Spring 2019

Self-Affirmation and Perspective Taking in Organizations: An Integrated Framework for Examining Process-Oriented Phenomena as Trajectories of Change

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SELF-AFFIRMATION AND PERSPECTIVE TAKING IN ORGANIZATIONS: AN INTEGRATED FRAMEWORK FOR EXAMINING PROCESS-ORIENTED PHENOMENA AS TRAJECTORIES OF CHANGE

by

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Bachelor of Science
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Submitted in Partial Fulfillment of the Requirements

For the Degree of Doctor of Philosophy in

Business Administration

Darla Moore School of Business

University of South Carolina

2019

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DEDICATION

To my wife Alex, who has been unrelentingly supportive and patient during the last five years. Thank you sincerely for your support, encouragement, and love.

To my darling daughters Caroline and Marie, who have always motivated me and provided refreshment from my studies. You two have made every step of this journey better.

To my parents, who have provided sage guidance. Thank you for all of your support and your encouragement for me to pursue this career in my own way.

This is a tribute to all of you.

ACKNOWLEDGEMENTS

Over the past five years I have received support and encouragement from many invaluable individuals. First, my advisor, Paul Bliese has been a tremendous advisor, mentor, and friend. His guidance continually broadens my perspective. I would like to thank Audrey Korsgaard for her ever-present support and guidance throughout graduate school. I would also like to thank Rob Ployhart for serving on my committee. I am also grateful to Cormac Cannon and the Carolina Band for supporting my research over the past three years. This has been a tremendously rewarding and fun project. Thank you to the Riegel & Emory HR Center and the Moore School Research Grant Program for funding this research.

The faculty, especially Lynn McFarland, Sherry Thatcher, Liz Ravlin, Nichelle Carpenter, Anthony Nyberg, DJ Schepker, Adam Steinbach, Mark Maltarich, Jeff Savage, and Pat Wright, and doctoral students in the management department have provided countless developmental insights during brown bags and practice presentations, which I greatly appreciate. I would like to thank Caitlin Ray for her assistance with data collection and coding. I also thank the members of the Carolina Band who participated in the studies presented here and shared their experiences with me throughout the past three years. I would also like to thank Marcelo Frias and Scott Ranges for their help navigating the ins and outs of graduate school. Finally, thanks to Denny Organ for advice and encouragement as I pursued graduate school.

ABSTRACT

Individuals' perceptions of their fit within in an organization unfold as a process over time that is subject to influence and change. This dissertation is a program of research that takes a process-oriented approach to understanding change from patterns of outcome trajectories and trajectory changes. Appendix A presents a study that introduces a conceptual framework for a temporal approach to change. Appendix A showed that strong events serve to change the trajectory of individuals' affective commitment. Appendix B presents a first intervention study with surprising results where instead of self-affirmation, perspective taking appeared to facilitate positive trajectory changes in individuals' identification with, commitment to, and intent to remain in their organization. The present study aimed to replicate and extend the surprising results. I integrated self-affirmation theory and motivated information processing to my conceptual change framework to design a new set of intervention procedures that were hypothesized to facilitate growth in individuals' organizational attachment and pro-organizational interpersonal behaviors. The results show a lack of significant support for the majority of the theoretical predicts. Implications and future directions are discussed.

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CHAPTER 1

INTRODUCTION

People make sense of their experiences at work based on how they perceive their fit within the organization. In this view, fit is a sense-making process that unfolds over time (Jansen & Shipp, 2018; Shipp & Jansen, 2011) which has important implications for individuals' attachment to their organizations and their behaviors within those organizations (Kristof-Brown, Zimmerman, & Johnson, 2005). Because the social environment is a key aspect of fit (Jansen & Kristof-Brown, 2006), research has explored how the alignment of person and organizational values plays a role in the sense-making process of fit by facilitating forms of attachment to the organization, such as organizational identification, affective commitment, and turnover intentions (Arthur, Bell, Villado, & Doverspike, 2006; Cable & Judge, 1996; Edwards & Cable, 2009; Kristof-Brown et al., 2005; Schneider, 1987; Verquer, Beehr, & Wagner, 2003; Vogel, Rodell, & Lynch, 2016). However, this research implies that an organization is best served by members with a homogeneous set of values which has the potential to be both impractical and detrimental. In fact, collectives have been shown to benefit from complementary qualities in a diverse set of members' perspectives (e.g., Choudhury & Haas, 2018; Piasentin & Chapman, 2007; Stahl, Maznevski, Voigt, & Jonsen, 2010). Further, important experiences at work serve to alter the trajectories of fit processes (Jansen & Shipp, 2018). To resolve the apparent tension between the benefits of values alignment and diversity, this dissertation takes a temporal approach to understand the

mechanisms behind the sense-making process of fit to examine how self-affirmation and perspective taking may facilitate members' attachment in diverse organizations.

While theory and empirical work have begun to examine fit from a process perspective (Jansen & Shipp, 2018; Shipp & Jansen, 2011), without a guiding framework for examining specific mechanisms that influence changes in this process, it is challenging to theoretically specify the form of such potential changes. Well-developed theory of change should specify both the form and the duration of expected change in outcomes of interest (Ployhart & Vandenberg, 2010). Following the guidance of Jansen and Shipp (2018), I conceptualize changes in fit as patterns of outcome trajectories. Further, I argue that self-affirmation and perspective taking are mechanisms that may change the nature of these trajectories. Therefore, to intervene upon fit, this dissertation integrates self-affirmation theory and motivated information processing theory with a conceptual framework that supports making inferences about temporal patterns (Bliese, Adler, & Flynn, 2017).

One potential mechanism to facilitate positive trajectories changes in fit processes appears to be self-affirmation. Self-affirmation theory proposes that individuals are motivated to maintain a sense of acting in accordance with their values, and that this sense of integrity is affirmed through behavioral and verbal acts that reinforce individuals' sense of purpose (Aronson, Cohen, & Nail, 1999; Cohen & Sherman, 2014; Sherman & Cohen, 2006; Steele, 1988). These self-affirming acts are linked to individuals' important personal values (Cohen & Sherman, 2014). Adapting these concepts to organizational membership, it stands to reason that individuals' whose values are aligned with their membership in the organization affirm their values through

activities and interactions in the organization. Further, self-affirmation highlights the importance of individual values which may vary across organization members. Thus, as heterogeneous individuals appreciate their own unique values, the organization stands to benefit. Indeed, research has shown that individuals' need fulfillment plays an important role in the relationship between their value congruence and organizational attitudes (Cable & Edwards, 2004; Edwards & Cable, 2009).

Incorporating the principles of self-affirmation to the organizational context as a means of intervening upon fit processes was the motivation behind a previous study of mine (see Appendix B). While self-affirmation theory appears to offer a solution to enhancing fit processes in heterogeneous organizations by explaining how individuals benefit from a sense of being able to act in accordance with their values, my previous study had a surprising result. Adapting procedures from a well-established values affirmation intervention (Cohen, Garcia, Apfel, & Master, 2006; Cohen, Garcie, Purdie-Vaughns, Apfel, & Brzustoski, 2009) appeared to inadvertently activate perspective taking in the control condition, which facilitated more favorable growth in individuals' organizational identification, affective commitment, and intent to remain than the affirmation condition.

According to motivated information processing theory (Kunda, 1990; Salancik & Pfeffer, 1978) perspective taking changes individuals' attitudes, beliefs, and behaviors. Perspective taking is the process of attempting to understand others' thoughts, motives, and behaviors (Parker, Atkins, & Axtell, 2008). Taking an other's perspective have been linked to improved cooperation (Galinsky, Maddux, Gilin, & White, 2008) and performance (Grant, 2012). Interestingly, common manipulations of perspective taking

are similar the control condition in Cohen and colleagues' (2006; 2009) values affirmation intervention by asking individuals to consider what is important to someone else. However, little research has examined how manipulations of perspective taking perform in the field (Ku, Wang, & Galinsky, 2015).

In the spirit of scientific inquiry, this dissertation considers the surprising findings in Appendix B and research on perspective taking together to empirically test how affirmation and perspective taking may both intervene upon the sense-making process of fit. First, this study aims to replicate the results in Appendix B. Next, this study aims to build upon those results and extend the intervention procedures to examine the temporal effects of perspective taking (e.g. Finkel, Slotter, Luchies, Walton, & Gross, 2013) and an expanded set of outcomes that includes interpersonal behaviors. This study examines a randomized trial longitudinal design to test the effectiveness of the intervention, addressing calls for greater ability to make causal inferences (e.g., Bliese, Edwards & Sonnentag, 2017; Eden, 2017; Highhouse, 2009). Through integrating values-affirmation (e.g. Cohen and colleagues, 2006; 2009) and perspective taking (e.g. Finkel et al., 2013) intervention procedures, this study aims to empirically distinguish the mechanisms of self-affirmation and perspective taking as a means of addressing important organizational outcomes – organizational identification, affective commitment, intent to remain, and helping behaviors.

This dissertation contributes to the literature in several ways. First, I develop a conceptual framework for understanding change processes as outcome trajectories and trajectory changes over time. The temporal approach provides a rubric for other change research theory and empirical design. Second, I develop theory around two potential

mechanisms through which diverse organizations can facilitate members' perceptions of fit. Third, addressing Ku et al.'s (2015) call for further work, I develop a procedure for examining how perspective taking in organizations influences attitudinal and behavioral in the field. Finally, this study uses empirical rigor to respond to calls for greater causal claims.

CHAPTER 2

THEORETICAL MECHANISMS AND A FRAMEWORK FOR THE SENSE-MAKING PROCESS OF FIT

Two different theoretical mechanisms appear to offer resolution to the inherent tension between diverse organizations and values-based fit literature. The first, self-affirmation theory (Cohen & Sherman, 2014; Sherman & Cohen, 2006), describes how focusing on one's own values enhances one's since of integrity, which may improve feelings of attachment to the organization. The second, motivated information processing theory (Kunda, 1990; Salancik & Pfeffer, 1978), describes how, as a form of perspective taking, appreciating the values of dissimilar other organizational members expands one's social context which in turn may enhance their own attitudes, behaviors, and beliefs. Thus, on the one hand attachment may be enhanced through self-affirmation while on the other hand attachment may be enhanced through appreciating others. In this section, I review the theoretical mechanisms from each theoretical foundation that are relevant for intervening upon fit processes. Then, I propose a process-oriented conceptual framework that I use to develop competing hypotheses.

Self-Affirmation

Self-affirmation theory is based on the notion that individuals seek to maintain a sense of self-integrity – being capable of acting in accordance with their values. Self-affirming acts ratify individuals' important personal values and opportunities to fulfill those values (Cohen & Sherman, 2014; Sherman & Cohen, 2006). Adapting self-

affirmation theory to an organization appears to suggest that individuals who affirm their own values aligned with membership may experience benefits related to their membership in the organization, such as engagement and performance. Research has demonstrated that employees who express their own identities at work perform better and turnover less (Cable, Gino, & Staats, 2013). As described in depth in Appendix B, self-affirmation theory appears to offer an extension of person-environment fit research as a mechanism that facilitates the sense-making process of fit.

According to self-affirmation theory, affirming personal values sets off a self-reinforcing process where individuals perceive opportunities to pursue their values, and as those values are fulfilled, they in turn perceive greater opportunities in their environment. Thus, drawing attention to an individuals' important values affirms those values which are then fulfilled in their organizational environment when those values are aligned with the organization (Cohen & Sherman; Wiesenfeld, Reyt, Brockner, & Trope, 2017). While self-affirmation theory suggests the importance of affirming personal values in interactive organizations, existing research on self-affirmation has focused on predominantly independent contexts (see Appendix B for a comprehensive overview). Self-affirmation has been empirically examined as a values affirmation intervention in which individuals who affirm their important values out-perform those who do not (e.g. Cohen et al., 2006; 2009; Kinias & Sim, 2016; Sherman et al., 2009).

Thus, in a previous study (Appendix B) I built on the robust findings related to this intervention and the promising connection between self-affirmation theory and fit in diverse organizations. Adapting self-affirmation theory to an organizational environment suggested that affirming one's important personal values may intervene upon that

individuals' sense-making process of fit and facilitate growth in important fit-related outcomes. Specifically, I proposed that individuals who affirmed their important personal values related to membership in the organization would experience more positive trajectory changes in their identification with, commitment to, and intent to remain in the organization. I tested this in a randomized trial intervention study in a collegiate marching band. Interestingly, the results did not support this theory, but instead suggested that the control condition was more beneficial.

The surprising findings for self-affirmation in interactive organizations may, in part, be related to the procedures used in the well-established values affirmation intervention. In Cohen and colleagues (2006; 2009) procedures, which have been shown to facilitate outcome improvement in a variety of independent contexts, subjects in the affirmation condition reflect and write on why their most important personal values are meaningful for them. Alternatively, subjects in the control condition reflect and write on why their least important personal values may be meaningful for someone else. As the revised theory and supplemental analysis in Appendix B explain, the affirmation condition is related to self-focus while the control condition is similar to perspective taking. The dichotomy of self-focus and perspective taking is well-established in organizational research and appears to explain the surprising findings.

Motivated Information Processing

Perspective taking refers to the psychological process in which individuals attempt to understand the thoughts, motives, and behaviors of others (Parker, Atkins, & Axtell, 2008). Perspective taking is an important human social capacity, especially in organizations, that allows individuals to effectively navigate a myriad of mixed-motive

social interactions (Ku et al., 2015; Parker et al., 2008). Research on perspective taking in organizations often relies on motivated information processing theory (e.g., Grant & Berry, 2011; Song, Liu, Wang, Lanaj, Johnson, & Shi, 2018). Information processing theory explains that individuals are motivated to maintain a sense of objectivity while rationalizing their own attitudes and behaviors. However, this sense of objectivity is not real because individuals process information with their unique biases rather than accessing a full set of relevant knowledge for rationalizing their attitudes and behaviors (Kunda, 1990). Individuals' social contexts are also important factors in this rationalization process. Individuals are adaptive and thus adapt their attitudes, behaviors, and beliefs to their social context (Salancik & Pfeffer, 1978). The context provides cues to aid individuals in interpreting socially acceptable attitudes, behaviors, and beliefs as well as focusing individuals to certain information.

Motivated information processing in organizations offers a potential explanation for the surprising results in Appendix B and merits further investigation. In line with self-affirmation theory, information processing would propose that individuals who affirm their core beliefs will continue to process social information in the same way as they previously had. Alternatively, actively taking the perspective of another organization member in an attempt to understand their thoughts and motives should draw individuals' attention to different information that will in turn shape their understanding of socially desirable attitudes, behaviors, and beliefs (Kunda, 1990; Salancik & Pfeffer, 1978). Thus, the salience of new social information may change individuals' attitudes toward their own membership in the organization following a perspective taking exercise.

Research has examined perspective taking as an important mechanism for individual and higher-level outcomes in organizations. Taking the perspective of others facilitates empathy (Lamm, Batson, & Decety, 2007; Parker & Axtell, 2001; Song et al., 2018) which, in organizations, causes individuals to care more about others and makes individuals more likely to appreciate others' fundamental beliefs (Galinsky, Ku, & Wang, 2005). Thus, perspective taking should enhance interpersonal relationships within an organization (Grant, 2007). As these relationships are enhanced, it stands to reason that individuals may increase their identification with, commitment to, and intentions to remain in the organization (Parker et al., 2008).

At the individual level, through drawing attention to new information, perspective taking presumably enhances individuals' motivation. A series of studies have demonstrated that perspective taking is related to prosocial motivation and in turn enhances the effect of intrinsic motivation on creativity (Grant & Berry, 2011). Research has also shown that individuals who focus on the benefits of their work for others have increased task performance (Grant, 2008) and psychological empowerment (Grant, 2012). Further, by enhancing empathy, taking the perspective of customers has been shown to buffer against negative personal outcomes in call centers, such as negative mood (Song et al., 2018). Thus, at the individual level, perspective taking has important benefits for individuals' attitudes and attachment to their tasks.

Building from the importance of the social context for information processing (Salancik & Pfeffer, 1978), perspective taking also plays a role in interpersonal interactions. Through making other relevant information salient in social interactions, perspective taking has been shown to lead to more favorable views of others in future

interactions (Finkel et al., 2013; Song et al., 2018). Importantly, favorable views for future interpersonal interactions suggest that perspective taking expands individuals' understanding about socially acceptable attitudes, behaviors, and beliefs.

Social contexts are multilevel in nature. Along these lines, perspective taking has been shown as a predictor of cooperative behavior in buyer-supplier relationships (Parker & Axtell, 2001). Further, negotiation research has shown that individuals who took the perspective of an exchange partner had more favorable negotiated outcomes at the dyadic level than individuals who were self-focused (Galinsky et al.; 2008). Perspective taking is also related to increased team outcomes such as creativity (e.g., Hoever, van Knippenberg, van Ginkel, & Barkema, 2012) and foster bonds across diverse subgroups (Todd & Galinsky, 2014).

Together the perspectives of self-affirmation and motivated information processing reveal potential tradeoffs in the literature. Both research streams have highlighted mechanisms through which either affirming the self or expanding the self to include others leads to a similar set of favorable and important outcomes. Thus, the current examination aims to test these theoretical arguments. Further, the self-reinforcing effect of affirmation (Cohen & Sherman, 2014) and the future-orientation (e.g., Song et al., 2018) and cyclical effects (Parker et al., 2008) of perspective taking both underscore the temporal processes of these mechanisms. Therefore, I briefly describe a framework (detailed in Appendix A) for understanding change processes before developing my specific hypotheses.

Process Framework

To understand the mechanisms which may prompt change in individuals' sense-making processes of fit, it is vital to take a temporal approach (e.g., Jansen & Shipp, 2018). Organizational research is predominantly focused on phenomena of change, such as learning, attitude formation, newcomer socialization, and turnover. While research has looked at rates of change as predictors of individual and higher level outcomes (e.g. Call, Nyberg, Ployhart, & Weekly, 2015; Chen, Ployhart, Thomas, Anderson, & Bliese, 2011), a clear conceptual framework for specifying the nature of mechanisms behind change is lacking. As Appendix A illustrates, without such a conceptual framework, research is potentially overlooking important components of change processes and between subject differences in change. Building from the concepts behind random coefficient discontinuous growth modeling (Bliese & Lang, 2016; Singer & Willet, 2003) and the sense-making process of fit (Jansen & Shipp, 2018; Shipp & Jansen, 2011), I conceptualize change as a within-person process that is best inferred from the trajectories of outcomes over time. It is important to note that this approach to change also has applications for many phenomena in organizational research beyond fit.

Outcome trajectories can represent incremental change to ongoing stimuli and may also be changed by events which disrupt trajectories by stalling, accelerating, or reversing their direction (Morgeson, Mitchell, & Liu, 2015). By exploring outcome trajectories and trajectory changes, research can take a temporal process-approach that cannot be gathered from mean comparison and may expand our understanding of processes like transitions, adaptation, or resilience (Bliese et al., 2017). Thus, by conceptualizing change through this process approach, I argue that longitudinal designs

are required to examine change, and that this approach promises to reframe research questions and ultimately refine a wide variety of theories.

One example using a temporal design to ask research questions in a new manner was Boswell, Shipp, Payne, and Culbertson. (2009). Boswell and colleagues explored how differences in socialization influenced newcomer's job satisfaction over time. They used a repeated-measures design and examined individual differences to ask more specific questions about a previously established finding regarding newcomers' affective honeymoons and hangovers (e.g., Boswell, Boudreau, & Tichy, 2005). By specifying the form and reason for affective change, they hypothesized that greater fulfillment of expectations and socialization would lead to higher affective peaks (honeymoons) and less pronounced subsequent declines (hangovers). Interestingly, they found both higher peaks and greater declines in job satisfaction for high levels of fulfillment compared to lower levels (Boswell et al., 2009).

In another example, Hale, Ployhart, and Shepherd (2016) examined the process of unit-level recovery from a turnover event. Using context-emergent turnover theory (Nyberg & Ployhart, 2013), they developed predictions about the temporal influence of a turnover event within a bank branch. Specifically, they created a two-phase theory to explain performance disruption from a turnover event, the recovery process after the event, and between-unit differences in both of these changes. Using discontinuous growth modeling, they found that branch performance decreased immediately following both employee and manager turnover events, but that subsequent performance recovery only occurred following employee turnover, not manager turnover (Hale et al., 2016). By using the honeymoon effect (Boswell et al., 2009) and context-emergent turnover theory

(Hale et al., 2016) to direct their hypothesized outcome changes, these examples illustrate that it is imperative to rely on content-specific theory to examine change as a within-subject process over time.

My conceptualization of change requires using a temporal framework to explore overall outcome patterns that include within-subject trajectories and event-based trajectory changes. Several conditions must be met in order to demonstrate meaningful change processes and examine between subject differences in change. First, using phenomena- or process-specific theory, the process of change needs to be specified. This condition is necessarily agnostic to any specific conceptualization of change processes because theories are proposed to explain temporal phenomena instead of static relationships (Roe, 2008) and may differentially provide content- or phenomena-specific guidance. Theory should dictate how trajectory characteristics and changes in these characteristics explain change as a process for the specific temporal phenomena of interest. The second condition for studying change is that the form of change represents a specific pattern, within the specified change process, interpreted relative to other patterns of response that can be specified as a priori hypotheses (Ployhart & Vandenberg, 2010). Finally, the third condition is that one should be able to hypothesize between subject differences that are related to differential change processes. A necessary but not sufficient part of this condition is that variability must exist between subjects. Inferences about differences in change are not possible if each subject shows similar trajectories or trajectory changes. Beyond observing between subject variability, one should be able to utilize theory to hypothesize specific boundary conditions or moderators that explain these change differences.

Through the three conditions outlined above, this process-oriented approach strengthens the ability to make causal inferences about between subject change differences. Because these difference factors are collected first, researchers can more easily support claims about differences in change processes associated with specific between subject differences. Using these three conditions as a conceptual framework, I propose to empirically reconcile competing predictions from self-affirmation and motivated information processing theories in a longitudinal intervention study.

CHAPTER 3

HYPOTHESES

By casting fit as a sense-making process, research suggests that different mechanisms have the potential to intervene upon and enhance the trajectory of fit (Jansen & Shipp, 2018). According to the first condition of my conceptual change framework, theory must inform expectations of these changes. Interestingly, self-affirmation theory and motivated information processing theory make differential predictions about the causes of similar changes in attachment and interpersonal behaviors for organization members. Therefore, I use the process-oriented change framework to build hypotheses around change in fit-based outcomes over time. Following the domain of attachment outcomes explored in Appendix B, I examine individuals' identification with, commitment to, and intent to remain in their organizations. First, I walk through the original hypotheses in Appendix B. Next, I aim to replicate the surprising findings of Appendix B with hypotheses about perspective taking. Then, relying on an extended longitudinal framework, I propose new hypotheses about preventing decline in attachment-based outcomes. Finally, as explained in my arguments for perspective taking, I also examine helping and listening as pro-organizational interpersonal behaviors.

Self-affirmation

Self-affirming acts enhance individuals' connections to their social environments (Cohen & Sherman, 2014), and thus should lead individuals to feel more integrated

within their organizations. Along these lines, implementing the values affirmation intervention within an organizational context should boost individuals' identification with, commitment to, and intent to remain in their organizations (Kristof-Brown et al., 2005; Meglino & Ravlin, 1998; Vogel et al., 2016). Similar to the self-reinforcing processes of self-affirmation theory, fit research suggests that individuals actively make sense of their experiences in the organization to inform their perceptions of fit (Jansen & Shipp, 2018; Shipp & Jansen, 2011). As detailed in Appendix B, through enhancing experiences of fit in organizations, the values affirmation intervention should lead to shifts in attachment over time as well.

