether they trusted the change itself.

Furthermore, the relationship between trust and avoidance responses might be explained by the measurement of resistance. The organizational change that was taking place was technological which may be associated with certain forms of resistance. For example, if individuals wanted to resist the change without appearing distrustful of their supervisors, then they may avoid the change and not use the new technology.

Similarly, compliance was found to positively predict avoidance responses. Instead of adopting the change and complying with their supervisors, individuals who scored high on compliance appear to demonstrate an avoidance style of resistance to change. This finding is consistent with the measure of compliance: as the individuals high on this facet tend to inhibit aggression and would rather forgive and forget. This finding may also be explained by the way in which compliance is measured. The compliance scale assesses an individual's willingness to cooperate with others (i.e., "I would rather cooperate with others than compete with them." "When I've been insulted, I just try to forgive and forget.") Thus, the scale appears to focus on how individuals get along with others.

It is not surprising that these individuals choose to avoid the change rather than politically resist, possibly because of their nature to cooperate rather than compete. However, this study attempted to investigate individuals' willingness to comply with their supervisors' request to adopt the change. It is likely that individuals who score high

on the compliance measure do not feel comfortable in confronting or arguing with their supervisor about the change. Therefore, if these individuals do not support the change, they will not actively demonstrate their beliefs; rather they will react passively by avoiding the change. It is also interesting to note that there is no relationship between compliance and resistance to learning about the change. Again, those individuals high on compliance might have known that they would avoid the change and therefore they do not appear to have resisted learning about the change.

In addition, the way that resistance was measured might help explain the relationship between compliance and avoidance responses. As described earlier, avoidance behaviours might be the most appropriate type of resistance for technological change. As a result, if individuals wanted to truly demonstrate their negative feelings towards the change, as they did not feel comfortable in approaching their supervisors, then they may avoid the change by not using the new technology. However, a larger sample is needed to further develop these possible explanations.

Furthermore, angry hostility was found to be negatively related to avoidance responses. An individual who scores high on an angry hostility scale tends to willingly experience anger in response to frustrating experiences. Their lack of avoidance towards the change might be related to their willingness to experience anger in response to frustrating experiences whereby they go along with the change without avoiding it.

This finding may also be explained by the way in which angry hostility is measured. The angry hostility scale assesses an individual's willingness to become angry during frustrating experiences (i.e., "I often get angry at the way people treat me." "I often get disgusted with people I have to deal with.")). Thus, the scale appears to focus on

how individuals feel or react towards others. However, this study attempted to investigate individuals' willingness to get angry during the frustrating experiences of implementing change. It is likely that individuals who score highly on the angry hostility measure do get angry with others during frustrating experiences, however, they may react differently regarding an intangible object such as organizational change. Therefore, if these individuals do not support the change, they may demonstrate their angry feelings during frustrating experiences by getting angry with their supervisors instead of reacting passively by avoiding the change.

As well, how resistance was measured can to some extent explain the relationship between angry hostility and avoidance responses. As previously noted, avoidance behaviours may be the best type of resistance for technological change and because individuals high on angry hostility are more likely to become angry, they may be more likely to display resistance behaviours. However, these individuals are likely to display non-avoidance type behaviours.

Finally, when controlling for high perceptions of personal control over the change, high external work locus of control was found to be positively related to political resistance. It appears that individuals who believe that they have some control over the change and have an external work locus of control (i.e., the belief that events at work are not determined by your own actions but rather luck, change, fate, or powerful others) are more likely to complain about the change and made mistakes while using the new technology.

This finding may be explained by the way the change was implemented. The participants were provided with a lot of information regarding the change initiative and

the reasons why the change was necessary. In that sense, even the participants with external work locus of control may have felt that they had some personal control over the change since they knew how and when the change would be implemented. However, they appeared to not support the change and thus demonstrated their resistance by publicly complaining about the change.

