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Organizational Change: Evaluating the Effect of Motivational Interviewing on Readiness to Change

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Abstract

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Abstract

Failure accompanies most organizational change efforts. Change agents' efforts focus on employee resistance or readiness to change without considering employee ambivalence. Motivational interviewing (MI) may reduce ambivalence and improve the success rate of organizational change initiatives. The purpose of this experimental research was to evaluate the effectiveness of MI to increase readiness to organizational change, to assess the influence of MI on change-related beliefs, and to investigate the relationship between beliefs and readiness to change. The theoretical framework was the transtheoretical model of change, the theory of planned behavior, and social cognitive theory. Through random assignment, 56 employees of a company undergoing change and located in the Midwest region of the United States populated the experimental and control groups. Members of the experimental group participated in 3 motivational interviewing sessions over a 30-day period. Participants indicated their readiness and underlying change-related beliefs by completing the Job Change Ladder and the Organizational Change Recipients' Belief Scale. Within and between group differences from a mixed ANOVA revealed that MI significantly increased readiness to change. There was not a significant difference between the beliefs of both groups as indicated by the results of the MANOVA test. Participants' beliefs explained readiness to change as evidenced by the results from the use of multiple regression. The findings indicate that leaders of organizational and societal change initiatives could incorporate MI to prepare individuals and groups to embrace the change process, thereby improving the chances that the change initiative will be successful.

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Chapter 1: Introduction to the Study

Organizations undertaking change experienced negative results. Researchers reported that implementation efforts for a wide variety of change initiatives failed at a rate ranging from 28% to 93%. Although the precise reasons for the various failures were not determined, individuals' responses to change play a significant role in the implementation of change at the organizational level (Bouckenooghe, 2010; Decker et al., 2012). Scholars indicated that there is a paucity of research into change recipients' views of organizational change (Oreg, Michel, & Tudnem, 2013; Oreg, Vakola, & Armenakis, 2011). This perspective accentuates the idiosyncratic nature of organizational change.

Adopting a micro-organizational perspective, in this quantitative experimental study, I evaluated motivational interviewing as an approach to facilitate organizational change. As opposed to a macro-perspective, I focused on the employee's change-related attitudes to examine the nature of responses to change and recognized ambivalence as the prevailing initial attitudinal response to change. I concentrated on change recipients' unique ambivalent responses as it related to their readiness to implement planned organizational changes.

The purpose of this quantitative experimental study was to assess the effectiveness of a model geared to help employees resolve their ambivalence to change through a dialogical approach. During these conversations, individuals explored their ambivalence and their intentions to engage in change-related behaviors. Positive views of change by organizational members may render higher levels of individual readiness to

change that could contribute to a successful implementation of change. These behavioral changes are central for an organization to be able to achieve its objectives.

In this chapter, I highlight ambivalence as an under-researched individual response to organizational change. I also introduce motivational interviewing as an approach to organizational change to address a person's ambivalence towards change. The theory of planned behavior and the transtheoretical model of change (e.g., stages of change, decisional balance) constituted the framework of the evaluative lens for the assessment of motivational interviewing (Ajzen, 2011; Prochaska & Norcross, 2010). This chapter ends with the presentation of the significance of the study and a brief description of the research methodology.

Background to the Study

Organizations are in a continuous need to change as they confront new challenges and adapt to the turbulence of their operating environments (Oreg & Berson, 2011). Organizational change-related tasks can be difficult to successfully achieve as evidenced by the results of the change efforts undertaken by organizations. In their study of organizational change initiatives, Burnes and Jackson (2011) argued that there is a general failure rate of approximately 70%. In a survey of 3,199 executives from around the world, only one-third of change initiatives succeeded (Crouzet, Parker, & Pathak, 2014). Improving organizational performance resides at the center of organizational change (Armenakis, Field, & Mossholder, 2012). Organizational changes do not take place in isolation from employees and require changes at the individual level (Burke,

2011). In fact, Choi (2011) highlighted the increased pressure on organizations to obtain wide support for change initiatives from their members.

For organizations to successfully undergo change, individuals need to engage in behavioral changes. The acceptance or rejection of change at an organizational level is related to work behaviors enacted by each organizational member (Stevens, 2013). In a survey of over 1,500 executives from around the world, Erwin and Garman (2010) correlated successful alterations of individual behaviors to the achievement of planned organizational changes. Researchers have emphasized the significance of employees' roles in effecting the potential for organizational change to succeed (Fugate, Prussia, & Kinicki, 2012; Oreg et al., 2013). Change recipients' responses are key to the implementation of organizational change.

Under the pyramidal structure of most organizations, the responsibility for implementing change tends to reside on leaders and their followers and their roles of facilitator and change recipients (Choi & Ruona, 2011; Lawrence, 2015; Raelin & Cataldo, 2011). Scholars have established a relationship between leaders' behaviors and employees' attitudes towards change (Jaros, 2010; Oreg & Berson, 2011). Based on a survey of over 115,000 employees impacted by organizational change, Parry, Kirsch, Carey, and Shaw (2013) identified the quality of change management as a key driver of change. The dynamics and perspectives of change agent and change recipient influence the implementation of organizational change.

In practice, the change agent perspective prevails in the analysis of the shortcomings of organizational change. When changes fail, it may be due to employees

simply resisting change (Thomas & Hardy, 2011). The term resistance to change, both in research and in practice, is used to depict organizational failures to introduce change (Ford & Ford, 2010). The notion of resistance to change characterizes the intentional or behavioral response of an individual to maintain the status quo and hinder the implementation of change (Bouckenooghe, 2010).

Some change leaders interpret an individual's natural hesitancy to change as a form of resistance (Hettema, Steele, & Miller, 2005). As Piderit (2000) pointed out, such interpretations are perceptions that tend to ignore the complexities of change recipients' responses. As a result, resistance to change is commonly viewed as opposition from change recipients that leaders need to overcome in order to succeed at implementing change (Smollan, 2011). These perspectives do not include change leaders' responsibility for implementing change that takes place during their interactions with change recipients (Oreg et al., 2011; Thomas & Hardy, 2011).

Another explanation for failures at implementing organizational change is that employees need to become ready to change. Individuals develop unique perceptions of readiness to change from their personal experiences during the organizational change (Rafferty, Jimmieson, & Armenakis, 2013). This notion of readiness to change referred to a cognitive state as antecedent to an individual's resistance to change. In contrast to resistance to change, change leaders focusing on readiness to change were to adopt a positive and proactive perspective to organizational change (Rafferty et al., 2013).

The bi-polar lens of resistance and readiness to change dominates the study of change in organizations. In a review of the literature on organizational change,

Bouckenooghe (2010) indicated that more than 90% of the studies focused on the attitudinal responses of resistance to change and readiness to change. Widely known models to implement planned organizational change at the individual level are circumscribed to the boundaries imposed by such dichotomy where individuals either cooperate or resist or they may or may not be ready (Lundy & Morin, 2013). These models of organizational change ascribe to the traditional linear interpretation of the 3-step model of change (i.e., unfreezing, changing, refreezing; Erwin & Garman, 2010).

Individuals do not experience behavioral change in a linear manner. Prochaska and Norcross (2010) stipulated that the process that individuals undergo when changing, whether it is self-initiated or agent facilitated, unfolds in a nonlinear manner. In the transtheoretical model, individuals progress and regress through stages of change indicative of varying levels of readiness, ambivalence, and self-efficacy (Dombrowski, Snelling, & Kalicki, 2014; Norcross, Krebbs, & Prochaska, 2011; Prochaska & Norcross, 2010). According to the model, readiness to change depicts a person's status in the stages of change continuum capturing attitudes (i.e., positive, negative, ambivalent), as well confidence in the execution of behaviors (i.e., self-efficacy; Prochaska, & Norcross, 2010). In this context, DiClemente and Velasquez (2002) emphasized ambivalence as a dynamic concept underlying transitions through the stages of change. Piderit (2000) described ambivalence as a prevalent initial response among organizational members facing change. Miller and Rollnick (2002) characterized ambivalence as a normal response to change whereas a person simultaneously sustains arguments for and against proposed behavioral changes. Miller and Rollnick developed motivational interviewing

as an approach to help individuals change their behaviors by resolving their ambivalence. In this study, I evaluated the impact of motivational interviewing on the ambivalence-affected notion of an individual's readiness to change as it relates to transitions through the stages of change.

Problem Statement

The general problem is the high failure rate of organizational change efforts (Rafferty et al., 2013). In studies on organizations undertaking change, researchers estimated that two out of three initiatives fail to achieve their objectives (Shin Taylor, & Seo, 2012). Burke (2011) called the generally accepted failure rate of 70% as unacceptable for the field of organizational change and development. Associated financial costs can be high, as Ijaz and Vitalis (2011) uncovered that during a 15-year period, each Fortune 100 company spent an average of 1 billion dollars in the implementation of change. Several researchers underscored the change leader's approach to implementing change as critical for the successful implementation of organizational change (Choi & Ruona, 2011; Lawrence, 2015).

The perspective that organizational members either resist or accept change is predominant (Bouckenooghe, 2010; Ford et al., 2008). According to Oreg and Sverdlik (2011), scholars overlooked the possibility that organizational members could concurrently manifest support and rejection. Smollan (2011, 2012) stated that individuals could simultaneously experience a mix of both responses identified as ambivalent attitudes. Peachey and Bruening (2012) demonstrated that ambivalence was a prominent response and worth considering in change models. Change leaders' overemphasis on the

dichotomy of resistance or readiness to change limits successful implementation of organizational change (Choi & Ruona, 2011; Lawrence, 2015; Smollan, 2011). In this perspective, leaders do not recognize that employees may be ambivalent and in need of time to accept or reject proposed organizational changes. There is a paucity of research on approaches to change integrating support and resistance to change (Oreg & Sverdlik, 2011). Addressing this issue, I contributed to the practice of organizational change by focusing on the change recipients' ambivalent responses to a planned organizational change.

Purpose of the Study

Ambivalence is a critical attitude in an individual's decision to initiate new behaviors encompassing readiness and resistance to change. A person's transition towards being ready to change relates to his/her degree of ambivalence towards the enactment of the new behavior. Within the context of organizational change, the purpose of this quantitative experimental study was to assess the effectiveness of a model geared to help employees resolve their ambivalence to change. In this research, I evaluated the effect of motivational interviewing (i.e., independent variable) on readiness to change (i.e., dependent variable) and beliefs (i.e., dependent variables) among participating members of an organization undergoing change. Readiness indicated participants' intentions to enact change-related behaviors (Stevens, 2013).

Participants randomly assigned to a treatment group attended three motivational interviewing (i.e., independent variable) sessions. A contemplation ladder and a summative response scale were used to measure the dependent variables of readiness to

change and beliefs about organizational change. I analyzed the difference between pre and posttest results for each variable, as well as the difference between the control and the treatment groups. I also incorporated the conceptually related notions of a person's readiness to change and beliefs about change. The analysis included beliefs as independent variables that could account for a statistically significant amount of the variance in readiness to change as the dependent variable.

Research Questions and Hypotheses

In this research, I assessed motivational interviewing within the context of organizational change. Miller and Rollnick (2013) characterized motivational interviewing as a dialectical approach to facilitate change that has been applied to a wide array of behaviors. Miller and Rollnick described motivational interviewing as conversations geared to address individuals' ambivalence towards change. In the motivational interviewing model, ambivalence is considered an underlying dynamic influencing people's readiness to change. As individuals explore their ambivalence which is manifested in increasing support for the enactment of new behaviors, their levels of readiness to change increases (Miller & Rollnick, 2013). During the review of pertinent literature, I found no evidence of motivational interviewing used to facilitate organizational change.

In this study, I evaluated the effect of motivational interviewing on readiness to change and its underlying cognitions or beliefs within the context of organizational change. In line with the stage model of behavioral change, the employee's transition through the stages of change encapsulates different degrees of ambivalence and readiness

to change (Prochaska & Norcross, 2010). While conducting motivational interviewing sessions, I applied the decisional balance to elicit from employees their sources of ambivalence. These sources of ambivalence provided the focus of the conversations about the employees' personal views of organizational change. Such individual perspectives included five beliefs constituting key components of readiness to change (i.e., discrepancy, appropriateness, efficacy, principal support, and valence; Rafferty et al., 2013).

A decisional ladder labeled Job Change Ladder (JCL) adapted to work-related behaviors was used to measure an employee's level of readiness to change (Biener & Abrams, 1991). A belief scale named Organizational Change Recipients' Belief Scale (OCRBS) was used to measure an individual's change-related beliefs (Armenakis et al., 2007). Specifically, I addressed three research questions and their related hypotheses:

1. What is the effect of motivational interviewing on readiness to change?

$H_0$1: There is no effect of motivational interviewing on readiness to change.

$H_1$1: There is an effect of motivational interviewing on readiness to change.

2. What is the effect of motivational interviewing on beliefs about organizational change?

$H_0$2: There is no effect of motivational interviewing on beliefs.

$H_1$2: There is an effect of motivational interviewing on beliefs.

3. What is the relationship between beliefs and readiness to change?

$H_0$3: Beliefs do not account for a statistically significant amount of the variance of readiness to change.

$H_1$3: Beliefs account for a statistically significant amount of the variance of readiness to change.

Theoretical Foundation

Change has become a common characteristic among contemporary organizations requiring leaders to encourage individuals to enact new work-related behaviors (Bouckenooghe, 2012; Choi & Ruona, 2011). Organizational theorists recognized how the extent of a particular organizational change relates to support, as well as the acceptance manifested by each organizational member (Rafferty et al., 2013; Vakola, 2013). Fugate (2012) emphasized leadership and management approaches to change as being influential on change recipients' reactions to change. Adopting a microlevel approach, in this study, I focused on the dynamics between change leader and change recipient as it related to intentional change (Lawrence, 2015).

Ajzen's (2011) theory of planned behavior, Bandura's (1986) social cognitive theory, Prochaska and DiClemente's (1982, 1983) transtheoretical model of change, and Piderit's (2000) multidimensional perspective on responses to change delineated the theoretical framework for the study. From the integration of organizational change and social behavioral theories, key constructs such as ambivalence and readiness to change helped me to conceptualize this research into the implementation of organizational change.

According to the theory of planned behavior, an individual's intention towards a behavior precedes the actual performance of the behavior. Behavioral intentions represent a person's motivation to enact the behavior depicting the amount and intensity of effort

an individual is willing to invest in producing the behavior. A person's attitudes, perceptions of behavioral control, and anticipated responses from social referents constitute a set of beliefs influencing intentions Embedded in a person's intentions to enact a new behavior there is a level of ambivalence (Ajzen, 2011). In this study, intentions relate to a person's transitional state of ambivalence and readiness to change.

In addressing an individual's beliefs about effectively enacting a behavior, Ajzen (2011) equated behavioral control to Bandura's (1986) notion of self-efficacy. Bandura described self-efficacy as an individual's assessment of personal capabilities to execute actions linked to achieving certain performance. Bandura claimed that individuals develop self-efficacy expectations from the cognitive processing of behavior-related information. In the transtheoretical model, efficacy expectations play a role in an individual's progression through the stages of change (Norcross et al., 2011). Self-efficacy is also a central construct in the use of motivational interviewing as an approach to change behaviors (Miller & Rollnick, 2013).

In the context of the dynamics of the theory of planned behavior, an individual evaluates the behavior in question and forms a favorable or unfavorable attitude. Such attitude, in conjunction with appraisals of personal capabilities to perform the behavior (i.e., self-efficacy), determine an individual's degree of intention to enact the behavior (Ajzen, 2011). In the field of organizational change, Piderit (2000) conceptualized attitude along emotional, cognitive, and behavioral/intentional dimensions and recognized ambivalence as a frequent initial response to a proposed organizational

change. In the study, participants provided pre and posttest scores of ambivalence and readiness to change.

According to the theory of planned behavior, positive correlations exist between cognitive evaluations and intentions, as well as between intentions and the likelihood that the behavior will be performed (Ajzen, 2011). According to the transtheoretical model, a cognitive assessment of pros and cons of the behavior takes place during the development of a decisional balance (Di Noia & Prochaska, 2010). Within the context of the stages of change of the transtheoretical model, resistance and readiness to change relates to the individual's relative weighing of pros and cons representing two ends of a dynamic spectrum characterized by ambivalence (Prochaska & Norcross, 2010). During the study, participants explored the pros and cons of enacting change-related behaviors.

There is a linear trend between the variables of the theory of planned behavior (i.e., attitudes, behavioral control, social influence) and the stages of change of the transtheoretical model (i.e., precontemplation, contemplation, preparation, action, maintenance; Armitage, Sheeran,Conner, & Arden, 2004). Several researchers proposed the transtheoretical model of change as a framework for a comprehensive conceptualization of readiness to organizational change suitable for stage-matched interventions (Cavacuiti & Locke, 2013; Clark, 2013). Other researchers tested stage transition as changes in readiness to change within the context of a training program (Steele-Johnson, Narayan, Delgado, & Cole, 2010). In line with Patton's (2012) guidelines for the conduction of a summative evaluation, the stages of change construct provided the performance criteria for a quantitative evaluation of motivational

interviewing effectiveness as an approach to facilitate change at the individual level. I also examined the relationships between readiness to change and associated beliefs.

Nature of the Study

The purpose of this quantitative experimental study was to assess the effectiveness of a model geared to help employees resolve their ambivalence to change. The primary objective of the study was to evaluate motivational interviewing as a change agent's approach to implementing organizational change. A secondary objective was to investigate the relationships between variables considered key for the success of change at the micro-organizational level (i.e., employee). I used a quantitative method for the assessment of motivational interviewing and the examination of relationships between key concepts.

In this study, I followed the guidelines for a summative evaluation. Patton (2012) considered the use of a quantitative method to be consistent with a summative evaluation where the objective is to appraise effectiveness of a treatment condition. Patton affirmed that summative evaluations can be used to address questions about the extent that an outcome could be attributed to a particular treatment condition. In this quantitative experimental study, the effectiveness of motivational interviewing was measured by differences in readiness to change among the participants in the study. I employed a ruler or ladder and a scale as instruments to measure readiness to change and its underlying beliefs (i.e., discrepancy, appropriateness, principal support, efficacy, and valence). The use of a ladder as an assessing instrument was consistent with a body of research on the impact of motivational interviewing on readiness to change (Hettema, & Hendricks,

2010). As indicated by Alkin (2011), the anticipated use of an instrument that allows for the numerical attribution to information collected that is to be statistically analyzed defines the quantitative attribute of the study. In this study, I performed statistical analysis of participants' scores on two numerical instruments.

Assessment of the effectiveness of motivational interviewing in relation to progress through stages of change (i.e., readiness to change) is consistent with the transtheoretical model of change and Miller and Rollnick's (2013) conceptualization of the process of behavioral change. Movements along the stages of change reflect an individual's particular variations in readiness to change characterized as changes in his or her ambivalence towards the enactment of the behavior. During motivational interviewing, organizational members were encouraged to explore and resolve their ambivalence in order to facilitate stage transitions.

The examination of relationships between salient beliefs and readiness to change is contextualized by the theory of planned behavior (Armenakis, Bernerth, Pitts, & Walker, 2007; Bergquist & Westerberg, 2014; Grant, 2010; Rafferty et al., 2013). Rafferty et al. (2013) identified five core beliefs underlying an individual's readiness to change: discrepancy, appropriateness, principal support, efficacy, and valence. These five beliefs signal an individual's cognitive perceptions of the implications of organizational change.

For this quantitative experimental study, I gathered data from a sample of 56 individuals affected by a planned organizational change who were randomly assigned to an experimental and a control group. This sample size exceeded by two participants the

statistically calculated amount of units in the sample size required to evaluate the potential effect of motivational interviewing on readiness to change. At the time of the study, the organization was beginning to implement tactical decisions to support a new strategic direction. This strategic shift included a response to changes in the market place due to the presence of disrupting technologies. Organizational leaders sought to reposition the company as a more diversified competitor offering a package of products and services expected to enhance their competitive advantage as to achieve long-term growth.

In order to support the transition to a desired future state, organizational leaders considered it necessary to conduct an overhaul of their systems and processes. This whole-system change encompassed restructuring roles for its workforce of approximately 100 employees. An accountability process was used to connect the company's short-term objectives to departmental and individual responsibilities.

In conjunction with this research, company leaders provided a detailed description of their strategic plans linking corporate objectives to individual responsibilities. The research design of choice featured an experimental group exposed to motivational interviewing and a control or nonmotivational interviewing group. As a part of a mixed design, both groups completed pretests and posttests that allowed for comparisons before and after, as well as comparison between groups. Based on data collected from the between-subjects and the within-subjects research design, I conducted analyses of variance of readiness to change and beliefs scores (Meyers, Gamst, & Guarino, 2013). In order to address the first and second hypotheses of the study with this statistical

technique, motivational interviewing was the independent variable while readiness to change and beliefs were the dependent variables. I also used multiple regression analysis in order to examine the relationship between beliefs and readiness to change forwarded in the third hypothesis. In this case, beliefs represented the explanatory or independent variables of the statistical model while readiness to change was the dependent variable.

Definitions

Ambivalence: The term ambivalence comprised the unique and simultaneous expressions of support and rejection for change that every employee held (Smollan, 2011, 2012). Ambivalence captured the underlying dynamic indicative of a person's readiness to change.

Appropriateness: A person's cognitive perceptions of the content of organizational change as it refers to meeting the identified need (Rafferty et al., 2013).

Beliefs: As organizational change unfolds, employees seek to make sense of their situation. Individuals form unique cognitions or beliefs that have implications on their particular level of readiness to change. These beliefs constitute cognitive reactions to proposed organizational changes that together with emotions play a role in a person's readiness to change (Oreg et al., 2011; Rafferty et al., 2013). In the study, a set of five salient beliefs (i.e., discrepancy, appropriateness, principal support, efficacy, and valence) related to the proposed organizational change captured an individual's perceptions and constituted a separate dependent variables (Rafferty et al., 2013).

Discrepancy: A person's cognitive perception of the need for organizational change (Rafferty et al., 2013).

Efficacy: A belief related to a person's confidence in self and others' skills to carry out the organizational change (Rafferty et al., 2013).

Motivational interviewing: Motivational interviewing is the dialogic approach to change that the change agent used to help participants resolve their ambivalence (Miller & Rollnick, 2013). In research terms, motivational interviewing was the independent variable or treatment under evaluation (Frankfort-Nachmias, Nachmias, & DeWard, 2015).

Organizational change: The term organizational change referred to any organizational adjustment with potential physical or psychological implications on an organization's stakeholders (Oreg et al., 2013). The scope of the study encompassed face-to-face interactions between the change agent and change recipients as it related to the implementation of change. These interactions involved conversations about the individual's enactment of change-related behaviors. In this context, the change agent was the individual responsible for making change happen, while change recipients were organizational members needing to adapt or adopt the change (Ford et al., 2008).