Organizational Identification. Organizational identification is an evolving state through which individuals categorize themselves to reduce uncertainty (Ashforth & Mael, 1989; Hogg, 2012; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Thus, I focus on the trajectory of organizational identification over time to examine this temporal process. Self-affirming acts lead individuals to view their organization as an environment that enables them to fulfill their important values, which should in turn, lead to stronger identification with the organization (Cable & Edwards, 2004; Shipp & Jansen, 2011; Wiesenfeld et al., 2017). Thus, by affirming important values related to membership, I expect that self-affirmation should lead to positive changes in organization identification (Ashforth & Mael, 1989; Schneider, 1987; Walton, 2014). Further, small positive shifts of this nature can accumulate over time in the form of a trajectory through the self-reinforcing process of affirming and value fulfillment (Cohen & Sherman, 2014). Therefore, an act of affirmation should lead to positive organizational identification trajectory changes.

Hypothesis 1a: Individuals who engage in affirming personally relevant values will exhibit positive organizational identification trajectory changes following the intervention compared to individuals in the control condition who do not affirm personally relevant values.

Affective Commitment. Affect commitment refers to individuals' desire, or want, to remain in their organization. Affective commitment develops over time (Klein, Molloy, & Brinsfield, 2012), but has seldom been examined through a process-oriented approach. Thus, I argue that affective commitment is subject to change over time as a function of self-affirmation. Affirmation makes the organization's fulfillment of personal values salient, a predictor of affective commitment (Greguras & Diefendorff, 2009). Through the self-reinforcing process of affirming and fulfilling values (Cohen & Sherman, 2014), affective commitment trajectories should experience a positive change following affirming acts. Therefore, an act of affirmation should lead to positive affective commitment trajectory changes.

Hypothesis 1b: Individuals who engage in affirming personally relevant values will exhibit positive affective commitment trajectory changes following the intervention compared to individuals in the control condition who do not affirm personally relevant values.

Intent to Remain. Because organizational identification and affective commitment are predictors of retention (Cole & Bruch, 2006; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002), it is quite likely that self-affirmation will initiate a similar trajectory change for individuals' intent to remain in their organization. A likely byproduct of self-affirmation, need fulfillment is a vital predictor of retention (Schneider,

1987). As individuals affirm their values in the organization and then in turn fulfill those values through organizational membership, the self-reinforcing process of self-affirmation should promote increasing intentions to remain over time. Therefore, an act of affirmation should lead to positive intent to remain trajectory changes.

> *Hypothesis 1c*: Individuals who engage in affirming personally relevant values will exhibit positive intent to remain trajectory changes following the intervention compared to individuals in the control condition who do not affirm personally relevant values.

Perspective taking

While self-affirmation theory explains how affirming personal values related to membership should enhance individuals' organizational attachment, motivated information processing theory suggests that empathy is an alternative mechanism that should promote similar outcome patterns. Motivated information processing theory argues that by expanding the self and enhancing empathy, perspective taking is a mechanism through which positive change occurs in both organizational attachment and interpersonal behaviors. Indeed, evidence from a previous study of self-affirmation in an organization suggests the theoretical likelihood that perspective taking, not values affirmation, leads to changes in identification, commitment, and retention trajectories (Appendix B). While the values affirmation procedure was created to affirm participants' self-integrity and reduce their threats to the self, a similar approach should be applicable to perspective taking in organizations. Further, motivated information processing theory and perspective taking literature point to interpersonal behavioral outcomes, such as

helping (e.g., Parker & Axtell, 2001), and a unique temporal effect (e.g., Finkel et al., 2013).

Replication. Several studies have examined the relationship that perspective taking has with important organizational outcomes. Hoever et al. (2012) explored diverse teams and found that perspective taking facilitated greater team creativity. Research on perspective taking in job design found that the relationship between task significance and performance-related outcomes was enhanced by perspective taking (Grant, 2008), and that relational job design, which is theorized to increase perspective taking, influences the relationship between transformational leadership and follower performance (Grant, 2012). Together, this line of work shows the value of individuals considering other organizational members for important organizational outcomes.

Further, perspective taking is a psychological process that may self-reinforce over time in organizations (Parker et al., 2008). Perspective taking enhances individuals' ability to navigate the myriad of social relationships (Ku et al., 2015) that may occur in organizational membership. Perspective taking alters individuals' attitudes, beliefs, and behaviors (Salancik & Pfeffer, 1978) which may in turn be reinforced through future social interactions (e.g., Finkel et al., 2013; Song et al., 2018) in the organizational context. Thus, this self-reinforcing process of perspective taking has the potential to disrupt and change the trajectories of outcomes related to the sense-making process of fit. Therefore, as a formal test to replicate the findings in Appendix B, I propose that individuals taking the perspective of organizational peers with divergent values should lead to positive organizational identification, affective commitment, and intent to remain trajectory changes

Hypothesis 2: Individuals who engage in perspective taking will exhibit positive (a) organizational identification, (b) affective commitment, and (c) intent to remain trajectory changes compared to individuals in the control condition who do not engage in perspective taking.

Temporal Effects. Jansen and Shipp (2018) showed that different events, and the timing of those events, both have the potential to influence the trajectories of individuals' fit processes. Within my process-oriented framework for examining change, Appendices A and B, and the first two sets of hypotheses have examining trajectory changes following such an event. For the present study, that event is the second intervention exercise. However, while the effects of affirmation and perspective taking are argued to self-reinforce in the form of trajectory change, it is unclear how long that cycle lasts. For example, using experience sampling methodology, Song et al. (2018) demonstrated the buffering capability of perspective taking with subjects completing a daily perspective taking exercise, suggesting that the effect may either be short lived or additive. In another example using a brief and psychologically precise exercise designed to have lasting effects (Walton, 2014), Finkel et al. (2013) implemented the perspective taking exercise every four months, showing a lasting temporal effect while also again suggesting a potential reinforcing additive effect. Thus, I also explore the potential additive effect of perspective taking as a reinforcing effect against declining attitudes by examining how perspective taking may influence outcome patterns over the entire course of the study period.

Individuals who develop the capability of engaging in perspective taking can sustain their positive outcomes in the face of negative stressors and conflict over time.

Song et al. (2018) used motivated information processing theory in a social mindfulness approach to explain how perspective taking buffers against negative outcomes for call center employees. They found that engaging in perspective taking prevented subsequent feelings of mistreatment and negative mood (Song et al., 2018). Building from research on reducing interpersonal conflict, Finkel et al. (2013) created a perspective taking intervention designed to alleviate martial conflict. This study proposed that reinterpreting emotional situations from a different perspective enables individuals to constructively manage their negative emotions. The findings show that marital quality declined over time, but following the intervention, conflict-related distress was mitigated over time for couples who engaged in perspective taking (Finkel et al., 2013). In this intervention, married couples in the treatment condition were asked to take the perspective of a neutral observer and write about how that person would view a recent episode of martial conflict. Couples in the treatment condition were asked to take this perspective in subsequent conflict episodes. The treatment was administered every four months. The study found that couples reported declining marital satisfaction prior to the intervention. Following the intervention, couples who engaged in perspective taking showed no decline in marital satisfaction while those who did not engage in perspective taking continued to have declining marital satisfaction (Finkel et al., 2013).

Thus, perspective taking has a temporal component whereby individuals are equipped to better address subsequent negative social interactions. Compared to outcome trajectory changes following a perspective taking after a period of time, individuals who engage in perspective taking at the beginning of the study period should immediately have an enhanced view of the social context and an expanded understanding of

appropriate attitudes, beliefs, and behaviors (Salancik & Pfeffer, 1978). In this case, rather than initiating a positive trajectory change, the self-reinforcing process of perspective taking over time should prevent decline at the onset of the study. Therefore, I propose that individuals who engage in initial perspective taking will have steady identification, commitment, and attachment trajectories over time.

> *Hypothesis 3*: Individuals who engage in initial perspective taking will exhibit (a) organizational identification, (b) affective commitment, and (c) intent to remain trajectories that are more steady (less negative) compared to individuals in the control condition who do not engage in initial perspective taking.

Further, following the additive effect of perspective taking (Finkel et al., 2013; Song et al., 2018), I propose that individuals who engage in initial and subsequent perspective taking will have reinforced steady identification, commitment, and attachment trajectories over time. As Finkel et al. (2013) demonstrated, engaging in multiple perspective taking exercises over time appears to reinforce the effect over time. Married couples in the treatment condition engaged in perspective taking at the beginning on the intervention period and in a subsequent exercise several months later (Finkel et al., 2013). With this in mind, I argue that individuals who engage in perspective taking at the beginning of the study period and again in a follow up exercise mid-way through the study should experience a reinforcement effect where their attachment trajectories continue to be steady over the entirety of the study.

> *Hypothesis4*: Individuals who engage in initial and subsequent perspective taking will exhibit (a) organizational identification, (b) affective commitment, and (c) intent to remain trajectories that are more steady (less negative) compared to

individuals in the control condition who do not engage in subsequent perspective taking.

Interpersonal Behaviors. Research also suggests that perspective taking is an important predictor of pro-organizational interpersonal behaviors, such as enhanced interpersonal communication and helping (Grant, 2007; Parker et al., 2008). Perspective taking is related to enhanced cooperative behaviors in buyer-supplier relationships (Parker & Axtell, 2001). Through enhanced task significance, perspective taking has also been linked to greater helping behaviors for lifeguards (Grant, 2008).

Helping is a promotive interpersonal behavior that refers to small acts which emphasize cooperation (Van Dyne & LePine, 1998). Active empathic listening comes from communication research and describes interpersonal communication behavior that emphasizes other-centered involvement through the combination of both active and empathetic listening (Bodie, 2011). Empathy, which is activated through perspective taking (Lamm et al., 2007; Parker & Axtell, 2001), is an important predictor for both helping and active empathetic listening. As empathy is enhanced during perspective taking, individuals should have increased helping and active empathic listening. These behavioral adaptations to the expanded social context (Salancik & Pfeffer, 1978) should be reinforced through subsequent interactions with organizational peers. These interpersonal behaviors are volitional and are not expected to follow a discernable pattern before perspective taking. Rather, individuals who engage in perspective taking should have subsequent growing trajectories for helping and active empathic listening while those who do not engage in perspective taking should have no trajectory for either behavior.

Hypothesis 5: Individuals who engage in perspective taking will exhibit more positive (a) helping and (b) active-empathic listening trajectories than individuals in the control condition who do not engage in perspective taking.

CHAPTER 4

METHOD

As a programmatic extension of Appendix B, I adapted and modified the values affirmation intervention (Cohen et al., 2006; 2009) to test hypotheses about self-affirmation and perspective taking in an organization. Thus, this procedure asked individuals to rank their important personal values related to membership. Then, individuals were randomly assigned to one of four conditions, the values affirmation condition, the perspective taking condition, the reinforced perspective taking condition, or the neutral control condition. Two writing exercises were administered during the data collection to manipulate the intervention conditions.

Setting

I tested the hypothesized effect of the intervention in a university marching band. A marching band is an interdependent organization (e.g., Murnighan & Conlon, 1991) that performs music and marching maneuvers during the university's NCAA Division I football team season. In this context, the organization routinely performs in stadiums with 80,000+ fans during nationally broadcast football games. Following the organization over the course of a season presents an ideal opportunity for longitudinal examination where outcome trajectories may fluctuate from week to week and in response to the intervention.

Membership in the university marching band is largely voluntary and involves a time commitment, in addition to members' academic course load, that consists of 20

hours or more of physically and intellectually challenging work. The connection between personal and organizational values is important to members' attachment in all organizations and should be especially powerful in organizations with voluntary membership (Boezeman & Ellemers, 2007; Sherman & Smith, 1984; Sundeen, 1992). Thus, the marching band is well-suited to examine the connection between self-affirmation or perspective taking and the sense-making process of fit for members' organizational identification, affective commitment, and intent to remain. Additionally, the highly interdependent nature of the marching band (Murnighan & Conlon, 1991) is well-suited for examining interpersonal behaviors such as helping and active empathic listening.

Sample

At the beginning of the study, I met with all 360 members of the organization to explain an overview of the research, recruit voluntary participants, and gain participant consent. In total, 184 individuals completed the required intervention exercises and a sufficient number of repeated measures surveys, representing 51% of the population. The average age was 19 and the sample was 57% female (43% male).

Procedure

Building from the procedures established in two previous studies (Appendices A & B), I created a longitudinal study design in order to examine the temporal effects of the proposed intervention. The longitudinal study consisted of 16 weeks of repeated-measures surveys which were administered following every Wednesday rehearsal during the marching band season using a digital survey platform. I chose to use this longitudinal

design in order to capture outcome trajectories and trajectory changes related to the intervention exercises.

Measures

The repeated-measures surveys asked participants to consider the previous week in the organization and on campus as they rated themselves on the outcomes of interest: organizational identification, affective commitment, intent to remain, helping, and active empathic listening. For each outcome, I used a shortened scale to avoid respondent fatigue from a longer multi-item measure (Jones & Shah, 2016; Wanous, Reichers, & Hudy, 1997).

Organizational Identification. I adapted a 3-item measure from Mael and Ashforth's (1992) organizational identification scale. The respondents were asked to rate the items on a 5-point Likert scale ranging from (1) strongly disagree to (5) strongly agree. Sample items are "During the last week I've been very interested in what others think about the (marching band)," and "During the last week when I talked about this band, I've usually said "we" rather than they"." The scale was reliable across all measurement occasions with coefficient alphas that ranged from 0.75 to 0.92.

Affective Commitment. I adapted a 2-item measure from the affective commitment portion of Allen and Meyer's (1990) organizational commitment scale. The respondents were asked to rate the items on a 5-point Likert scale ranging from (1) strongly disagree to (5) strongly agree. The items are "In the past week I've felt like "part of the family" in the band," and "In the past week I've felt a strong sense of belonging to the band." The scale was reliable across all measurement occasions with coefficient alphas that ranged from 0.87 to 0.95.

Intent to Remain. I adapted a 2-item measure from Chen et al.'s (2011) turnover intention scale. The respondents were asked to rate the items on a 5-point Likert scale ranging from (1) strongly disagree to (5) strongly agree. The items are "I plan to return to the band next season," and "I plan to return to the band every year that I am in school." The scale was reliable across all measurement occasions with coefficient alphas that ranged from 0.54 to 0.77. I only measured intent to remain for participants who were not planning to graduate before the next marching band season. This created a subset from the full dataset of 146 participants.

Helping. I adapted a 3-item measure of helping from Van Dyne and LePine's (1998) extra-role behavior scale. The respondents were asked to rate the items on a 5-point Likert scale ranging from (1) strongly disagree to (5) strongly agree. Sample items are "During the past week, I assisted others in the (marching band) with their work for the benefit of the band," and "During the past week, I volunteered to do things for the (marching band)." The scale was reliable across all measurement occasions with coefficient alphas that ranged from 0.77 to 0.95.

Active Empathic Listening. I adapted a 3-item measure from the responding portion of Bodie's (2011) active empathic listening scale. The respondents were asked to rate the items on a 5-point Likert scale ranging from (1) strongly disagree to (5) strongly agree. Sample items are "During the past week I've shown others that I am listening with my body language (e.g., head nods)," and "During the past week when I've assured others that I am listening by using verbal acknowledgements." The scale was reliable across all measurement occasions with coefficient alphas that ranged from 0.86 to 0.99.

Intervention Condition. At the beginning of the first written exercise, participants were randomly assigned to one of four intervention conditions. Different coding schemes were used to test different hypotheses and are detailed in the analysis section.

Intervention

To test the predictions of self-affirmation and motivated information processing theories, I integrated procedures used to manipulate values affirmation and perspective taking with my process-oriented change framework. First, I started by adapting procedures from the well-established values affirmation intervention (e.g., Cohen et al., 2006; Kinias & Sim, 2016; Logel & Cohen, 2012), but asked respondents to consider their values related to organizational membership (e.g., Appendix B). Thus, during the first measurement occasion, I asked all of the study participants to rank a list of eight randomly presented values of organizational membership in order of importance for their own membership in the marching band. These values match to values presented in a previous study in Appendix B. Next, participants were randomly assigned to one of four intervention conditions (detailed below): values affirmation, perspective taking, reinforced perspective taking, or neutral control. Finally, based on the hypothesized temporal effects of the intervention, I followed the procedure from Finkel et al (2013) and included two writing exercises. The first writing exercise occurred at the beginning of the data collection period and the second writing exercise occurred following the repeated-measures items during the survey in the eighth week.

Values Affirmation. Following the procedure in Appendix B that was adapted from Cohen and colleagues' (2006; 2009) values affirmation intervention, participants in the values affirmation condition were asked to complete the affirmation exercise during

the second writing exercise. Participants were reminded of their most important personal value and asked to reflect upon and write about why it is important for their membership in the organization for fifteen minutes. Because the values affirmation hypotheses were only concerned with trajectory changes in the eighth week, participants in this condition received the neutral control writing prompt during the first writing exercise.

Perspective Taking. While the literature has shed light on the value of perspective taking, it presents few practical interventions (Ku et al., 2015), that have been examined in organizations (c.f., Grant, 2008; Song et al. 2018). Thus, as Ku et al. (2015) note in their review, research is needed to determine the link between experimental manipulations of perspective taking and organizational interventions. Therefore, I constructed a perspective taking manipulation by integrating techniques used in studies of perspective taking with the control condition in Cohen and colleagues' (2006; 2009) procedure (which, as Appendix B illustrates, is not a neutral control).

Experimental research has manipulated perspective taking by asking subjects to seek to understand what the target is thinking, why the target is thinking that way, and then to imagine what the participant would be thinking in the target's position (e.g., Galinsky et al., 2008; Hoever et al., 2012). Other work has manipulated perspective taking through beneficiary contact, where participants learn about the importance of their work for the wellbeing of a previously unknown target (e.g. Grant, 2012). Finally, several studies have employed writing-based manipulations of perspective taking. For example, Song et al. (2018) asked call center employees to answer written questions from the perspective of a customer. In another example, Finkel et al. (2013) asked married couples to describe how a third party observer would view a recent episode of marital conflict.

Building from these examples, I asked participants to consider the perspective of another member of the marching band who held that participants' least important value as their own most important value. Participants were asked to think about how that specific value may be important to someone else and to focus their writing on the target's thoughts and feelings. Additionally, based on the Finkel et al.'s (2013) procedure, participants were asked to try and continue taking the perspective of other members with different values during future social interactions in the organization.

My theory for perspective taking argues for different temporal effects. Thus, to test for perspective taking as a mechanism for trajectory change, subjects in the *perspective taking* condition were assigned the perspective taking exercise in the eighth week and the neutral control exercise at the beginning of the study. Alternatively, to test for the temporal effect of perspective taking in Hypotheses 3 and 4, participants in the *reinforced perspective taking* condition were asked to complete the perspective taking exercise at both the beginning of the study and during the eighth week.

Neutral Control. Interestingly, the values-affirmation intervention and common manipulations of perspective taking frequently use manipulations similar to the competing approach as their control condition. For example, Appendix B shows that the control condition in Cohen and colleagues' (2006; 2009) values affirmation intervention actually prompting participants' perspective taking. Thus, to move this line of work forward I sought a truly neutral control prompt in which participants would also complete a writing exercise, but one that does not manipulate alternative potential mechanisms. Therefore, I adapted common approaches to neutral writing exercises which ask participants about time management (e.g., Pennebaker, Kiecolt-Glaser, & Glaser, 1988;

Spera, Buhrfeind, & Pennebaker, 1994). The neutral control prompted participants to writing about how they spent their time that day and explicitly instructed them to avoid writing about their opinions and feelings. The control prompt was used at the beginning of the data collection for the *values affirmation*, *perspective taking*, and *neutral control* conditions. The prompt was also administered a second time during the eighth week for the *neutral control* condition.

Manipulation Check. I created a coding scheme for the participants' written responses and an independent coder rated each response on different scales for self-affirmation, perspective taking, and time management. A second coder was used to assess the reliability of the coding scheme on a subset of the written responses. Weighted kappa (Cohen, 1968) was 0.59 for affirmation, 0.62 for perspective taking, and 0.76 for time management. This evidence suggests that the coding scheme was reliable. Next, I created dichotomous variables for assignment to each condition (rated 1 for individuals in the specific condition). Then, I examined the correlations between the assignment to condition variables and the coded responses.

Assignment to the control condition was positively correlated with writing about time management in both writing exercises (r= 0.31 and r= 0.97, respectively). Assignment to the affirmation condition was positively correlated with time management in the first exercise (r= 0.28) and with affirmation in the second exercise (r= 0.68). Assignment to the perspective taking condition was positively correlated with time management in the first exercise (r= 0.34) and with perspective taking in the second exercise (r= 0.51). Finally, assignment to the reinforced perspective taking condition was positively correlated with perspective taking in both writing exercises (r= 0.87; 0.33).

Interestingly, assignment to the reinforced perspective taking condition was also positively related with affirmation during the first exercise (r= 0.56) which will be addressed in Chapter 5. All other associations between the assignment to condition variables and the coded responses were negative. This evidence suggests that the manipulations in the intervention exercises had their desired effects.

Analytic Approach

My hypotheses proposed differences in outcomes trajectories and trajectory changes following discrete writing exercises in an intervention study. In line with my process-oriented framework for change, I chose to use random coefficient discontinuous growth modeling (Bliese & Lang, 2016; Singer & Willett, 2003). This approach allows me to test within-individual outcome trajectories and trajectory changes associated with the intervention exercises as well as to compare between-subject differences in these outcome patterns based on intervention condition.

I used Bliese and Lang's (2016) coding scheme to create two time covariates for my analysis. Trajectory, the first variable, covaries with the weekly measurement occasions (0 to 15) and serves an initial linear trajectory used as the trajectory of interest in Hypothesis 3, and as a baseline comparison for the trajectory change hypotheses. Trajectory Change, the second variable, was coded as a linear trajectory that began in the ninth week following the second writing exercise. The parameter for this variable is the difference between pre- and post-second writing exercise linear trajectories and thus explains trajectory changes associated with that exercise.

As with any longitudinal study, I experienced participant attrition during the data collection. Therefore, I restricted my sample to only include participants who completed

both writing exercises and provided at least two repeated-measures responses after each writing exercise. This resulted in my sample of 184 participants (125 of whom completed every survey), representing 51% of the total population. Of these usable observations, 49 were randomly assigned to the values affirmation condition, 50 to the perspective taking condition, 40 to the reinforced perspective taking condition, and 45 to the neutral control condition. Within the non-graduating subset used to measure intent to remain, there were 41 participants in the values affirmation condition, 36 in the perspective taking condition, 35 in the reinforced perspective taking condition, and 32 in the neutral control condition.

Results

I created composite means for the variables used in the study to present descriptive statistics and correlations in Table 4.1. These composite means are the total, pre, and post-second writing exercise averages for each outcome across measurement occasions.

Random coefficient discontinuous growth modeling is a form of regression that allows for multiple levels of analysis. Therefore, I created a two level model where the first level is time-within individual and the second level is between individuals (including the intervention conditions). Following the recommendation of Bliese and Ployhart (2002), I estimated the interclass correlation coefficients (ICC(1)) for a two level model of each outcome. The ICC(1)s, 0.71 for organizational identification, 0.58 for affective commitment, 0.77 for intent to remain, 0.70 for helping, and 0.68 for active-empathic listening, met establish conventions for random coefficient growth modeling. I also calculated conditional ICC(1)s (Bodner & Bliese, 2018) for each outcome which are summarized in Table 4.2. Surprisingly, this analysis suggests that there is not much

variance associated with assignment to condition for any of the outcomes which will be explored more in depth in Chapter 5. I found similar results when only considering the newcomers, summarized in Table 4.3. I examined only the newcomers as a robustness check because some of the more tenured members have participated in previous studies using similar procedures (see Appendix B) in previous seasons.