When controlling for high or low perceptions of personal control over the change, those who scored either high external or high internal work locus of control, however, did not resist to learning the new technology or participate in avoidance responses. It may be that because individuals high on internal work locus of control believe they are in control of their destiny, they may be willing to learn the technology or at least not avoid it. As well, the individuals high on external work locus of control believe they are not in control of their destiny and are likely to act more passively in learning the technology.

These significant correlations suggest that certain measures of personality are related to some form of resistance. In this situation, it appears to be political and avoidance resistance. In summary, this study suggests that ideas positively predicts political resistance, trust and compliance positively predict avoidance responses, angry hostility negatively predicts avoidance responses, and when controlling for high perceptions of personal control over the change, external locus of control positively predicts political resistance. The other personality variables (i.e., actions and vulnerability) were not found to be significantly related to resistance.

Hypotheses 2 (i.e., justice predicting resistance) and 3 (i.e., interaction of justice and personality predicting resistance) were not supported. These findings might be due to the distributive justice measure not being directly linked to procedural justice or the



technological change. Furthermore, these scales are not objective as they measure the participants' subjective perceptions of how fair things are in general. Additionally, there may be non-significant relationships between justice and resistance and the interaction between justice and personality to predict resistance. Nonetheless, it is most likely that the sample size is too small to adequately test these hypotheses.

### Theoretical Implications

The theoretical implications of this study are fourfold. First, this study conducted a field-based investigation into the relatively unexplored concept of resistance to change. Although the three forms of resistance constructs are specific to the sample used, these findings may provide useful insight into the complexity and meaning of employee resistance to organization change.

Second, the resistance factors observed were theoretically driven. As described earlier, political resistance seems similar to Yukl's (1994) response whereby employees actively complain about the change. As well, the resistance to learning factor is supported by Diamond's (1996) research where employees may be hesitant to learn new technology. Finally, avoidance responses appears to parallel Collinson's (1994) 'resistance through distance'. However, these factors are tentative due to the limited sample size.

Third, this study suggests that certain measures of personality are related to some forms of resistance. These findings support the personality perspective in the workplace whereby employees tend to vary in their reactions to changes in a given situation partly due to their enduring personality traits that employees bring to their situation (Ross & Nisbett, 1991). Consequently, employees may react differently regarding organizational change depending on their personality traits.

Finally, this study made an effort to extend the interactionist perspective (i.e., person by situation interaction) to organizational change. As noted earlier, the hypotheses were untestable due to a lack of power.

### Practical Implications

The practical implications of this research are also interesting and important for practitioners in organizational settings. As organizations implement large, costly changes, they may consider using the critical incident technique to assess how employees are reacting to the change. By creating their own specific measure, an organization can determine if and how employees are resisting the new change. In this way, the organization may find certain issues (e.g., fairness issues) that are limiting the change initiative.

### Strengths and Limitations of the Study

The main strength of this study is that it was completed within the field using an organization that was implementing a change. As well, a small organization was chosen for this study, because there are many small organizations in Canada and often these are the types of organizations that do not have research conducted on them.

Furthermore, managers were used as raters of employee resistance because they share a common frame of reference for the employees they rated and they were a practical source of resistance information. Additionally, the use of manager ratings of resistance to change reduces common method variance effects. The use of self-report for all measures in research has raised concerns over common method variance (Podsakoff & Organ, 1986). As well, the findings of this study are specific to one organization, as critical incidents are situation specific.

Consequently, it is not suggested that these findings are generalizable without further study as these findings are limited to this small organization, industry, technological change, and three months after the change was implemented. As a result, researchers need to replicate this study in other organizations, using various sample sizes, studying other types of organizational change (i.e., restructuring, mergers), at multiple points during the change, and in other industries.

Another methodological strength is the increased likelihood of construct validity by using the critical incidents developed by the organization's employees. Thus, the resistance to change measure was specific to the organization's change and was more likely to assess the employees' resistance behaviours.