Personal valence: A person's cognitive perceptions of personal gains resulting from the organizational change (Rafferty et al., 2013).

Principal support: A person's cognitive perceptions of the leaders' commitment to organizational change (Rafferty et al., 2013).

Readiness to change: Readiness to change was one dependent variable of the study representing a person's motivation to change and stage of change (Amodei & Lamb, 2004).

Stages of change: The stages of change denoted the gamut of attitudes and intentions capturing an individual's readiness in the cycle of change (i.e., precontemplation, contemplation, preparation, action, and maintenance). As a key construct in the transtheoretical model of change, the stages of change is described change as a phenomenon unfolding over time associated with a person's readiness to change (Prochaska & Norcross, 2010).

Assumptions

There are considerations which were out of my of the control as the researcher that could affect the results of the study. First, I presupposed that each one of the five beliefs (i.e., discrepancy, appropriateness, principal support, efficacy, and valence) underlying readiness to change were equally influential. This assumption is congruent with the literature on beliefs and readiness to change at the individual level (Rafferty et al., 2013). Second, similar to the literature on stages of change and motivational interviewing, I did not attempt to differentiate the concepts of readiness and motivation to change at the individual level. These two concepts are closely related (Hogue, Dauber, & Morgenstern, 2010). Third, I assumed that organizational members comprehended the behavioral requirements associated with the organizational change. Fourth, I assumed that the participants completed the self-reporting instruments in good faith. The analysis of the data presupposed that individuals provided honest answers.

Scope and Delimitations

The evaluation of motivational interviewing as a change approach took place within the context of a particular organizational setting. In the study, I addressed

organizational members' responses to a system-wide organizational change planned with the intent of achieving a strategic shift. At the time of the study, the company launched a central component of their strategic plan which affected the entire organization. Regarded as a source of competitive advantage, this area of change required role changes and the enactment of new behaviors by all organizational members. The scope of the new work-related behaviors were in line with the list of supporting activities linked to achieving the corporate objectives established for the 2015 fiscal year. Because I tailored motivational interviewing to the individual, it was not necessary for the identified behaviors to be identical among all participants.

I administered pretests and posttests within a relatively short interval of time to help control for threats to internal validity from history and maturation of a within-participants design. To minimize threats to internal validity related to instrumentation, I was the only researcher following one set of instructions and procedures to administer the tests. These tests also strengthened the internal validity of the design by establishing time order and generating data for statistical comparison. Randomly assigning individuals to the control group of the between-subjects design helped to increase the likelihood of having equivalent groups and to control threats to internal validity stemming from participants' selection. Participants did not receive incentives in order to minimize threats to internal validity due to compensatory rivalry or resentful demoralization. Conducting the research in the early stages of the implementation of organizational change helped to reduce the likelihood of other organizational dynamics (e.g., leadership styles, rumors) threatening the validity of causal inference. Asking participants to commit themselves to

the length of the study helped to decrease risks to internal validity related to experimental mortality. The highest risk to external validity originated from sample representativeness, as the research took place in one organization within a specific industry. Additional risks concerned pretest sensitization and the participants' potential provision of organizationally acceptable posttest responses.

Limitations

In the study, I measured readiness to change with the use of a modified contemplation ladder (Herzog, Abrams, Emmons, & Linnan, 2000). In modified versions of the ladder, strong reliability, convergent, concurrent, and predictive validity were revealed for a number of health-related behaviors (Hogue et al., 2010). The instrument also exhibited construct and criterion validity when translated from English to other languages (Coolidge et al., 2011). In an organizational setting, researchers used contemplation ladders to assess the effects of policies banning smoking as well as activities targeting readiness to change smoking-related behaviors (Cooper, Borland, Yong, Hyland, & Cummings, 2013; Herzog et al., 2000). There was a potential threat to reliability because the instrument had not been used in the context of organizational change-related behaviors. The instrument also provided a continuous measurement of the stages of change relating to ambivalence without discriminating for specific levels of ambivalence within each stage. Future researchers might examine levels of ambivalence within each stage.

In this research, I also examined the relationship between readiness to change and beliefs (i.e., discrepancy, appropriateness, principal support, efficacy, and valence)

recognized as cognitive precursors to a person's behavioral change. The absence of temporal designs in the studies validating the OCRBS instrument constituted another limitation. The OCRBS instrument was used to measure beliefs associated with readiness to change. This instrument exhibited adequate construct validity and discriminant validity along five domains (i.e., discrepancy, appropriateness, principal support, efficacy, and valence; Armenakis et al., 2007). The data collected to support the sound psychometrics of the instrument emerged from cross-sectional studies. Future researchers might conduct longitudinal studies to validate OCRBS.

The use of a nonprobability sampling strategy such as purposive sampling raised issues of external validity and the generalizability of the results of the evaluation of motivational interviewing. Conducting the research in one organization within a specific industry presented risks to external validity originating from sample representativeness. The uniqueness of this study compromised the enhanced internal validity realized from random assignment of participants due to the possibility that chance did not completely eliminate systemic differences between the experimental and control groups. In addition, the study was restricted to the change agent conducting only three motivational interviewing sessions. A larger number of motivational interviewing sessions could potentially produce a statistically significant effect on beliefs.

Significance of the Study

This study makes a contribution to the literature and practice of organizational change by evaluating an approach to facilitate change that focuses on ambivalence rather than the traditional dichotomy of employees either resisting or accepting change.

Ambivalence is a salient response to a proposed organizational change portraying an individual's response to change as evolving along a continuum rather than being a bipolar phenomenon (Peachey & Bruening, 2012). Motivational interviewing is an approach to facilitate change that focuses on helping individuals resolve their ambivalence towards changing behaviors. According to results from this evaluation of motivational interviewing in an organizational context, the approach was effective at increasing an employee's level of readiness to change

Significance to Theory

The research contributed to knowledge in the under-researched area of ambivalence during organizational change by including individuals who simultaneously resisted and supported change (i.e., ambivalent attitude; Peachey & Bruening, 2012). An ambivalent attitude depicts an employee's particular level of readiness to change (Miller & Rollnick, 2013). Research participants expressed their positive and negative attitudes towards change representative of their idiosyncratic ambivalence and readiness to change.

The study advanced the applicability of the transtheoretical model and the theory of planned behavior to the practice of organizational change. This conceptual background encapsulated the beliefs, ambivalent attitudes, and intentions that change recipients experienced when required to engage in new work-related behaviors. Participants in this research manifested ambivalent attitudes related to their level of readiness to change and reported distinctive change-related beliefs. The stages of change construct of the

transtheoretical model were used to capture each employee's unique response to organizational change.

Consistent with previous studies on responses to organizational change, research participants were actively engaged in the analysis of the implications of the proposed organizational changes (Oreg & Sverdlick, 2011). In this study, I revealed the presence of five cognitions or beliefs (i.e., appropriateness, discrepancy, principal support, efficacy, and valence) that individuals held in relation to themselves and the organization (Armenakis et al., 2007; Holt & Vardaman, 2013). Participants underscored efficacy-related beliefs as playing a central role at explaining variability in readiness to change. Other organizational change-related beliefs such as appropriateness, discrepancy, principal support, and valence were not as significant. In line with Bandura's (1986) social cognitive theory, I uncovered a positive relationship between readiness to change and an individual's perceptions of his/her capability to undertake behavioral changes.

Significance to Practice

In contrast to the change agent perspective that is pervasive in the practice of organizational change, the emphasis of the study was on a change recipient's perspective to organizational change. Within this parameter, I examined the use of motivational interviewing in the context of organizational change as it related to influencing readiness to change at the micro-organizational level. A key consideration in motivational interviewing is that the individual's particular level of readiness to change is concomitant to his/her stage of change (Miller & Rollnick, 2013). Applying the principle of motivational interviewing requires change agents to be attentive to conversational cues

indicative of the stage of change. As a person-centered approach emphasizing self-determination as opposed to compliance, the use of motivational interviewing proved effective at increasing readiness to change.

During the process of motivational interviewing, change recipients actively participated in the dialogical exploration of their own ambivalence towards the enactment of behavioral changes. It was within the dynamics of this directive dialogue that organizational members resolved their ambivalence and progressed along the continuum of the stages of change. Participants scored these movements in an easy to administer ruler or ladder that provided the quantifiable measure of their readiness to change. The higher posttest scores recorded in the ladder by members of the experimental group signified their higher levels of readiness to engage in the enactment of new behaviors.

Significance to Social Change

Organizational members may find themselves in a constant state of change. Organizational change is ubiquitous and conveys social implications. There are instances when the livelihood of employees and their families, as well as communities, rely on the successful implementation of changes and the obtainment of organizational objectives. The findings from this evaluation of motivational interviewing as an approach to facilitate change constitute encouraging results for change agents and leaders tasked with the facilitation of change. The use of motivational interviewing could prove a helpful process to induce positive social change.

Embedded in most change efforts are expectations about improving the organization's performance and its viability as an institution. For members of a particular

institution, organizational change connotes the enactment of different work-related behaviors. In this sense, organizational leaders could apply the principles of motivational interviewing in their efforts to facilitate the successful adoption of change-related behaviors. Change leaders, managers, and supervisors could apply motivational interviewing to explore their own ambivalence and to engage other organizational members in the exploration of their ambivalence towards organizational change. As individuals positively resolve their ambivalence, their readiness to change would likely increase. This increase in readiness to change could help organizations improve their chances at successfully implementing their planned changes.

Summary and Transition

Given the high rate of failure within organizational change initiatives, there is room for improvement. Academic and practitioner contributions to understanding change have concentrated on the dichotomy of resistance and readiness to change. In the organizational change literature, the macro-organizational level was the dominant perspective. At the individual level, research on responses to organizational change reflected the change agent's views categorizing the recipients of change as either resisting or being ready to change.

Researchers began to focus more on organizational change from the change recipient's perspective. Additional studies on the notion of ambivalence to organizational change complemented the growing emphasis on the microlevel of organizational change. Ambivalent responses encapsulated the simultaneous support and rejection of change reflecting a person's level of readiness to change. The notion of readiness to change

represents a dynamic state whereas the construct of stages of change captured its temporal dimension.

Following this stream of research, in this study, I addressed the implementation of organizational change prioritizing change recipient's responses to change. I assessed variations on readiness to change and its underlying beliefs on individuals exposed to motivational interviewing. The use of motivational interviewing as an approach to facilitate change focused on helping participants explore and resolve their own ambivalence towards the proposed changes. The following chapter covers the literature review and explores the key concepts of the study.

Chapter 2: Literature Review

In the review of the literature on change, I found a paucity of research on strategies to change focusing on change recipients' ambivalence as a response to proposed organizational change (Oreg & Sverdlik, 2011). To address this issue, the purpose of this quantitative experimental study was to assess the effectiveness of a model geared to help employees resolve their ambivalence to change. I evaluated motivational interviewing in relation to its effect on increasing an individual's readiness to change within the context of proposed organizational change. As a secondary objective, I examined relationships between readiness to change and five underlying cognitions or beliefs.

Many organizations' attempts to change have resulted in negative outcomes. Most researchers and practitioners have expressed a sense of urgency to improve the commonly cited 70% failure rate of organizational change initiatives (Michel, By, & Burnes, 2013). When confronted with organizational change, each employee experiences unique cognitive and emotional reactions that contribute to the development of positive, negative, or ambivalent attitudes (Oreg et al., 2011; Peachey & Bruening, 2012). In the literature on organizational change, researchers related these attitudes to the constructs of readiness, resistance, and ambivalence towards change (Oreg & Sverdlik, 2011). In this chapter, I examine such attitudes and introduce the theoretical background linking ambivalent attitudes to behavioral intentions and readiness to change. The discussion includes a review of motivational interviewing as an approach to change facilitation that focuses on resolving ambivalence and increasing readiness to change.

Literature Search Strategy

I conducted the literature search using Google scholar, Thoureau, and EBSCO Host. This approach allowed me to access multiple databases that included ABI/INFORM Complete, Academic Search Complete, Annual Reviews, Cochrane Central Register of Controlled Trials, Cochrane Collection Plus, Emerald Management Journals, PsycARTICLES, PsycINFO, SAGE Premier, as well as Taylor and Francis Online. The electronic search strategy was based on Piderit's (2000) and Bouckenooghe's (2010) conceptualization of individuals' reactions to change in the context of organizational change.

Key terms combinations included *organizational change*, *reactions to change*, *readiness to change*, *resistance to change*, *ambivalent attitudes*, *theory of planned behavior*, *transtheoretical model of change*, *stages of change, self-efficacy*, and *motivational interviewing*. I focused on books and academic journals published over the last 5 years and later; 85.3% of the research contributions were on key concepts. The most recent research focused on the central concept of ambivalence.

The search captured seminal work on organizational change included (a) readiness to change, (b) resistance to change, and (c) ambivalence towards change. Additional search on seminal work encompassed the theories of planned behavior and the transtheoretical model of change as theoretical explanations of attitudes, behavioral intentions, and behavioral change. The search on motivational interviewing included seminal work as an approach to helping individuals enact new behaviors. I also

incorporated academic journals where the authors evaluated the effectiveness of motivational interviewing to facilitate a wide array of behavioral changes.

Theoretical Foundation

In the theory of planned behavior, Ajzen (2011) posited that behavioral intention and behavioral control codetermine the performance of any behavior. Behavioral intentions reflecte the goal-oriented characteristic of human behavior and encompass a person's plans to enact the behavior (Ajzen, 2011). Intentions equate to motivation whereas the more motivated the person is to enact the behavior, the more likely he or she is to succeed in its performance (McEachan, Conner, Taylor, & Lawton, 2011). The underlying dynamic of the theory of planned behavior encapsulates people behaving according to how they intended to behave. An individual's intentions derive from an early formation of positive and negative beliefs that further develop into personal attitudes towards the behavior (Ajzen, 2011).

According to the theory of planned behavior, in formulating their intentions, people also consider normative expectations (i.e., social pressure) from referent individuals or groups as well as their assessments of their own level of behavioral control (Ajzen, 2011). Ajzen (2011) equated behavioral control to Bandura's (1986) construct of self-efficacy reflecting the confidence that individuals have on their own abilities to perform a behavior. In a meta-analysis, McEachan et al. (2011) established that intentions was the strongest predictor of all behaviors included in the study followed by attitude and perceived behavioral control. Applying the theory of planned behavior to organizational change, people are more likely to intend to enact organizational change-related behaviors

when (a) they develop a favorable attitude towards the behavior, (b) they perceive social pressure to do so, and (c) they believe in their abilities to perform the behavior successfully (Bergquist & Westerberg, 2014; McEachan et al., 2011).

Behavioral scholars assessed the components of the theory of planned behaviors in a variety of settings including organizations. Rhodes and Pfaeffli (2010) characterized the theory of planned behavior as the dominant framework for the prediction and explanation of social- and health-related behaviors. Armitage and Conner (2001) demonstrated the robustness of the link between intention and behavior posited by the theory of planned behavior. The theory could be used to predict initiation as well as maintenance of behaviors (McEachan et al., 2011). Plotnikoff, Costigan, Karunamuni, and Lubans (2013) determined that intentions were the strongest predictor of behaviors related to physical activity. Strengthening the tenets of the model, Armitage, Reid, and Spencer (2013) found support for the major components of the theory of planned behavior (i.e., attitude, subjective norm, perceived behavioral control) as explanatory variables of intentions.

Several researchers have applied the theory of planned behavior to organizational settings. Bergquist and Westerberg (2014) found support for the model's variables, particularly workers attitudes, as predictors of employees' decision to participate in an improvement program. At a more specific behavioral level, Demir (2010) revealed that attitudes and perceived behavioral control were two strong predictors of intention as well as Internet use behavior. Adding behavioral specificity, Bergquist and Westerberg (2014) validated attitudes, subjective norms, and perceived behavioral control as predictors of

intentions and proposed the theory of planned behavior as a framework for the understanding and prediction of improvements in the workplace. Thomas and Lamm (2012) developed a conceptual framework based on the theory of planned behavior for the implementation of business strategies connected to sustainability issues. According to Ajzen (2011), individuals experience ambivalent attitudes as they develop intentions to enact behaviors. As such, the theory of planned behavior structured the conceptual understanding of the role of ambivalence and a person's intentions to engage in the enactment of a behavior.

The transtheoretical model provided an adequate framework for the understanding of ambivalence during behavioral changes (Armitage, 2010; DiClemente & Velasquez, 2002; Dombrowski, Snelling, & Kalicki, 2014; Klonek, Isidor, & Kauffeld, 2015). The model includes a temporal dimension and termed stages of change as a central construct to integrate tenants and processes of change from different theories of psychotherapy (Prochaska & Norcross, 2010). In their conceptualization of the way people change with or without help, Prochaska and Norcross (2010) confirmed that individuals spiraled through five stages of change (i.e., precontemplation, contemplation, preparation, action, maintenance) as they experience different processes of change conceptualized at a level of abstraction between meta-theoretical postulations and specific techniques. Individuals undergo change transition from unwillingness to change, to considering change as a possibility, to become prepared to act on the change, proceeding to the enactment of the new behaviors, and to sustain those behaviors over time (Norcross et al., 2011). It is in the contemplation stage where people experience the most ambivalence and struggle with

making a decision and committing to change the behavior (DiClemente & Velasquez, 2002).

Cognitively addressing and resolving ambivalence requires the weighing of pros and cons of the situation. In the context of the transtheoretical model, the individual's evaluative process implies a decisional balance whereas progression through the stages of change takes place as the benefits of a decision outweigh the costs (Nigg et al., 2011). The decisional balance is a technique that a change agent can use to address a person's ambivalence about making important personal or organizational decisions. This technique captures a state of cognitive fluctuation between pros and cons and provides indications of a person's motivation for change (Miller & Rollnick, 2013).

The decisional balance captures a person's support and rejection for a behavioral change. Di Noia and Prochaska (2010) confirmed the results of previous integrative studies accounting for 60 health-related behaviors and found support for the two factors structure of the decisional balance. Di Noia and Prochaska revealed a pattern of changes within the decisional balance whereas progression through stages implied the resolution of ambivalence. Such resolution involves an increase in the evaluation of the pros and a decrease of cons. The balance between the pros and cons differs throughout the stages and a crossover point where the pros become greater than the cons takes place prior to the individual beginning to take action (Di Noia & Prochaska, 2010).

A person's assessment of his or her own capabilities to undertake a new behavior play an important role in relation to the stages of change. There is empirical evidence relating a person's efficacy expectations to movements along the stages of change

(Bandura, 1986; Norcross et al., 2011). Confirming Bandura's assertion, self-efficacy correlated with previous behaviors and the pros and cons of the decisional balance. Other studies showed that the self-efficacy construct acted as a mediator of behavioral change since its high scores predicted an individual's initiation and maintenance of behavioral change (Norcross et al., 2011). Contrasting these claims, research conducted by Armitage (2010) on stages of change found mixed results for the variables of the transtheoretical model as predictors of behavioral change.

The stages of change model provides a temporal backdrop to a set of variables during a person's cyclical process of behavioral change. The model in conjunction with the decisional balance was generalizable to other behaviors and populations that included organizational change (Clark, 2013; Di Noia & Prochaska, 2010). Scholars identified stage differentiation along the five stages of change on measures of the behavior, self-efficacy, decisional balance, processes activities, and decisional considerations (Heather & McCambridge, 2013; Norcross et al., 2011). The stages of change was the evaluative instrument of the effectiveness of motivational interviewing to facilitate behavioral change associated with physical activity (Hardcastle, Blake, & Hagger, 2012).

Emphasizing the descriptive characteristics of the stages of change, a number of researchers discovered similarities in patterns of stage distribution across different behaviors where 40 % of the population studied was in precontemplation, another 40 % in contemplation, and 20% in preparation (Prochaska & Norcross, 2010). The stages of change model provided a common paradigm for the operationalization of diverse change strategies aimed at different behaviors. As such, the transtheoretical model was

foundational for the development of stage-matched approaches to change (Norcross et al., 2011). Copeland, McNamara, Kelson, and Simpson (2014) validated the use of motivational interviewing to facilitate a person's transition through the stages of change. The principles of motivational interviewing as an approach to the facilitation of individual behavioral change closely related to the transtheoretical model of change (Prochaska & Norcross, 2010; Miller & Rollnick, 2013). This theoretical link provided the foundation for the quantitative assessment of motivational interviewing.

Literature Review

Organizations are in a constant state of change. Van de Ven and Sun (2011) observed that ongoing change became an integral part within the fabric of organizational life. Several researchers and practitioners recognized that change could not succeed without organizational members having to change (Oreg et al., 2013). Organizational theorists validated this notion and stipulated that changing organizations required that individuals modify their work-related behaviors (Burke, 2011). Cummings and Cummings (2014) expanded the argument and noted that the scope of the behaviors affected by organizational change reached beyond those explicitly mentioned in implementation plans. For organizations to change, individuals must change.

Burke (2011) explained change efforts as moving from a conceptual plan defined by organizational variables such as vision, mission, and organizing elements to the level of specific behavioral changes required from organizational members in order to achieve previously delineated objectives. Congruent with the teleological theory of change, organizations respond to environmental changes by activating internal mechanisms of

change and becoming intentional about achieving formulated end states (Burke, 2011). Cummings and Cummings (2014) referred to such change efforts, or interventions, as a series of planned activities aiming at helping an organization become more effective. Within the organization development framework, Cummings and Cummings described approaches to change as consisting of planned processes oriented towards the realization of change through behavioral-based interventions. The implementation of organizational change required change leaders influencing change recipients.

All collective organizational activities constitute a combination of individual efforts. Expanding on this perspective, a number of researchers considered change recipients' reactions as directly influencing the level of success of organizational change efforts (Stevens, 2013). Oreg et al. (2011) in a review of quantitative studies on organizational change covering a period of 60 years concluded that individual reactions to proposed changes were key determinants of the success of such initiatives. There seems to be a general agreement in the field of organizational change that a person's attitudes and behaviors play a critical role on the results of any macro-level change initiative (Bouckenooghe, 2010; Rafferty et al., 2013). Employees' responses to organizational change become critical to the success of organizational change.

Change Recipients Reactions to Change

In a comprehensive review of empirical studies on organizational change, Oreg et al. (2011) conceptualized change recipient's reactions as multi-dimensional attitudes. Such perspective coincided with Piderit's (2000) tripartite attitudinal classification of responses along cognitive, affective, and behavioral dimensions. Negative responses

along these three dimensions described resistance to change; positive responses signified support for change, while ambivalence represented responses in between the two extremes of being consistently positive or negative (Piderit, 2000). Negative and positive attitudes became associated with resistance and readiness to change, as well as the focus of numerous studies; while there had been limited research on ambivalent attitudes towards change (Bouckenooghe, 2010; Oreg & Sverdlik, 2011; Peachey & Bruening, 2012; Rafferty et al., 2013).