After establishing a two-level model for each outcome, I ran a series of model comparisons to establish differences between individuals' outcome trajectories and trajectory changes. Models that included random intercepts, and random slopes for both Trajectory and Trajectory Change were the models of best fit for each outcome. Because my study proposed different temporal effects for the conditions in the two-wave intervention exercise, I only included the hypothesis-relevant time covariate(s) as random effects for the models in each hypothesis test. Then, I continued model comparisons to explore the error structure of the data (Bliese & Ployhart, 2002). These tests suggested autocorrelations between the error terms for each outcome, which is to be expected, and I therefore added a control term to all subsequent models for autocorrelation. I also tested for heteroscedasticity, but these models failed to converge which is typically associated with estimates at or close to zero.

As a preliminary exploration of the intervention conditions, I ran a series of main effect random coefficient discontinuous growth models for each outcome in each condition. Table 4.4 summarizes the findings for the full dataset and Table 4.5 summarizes the newcomer subset as a robustness check. I also plotted the predicted main effect of the discontinuous growth model for each outcome in each condition. Figure 4.1 shows the plots for the control condition, Figure 4.2 shows the plots for the affirmation

condition, Figure 4.3 shows the plots for the perspective taking condition, and Figure 4.4 shows the plots for the reinforced perspective taking condition. According to Table 4.4, only intent to remain appears to have a different pattern of significance across conditions where there is not a significant trajectory change following the second writing exercise in the control condition, but there is a significant trajectory change in the affirmation condition (as well as the potential for differences in trajectory changes between the control and the two perspective taking conditions). The newcomer subset (Table 4.5), on the other hand, only shows a different pattern of significance for active empathic listening. Additionally, I calculated a model that included a comparison of all of the conditional effects simultaneously for each outcome's Trajectory and Trajectory Change (summarized in Table 4.6).

Hypothesis 1a, b, and c proposed greater organizational identification, affective commitment, and intent to remain trajectory changes associated with values affirmation compared to participants who did not engage in values affirmation. To test this trajectory change hypothesis, Affirmation Condition was coded 1 for the *values affirmation* condition and 0 for *control* condition and Trajectory Change was included in the model as a random term. These hypotheses were tested by the interaction term between Trajectory Change and Affirmation Condition. Hypothesis 1a was tested by Model 2 of Table 4.7. The interaction term was not significant and, thus, Hypothesis 1a was not supported. Hypothesis 1b was tested by Model 4 of Table 4.7. The interaction term was not significant and, thus, Hypothesis 1b was not supported. Hypothesis 1c was tested by Model 6 of Table 4.7. Using a one-tailed test, the interaction term was significant. The interaction plot of the predicted model is shown in Figure 4.5. As the figure shows,

participants in the values affirmation condition had more positive intent to remain trajectory changes following the second writing exercise than individuals in the neutral control condition. It is worth noting that while there appears to be a difference between the intercepts for each condition, this effect was not significant in the model (t= -1.63, p= 0.11).

To examine the robustness of the results, I conducted the same analysis on only the organizational newcomers (summarized in Table 4.8) as well as examining the same models in the full dataset without controlling for autocorrelation (summarized in Table 4.9). Both tables show no significant interaction terms for Trajectory Change and Affirmation Condition. Considering Hypothesis 1c more, Model 6 in Table 4.8 was not significant (t= 1.42, p= 0.158) and Model 6 in Table 4.9 was also significant (using a one-tailed test) which is similar to the findings in the formal hypothesis tests. Individuals who affirmed their important values experienced a trajectory change where their intent to remain in the organization grew over time following the affirmation exercise. Thus, there was support for Hypothesis 1c.

Hypothesis 2a, b, and c proposed greater organizational identification, affective commitment, and intent to remain trajectory changes associated with perspective taking compared to participants who did not engage in perspective taking. These hypotheses were tested by the interaction term between Trajectory Change and Perspective Taking Condition. To test this trajectory change hypothesis, Condition was coded 1 for the *perspective taking* condition and 0 for the *control* condition and Trajectory Change was included in the model as a random term. Hypothesis 2a was tested by Model 2 of Table 4.10. The interaction term was not significant and, thus, Hypothesis 2a was not

supported. Hypothesis 2b was tested by Model 4 of Table 4.10. The interaction term was not significant and, thus, Hypothesis 2b was not supported. Hypothesis 2c was tested by Model 6 Table 4.10. The interaction term was not significant and, thus, Hypothesis 2c was not supported. The pattern of insignificant results was also consistent in additional analysis run on the newcomers (summarized in Table 4.11) as well as the full data set not controlling for autocorrelation (summarized in Table 4.12).

Hypothesis 3a, b, and c proposed more steady (or less negative) initial organizational identification, affective commitment, and intent to remain trajectories associated with perspective taking during the initial writing exercise compared to participants who did not engage in perspective taking during the initial writing exercise. Hypothesis 4a, b, and c proposed more steady (or less negative) subsequent organizational identification, affective commitment, and intent to remain trajectories associated with perspective taking during the subsequent writing exercise compared to participants who did not engage in perspective taking during the subsequent writing exercise. These hypotheses were tested by the interaction term between Trajectory and Reinforced Perspective Taking Condition (Hypothesis 3a, b, & c) and the interaction term between Trajectory Change and Reinforced Perspective Taking Condition (Hypothesis 4a, b, & c). To test this hypothesis, Reinforced Perspective Taking Condition was coded 1 for the *reinforced perspective taking* condition and 0 for the *control* condition and both Trajectory and Trajectory Change were included in the model as random terms. Hypotheses 3a and 4a were tested by Model 2 of 4.13. The interaction terms were not significant and, thus, Hypotheses 3a and 4a were not supported. Hypotheses 3b and 4b were tested by Model 4 of Table 4.13. The interaction terms were not significant and,

thus, Hypotheses 3b and 4b were not supported. Hypotheses 3c and 4c were tested by Model 6 of Table 4.13. The interaction terms were not significant and, thus, Hypotheses 3c and 4c were not supported. The pattern of insignificant results was also consistent in additional analysis run on the newcomers (summarized in Table 4.14) as well as the full data set not controlling for autocorrelation (summarized in Table 4.15).

Hypothesis 5a and b proposed more positive initial helping and active empathic listening trajectories associated with perspective taking during the initial writing exercise compared to participants who did not engage in perspective taking during the initial writing exercise. These hypotheses were tested by the interaction term between Trajectory and Reinforced Perspective Taking Condition and the interaction term between Trajectory Change and Reinforced Perspective Taking Condition. To test this hypothesis, Reinforced Perspective Taking Condition was coded 1 for the *reinforced perspective taking* condition and 0 for the *control* condition and both Trajectory and Trajectory Change were included in the model as random terms. Hypothesis 5a was tested by Model 2 of Table 4.16. The interaction term was not significant and, thus, Hypothesis 4a was not supported. Hypothesis 5b was tested by Model 4 of Table 4.16. While the interaction term between Trajectory and Reinforced Perspective Taking Condition was not significant, the interaction term between Trajectory Change and Reinforced Perspective Taking Condition was significant. The interaction plot of the predicted model is shown in Figure 4.6. While there was not a significant difference across conditions for initial Trajectory, as the figure shows, participants in the reinforced perspective taking condition had active empathic listening trajectories following the second writing exercise that were significantly more positive than their trajectories prior

to the second writing exercise, compared to individuals in the neutral control condition. The pattern of significance was also consistent in additional analysis run on the newcomers (summarized in Table 4.17) as well as the full data set not controlling for autocorrelation (summarized in Table 4.18). Individuals who reinforced perspective taking experienced a positive change in the trajectory of their active empathic listening. Thus, there was partial support for Hypothesis 5b.

In the spirit of scientific inquiry given the findings of my previous study in Appendix B, I also conducted supplemental analyses to see if self-affirmation and perspective taking are competing mechanisms. This supplemental question was tested by the interaction term between Trajectory Change and Supplemental Condition. To test this notion, Condition was coded 1 for the *perspective taking* condition and 0 for the *affirmation* condition. The supplemental analyses are summarized in Table 4.19. Neither the main effect of the condition nor the interaction terms for models of organizational identification, affective commitment, and intent to remain were significant in Models 2, 4, and 6, respectively. The pattern of insignificant results was also consistent in additional analysis run on the newcomers (summarized in Table 4.20) as well as the full data set not controlling for autocorrelation (summarized in Table 4.21). Thus, self-affirmation and perspective taking do not appear to be competing mechanisms.

Table 4.1
Descriptive Statistics and Correlations

	M	SD	1	2	3	4	5	6	7	8	9	10
1. Condition[1]	0.27	0.44										
2. Condition[2]	0.27	0.45	-0.37*									
3. Condition[3]	0.22	0.41	-0.32*	-0.32*								
4. Organizational Identification$_{mean}$	4.10	0.71	0.06	-0.09	-0.09							
5. Organizational Identification$_{pre}$	4.15	0.68	0.05	-0.11	-0.07	0.97*						
6. Organizational Identification$_{post}$	4.02	0.83	0.08	-0.06	-0.10	0.96*	0.86*					
7. Affective Commitment$_{mean}$	3.96	0.72	0.07	-0.09	-0.05	0.87*	0.84*	0.85*				
8. Affective Commitment$_{pre}$	4.05	0.70	0.04	-0.09	-0.05	0.82*	0.84*	0.75*	0.96*			
9. Affective Commitment$_{post}$	3.83	0.87	0.09	-0.08	-0.05	0.81*	0.73*	0.86*	0.94*	0.81*		
10. Retention$_{mean}$	2.85	0.94	0.18	0.10	-0.52*	0.50*	0.48*	0.50*	0.47*	0.42*	0.49*	
11. Retention$_{pre}$	2.86	0.93	0.18	0.06	-0.49*	0.48*	0.49*	0.47*	0.45*	0.42*	0.45*	0.99*
12. Retention$_{post}$	2.83	0.99	0.17	0.13	-0.53*	0.50*	0.47*	0.52*	0.47*	0.41*	0.52*	0.98*
13. Help$_{mean}$	3.58	0.86	0.04	-0.03	-0.07	0.60*	0.57*	0.60*	0.59*	0.56*	0.57*	0.68*
14. Help$_{pre}$	3.61	0.81	0.02	-0.01	-0.08	0.59*	0.58*	0.56*	0.58*	0.58*	0.51*	0.67*
15. Help$_{post}$	3.54	1.00	0.05	-0.04	-0.06	0.57*	0.51*	0.61*	0.58*	0.51*	0.60*	0.65*

Table 4.1 (continued)
Descriptive Statistics and Correlations

	M	SD	11	12	13	14	15	16	17	18
1. Condition[1]	0.27	0.44								
2. Condition[2]	0.27	0.45								
3. Condition[3]	0.22	0.41								
4. Organizational Identification$_{mean}$	4.10	0.71								
5. Organizational Identification$_{pre}$	4.15	0.68								
6. Organizational Identification$_{post}$	4.02	0.83								
7. Affective Commitment$_{mean}$	3.96	0.72								
8. Affective Commitment$_{pre}$	4.05	0.70								
9. Affective Commitment$_{post}$	3.83	0.87								
10. Retention$_{mean}$	2.85	0.94								
11. Retention$_{pre}$	2.86	0.93								
12. Retention$_{post}$	2.83	0.99	0.94*							
13. Help$_{mean}$	3.58	0.86	0.66*	0.67*						
14. Help$_{pre}$	3.61	0.81	0.67*	0.66*	0.97*					
15. Help$_{post}$	3.54	1.00	0.62*	0.67*	0.96*	0.87*				

Table 4.1 (continued)
Descriptive Statistics and Correlations

	M	SD	1	2	3	4	5	6	7	8	9	10
16. AEL_{mean}	4.25	0.60	0.09	-0.05	-0.11	0.76*	0.76*	0.69*	0.67*	0.66*	0.61*	0.54*
17. AEL_{pre}	4.26	0.56	0.06	-0.06	-0.09	0.72*	0.75*	0.62*	0.64*	0.66*	0.54*	0.52*
18. AEL_{post}	4.24	0.70	0.12	-0.03	-0.12	0.76*	0.72*	0.73*	0.66*	0.61*	0.64*	0.54*

N= 184. AEL is active empathic listening. The mean for each is the average for all measurement occasions, pre is the average before the second writing exercise, post is the average after the second writing exercise. $Condition^1$ is affirmation v. control, $Condition^2$ is perspective taking v. control, and $Condition^3$ is reinforced perspective taking v. control. N= 146 for the retention measures based on data excluding graduating members.
* $p < 0.05$

Table 4.1 (continued)
Descriptive Statistics and Correlations

	M	SD	11	12	13	14	15	16	17	18
16. AEL_{mean}	4.25	0.60	0.53*	0.54*	0.56*	0.53*	0.54*			
17. AEL_{pre}	4.26	0.56	0.52*	0.49*	0.55*	0.54*	0.51*	0.97*		
18. AEL_{post}	4.24	0.70	0.51*	0.56*	0.53*	0.48*	0.54*	0.97*	0.87*	

N= 184. AEL is active empathic listening. The mean for each is the average for all measurement occasions, pre is the average before the second writing exercise, post is the average after the second writing exercise. $Condition^1$ is affirmation v. control, $Condition^2$ is perspective taking v. control, and $Condition^3$ is reinforced perspective taking v. control. N= 146 for the retention measures based on data excluding graduating members.
* $p < 0.05$

Table 4.2
Intraclass Correlation Coefficients

Model	Organizational Identification	Affective Commitment	Intent to Remain	Help	Active Empathic Listening
Null	0.71	0.58	0.77	0.70	0.68
All Conditions	0.71	0.58	0.77	0.70	0.68
Affirmation v Control	0.71	0.56	0.80	0.72	0.66
Perspective Taking v Control	0.68	0.53	0.76	0.76	0.68
Reinforced Perspective Taking v Control	0.71	0.62	0.79	0.71	0.72

Intraclass correlation coefficients presented for each dependent variable.

Table 4.3
Intraclass Correlation Coefficients (newcomer subset)

Model	Organizational Identification	Affective Commitment	Intent to Remain	Help	Active Empathic Listening
Null	0.57	0.53	0.74	0.54	0.54
All Conditions	0.56	0.58	0.72	0.55	0.54
Affirmation v Control	0.60	0.53	0.75	0.61	0.52
Perspective Taking v Control	0.59	0.63	0.71	0.62	0.55
Reinforced Perspective Taking v Control	0.53	0.59	0.72	0.55	0.64

Intraclass correlation coefficients presented for each dependent variable.

Table 4.4
Regression Results: Mixed Effect Discontinuous Growth Modeling Main Effects

Variable	Organizational Identification **Model 1**	Affective Commitment **Model 2**	Intent to Remain **Model 3**	Helping **Model 4**	Active Empathic Listening **Model 5**	Condition
Constant	4.42***(0.09)	4.42***(0.11)	4.25***(0.18)	3.80***(0.15)	4.33***(0.09)	Control
Trajectory	-0.03***(0.01)	-0.07***(0.01)	-0.04***(0.01)	-0.02†(0.01)	0.00(0.01)	
Trajectory Change	0.02(0.02)	0.07**(0.03)	0.02(0.03)	0.02(0.02)	-0.03(0.02)	
	Model 6	**Model 7**	**Model 8**	**Model 9**	**Model 10**	
Constant	4.25***(0.11)	4.27***(0.11)	3.92***(0.16)	3.71***(0.13)	4.25***(0.07)	Affirmation
Trajectory	-0.01(0.01)	-0.04***(0.01)	-0.04**(0.01)	-0.01(0.01)	0.01*(0.01)	
Trajectory Change	0.00(0.02)	0.04†(0.02)	0.06*(0.03)	0.03(0.03)	-0.01(0.02)	
	Model 11	**Model 12**	**Model 13**	**Model 14**	**Model 15**	
Constant	4.08***(0.09)	4.18****(0.10)	4.06***(0.14)	3.62***(0.13)	4.20***(0.08)	Perspective Taking
Trajectory	-0.01(0.01)	-0.06***(0.01)	-0.05***(0.01)	-0.01(0.01)	0.00(0.01)	
Trajectory Change	-0.01(0.02)	0.06*(0.02)	0.05†(0.03)	-0.01(0.02)	-0.01(0.02)	
	Model 16	**Model 17**	**Model 18**	**Model 19**	**Model 20**	
Constant	4.17***(0.12)	4.29***(0.11)	4.10***(0.15)	3.53***(0.13)	4.23***(0.09)	Reinforced Perspective Taking
Trajectory	-0.03*(0.01)	-0.07***(0.02)	-0.05**(0.02)	-0.01(0.02)	-0.02(0.01)	
Trajectory Change	0.02(0.02)	0.09***(0.03)	0.04†(0.03)	0.02(0.03)	0.02(0.02)	

Table 4.4 (continued)
Regression Results: Mixed Effect Discontinuous Growth Modeling Main Effects

Unstandardized regression coefficients reported (standard errors in parenthesis). For Models 1, 2, & 5 N= 678 observations in 45 individuals, for Model 3 N= 482 observations in 32 individuals, and for Model 4 N= 633 observations in 45 individuals. For Models 6, 7, & 10 N= 738 observations in 49 individuals, for Model 8 N= 610 observations in 41 individuals, and for Model 9 N= 689 observations in 49 individuals. For Models 11, 12, & 15 N= 759 observations in 50 individuals, for Model 13 N= 574 observations in 38 individuals, and for Model 14 N= 709 observations in 50 individuals. For Models 16, 17, & 20 N= 607 observations in 40 individuals, for Model 18 N= 529 observations in 35 individuals, and for Model 19 N= 567 observations in 40 individuals.

† $p<0.10$

* $p< 0.05$

** $p< 0.01$

*** $p< 0.001$

Table 4.5

Regression Results: Mixed Effect Discontinuous Growth Modeling Main Effects (newcomer subset)

Variable	**Organizational Identification** **Model 1**	**Affective Commitment** **Model 2**	**Intent to Remain1** **Model 3**	**Helping2** **Model 4**	**Active Empathic Listening** **Model 5**	Condition
Constant	4.48***(0.12)	4.34***(0.21)	4.37***(0.19)	3.42***(0.23)	4.36***(0.13)	Control
Initial Trajectory	0.00(0.01)	-0.02(0.02)	-0.01(0.01)	0.01(0.02)	0.04***(0.01)	
Trajectory Change	-0.05(0.04)	0.01(0.04)	-0.04(0.04)	-0.04(0.04)	-0.06**(0.02)	
	Model 6	**Model 7**	**Model 8**	**Model 9**	**Model 10**	
Constant	4.43***(0.16)	4.49***(0.16)	3.96***(0.25)	3.16***(0.26)	4.36***(0.14)	Affirmation
Initial Trajectory	0.00(0.01)	-0.03(0.02)	-0.03(0.02)	0.04(0.03)	0.02(0.02)	
Trajectory Change	0.00(0.04)	0.02(0.05)	0.05(0.04)	-0.07(0.06)	-0.01(0.04)	
Variable	**Model 11**	**Model 12**	**Model 13**	**Model 14**	**Model 15**	
Constant	3.99***(0.17)	4.11***(0.20)	3.75***(0.25)	3.43****(0.21)	4.17***(0.12)	Perspective Taking
Initial Trajectory	0.01(0.01)	-0.03(0.02)	-0.07**(0.02)	-0.05†(0.03)	0.02(0.02)	
Trajectory Change	-0.03(0.03)	0.01(0.05)	0.06(0.05)	0.07(0.05)	0.02(0.03)	
Variable	**Model 16**	**Model 17**	**Model 18**	**Model 19**	**Model 20**	
Constant	4.28***(0.16)	4.40***(0.16)	4.18***(0.20)	3.61***(0.23)	4.29***(0.15)	Reinforced Perspective Taking
Initial Trajectory	-0.02(0.02)	-0.06*(0.03)	-0.06*(0.03)	-0.02(0.03)	-0.02(0.02)	
Trajectory Change	-0.01(0.03)	0.04(0.05)	0.04(0.05)	0.02(0.05)	0.03(0.03)	

Table 4.5 (continued)
Regression Results: Mixed Effect Discontinuous Growth Modeling Main Effects (newcomer subset)

Data subset of newcomers. Unstandardized regression coefficients reported (standard errors in parenthesis). For Models 1, 2, 3, & 5 N= 191 observations in 13 individuals, and for Model 4 N= 178 observations in 13 individuals. For Models 6, 7, 8, & 10 N= 201 observations in 14 individuals, and for Model 9 N= 187 observations in 14 individuals. For Models 16, 17, 18, & 20 N= 218 observations in 15 individuals, and for Model 19 N= 203 observations in 15 individuals

† p<0.10

* p< 0.05

** p< 0.01

*** p< 0.001

Table 4.6

Regression Results: Mixed Effect Discontinuous Growth Modeling (all conditional effects)

	Organizational Identification		**Affective Commitment**		**Intent to Remain**	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	4.42***(0.09)	4.42***(0.09)	4.41***(0.09)	4.41***(0.09)	4.24***(0.15)	4.27***(0.16)
Trajectory	-0.02***(0.00)	-0.03***(0.01)	-0.06***(0.01)	0.07***(0.01)	-0.04***(0.01)	-0.05**(0.02)
Trajectory Change	0.01(0.01)	0.02(0.02)	0.06***(0.01)	0.07**(0.02)	0.04***(0.01)	0.02(0.03)
Condition (affirmation v. control)	-0.17(0.13)	-0.17(0.13)	-0.11(0.13)	-0.14(0.13)	-0.31(0.21)	-0.36†(0.21)
Condition (perspective taking v. control)	-0.36**(0.13)	-0.36**(0.13)	-0.23†(0.13)	-0.24†(0.13)	-0.19(0.21)	-0.21(0.21)
Condition (reinforced perspective taking v. control)	-0.26†(0.13)	-0.26†(0.14)	-0.14(0.13)	-0.14(0.13)	-0.14(0.21)	-0.16(0.22)
Trajectory* Condition (affirmation v. control)		0.02(0.01)		0.03(0.02)		0.01(0.02)
Trajectory* Condition (perspective taking v. control)		0.02†(0.01)		0.01(0.02)		0.00(0.02)
Trajectory* Condition (reinforced perspective taking v. control)		0.00(0.01)		-0.01(0.02)		0.00(0.02)
Trajectory Change* Condition (affirmation v. control)		-0.02(0.02)		-0.03(0.03)		0.03(0.04)
Trajectory Change* Condition (perspective taking v. control)		-0.04(0.02)		-0.02(0.03)		0.02(0.04)
Trajectory Change* Condition (reinforced perspective taking v. control)		0.00(0.02)		0.02(0.04)		0.02(0.04)

Table 4.6 (continued)

Regression Results: Mixed Effect Discontinuous Growth Modeling (all conditional effects)

	Helping		Active Empathic Listening	
Variable	**Model 7**	**Model 8**	**Model 9**	**Model 10**
Constant	3.78***(0.12)	3.80***(0.13)	4.33***(0.08)	4.33***(0.08)
Trajectory	-0.01†(0.01)	-0.02(0.02)	0.00(0.00)	0.00(0.01)
Trajectory Change	0.01(0.01)	0.02(0.02)	-0.01(0.01)	-0.03†(0.01)
Condition (affirmation v. control)	-0.25(0.17)	-0.26(0.18)	-0.12(0.11)	-0.10(0.11)
Condition (perspective taking v. control)	-0.14(0.16)	-0.18(0.17)	-0.13(0.11)	-0.13(0.11)
Condition (reinforced perspective taking v. control)	-0.09(0.16)	-0.10(0.17)	-0.07(0.11)	-0.08(0.11)
Trajectory* Condition (affirmation v. control)		0.01(0.02)		-0.02†(0.01)
Trajectory* Condition (perspective taking v. control)		0.02(0.02)		0.00(0.01)
Trajectory* Condition (reinforced perspective taking v. control)		0.01(0.02)		0.01(0.01)
Trajectory Change* Condition (affirmation v. control)		0.01(0.03)		0.05*(0.02)
Trajectory Change* Condition (perspective taking v. control)		-0.03(0.03)		0.01(0.02)
Trajectory Change* Condition (reinforced perspective taking v. control)		0.01(0.03)		0.01(0.02)

N= 2,782 total observations nested within 184 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Models 1 & 2 represent regression models used for organization identity, Models 3 & 4 represent regression models used for affective commitment, Models 5 & 6 represent regression models used for turnover intention, Models 7 & 8 represent regression models used for helping, Models 9 & 10 represent regression models used for active empathic listening. Models 5 & 6 use a subset of the data that excludes graduating members; N= 2,195 total observations nested within 146 individuals. Models 7 & 8 N= 2,598 total observations nested within 184 individuals.