The findings of this study, however, are limited due to the small sample size. As a result, this study has low power and it is unlikely to find support for statistical relationships. Furthermore, if a statistically significant relationship is found, it may not be representative of the population. It may be sample specific because of the small sample size. Similarly, the stability of the results is in question as they could change with the addition of more participants. As well, the findings of this study may be capitalizing on chance, as there may be differences if this study were conducted on another sample. Specifically, there was no cross-validation of the three resistance factors found or the hypothesis testing.

It is possible that this study is committing Type II errors as there may be significant relationships not detected due to low power. Moreover, more measurement error occurs when assessing small samples. Pedhazur (1982, p.231) stated that the "standardized regression coefficient is attenuated by measurement errors in the dependent

variable...and measurement errors in the independent variable lead to a downward bias in the estimation of both the  $b$  and the  $\beta$ ." Additionally, the extremes of my response continuum may be over-represented by my limited sample size. Examination of the data show that political resistance is positively skewed while resistance to learning and avoidance responses are normally distributed. Despite the limited sample size, political resistance might not be a normally distributed phenomenon as many individuals may prefer to not partake in publicly complaining about the change and making mistakes while using it. Moreover, the distribution of resistance may change over time as individuals learn to adopt the change or tire from resisting it.

Additionally, the distributive justice measure that was used was flawed as it was not directly related to the procedures used in the change or the technological change. As described earlier, these scales are subjective, not objective, since they measure the participants' perceptions of general fairness.

Also, individuals' ease with technology was not assessed and it may be a possible covariate regarding technological change. Similarly, the degree to which employees believed in the need for the change was not assessed and it too may have been a potential covariate. Finally, the personality measures used asked about how individuals felt about dealing with other people instead of the change. In summary, these findings are also limited to the present context regarding type of organizational change, type of organization, type of industry, and culture. In particular, the three resistance factors that were found may be limited to the type of organization and/or the change being implemented.

### Future Research

This study needs to be replicated using a larger sample to test the predictions and assess the stability of the current findings. Future research also needs to investigate the generalizability of the findings (i.e., significant predictors and resistance factors) of the present study to other organizational changes. For example, different resistance factors may be found when assessing other types of organizational change. Moreover, there is little research examining how technological change differs from other types of organizational changes (i.e., restructuring, mergers).

As well, the personality traits need to be edited to ensure that they assess how individuals deal with the change rather than with other people. Furthermore, researchers might examine other potential personality variables (e.g., need for power, need for achievement) as potential predictors of resistance to change. Furthermore, certain personality variables may be more predictive of resistance to certain types of changes.

As resistance to change is a social psychological phenomenon, it would be interesting to assess the peer pressure found amongst employees when an organizational change is being introduced. Social pressure has been found to be a powerful influence on individuals and it is likely to be found in organizations. As a result, resistance to change may not be an individual employee's choice, rather it may be a reaction to peer pressure.

In addition, individuals may differ in their levels of resistance over time. For example, employees may resist more at the beginning of the change implementation, less after six months and minimal after one year. Thus, researchers need to conduct longitudinal studies to assess possible temporal effects. As well, organizational characteristics (i.e., industry, size, culture) and changes (i.e., downsizing, restructuring,

merger) may moderate the findings reported. Specifically, certain industries may be more receptive to change. For example, employees in the computer industry may be less resistant to technological change. Similarly, smaller organizations may be less likely to resist cultural changes.

Finally, researchers may want to explore culture (i.e., individualism vs. collectivism or race) as possible moderators regarding the person by situation interaction predicting employee resistance to organizational change. For example, employees in a collectivist culture may be less resistant to organizational change than employees in an individualist culture because those in the collectivist culture may recognize and value the benefits of the change to their organization.