In the context of attitudes towards a proposed organizational change, Piderit (2000) made a distinction between the actual behavior and a person's intentions to enact the behavior. Similar to Ajzen's (2011) theory of planned behavior, such perspective ascribes to the notion that individuals respond to change by engaging in evaluative cognitive processes leading to the development of intentions before the enactment of a particular behavior. These dynamics resonate with Bandura's (1986) social cognitive theory postulating the impact of thoughts, beliefs, and feelings on people's behaviors.

Ajzen (2011) posited that the explanatory abilities of the theory of planned behavior resided on the presence of salient beliefs, or information pertinent to the behavior, as antecedents of attitudes, estimates of social responses, and the extent of personal control over the behavior. Later on, addressing critics related to a rational and unemotional actor, Ajzen (2011) clarified that these beliefs encompassed a range of emotions, as well as the likely cognitive processing of incomplete, inaccurate, and unrealistic information. Applying the model of the theory of planned behavior in the context of organizational change, several researchers emphasized the presence of a strong

correlation between organizational members' beliefs and their intentions to engage in change supportive behaviors, and suggested different levels of individual readiness to change (Kim, Hornung, & Rousseau, 2011; Stevens, 2013). Bergquist and Westerberg (2014) stated that organizational interventions targeting underlying beliefs may prove useful at increasing change related behaviors. Kim, Honung, and Rousseau (2011) demonstrated that time was a variable to consider and provided evidence that attitudes played a more significant role in predicting behaviors supporting change during the initial period of organizational change.

Attitudes referred to employees' evaluations of objects associated with proposed organizational changes (Bohner & Dickel, 2011). Researchers demonstrated the presence of schemas as explanatory cognitions of organizational change that guided a person's attitude formation (Chiang, 2010). Schemas are about structures and processes related to the organizing of knowledge conducted by an individual, and representing the cognitive organization of elements linked to a similar concept. An individual relies on schemas to assimilate previously acquired knowledge into new information in order to facilitate comprehension, build memories, and make inferences (Chiang, 2010). During organizational change employees need to process new information and enact different behaviors.

In the area of organizational change, several authors noted that the cognitive dynamics of schemas indicated that individuals engaged in an evaluative process influencing the development of attitudes and the formation of beliefs that were to affect their behaviors (Armenakis et al., 2007; Chiang, 2010; Holt, Helfrich, Hall, & Weiner,

2010). This theoretical postulate of an evaluative process did not per se reflect a rational actor (Ajzen, 2011; Bandura, 1986; Piderit, 2000). Personal attitudes might develop from information available to the individual that may be faulty in nature.

Attitudes Towards Organizational Change

Organizational members tend to engage in undertaking planned change initiatives based on their perceived need to close a gap between the current state and the desired future state (Cummings & Cummings, 2014). Once the top leadership decides to proceed with change, the implementation of planned organizational change centers on all organizational leaders adopting the role of change agents influencing their followers in order to achieve a particular end state (Michel et al., 2013). The implicit assumption of this perspective is that the formulated changes are to benefit the organization and that their implementation needs to adhere to plans (Oreg et al., 2011).

Whether individuals embrace proposed organizational changes depends on a cost-benefit analysis of the personal implications of the content and the process of change leading to the emergence of attitudes (Choi, 2011; Peccei, Giangrecco, & Sebastiano, 2011). Employees' attitudes constitute a critical factor on the implementation of change whereas positive, negative, and ambivalent attitudes relate to notions of readiness and resistance to change (Bouckenooghe, 2011; Ford & Ford, 2010; Oreg et al., 2011; Rafferty et al., 2013; Thomas & Hardy, 2011). In the study of reactions to change, researchers noted that the dominant perspective was that of a dichotomous state where individuals either resisted or were ready to change (Choi, 2011; Smollan, 2011; Thomas & Hardy, 2011).

Negative attitudes towards change. Change disrupts the normal patterns of functioning in an organization and almost immediately triggers a process of sense-making in individuals (Choi & Ruona, 2011; Ford et al., 2008). Organizational members engage in gathering and interpreting information, as well as on responding to these new set of events (Ford et al., 2008). They begin to form change-related beliefs leading to attitudinal responses as soon as they become aware of potential changes in the organization (Kuntz & Gomes, 2012). Employees' attitudes have profound implications for the totality of organizational change. Research conducted by Fedor et al. (2006) revealed that organizational members assigned positive or negative valence to change that were associated with negative or positive outcomes of the overall change.

Employees evaluate organizational change against the backdrop of their psychological contract (Chaudhry, Coyle-Shapiro, & Wayne, 2011; Metz, Kulik, Brown, & Cregan, 2012; Tomprou, Nikolaou, & Vakola, 2012). The notion of a psychological contract is a key belief in the employee-organization relationship encompassing perceived promises and their associations to perceived mutual obligations (Tomprou, Rousseau, & Hansen, 2015). As exchange relationships that evolved from perceptions, the promises do not require that organization's representatives make them explicit in any verbal or written form (Sherman & Morley, 2015). This notion of a psychological contract contextualizes an employee's idiosyncratic interpretation of the terms and guiding his or her exchanges with the organization (Eckerd, Hill, Boyer, Donohue, & Ward, 2013).

As the employee's mental model about reciprocal obligations with the employer forms, the psychological contract commences to develop. This psychological contract begins upon hiring of an employee and remains dynamic throughout the length of time of the employment relationship (Lee, Liu, Rousseau, Hui, & Chen, 2011; Metz, Kulik, Brown, & Cregan, 2012). Residing outside the formal boundaries of the employment contract, the obligations encompass, among others, the employee's perceptions about compensation, provision of resources to carry out the job, as well as organizational support that the organization is to provide in exchange for complying with the perceived job-related obligations (Sherman & Morley, 2015). The evaluation of a psychological contract fulfillment responds to a process whereas a person engages in sense-making and the consequential decision-making to ascertain and respond to perceived revisions of what the employer offers (Parzefall & Coyle-Shapiro, 2011). An employee's cognitive evaluation leading to the conclusion that the organization did not meet its obligations constitutes a breach of the psychological contract (Sherman & Morley, 2015). Emotional responses may follow perceptions of a breach and generate feelings of violation of the psychological contract (Braekkan, 2012). An employee's perception of breach or violation of the psychological contract has negative implication on his or her behavior at work.

A meta-analysis conducted by Chiaburu, Peng, Oh, Banks, and Lomeli (2013) demonstrated a strong direct relationship between negative perceptions of the organization's fulfillment of psychological contracts and cynicism; this in turn showed an inverse relationship to job satisfaction and organizational commitment, and a positive

relationship with turnover intentions. Building on the theory of planned behavior, Chao, Cheung, and Wu (2013) meta-analyses revealed that individuals' perceptions of the breach of the psychological contract derived into negative emotions (i.e., violation of the psychological contract). Such violations of the psychological contract had negative effects on job-related attitudes (i.e., trust, satisfaction, commitment, intentions to quit), as well as the generation of undesirable work behaviors (i.e., actual turnover, organizational citizenship behaviors, inattention to work, absenteeism).

The term organizational citizenship captures a set of behaviors that organizational members voluntarily undertake, and go beyond the requirements of the formal transactional exchanges of the workplace (Bolino, Klotz, Turnley, & Harvey, 2013). Organizational citizenship behaviors represent a key component of organizational effectiveness, efficiency, and productivity. These behaviors could enable cost reduction, increased profitability, and customer satisfaction. At the individual level, these behaviors positively related to the outcomes of performance reviews and rewards, absenteeism, turnover intentions, and actual turnover (Hasan, 2013; Walumbwa, Hartnell, & Oke, 2010). Organizational citizenship behaviors are central to the performance and effectiveness of organizations, a key objective in organizational change (Karfestani, Shomami, & Hasanvand, 2013). Several research positively linked leadership practices to organizational commitment and to organizational citizenship behaviors (Hasan, 2013; Walumbwa et al., 2010). During organizational change, organizational citizenship behaviors and psychological contracts may influence employees' responses.

There is enough evidence about a direct relationship between organizational members' perceptions of a breach to the psychological contract and resistance to organizational change. Perceptions of a breach of psychological contract negatively related to organizational citizenship behaviors and trust in the organization and its representatives (Bal, Chiaburu, & Jansen, 2010; Restubog, Bordia, & Bordia, 2009; Restubog, Hornsey, Bordia, & Esposo, 2008). Skepticism, cynicism, and hostility towards the organization's undertakings increased and in-role behaviors deteriorated (Bal et al., 2010; Van den Heuvel, Schalk, & Van Assen, 2015). Disbeliefs about the reasons provided for change correlated with employees' intentions to resist change. Trust in management, representing as an organization's member willingness to be vulnerable to decisions and actions of others, strongly related to intentions to resist change (Van den Heuvel et al., 2015). Trust in management's capability to lead organizational change negatively correlated with cognitive, affective, and behavioral resistance to change (Ford & Ford, 2010). In contrast to the formation of negative attitudes contributing to the unsuccessful implementation of organizational change, employees may develop positive attitudes towards change.

Positive attitudes towards organizational change. The literature on organizational change relates positive attitudes towards change to an individual's readiness, openness, and commitment to organizational change. In line with the theory of planned behavior, researchers conceptualized readiness to change as a cognitive state in which an individual enacts change-supporting behaviors based on personal beliefs, attitudes, and intentions (Choi, 2011; Rafferty et al., 2013). Choi and Ruona (2011)

described readiness to change as a set of assumptions and expectations, as well as impressions related to the proposed organizational change.

The definition of readiness to change tends to be broad. Stevens (2013) noted the absence of a precise conceptual definition of readiness to change. Rafferty and Simons (2006) noticed that extant research emphasized the variables promoting readiness for change. Choi (2011) conceptualized the various usages and definitions of the concept of readiness to change found in the organizational change literature as focusing on efficacy, appropriateness, support, and individual benefits from organizational change. Recognizing the influence of Bandura's (1986) social cognitive theory and the theory of planned behavior, Rafferty et al. (2013) identified key beliefs that people form about proposed organizational changes that underlie their readiness to change. Those beliefs represent a person's view of (a) the need for change (i.e., discrepancy), (b) the content of change as it refers to meeting the identified need (i.e., appropriateness), (c) confidence in self and others' skills to carry out the change (i.e., efficacy), (d) leaders commitment (i.e., principal support), and (e) personal gains (i.e., personal valence).

A broad range of a person's beliefs and perceptions play an important role in the dynamics of organizational change. Researchers established a link between the extent to which an organization was ready for change and individuals' change-related beliefs such as self-efficacy, organizational support, and appropriateness of change (Rafferty et al., 2013). Choi (2011) stated that individuals with more confidence in their personal competence (i.e., self-efficacy towards change) were more likely to engage in change-related behaviors. Each person's perceptions of the organization's capabilities (i.e.,

organizational valence) to undertake change influence his or her readiness for change. A person's perceptions about the need for change also influence his or her intentions to change (Vakola, 2014). In addition to beliefs about the implications of change on the organization (i.e., discrepancy, organizational valence, and efficacy), there is empirical support for beliefs such as personal valence (i.e., beneficial to the individual) and management support, as organizational members' beliefs influencing readiness to change (Stevens, 2013). A person's interpretation of change-related events plays a role in the successful implementation of organizational change.

Openness to organizational change has psychological and behavioral implications on organizational change recipients. Several authors described openness to change as encompassing an individual's willingness to support change, as well as an acceptance of change, and positive emotions about the consequences of change (Vakola, Armenakis, & Oreg, 2013; Van den Heuvel, Demerouti, Bakker, & Schaufeli, 2013). Personal factors related to openness to change includes (a) previous experiences with organizational change failures, (b) evaluations resulting on a potential loss of jobs, (c) a sense of distrust in management, and (d) a lack of participation in developing the change (Choi, 2011). Participation and dialogue generates positive responses to organizational change (McKay, Kuntz, & Näswall, 2013). Factors predicting higher levels of openness to change includes (a) employees' involvement in change design, (b) high levels of self-efficacy, and (c) communication received about the change (Van den Heuvel et al., 2013). Employees' level of trust in their supervisors influences their openness to organizational change (Shah & Syed Ghulam, 2010). Exposing organizational members to upcoming changes also

increases the level of openness to change and decreases adverse psychological responses associated with job satisfaction, depression, and anxiety (Oreg et al., 2011). Lower levels of change acceptance are indicative of (a) employees' intentions to leave the organization, (b) decreased level of job satisfaction, and (c) increased irritability (Van den Heuvel et al., 2013).

Lastly, a general theory of commitment within the organizational context defined commitment to change as a psychological state compelling an individual to a set of actions directed towards a particular objective (Herscovitch & Meyer, 2002). Expanding on this definition and applying to organizational change as the target for commitment, Herscovitch and Meyer (2002) argued that individuals engaged in change supportive behaviors based on three beliefs: (a) beliefs that change benefits the organization which makes it desirable to change (i.e., affective commitment to the change), (b) beliefs about costs from their failure to support the change (i.e., continuance commitment to the change), and (c) beliefs about reciprocating obligations as in the case of the psychological contract (i.e., normative commitment to the change). In other words, organization members felt compelled to engage in behavioral support of change because they wanted to (feelings-based), had to (cost-based), and/or ought to (obligation-based) (Jaros, 2010).

Responding to the individual's valence of the impact of change at a personal and work-unit level, commitment to change depicted a person's convictions and encompassed intentions to (a) adopt change, and (b) actively contribute to the overall implementation and success of organizational change efforts (Bouckenooghe, Schwarz, & Minbashian,

2014; Choi, 2011). Researchers also showed an inverse relationship between commitment to change and turnover intentions (Bouckenooghe et al., 2014; Choi, 2011).

Described as a mindset, commitment has widespread implications on change-related behaviors. Support for change referred to actions indicative of compliance with change as well as a set of voluntary behaviors beyond the formal job requirements described as cooperating, embracing, and promoting the change (Herscovitch & Meyer, 2002). Affective and normative commitment to a change initiative positively related to discretionary and non-discretionary supportive behaviors. Continuance commitment positively related with compliance and negatively with voluntary behaviors (i.e. championing, cooperation) indicative of support for change (Bouckenooghe et al., 2014).

An organization member's internal and external dynamics during the process of organizational change influence their commitment to change. Personal evaluations of the implications of change positively relates to the person's notion of self-efficacy towards change (Choi, 2011). An individual's behaviors and attitudes also relates to expectations of reinforcements or outcomes of their behaviors perceived as contingent upon internal or external forces. The notion of internal locus of control refers to an individual's beliefs on his or her own ability to control the environment and outcomes. External locus of control refers to beliefs that they have no control over events perceived as determined by luck, chance, fate, or other individuals more powerful. Tong and Wang (2012) stated that internal locus of control correlated positively with affective and normative commitment to change while external locus of control was positively associated with continuance commitment to change.

External dynamics during change refers to the interaction of the individual with the work environment. The quality of formal communications processes about change positively influences commitment to change (Bouckenooghe, 2012). A leader's style has a strong relationship with his followers' affective commitment to change (Jaros, 2010). Perceptions of supervisors' competence have an impact on perceived support during change, which in turn positively influences affective and normative commitment to change. An employee's higher perception of his or her supervisor's competence reduces perceptions of costs associated with not implementing the organizational change (i.e., continuance commitment; Neves, 2011). Trust in supervisors as well as the organization's history with change positively correlates with commitment to change, and has a direct implication on employees' performance and organizational citizenship behaviors (Bouckenooghe, 2012; Rafferty & Restubog, 2010).

Ambivalent attitudes towards organizational change. Ambivalence refers to a person's simultaneously having positive and negative attitudes. Van Harreveld, Nohlen, & Schneider (2015) defined ambivalence as reflecting the co-existence of positive and negative valences attributed to beliefs and feelings about a particular object. In the context of organizational change, ambivalence signified competing evaluations (i.e., positive and negative valences) on an issue and representing dispositions of similar strength perceived as leading to equally desired end states (Harakas, 2013; Plambeck & Weber, 2010). In her seminal work, Piderit (2000) conceptualized ambivalent responses to organizational change as the result of conflicting attitudes formed along cognitive, emotional, and intentional dimensions. Piderit stated the complexity of employees'

responses to change when articulating that individuals could also experience ambivalent attitudes because of their inter-dimensional conflict.

Ambivalence is a pervasive and dominant response to organizational change. Ambivalent reactions involve both support and resistance to organizational change, as individuals hold a positive view of change while having concerns about potential consequences (Burke, 2011; Oreg & Sverdlik, 2011). Several researchers pointed out that during system-wide organizational change individuals at all levels of the organization experienced ambivalence, as well as ambiguity and uncertainty about the characteristics and implications of a planned change (Jones et al., 2008; Peccei, Giangrecco, & Sebastiano, 2011). Ambivalence emerges as soon as organization members are aware of the proposed organizational change and becomes more prevalent as ambiguity towards change continues unresolved (Piderit, 2000). Individuals experiencing ambivalence towards their job exhibit low job satisfaction and job performance (Ziegler, Hagen, & Diehl, 2012; Ziegler, Schlett, Casel, & Diehl, 2012). The scope of ambivalent responses to organizational change along cognitive, emotional, and intentional dimensions encompasses managers and non-managers (Smollan, 2011). Ambivalence becomes pervasive during organizational change and may be counterproductive.

Individuals tend to develop ambivalence from intra-personal, inter-personal, and experiential factors. During organizational change, individuals experience ambivalence as the resulting conflict of cognitive and emotional evaluations of change (Tomprou, Nikolaou, & Vakola, 2012). In addition to this evaluative tension, ambivalence incorporates a behavioral/intentional component to an individual's response to change

organizational change and to the process of identification with an organization (Peachey & Bruening, 2012; Plambeck & Weber, 2010; Smollan, 2011). Ambivalence is present during the process of attitudinal change, as the new attitude replaces an old attitude of opposite valence (Bohner & Dickel, 2011). When dealing with strategic issues, top management teams also experience ambivalence (Plambeck &Weber, 2010). Peachey and Bruening (2012) indicated that factors contributing to a person's development of ambivalence included (a) previous negative experiences with change, (b) organizational turnover, and (c) discrepancies with perceived reactions from other significant organizational members.

At the inter-personal level, employees experienced ambivalence from conflicting attitudes emerging from the interplay of their attitudes towards the change agent (Oreg & Svedlik, 2011). Organizational members responded with ambivalent attitudes towards management imposition of change (Oreg & Svedlik, 2011; Sverdlik, 2012). Ambivalent perceptions of trust towards change leaders emerge from the interplay of emotions, sensemaking, and behaviors (Smollan, 2012). Change agents' and management own ambivalence could lead to increasing employees' resistance to change (Prediscan & Bradutanu, 2012). This highlights the importance of the change leaders' approach during organizational change.

In the context of the theory of planned behavior, Cooke and Sheeran (2004) revealed that ambivalence moderated the relationship between attitude and intention, as well as attitude and behavior. Conner, Sparks, Povey, James, Shepherd, and Armitage (2002), found that high attitudinal ambivalence resulted in low attitude-behavior

relationship. A study conducted by Conner, Povey, Sparks, James, and Shepherd (2003) demonstrated that the relationship between perceived behavioral control and behavior was weaker in individuals experiencing high ambivalence. Sparks, Conner, James, Shepherd, and Povey (2001) stated that individuals experiencing high levels of ambivalence showed greater variations in their attitudes, intentions, and behaviors. Armitage and Conner (2000) demonstrated that less ambivalent attitudes were better predictors of intentions and behaviors, as well as resistance to change.

Ambivalence can be a strong motivator for change. Ambivalent individuals experience unpleasantness when becoming aware of their simultaneous holding of conflicting thoughts and feelings about an object (Song & Ewoldsen, 2014). An employee's attitudinal ambivalence towards organizational change produces frustration and discomfort through his or her unique experience of cognitive dissonance (Burnes, 2014). Individuals undergo unpleasantness because of their preferences for consistency and from uncertainties about the consequences of a given decision (Ashforth, Rogers, Pratt, & Pradies, 2014). As an aversive attitude, ambivalence produces such level of discomfort that people feel compelled to reduce it (Van Harreveld et al., 2015). This suggests that individuals may experience the need to resolve the ambivalence associated with organizational change.

In the context of the transtheoretical model of change (TTM), ambivalence characterizes a transitional and contemplative stage of change (Prochaska & Velicer, 1997). The aversive feelings of ambivalence constitute a motivating factor for individuals to engage in behavioral changes (DeMarree, Wheeler, Briñol, & Petty, 2014). According

to Miller and Rollnick (2013), individuals improve their readiness to change when they resolve their ambivalences.

Ambivalence and Individual Change

In the transtheoretical model of change, movements along the stages of change towards the enactment of new behaviors reside on a person's resolution of ambivalence in which the pros outweigh the cons. Change approaches tailored to an individual's stage of change, as suggested by the transtheoretical model, were effective in domains of stress management, dietary behaviors, and multiple behaviors related to weight management (Greene et al., 2013). Studies of tailored communications to improve health behaviors conducted by Vosbergen et al. (2014) revealed the strength of approaches focused on constructs related to the transtheoretical model, social cognitive theory, and theory of planned behavior (i.e., attitudes, self-efficacy, stages of change, and processes of change). Researchers demonstrated that the use of the model's cognitive-affective and experiential processes varied by targeted behavior suggesting the need for an individualized approach (Norcross et al., 2011). Scholars focused on the predictive component of the stages of change and operationalized it as an assessment of an individual's motivational readiness to change (Biener & Abrams, 1991; Cook, Heather, & McCambridge, 2015; Norcross et al., 2011). Embedded in transitions throughout the stages of stage are levels of readiness to change and ambivalence unique to each individual contemplating behavioral change.

A Comparison of the Transtheoretical Model and the Theory of Planned Behavior

Purpose is an important distinction between the theory of planned behavior and the transtheoretical model. According to Ajzen (2011), the theory of planned behavior

centers on explaining whether or not an individual is to engage in a particular behavior. In contrast, researchers use the more complex criterion of the stage of readiness of the transtheoretical model (i.e., cognitive, motivational, and behavioral) to explain the enactment of behaviors (Prochaska & Norcross, 2010). Forward (2014) stated that research on the transtheoretical model emphasized behavior change while research on the theory of planned behavior had focused on understanding and predicting the behavior. In addition to the five stages of change, the transtheoretical model incorporates key social, cognitive, and behavioral variables such as self-efficacy and decisional balance that mirrored the theory of planned behavior's constructs of attitude and intention (Prochaska & DiClemente, 1982, 1983).

A person's self-evaluation of their abilities to enact new behaviors is a variable in both theories. Bandura's (1986) notion of self-efficacy refers to the individual's confidence to succeed at performing a behavior. This variable in the transtheoretical model conceptually equates to the notion of perceived behavioral control in the theory of planned behavior (Ajzen, 1991). In the context of the theory of planned behavior, Courneya and Bobick (2000) posited that there was a closer link between a person's self-efficacy and his or her beliefs about control over a behavior than to a global evaluation of perceived behavioral control.