† $p<0.10$

* $p< 0.05$

** $p< 0.01$

*** $p< 0.001$

Table 4.7

Regression Results: Mixed Effect Discontinuous Growth Modeling Hypothesis 1

	Organizational Identification		**Affective Commitment**		**Intent to Remain**	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	4.39***(0.10)	4.38***(0.10)	4.35***(0.11)	4.35***(0.11)	4.28***(0.18)	4.24***(0.18)
Trajectory	-0.02***(0.01)	-0.02***(0.01)	-0.05***(0.01)	-0.05***(0.01)	-0.04***(0.01)	-0.04***(0.01)
Trajectory Change	0.01(0.01)	0.00(0.02)	0.06***(0.02)	0.05*(0.02)	0.04*(0.02)	0.01(0.02)
Affirmation Condition	-0.10(0.13)	-0.09(0.13)	-0.03(0.13)	-0.03(0.14)	-0.38(0.23)	-0.31(0.23)
Trajectory Change*Affirmation Condition		0.01(0.02)		0.01(0.02)		0.05†(0.02)

N= 1,416 total observations nested within 94 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Affirmation Condition was coded 1 for the affirmation condition and 0 for the control condition. Models 1 & 2 represent regression models used for organization identity, Models 3 & 4 represent regression models used for affective commitment, and Models 5 & 6 represent regression models used for turnover intention in hypothesis testing. Models 5 & 6 use a subset of the data that excludes graduating members; N= 1,092 total observations nested within 73 individuals.

† $p<0.10$

* $p< 0.05$

** $p< 0.01$

*** $p< 0.001$

Table 4.8

Regression Results: Mixed Effect Discontinuous Growth Modeling Hypothesis 1 (newcomer subset)

	Organizational Identification		**Affective Commitment**		**Intent to Remain**	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	4.48***(0.14)	4.48***(0.14)	4.35***(0.18)	4.34***(0.18)	4.45***(0.22)	4.39***(0.22)
Trajectory	0.00(0.01)	0.00(0.01)	-0.03*(0.01)	-0.03*(0.01)	-0.02†(0.01)	-0.02†(0.01)
Trajectory Change	-0.02(0.03)	-0.05(0.04)	0.01(0.03)	0.01(0.04)	0.01(0.03)	-0.03(0.04)
Affirmation Condition	-0.05(0.19)	-0.05(0.19)	0.14(0.23)	0.01(0.05)	-0.58†(0.29)	-0.46(0.30)
Trajectory Change*Affirmation Condition		0.05(0.05)		0.01(0.05)		0.07(0.05)

Data subset of newcomers. N= 392 total observations nested within 27 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Affirmation Condition was coded 1 for the affirmation condition and 0 for the control condition. Models 1 & 2 represent regression models used for organization identity, Models 3 & 4 represent regression models used for affective commitment, and Models 5 & 6 represent regression models used for turnover intention in hypothesis testing.

† $p<0.10$

* $p< 0.05$

** $p< 0.01$

*** $p< 0.001$

Table 4.9

Regression Results: Mixed Effect Discontinuous Growth Modeling Hypothesis 1 (not controlling for autocorrelation)

	Organizational Identification		**Affective Commitment**		**Intent to Remain**	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	4.39***(0.10)	4.38***(0.10)	4.34***(0.11)	4.34***(0.11)	4.29***(0.18)	4.24***(0.18)
Trajectory	-0.02***(0.00)	-0.02***(0.00)	-0.05***(0.01)	-0.05***(0.01)	-0.04***(0.01)	-0.04***(0.01)
Trajectory Change	0.01(0.01)	0.00(0.02)	0.06***(0.02)	0.05*(0.02)	0.04*(0.02)	0.01(0.02)
Affirmation Condition	-0.10(0.13)	-0.09(0.13)	-0.03(0.14)	-0.03(0.14)	-0.40(0.23)	-0.32(0.24)
Trajectory Change*Affirmation Condition		0.01(0.02)		0.01(0.02)		0.05†(0.03)

N= 1,416 total observations nested within 94 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Affirmation Condition was coded 1 for the affirmation condition and 0 for the control condition. Models 1 & 2 represent regression models used for organization identity, Models 3 & 4 represent regression models used for affective commitment, and Models 5 & 6 represent regression models used for turnover intention in hypothesis testing. Models 5 & 6 use a subset of the data that excludes graduating members; N= 1,092 total observations nested within 73 individuals.

† p<0.10

* p< 0.05

** p< 0.01

*** p< 0.001

Table 4.10
Regression Results: Mixed Effect Discontinuous Growth Modeling Hypothesis 2

	Organizational Identification		**Affective Commitment**		**Intent to Remain**	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	4.38***(0.09)	4.37***(0.09)	4.39***(0.10)	4.39***(0.10)	4.27***(0.17)	4.27***(0.17)
Trajectory	-0.02***(0.01)	-0.02***(0.01)	-0.06***(0.01)	-0.06***(0.01)	-0.05***(0.01)	-0.05***(0.01)
Trajectory Change	0.00(0.01)	0.00(0.02)	0.06***(0.02)	0.06**(0.02)	0.04†(0.02)	0.02(0.02)
Perspective Taking Condition	-0.26*(0.12)	-0.26*(0.12)	-0.19(0.13)	-0.19(0.13)	-0.21(0.22)	-0.21(0.22)
Trajectory Change*Perspective Taking Condition		0.00(0.02)		0.00(0.02)		0.02(0.03)

N= 1,437 total observations nested within 95 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Perspective Taking Condition was coded 1 for the perspective taking condition and 0 for the control condition. Models 1 & 2 represent regression models used for organization identity, Models 3 & 4 represent regression models used for affective commitment, and Models 5 & 6 represent regression models used for turnover intention in hypothesis testing. Models 5 & 6 use a subset of the data that excludes graduating members; N= 1,056 total observations nested within 70 individuals.

† $p<0.10$
* $p< 0.05$
** $p< 0.01$
*** $p< 0.001$

Table 4.11

Regression Results: Mixed Effect Discontinuous Growth Modeling Hypothesis 2 (newcomer subset)

	Organizational Identification		**Affective Commitment**		**Intent to Remain**	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	4.47***(0.13)	4.46***(0.13)	4.33***(0.18)	4.36***(0.19)	4.48***(0.20)	4.48***(0.21)
Trajectory	0.00(0.01)	0.00(0.01)	-0.03*(0.01)	-0.03*(0.01)	-0.04**(0.01)	-0.04**(0.01)
Trajectory Change	-0.04(0.03)	-0.06(0.04)	0.01(0.03)	0.02(0.04)	0.01(0.03)	0.01(0.04)
Perspective Taking Condition	-0.45*(0.19)	-0.43*(0.19)	-0.21(0.25)	-0.27(0.26)	-0.87**(0.26)	-0.87**(0.29)
Trajectory Change*Perspective Taking Condition		0.03(0.05)		-0.03(0.04)		0.00(0.05)

Data subset of newcomers. N= 352 total observations nested within 24 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Perspective Taking Condition was coded 1 for the perspective taking condition and 0 for the control condition. Models 1 & 2 represent regression models used for organization identity, Models 3 & 4 represent regression models used for affective commitment, and Models 5 & 6 represent regression models used for turnover intention in hypothesis testing.

† p<0.10

* p< 0.05

** p< 0.01

*** p< 0.001

Table 4.12
Regression Results: Mixed Effect Discontinuous Growth Modeling Hypothesis 2 (not controlling for autocorrelation)

	Organizational Identification		**Affective Commitment**		**Intent to Remain**	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	4.37***(0.09)	4.37***(0.09)	4.38***(0.10)	4.38***(0.10)	4.27***(0.16)	4.27***(0.16)
Trajectory	-0.02***(0.00)	-0.02***(0.00)	-0.06***(0.01)	-0.06***(0.01)	-0.05***(0.01)	-0.05***(0.01)
Trajectory Change	0.00(0.01)	0.00(0.02)	0.06***(0.02)	0.06**(0.02)	0.03†(0.02)	0.02(0.02)
Perspective Taking Condition	-0.26*(0.12)	-0.26*(0.12)	-0.19(0.13)	-0.19(0.13)	-0.21(0.22)	-0.21(0.22)
Trajectory Change*Perspective Taking Condition		0.01(0.02)		0.00(0.02)		0.02(0.03)

N= 1,437 total observations nested within 95 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Perspective Taking Condition was coded 1 for the perspective taking condition and 0 for the control condition. Models 1 & 2 represent regression models used for organization identity, Models 3 & 4 represent regression models used for affective commitment, and Models 5 & 6 represent regression models used for turnover intention in hypothesis testing. Models 5 & 6 use a subset of the data that excludes graduating members; N= 1,056 total observations nested within 70 individuals.

† $p<0.10$
* $p< 0.05$
** $p< 0.01$
*** $p< 0.001$

Table 4.13
Regression Results: Mixed Effect Discontinuous Growth Modeling Hypotheses 3 & 4

	Organizational Identification		**Affective Commitment**		**Intent to Remain**	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	4.42***(0.09)	4.42***(0.09)	4.42***(0.10)	4.41***(0.10)	4.26***(0.16)	4.27***(0.16)
Trajectory	-0.03***(0.01)	-0.03**(0.01)	-0.07***(0.01)	-0.07***(0.01)	-0.05***(0.01)	-0.05***(0.02)
Trajectory Change	0.02†(0.01)	0.02(0.02)	0.08***(0.02)	0.07**(0.03)	0.03*(0.02)	0.03(0.03)
Reinforced Perspective Taking Condition	-0.26†(0.14)	-0.26†(0.14)	-0.14(0.14)	-0.14(0.14)	-0.15(0.22)	-0.16(0.22)
Trajectory*Reinforced Perspective Taking Condition		0.00(0.01)		-0.01(0.02)		0.00(0.02)
Trajectory Change*Reinforced Perspective Taking Condition		0.00(0.02)		0.01(0.04)		0.02(0.03)

N= 1,285 total observations nested within 85 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Reinforced Perspective Taking Condition was coded 1 for the reinforced perspective taking condition and 0 for the control condition. Models 1 & 2 represent regression models used for organization identity, Models 3 & 4 represent regression models used for affective commitment, and Models 5 & 6 represent regression models used for turnover intention in hypothesis testing. Models 5 & 6 use a subset of the data that excludes graduating members; N= 1,011 total observations nested within 67 individuals.

† $p<0.10$

* $p< 0.05$

** $p< 0.01$

*** $p< 0.001$

Table 4.14

Regression Results: Mixed Effect Discontinuous Growth Modeling Hypotheses 3 & 4 (newcomer subset)

	Organizational Identification		**Affective Commitment**		**Intent to Remain**	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	4.52***(0.14)	4.49***(0.14)	4.34***(0.16)	4.33***(0.17)	4.35***(0.19)	4.35***(0.19)
Trajectory	-0.01(0.01)	-0.01(0.02)	-0.04*(0.02)	-0.02(0.02)	-0.04*(0.02)	-0.01*(0.02)
Trajectory Change	-0.03(0.02)	-0.04(0.03)	0.03(0.03)	0.01(0.04)	0.00(0.03)	-0.03(0.04)
Reinforced Perspective Taking Condition	-0.27(0.18)	-0.20(0.20)	0.04(0.21)	0.07(0.23)	-0.18(0.26)	-0.19(0.26)
Trajectory*Reinforced Perspective Taking Condition		-0.02(0.02)		-0.03(0.03)		-0.05(0.04)
Trajectory Change*Reinforced Perspective Taking Condition		0.03(0.04)		0.03(0.06)		0.08(0.06)

Data subset of newcomers. N= 409 total observations nested within 28 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Reinforced Perspective Taking Condition was coded 1 for the reinforced perspective taking condition and 0 for the control condition. Models 1 & 2 represent regression models used for organization identity, Models 3 & 4 represent regression models used for affective commitment, and Models 5 & 6 represent regression models used for turnover intention in hypothesis testing.

† p<0.10

* p< 0.05

** p< 0.01

*** p< 0.001

Table 4.15

Regression Results: Mixed Effect Discontinuous Growth Modeling Hypotheses 3 & 4 (not controlling for autocorrelation)

	Organizational Identification		**Affective Commitment**		**Intent to Remain**	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	4.42***(0.09)	4.42***(0.09)	4.41***(0.10)	4.41***(0.10)	4.27***(0.16)	4.28***(0.16)
Trajectory	-0.03***(0.01)	-0.03**(0.01)	-0.07***(0.01)	-0.07***(0.01)	-0.05***(0.01)	-0.05**(0.02)
Trajectory Change	0.02†(0.01)	0.02(0.02)	0.08***(0.02)	0.07**(0.03)	0.04*(0.02)	0.03(0.03)
Reinforced Perspective Taking Condition	-0.26†(0.14)	-0.26†(0.14)	-0.15(0.14)	-0.15(0.14)	-0.16(0.22)	-0.18(0.22)
Trajectory*Reinforced Perspective Taking Condition		0.00(0.02)		-0.01(0.02)		0.01(0.02)
Trajectory Change*Reinforced Perspective Taking Condition		0.00(0.02)		0.02(0.04)		0.01(0.04)

N= 1,285 total observations nested within 85 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Reinforced Perspective Taking Condition was coded 1 for the reinforced perspective taking condition and 0 for the control condition. Models 1 & 2 represent regression models used for organization identity, Models 3 & 4 represent regression models used for affective commitment, and Models 5 & 6 represent regression models used for turnover intention in hypothesis testing. Models 5 & 6 use a subset of the data that excludes graduating members; N= 1,011 total observations nested within 67 individuals.

† $p<0.10$

* $p< 0.05$

** $p< 0.01$

*** $p< 0.001$

Table 4.16
Regression Results: Mixed Effect Discontinuous Growth Modeling Hypothesis 5

	Helping		**Active Empathic Listening**	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**
Constant	3.79***(0.13)	3.80***(0.13)	4.34***(0.08)	4.33***(0.08)
Trajectory	-0.02(0.01)	-0.02(0.02)	-0.01(0.01)	0.01(0.01)
Trajectory Change	0.02(0.02)	0.02(0.02)	0.00(0.01)	-0.02(0.02)
Reinforced Perspective Taking Condition	-0.25(0.18)	-0.26(0.19)	-0.13(0.12)	-0.10(0.12)
Trajectory*Reinforced Perspective Taking Condition		0.01(0.02)		-0.02(0.01)
Trajectory Change*Reinforced Perspective Taking Condition		0.01(0.03)		0.04*(0.02)

Unstandardized regression coefficients are reported (standard errors in parenthesis). Reinforced Perspective Taking Condition was coded 1 for the reinforced perspective taking condition and 0 for the control condition. Models 1 & 2 represent regression models used for helping, N= 1,200 observations nested within 85 individuals, and Models 3 & 4 represent regression models used for Active Empathic listening, N= 1,285 observations nested within 85 individuals.

† $p<0.10$

* $p< 0.05$

** $p< 0.01$

*** $p< 0.001$

Table 4.17

Regression Results: Mixed Effect Discontinuous Growth Modeling Hypothesis 5 (newcomer subset)

	Helping		**Active Empathic Listening**	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**
Constant	3.48***(0.20)	3.43***(0.22)	4.42***(0.14)	4.36***(0.15)
Trajectory	-0.01(0.02)	0.01(0.03)	0.01(0.01)	0.04(0.02)
Trajectory Change	-0.01(0.03)	0.04(0.04)	-0.01(0.02)	-0.06*(0.02)
Reinforced Perspective Taking Condition	0.08(0.24)	0.19(0.30)	-0.18(0.19)	-0.07(0.20)
Trajectory*Reinforced Perspective Taking Condition		-0.03(0.04)		-0.05*(0.01)
Trajectory Change*Reinforced Perspective Taking Condition		0.05(0.06)		0.09*(0.04)

Data subset of newcomers. Unstandardized regression coefficients are reported (standard errors in parenthesis). Reinforced Perspective Taking Condition was coded 1 for the reinforced perspective taking condition and 0 for the control condition. Models 1 & 2 represent regression models used for helping, N= 381 observations nested within 28 individuals, and Models 3 & 4 represent regression models used for Active Empathic listening, N= 409 observations nested within 28 individuals.

† $p<0.10$

* $p< 0.05$

** $p< 0.01$

*** $p< 0.001$

Table 4.18
Regression Results: Mixed Effect Discontinuous Growth Modeling Hypothesis 5 (not controlling for autocorrelation)

	Helping		**Active Empathic Listening**	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**
Constant	3.79***(0.13)	3.79***(0.13)	4.35***(0.08)	4.33***(0.08)
Trajectory	-0.02(0.01)	-0.02(0.02)	-0.01(0.01)	0.00(0.01)
Trajectory Change	0.02(0.02)	0.02(0.02)	0.00(0.01)	-0.02(0.01)
Reinforced Perspective Taking Condition	-0.25(0.18)	-0.26(0.19)	-0.13(0.12)	-0.09(0.12)
Trajectory*Reinforced Perspective Taking Condition		0.01(0.02)		-0.02†(0.01)
Trajectory Change*Reinforced Perspective Taking Condition		0.01(0.03)		0.04*(0.02)

Unstandardized regression coefficients are reported (standard errors in parenthesis). Reinforced Perspective Taking Condition was coded 1 for the reinforced perspective taking buffer and 0 for the control condition. Models 1 & 2 represent regression models used for helping, N= 1,200 observations nested within 85 individuals, and Models 3 & 4 represent regression models used for Active Empathic listening, N= 1,285 observations nested within 85 individuals.

† $p<0.10$

* $p< 0.05$

** $p< 0.01$

*** $p< 0.001$

Table 4.19
Regression Results: Mixed Effect Discontinuous Growth Modeling Supplemental Analysis

	Organizational Identification		Affective Commitment		Intent to Remain	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	4.25***(0.10)	4.25***(0.10)	4.32***(0.10)	4.31***(0.10)	3.94***(0.15)	3.94***(0.15)
Trajectory	-0.01*(0.01)	-0.01*(0.01)	-0.05***(0.01)	-0.05***(0.01)	-0.04***(0.01)	-0.04***(0.01)
Trajectory Change	-0.01(0.01)	0.00(0.01)	0.05**(0.02)	0.06**(0.02)	0.05**(0.02)	0.07**(0.02)
Supplemental Condition	-0.17(0.13)	-0.17(0.13)	-0.18(0.13)	-0.17(0.13)	0.10(0.20)	0.10(0.21)
Trajectory Change*Supplemental Condition		-0.01(0.02)		-0.01(0.02)		-0.02(0.03)

N=1,497 total observations nested within 99 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Supplemental Condition was coded 1 for the perspective taking condition and 0 for the affirmation condition. Models 1 & 2 represent regression models used for organization identity, Models 3 & 4 represent regression models used for affective commitment, and Models 5 & 6 represent regression models used for turnover intention in supplement analysis. Models 5 & 6 use a subset of the data that excludes graduating members; N= 1,184 total observations nested within 79 individuals.

† p<0.10
* p< 0.05
** p< 0.01
*** p< 0.001

Table 4.20

Regression Results: Mixed Effect Discontinuous Growth Modeling Supplemental Analysis (newcomer subset)

	Organizational Identification		**Affective Commitment**		**Intent to Remain**	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	4.41***(0.15)	4.40***(0.15)	4.52***(0.115)	4.51***(0.15)	4.02***(0.23)	4.05***(0.23)
Trajectory	0.00(0.01)	0.00(0.01)	-0.03*(0.01)	-0.03*(0.01)	-0.05**(0.01)	-0.05**(0.01)
Trajectory Change	-0.01(0.03)	-0.01(0.03)	0.01(0.03)	0.02(0.04)	0.06†(0.03)	0.08*(0.04)
Supplemental Condition	-0.39†(0.21)	-0.38†(0.22)	-0.44*(0.20)	-0.42†(0.21)	-0.33(0.33)	-0.41(0.34)
Trajectory Change*Supplemental Condition		-0.01(0.04)		-0.03(0.05)		-0.06(0.05)

Data subset of newcomers. N=362 total observations nested within 25 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Condition was coded 1 for the perspective taking condition and 0 for the affirmation condition. Models 1 & 2 represent regression models used for organization identity, Models 3 & 4 represent regression models used for affective commitment, and Models 5 & 6 represent regression models used for turnover intention in supplemental analysis.

† $p<0.10$

* $p< 0.05$

** $p< 0.01$

*** $p< 0.001$

Table 4.21

Regression Results: Mixed Effect Discontinuous Growth Modeling Supplemental Analysis (not controlling for autocorrelation)

	Organizational Identification		Affective Commitment		Intent to Remain	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	4.24***(0.10)	4.24***(0.10)	4.30***(0.10)	4.29***(0.10)	3.92***(0.15)	3.92***(0.15)
Trajectory	-0.01*(0.00)	-0.01*(0.00)	-0.05***(0.01)	-0.05***(0.01)	-0.04***(0.01)	-0.04***(0.01)
Trajectory Change	-0.01(0.01)	0.00(0.01)	0.05**(0.02)	0.05**(0.02)	0.05**(0.02)	0.06**(0.02)
Supplemental Condition	-0.17(0.13)	-0.17(0.13)	-0.18(0.13)	-0.16(0.13)	0.11(0.21)	0.11(0.21)
Trajectory Change*Supplemental Condition		-0.01(0.02)		-0.02(0.02)		-0.03(0.03)

N=1,497 total observations nested within 99 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Condition was coded 1 for the perspective taking condition and 0 for the affirmation condition. Models 1 & 2 represent regression models used for organization identity, Models 3 & 4 represent regression models used for affective commitment, and Models 5 & 6 represent regression models used for turnover intention in supplemental analysis. Models 5 & 6 use a subset of the data that excludes graduating members; N= 1,184 total observations nested within 79 individuals.