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## Appendix A

## Resistance to Change Measure

Employee:

How many times over the past 3 months has this person:

#	Item	Never	Seldom	Occasionally	Frequently	Almost Always
1	Delayed using Reach in his/her work.	1	2	3	4	5
2	Demonstrated inaccuracy in his/her recording of data entry.	1	2	3	4	5
3	Asked questions on how to use Reach.	1	2	3	4	5
4	Showed that he/she is not using Reach.	1	2	3	4	5
5	Complained about the time commitments of using Reach.	1	2	3	4	5
6	Requested further education/information on how to use Reach.	1	2	3	4	5
7	Used Reach as a basis to complain about other issues.	1	2	3	4	5
8	Delegated the Reach task to others.	1	2	3	4	5
9	Avoided learning about updates regarding Reach.	1	2	3	4	5
10	Demonstrated positive interest when Reach was being explained.	1	2	3	4	5
11	Complained, in general, about having to use Reach.	1	2	3	4	5
12	Demonstrated an effort to learn how to use Reach.	1	2	3	4	5
13	Displayed negative reactions (e.g., anger towards teammates/mgmt) regarding Reach.	1	2	3	4	5

This measure is not intended for employee evaluation purposes (e.g., pay/promotion).  
 All information will be kept strictly confidential.  
 Thank you for taking the time to complete this questionnaire.

## Appendix B

### Distributive and Procedural Justice

Please consider the following questions regarding the organizational change you recently experienced.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

#### Distributive Justice

At my job, promotions usually depend on how well a person performs his/her job.

In my organization, bonuses or raises usually are seldom related to employee performance.

(R)

At my job, there is a tendency for supervisors to give the same performance ratings regardless of how well people perform their jobs. (R)

Employees here get few rewards for excellent performance. (R)

Performance appraisals do influence personnel actions taken in this organization.

My supervisor evaluates my performance on things not related to my job. (R)

I will be demoted, removed from my position or fired if I perform my job poorly.

My performance rating presents a fair and accurate picture of my actual job performance.

I will likely be promoted or given a better job if I perform my job especially well.

My own hard work will lead to recognition as a good performer.

I will get a tangible reward if I perform especially well.

**Procedural Justice**

The information used for the change is accurate.

The company is informed about employees' needs in order to make fair decisions about the change.

Employees have the chance to challenge company decisions regarding the change.

Employees have the opportunity to have a say and express their concerns regarding the change.

All parties affected by the change are represented in the decision surrounding the change.

The decisions regarding the change are consistent for all employees.

My supervisor made sure explanations are provided to employees regarding change.

My supervisor made sure that information related to the change is supplied to employees when it was requested.

My supervisor behaves in ways that I consider to be ethical during the change.

My supervisor considers my viewpoint when making decisions regarding the change.

My supervisor provides me with timely feedback about issues about the change that concern me.

My supervisor gives me an explanation for decisions about the change.

My supervisor treats me with dignity and respect during the change.

My supervisor listens to my personal needs and concerns during the change.

My supervisor shows concern for my rights as an employee during the change.

My supervisor deals with me in a truthful manner regarding the change.

My supervisor provides consistent treatment to all employees during the change.



## Appendix C

## Openness to Experience Items

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Ideas

I often enjoy playing with theories or abstract ideas.

I find philosophical arguments boring. (R)

I enjoy solving problems or puzzles.

I sometimes lose interest when people talk about very abstract, theoretical matters. (R)

I enjoy working on “mind-twister” type puzzles.

I have little interest in speculating on the nature of the universe or the human condition. (R)

I have a lot of intellectual curiosity.

I have a wide range of intellectual interests.

Actions

I’m pretty set in my ways. (R)

I think it’s interesting to learn and develop new hobbies.

Once I find the right way to do something, I stick to it. (R)

I often try new and foreign foods.

I prefer to spend my time in familiar surroundings. (R)

Sometimes I make changes around the house just to try something different.

On a vacation, I prefer going back to a tried and true spot. (R)

I follow the same route when I go someplace. (R)

## Appendix D

## Agreeableness Items

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Trust

I tend to be cynical and skeptical of others' intentions. (R)

I believe that most people are basically well-intentioned.

I believe that most people will take advantage of you if you let them. (R)

I think most of the people I deal with are honest and trustworthy.

I'm suspicious when someone does something nice for me. (R)

My first reaction is to trust people.

I tend to assume the best about people.

I have a good deal of faith in human nature.

Compliance

I would rather cooperate with others than compete with them.