In both theories, individuals face a decision-making situation and assign valence to the behavior in question. The decisional balance of the transtheoretical model mirrors the notion of behavioral beliefs influencing attitudes in the context of the theory of planned behavior (Jordan, Nigg, Norman, Rossi, & Benisovich, 2002). In the stages of

change construct, a person's attitudes towards change constitute a discriminant factor between contiguous stages (Norcross et al., 2011). In similar fashion, Di Noia and Prochaska, (2010) found a discriminatory effect of the decisional balance on stages of change. Jordan, Nigg, Norman, Rossi, and Benisovich (2002) demonstrated a stronger discriminatory and predictive power when including attitude to the pros and cons of decision-making. Courneya and Bobick (2000) argued that the attitude construct of the theory of planned behavior, in contrast to the pros and cons of the transtheoretical model, offered a more comprehensive assessment capturing all the individual beliefs rather than the single assignment of values.

The intentions to engage in a new behavior encapsulate an ambivalent decision-making process. According to the theory of planned behavior, a person's intention constitutes a key determinant of a behavior (Ajzen, 2011). Ajzen (2011) posited that upon forming an intention, the likelihood of the behavior taking place also depended on factors extraneous to the individual such as resources and opportunities. Plotnikoff, Lubans, Trinh, and Craig (2012) drew a parallel to the transtheoretical model and indicated that an individual's intentions preceded progressions and regressions through the stages of change. These movements along the stages of change are characterized by ambivalent attitudes (Van Harreveld et al., 2015). For clarity of explanation, I present a pictorial representation of the transtheoretical model, the theory of planned behavior, stages of change, and ambivalence (see Figure 1).

Addressing a conceptual overlap, a study conducted by Courneya and Bobick (2000) suggested a potential integration between the constructs of the theory of planned

behavior and the processes and stages of change of the transtheoretical model. According to Ajzen (2011) the constructs of the theory of planned behavior (i.e., intention, perceived behavioral control, attitude) directly relates to an individual's stage of readiness. The cognitive-affective processes of the transtheoretical model, frequently used during the stages of change, are consistent with changes in attitudes and intentions prior to engaging in a new behavior. In line with the theory of planned behavior, a person's intent is influential in moving an individual from the preparation stage to the action stage (Harrell, Trenz, Scherer, Martins, & Latimer, 2013; Levesque et al., 2011).

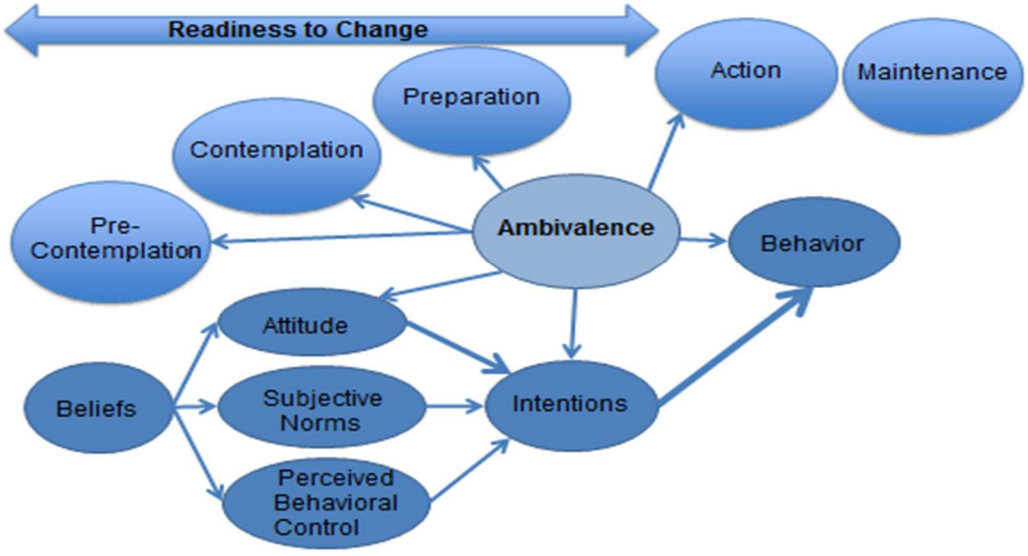

Figure 1. Interplay of ambivalence, readiness to change, and variables of transtheoretical model, and theory of planned behavior. Ambivalence is present in the early stages of change (i.e. pre-contemplation, contemplation, and preparation) of the transtheoretical model and it is related to readiness to change. Ambivalence also affects the attitude formation and intentions represented in the theory of planned behavior and associated with readiness to change. There is also a certain level of ambivalence during the enactment of the behavior.

Experimental studies provided evidence that the values of the variables of the theory of planned behavior linearly increased throughout the stages of change (Armitage, 2010; Horiuchi, Tsuda, Watanabe, Fukamachi, & Samejima, 2012; Forward, 2014). Research conducted by Armitage, Sheeran, Conner, and Arden (2004) revealed that two of those variables, self-efficacy and behavioral intention predicted most stage transitions. Focusing on the influence of attitudes on behavioral intention, Armitage, Povey, and Arden (2003) found evidence that attitudinal ambivalence was a good predictor of stage transitions.

Armitage and Conner (2001) demonstrated that less ambivalent attitudes towards a behavior were better predictors of an individual's behavioral intentions. In further analysis of the implications of ambivalence on behavioral change, Armitage and Arden (2007) found that that individuals in the preparation stage experienced the most ambivalence while pre-contemplators and people in the maintenance stage experienced the least ambivalence. Armitage, Povey, and Arden (2003) characterized ambivalence as an extension of the decisional balance and suggested that an intervention focusing on ambivalence could help people in the progression from earlier to later stages. An intervention targeting implementation intention augmented the possibility of stage progression (Forward, 2014). According to Miller & Rollnick (2013), the focus of motivational interviewing is on the resolution of ambivalence that characterizes a person's intentions to change. In an organizational change context, change leaders could use motivational interviewing to help individuals resolve the ambivalence associated with change-related behaviors.

Motivational Interviewing to Resolve Ambivalence to Change

Motivational interviewing is a dialectical approach to facilitate change. According to Miller and Rollnick (2013), the focus is to help individuals resolve their ambivalence towards changing targeted behaviors. A change agent seeks to elicit a person's intrinsic motivation through persuasion and support, rather than coercion and argumentation (Miller & Rollnick, 2013). Motivational interviewing is not about imposing perspectives on individuals; rather, a change agent's purpose is to increase the importance of change in a manner that is consistent with the person's values and beliefs (Miller & Rollnick, 2013).

Change agents applying motivational interviewing concentrate on the idiosyncratic nexus of ambivalence and change. Individuals experience ambivalence in the process of establishing the value of a behavior change, particularly when perceptions of short-term consequences are not rewarding (Hollis, Williams, Collins, & Morgan, 2014). Ambivalence is comprised of cognitive and emotional components that signal a person's inability to decide for a better choice and the experience of equal feelings of reluctance and desire to change. As such, resolving ambivalence utilizing motivational interviewing centers upon a communication style geared at evoking an individual's own reasons for supporting change that is to lead to the development of positive attitudes and intentions (Miller & Rollnick, 2013).

In this approach to resolving ambivalence, Miller and Rollnick (2002, 2013) drew a parallel with the theory of planned behavior when emphasizing the influence that beliefs about change had on a person's intention to change. The theory of planned

behavior posits that beliefs about behaviors result in the formation of the attitudes that influence behavioral intentions (Ajzen, 2011). In the context of organizational change, Bergquist and Westerberg (2014) validated the role of attitudes as predictors of behavioral intention. Defining intention as an individual's determination to engage in certain activities or to accomplish a future state, Bandura (1986) considered the role of intention critical in a person's self-regulation of behavior.

Developers of the transtheoretical model and motivational interviewing viewed these models as compatible and complementary adhering to an overall perspective that behavioral change was fundamentally self-change (DiClemente & Velasquez, 2002; Miller & Rollnick, 2013; Prochaska & Norcross, 2010). Although Wilson and Schlam (2004) noted the absence of a theory that would bring these two models together, Macdonald, Hibbs, Corfield, and Treasure (2012) asserted that both models considered change as a dynamic process where individuals displayed different levels of readiness or motivation to change. Both models conceptualized an individual's readiness to change as fluctuating and influenced by the type of relationship established between the change agent and the change recipient (Miller and Rollnick, 2013; Prochaska & Norcross, 2010). Within the organizational context, a number of researchers demonstrated that change was an interpersonal event emphasizing the need for change leaders to adopt a person-centered approach (Lawrence, 2015; Oreg & Berson, 2011; Seo et al., 2012). Change leaders need to understand the change recipient's perspective.

In the context of the transtheoretical model, Prochaska and Norcross (2010) positioned motivational interviewing as a major alternative to person-centered therapy

emphasizing process over content. Miller and Rollnick (2013) coincided in the person-centered approach to change that motivational intervention provided. Other researchers conceptualized motivational interviewing as a dynamic approach aligned with the type of change processes identified in the stages of change of the transtheoretical model (DiClemente & Velasquez, 2002).

The use of motivational interviewing underscores the role of change agents in their dialogical exchanges with change recipients. During these conversations, change agent need to match the change recipient's stage of change in order to help individuals achieve an inflection point favoring change. This is to take place in a supportive, directed manner emphasizing self-determination. A change agent also needs to be ready to adopt an action-oriented approach once the individual is ready to change (Price-Evans & Treasure, 2011). Scholars indicated that the transtheoretical and motivational interviewing models rely on a decisional balance as a cognitive and motivational tool to explore and resolve ambivalence (Lundahl, Kunz, Brownell, Tollefson, & Burke, 2010; Rollnick, Butler, Kinnersley, Gregory, & Mash, 2010). Researchers indicated that in both models, self-efficacy is a central construct to increase readiness to progress through the stages of change (Miller & Rollnick, 2013; Norcross et al., 2011).

Maintaining a change recipient perspective is key during motivational interviewing. Miller and Rollnick (2013) described motivational interviewing as a non-confrontational but directive approach that tapped into an individual's strengths, resources, and personal motivation to change. These authors framed motivational interviewing as a partnership whereas the change agent developed a collaborative

relationship based on the principles of expressing empathy, rolling with resistance, developing discrepancy, and supporting self-efficacy. In the first two principles, Miller and Rollnick (2013) highlighted the importance of active and reflective listening in a non-confrontational style that was not to raise defensiveness, denial, or resistance on the part of change recipients.

During motivational interviewing, change agents need to be aware of resistance to change. In the context of motivational interviewing, resistance or denial is an interpersonal variable signaling the change agent the need to change motivational strategies (Hardcastle et al., 2012, 2003; Rubak, Sandbaek, Lauritzen, & Christensen, 2005). It was in developing discrepancy and supporting self-efficacy that Miller and Rollnick (2013) emphasized the focus of motivational interviewing on instilling and resolving ambivalence towards the target behaviors. The principles of motivational interviewing remained unalterable since their inception in 1983. Since then, researchers expanded from an initial focus on a specific diagnostic-related behavior in the mental health field (i.e., addictions) to the facilitation of behavioral change across a broad array of settings and issues, except organizational change.

Ambivalent attitudes are ubiquitous during organizational change and characterize a person's unique interpretation of change. Research on individuals' reactions to organizational change revealed the preponderance of ambivalence and its overt and covert manifestations (Peachey & Bruning, 2012; Rafferty, Jimmieson, & Restubog, 2013; Smollan, 2012). Diclemente and Velasquez (2002) associated ambivalent attitudes with the early stages of change (i.e., precontemplation, contemplation, and preparation).

Miller and Rollnick (2013) suggested instilling ambivalence when individuals seemed emphatic about not wanting to engage in change talk as in the case of precontemplators. Change talk are verbal expressions signaling that a change recipient recognizes the need for change, expresses concerns for his or her current situation, reveales an intention to change or believes on the possibility of change (Miller & Rollnick, 2013). Hettema, Steele, and Miller (2005) observed that motivational interviewing drew from the theory of self-perception in that people became more committed to that which they heard themselves defend. Diclemente and Velasquez (2002) highlighted the importance of change agents utilizing the decisional balance with precontemplators and contemplators to evoke change talk about the target behaviors.

During motivational interviewing sessions, change agents need to be aware of the change recipient's particular stage of change. In fact, Miller and Rollnick (2013) considered conversations within the precontemplation and contemplation stages as preparatory talk reflecting the person's side of ambivalence in favor of change. These authors suggested that as people moved into the preparation and action stages of change the conversation was to focus on resolving ambivalence and securing commitment. Such characterization aligns motivational interviewing with the stage paradigm of the transtheoretical model requiring change agents to matching their approach to the stages of change (Lundahl et al., 2010).

Scholars established the effectiveness of motivational interviewing to facilitate a broad range of behavioral changes. Burke, Arkowitz, and Menchola (2003), proved the effectiveness of motivational interviewing when added to treatments for alcohol,

smoking, drugs, as well as diet and exercise. In a comprehensive meta-analysis of 72 clinical studies that included motivational interviewing as a stand-alone intervention, Hettema, Steel, and Miller (2005) found it to be effective in the domains of addictive and health behaviors. Researchers demonstrated that motivational interviewing was effective as a brief intervention to reduce alcohol consumption among treatment-seeking and nontreatment-seeking individuals (Riper et al., 2014). Scholars' review of randomized controlled trials provided evidence of the significant effect of motivational interviewing in different areas of intervention regardless of whether the presenting issues were psychological or physiological (e.g., diabetes/asthma, smoking cessation, weight-loss/physical activity, alcohol abuse, psychiatrics/addiction; Rubak, Sandbæk, Lauritzen, & Christensen, 2005). In a systematic meta-analytic review of 119 studies targeting substance abuse (i.e., tobacco, alcohol, drugs, marihuana), health-related behaviors (i.e., diet, exercise, safe sex), as well as gambling and treatment engagement, Lundahl et al. (2010) found that motivational interviewing produced significant positive effects. In the area of education, Goggin et al. (2010) successfully applied motivational interviewing in pharmacy school, while Sypniewski (2015) encouraged school nurses to incorporate it. In the criminal justice system, motivational interviewing was effective in promoting engagement in treatment and movement through the stages of change (McMurran & Ward, 2010).

Expanding on the potential applications of motivational interviewing, Miller (2010) argued that the approach could be beneficial to improve the delivery of healthcare. In the organizational context, motivational interviewing had positive effects on changing

employees' specific health-related behaviors (Linden, Butterworth, & Prochaska, 2010). Passmore (2011) and Newnham-Kanas, Morrow, and Irwin (2010) observed the benefits of applying motivational interviewing to executive coaching. Miller and Rollnick (2013) noted similarities with the widely accepted large group organizational intervention known as appreciative inquiry. I have found no evidence of research into the application of motivational interviewing to organizational change.

Summary and Conclusions

In the literature review, I revealed that the focus of research in organizational change had adopted a change agent perspective. Organizational members' responses to change fell into a categorical dichotomy of being either positive or negative attitudes. There has been a more frequent acknowledgment among organizational theorists and researchers of the key role of change recipients' responses in the success of change efforts. This perspective incorporates ambivalence as a third attitudinal component to consider in organizational members' responses to change depicting the simultaneous holding of positive and negative views about change.

Attitudinal ambivalence is a predominant response representative of the simultaneous positive and negative evaluations that an individual holds about proposed organizational changes. Such ambivalent cognitions become manifest in the early stages of change, which are descriptive of lower levels of readiness to change. During the process of change, movements along the stages of change relate to an individual's beliefs and the resolution of ambivalent attitudes.

An individual's ambivalent attitudes engender a certain level of discomfort compelling him or her to resolve it. It is in the individual's resolution of attitudinal ambivalence that progression through the stages of change can take place. Because change agents' focus on ambivalence induction and resolution when applying motivational interviewing, the approach can be helpful at facilitating individual behavioral change associated with organizational change. The approach already proved effective in an array of health related behavioral change (Miller & Rollnick, 2002, 2013). However, I found no evidence of motivational interviewing tested within the context of organizational change. In the current experimental study, I sought to address this gap. The following chapter provides a detailed description of my research into the evaluation of motivational interviewing as an approach to facilitate organizational change and my examination of the relationship between readiness to change and beliefs.

Chapter 3: Method

The purpose of this quantitative experimental study was to assess the effectiveness of a model geared to help employees resolve their ambivalence to change. In this research, I assessed organizational members' variations in beliefs and intentions to enact behaviors related to an organizational change effort. At the time of the study, organizational members had assumed different roles and responsibilities requiring the adoption of new behaviors. This tactical change initiative was in response to an internal restructuring in line with the organization's strategic plan.

The discussion to follow provides support for the applicability of the stages of change and belief constructs to behavioral changes. These two constructs encapsulate readiness to change and a set of five beliefs (i.e., discrepancy, appropriateness, principal support, efficacy, and valence) as the evaluating variables of motivational interviewing. In this chapter, I describe (a) the research rationale for the choice of design, (b) the methodology applied to evaluate motivational interviewing, and (c) the plan to analyze collected data. I also address issues concerning instrumentation, sampling, and ethics.

Research Design and Rationale

The primary objective of the study was to evaluate the effectiveness of motivational interviewing as an approach to enhance an individual's readiness to engage in required organizational change behaviors. The secondary objective was to assess the impact of motivational interviewing on change-related beliefs. The independent variable was the change approach, and the dependent variables were (a) readiness to change in the

context of the stages of change construct and (b) personal beliefs about change. Informed by the stages of change construct of the transtheoretical model, I measured differences in readiness to change between the group exposed to motivational interviewing and the control group. Movements along the stages of change model reflected variations on the person's change-related beliefs and intentions underlying readiness to change (see Figure 2). Before and after being exposed to motivational interviewing, I measured participants' readiness to change as well as beliefs with the use of two quantitative instruments: (a) the Job Change Ladder (JCL; see Appendix A for a copy of the ladder) and (b) the Organizational Change Recipients' Belief Scale (OCRBS; see Appendix B for a copy of this scale).

Motivational interviewing is an approach to change developed for the purpose of assisting individuals to progress through different stages of change towards a targeted behavior (Miller & Rollnick, 2013). These stages of change are characterized by ambivalent attitudes indicative of different levels of readiness to change (Miller & Rollnick, 2013; Prochaska & Norcross, 2010). In this study, I posited that the use of motivational interviewing by change leaders may influence readiness to change as measured by progression through the stages of change of the transtheoretical model. In the study, there was also an examination of the effect of motivational interviewing on the underlying beliefs of readiness to change. These concepts play a role in a person's intentions to enact a behavior. The stages of change model provided the framework for the assessment of motivational interviewing as an approach to influence intentions to

change behaviors associated with planned organizational change. The JCL (see Appendix A) was the instrument used to quantitatively measure the stages of change.

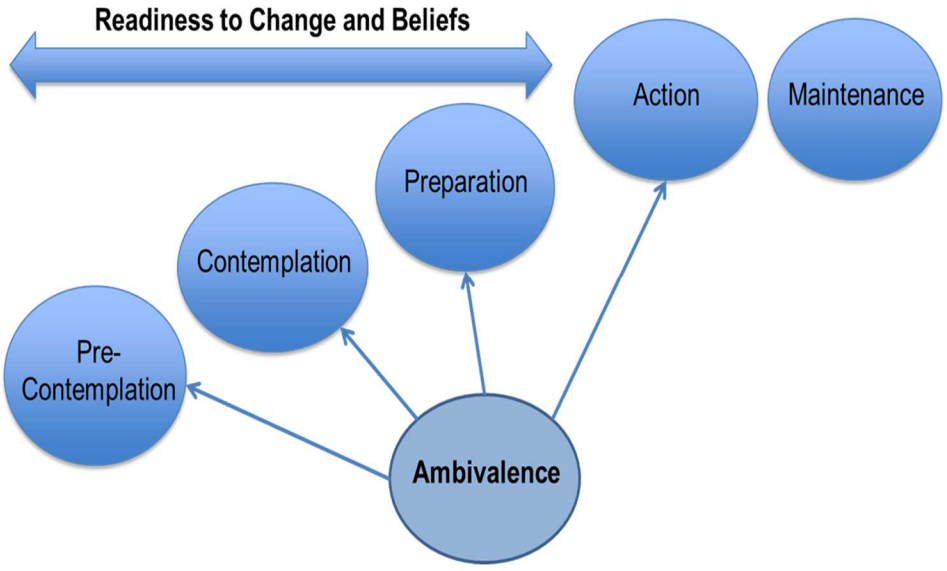

Figure 2. Beliefs, readiness to change, and the five stages of change of the transtheoretical model. The early stages of change (i.e., precontemplation, contemplation, and preparation) capture a person's readiness to change and beliefs about organizational change. Different levels of ambivalence characterize these stages.

As a continuous measure of readiness to change, the rungs in the change ladder depict numerical values that discretely measured the precontemplation, contemplation, and preparation stages. Movements along the continuum of the stages of change captured changes in readiness to change (see Figure 2). Higher posttest scores on the ladder depict progression towards the enactment of the change-related behavior and are reflected in improvement in a person's readiness to change. Similarly, lower posttest scores denote a declined in readiness to change.

The research design of choice was a quantitative experimental design, which featured random assignment of individuals to an experimental and a control group. Random assignment to groups facilitated causal inference by equating groups prior to the introduction of motivational interviewing. Internal validity of the design was strengthened by the administration of pretests and posttests on participants in order to determine time order and to generate data for comparison (Shadish, Cook, & Campbell, 2002). I administered these tests to both groups adhering to the same administration protocol in order to control for threats to internal validity due to instrumentation. I evaluated risk to causal inferences associated with maturation according to the type of work-related behavioral changes required by the organizational change. The Critical Task Inventory matrix (TCI; see Appendix C for distributed critical tasks inventory chart) was helpful at discerning behavioral changes. The highest risks to external validity originated from pretest sensitization and the provision of what participants may have perceived as organizationally acceptable posttest responses (Frankfort-Nachmias et al., 2015).

There were practical limitations to the study precluding access to employees and creating feasibility issues that led to the drawing of a sample from one organization in a particular industry. The organization was a small, privately owned logistics company with a workforce of approximately 100 employees providing products and services to institutions of higher learning. The company's industry classification codes are 5192 and 45321003 SIC and NAICS codes, respectively.