† $p<0.10$

* $p< 0.05$

** $p< 0.01$

*** $p< 0.001$

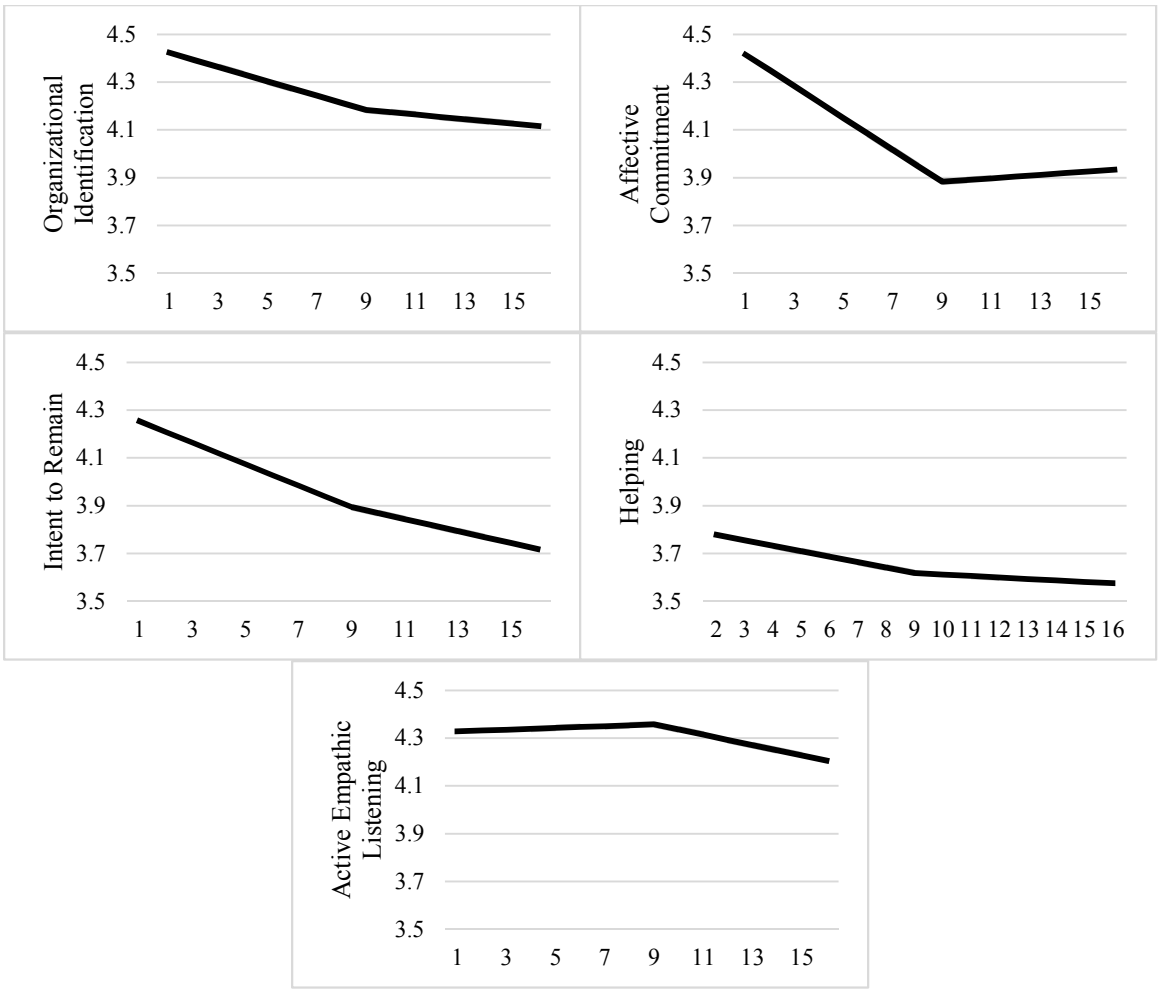

Figure 4.1. Predicted main effect discontinuous growth models of each dependent variable for individuals in the control condition.

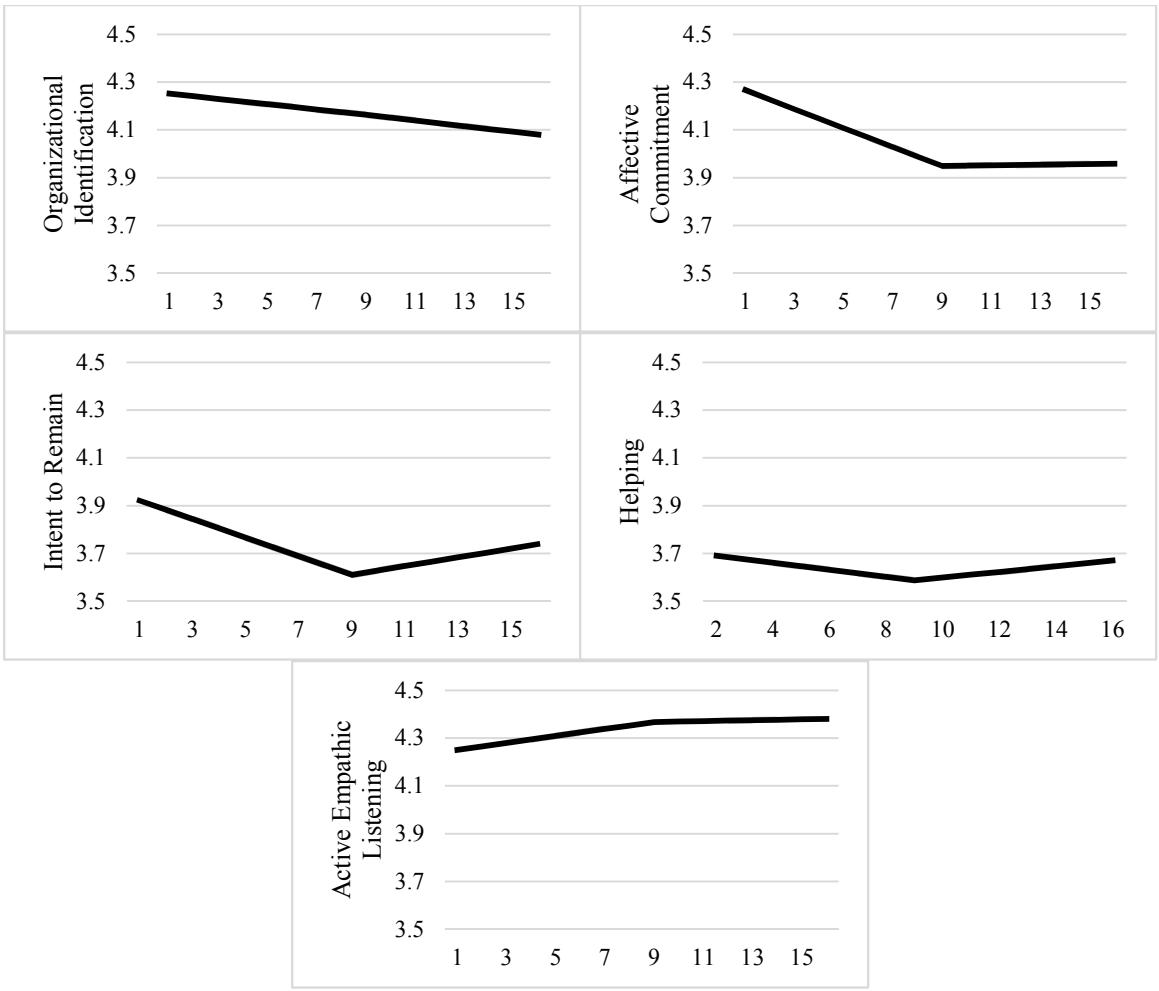

Figure 4.2. Predicted main effect discontinuous growth models of each dependent variable for individuals in the affirmation condition.

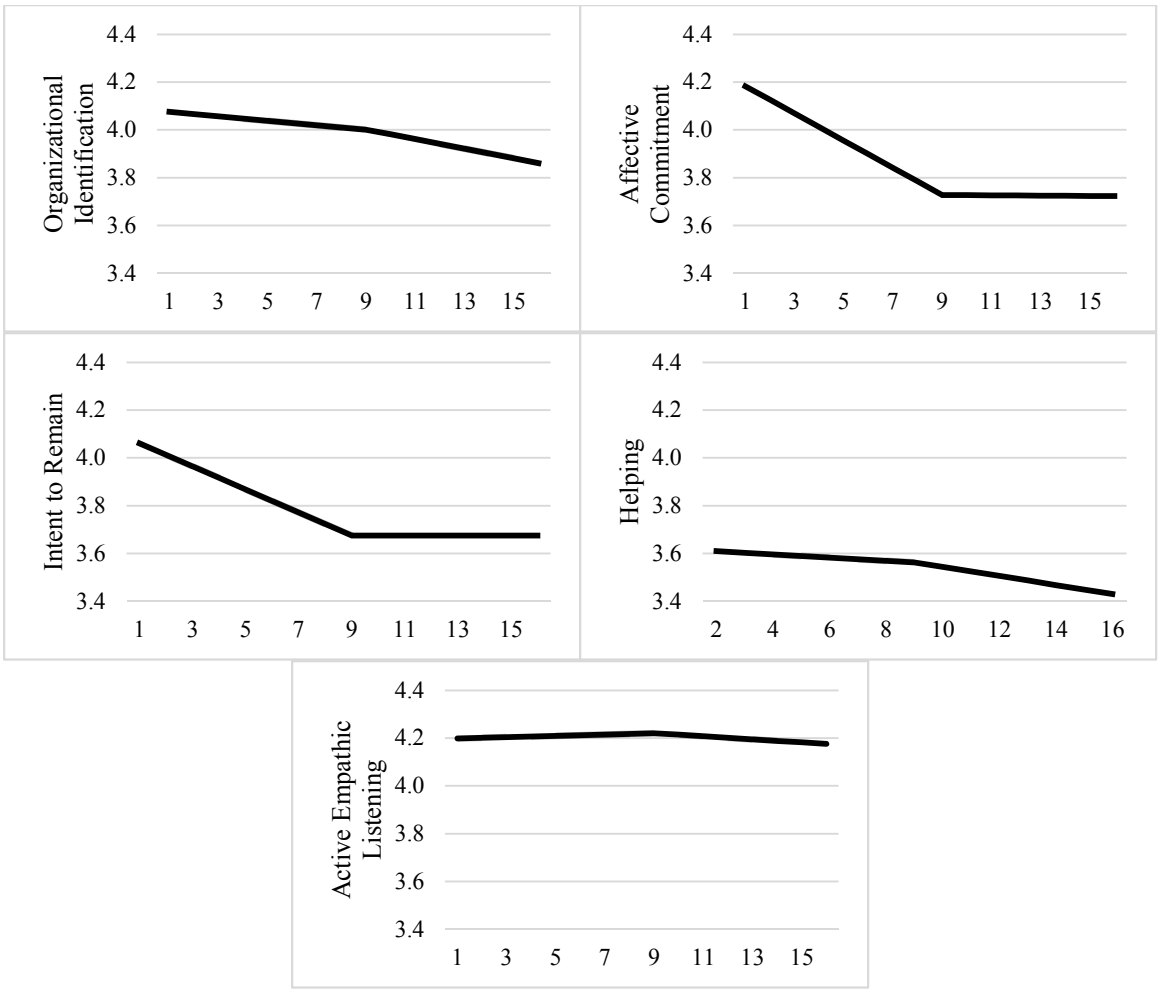

Figure 4.3. Predicted main effect discontinuous growth models of each dependent variable for individuals in the perspective taking condition.

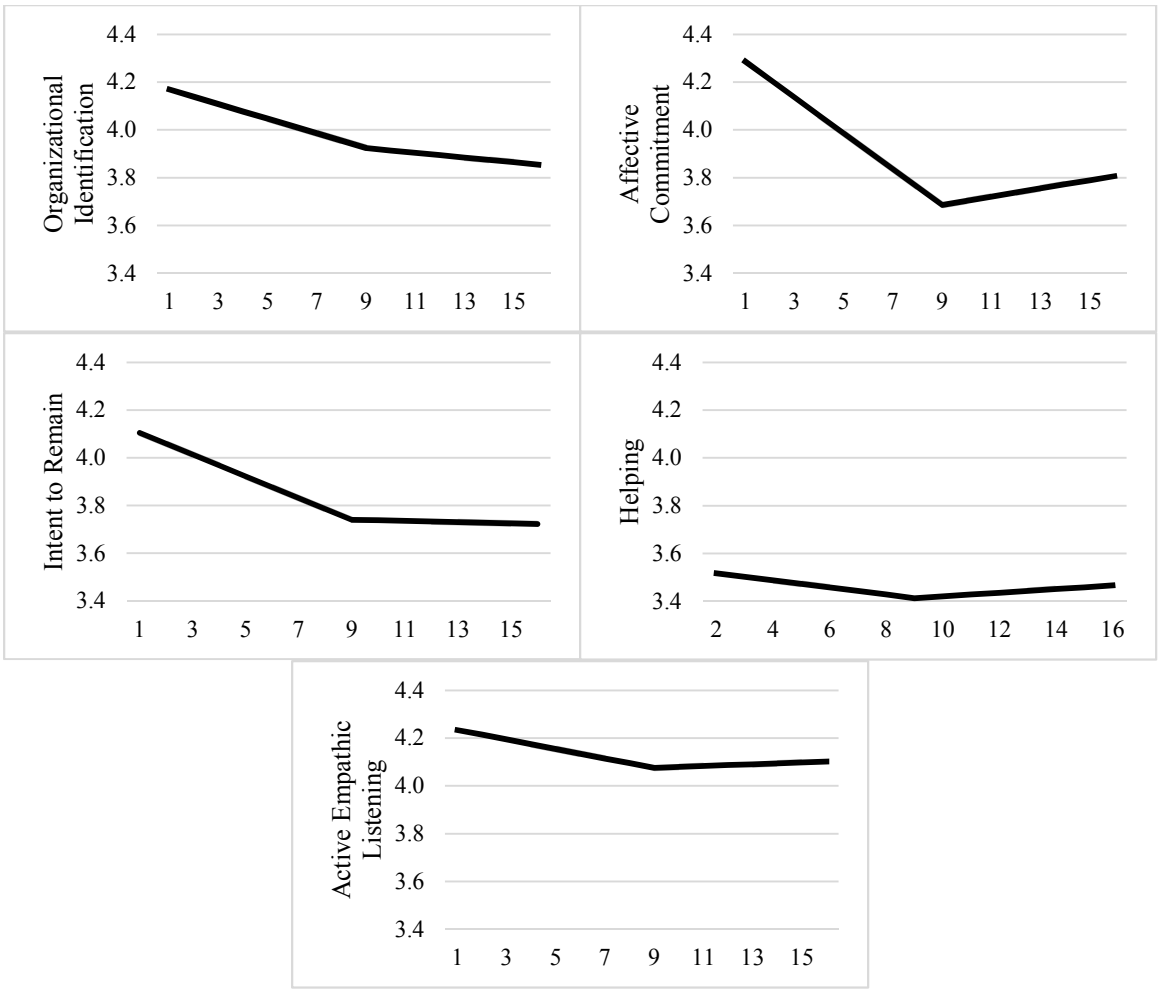

Figure 4.4. Predicted main effect discontinuous growth models of each dependent variable for individuals in the reinforced perspective taking condition.

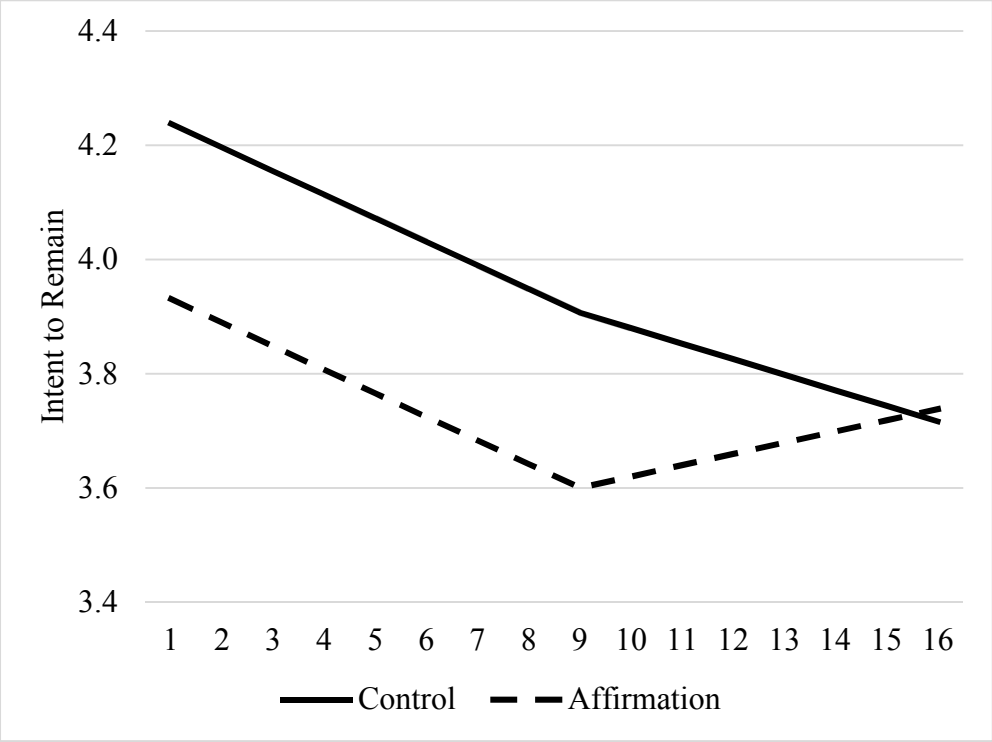

Figure 4.5. Post-second writing exercise trajectory change for intent to remain moderated by condition (affirmation v. control).

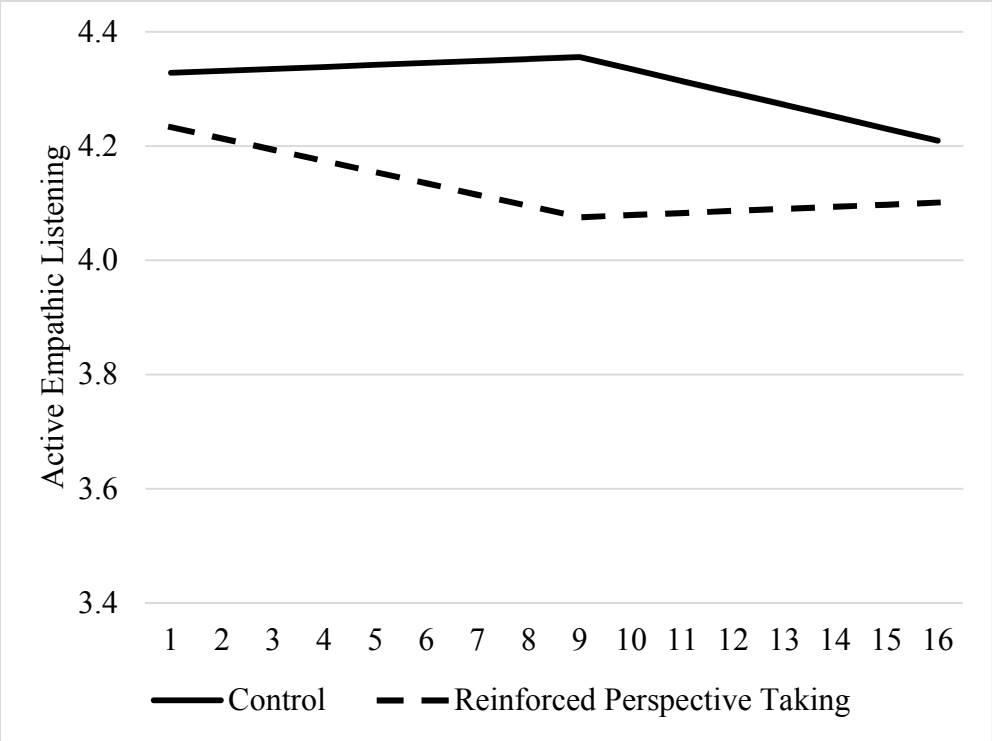

Figure 4.6. Active empathic listening trajectory and trajectory change moderated by condition (reinforced perspective taking v. control).

CHAPTER 5

DISCUSSION

This study used a process-oriented approach to examining how self-affirmation and perspective taking may intervene upon the sense-making process of fit by exploring trajectories of individuals' organizational attachment and interpersonal behaviors. Research on fit suggests that an ongoing process that changes in trajectory following meaningful events related to membership in organizations (Jansen & Shipp, 2018). Both self-affirmation theory and motivated information processing theory appear to offer mechanisms that may facilitate positive trajectory changes in fit. Using a process-oriented conceptual framework, I hypothesized the intervention's effects as differences in outcome trajectories and trajectory changes. Following the scientific process, I also set out to replicate surprising findings from a previous study (Appendix B). I found support for affirmation facilitating positive changes in individuals' intent to remain trajectories and for perspective taking facilitating more steady (less negative) active empathic listening trajectories. Additionally, I found support for the main effect of positive intent to remain trajectory changes following the second writing exercise within both of the perspective taking conditions (see Table 4.4).

Considering these findings and those reported in the Appendices, the program of research presented in this dissertation presents a number of promising implications. Together, all three studies follow a similar conceptual framework that has implications for a wide variety of change-oriented research. Additionally, the present study and

Appendix B provide a foundation for rigorous temporally-oriented randomized trial interventions. Finally, this study is not without limitations. Considering these limitations, I also propose future directions for process-oriented research on organizational attachment and interpersonal behaviors in organizations.

Theoretical Implications

First, this program of research has set out to reframe how research examines change. Building from an analytic tool (discontinuous growth modeling), I provided three different theoretical approaches to change. First, in Appendix A, I reframed adaptation as a process rather than an outcome. Next, in Appendix B and the present study I built on recent research on fit trajectories (e.g. Jansen & Shipp, 2018) to explore theoretical mechanisms that may facilitate positive trajectory changes in organizations with heterogeneous members. Finally, my dissertation built on the study in Appendix B with a number of intriguing findings surrounding the mechanisms that serve to facilitate positive trend changes in individuals' attachment to their organizations and their interpersonal behaviors. Together, these studies show how process-oriented analytic tools can be combined with existing theory to make new sets of theoretical predicts. As Ployhart & Vandenberg (2010) note, theory is inherently dynamic yet empirical work has not often explored theory in a dynamic approach. Future research on change-oriented phenomena can use my approach as a blue print for integrating process-oriented analytics (e.g., discontinuous growth modeling, latent growth modeling, etc) with theory to make specific predictions about the nature and form of change.

Second, the present study offers an important implication for research on self-affirmation in organizations. Appendix B adapted self-affirmation theory and a well-

established values affirmation intervention to the organizational context. In doing so, it appeared that the control condition inadvertently activated perspective taking in the interdependent organizational context. The present study addressed this by testing affirmation against a truly neutral control and found support for the prediction that individuals who affirmed their important values related to membership had more positive intent to remain trajectory changes than individuals who did not. This implies that self-affirmation is an important mechanism to consider in organizational research and that self-affirmation influences an important non-performance outcome, retention. Future work on members' organizational attitudes can build off of this finding to consider self-affirmation and other outcomes such as task performance or engagement. Importantly, in an organization, affirming one's own important values that are shared by the organization appears to facilitate growth in valuable outcomes compared to a truly neutral control.

The significant finding for affirmation and intent to remain also lends support to the theoretical notion that self-affirmation is a mechanism that can intervene upon the sense-making process of fit. Other fit research can build upon this to examine what other forms of affirmation (beyond values affirmation) may occur in organizations. Expanding the set of self-affirming acts is a promising area of future inquiry for temporally-based fit research.

Finally, the present study expanded research on perspective taking in organizations to consider a new set of outcomes. Fundamentally perspective taking serves to enhance individuals' attitudes, beliefs, and behaviors (Kunda, 1990; Salancik & Pfeffer, 1978). I extended theory on perspective taking to consider pro-organizational interpersonal behaviors that may be enhanced by perspective taking. My results lend

support to the value of perspective taking for listening, which is an important interpersonal behavior in work teams (Bashshur & Oc, 2015; Morrison, 2014). This has implications for research on interdependent work groups. In this view, it is not simply the presence of diversity that promotes team effectiveness. Rather, it is through understanding and appreciating the diversity of other members that teams may achieve higher levels of teamwork and task work. Indeed, in this view, rather than diversity promoting conflict (e.g., Jehn & Bezrukova, 2010), perspective taking is an important exercise that has the potential to aid teams to capitalize on their diversity (e.g. Todd & Galinsky, 2014).

Limitations and Future Directions

Despite the encouraging results, this study is not without its limitations. First, I used the same organization for all three studies presented here in three consecutive marching band seasons. Many of the participants were the same from year to year. Thus, using similar procedures and intervention manipulations on a set of subjects with many overlapping individuals produced a lot of noise in the sample. This is the reason that I conducted robustness checks using only organizational newcomers. However, we also know that organizational newcomers experience the organization in different ways and have unique attitudinal patterns because of the newcomer experience (e.g. Appendix A; Boswell et al., 2005; 2009). Therefore, it is quite possible that the sample was saturated.

Further, while the intervention activities are personal in nature, and the manipulation check supports that each prompt activated its intended psychological process, the nature of the organization is such that members share information with each other frequently. Thus, individuals assigned to different conditions were likely to

compare notes and discuss what they wrote about, again introducing noise into the sample. Future work can capitalize on the theory by testing components of this intervention with new samples in organizations with varying degrees of interdependence.