I can be sarcastic and cutting when I need to be. (R)

I hesitate to express my anger even when it's justified.

If I don't like people, I let them know it. (R)

When I've been insulted, I just try to forgive and forget.

If someone starts a fight, I'm ready to fight back. (R)

I'm hard-headed and stubborn. (R)

I often get into arguments with my family and co-workers. (R)

## Appendix E

## Neuroticism Items

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Angry Hostility

I often get angry at the way people treat me.

I'm an even-tempered person. (R)

I am known as hot-blooded and quick-tempered.

I am not considered a touchy or temperamental person. (R)

I often get disgusted with people I have to deal with.

It takes a lot to get me mad. (R)

At times I have felt bitter and resentful.

Even minor annoyances can be frustrating to me.

Vulnerability

I often feel helpless and want someone else to solve my problems.

I feel I am capable of coping with most of my problems. (R)

When I'm under a great deal of stress, sometimes I feel like I'm going to pieces.

I keep a cool head in emergencies. (R)

It's often hard for me to make up my mind.

I can handle myself pretty well in a crisis. (R)

When everything seems to be going wrong, I can still make good decisions. (R)

I'm pretty stable emotionally. (R)

## Appendix F

## Work Locus of Control Scale

1	2	3	4	5	6
Disagree	Disagree	Disagree	Agree	Agree	Agree
Very Much	Moderately	Slightly	Slightly	Moderately	Very Much

A job is what you make of it. (R)

On most jobs, people can pretty much accomplish whatever they set out to accomplish. (R)

If you know what you want out of a job, you can find a job that gives it to you. (R)

If employees are unhappy with a decision made by their boss, they should do something about it. (R)

Getting the job you want is mostly a matter of luck.

Making money is primarily a matter of good fortune.

Most people are capable of doing their jobs well if they make the effort. (R)

In order to get a really good job you need to have family members or friends in high places.

Promotions are usually a matter of good fortune.

When it comes to landing a really good job, who you know is more important than what you know.

Promotions are given to employees who perform well on the job. (R)

To make a lot of money you have to know the right people.

It takes a lot of luck to be an outstanding employee on most jobs.

People who perform their jobs well generally get rewarded for it. (R)

Most employees have more influence on their supervisors than they think they do. (R)

The main difference between people who make a lot of money and people who make a little money is luck.

## Appendix G

## Descriptive Information

Please provide the following information:

1. Your rank:

1	2	3	4	5
Front-line Employee	Supervisor	Junior Manager	Middle Manager	Senior Manager

2. Please describe the organizational change that you are considering when responding to the following items:

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3. The outcome of the organizational change was favourable for me.

1	2	3	4	5
Strongly Disagree	Slightly Disagree	Neutral	Slightly Agree	Strongly Agree

4. What was your level of participation in the change implementation?

1	2	3	4	5
No Participation	Very Little Participation	Some Participation	A lot of Participation	Full Participation

5. How much information did you have about the change:

1	2	3	4	5
No Knowledge	Very Little Knowledge	Some Knowledge	A lot of Knowledge	Full Knowledge

6. I disliked the organizational change.

1	2	3	4	5
Strongly Disagree	Slightly Disagree	Neutral	Slightly Agree	Strongly Agree

7. To what degree do you feel that you had control over the change:

1	2	3	4	5
No Control	Very Little Control	Some Control	A lot of Control	Full Control

8. Do you believe that you could have controlled the change process?

1	2	3	4	5
Strongly Disagree	Slightly Disagree	Neutral	Slightly Agree	Strongly Agree

9. Was this change process ambiguous?

1	2	3	4	5
Strongly Disagree	Slightly Disagree	Neutral	Slightly Agree	Strongly Agree

10. Are the outcomes from the change process ambiguous?

1	2	3	4	5
Strongly Disagree	Slightly Disagree	Neutral	Slightly Agree	Strongly Agree

11. I found the change to be positive.

1	2	3	4	5
Strongly Disagree	Slightly Disagree	Neutral	Slightly Agree	Strongly Agree