The Stages of Change and Belief Constructs

The stages of change are a core construct of the transtheoretical model (see Table 1). The construct postulated that there were five stages of change capturing intentions (i.e., precontemplation, contemplation, preparation) and new behaviors (i.e., action, maintenance; Prochaska & Norcross, 2010). Researchers have supported the application of the stages of change to studies of a wide range of problems and sample types. The construct was assessed with self-changers, as well as in scenarios involving outpatient therapy (Heather & McCambridge, 2013; Norcross et al., 2011; Prochaska & Norcross, 2010). Other applications of the model included organ donation research, treatment of patients with severe mental illnesses, and gambling and alcoholism treatments (Heather & McCambridge, 2013; Weldon & Ritchie, 2010). The range of application of the stages of change expanded to research in a variety of health-related behaviors (e.g., exercising, smoking, healthy lifestyle, physical activity, diets, self-management of pain, readiness to use a food thermometer when cooking, managing arthritis; Norcross et al., 2011). Researchers widened the theoretical scope of the stages of change from a multiplicity of applications to incorporate other change-related concepts.

Table 1

The Stages of Change of the Transtheoretical Model

Stage	Description
Precontemplation	Not considering the need for change. The person has no intention to take action in the short-term. The person may or may not have ambivalent attitudes. There is low readiness to change.
Contemplation	Considering the possibility of changing. The person intends to take action in a distant future. The person exhibits ambivalent attitudes. There is some readiness to change.
Preparation	The person intends to take action in the immediate future. The person exhibits ambivalent attitudes. There is high readiness to change.
Action	The person is taking action to change the behavior. The person may or may not be ambivalent.
Maintenance	Maintaining the behavior.

Note. Adapted from "Systems of Psychotherapy: A Transtheoretical Analysis" by J. Prochaska, and J. Norcross, J., 2010. (7th ed.). Belmont, CA: Brooks/Cole.

One of the most significant contributions of the stages of change model was the establishment of a conceptual link between the stages and the notion of a person's readiness to change (Miller & Rollnick, 2013). Each stage reflects a set of attitudes, intentions, and behaviors capturing an individual's readiness towards changing behaviors. Individuals may transition from the stage of not seeing or not considering the need for change (precontemplation), to becoming aware and considering the possibility of

behavior change (contemplation), to intending to take action to change (preparation), to taking action to change the behavior (action), and to maintaining the behavior (maintenance; Norcross et al., 2011). In an empirical study, Grant (2010) used the stages of change to differentiate levels of individual readiness to change as it related to adopting new leadership skills. Armitage et al. (2002, 2003, 2004, 2007) equated intentions to readiness to change in the context of the stages of change. This underscores the conceptual overlap of the theory of planned behavior and the transtheoretical model of change.

Researchers deepened the conceptual link between the stages of change construct and readiness to change, and included cognitive evaluative processes. There is theoretical and empirical support integrating stages of change and beliefs within the conceptualization of readiness to change (Holt & Vardaman, 2013). These beliefs characterize information individuals have regarding the performance of a behavior and representing cognitive dimensions of responses to change contributing towards the formation of positive, negative, and ambivalent attitudes (Ajzen, 2011; Piderit, 2000). In the context of organizational change, readiness for organizational change captures the collective of individual readiness to change influenced by beliefs of appropriateness, management support, efficacy, and valence that were to effect behavioral intentions (Stevens, 2013). There is theoretical and empirical support for five salient organizational change related beliefs (i.e. discrepancy, appropriateness, principal support, efficacy, and valence) that influence a person's readiness to change (Rafferty et al., 2013). In this

study, I included an assessment of change-related beliefs as explanatory variables of readiness to change.

Methodology

In the study, I used a quantitative experimental design for the evaluation of motivational interviewing. The research design consisted of an experimental group exposed to motivational interviewing and a control group (i.e., not exposed to motivational interviewing). The unit of analysis was the individual member of the organization and the population parameters were readiness to change and beliefs in the context of organizational change.

Population

Congruent with Frankfort-Nachmias and Nachmias (2008) population descriptors (i.e., content, extent, time), the research population comprised of members of an organization undergoing system-wide planned change at the time of the study. The size of the population of organizations undertaking systems change in the United States was unknown at the time of the study. The population's parameters to study were readiness to change as it related to the stages of change of the transtheoretical model and salient beliefs underlying readiness to change.

Sampling and Sampling Procedures

For this summative evaluation of motivational interviewing, my sample unit selection process followed a purposive sampling approach that allowed me to enlist members of a small, privately owned logistics organization located in the Midwest region of the United States. The selected organization met the representativeness criteria of

being in the early stages of implementing a planned change that exhibited ramifications throughout the entire system and affected all employees. The planned change in consideration encompassed a strategic shift requiring restructuring of the systems and processes of the entire organization. This change had behavioral implications on all members of the organization.

The units selected for inclusion in the purposive sample consisted of 56 employees that volunteered to participate. Participants were from all departments of the organization (i.e., accounting, human resources, information technology, inventory operations, sales, solutions and services, and warehouse). Due to the reallocation of roles conducted in alignment with the organization's strategic plan, participants were required to alter the way they conducted their work. Details of the strategic plan linked each employee's new roles to specific organizational objectives. All organizational members knew about the personal implications of the overall organizational change. The research took place within a couple of weeks that all organizational members received communication of the changes affecting each one of them. Participants' inclusion in either the experimental group (i.e., motivational interviewing) or the control group (i.e., nonmotivational interviewing) adhered to a random assignment process.

I calculated sample sizes for the univariate analysis of variance (ANOVA), multivariate analysis of variance (MANOVA), and linear multiple regression analysis based on effect size at a 0.05 alpha level (see Appendix D for full results from the G*Power output). The alpha (α) level, or the level of significance, defines the boundaries of the critical region of the distribution of sample means. Sample values falling in the

critical region provide evidence to reject the null hypothesis (Gravetter & Wallnau, 2013).

In regards to the effect size of motivational interviewing, I observed in the literature review a preponderance of moderate and large effects across a wide range of behaviors. The value of the effect size measures a treatment effect as an absolute value independently of sample size. Cohen's *d* is a simple and direct measure of effect size indicative of the distance separating the means of the experimental and control groups (Gravetter & Wallnau, 2010). Burke, Arkowitz, and Menchola (2003) in their review of 30 controlled research trials on adaptations of motivational interviewing determined an effect size ranging from $d = 0.25$ to $d = 0.57$ for health-related problems that included alcohol, drugs, diet and exercise. Rubak, Sandbæk, Lauritzen, and Christensen (2005) meta-analysis of controlled clinical trials of motivational interviewing found combined effect estimates of $d = 0.72$, $d = 4.22$, $d = 1.32$, and $d = 72.92$ in the reduction of body mass index, systolic blood pressure, number of cigarette per day, and blood alcohol content. Hettema, Steele, and Miller (2005) in their meta-analysis of 72 clinical studies of motivational interviewing established an effect size of $d = 0.88$ for behavioral intentions. In a meta-analytic review of the effectiveness of motivational interviewing in randomized control trials, Lundahl et al. (2013) determined a statistically significant omnibus effect size across 312 effect sizes.

For the purpose of my quantitative experimental study, and in order to enhance the statistical power of the univariate analysis of variance (ANOVA), multivariate analysis of variance (MANOVA), and linear multiple regression, I adopted the effect size

of $d = 0.5$. I entered this effect size together with a 5% level of significance for the two groups design and five predictors for the calculation of the sample size for each statistical method by the statistical software G*Power. I obtained an output from the statistical software indicatig total sample sizes of 54, 46, and 46 individuals for ANOVA, MANOVA, and linear multiple regression (see Appendix D for full results from the G*Power output).

Procedures for Recruitment, Participation, and Data Collection

The research site was an organization located in the Midwest region of the United States, employing close to 100 people, and competing at a national level in the market for the production and distribution of educational content. The company's president and CEO agreed to participate and appointed the manager of human resources as the contact person for the study. I do not hold present or past affiliation of any kind with this organization. To reassure confidentiality, I provided organizational leaders with a signed Confidentiality Agreement (see Appendix E for details of a sample confidentiality agreement).

According to the manager of human resources, the organization had a demographically diverse workforce that participated in regularly scheduled department meetings. Formal communication channels among members of the organization included group meetings, intranet, and e-mails. The manager also reported that not everybody had access to e-mails. For this reason, I conducted recruitment efforts for the research on-site and in person. Members of vulnerable populations did not participate in the study (e.g.,

students, patients, the researcher's subordinates, children, prisoners, residents of any facility, mentally/emotionally disabled individuals; Walden University, 2014).

Upon IRB proposal approval, I finalized details of the communications and recruitment plan with the company's human resources manager. Department managers provided input to help schedule meetings geared to contacting and recruiting employees. The research project commenced with an announcement from the CEO throughout the company's communications channels.

All information remained confidential and anonymous. Organizational leaders were given a signed copy of a confidentiality agreement (see Appendix E for full terms of the agreement). Participants received an informed consent form (see Appendix F for full consent form) identifying the researcher, sponsoring institution, purpose of the research, benefits for participating, and the scope and type of each participant's involvement. Participants received verbal and written assurance that they were considered volunteers for the study and that they could withdraw at any time. I also provided the names and contact information of persons available to answer participants' questions (Monette et al., 2014).

At the company, I distributed a set of three forms that included informed consent (see Appendix F), OCRBS (see Appendix B), and JCL (see Appendix A). Every set of forms had an identical four-digit code number linking the name in the informed consent to the instruments. Each set had a different code number.

Before potential participants started to complete the forms, I informed them about details of the research, explained forms, and answered questions that they had. In order to

facilitate privacy, I encouraged organizational members to maintain a distance of at least three feet from each other. Potential participants included individuals from all levels of the organization, including top management.

In order to better accommodate working schedules and minimize disruptions, the initial distribution of forms and the introduction of the research to potential participants followed a 3-step process. First, rather than attending multiple departmental meetings, the human resources manager asked me to initially meet those employees scheduled to work on the first day of my visit. For this meeting, organizational members congregated in an open area within the facility's warehouse. At that time, attending personnel completed the forms that I distributed and returned them to three separate black ballot boxes located on a table nearby. For ease of identification, these boxes had labels with the names of the forms (i.e., consent forms, JCL, and OCRBS).

Second, prior to my next scheduled visit, the human resources staff distributed blank sets of forms to personnel absent at the first meeting. These potential participants were asked to keep the forms and to bring them along when meeting me during the time of my follow-up visit to the facility. They also received the date, location, and length of time that I was going to be available on-site.

Third, I returned to the research location the week after my first visit for the collection of the initial set of forms from individuals previously absent. I arrived early and set the emptied black ballot boxes on a table located in a conference room. Employees stopped in at their convenience, asked questions, completed the forms, and placed them in the appropriate boxes located on a table inside the room. At the time I

collected posttests, members of the control group followed similar steps to the one just described for absent employees instead of meeting with me at their work location.

Upon return of the initial set of forms to the locked black ballot boxes, participants received copies of informed consents, signed and dated by me. I had sole custody of the locked ballot boxes and its contents at all times. Once the recruiting process and pretest administration ended, I took the locked ballot boxes back to my office located miles away from the company's site.

At my office and in private, I opened the ballot box containing the informed consents, reviewed for completion, counted the forms, and placed them back into the box. Subsequently, I started the lottery procedure to extract the forms from the box and set them aside until the count reached half of all the forms. This batch of completed and extracted informed consents provided the names of individuals assigned to the experimental group. There were 31 completed informed consent forms identifying the name of each volunteer that was going to participate in a set of three motivational interviewing sessions (i.e., experimental group).

Informed consents remaining in the ballot box constituted the control group. There were 38 signed informed consents in the box identifying the names of volunteers assigned to the control group. I then proceeded to move the non-selected inform consents constituting the control group to a manila folder labeled control group, and placed it back into the locked ballot box.

From the batch of extracted informed consents, I entered into a spreadsheet the names and corresponding code numbers that identified a particular JCL (see Appendix A)

and OCRBS (see Appendix B) held into the other manila folders. Later, I opened the ballot boxes containing the sets of two instruments (i.e., JCL, OCRBS) returned by potential participants. Next, I began extracting those forms with the identifying numbers matching those numbers in the list of members of the experimental group. This process recreated the original sets of forms for members of the experimental group. I later proceeded to place the forms in a folder labeled experimental group pre-tests and into one of the emptied locked ballot boxes relabeled experimental group.

Next, I placed the instruments left in the ballot boxes (i.e., JCL, OCRBS) into the manila folder holding the informed consents from the control group. This process reconstituted the original set of forms for members of the control group. I relabeled the folder as control group pretests and placed it into an emptied ballot box relabeled control group.

A password protected computer stored the list of members of the experimental group in spreadsheet format. I forwarded the list in an encrypted e-mail to the human resources manager of the company. The list did not include code numbers. I followed-up with a phone call to schedule dates, times, and location to conduct motivational interviews. The human resources manager made the necessary organizational arrangements for participants in the experimental group to meet with me at a particular time and location. The location was a private room within the company.

During the meetings, I set the agenda by asking participants about the types of jobs they performed (see Appendix C) and the description of new task requirements associated with the organizational change. Applying the principles of motivational

interviewing, I directed the conversation so that this information became the topic of conversation for asking open-ended questions and reflecting back on their answers. I verbally affirmed the participants' positive aspects and summarized the information manifested to me. I did not electronically record these interviews (i.e., audio, video). Summary notes from the meetings, decisional balances, and test instruments were the only paper and pencil material I used. Prior to the beginning of each session, I asked participants' permission to take notes. All participants granted permission. I proceeded to place a note pad and a pen on top of a nearby desk. At all times, participants were able to see the notes I was taking. These notes remained in my custody and made available to participants upon their request. I statistically assessed the effectiveness of motivational interviewing as an approach to change based on pre and posttest scores on measurements of participants' readiness to change and beliefs. All hard copies of instruments remained in my custody and securely stored in locked containers within a locked room my office.

As a trained facilitator, I conducted all motivational interviewing sessions. The stage-matched, person-centered, and directive guidelines of motivational interviewing required for me to adjust the communication style to an individual's particular stage of change. The interaction was non-confrontational in nature in which I collaborated and cooperated with the organizational member to help him or her become ready to change. During the one-on-one dialogical interaction, I sought to elicit change talk as the person explored pros and cons of his or her situation (Miller & Rollnick, 2013). The combination of verbalized intentions with a plan for implementation increased the possibility that the individual would engage in behavioral change (Nenkov & Gollwitzer, 2012).

A private workplace setting was secured in order to conduct one-on-one motivational interviewing sessions. Participants participated in three 25-minute sessions of motivational interviewing once a week for three consecutive weeks. Rubak's et al. (2005) stated that a statistically significant size effect could result with less than five brief meetings lasting 15 minutes each. The number and length of sessions were in line with the literature.

Members of both, the experimental and control group, completed the JCL (see Appendix A) and the OCRBS (see Appendix B) before and after motivational interviewing took place. I administered posttests to members of the experimental group immediately after their last motivational interviewing session. Following a process similar to the pretest administration, members of the control group stopped, at their convenience within a certain scheduled time, over at the private room to complete the posttest forms. Once participants arrived, I handed them the forms, invited them to complete them in the room. I removed myself from the room during this process. Upon completion, I proceeded to collect and place the forms in the locked black ballot boxes.

I collected demographic data such as age group, level of education, and years with the organization and statistically analyzed them to explore potential relevancy with readiness to change. Data collected remained in my custody and results presented in aggregate form. Particular individuals or circumstances were not identified. A copy of the final report, following confidentiality guidelines, will be available to organizational leaders. For the purpose of this research, individual follow-up meetings were not required; although I remained open and available for potential meetings with all

participants, should participants and leaders request it. As required by Walden University policies, all data will be destroyed five years after dissertation approval. A certified document destruction company will perform this task.

Instrumentation and Operationalization of Constructs

Data collection took place through the administration of the JCL (see Appendix A) and the OCRBS (see Appendix B). Participants scored readiness to change as it related to the stages of change on the JCL and key beliefs underlying their readiness to organizational change on the OCRBS (Armenakis et al., 2007; Biener & Abrams, 1991; Rafferty et al., 2013). Several researchers established the validity and reliability of the stages of change (Norcross et al., 2011). The questionnaires are adequate instruments to measure readiness to change and beliefs in the context of the stages of change.

The Stages of Change Questionnaire (SOCQ) also known as the University of Rhode Island Change Assessment Scale (URICA) was the first instrument developed to assess the stages of change in psychotherapy for patients with a broad range of problems (Norcross et al., 2011). The 32-item URICA measures attitudes toward change based on statements linked to precontemplation, contemplation, action, or maintenance stages, and assigned scores and profiles. Amodei and Lamb (2004) stated that this self-report measure has been used to measure readiness to change along discrete stages. In the context of organizational change, Holt et al. (2007) established that out of 32 instruments, the URICA scale was the only instrument with strong psychometrics showing evidence of construct, content, and predictive validity to measure readiness/intentions to change. In an organizational context, researchers used this instrument to measure readiness to

change among participants in a training program (Steele-Johnson et al., 2010). The characteristics of this instrument preclude its use to adequately measure readiness to change as a continuum.

The roots of contemplation ladders reside in the stages of change allowing researchers to use them as effective alternative methods to the URICA scale (Hogue et al., 2010). In contrast to the discrete measurement of stages of change of the URICA scale, Biener and Abrams (1991) developed the Contemplation Ladder as a continuous measure of readiness to change. Contemplation ladders constitute visual analogs with an 11-point Likert scale in the form of a ladder where the higher rungs represent greater readiness to change. Ladders were single choice, single-item measures with rungs numbered from 0 to 10 following a vertical graphical display. Verbal anchors in the contemplation ladder assisted participants to self-report their intentions to change, and to assess their level of readiness to change (LaBrie, Quinlan, Schiffman, & Earleywine, 2005). Using the statements as a guide, I prompted subjects in my study to select which rung (number) best represented their thinking, action, or both, about the potential behavior change at the moment of completing the scale (Amodei & Lamb, 2004). Although the Contemplation Ladder is in the public domain, Dr. Thaddeus Herzog, lead developer of the modified version of the ladder, personally granted me permission to use the instrument.

I measured change-related beliefs held by each person with the OCRBS (see Appendix B). In this instrument, participants provided scores for five beliefs foci: appropriateness, discrepancy, principal support, efficacy, and valence (Armenakis et al.,

2007). According to Armenakis et al. (2007, 2009), these beliefs constituted precursors to behavioral change as contextualized by the theory of planned behavior and the conceptualization of ambiguity as a predominant response to change. In their views, organizational members facing change develop beliefs related to proposed changes, the organization, and their personal situation. Discrepancy encapsulates the belief about the presence of a relevant gap between the desired future organizational state and its current state. Appropriateness relates to the belief that the proposed change to narrow such gap is adequate. Principal support captures the belief that leaders in the organization are committed to seeing change succeeds. Efficacy refers to beliefs that the individual and the organization could implement change, and valence reflects the belief that an individual could benefit from the change (Armenakis et al., 2007; Rafferty et al., 2013). These beliefs comprise five subscales in the OCRBS each containing four or five items in which participants express their level of agreement with each item by selecting a single option from a 7-point Likert scale. Dr. Achiles Armenakis, lead developer of the OCRBS, personally granted me permission to use the scale.

Validity and Reliability of Instruments

In satisfying the requirements of the American Psychological Association for scale development, Armonk's et al. (2007) reported that the OCRBS met the standards for construct and discriminant validity. The scale consists of 24 items to evaluate five core beliefs empirically confirmed to be applicable to organizational change efforts. Empirical testing of the scale demonstrated internal consistency, content, and criterion-related validity. The instrument has the appropriate psychometrics to support its use as a

framework to assess a change process such as motivational interviewing (Armenakis et al., 2007; Holt et al., 2007).

The Contemplation Ladder (CL) has strong construct validity as evidenced by the known-groups measuring technique (Biener & Abrams, 1991). As indicated by Frankfort-Nachmias, Nachmias, and DeWard (2015), such technique is used to assess the instrument's ability to discriminate between groups of individuals with known and distinguishable attributes. Scholars indicated that the CL has predictive and concurrent validity with behavioral indicators of intentions and reliability for measurements of precontemplation and contemplation stages of change (Pearson's correlations ranging from .94 to .98) among different modalities (Biener & Abrams, 1991; Hogue et al., 2010). Clair et al. (2011) found significant pre and posttest correlation ($r = .388$, $p \leq .001$) that demonstrated the reliability of a modified version of the CL.

Other studies provided evidence of the predictive validity of the CL in relation to readiness to change and movements along the stages of change (Herzog et al., 2000). LaBrie et al. (2005) found that a modified ladder outperformed longer questionnaires in predicting behavioral intentions when measuring readiness to change alcohol consumption and sexual activity. Several researchers also provided evidence for the convergent, concurrent, and predictive validity of the CL with established measures of stages of change such as the URICA scale (Amodei & Lamb, 2004; Hogue et al., 2010). A number of researchers demonstrated a strong reliability of contemplation ladders in measuring readiness to change smoking across a variety of populations (Hogue et al., 2010; Rohsenow, Martin, Tidey, Monti, & Colby, 2013).

Modified versions of the original CL had been validated for a variety of target behaviors, suggesting its potential for use in a broad set of behaviors (Coolidge et al., 2011). Modifications of the smoking cessation ladder were validated for assessing readiness to make other health behavior changes, such as increasing physical exercise, decreasing anorexic behaviors, reducing alcohol use, reducing marijuana use, as well as complementing interventions targeting these behaviors (Caviness et al., 2013; Coolidge et al., 2011; Magill et al., 2010). Modifications of the ladder had also been used in assessing readiness to seek employment in a sample of under-employed and unemployed welfare recipients, as well as alcohol and drug use (Hogue et al., 2010; Hogue, Dauber, Dasaro, & Morgenstern, 2010). Researchers found strong convergent and divergent construct validity of a modified CL developed to assess the readiness to change dental-avoidant behavior (Coolidge et al., 2011).

Modified contemplation ladders have adequate psychometric properties to measure readiness to change and their single-item format facilitates its administration in a wide variety of settings. Caviness et al. (2013) used modified contemplation ladder to assess the motivation to quit marijuana use among a female population. Hogue et al. (2010) found that a combined contemplation ladder developed to assess readiness to abstain from alcohol and drug use had adequate discriminant, convergent, concurrent, and predictive validity. More importantly, a number of clinical researchers used the modified ladders in randomized trials to assess the effectiveness of motivational interviewing in maintaining behavioral changes as well as enhancing readiness to change behaviors

(Carey, Henson, Carey, & Maisto, 2010; Hettema & Hendricks, 2010; Magill et al., 2010).

Because of its brevity, criterion and construct validity, strong psychometrics, as well as its ability to measure readiness to change as a continuum, I used a modified version of the contemplation ladder to evaluate the effect of motivational interviewing in relation to an individual's readiness in the context of organizational change (Amodei & Lamb, 2004; Coolidge et al., 2011). A ladder adapted from the CL measured readiness to change work-related behaviors as required by organizational change (see Appendix A; Biener & Abrams, 1991; Herzog et al., 2000; Herzog & Komarla, 2011; Hogue et al., 2010). The modifications introduced to the ladder were consistent with other modified ladders identified in the literature in that only the label of the behavior changed to accommodate the targeted behavior. Since the ladder maintained the structure and wording of sentences, with the exception of the specification of the targeted behavior, it was not necessary to conduct a pilot study. The structure of verbal anchors is a concrete measurement that facilitates the use of the modified ladder by individuals having difficulties with abstract thought (LaBrie et al., 2005). For clarity purposes in this study, the name of the instrument is Job Change Ladder (JCL; see Appendix A) and its administration took place before and after treatment.