Second, despite the strong statistical power, this study was likely too complex. The conditional ICC(1)s for each outcomes suggest that little to no outcome variance is explained by assignment to intervention condition. In addition to the potentially saturated sample, the low conditional ICC(1)s could be the result of too many conditions and temporal components involved in one data collection. Future intervention studies should examine different theoretical components of this study separately. For example, one study should focus exclusively on self-affirmation while a separate study should focus exclusively on perspective taking. Additionally, the temporal component should be moved to its own study entirely. Each of these theoretical predicts are strong enough to stand alone with rigorous empirics and would offer important contributions to research on the sense-making process of fit.

Third, additional work is likely needed to establish procedures for the perspective taking components of the intervention. In their review, Ku et al. (2015) note that different domains require different cognitive resources and thus the same perspective taking exercise may have its intended effects in some domains while working to diminish its own effectiveness in others. Therefore, it is likely that perspective taking exercises need to be more domain specific. Further research is also needed to determine if perspective taking needs to be linked to values. Using values was a handy theoretical means of adding perspective taking to existing procedures for self-affirmation. However, it may be more helpful to explicate perspective taking about other members' important outcomes

directly (similar to negotiation research) rather than the antecedents to those outcomes, their personal values.

Fourth, despite using established measures it appears that the constructs I examined are highly related. As Table 4.1 illustrates, many of the composite means for the constructs are highly correlated. Further, the reliabilities for each measure tend to vary as discussed in Chapter 4. Therefore, it is not clear that I captured independent constructs over the course of the study. I utilized measures for each construct from their own unique literatures. My theory suggested the same effects for the three attachment related outcomes and the same effects for the two behavioral outcomes. In line with making the same theoretical predictions, it would be quite difficult to empirically distinguish my dependent variables. It is outside of the scope of the current study, but future work is needed to empirically distinguish or consolidate these highly related constructs.

Finally, there was a surprising relationship between assignment to the reinforced perspective taking condition and affirmation during the first writing exercise (where there was not an affirmation prompt for any condition). This raises additional questions about the relationship between self-affirmation and perspective taking. Theory on each suggests that they should serve to enhance a similar set of outcomes through quite different mechanisms by addressing self-focus and other-focus respectively. While the scope of this study was to test both self-affirmation and perspective taking against a neutral control, my supplemental analyses failed to find differences between the two conditions. The lack of difference between the two conditions and the surprising findings in Appendix B suggest the theoretical likelihood that optimal distinctiveness may be

involved (Brewer, 2012). Optimal distinctiveness would explain that self-affirmation and perspective taking have a potential combined effect where individuals appreciate both their similarity to and uniqueness from other organizational members. Future work is needed to examine and further distinguish the theoretical and empirical linkages between self-affirmation and perspective taking.

Conclusion

This study set out to test how self-affirmation and perspective taking may intervene upon the sense-making process of fit to enhance members' organizational attachment and important interpersonal behaviors. While the results suggested that self-affirmation led to positive intent to remain trajectory changes and that perspective taking led to positive active empathic listening trajectory changes, overall the results were void of significance. Both self-affirmation and perspective taking offer great potential as intervention mechanisms for studying attachment. Thus, future research is needed to break down the complexity of the current intervention study. Additional work is needed to examine self-affirmation and perspective taking in organizations with various levels of interdependence.

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APPENDIX A

TRACKING THE PROCESS OF ADAPTATION: HOW EMOTIONAL STABILITY AND STRONG EVENTS INFLUENCE SUSTAINED COMMITMENT[1]

Adaptation is the process of adjusting to external stimuli. While a variety of adaptive processes occur in organizations (e.g. Arkes, Hirschleifer, Jiang, & Lim, 2008; Chan & Schmitt, 2000; Diener, Lucas, & Scollon, 2006; Frederick & Loewenstein, 1999; Lance, Vandenberg, & Self, 2000; Pulakos, Arad, Donovan, & Plamondon, 2000), research on adaptation as a process has been surprisingly limited. We suggest that the process of adaptation is best understood by examining trajectories of change – patterns of within-unit change over time – in outcomes of interest (Lucas, 2007). The phenomenon of adaptation often involves persons or groups changing in response to discrete changes in the environment, such as modifying group processes in response to a disruption in communication technology (LePine, 2003). But in many cases, adaptation is reflected in an entity's ability to sustain a positive state, such as well-being (Lucas, Clark, Georgellis, & Diener, 2003), in the face of ongoing demands that might otherwise cause a decline in that state, such as declinsing affective commitment (e.g., Vandenberghe, Bentein, & Panaccio, 2017). In this investigation, we examine the process of adaption to both ongoing and discrete stimuli, focusing on affective commitment and how individual

[1] Flynn, P.J., Bliese. P.D., Korsgaard, M.A., & Cannon, C. To be submitted to a journal.

differences in trajectories of affective commitment can be used to draw inferences about adaptation.

Affective commitment broadly refers to individuals' emotional attachment to, identification with, and involvement in an organization (Allen & Meyer, 1990), and emerges through a combination of individual and organizational factors over time (Klein, Molloy, & Brinsfield, 2012; Mathieu & Zajac, 1990; Meyer, Stanley, Herscovith, & Topolnytsky, 2002). We conceptualize adaptation as the ability to sustain affective commitment over time which is reflected in trajectories with little to no change from ongoing stimuli or from discrete events. Given the hedonic underpinnings of affective commitment (Allen & Meyer, 1990), we draw from theory on hedonic adaptation (e.g. Frederick & Lowenstein 1999; Diener & Oishi, 2005; Lucas, 2007) to explain affective commitment trajectories. Hedonic adaptation refers to individuals' accommodation to the effects of both ongoing and discrete stimuli. Scholars of hedonic adaptation (Bowling, Beehr, Wagner & Libkuman, 2005; Diener et al., 2006), have also suggested a link between individual differences in emotional stability and adaptation. We therefore also investigate how emotional stability explains differences in affective commitment trajectories. We specifically examine an organizational context in which individuals experienced the same ongoing organizational stimuli, enabling us to study the roles of both stimuli and individual differences on affective commitment trajectories (e.g., Lance et al., 2000).

To examine these relationships, we conducted a longitudinal field study involving a large student organization within a university setting in which affective commitment was assessed weekly over a four-month period. As we collected the data, organizational

members experienced an unexpected positive event. This provided us the opportunity to examine adaptation to a discrete strong event as well as the ongoing stimuli present in the organizational environment. Thus, we draw on event system theory (Morgeson, Mitchell, & Liu, 2015) to differentiate discontinuous change associated with strong events from incremental change associated with ongoing stimuli, and the role of emotional stability in explaining differences in these processes.

This investigation makes three main contributions. First, our conceptual and analytic framework illustrates how focusing on trajectories can help reframe theory and research questions around adaptation as a dynamic phenomenon. Second, by integrating the analytic framework of discontinuous growth modeling with theory on hedonic adaption and event system theory, we provide insights into adaptation processes in response to both ongoing stimuli and strong events. Third, by examining pattern differences associated with emotional stability in a shared context, we provide a novel way to understand the role that individual differences play in adaptation and we offer suggestions for future research that can build off these ideas.

THE PROCESS OF ADAPTATION

Adaptive processes have been conceptualized in a variety research streams, including adaptive performance (e.g. Huang, Ryan, Zabel, & Palmer, 2014; Kozlowski, Gully, Brown, Salas, Smith, & Nason, 2001; Pulakos et al., 2000), newcomer socialization (e.g. Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007; Boswell, Boudreau, & Tichy, 2005; Lance et al., 2000), expatriate adjustment (e.g., Kraimer, Bolino, & Mead, 2016; Maertz, Hassan, & Magnusson, 2009), reference point adaptation (e.g., Arkes et al., 2008; Kahneman, 1992), and hedonic adaptation (e.g. Brickman,

Coates, & Janoff-Bulman, 1978; Frederick & Loewenstein, 1999). Adaptation may manifest in a variety of patterns, depending on the outcome of interest. For example, adaptive performance involves relatively lasting alterations in behavioral repertoires to meet new demands (Pulakos et al., 2000). In contrast, hedonic adaptation involves the attenuation of the effect of stimuli on affective reactions (Fredrick & Lowenstein, 1999). As a pattern of response, adaptation is not directly measured, but inferred from trajectories and trajectory changes in the outcome of interest over time (Lucas, 2007). Such patterns of response necessarily include trajectories both prior to and following events. For example, Lucas et al. (2003) conducted a longitudinal study of happiness following marriage. Their results show that people had increased happiness in the first year of marriage, but their levels of happiness gradually declined to a point that was no higher than the years prior to marriage (Lucas et al., 2003). Had they conducted a simple pre-post test of mean differences immediately surrounding the event, their findings would have suggested that marriage made people significantly happier, thereby obscuring the underlying adaptation process.

Research on adaptation and affective states has largely focused on hedonic adaptation as the process by which people grow accustomed to a positive or negative stimulus, such that its impact on outcomes is weakened over time. These stimuli may be ongoing, ongoing environmental features such as role overload or discrete strong events such as job loss. The process of hedonic adaptation is thought to be functional for two reasons (Frederick & Lowenstein, 1999; Lyubomirsky, 2010). First, it protects individuals from the potential harm of persistently high levels of arousal; that is, it prevents people from being overwhelmed by their emotions. Second, hedonic adaptation

allows individuals to be sensitive to the signal value of subsequent stimuli; that is, it enables individuals to be aware of future changes in their environment. We turn to affective commitment as a means of exploring the process of hedonic adaptation to understand the conditions under which affective commitment trajectories are sustained, or level, over time.

Sustained Affective Commitment

Affective commitment predicts important outcomes such as performance, citizenship, and turnover (Bentein, Vandenberg, Vandenberghe, & Stinglhamber, 2005; Mathieu & Zajac, 1990; Meyer et al., 2002), and is considered an important outcome in adaptation processes (Lance et al., 2000). As a dynamic construct, affective commitment is subject to the influence of ongoing stimuli and strong events (Moregeson et al., 2015; Weiss & Cropanzano, 1996), and represents a potentially sensitive indicator from which to infer adaptation processes. Relational forms of attachment to organizations, such as affective commitment, are sensitive to change based on the external environment and individuals' experiences in the organization (Bentein et al., 2005; Lance et al., 2000; Morrison & Robinson, 1997; Rosen, Chang, Johnson, & Levy, 2009).

Research has examined the temporal nature of affective commitment by examining trajectories of change and the outcomes associated with such changes. For example, Bentein et al. (2005) found that affective commitment declined in a negative linear trajectory over time. Changes in affective commitment over time were also inversely related to turnover intentions, meaning that declines in affective commitment resulted in greater turnover intentions (Bentein et al., 2005). In another example, Vandenberghe et al., (2017) also demonstrated negative affective commitment

trajectories over time. These studies illustrate the nature of change in affective commitment, suggesting its instability over time. Finally, Lance et al. (2000) conceptualized newcomer adjustment as a pattern of change in commitment, demonstrating differences in adaptation to job change based on individual differences, such as anticipated met expectations. Thus, because affective commitment is subject to change over time, it is an outcome well-suited to examine the process of adaptation. Consistent with theory on hedonic adaptation, we conceptualize the process of adaptation as sustained, or stable, commitment over time.

Individual Differences in Adaptation

The conceptual framework of hedonic adaptation suggests an overall trend toward stabilized affective outcomes, but scholars also acknowledge that this pattern is likely to vary substantially between individuals (Lucas, 2007). Specifically, theory suggests that emotional stability is likely to mitigate the impact of ongoing and discrete stimuli on adaptation (Bowling et al., 2005; Diener, et al 2006). Emotional stability is defined as individuals' tendency to be calm, even-tempered, self-confident, and secure (Barrick & Mount, 1991). Individuals with high emotional stability (low neuroticism) are more likely to make sense of the environment through task-focused coping (Boyes & French, 2010), acting on their environment to reduce the impact of negative stimuli. Further, individuals with high emotional stability tend to be more future oriented and less focused on past experiences (Shipp, Edwards, & Lambert, 2009), suggesting that they are less impacted in the present by past experiences. Individuals with low emotional stability have more dramatic reactions to stressors and conflicts (Bolger & Zuckerman, 1995; Rodell & Judge, 2009) and engage in lower levels of adaptive behaviors (Huang et al., 2014). But

the evidence of the role of emotional stability is largely from cross-sectional studies and has not examined the process of adaption.

At the same time, longitudinal studies of discrete events suggest that there are differences in adaptation (Lucas, 2007), but such research has been limited in understanding a priori differences that explain adaptation (Diener et al., 2006). For example, studies of adaption to unemployment typically draw from the general population in which individuals are unemployed for a variety of reasons (e.g., Clark, Diener, Georgellis, & Lucas, 2008; Lucas, Clark, Georgellis & Diener, 2004; Knabe, Rätzel, Schöb, & Weimann, 2010). In such cases, unemployment may be confounded with individual differences that led to unemployment and influence coping with job loss. Without the ability to separate the event from the individual characteristics, we are limited in our ability to gain insights about differences in adaptability. In contrast, we examine an event that is exogenous to the individual difference (the event occurs for all members of the organization). By examining this type of event, we can extend the hedonic adaptation framework to consider emotional stability, an individual difference associated with coping (Diener et al., 2006), which is positively related to affective commitment (Choi, Oh, & Colbert, 2015).

A FRAMEWORK FOR STUDYING ADAPTATION

Much of the research on adaptation, however, has lacked the longitudinal methodology to thoroughly examine how the combination of ongoing environmental stimuli and strong events impacts trajectories and trajectory changes in adaptation processes. In many cases, the main limitation is a lack of either sufficient pre-event baseline data or a lack of post-event data (see Bliese, Adler, & Flynn, 2017; Lucas,

2007). When sufficient pre and post-event data are available, discontinuous growth modeling and its variants are well suited to test patterns of response necessary to infer adaptation (Bliese & Lang, 2016; Singer & Willett, 2003). Specifically, the use of discontinuous growth modeling allows one to contrast trajectories of interest in the focal variable before (ongoing environmental stimuli) and after an event (discrete trajectory changes), and to model individual differences that account for variance in these trajectories and trajectory changes. Multiple characteristics of trajectories – direction, level, and rate – as well as discrete changes in these characteristics are testable with discontinuous growth modeling, thereby providing the ability to comprehensively examine adaptation processes and individual differences in adaptation. Using discontinuous growth modeling as a foundation, we propose a conceptual framework for studying process and use the example of adaptation to build and test specific hypotheses.

We conceptualize the process of adaptation as a pattern of response to ongoing and discrete (event-based) stimuli over time, that is manifested in an outcome trajectory of change prior to and following exposure to stimuli. Trajectories may be incremental, reflecting the response to ongoing stimuli, and they may be changed by strong events that can stall, accelerate, or reverse the direction of an existing trajectory (Morgeson et al., 2015). Examining trajectories and trajectory changes provides a temporal illustration of process that cannot be obtained from static or mean comparison approaches. This conceptualization of adaptation requires applying temporal modeling to explore overall patterns of response that include trajectories and event-based trajectory changes.

Several conditions must be met in order to demonstrate meaningful individual differences in process as a trajectory. First, variability must exist between trajectories.

That is, individuals must vary in the degree to which they adapt to their environments. If each individual shows a similar trajectory or trajectory change, it is not possible to infer differences in adaptation. Hedonic adaptation research suggests that individual differences influence the process of adaptation (Lucas et al., 2003; Lucas, 2007), but there has been limited empirical insight into explanatory variables for these differences, and moderators of adaptation processes present the opportunity for insights into the individual difference component of adaptability (Diener et al., 2006). We therefore hypothesize that individuals in our sample will differ in their affective commitment response trajectories both with respect to ongoing stimuli and with respect to a strong event. We can formally state this requirement as hypotheses – hypotheses that provide a foundation for subsequent hypotheses:

Hypothesis 1: There are individual differences in the trajectories of affective commitment over time in the context of ongoing stimuli.

Hypothesis 2: There are individual differences in the trajectory changes of affective commitment following a strong event.

The second condition for studying adaptation as a process is that evidence of functional adaptation represents a specific pattern interpreted relative to other patterns of response, and one should be able to specify, *a priori*, a pattern that represents adaptation in a given context. Given that adaption involves the attenuation of response trajectories, in the context of ongoing stimuli, the functional pattern of adaption would involve maintaining a relatively stable level of affective commitment. We propose that individuals who maintain stable (and high) levels of affective commitment when faced

with ongoing stimuli are demonstrating more adaptability than are individuals whose affective commitment decreases and/or varies considerably over time.

We also more formally develop the idea that individual differences in response patterns to specific events inform our understanding of adaptation processes. More specifically, in our context (and in many organizational contexts) we believe that muted patterns of affective commitment in response to ongoing stimuli and strong events represent greater adaptation than enhanced trajectories. In other words, we propose that individuals who have relatively steady or stable affective commitment trajectories when encountering organizational events demonstrate adaptive patterns. It is worth emphasizing that what does and does not constitute adaptive patterns depends on the nature of the event and the nature of the outcome being assessed. For instance, we would not consider a steady, non-labile, response pattern to be adaptive if assessing task motivation in response to a threat.

The third, and perhaps most interesting, condition is that one should be able to identify individual differences that are related to the differential trajectories. Indeed, we believe the identification of individual differences represents the core component of research on adaptation. A key goal of adaptation research centers on identifying (*a priori*) individual difference factors (e.g., gender, age, personality) associated with adaptive patterns of response and that would presumably generalize to other contexts. For instance, dispositional characteristics, such as personality, are considered stable over time and are likely to influence individuals' adaptation (Bowling et al., 2005; Huang et al., 2014). From a methodological and design perspective, one of the strengths with using our proposed paradigm to study adaptability is that individual difference factors are

commonly assessed prior to collecting data on trajectories. The fact that individual differences are collected first helps support claims that subsequent differences in trajectories are at least partially a function of the assessed individual differences.

With these three conditions in mind, we more formally develop hypotheses about individual differences and adaptation with respect to response patterns surrounding ongoing stimuli and strong events for affective commitment. We focus on the role of emotional stability as an individual difference likely to play a role in adaptation processes.

Adaptation to Ongoing Stimuli

Studies of affective commitment trajectories have found that individuals tend to exhibit declining affective commitment over time (e.g., Bentein et al., 2005; Vandenberghe et al., 2017). Examining individual differences associated with adaptability can explain the mechanisms through which adaptation does or does not occur (Diener et al., 2006; Lucas, 2007). Emotional stability is an individual difference that we expect to predict different patterns of affective commitment in response to ongoing stimuli. As noted above, cross-sectional studies have shown that emotional stability is associated with various indicators of adaption that would suggest individuals higher in emotional stability should have more sustained affective commitment over time.

While there is evidence that emotional stability is associated with a higher level of affective commitment (Choi et al., 2015), our prediction of differences in trajectories associated with emotional stability is qualitative different. Indeed, emotional stability may appear unimportant in initial stages. For ongoing stimuli, differences in affective commitment between emotionally stable and unstable individuals should increase over

time. Organizational environments offer a mix of positive and negative stimuli, and individuals tend to react more strongly to negative stimuli (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Therefore, individuals low in emotional stability are less able to cope and recover from ongoing negative stimuli. We thus expect individuals low in emotional stability to be particularly vulnerable to the impact of ongoing negative stimuli demonstrating poor adaptation as reflected by a decreasing trajectory of affective commitment.

> *Hypothesis 3*: In response to ongoing stressors, affective commitment will decline more over time for individuals low in emotional stability than for individuals high in emotional stability.

Adaptation to Strong Events

Affective commitment is also subject to the influence of discrete events (Weiss & Cropanzano, 1996), but research on adaption suggests that response to such events is complex. For instance, the adaptation literature suggests that affective states can temporarily change because of discrete events and often return to a set point, but in other cases, events create trajectories that lead to a new set point (Diener at al., 2006). According to event system theory (Morgeson et al., 2015), strong discrete events disrupt ongoing processes and create changes in environmental features or ongoing phenomena. Thus, strong events are liable to create environmental changes that alter affective commitment trajectories.

Event strength is a function of one or more of three event characteristics. The first, novelty, refers to the extent to which the event represents a new or unexpected phenomenon. Second, disruptiveness refers to the degree of change in usual activities.

The third is criticality, which refers to the degree to which an event is important (Morgeson et al., 2015). For instance, a work furlough is a strong event because it is unusual, disrupts normal life routines, and impacts critical outcomes such as financial well-being. Not surprisingly, Halbesleben, Wheeler, and Paustian-Underdahl (2013) found that work furloughs are associated with increased levels of emotional exhaustion. Similarly, job transitions are strong events that provide new day-to-day experiences in a new environment for job changers (Boswell et al., 2005; Lance et al., 2000). These strong events disrupt individuals' ongoing organizational experiences and can create lasting changes in their outcome trajectories. Research on reactions to strong organizational events has been largely limited to examining negative strong events. Similar temporal patterns of response are likely for positive strong events as well. For example, an organization winning a highly competitive RFP bid is a strong event because it is unlikely, disrupts normal production demands, and has a positive impact on financial outcomes.

An event serves as the proximal cause of affect and attitudes (Weiss & Cropanzano, 1996). The stronger an event is, through a combination of novelty, criticality, and disruptiveness, the greater its impact on outcome trajectories (Morgeson et al., 2015). Strong events that interrupt ongoing processes are likely to result in trajectory changes. An event in which the outcome is more favorable than anticipated is strong because it is unexpected and changes individuals' organizational outlooks, and positive because the outcome is more desirable than what was anticipated. A positive event at the organizational level is likely to elicit positive affect (Bowling et al., 2005). Thus, a strong positive event should diminish or stop unfavorable (i.e., declining) affective commitment

trajectories, and may potentially initiate favorable (i.e., increasing) affective commitment trajectories. Therefore, we expect that the impact of a positive strong event will lead to a positive affective commitment trajectory change compared to pre-event trajectories.

Hypothesis 4: A positive strong event changes affective commitment trajectories to be more positive than pre-event trajectories.

Support for Hypotheses 4 is important to establish the existence of a strong event within our context. With respect to understanding adaptability, however, it is important to emphasize that individuals differ in their adaptation to strong events (Bowling et al., 2005; Diener et al., 2006; Lucas, 2007; Weiss & Cropanzano, 1996). As with responses to ongoing stimuli, we expect individual differences in emotional stability to influence responses to strong events. Given their reactivity, ineffective coping, and focus on the past (Bolger & Zuckerman, 1995; Boyes & French, 2010; Rodell & Judge, 2009; Shipp et al., 2009), emotionally unstable individuals are likely to experience more dramatic shifts between pre- and post-event affective commitment trajectories. Emotionally stable individuals, on the other hand, given their even temperament, should experience less change in their affective commitment trajectories following an event. Thus, change between pre- and post-event affective commitment trajectories will be more dramatic for individuals low in emotional stability.

Hypothesis 5: The impact of a positive strong event on individuals' affective commitment trajectories will be moderated by emotional stability, such that there will be a greater change in the trajectory for individuals lower in emotional stability.

Affective Commitment and Retention

While the relationship between events and outcome trajectories is fundamental to our theoretical model, affective commitment ultimately predicts behaviors and is apt to play a role in member retention. Affective commitment is negatively related to turnover (Meyer et al., 2002). Thus, individuals' affective commitment should be reflected in their decisions to remain with or leave the organization. We expect that average post-event affective commitment will positively impact retention. Therefore, to establish the relevance of our focal outcome, we also examine affective commitment as a predictor of retention.

Hypothesis 6a: Average post-event affective commitment is positively related to retention.

In addition to influencing affective commitment patterns over time, we expect that emotional stability also moderates the predictive probability of average post-event affective commitment for retention. Emotionally unstable individuals are more reactive, less effective at coping, and more focused on the past than emotionally stable individuals (Bolger & Zuckerman, 1995; Boyes & French, 2010; Rodell & Judge, 2009; Shipp et al., 2009). Consistent with the notion that emotional stability is negatively related to fluctuation in attitudes, Judge, Simon, Hurst, and Kelley (2014) showed that individuals lower in emotional stability had greater fluctuation in their day-to-day states. Research on the links between attitudes and behavior has demonstrated that stronger attitudes – including those that are more stable – are more predictive of behavior (Ajzen, 1991). Attitude strength is the certainty, crystallization, accessibility, and stability of an attitude that improves its predictive validity (Liska, 1984; Tesser & Shaffer, 1990). Thus, because

we expect emotionally unstable individuals to experience more dramatic shifts between pre- and post-event affective commitment trajectories, we expect their post-event affective commitment to be less predictive of retention. Specifically, the relationship between individuals' post-event affective commitment and probability of retention is likely to be moderated by emotional stability where average post-event affective commitment is more strongly related to retention for emotionally stability individuals than emotionally unstable individuals.