Data Analysis Plan

In this quantitative experimental study, I evaluated the effect of motivational interviewing on readiness to change and beliefs. As per the literature, readiness to change and beliefs capture a person's intentions to enact new behaviors. The principal guiding

questions were (1) What is the effect of motivational interviewing on readiness to change? and (2) What is the effect of motivational interviewing on beliefs about organizational change? The graphic below depicts these relationships (see Figure 3).

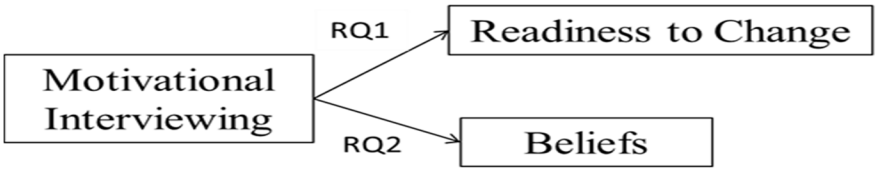

Figure 3. Schematic of the primary research questions. The abbreviations RQ1 and RQ2 refer to the research questions 1 and 2 that explore the relationships between motivational interviewing and readiness to change, as well as between motivational interviewing and beliefs, respectively.

In order to examine the effect of motivational interviewing on readiness to change the null hypothesis H_0 stated that there was no effect. That is, there were no differences between the means of the experimental and the control group ($\mu_1 = \mu_2$). The alternative hypothesis H_1 stated that differences existed and that motivational interviewing had an effect on readiness to change. Similar hypotheses applied for a separate assessment of the effect of motivational interviewing on beliefs.

One of the dependent variables was readiness to change job-related tasks. I assessed this variable by asking participants where on a ten-step decision ladder would they place themselves (see Appendix A). Participants selecting responses in the contemplation ladder ranging from 8 to 10 were identified as being in the preparation stage. Those selecting between 3 and 7 were considered contemplators while those selecting the lower rungs of the ladder with scores of 1 and 2 were classified as precontemplators (Herzog et al., 2000; Herzog & Komarla, 2011).

The other dependent variable in the study was the set of beliefs (i.e., discrepancy, appropriateness, principal support, efficacy, and valence) that participants had in relation to the organizational change. The OCRBS (see Appendix B) measured each belief. Respondents selected one point in the 7-point Likert scale that was a graphical continuum ranging from 1 (strongly agree) to 7 (strongly disagree).

The two quantitative instruments measuring the variables of readiness to change and beliefs were summative scales. Meyers et al. (2013) placed summative scales between ordinal and interval scales considering them as "acceptable, appropriate, and quite useful" in the behavioral and social sciences (p. 17). These authors indicated that summative scales possessed algebraic properties allowing for the calculations of meaningful means, and for the conducting of statistical analysis that commonly required interval or ratio measurements (e.g., ANOVA, multiple regression; Meyers et al., 2013). The JCL (see Appendix A) measured the dependent variable readiness to change, while the subscales of the OCRBS (see Appendix B) measured five beliefs as independent variables. Respondents completed these instruments by selecting numerical values assigned to the verbal anchors of their choice. I conducted the statistical analysis of the scores collected with these instruments using ANOVA, MANOVA, and multiple regression methods.

I analyzed the data collected from the one-way within-subjects and the one-way between-subjects research design employing the univariate analysis of variance (ANOVA) and the multivariate analysis of variance (MANOVA). The collection of this data took place via pre and posttest administration to both groups of the JCL (see

Appendix A) and OCRBS (see Appendix B). Data were in my custody. In this analysis, I addressed two research questions and their hypotheses:

1. What is the effect of motivational interviewing on readiness to change?

$H_0$1: There is no effect of motivational interviewing on readiness to change.

$H_1$1: There is an effect of motivational interviewing on readiness to change.

2. What is the effect of motivational interviewing on beliefs about organizational change?

$H_0$2: There is no effect of motivational interviewing on beliefs.

$H_1$2: There is an effect of motivational interviewing on beliefs.

I employed an experimental quantitative research design (see Figure 4) to examine these research questions. Patton (2012) asserted that a quantitative research approach was appropriate when conducting evaluations. In line with Shadish, Cook, and Campbell (2002) description of experiments, I randomly assigned participants to two different groups (i.e., an experimental and a control group).

Group A: O —— X —— O

Group B: O ———— O

Figure 4. Graphical representation of experimental and control groups in the study. Group A refers to the experimental group exposed to motivational interviewing sessions. Group B is the control group assigned to nonmotivational interviewing condition.

Data collection took place via the administration of pre and posttest. Members of both groups completed two quantitative instruments. In the following tables I describe the

test administration for the one-way within-subjects design (see Table 2) and the one-way between-subjects design (see Table 3).

Table 2

Administration of Pre and Post Tests in One-Way Within-Subjects Design

	Pre-Test	**Post-Test**
Motivational Interviewing	1. Readiness to Change 2. Beliefs	1. Readiness to Change 2. Beliefs
No Motivational Interviewing	1. Readiness to Change 2. Beliefs	1. Readiness to Change 2. Beliefs

Note. The first and second rows represent the experimental and control groups, respectively.

I tested the hypotheses about the populations' means at a .05 level of significance for a two-tailed test. A mixed ANOVA was utilized to address the first research question. A MANOVA was applied to address the second research question, and a Pillai's trace used to evaluate multivariate effects. In the event that there was statistical significance, univariate ANOVAs on each belief helped establish the locus of the statistically significant multivariate effect. The statistical package for social sciences (SPSS) was the software of choice to conduct data screening (e.g., identification of unusual values, missing value), to check assumptions, and to perform statistical calculations.

Table 3

Administration of Post Tests in One-Way Between-Subjects Design

	Post-Test
Motivational Interviewing	1. Readiness to Change 2. Beliefs
No Motivational Interviewing	1. Readiness to Change 2. Beliefs

Note. The first and second rows represent the experimental and control groups.

As part of the study, I investigated relationships between readiness to change and its five underlying beliefs (see Figure 5) as potential explanatory variables in relation to the stages of change. I statistically examined the relationships by conducting a multiple regression analysis. In this analysis, I addressed the third research question and hypotheses:

3. What is the relationship between beliefs and readiness to change?

$H_0$3: Beliefs do not account for a statistically significant amount of the variance of readiness to change.

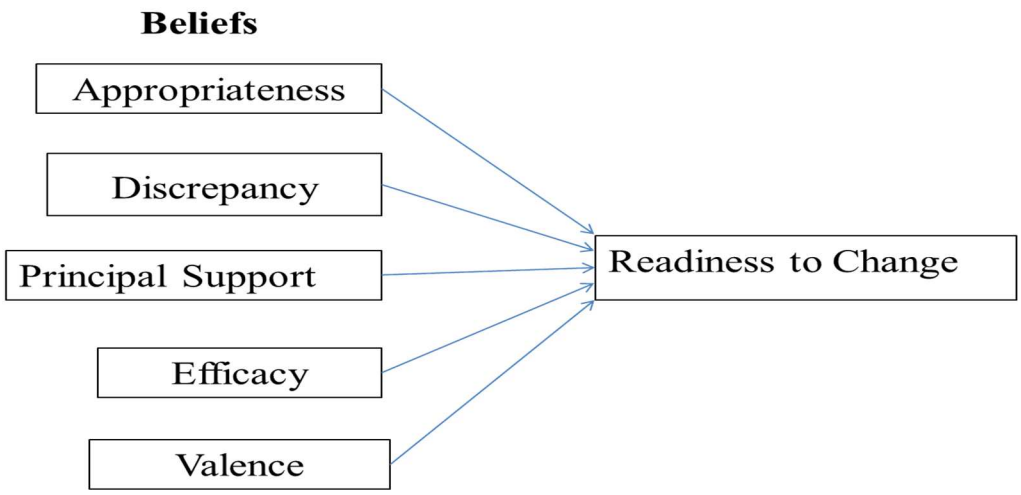

Figure 5. Graphical depiction of posited relationships between beliefs and readiness to change. The arrows depict the influence of each belief on readiness to change.

Based on the literature review, I assumed that the multiple regression model was fully specified capturing all important beliefs that explained the quantitatively measured dependent variable readiness to change. The standard statistical method built the variate or linear function. In this multiple regression model, the variate beliefs consisted of the equally weighted and quantitatively measured independent variables (a) appropriateness, (b) discrepancy, (c) principal support, (d) efficacy, and (e) valence. Interrelationships between readiness to change and beliefs, and between each belief were examined with the use of a correlation matrix. A correlation of .70 or higher between the dependent variable and any independent variable was to suggest the use of hierarchical analysis instead of a standard regression analysis. Secondly, a .70 or higher correlation between two independent variable was to suggest that I needed to consider removing one of the variables or combining them in a single composite variable prior to performing a standard regression analysis. Following an iterative process, in order to determine the weighting

coefficients for a particular belief, all other beliefs were to be statistically controlled by inserting them beforehand as a set into the model. In addition to calculations of the regression weights and constant, I analyzed correlation output (i.e., Pearson r, squared semipartial) to (a) identify correlation levels for the dependent and each of the independent variables, and (b) assess the relative strength of beliefs. I also calculated structure coefficients to assess the contribution of each independent variable to the variate. The value of the squared multiple correlation (R^2) was used to assess whether beliefs account for a statistically significant amount of the variance of readiness to change. The observance of a value of $R^2 > 0$ was indicative that beliefs accounted for a statistically significant amount of the variance of readiness to change.

Threats to Validity

External Validity

The highest risk to external validity originated from the use of a nonprobability sample design that threatened sample representativeness. The absence of a list of organizations undergoing change at the time of the study influenced the decision to adopt a nonprobability sample design (Frankfort-Nachmias et al., 2015). In order to enhance sample representativeness, I adopted a purposive sampling design (Monette et al., 2014). The screening criteria that I established for the purpose of the evaluation of motivational interviewing stipulated that the individuals selected for the study needed to be employees of an organization undergoing change at the time of the study. A second relevant characteristic for inclusion in the study was that the organizational change affected all members of the organization. A third element of the selection criteria was that the

change-related behaviors required from each employee had an impact on specific organizational objectives.

Reactive arrangements that could influence participants' responses also constituted threats to external validity of the evaluation. One of these threats was pretest sensitization in which participants could provide socially desirable posttests answers. In order to reduce this threat, participants were not aware of the links between their answers and the objective of the study. Another threat could emerge from the wording of the questionnaires. In order to minimize influencing respondents, the tests consisted of neutrally worded questions. A third threat was the unconscious influence that the change agent conducting motivational interviewing could have on participants completing the tests. In order to minimize unwanted influence, I was not present in the room at the time participants in the study completed the questionnaires.

Internal Validity

The random assignment of participants to the experimental and control group helped reduce threats to internal validity related to extrinsic factors, or factors prior to the study. The randomization process reduced possible biases and selection effects that could have implications on the attribution of causality to motivational interviewing. As indicated by Frankfort-Nachmias and Nachmias (2008) randomization statistically equalizes the initial differences between groups.

The use of a control group that was not exposed to motivational interviewing helped control intrinsic factors in the study. Threats to internal validity from history were not an issue because both groups were exposed to the same events during the course of

the study. The administration of pretests and posttests to both groups within a relatively short interval of time also helped reduce threats to internal validity from maturation and instrumentation. These tests helped establish time order and generated the necessary data for statistical analysis of causality. The use of a control group also helped counteract the selection-history interaction and the selection-maturation interactions. Participants' selection from the same organization also minimized the threat of selection-history interaction. Conducting the research in the early stages of the implementation of organizational change minimized threats to causality from spurious interventions.

Construct Validity

There may have been factors that played a role during the conduction of the study that threatened inferences about the effect of motivational interviewing on readiness to change. Participants' perceptions of the study or reactivity to the experimental situation constituted one type of threat to construct validity. Another threat to construct validity stemmed from reactivity due to posttest sensitization related to the use of self-reporting instruments. It was possible that participants responded to the novelty of the motivational interviewing sessions and provided biased responses. Participants in the control group may have experienced resentfulness or felt demoralized for not attending motivational interviewing sessions. There might have been cases of where the change agent somehow conveyed expectations about desirable answers to the questionnaires.

Ethical Procedures

Prior to any steps being taken toward the implementation of the quantitative experimental study, Walden University's Institutional Review Board approved this

research. Walden University's approval number for this study was 10-08-14-0148561. Ethical considerations also included the provision of assurances to participants that their names, and the information they provided remained confidential. Since the research was conducted in connection to their place of employment, participants may have had concerns as to potential loss of their jobs or other negative repercussions (formal or informal). Participants received assurances in writing, through an informed consent form, and verbally, that all information was confidential and anonymous.

The informed consent form (see Appendix F) identified the researcher, the sponsoring institution, the purpose of the research, the benefits for participating, and the level of participant's involvement. Participants were informed of any risks, ensured of confidentiality, and provided the assurance that they can withdraw at any time. Participants also received the names of persons to contact for additional information (Monette, Sullivan, DeJong, & Hilton, 2014).

I distributed informed consent forms to all participants together with sets of forms prior to conducting motivational interviewing sessions. In any of the studies in the literature review, I encountered a report of harmful or adverse effects related to the utilization of motivational interviewing. Rubak et al. (2005) meta-analytic review revealed that training in motivation interviewing was sufficient to have a statistical significant effect.

Because the evaluation of motivational interviewing as an individual technique required one-on-one meetings with participants lasting approximately 25 minutes, the human resources manager at the workplace secured a private environment. As a trained

facilitator, I met with subjects individually in order to engage in motivational interviewing conversations. Over the past seven years, I have received extensive training encompassing the complete reading of the second and third edition of the books written by the developers of motivational interviewing. I observed over 4 hours of training videos, and attended over 16 hours of classes that included feedback on its use, and the auditing of motivational interviewing presentations. I also received feedback on its use from practicing psychotherapists versed in the use of motivational interviewing. I consistently apply the principles of motivational interviewing in my interactions with my staff and clients. In addition, I continue monitoring research on motivational interviewing in order to stay current with the latest developments. For this study, I did not receive compensation of any kind.

The choice of quantitative research method minimized potential concerns about researcher bias. Data collected remained in my custody and results were presented in an aggregate manner without identification of particular individuals or circumstances. A copy of the final report following confidentiality guidelines will be available to organizational leaders. Destruction of all data via a certified document destruction company will be after five years from dissertation approval.

Because of the nature of their positions, key organizational leaders participated early on in the process to secure access to study participants and to the research site. Information regarding time requirements for the study (e.g., interviews, total length of time for research), potential impact, and outcomes of research were formally addressed in written manner with organizational leaders (Monette et al., 2014). Organizational leaders

received assurance of my commitment to minimum disturbance to the productivity of the workplace connected to the study.

In this study, I empirically assessed the effect of motivational interviewing on individuals' readiness to change when facing job-related changes in connection with organizational changes. Pre and posttest instruments were the only recording material that participants in motivational interviews completed. There were no electronic recordings of the meetings and only notes, including decisional balances, on relevant aspects transpiring from the conversations were maintained. These notes remained in my custody and I made them available to participants upon their request. I statistically assessed the implications of motivational interviewing as an approach to change based on pre and posttest scores on measurements of participants' readiness to change and beliefs. All material was in my custody. Hard copies remained stored in locked containers and electronic material password protected.

Summary

In this quantitative experimental study, I expanded on a stream of research on the psychology of organizational change that emphasized the employee's perspective on change. As a person-centered, yet directive approach to change, motivational interviewing has been extensively researched across a variety of settings, professions, behaviors, and cultures. In contrast, I found no evidence in the literature review of an evaluation of the effectiveness of this approach in the context of behaviors related to organizational change.

In the evaluation of motivational interviewing as an approach to facilitate organizational change as assessed by variations in readiness to change and beliefs, I opted for a purposive sampling strategy. The screening criteria for the selection of units required participants to be employees of an organization undergoing a system-wide organizational change at the time of the study. This criteria best served the purpose of evaluating motivational interviewing in the context of organizational change. The random assignment of participants to an experimental and a control group within a mixed research design strengthened internal validity of the study.

In the research, I administered tests before and after the conduction of motivational interviewing sessions as part of the data collection procedure. The instruments that participants completed in order to measure readiness to change and change-related beliefs were of sound psychometric properties. The forwarded protocols for recruitment and the conduction of activities related to motivational interviewing met strict ethical standards. The next chapter provides details of the study when taken to the field.

Chapter 4: Results

The high rate of organizational failure led organizational scientists to explore beyond the traditional dichotomy of organizational members' resistance and readiness to change. Researchers demonstrated that individuals could simultaneously support and resist organizational change (Oreg & Sverdlik, 2011). These ambivalent attitudes constituted ubiquitous responses on the part of organizational members facing behavioral changes (Burke, 2011; Oreg & Sverdlik, 2011). Theories of behavioral change such as the transtheoretical model and the theory of planned behavior lent support to this contention underscoring ambivalence in the context of readiness and intentions to engage in the enactment of organizational change-related behaviors.

There is an inverse relationship between ambivalence and readiness to change, suggesting that individuals progress through the stages of change as they experience a declining level of ambivalence towards the enactment of the new behavior. An individual exhibits more ambivalence in the precontemplation stage than in the preparation stage of change. Individuals could resolve their ambivalence in such a manner that their positive cognitions associated with the benefits of change could outweigh their negative cognitions or costs of change. Based on the positive resolution of this attitudinal evaluation, individuals could become more committed to engage in new behaviors. Capturing such resolution of ambivalence, the motivational interviewing approach to change proved successful in an array of health-related behavioral changes and showed potential applicability to the field of organizational development and change (Miller & Rollnick, 2013).

The purpose of this quantitative experimental study was to assess the effectiveness of a model geared to help employees resolve their ambivalence to change. The focus of motivational interviewing is on change recipient's ambivalence expressed as the simultaneous support and rejection of change. There is a paucity of research on change recipients' ambivalent attitudes towards organizational change. In this chapter, I describe the data collection procedures and the results of the evaluation of motivational interviewing. The three research questions and their hypotheses are listed below:

1. What is the effect of motivational interviewing on readiness to change?

$H_0$1: There is no effect of motivational interviewing on readiness to change

$H_1$1: There is an effect of motivational interviewing on readiness to change

2. What is the effect of motivational interviewing on beliefs about organizational change?

$H_0$2: There is no effect of motivational interviewing on beliefs

$H_1$2: There is an effect of motivational interviewing on beliefs

3. What is the relationship between beliefs and readiness to change?

$H_0$3: Beliefs do not account for a statistically significant amount of the variance of readiness to change.

$H_1$3: Beliefs account for a statistically significant amount of the variance of readiness to change.

Data Collection

Data collection took place during a 30-day period at the organization's location in the Midwest region of the United States. At that time, the company's workforce consisted

of approximately 100 individuals working first shift. Initially, 69 of 70 the eligible organizational members volunteered to participate and signed informed consent forms. The person declining to participate simply returned the blank forms. Due to attrition, 56 employees completed all research-related activities. Sample units conformed to the sample representativeness criteria of (a) being employees of an organization undergoing system-wide organizational change that affected all employees and (b) the required change-related behaviors affected specific organizational objectives.

At the time of research, there were organizational members absent due to vacations, traveling, or illness. Fifty six individuals, representing an approximate 56% response rate, completed all of the research requirements that included the completion of two sets of forms as pre and posttests. The 56 participating individuals exceeded by two the minimum amount of participants statistically necessary to evaluate the effectiveness of motivational interviewing. Participants' distribution to either the experimental or the control group followed a random assignment process. I ensured that the experimental and control groups were equivalent or probabilistically equal.

Scores on the tests administered before and after the motivational interviewing sessions supplied the necessary data for the statistical analysis of participants' readiness to change, as well as beliefs. As planned, I conducted three sessions of motivational interviewing with each one of the individuals randomly selected to be a part of the experimental group. These one-on-one meetings lasted approximately 25 minutes and took place in a private room specifically designated for this research. For all statistical calculations, I used the statistical package for social sciences (SPSS) software.

The examination of the demographic characteristics (see Table 4) shows that nine out of 10 participants were over 25-years-old. More than half of the sample population (55.4%) held college degrees. At the time of the research, almost all participants (98.3%) had been working less than 10 years with the company. Table 5 exhibits frequency distribution of participants' scores in the job change ladder whereas two thirds of participants were in the contemplation stage and the rest in the preparation stage.

Table 4

Demographic Characteristics of Participants (N=56)

Characteristic	*n*	%
Age at time of survey (years)		
18-25	6	10.7
26-35	17	30.4
36-45	16	28.6
46 plus	17	30.4
Education level completed		
High school	13	23.2
Some college	12	21.4
College	31	55.4
Number of years with the company		
Less than 5	31	55.4
6-10	24	42.9
11-15	1	1.8

Table 5

Stages of Change Distribution as per Responses to Pre-Test Job Change Ladder

Score	*n*	%	Cumulative %	Stage of Change
3	4	7.1	7.1	Contemplation
4	3	5.4	12.5	Contemplation
5	6	10.7	23.2	Contemplation
6	6	10.7	33.9	Contemplation
7	7	12.5	46.4	Contemplation
8	11	19.6	66.1	Contemplation
9	9	16.1	82.1	Preparation
10	10	17.9	100.0	Preparation

Study Results

The primary research question to evaluate the effectiveness of motivational interviewing on readiness to change required conducting a comparison between the posttest mean for the group exposed to motivational interviewing (i.e., experimental group) and the posttest mean for the base line group (i.e., control group). As a secondary objective, I examined differences in change-related beliefs between these two groups. In the third research question, I investigated the role of beliefs as explanatory variables of readiness to change. Lastly, I explored differences in readiness to change among different age groups.

Table 6 reveals that the mean value of readiness to change for the experimental group was lower than the mean value of the control group prior to the beginning of motivational interviewing sessions. Table 7 portrays the mean values for the participants' change-related beliefs considered in the study (i.e., discrepancy, appropriateness, principal support, efficacy, and valence).

Table 6

Pretest Means, Standard Deviations, and Standard Error of Readiness to Change by Group Assignment

	Experimental Group			Control Group		
	Pre-Test			Pre-Test		
Variable	*M*	*SD*	*SE*	*M*	*SD*	*SE*
Readiness to Change	5.86	1.62	0.22	8.81	1.495	0.20

Table 7

Posttest Means and Standard Deviations of Change-Related Beliefs by Group Assignment

	Experimental Group		Control Group	
Variable	*M*	*SD*	*M*	*SD*
Discrepancy	23.41	4.213	21.33	4.723
Appropriateness	32.17	3.219	29.74	4.752
Efficacy	31.21	3.353	30.11	5.451
Principal Support	37.59	3.841	34.93	6.281
Valence	21.48	3.786	20.04	3.956

Motivational Interviewing and Readiness to Change

The first question guiding the research was whether motivational interviewing had an effect on readiness to change as indexed by the scores on the job change ladder. I tested the null hypothesis that motivational interviewing had no effect on readiness to change. This test required determining whether there were statistically significant differences in mean scores between the randomly assigned control and experimental groups over time. To address this issue, I analyzed the readiness to change data collected via the administration of pre and posttest job change ladders using the mixed ANOVA statistical technique.

The pre-post-control mixed factorial design of the research justified the use of the mixed ANOVA statistical technique. Constituting a 2x2 mixed factorial design, the pre-

post-control mixed design is a combination of the between-subjects design and the within-subjects design (see Table 8). The design consists of readiness to change as the within subject variable with pre and post levels, and motivational interviewing as the between subject variable with two levels (i.e., exposed to motivational and not exposed to motivational interviewing). The posttest score difference between the experimental and the control group is central to the statistical analysis.

Table 8

The Mixed Research Design of the Study

	Time 1 – Pre-Test	Time 2 – Post-Test
Experimental Group	Experimental Group	Experimental Group
Motivational Interviewing	Pre-Test	Post-Test
Control Group	Control Group	Control Group
Non-motivational Interviewing	Pre-Test	Post-Test

For a mixed ANOVA to provide a valid result, I needed to test the data for four assumptions: (1) outliers; (2) normal distribution; (3) homoscedasticity or homogeneity of variances; (4) and homogeneity of covariances. The presence of only one correlation in fewer than three groups precluded testing of the sphericity assumption.

According to the results of the data screening process, the dataset contained no missing values for the variable readiness to change and that those values fell within the range of expectations. These values were verified as legitimate for every case through the inspection of a frequency table. There were two outliers in the data, as assessed by

inspection of a boxplot for values greater than 1.5 box-lengths from the edge of the box. Two members of the control group scored very low in readiness to change. One individual in the control group scored very low in the pre and the posttest. However, the posttest score was higher than the pretest score signaling that the level of readiness to change of the person not exposed to motivational interviewing increased during the time of the research. The other individual scored very low in the posttest. Upon further examination, I found no reasons to exclude them from consideration. I determined that the outliers were genuine data points that would not materially affect the results. Readiness to change scores departed from normality for each level of the independent variable as assessed by Shapiro-Wilk's test ($p < .05$). Notwithstanding this violation, the test continued as the mixed ANOVA was somewhat robust to departures from normality. There was homogeneity of variances, as assessed by Levene's test of homogeneity of variance ($p > .05$).

The experimental and control groups were equivalent after random assignment of participants (see Table 9). The initial examination of the data illustrated the possibility of a statistical significant interaction term. Based on the combination of levels of the between- and within-subjects factors, the descriptive statistics (see Table 10) revealed that the experimental group's posttest mean scores in readiness to change increased, as measured by ladder scores. On the other hand, mean scores in readiness to change for the control group declined.

Because of the unequal number of cases in cells, the estimated marginal means provides an adequate depiction of means (see Table 11). Further inspection of the plotted

data (see Figure 6) suggested the possibility of a statistical significant interaction and main effect terms for time and group. The profile plot produced by SPSS visually displays the crossing of the estimated marginal means lines for readiness to change. The absence of parallel lines suggested the presence of an interaction, as the experimental group's change from pretest to post-test was greater than the pretest to posttest change of the control group.

Table 9

Group Assignment by Employees' Roles

	Experimental	Control
Management	20.6%	22.2%
Workers	79.4%	77.8%

Table 10

Descriptive Statistics

	Participant Group Assignment	Mean	Std. Deviation	N
Ladder Pre-Test Scores	Experimental	5.86	1.620	29
	Control	8.81	1.495	27
	Total	7.29	2.147	56
Ladder Post-Test Scores	Experimental	7.83	1.649	29
	Control	8.74	1.701	27
	Total	8.27	1.721	56

Table 11

*Interaction Term : Group Assignment*Time*

Participant Group Assignment	Time	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Experimental	1	5.862	.290	5.281	6.443
	2	7.828	.311	7.204	8.451
Control	1	8.815	.300	8.213	9.417
	2	8.741	.322	8.095	9.387

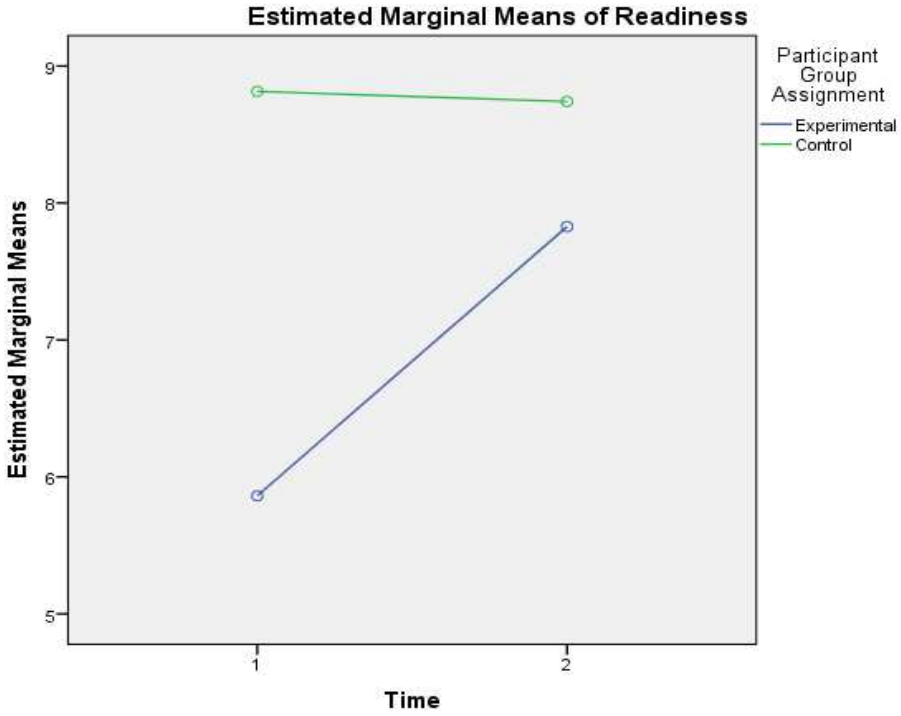

Figure 6. Estimated marginal means of readiness to change. The vertical axis represents readiness to change. The horizontal axis depicts pretest values at time 1 and posttest values at time 2. The line representing the experimental group has a positive slope while the line representing the control group is relatively flat.

According to the results of the analysis, there was a statistically significant interaction between motivational interviewing and time on readiness to change, $F(1,54) = 39.850$, $p < .0005$, partial $\eta^2 = .425$. Discriminatory analysis for simple main effect for group showed that there was a statistically significant difference in readiness to change between the experimental and the control groups at time 2, $F(1, 54) = 4.161$, $p = .046$, partial $\eta^2 = .072$. Testing for the simple main effects for group meant testing for differences in readiness to change between the experimental and control group at each level of the within-subjects factor, time. Results for simple main effect for time

concluded that there was a statistically significant effect of time on readiness to change for the group exposed to motivational interviewing, $F(1, 28) = 95.159$, $p < .0005$, partial $\eta^2 = .773$. Testing for the simple main effects for time meant testing for differences in readiness to change between time points for each level of the between-subjects factor, group. Further examination via pairwise comparisons (see Table 12) indicated that for the experimental group, readiness to change was statistically significantly increased at post-motivational interviewing compared to pre-motivational interviewing ($M = 2.0$, $SE = 0.20$, $p < .0005$).

Table 12

SPSS Output: Pairwise Comparison for the Experimental Group

Pairwise Comparisons[a]

Measure: Readiness

(I) Time	(J) Time	Mean Difference (I-J)	Std. Error	Sig.[c]	95% Confidence Interval for Difference[c]	
					Lower Bound	Upper Bound
1	2	-1.966*	.201	.000	-2.378	-1.553
2	1	1.966*	.201	.000	1.553	2.378

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

a. Participant Group Assignment = Experimental

c. Adjustment for multiple comparisons: Bonferroni.

The *F* values produced by the statistical analysis support the assertion, with a 95 percent confidence, that motivational interviewing distinguished the experimental group and the control group from each other on readiness to change. Motivational interviewing had an effect on readiness to change. Members of the experimental group exposed to

motivational interviewing reported statistically significant higher levels of readiness to change than participants in the control group. The obtained value of partial $\eta 2 = .425$ in relation to the interaction between motivational interviewing and time denoted the strength of this effect. In terms of Cohen's *f* (see Table 13), this is a large size effect (Gray & Kinnear, 2012). The statistical analysis rejected the null hypothesis at a 0.05 alpha level and provided evidence of the effect of motivational interviewing on readiness to change.

Table 13

Assessing values of partial eta squared and Cohen's f

Size of Effect	Partial Eta Squared	Cohen's f
Small	$0.01 \leq \eta 2 < 0.06$	$0.10 \leq f < 0.25$
Medium	$0.06 \leq \eta 2 < 0.14$	$0.25 \leq f < 0.40$
Large	$\eta 2 \geq 0.14$	$f \geq 0.40$

Note. Adapted from "IBM SPSS Statistics 19 Made Simple," by C. Gray, and P. Kinnear, 2012. New York, NY: Taylor and Francis.

Motivational Interviewing and Beliefs

In the second research question I examined the effect of motivational interviewing on a set of five beliefs (i.e., discrepancy, appropriateness, principal support, efficacy, and valence) related to organizational change. The null hypothesis stated that motivational interviewing had no effect on these change-related beliefs. A two-group between-subjects MANOVA was the statistical technique of choice to address this question. The MANOVA combined the five change-related beliefs into a composite or vector of the

means in such a way as to maximize the differences between the experimental and the control group. As such, MANOVA tested for statistically significant differences between groups as it related to the composite variable.

The set of dependent variables beliefs in the study were discrepancy, appropriateness, efficacy, principal support, and valence. Participants' scores on the organizational change recipients' beliefs scale provided the data for analysis (see Table 14). The screening of the data produced four positive results: (1) there were no missing values for the different beliefs, (2) beliefs values were legitimate, (3) there was independence of observations, and (4) sample size was adequate. For a one-way MANOVA to be able to provide a valid result, I needed to test seven assumptions: (1) independence of observations, (2) adequate sample size, (3) univariate or multivariate outliers, (4) multivariate normality, (5) presence of a linear relationship, (6) homogeneity of variance-covariance matrices, and (7) absence of multicollinearity.

Table 14

Descriptive Statistics

Dependent Variable	Group	Mean	Std. Error	95 % Confidence Interval	
				Lower Bound	Upper Bound
Discrepancy	Experimental	23.414	.829	21.751	25.076
	Control	21.333	.859	19.610	23.0056
Appropriateness	Experimental	32.172	.748	30.672	33.673
	Control	29.741	.776	28.186	31.296
Efficacy	Experimental	31.207	.833	29.536	32.878
	Control	30.111	.864	28.380	31.843
Principal Support	Experimental	37.586	.959	35.664	39.508
	Control	34.926	.993	32.934	36.918
Valence	Experimental	21.483	.718	20.042	22.923
	Control	20.037	.745	18.544	21.530

According to the results of the analysis of assumptions, there were four univariate outliers distributed among the variables valence, efficacy, appropriateness, and discrepancy, as assessed by inspection of their boxplots. Upon further examination of data, I determined that the outliers were genuine data points that would not materially affect the results. There were no multivariate outliers in the data, as assessed by Mahalanobis distance ($p > .001$). Valence and discrepancy (control group) scores were normally distributed as assessed by Shapiro-Wilk's test ($p > .05$). Appropriateness,

efficacy, principal support, and discrepancy scores (experimental group) violated normality assumptions as assessed by Shapiro-Wilk's test ($p < .05$). Notwithstanding these violations, the test continued as the one-way MANOVA was robust to departures from normality. Beliefs depicted correlations between each other ranging from low (r = .017) to moderately high (r = .851) and there was no multicollinearity, as assessed by Pearson correlations coefficients smaller than 0.9 (see Table 15). There were linear relationships between variable scores in each group, as assessed by scatterplot. There was homogeneity of variance-covariances matrices, as assessed by Box's test of equality of covariance matrices ($p = .124$). Participants in the experimental group scored higher mean values in all five beliefs (i.e., discrepancy, appropriateness, efficacy, principal support, and valence) than members of the control group (see Table 16). According to the results from the MANOVA test, there was not a statistically significant difference between the experimental and control groups on the combined beliefs, $F(5, 50) = 1.704$, $p = .151$; Pillai's Trace = .146; partial $\eta^2 = .146$. According to the results, the statistical analysis failed to reject the null hypothesis at a 0.05 alpha level.

Table 15

SPSS Output: Correlations

Correlations

		Discrepancy	Appropriateness	Efficacy	Principal_Support	Valence
Discrepancy	Pearson Correlation	1	.381**	.017	.041	.270*
	Sig. (2-tailed)		.004	.899	.765	.044
	N	56	56	56	56	56
Appropriateness	Pearson Correlation	.381**	1	.695**	.775**	.567**
	Sig. (2-tailed)	.004		.000	.000	.000
	N	56	56	56	56	56
Efficacy	Pearson Correlation	.017	.695**	1	.851**	.529**
	Sig. (2-tailed)	.899	.000		.000	.000
	N	56	56	56	56	56
Principal_Support	Pearson Correlation	.041	.775**	.851**	1	.589**
	Sig. (2-tailed)	.765	.000	.000		.000
	N	56	56	56	56	56
Valence	Pearson Correlation	.270*	.567**	.529**	.589**	1
	Sig. (2-tailed)	.044	.000	.000	.000	
	N	56	56	56	56	56

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 16

SPSS Output: Standard Errors and Confidence Intervals

Group

Dependent Variable	Group	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Discrepancy	Experimental	23.414	.829	21.751	25.076
	Control	21.333	.859	19.610	23.056
Appropriateness	Experimental	32.172	.748	30.672	33.673
	Control	29.741	.776	28.186	31.296
Efficacy	Experimental	31.207	.833	29.536	32.878
	Control	30.111	.864	28.380	31.843
Principal_Support	Experimental	37.586	.959	35.664	39.508
	Control	34.926	.993	32.934	36.918
Valence	Experimental	21.483	.718	20.042	22.923
	Control	20.037	.745	18.544	21.530

Beliefs and Readiness to Change

In order to assess the relationship between beliefs and readiness to change forwarded in the third research question, a standard multiple regression was the statistic technique of choice. The objective of my analysis was to determine whether participants' beliefs (i.e., discrepancy, appropriateness, principal support, efficacy, and valence) could explain readiness to change. The null hypothesis stated that beliefs did not account for a statistically significant amount of the variance of readiness to change.

The validity of results from a multiple regression test depended on the data satisfying assumptions of independence of errors (residuals), a linear relationship between beliefs as well as the composite and readiness to change, homoscedasticity of residuals, no multicollinearity, no significant outliers or influential points, and errors (residuals) normally distributed. There was independence of residuals, as assessed by a Durbin-Watson statistic of 2.026. There were no violations of overall linear relationships and homoscedasticity as assessed by inspection of the scatterplot of residuals versus predicted values. Partial regression plots of each belief and readiness to change also depicted linear relationships. Inspection of collinearity statistics showed that tolerance values were greater than 0.1 (the lowest was 0.184) indicating that there were no multicollinearity problems. According to the data, there were no outliers as assessed by the absence of studentized deleted residual values greater than +3 or -3 standard deviations. There were five data points above the safe leverage value of 0.2. These cases remained in the analysis because they did not raise concerns. There were no influential cases as Cook's Distance values in the data were below 1. According to the residuals, the

distribution was normal as assessed by inspection of the P-P plot of regression standardized residual.

The effect of the regression model was statistically significant $F(5, 50) = 4.898$, $p < .0005$, $R^2 = .329$, Adjusted $R^2 = .262$. The regression model was a good fit for the data suggesting that the beliefs (i.e., discrepancy, appropriateness, principal support, efficacy, and valence) in combination significantly explained readiness to change. The five beliefs explained 33% of the variance of readiness to change. The adjusted R^2 is estimated of the effect size, which at 0.262 (26.2%) was indicative of a medium effect size. Adjusted R^2 values are smaller than the R^2 values due to the adjustment that takes into account the number of predictors and sample size (Meyers et al., 2013). According to Cohen's (1988) classification, an R^2 value of approximately .25 and .40 indicated an effect of medium and large magnitude, respectively.

According to the results, the statistical analysis rejected the null hypothesis at a 0.05 alpha level and revealed that the belief efficacy statistically significantly ($p < .05$) contributed to the explanation of readiness to change. The other beliefs did not receive enough weight to reach statistical significance. Inspection of the unstandardized coefficients indicated that readiness to change increased by 0.247 for every unit that efficacy increased.

Readiness to Change and Age

In addition to addressing the research questions of the study, I conducted a one-way ANOVA to determine if readiness to change was different for different age groups. The null hypothesis stated that there were no differences in readiness to change among

the different age groups. For this test, I classified participants into four groups: 18-25 (n = 6), 26-35 (n = 17), 36-45 (n =16), and 46 plus (n = 17). There were two outliers, as assessed by boxplot. These scores remained in the analysis because I deemed them as genuine data. Readiness to change scores for the 18-25 and 26-35 age groups were normally distributed as assessed by Shapiro-Wilk test ($p > .05$). Notwithstanding violations of normality assumptions in the 36-45 and the 46 plus groups, the test continued as ANOVA was sufficiently robust to non-normality. There was homogeneity of variance, as assessed by Levene's test of homogeneity of variance ($p = .280$). Readiness to change was the highest for the 18-25 group ($M = 9.3$, $SE = 0.3$) and the lowest for the 26-35 group ($M = 7.7$, $SE = 0.4$). The 36-45 and 46 plus groups had scores of Readiness to Change in close proximity to one another ($M = 8.5$, $SE = 0.4$; $M = 8.2$, $SE = 0.5$, respectively). The test demonstrated that there were no statistically significant differences in readiness to change scores among the different age groups, $F(3,52) = 1.510$, $p = .223$. The ANOVA test failed to reject the null hypothesis at a 0.05 alpha level.

Summary

The statistical analysis of the data collected at the site of the organization undergoing change uncovered the following answers to the research questions:

- There was a statistically significant difference in readiness to change between the group exposed to motivational interviewing and the control group. Applying Cohen's *f* (1988) conceptualization of effect size, the analysis showed a large strength of effect of the interaction and a large size effect on the group differences between time points as expressed by the partial eta squared indexes (partial $\eta^2 = .425$; partial $\eta^2 = .773$).

- The mean beliefs scores from participants exposed to motivational interviewing were higher than the mean scores in the control group, but there was no significant statistical difference.
- The combined beliefs of discrepancy, appropriateness, efficacy, principal support, and valence had a medium effect on readiness to change (adjusted $R^2 = 0.262$). The regression model was an adequate fit whereas efficacy was the main contributor to the explanation of readiness to change.

According to these results, there was participants' distribution along stages of change signifying different level of readiness to change. In my analysis, the belief of efficacy played a role at explaining readiness to change. As to the effectiveness of motivational interviewing, the statistical analysis supported the rejection of the null hypothesis and provided evidence of a large effect of motivational interviewing on readiness to change. The next chapter interprets the results of this summative evaluation.

Chapter 5: Discussion, Conclusions, and Recommendations

Ambivalence is a prevalent response to organizational change, which is indicative of an individual's level of readiness to change. The purpose of this quantitative experimental study was to assess the effectiveness of a model geared to help employees resolve their ambivalence to change. The objectives in this research were (a) to evaluate motivational interviewing's effectiveness in the context of organizational change, (b) to examine the impact of motivational interviewing on a set of beliefs associated with readiness to change, and (c) to investigate the relationships between beliefs and readiness to change. In this study, I found that motivational interviewing was effective at increasing readiness to change and reducing ambivalence, as assessed by the decision ladder. Organizational members exposed to motivational interviewing were more motivated to change than participants in the control group, as evidenced by higher beliefs scores. Another conclusion from this research is that efficacy beliefs played a role in readiness and motivation to change. In the remaining of this chapter, I interpret the findings and present limitations, implications, recommendations, and conclusions.

Interpretation of Findings

The empirical findings reported and discussed in Chapter 4 can be used to further advance knowledge in the under-researched area of ambivalence in organizational change. In this study, I expanded on the literature by focusing on the resolution of ambivalent responses to change and on readiness to change as an outcome (Caldwell, 2013; Rafferty et al., 2013; Smollan, 2011). Participants in the study confirmed Peachey and Bruening's (2012) assertions that (a) ambivalence is a prevalent response from

individuals facing organizational change, (b) ambivalence is dynamic, and (c) ambivalence evolves along a continuum.

In the pretest scores in the decision ladder, participants revealed the presence of ambivalence as a ubiquitous attitudinal response, as evidenced by the stage distribution of participants. In analysis of the frequency distribution of these scores, I discovered that two thirds of participants (66.1%) were in the contemplation stage of change, while the remaining one third were in the preparation stage. There were no participants in the precontemplation stage of change. These results somewhat differed from other researchers' estimates of population stage distribution of 40 % in precontemplation, another 40 % in contemplation, and 20% in preparation (Prochaska & Norcross, 2010).

A multilevel framework of readiness to change can help explain the discrepancies between the stage distribution found in the study and the literature-based expectations of stage distribution (Rafferty et al., 2013). According to the macro-organizational perspective to organizational change, it is plausible to attribute the discrepancy in stage distribution to organizational members' prolonged involvement in the development of change plans. For over 1 year, employees had engaged in a series of organization-wide planning activities that increased their familiarity with the upcoming changes. In terms of this evaluation, however, the process of randomization used to assign participants to the experimental and the control group counteracted this factor and other extrinsic factors that could lead to erroneous interpretations of causality through the formation of equivalent groups.

Participants' distribution along the contemplation and preparation stages corroborated the appropriateness of the use of motivational interviewing. As a stage-matched approach, motivational interviewing proved effective to facilitate individuals' progression through the stages of change. These progressions led to improvements in readiness to change as evidenced by the significant difference in readiness to change between the group exposed to motivational interviewing and the control group. In line with other research applying the theory of planned behavior to organizational change, the advances in readiness to change increased the likelihood that organizational members participating in motivational interviewing sessions were to engage in change-supportive behaviors (Bergquist & Westerberg , 2014; Demir, 2010; Kim, Hornung, & Rousseau, 2011; Rafferty et al., 2013).