> *Hypothesis 6b*: The relationship between average post-event affective commitment and retention is moderated by emotional stability, such that the relationship is more strongly predictive for individuals high in emotional stability than for individuals low in emotional stability.

METHOD

Setting

This study was conducted in a marching band at a large university. This is an ideal empirical setting because member commitment is important, there are frequent performance cycles, and high levels of engagement are required to meet the effort and time demands of membership in a marching band. The setting provides a context for longitudinal analysis where each week presents a new performance task (halftime performance) and members of the organization experience discrete events (football game days and other public performances) together throughout the season. Because of their interdependence, collegiate marching bands' success requires a high level of engagement from their members throughout the football season, often consisting of 20 hours or more during home game weeks, on top of other academic obligations. Finally, this context

provides a basis for examining within- and between-individual differences in adaptation because all members are exposed to shared discrete events, and similar time demands and potential role conflicts both within the marching band and the broader university setting.

Collegiate marching bands are interdependent organizations (e.g., Murnighan & Conlon, 1991) that perform music and drill (marching) routines at football games. Performances consist of routinized marching maneuvers and songs played in a full instrumental arrangement. Our specific sample setting is affiliated with an NCAA Division I football program. The full organization performs in front of more than 80,000 fans at every home game, and games are typically televised on national broadcasts. Marching bands are tied closely to football teams and perform their routines prior to the beginning and at halftime of football games. Additionally, some outcomes associated with membership in the marching band are tied to the football team's performance. For example, when the team is invited to participate in a post-season game, the members of the band earn a free trip to attend the game and to perform.

Sample

Our sample organization had 382 members who were solicited for voluntary participation in the longitudinal study. Members of the research team met with the entire organization to explain the study and acquire participant consent. In total, 314 individuals provided at least three repeated-measures responses that could be used in the study, representing a participation rate of 82%. The average age of respondents was 19 and 50% were female (50% male).

Procedure

To test the hypotheses, we implemented a longitudinal repeated-measures study design that consisted of an initial assessment of subject personality characteristics and demographics, along with sixteen repeated-measures surveys. The repeated-measures surveys were administered weekly; the first instance was included with the personality assessment at the beginning of the marching band season, several weeks before the first football game. The weekly surveys were administered via email through the Qualtrics survey platform at the conclusion of rehearsal every Wednesday and asked respondents to consider their experience in the organization over the previous week. We chose to collect data on a weekly basis between football game days to mirror the organization's transitions between performances and new routines. This longitudinal orientation allowed us to capture ongoing measures, while also providing enough time for discrete events to occur between measurement occasions that may or may not have been strong events.

Measures

Affective Commitment. We used a 2-item scale adapted from Allen and Meyer's (1990) organization commitment scale. We employed a shortened scale to avoid respondent fatigue from repeated use of a longer multi-item scale (Jones & Shah, 2016; Wanous, Reichers, & Hudy, 1997). Respondents were asked to consider their experiences in the marching band and on campus during the previous week and then rated the items using a 5-point Likert scale from (1) strongly disagree to (5) strongly agree. The items were "I feel like 'part of the family' in the (marching band)," and "I feel a strong sense of belonging to the (marching band)." These items were chosen because of their high factor loadings from the affective commitment items in Allen and Meyer's (1990) scale

development and adapted to our empirical context. Affective commitment was measured in each of the weekly surveys for the repeated-measures design. The items were reliable across each week of data collection (α ranged from 0.86 to 0.95).

Emotional Stability. We used a 10-item scale adapted from Goldberg's (1992) big five personality assessment. Respondents rated the items using a 5-point Likert scale from (1) strongly disagree to (5) strongly agree. The items included "I change my mood a lot" and "I have frequent mood swings." Emotional stability was measured in the initial personality survey and was reliable (α= 0.83).

Retention. Several months after the marching band season had ended, members were asked to register for participation in the following season. We used this registration to create a dichotomous retention variable used to test the predictive validity of affective commitment. Individuals who registered to return to the organization were coded as 1 and those who did not were coded as 0. Importantly, graduating members could not return to the organization. Thus, we created a subset of our data to only include non-graduating members. The dichotomous retention variable was paired with this subset of subjects for analysis and this subset consisted of 276 subjects. Within this subset of the data, 79% of members registered to return to the organization, representing a high retention rate.

Time. Time was indexed by 16 measurement occasions (0 to 15) to examine the linear growth curve. We created an additional time covariate described in the analytic approach section to examine the hypothesized impact of the event.

Strong Event. Football game days are discrete events that are experienced temporally by all members of the organization. Our study design captured measures between game days for the prospect that an unanticipated event may occur during data

collection. The strong event in our study was a specific football game day in which a series of unexpected outcomes occurred. The halftime performance was more popular than originally anticipated, and the football game ended in a surprise upset win for the sample university's team. Given the unanticipated performance popularity and the game outcome, the game day was a strong event experienced simultaneously by all the individuals in the sample.

Informal post-hoc subject interviews substantiate the strength and positivity of both the performance and game outcomes. Without any real-time measure of performance success, we relied on subject anecdotes that described the halftime performance in terms of unusually enthusiastic applause from the crowd. Subjects also reported on the significance of the game outcome to their membership in the organization, by recalling the excitement and importance of the event months later.

Post-hoc measurement supports these anecdotal reports. A YouTube video of this specific halftime performance has received 7,566 views (as of this paper draft) while previous weeks' performances range from 712 to 2,936 views. To assess the strength of the unanticipated game outcome, we tracked the score and point spread of the game. The point spread represents casino-sponsored betting expectations for the outcome of the game. For the game in question, the point spread opened a week before the game, at 14 points favoring the opposing team, and grew steadily to 14.5 points at close of betting, representing a large level of confidence in the opponent winning the game. The sample university led by 7 points at halftime and won by 3 points. This represents a game outcome that was 17.5 points greater for the sample university's team than casinos had anticipated, thus the outcome was quite unanticipated in a positive manner. Therefore, we

believe that the game day experience of the popular halftime performance nested within the upset football victory represents a positive strong event in the event system of our sample organization.

Analytic Approach

To test our hypothesized relationships, we employed discontinuous growth modeling to measure change and the impact of a strong event over time (Bliese & Lang, 2016; Singer & Willett, 2003). Discontinuous growth modeling is an offshoot of the mixed-effect model, where the typical design matrix is expanded to include additional time covariates that reflect a transition event. This approach allows for the contrasting of pre- and post-event attitudinal trajectories. In total, we analyzed 3,927 responses from 314 participants, with 145 respondents having completed every survey instance and missing survey instance responses treated as random. The 314 participants were nested within 14 instrumental groups. We examined to see if it was appropriate to account for the nested nature of the data at the group level. Interclass correlation coefficients (ICC(1)) at the group level were 0.02. In addition, we found no significant differences (log likelihood ratio= 3.13, ns) between models with random intercepts associated with individuals nested within groups and those associated only with the individual level. Therefore, we tested the hypotheses at the individual level and assumed no discernable differences across groups.

The use of discontinuous growth modeling allows for flexibility and precision in how the effects of time are modeled and tested based on how time is coded. We focused on two key time-related effects, the coding of which is listed in Table A.1. Pre-event trajectories associated with ongoing day to day experiences are captured by the first time

covariate. The parameter associated with the second time covariate represents the difference between pre- and post-event trajectories.

RESULTS

Table A.2 contains descriptive statistics and correlations for the variables in the study. Composite mean variables are presented for affective commitment that are overall, pre-event, and post-event means. The variables of interest were all correlated ($p < 0.05$).

Before testing specific hypotheses, we estimated the interclass correlation coefficients (ICC(1)) from a null model at the within individual level. ICC(1) was 0.68, suggesting that roughly 68% of the repeated measures variance in affective commitment can be explained by individual subjects.

Hypothesis Tests

To test Hypotheses 1 and 2, we contrasted alternative models to investigate - individual differences in both affective commitment trajectories and trajectory changes (see Table 3). This procedure involves estimating a baseline model with random intercepts, then adding random slopes and contrasting model fit (Bliese & Ployhart, 2002). Hypothesis 1 predicted individual differences in pre-event affective commitment trajectories. Hypotheses 2 predicted individual differences in post-event trajectory changes. Table A.3 has the results of the model comparison procedures.

The model that included random intercepts and random slopes for the pre-event parameter fit the data better than the random intercept model. These results indicate that pre-event affective commitment trajectories varied between individuals. Therefore, Hypotheses 1 was supported. Additionally, the model that included random intercepts and random slopes for both of the time covariates (pre-event and post-event change) fit

the data better than the random intercept and random pre-event model. These results suggest that post-event changes in affective commitment trajectories also varied between individuals, supporting Hypothesis 2.

Given that we were examining repeated measures over time, we also examined the error structure of our data. First, we tested the data for autocorrelation. Model comparison indicates autocorrelation, which is to be expected in repeated measures analysis (Bliese & Ployhart, 2002), for both affective commitment and emotional exhaustion. We then examined the error structures of both models for heteroscedasticity. Models including a heteroscedasticity term failed to converge, which is often associated with estimates at or near zero. We controlled for autocorrelation in our analyses, and all subsequent models include these terms.

Support for Hypotheses 1 and 2 indicates systematic individual differences, thereby justifying the examination of moderators. Hypothesis 3 predicted that individuals' affective commitment trajectories over time would be moderated by emotional stability, such that emotionally stable individuals have less change over time in response to ongoing stressors. Hypothesis 3 was tested by examining the interaction between pre-event and emotional stability reported in Model 2 (Table A.4). A significant interaction obtained for affective commitment supports Hypothesis 3. The moderated relationship in Hypothesis 3 is depicted in the pre-event plot of affective commitment over time in Figure A.1 and can be interpreted from the trajectories prior to the strong event. The plot indicates that individuals high in emotional stability had relatively stable affective commitment over time, while individuals low in emotional stability experienced declining affective commitment over time.

Hypothesis 4 concerned the impact of a strong event on individuals' affective commitment trajectories, the results of which are summarized in Table A.4. Hypothesis 4 predicted that a positive strong event would change the trajectory of affective commitment. The significant post-event change parameter in Model 1 (Table A.4) indicates a slope that significantly differs from the pre-event trajectory slope. Adding the two parameters shows that the post-event affective commitment trajectory is positive and changes from a negative pre-event trajectory to a positive slope following the event. These results support Hypothesis 4. A predicted growth plot is depicted in Figure A.2, showing positive affective commitment trajectory changes in response to the strong event.

Hypothesis 5 predicted that the impact of the event on individuals' affective commitment trajectories will be moderated by emotional stability, suggesting that relative to pre-event trajectories, post-event affective commitment trajectory change will be greater for individuals low in emotional stability. Hypothesis 5 was tested by the interaction of post-event change and emotional stability reported in Model 2 (Table A.4). A significant interaction term for post-event change and emotional stability supports Hypothesis 5. A graphic interpretation of the moderated relationship for affective commitment is illustrated in the predicted growth plot of affective commitment as a function of emotional stability across all time periods in Figure A.3. As the plot shows, individuals low in emotional stability had a positive trajectory change between pre- and post-event affective commitment and individuals high in emotional stability had relatively static affective commitment. These results suggest that the impact of a strong event on individuals' affective commitment trajectories is inversely related to their

emotional stability. Individuals high in emotional stability had relatively stable affective commitment prior to the positive event and slightly increasing affective commitment following the event, while individuals low in emotional stability had declining affective commitment prior to the strong event and a growing trajectory following the event.

Hypothesis 6a predicted that average post-event affective commitment would be positively related to retention. The predictive validity of affective commitment was tested by examining binomial logistic regression models between the aggregated mean of post-event affective commitment with retention using the truncated dataset described above. We included emotional stability as a control. The regression results in Table A.5 illustrate that, as expected, average post-event affective commitment is positively related to the probability of retention (Model 1).

Hypothesis 6b predicted that emotional stability would moderate the relationship between average post-event average affective commitment and the probability of retention, such that the relationship is stronger for emotionally stable individuals. Hypothesis 6b was tested by the interaction of average post-event affective commitment and emotional stability reported in Model 2 (Table A.5). Using a one-tailed test, the significant interaction term for average post-event affective commitment and emotional stability supports Hypothesis 6b in the expected direction. A graphic interpretation of the moderated relationship is illustrated in the predicted interaction plot in Figure A.4. As the plot shows, the relationship between average post-event affective commitment and retention is more predictive for individuals high in emotional stability.

Supplemental Analyses

We found an overall negative affective commitment trajectory that was alleviated by emotional stability. This finding suggests that, as a main effect, individuals' affective commitment wears down over time. Thus, we investigated organization tenure to see if the negative effect of time holds over years of experience. Our findings are summarized in Table A.6. Model 2 shows that emotional stability still explains differences in both pre-event and post-event affective commitment trajectory change when accounting for the influence of tenure. Further and the significant interaction terms for pre-event and tenure, and post-event change and tenure show affective commitment trajectory and trajectory change differences associated with tenure. This supports our results and shows that tenure appears to drive unique variance in affective commitment trajectories.

A graphic interpretation of the moderated relationship is illustrated in the predicted growth plot of affective commitment as a function of tenure across all time periods in Figure A.5. As the plot shows, more experienced individuals had a negative pre-event affective commitment trajectory. Further, more experienced individuals had a positive trajectory change between pre- and post-event affective commitment and less experienced individuals had relatively sustained affective commitment growth. Together, these analyses show a pattern of affective commitment over time that supports the notion that ongoing environmental stimuli wear individuals down over time. It appears that while emotionally unstable individuals are less effective at coping with environmental stimuli, more experienced members also tend to be more worn out over time.

DISCUSSION

Adaptation is a fundamental process that applies to a variety of affective, cognitive, and behavioral outcomes in organizations. We conceptualized adaptation as individuals' sustained commitment over time and built a framework for examining differences in within-individual adaptation as trajectories of change over time. Research on hedonic adaptation suggests that adaptive reactions maintain a relatively steady state, recover rapidly from stimuli, and return to a neutral or set point. We sought to explain why some individuals may be more effective in modulating, or sustaining, their affective commitment over time, focusing on emotional stability as a qualifying factor. It was first necessary to demonstrate individual variability in responses, which the findings supported. We also found evidence that emotional stability explained a significant proportion of variance in affective commitment trajectories. Specifically, emotional stability was inversely associated with a greater decline in individuals' affective commitment trajectories, more emotionally stable individuals showed more sustained commitment.

Drawing on event system theory (Morgeson et al., 2015), we also predicted that a positive strong event would alter affective commitment trajectories. Theory suggests that strong events can disrupt trajectories and even result in new set points for affective states. Consistent with this suggestion, we found that a positive strong event effectively halted declining affective commitment trajectories. This significant trajectory change reflects the magnitude of the event and opens the door for examining previously unexplored individual differences in an event-based adaptation process. Further, the change in trajectory for affective commitment was more dramatic for individuals lower in

emotional stability, effectively reversing the trajectory from declining affective commitment to increasing affective commitment. In contrast, persons higher in emotional stability tended to maintain a steady – and, on average higher – level of affective commitment, indicating a more adaptive response to the event. In summary, our conceptual and analytic framework illustrates how emotional stability helps explain why some individuals are less likely to adapt to ongoing stimuli, but at the same time benefit more from being exposed to a positive strong event.

Theoretical Implications

Our approach extended the literature in three key ways. First, the moderating role of emotional stability in individuals' affective commitment trajectories over time shed light on individual differences in adaptation. While research suggests that individual differences play a role in adaptation (e.g., Diener et al., 2006), and emotional stability influences coping skills and changes in states over time (e.g. Boyes & French, 2010; Judge et al., 2014), previous research was lacking on a joint examination of the roles of individual differences and external stimuli on trajectories of adaptation. This study demonstrated that emotional stability influences the process of adaptation to exogenous, shared stimuli. Specifically, by modeling adaption as a trajectory, we were able to demonstrate that adaptation processes differ across individuals as a function of emotional stability. Further, emotional stability influenced the extent to which these trajectories were disrupted by a strong event. Our conceptual and analytic approach provides a foundation for considering moderators in event-based longitudinal studies of adaptation processes. By developing and testing hypotheses about differences in trajectories and

trajectory changes, we offer a level of specificity that should advance theory on adaptation and differences in adaptability.

Second, an important theoretical contribution of this study is to reframe adaptive process as a pattern of change and stabilization in the outcome of interest, such as sustained affective commitment. The process of adaptation is itself manifested in trajectories of change over time. Thus, adaptation is inextricably tied to dynamic theory. Based on the recommendations of Bliese et al. (2017), we used discontinuous growth modeling as a methodological framework for exploring process and created a conceptual framework from theory on hedonic adaptation and event system theory. As our findings indicate, this approach provides a more precise understanding of adaptation, revealing differences in adaptation that likely would not have been revealed with a more static approach.

The observed joint effect of positive strong events and emotional stability illustrates this point. Because the event effectively reversed the trend in affective commitment among participants low in emotional stability, the average affective commitment indices before and after the event are fairly similar. A simple pre-post test would have suggested a potential main effect for emotional stability on average affective commitment, whereas, in fact, emotional stability interacts with contextual factors to determine the stability of affective commitment over time. Similarly, a recent meta-analysis of person by situation effects based on cross-sectional studies found relatively weak and inconsistent evidence of joint effect of emotional stability and situational features (Judge & Zapata, 2015). Our approach of looking at the role of traits on the

temporal process of adapting to ongoing environmental stimuli and strong events holds promise for advancing our understanding of interactionist models of personality.

It is important to keep in mind that the process of adaption may differ depending on the phenomenon. Therefore, what constitutes a functional adaptation process depends on the affective, cognitive or behavioral outcome of interest. Hedonic adaptation suggests that individuals seek a steady emotional state (Cunningham, Dunfield, & Stillman, 2013). Thus, more muted trajectory shifts and relatively rapid return to a stable state are indicative of sustained affective commitment and functional adaptation. On the other hand, rapid, and often sustained change, is crucial to cognitive and behavioral adaptation. For example, transitioning to new career roles, such as from an individual contributor to a team leader, requires not only the acquisition of behavioral repertoires but a redefined self-concept (Ibarra, 1999). In contrast, research suggests that adaptive performance is often manifested by relatively frequent and rapid changes in behavioral responses, given the dynamic and flexible work environments common in contemporary organizations (Baard, Rench, & Kozlowski, 2014). Applying our process approach to these phenomena may help advance theory, particularly in the area of adaptive performance, where longitudinal theory is nascent (Baard et al., 2014).

Third, and perhaps most importantly, by examining adaptation as a process, we created a conceptual and analytic framework that can be used to study a variety of change phenomena. Building and testing temporal theory promises to advance process-related research on a variety of phenomena other than adaptation. For example, this approach allows for the assessment of the relative impact of steady states versus the dynamics of such states. To illustrate, Chen, Ployhart, Thomas, Anderson, and Bliese (2011) found

that systematic changes in job satisfaction over time predicted turnover above and beyond average job satisfaction. This finding suggests that, while the static level of a construct may predict behavioral outcomes, the dynamic aspect of the construct uniquely contributes to the outcome. Failure to account for change will result in under-prediction. Our analytic framework is also amenable to examining the multi-faceted nature of resilience to disruptive events. For example, Kim and Ployhart (2014) examined how investments in human capital affected recovery from the great recession. Using a similar temporal approach, they found firms that made greater investments displayed a more rapid and higher level of recovery in the years following the recession. By considering both *how* and *why* we expected changes to occur during the adaptation process in our study, we illustrated important theoretical components to be considering when examining a variety of process-oriented research.

Future Directions

The framework that we have presented promises to open new doors for examinations of adaption in several ways. First, the framework can be used to study adaptation in any number of phenomena with repeated observations. While we relied on repeated measures surveys of affective commitment, other adaptation research could examine a variety of outcomes, such as peer-rated behaviors, archival performance measures (e.g., Kim & Ployhart, 2014), laboratory-based performance measures, electronic medical records (e.g., Blumenthal & Tavenner, 2010), or longitudinal corporate or government initiatives such as the German Socio-Economic Panel (GSOEP) or National Longitudinal Survey of Youth (NLSY; Bliese et al., 2017). Any set of repeated observations can be used as a focal variable and focusing on a dependent

variable with a sufficient number of pre- and post-event observations provides the infrastructure for empirical studies of a variety of adaptation processes.

Second, the framework can be used to specify various discontinuous and nonlinear patterns of adaptation, thereby accommodating a wide variety of theories and phenomena pertaining to adaptation. Given that we relied hedonic adaptation theory, we conceptualized adaptation as a sustained form, wherein emotional stability enabled a relatively stable function and facilitated recovery from the disruptive event. Similarly, well-being research has conceptualized hedonic adaptation as the return or re-establishment of a well-being or happiness set point (e.g. Diener et al., 2006; Lucas, 2007; Lucas et al., 2003). Other phenomena may reflect different adaptation trajectories. For example, adaptive performance involves relatively lasting alterations to meet new performance demands (Pulakos et al., 2000).

Conceptualizing adaptation as a nonlinear or discontinuous function may clarify mixed findings based on overly simplistic methodologies. For example, ego depletion theory is based on the premise that self-control is a resource that becomes depleted over time and requires a period of recovery before performance is restored. Empirical studies typically involve using two different self-control tasks and demonstrating a performance decrement on the second (Hagger, Wood, Stiff & Chatzisarantis, 2010). However, empirical evidence using this simplistic paradigm has been called into question (Lurquin, Michaelson, Barker, Gustavson, von Bastian, Carruth, & Mikaye, 2016). Conceptualizing and testing the phenomena as a process of adaptation might reveal a u-shaped curvilinear function that would otherwise be obscured in simple pre-post tests.

Finally, the adaptation framework presents a new way of approaching study design. For example, trust is a relational phenomenon that is thought to require time and repeated interactions to build and are thus amenable to longitudinal designs employing discrete events or interventions. An example longitudinal experiment employing discontinuous growth modeling showed that trusting behavior among strangers grows gradually, and the growth rate can be accelerated through a high-risk, trust-building event (Kautz & Korsgaard., 2017). In field research, the framework can be used to understand the long-term effectiveness of interventions. For example, many psychological interventions are designed to be subtle activities that create lasting and self-reinforcing changes in attitudes and behavior (Walton, 2014) that may be best understood through a comparison of pre- and post-intervention outcome trajectories (e.g. Finkel, Slotter, Luchies, Walton, & Gross, 2013) by intervention condition. In sum, while we have used the framework to examine differences in affective commitment over time as a form of adaptation, the framework itself can be used in novel ways to address a variety of research questions.

Practical Implications

Stability in individuals' commitment can be beneficial to the functioning of organizations. High levels affective arousal – be it positive or negative – can have deleterious effects on attentional resources and lead to cognitive bias (Bar-Haim, Lamy, Pergamin, Bakermans-Kranenburg, & van IJzendoorn, 2007; Pool, Brosch, Delplanque & Sander, 2016), thereby undermining judgment and performance. Further, individuals who are able to weather the fluctuations of the work environment are apt to be more adaptive to occupational stressors (Diener et al. 2006). At the same time, individuals' increased

affective commitment has numerous benefits, including greater organizational citizenship behavior and employee retention (Meyer et al., 2002). Thus, hedonic adaptation can be problematic for organizations because people tend to return to a set point. For example, the honeymoon-hangover effect occurs when employee attitudes first increase and then gradually decline back to initial levels following a job change (Boswell et al., 2005; Boswell, Shipp, Payne, & Culbertson, 2009). Thus, adaptation may undermine the long-term efficacy of management initiatives to enhance employee engagement. Therefore, organizations should attend to crafting interventions such as socialization practices and incentive schemes in a way that effectively recalibrates employees' affective set points.