In this study, I confirmed the role of a change agent at influencing and shaping perceptions related to a person's readiness for change. An aspect of organizational change efforts is the change recipients' involvement in the analysis and interpretation of the organization's challenges (Rafferty et al., 2013). The relational dynamics between employees and change leaders become concomitant to the adoption of change-supportive behaviors and the institutionalization of organizational change (Kim, Hornung, & Rousseau, 2011). During the directive process of motivational interviewing, I encouraged participants to examine their sources of ambivalence and to focus on the benefits of enacting change supportive behaviors. As perceptions in favor of the behavioral change outweighed the negative views, individuals' readiness to change augmented. Higher

posttest scores on the ladder from employees participating in motivational interviewing confirmed this dynamic.

In the inter-relational nature of motivational interviewing exemplified in the dialogical exchange between change agent and the organizational member, I ratified assertions that ambivalence was a factor in such context. It is important that change leaders recognize and identify organizational members' ambivalent attitudes in order to help them work through their hesitations towards change (Oreg & Svedlik, 2011). Similarly to other studies, in the combined application of decisional balance and decisional ladder during the motivational interviewing sessions of this research, I uncovered a person's readiness to change as it related to their unique ambivalent attitudes and stage of change (Di Noia & Prochaska, 2010; Heather & McCambridge, 2013; Norcross et al., 2011). As participants from all levels of the organization engaged in a process of sense-making, the dialogical encounters about change pertained to the specific circumstances of each interviewee and resonated with the idiosyncratic, as well as pervasive characteristics of ambivalent responses (Plambeck & Weber, 2010; Smollan, 2011, 2012).

There is an inverse relationship between ambivalence and readiness to change (Miller & Rollnick, 2013; Prochaska & Norcross, 2010). In the pre and posttest variability of scores on the decisional ladder, participants exposed to motivational interviewing affirmed the notion that increased readiness to change signified transitions through personal stages of change (Miller & Rollnick, 2013; Prochaska & Norcross, 2010). The use of motivational interviewing assisted in these transitions from a low to a

high rung in the ladder by capturing the resolution of ambivalence, evoking a person's own reasons for supporting change, and helping individuals develop positive attitudes towards change (Miller & Rollnick, 2013). As evidenced by the positive movement along the decisional ladder by those exposed to motivational interviewing, I found that (a) intentions to change were mainly self-initiated and (b) individuals' determination to engage in change supporting activities increased as they resolved their ambivalence Individuals could not change in response to the organizational leaders' mandate.

I expanded upon the research on schemas about change by linking five beliefs about organizational change with a stage measurement (i.e., job change ladder) of readiness to change (Armenakis et al., 2007; Biener & Abrams, 1991). Five organizational change-related beliefs held by an individual (i.e., discrepancy, appropriateness, principal support, efficacy, and valence) are central in the process of creating readiness to change (Rafferty et al., 2013). The Organizational Change Recipients' Belief scale was used to measure participants' beliefs about change (Armenakis et al., 2007). As a precursor of behavioral change in organizations, readiness to change reflected organizational members' intentions to change, as captured and categorized by the job change ladder. I found a combined effect of beliefs on readiness/intentions to change.

The results of the study aligned with the theoretical postulates of Ajzen's (1991) theory of planned behavior, Bandura's (1986) social cognitive theory, Prochaska and DiClemente's (1982, 1983) transtheoretical model of change, as well as Piderit's (2000) multidimensional perspective on responses to change. In the theory of planned behavior,

Ajzen asserted that a person's intentions were indicative of attitudinal disposition towards the new behaviors. Cooke and Sheeran (2004) emphasized the role of ambivalence in moderating this intentional path. Proponents of the transtheoretical model described this process of behavioral change as progressions through stages of change epitomized by decreasing levels of ambivalence (Horiuchi et al., 2012). As expressed by Armitage and colleagues (2002, 2003, 2004, 2007), participants' scores in the decisional ladder reflected their level of ambivalence, intentions, motivation, as well as readiness to change. The increments in ladder scores after participants' exposure to motivational interviewing confirmed the aforementioned assertions.

During motivational interviewing, a decisional balance captures the cognitive fluctuations between pros and cons experienced by ambivalent individuals (Miller & Rollnick, 2013). As suggested by both, motivational interviewing and the transtheoretical model, the use of decisional balance exercises are helpful in the exploration of ambivalence. In the study, I found that by encouraging individuals to explore and resolve their ambivalence through motivational interviewing their readiness to change increased.

As articulated by Armenakis et al. (2007, 2013), individuals form cognitive schemas or beliefs related to organizational change based on information at their disposal. Participants verbalized these beliefs during my motivational interviewing sessions and recorded them a scale that captured, along a continuum, the unique manifestation of their beliefs. As anticipated by the theory of planned behavior and Piderit's (2000) conceptualization of ambiguity, the statistical analysis of participants'

scores on the beliefs scale and the decisional ladder related beliefs with readiness to change and the underlying ambivalence.

All five beliefs of discrepancy, appropriateness, principal support, efficacy, and valence were not equally significant in relation to readiness to change. Bandura's (1986) self-efficacy construct, a central component of the theory of planned behavior as well as the transtheoretical model and motivational interviewing, emerged as a key belief. Similar to previous research by Armitage et al. (2003, 2004) identifying self-efficacy and ambivalence as predictors of transitions through the stages of change, in this study I demonstrated the central role of efficacy beliefs at explaining variability in readiness to change.

This empirical study provided answers to three research questions:

1. What is the effect of motivational interviewing on readiness to change?

   Answer: Motivational interviewing had a large size effect (partial $\eta 2 = .425$) on participants' readiness to change (see Table 13).

2. What is the effect of motivational interviewing on beliefs about organizational change?

   Answer: Participants exposed to motivational interviewing had higher mean beliefs than members of the control group, but there was no significant statistical difference (see Table 16).

3. What is the relationship between beliefs and readiness to change?

   Answer: The combined beliefs of discrepancy, appropriateness, efficacy, principal support, and valence had a medium effect on readiness to change (Adjusted R^2 =

.262). Efficacy was the main contributor to the explanation of readiness to change.

Limitations of the Study

The use of a nonprobability sampling strategy such as purposive sampling raised issues of external validity and the generalizability of the results of the evaluation of motivational interviewing. Conducting the research in one organization within a specific industry presented risks to external validity originated from sample representativeness. The approach to sample selection weakened sample representativeness and the generalization of results.

Randomized assignment to the experimental and control groups ensured equivalent groups based on chance. The likelihood of selecting nonequivalent groups remained. My review of the literature did not elicit variables that could justify their use for blocking as a group assignment technique or statistical control. Another weakness of the study stemmed from practical considerations related to the absence of follow-up tests. The large effect of motivational interviewing on readiness to change obtained in the study might not hold with variations in persons and settings.

Because of the first time use of the Job Change Ladder to measure readiness to change in an organizational context, there was a potential threat to reliability. The use of this self-reporting instrument may not correlate well with other objective indicators. An additional threat concerned the use of pre and posttest in the study since participants' could provide organizationally acceptable posttest responses stemming from pretest sensitization (Monette et al., 2014). The instrument also provided a continuous

measurement of readiness to change. These measurements indirectly related it to levels of ambivalence at each stage of change. Such indirect measurement restricted the use of the ladder as an instrument to measure a person's ambivalence.

In the study, I conducted three motivational interviewing sessions. These might not have been a sufficient number of sessions for motivational interviewing to have a significant effect on the change-related beliefs. A researcher's posttest measurements after a larger number of motivational interviewing sessions could potentially uncover a statistically significant effect on beliefs.

Recommendations

In this study, I used motivational interviewing as the change approach directed to influence a person's intentions to engage in organizational change related behavior. Within the scope of the theory of planned behavior and Piderit's (2000) conceptualization of ambivalence, future researchers could expand this study to a variety of organizational contexts. A logical progression for future researchers will be to investigate the ubiquity of ambivalent responses to organizational change and to focus on issues of generalizability.

Future researchers could engage in direct replications of the study that would include other organizations with similar characteristics than the one of the study. The research could also follow a systematic replication of the assessment by varying the change agents conducting the studies, the organizational contexts, or both. This context could include different personnel across different industries or the same organization with a distributed workforce. Researchers' assessment of the effectiveness of motivational

interviewing could expand to concentrate on culturally diverse populations reflecting unique cultural attitudes within an organization.

The group format is a commonly used method in organizational change due in part to its cost effectiveness. As evidenced by this research, it is likely that group participants will experience ambivalent attitudes towards proposed organizational changes. Facilitators could explore such ambivalent attitudes utilizing motivational interviewing during moments of interpersonal feedback without distracting from group processes. Future researchers could assess the effectiveness of change leaders incorporating motivational interviewing as an interpersonal approach to group facilitation. Researchers could also focus on the implementation stage of organizational change and compare the results of an individually delivered motivational interviewing approach with group activities that excluded motivational interviewing.

In this study, I restricted the evaluation of motivational interviewing to three individual sessions held on a weekly basis. Future researchers could extend the assessment of motivational interviewing as an approach to organizational change to more than three sessions. Researchers could also incorporate the intentional exploration of change-related beliefs during motivational interviewing sessions. In this expanded longitudinal study, researchers could help reduce the risk of pretest sensitization and enhance external validity.

In the context of the theory of planned behavior, future researchers could assess the relationship between beliefs and readiness to change. In this experimental longitudinal study, I uncovered the explanatory relationship between change-related

beliefs and readiness to change. I used the Job Change Ladder in conjunction with the Organizational Change Recipients Beliefs Scale to assess beliefs and readiness to change along the stages of change. Based on this study, I provide empirical support for the use of these two instruments as assessment tools of organizational conditions during the early stages of organizational change (Armenakis et al., 2007). Their ease of administration was an added feature that could enhance their appeal to the practitioner in the field of change management. Researchers could continue examining the applicability of these two instruments to the practice of organizational change using cross-sectional as well as temporal designs.

In line with the stages of change and decisional balance concepts of the transtheoretical model of change, the use of the ladder offered an indirect measurement of ambivalence towards change. As a way of improving measurements of organizational change variables, future researchers could investigate correlations of the ladder with other instruments measuring ambivalence in order to assess concurrent and convergent validity. Focusing on motivational interviewing as a stage-matched approach to organizational change researchers could also study the predictive capabilities of the ladder as it relates to movements along the stages of change and job performance.

In future assessments of motivational interviewing as a stage-matched approach to organizational change, researchers could focus on the action and maintenance stage of the stages of change of the transtheoretical model. The research would extend the exploration of Piderit's (2000) ambivalence beyond the intentions posited by the theory of planned behavior and into the temporal dimensions that include the enactment of the behavioral

changes. Successes in these two stages contribute to the institutionalization of change in organizations. Expanding of this notion of helping individuals enact new behaviors, future researchers could assess motivational interviewing in context of the transfer of job-related skills that employees acquire through training and education. Researchers could also expand to (a) closely examining motivational interviewing's effect on change related beliefs at different stages of change, (b) understanding the relationship between beliefs and readiness to change, and (c) investigating the relationship between self-perceptions and readiness to change.

Researchers could assess motivational interviewing in the context of psychological contracts. Leaders following the principles of motivational interviewing could potentially influence schemas related to organizational change and help reduce perceptions of breach or violations of the psychological contract. In these studies, researchers could include the use of a modified ladder that could be validated vis-à-vis other instruments measuring breach of psychological contract.

Future researchers could assess the effectiveness of motivational interviewing within the context of organizational leadership. The principles of motivational interviewing align with leader-member exchange theory (LMX). Similar to LMX, leaders applying motivational interviewing emphasize the quality of inter-personal relationships. In the study, researchers could assess the effectiveness of motivational interviewing as it relates to its impact on a scale of the leader member exchange.

Implications

According to the results of this study, the use of motivational interviewing has positive implications for the effective practice of change management as it highlights the inter-relational nature of implementing change at the individual level and the importance of the change agent's role. During my interactions with change recipients, I was able to foster an environment that facilitated the exploration and resolution of ambivalence. The nature of those conversations centered on change-related behaviors and produced a positive effect on individuals' cognitive inclinations to adopt behaviors aligned with a plan formulated to alter the status quo. Based on the favorable attitudes that change recipients expressed towards the enactment of new behaviors, the likelihood of a successful implementation of the planned organizational change increased.

During most organizational change efforts, the responsibilities for the adoption, implementation, and sustainability of change plans reside on the skills and abilities of middle and lower level organizational leadership. Extrapolating from the results of the evaluation, managers and supervisors can benefit from pro-actively learning the principles of motivational interviewing to enhance their change management skill sets. The interpersonal nature of motivational interviewing together with its directive characteristics constitute the type of goal-oriented skill set suitable to change leaders in the workplace environment. Leaders could encourage each organizational member to explore their uncertainties and to evoke change-related behaviors. Motivational interviewing constitutes a viable alternative to change leaders' interactions demanding compliance with organizational directives.

The principles of motivational interviewing also relate to the macro level of change management. In system-wide organizational change, the process of diagnosis, planning, developing readiness, and adoption of change require that organizational members exert considerable dedication of organizational time, efforts, and other resources towards these activities. This diversion of organizational resources may negatively affect productivity and instill pressure on change leaders to manage change efficiently. Large group methods proved effective in the diagnosis and planning phases of organizational change. These processes capture input from organizational members with minimum disruption to productivity associated with the diversion of organizational resources. Based on the notion of having the whole system in the room, these methods rapidly gather information from different sectors of the organization while fomenting collaboration among participants.

There are similarities between motivational interviewing and large group interventions to organizational change such as appreciative inquiry, future search, open space technology, and world cafe. Like motivational interviewing, change agents applying whole system approaches to change emphasize collaboration and seek to evoke strengths and possibilities. Such conceptual commonalities facilitate organizational members' transition to the adoption and institutionalization of change. Extrapolating from this research, change facilitators could apply motivational interviewing during the implementation phase that follows the diagnosis and action planning phases of the change effort.

The success of planned organizational change relies on key behavioral changes taking place during the execution process. The fact that in this research I obtained positive results during three sessions of motivational interviewing highlights the possibilities for a faster development of organizational readiness to change. This increase in organizational readiness to change could lead to an earlier adoption and institutionalization of change plans emerging from large-scale initiatives. As a precursor of behaviors, increased organizational readiness to change could translate into a rapid implementation and adoption of change, regardless of whether these changes were in response to environmental forces or internally generated. Practitioners in the field of organizational change and management can benefit from the incorporation of motivational interviewing into their practice. Members of the Organization Development Network and the Society for Human Resources Management could integrate motivational interviewing to their work. Members of the Motivational Interviewing Network of Trainers could acquire organizational knowledge and adapt their trainings of motivational interviewing to organizations.

Organizational change practitioners, informal leaders, managers, and supervisors could apply the principles of motivational interviewing and facilitate the adoption of organizational change and the realization of organizational objectives. These organizational objectives affect the economic conditions of organizational members and related communities. The incorporation of motivational interviewing to the practice of change management could help produce a point of inflection in the high rate of failure of organizational change by increasing employees' level of readiness to change.

Conclusions

The purpose of this quantitative experimental study was to assess the effectiveness of a model geared to help employees resolve their ambivalence to change. Findings from this research support contentions I found in the literature review of the need to understand organizational change from a micro-organizational perspective that diverges from the traditional dichotomy of resistance and readiness to change and incorporates ambivalence. The results of this research constitute a contribution to a stream of research distinguishing ambivalence as a prevalent individual response to organizational change.

In the study, I demonstrated the importance of addressing the ambivalent attitudes underlying a change recipient's readiness during the process of organizational change. The results provided evidence that an organizational member readiness to change could be positively influenced by applying the principles of motivational interviewing to help individuals engage in resolving their ambivalence. More importantly, motivational interviewing was effective as a process to increase readiness to change and motivate individuals to change. Leaders from all organizational backgrounds could benefit from incorporating the principles of a person-centered approach to change in order to facilitate individual and organizational change. The use of motivational interviewing could help improve the efficiency and effectiveness of organizational change implementation. Such improvements could translate into increasing the rate of success of organizational change efforts leading to the accomplishment of desired objectives and contributing to a healthier working environment.

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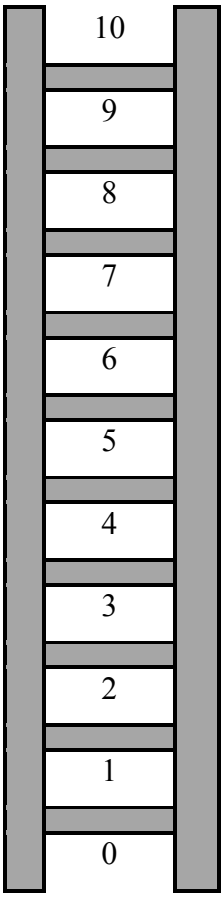
Appendix A: Job Change Ladder

Each rung of this ladder shows where a person might be in thinking about the required changes in their jobs. Please, select the number that best matches where you are now.



10 Taking action and doing all required job changes.

8 Starting to think about the required job changes.

5 Think I should start doing the required job changes, but I am not quite ready.

2 Think I need to consider doing the required job changes someday.

0 No thought of doing the required job changes.

Note: Adapted from "Predicting increases in readiness to quit smoking: A prospective analysis using the Contemplation Ladder" by T. Herzog, D. Abrams, K. Emmons, and L. Linnan, 2000. *Psychology of Health, 15*, p. 374.

Please circle your age group, level of education, and years with company:

Age group: 18-25 26-35 36-45 46 and over

Level of education: High school Some college degree College degree

Years with company: Less than 5 6-10 years 11-15 years 16 years or more

Appendix B: Organizational Change Recipients' Belief Scale

Please circle the numbers that represents what you think about the organizational change

1. This change will benefit me.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

2. Most of my respected peers embrace the proposed organizational change.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

3. I believe the proposed organizational change will have a favorable effect on our operations.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

4. I have the capability to implement the change that is initiated.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

5. We need to change the way we do some things in this organization.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

6. With this change in my job, I will experience more self-fulfillment.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

7. The top leaders in this organization are "walking the talk."

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

8. The change in our operations will improve the performance of our organization.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

9. I can implement this change in my job.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

10. We need to improve the way we operate in this organization.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

11. I will earn higher pay from my job after this change.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

12. The top leaders support this change.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

13. The change that we are implementing is correct for our situation.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

14. I am capable of successfully performing my job duties with the proposed organizational change.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

15. We need to improve our effectiveness by changing our operations.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

16. The change in my job assignments will increase my feelings of accomplishment.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

17. The majority of my respected peers are dedicated to making this change work.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

18. When I think about this change, I realize it is appropriate for our organization.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

19. I believe we can successfully implement this change.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

20. A change is needed to improve our operations.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

21. My immediate manager is in favor of this change.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

22. This organizational change will prove to be best for our situation.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

23. We have the capability to successfully implement this change.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

24. My immediate manager encourages me to support the change.

Strongly disagree ---1---2---3---4---5---6---7--- Strongly agree

Note: Adapted from “Organizational change recipients' beliefs scale: Development of an assessment instrument” by A. Armenakis, A. Bernerth, J. Pitts, and H. Walker, 2007. *Journal of Applied Behavioral, 43*(4), p. 481.

Appendix C: Critical Tasks Inventory

This is a list of tasks related to your new job. Please indicate with an X how frequently you believe that you currently complete those tasks

Tasks	**Never**	**Almost Never**	**Some Times**	**Fairly Often**	**Very Often**
Task 1					
Task 2					
Task 3					
Task 4					
Task 5					
Task 6					
Task 7					
Task 8					
Task 9					
Task 10					

Appendix D: Necessary Sample Size

Results from G*Power Protocol of Power Analysis

	ANOVA	MANOVA	Linear Multiple Regression
Input			
Effect size	f = 0.50	$f^2(V) = 0.5$	$f^2 = 0.5$
α err prob	0.05	0.05	0.05
Power (1-β err prob)	0.95	0.95	0.95
Number of groups	2	2	N/A
Response variables	N/A	5	N/A
Number of predictors	N/A	NA	5
Output			
Noncentrality parameter λ	13.5000000	23.0000000	23.0000000
Critical F	4.0266314	2.4494664	2.4494664
Numerator df	1	5.0000000	5
Denominator df	52	40.0000000	40
Actual power	0.9500773	0.9527285	0.9527285
Pillai V	N/A	0.3333333	N/A
Total sample size[a]	54	46	46

Note. The input section describes values entered for the calculations of sample sizes required. The output section displays the calculated results for sample size and statistical power.

a = Necessary sample sizes for ANOVA, MANOVA, and multiple regression analysis

Appendix E: Sample Confidentiality Agreement

Conrado Grimolizzi-Jensen:

During the course of my activity in collecting data for this research: Organizational change - Evaluating the effect of motivational interviewing on readiness to change, I will have access to information, which is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to the participant.

By signing this Confidentiality Agreement I acknowledge and agree that:

1. I will not disclose or discuss any confidential information with others, including friends or family.
2. I will not in any way divulge, copy, release, sell, loan, alter or destroy any confidential information except as properly authorized.
3. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant's name is not used.
4. I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.
5. I agree that my obligations under this agreement will continue after termination of the job that I will perform.
6. I understand that violation of this agreement will have legal implications.
7. I will only access or use systems or devices I'm officially authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

Signing this document, I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.

Signature: **Date:**

Appendix F: Informed Consent

You are invited to take part in a research study of facilitating change.

The researcher is inviting employees who are participating in an organizational change to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Conrado Jensen, who is a doctoral student at Walden University.

Background Information:
The purpose of this study is to assess the effectiveness of Mr. Conrado Jensen's approach to help facilitate organizational change.

Procedures:
If you agree to be in this study, you will be asked to:

- Complete two brief questionnaires today and at end of the study.
- Completing these questionnaires will take less than fifteen minutes.
- If randomly selected, meet with Mr. Conrado Jensen for no more than four times and for 30 minutes or less each time.

Here are some sample questions:

- Taking action and doing all required job changes.
- I can implement this change in my job.
- I will earn higher pay from my job after this change

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at (name of the organization) will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as scheduling time to meet with Mr. Conrado Jensen. Being in this study would not pose risk to your safety or wellbeing. Your participation in this study will help understand how organizational change can be better implemented.

Payment:
Participation is voluntary and there is no payment or gift in exchange for your participation.

Privacy:
Any information you provide will be kept anonymous. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by means of being in the personal custody of Mr. Conrado Jensen, hard copies will be kept in locked cabinets, and electronic copies password protected. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via phone at (phone number) or by e-mail at conrado.grimolizzi-jensen@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210. Walden University's approval number for this study is 10-08-14-0148561 and it expires on October 7, 2015.

The researcher will give you a copy of this form to keep.

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Printed Name of Participant _____

Date of consent _____

Participant's Signature _____

Researcher's Signature _____

Conrado Jensen MBA, MOD