Our conceptual and analytic framework has practical implications as well. As we have illustrated, it is important to examine temporal phenomena as change trajectories over time. This longitudinal orientation reveals that static or infrequent measurements likely do not accurately explain the complexity of organizational members' affective states. Annual employee engagement surveys are typically used to assess how employees feel toward their organization. Our study illustrates that such infrequent approaches to understanding engagement are not likely to be predictive of employees' engagement in dynamic work places. These snapshot approaches may under-estimate important differences or could miss change processes entirely. Thus, our framework suggests that more frequent engagement assessments, such as pulse surveys, are likely to provide a more comprehensive view of engagement from which to set HR strategies.

Limitations

This investigation involved a unique organizational setting in an educational context and a population that is younger than the average member of the workforce. It

should be noted that the organization has substantial value for its members in that some members were compensated, others were required to participate to meet graduation requirements, and all members received many fringe benefits. A college marching band requires high levels of overall commitment, long hours, and physically demanding work, and thus provides an ideal setting to study affective commitment trajectories over time. That said, this study represents an early attempt to model the effect of both ongoing environmental stimuli and a strong event on adaption processes. Additional research is needed to examine the robustness of this process and additional boundary conditions. Further, caution should be exercised in inferring causal impact. However, the application of discontinuous growth modeling provides a higher degree of confidence than cross-sectional designs. Given that discontinuous growth modeling is also amenable to experimental design, replication and extension of the general principles inferred in the present investigation in the context of controlled experimentation will further advance theory.

Conclusion

This study examined individuals' sustained affective commitment to better understand the process of adaptation. We built hypotheses to explain how individuals' affective commitment changes over time, how strong events serve to change individuals' affective commitment trajectories, and how the individual difference of emotional stability affects differences in adaptation. Moving forward, research can benefit from the use of this process-oriented conceptual and analytical approach to understand how and why phenomena change over time.

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Table A.1
Coding and Interpretation of Change Variables in Mixed Effect Discontinuous Growth Models

	Measurement Occasion															
Time Covariate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Event	0	1	2	3	4	5	6	7	8	9	10	*11*	*12*	*13*	*14*	*15*
Post-Event Change	0	0	0	0	0	0	0	0	0	0	0	*0*	*1*	*2*	*3*	*4*

Measurement occasions after the strong event are *italicized.*

Table A.2
Descriptive Statistics and Correlations

Variable	M	SD	1	2	3	4
1. Emotional Stability	3.22	0.64	--			
2. Affective Commitment$_{mean}$	4.12	0.67	0.27*	--		
3. Affective Commitment$_{pre}$	4.13	0.66	0.25*	0.98*	--	
4. Affective Commitment$_{post}$	4.05	0.78	0.26*	0.91*	0.82*	--

N= 314. The mean for each refers to the average across all measurement occasions, pre is the average across all measurements prior to the event and post is the average across all measurement after the event.
* $p < 0.05$

Table A.3
Model Comparison of Random Effects

Fit Statistic	Model 1 Random Intercepts	Model 2 Random Intercepts & Random Pre-Event $_{Slope}$	Model 3 Random Intercepts & Slopes (Both Time Covariates)	Model 4 Autocorrelation
AIC	5702.80	5332.27	5303.71	5235.62
BIC	5740.32	5382.30	5372.50	5310.66
LogLikelihood	-2845.40	-2658.14	-2640.86	-2605.81
DF	6	8	11	12
Δ DF		2	3	1
χ^2 Difference		374.53	34.56	70.10
P-value		<0.001	<0.001	<0.001

Table A.4
Mixed Effect Discontinuous Growth Modeling: Affective Commitment

Variable	Model 1	Model 2
Constant	3.37***(0.18)	3.55***(0.20)
Pre-Event	-0.01**(0.00)	-0.06**(0.02)
Post-Event Change	0.03***(0.01)	0.13**(0.05)
Emotional Stability	0.25***(0.06)	0.19**(0.06)
Pre-Event*Emotional Stability		0.02**(0.01)
Post-Event Change*Emotional Stability		-0.03*(0.01)

N= 3,844 total observations nested within 314 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis).

* p< 0.05

**p< 0.01

***p< 0.001

Table A.5
Regression Results: Retention

Variable	Model 1	Model 2
Constant	-1.04(1.02)	5.80(3.68)
Post-Event AC	0.63**(0.21)	-1.18(0.95)
Emotional Stability	-0.04(0.26)	-2.33†(1.21)
Post-Event AC*Emotional Stability		0.60†(0.31)

N= 287 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Post-Event AC refers to individuals' average affective commitment across all measurement occasions after the event.
†p< 0.1

* p< 0.05

**p< 0.01

***p< 0.001

Table A.6
Regression Results: Mixed Effect Discontinuous Growth Modeling Supplemental Analysis

	Affective Commitment	
Variable	Model 1	Model 2
Constant	3.37***(0.19)	3.45***(0.21)
Pre-Event	-0.01**(0.00)	-0.03†(0.02)
Post-Event Change	0.33***(0.01)	0.08(0.05)
Emotional Stability	0.25***(0.06)	0.18**(0.06)
Tenure	-0.00(0.04)	0.06(0.04)
Pre-Event*Emotional Stability		0.02**(0.01)
Pre-Event*Tenure		-0.02***(0.00)
Post-Event Change*Emotional Stability		-0.03*(0.01)
Post-Event Change*Tenure		0.03**(0.01)

N= 3,844 total observations nested within 314 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Model 1 and Model 2 represent regression models used for affective commitment and Model 3 and Model 4 represent regression models used for emotional exhaustion in hypothesis testing. Required was coded 1 for music majors and 0 for all other majors.

† p< 0.10

* p< 0.05

**p< 0.01

***p< 0.001

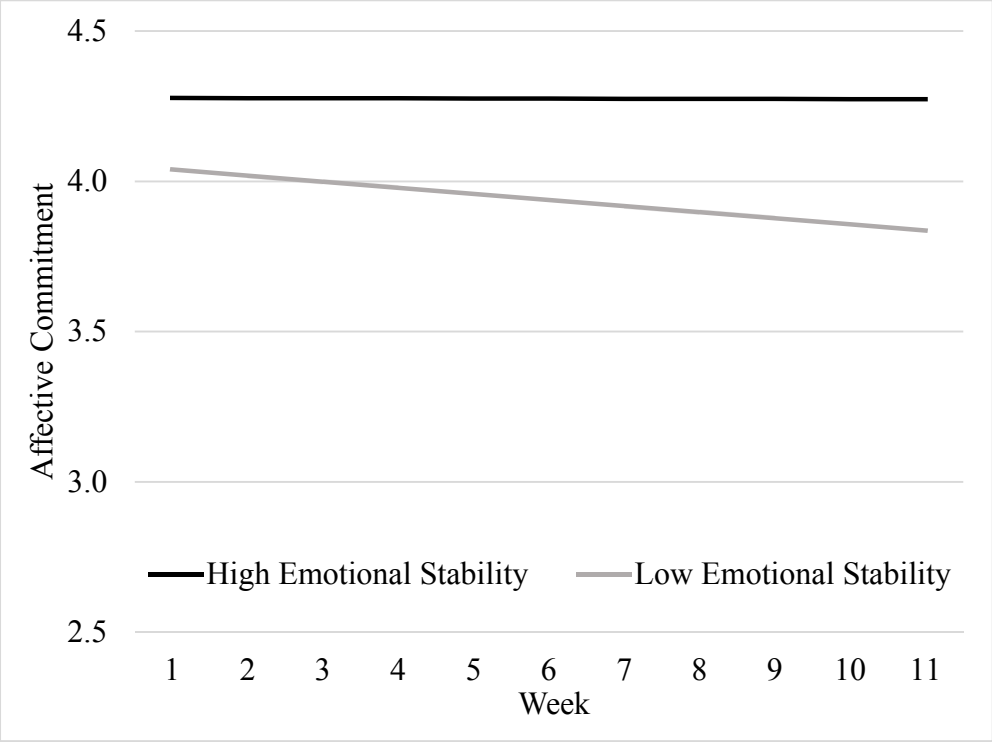

Figure A.1. Pre-event interaction plot of affective commitment over time moderated by emotional stability.

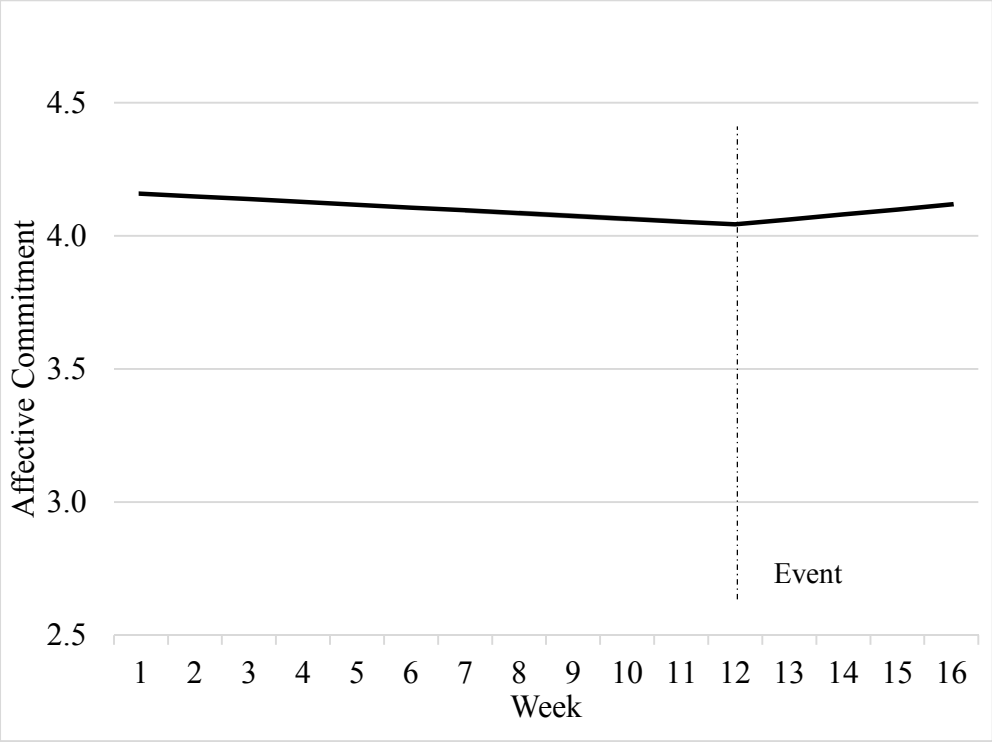

Figure A.2. Pre- and post-event affective commitment trajectory change.

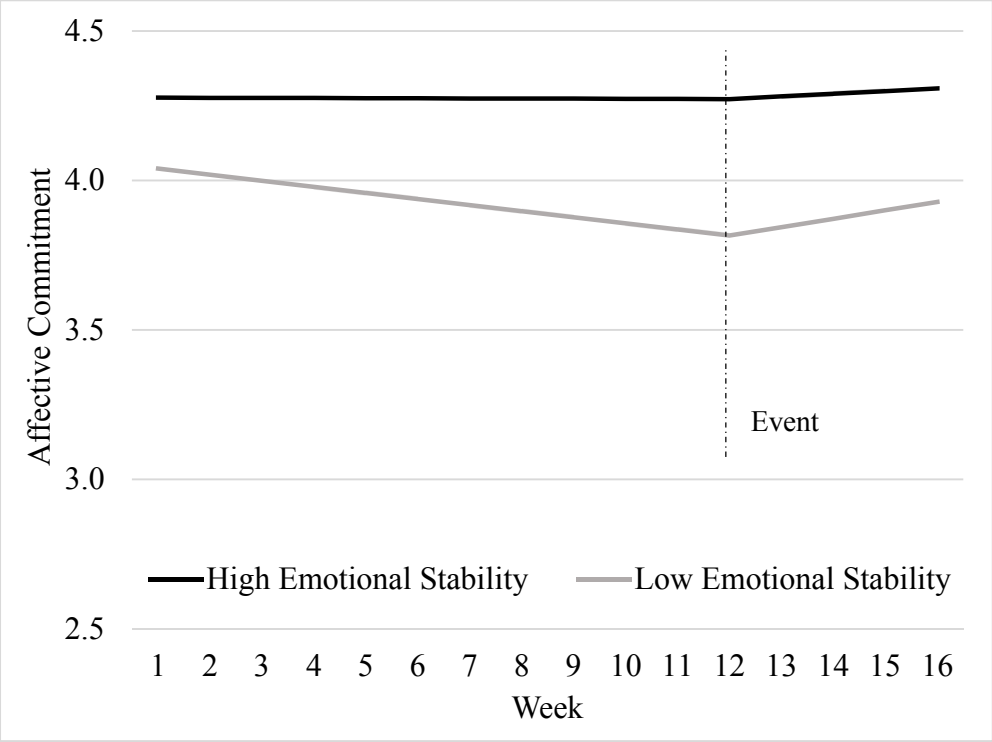

Figure A.3. Post-event change for affective commitment moderated by emotional stability.

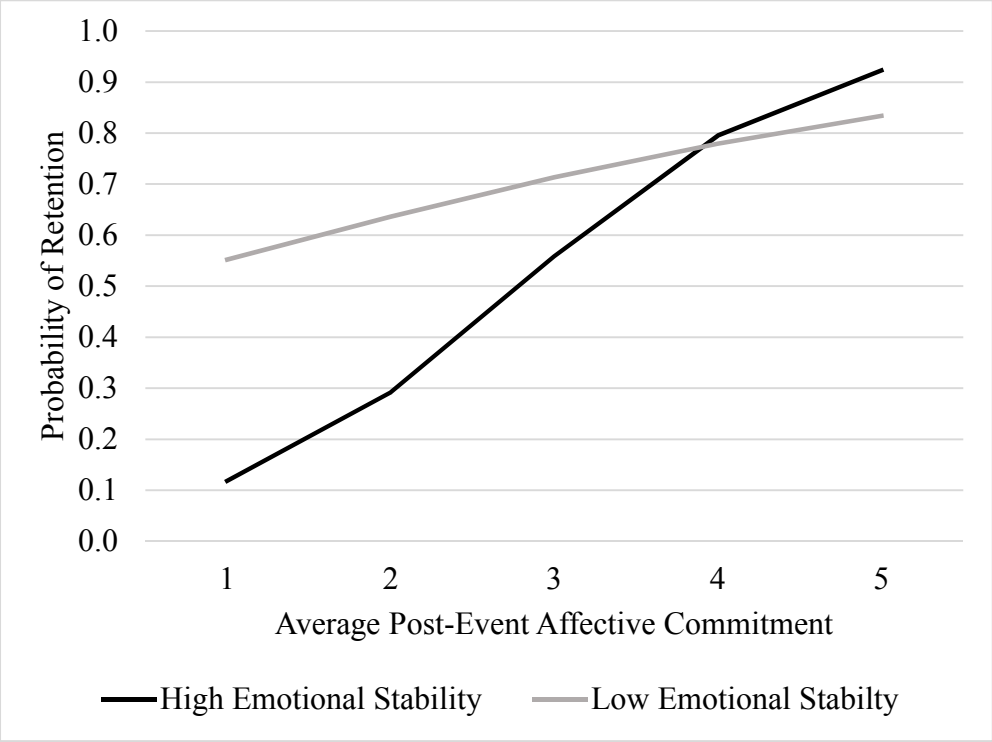

Figure A.4. The relationship between average post-event affective commitment and probability of retention moderated by emotional stability.

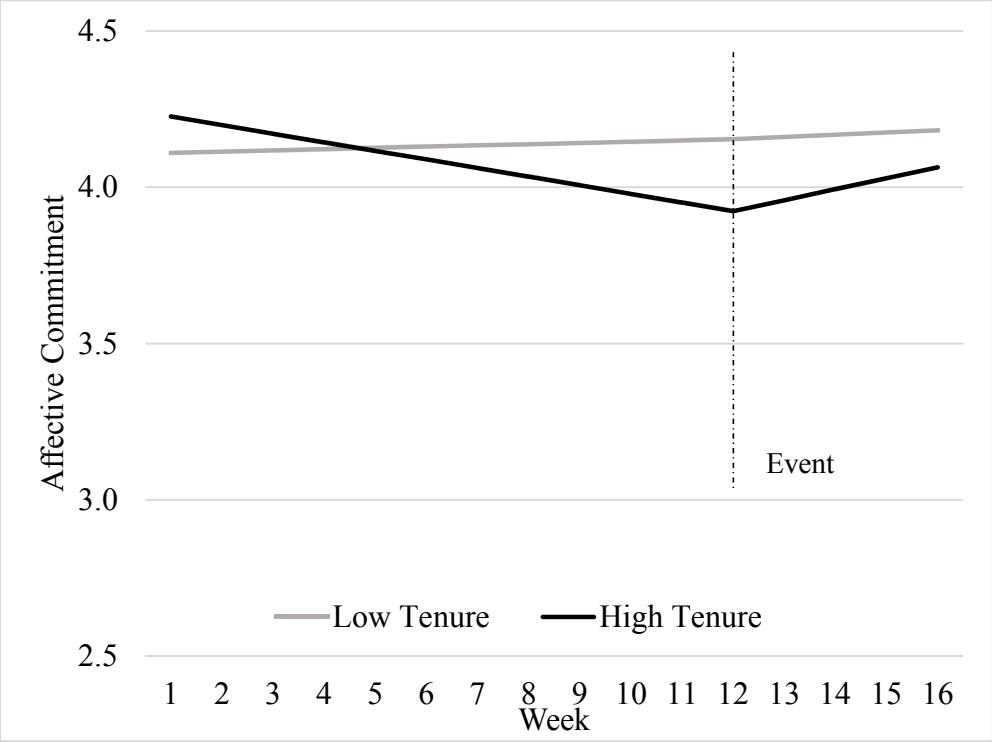

Figure A.5. Post-event change for affective commitment moderated by tenure.

APPENDIX B

SELF-AFFIRMATION IN ORGANIZATIONS: AN INTERVENTION STUDY WITH CONTRARY FINDINGS[2]

The alignment of personal and organizational values plays an important role in individuals' attachment to their organizations (Cable & Judge, 1996; Kristof-Brown, Zimmerman, & Johnson, 2005; Schneider, 1987; Verquer, Beehr, & Wagner, 2003; Vogel, Rodell, & Lynch, 2016). The impact of values alignment is commonly demonstrated through the fit between the individual's values and those of the organization. Values-based fit is related to various forms of organizational attachment including organizational identification, affective commitment, and turnover intentions (Arthur, Bell, Villado, & Doverspike, 2006; Edwards & Cable, 2009), implying that organization members are more likely to be committed and engaged when they share the same values as the organization and other msembers. Unfortunately, homogeneity of values may come at a cost: research shows that groups are more innovative and make better decisions when they have a diversity of perspectives (Choudhury, & Haas, 2018; Stahl, Maznevski, Voigt, & Jonsen, 2010). Further, with an increasingly diverse workforce and the globalization of business, organizations need to find ways to effectively manage and integrate a diverse array of organizationally-relevant values. This tension between values alignment and diversity raises the question: how do organizations

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leverage the benefits of values alignment without constraining homogeneity among members?

The answer to this question may lie with self-affirmation theory. Self-affirmation theory suggests that individuals are motivated to maintain self-integrity – the sense of being capable of acting in accordance with one's values (Aronson, Cohen, & Nail, 1999; Cohen & Sherman, 2014; Sherman & Cohen, 2006; Steele, 1988). Within this theory, self-affirming acts are behavioral or verbal acts that reinforce individual self-integrity and sense of meaning or purpose. The sense of meaning derived from acts of self-affirmation is linked to individuals' personal values (Cohen & Sherman, 2014). The act of self-affirmation has been employed as an intervention wherein individuals identify their important values within a given context (Cohen, Garcia, Apfel, & Master, 2006). The affirmation intervention has been found to result in greater well-being, more effective coping in the context of potentially stressful or threatening events, and increased individual performance (e.g., Cohen et al., 2006; Kinias & Sim, 2016; Sherman, Bunyan, Creswell, & Jaremka, 2009).

The self-affirmation intervention has almost exclusively been conducted in contexts involving individual activities, but there is reason to expect that self-affirmation would have similar benefits in an organizational context where individuals are engaged in interdependent and coordinated action. When an individual's most important values are aligned with membership in an organization, day-to-day activities and interactions with other organizational members affirm and fulfill the individual's values and needs. In support of this notion, need fulfillment has been shown to mediate the relationship between perceived value congruence and organizational attitudes (Cable & Edwards,

2004; Edwards & Cable, 2009). Self-affirming acts involve identifying how one's personal values are fulfilled within a given context.

Thus, self-affirmation within an organization is likely to make salient opportunities for individuals to express or fulfill their values within the organization, thereby influencing organizational attachment outcomes (Kristof-Brown, et al., 2005). Importantly, self-affirmation is not about conforming to the values of the context but identifying which values are met within the context, thus making salient opportunities for value fulfillment. Research (Jansen & Shipp, 2018; Shipp & Jansen, 2011) suggests that organization members make sense of their work experiences through the lens of how well they fit with the organization, and, over time, this process leads to stronger attachment and more positive attitudes. Self-affirmation is a means of intervening on this sense-making process. By making salient their own values relevant to the context, self-affirmation enables organization members to pursue a variety of values while working toward a shared organizational purpose. This view is in line with research suggesting that when individuals believe they possess unique but complementary qualities, relative to other organizational members, they have higher commitment to, and intentions to remain with, the organization (Piasentin & Chapman, 2007).

In this study, we adapt and implement a well-established self-affirmation intervention (e.g. Cohen and colleagues, 2006; 2009) to a large university organization setting and track members' outcomes over 15 observation periods spanning approximately four months. In so doing, we are able to model outcome trajectories over time and examine outcome growth in the form of trajectory changes associated with the intervention. Modeling changes in trajectories provides a rigorous test of the temporal

stability of the intervention (e.g., Bliese, Adler, & Flynn, 2017; Finkel, Slotter, Luchies, Walton, & Gross, 2013) and a test of the theoretical assertion that fit and self-affirmation processes unfold over time (Cohen & Sherman, 2014; Jansen & Shipp, 2018; Shipp & Jansen, 2011).

This study makes several contributions to the literature. First, this investigation informs theory on values alignment and person-environment fit. Competing prescriptions arise from research on person-environment fit (e.g., Kristof-Brown et al., 2005) versus research on team diversity (e.g., De Dreu & West, 2001). By drawing on the notion that individuals actively process their work experience from the lens of fit (Shipp & Jansen, 2011), we offer a potential resolution to the tension between the predictions of fit and diversity. Second, we adopt a process view by examining the trajectory of attitude change over time. Theory suggests that the effects of person-environment fit result from a process that unfolds over time (Jansen & Shipp, 2018) but empirical research on the temporal process is sorely needed (Jansen & Shipp, 2013; 2018). Third, the current investigation employs an experimental field design to examine the impact of making values alignment salient, allowing for important insights into the causal mechanisms underlying the effects of values alignment. Given that values are pre-existing individual differences, they are typically measured (Kristof-Brown et al., 2005). Thus, research on values alignment is overwhelmingly correlational, limiting the ability to draw causal inferences and causing ambiguity about the underlying mechanisms. We respond to calls to increase rigor and enhance the field's ability to make causal claims by testing our theoretical propositions using a randomized trial (e.g., Bliese, Edwards & Sonnentag, 2017; Eden, 2017; Highhouse, 2009).

This investigation also contributes to theory on self-affirmation by extending research on self-affirmation theory to consider values alignment within organizations. To date, self-affirmation theory has been applied to individual-level task contexts in which individuals engage in independent activity to achieve personal goals such as academic achievement (Cohen et al., 2006; Cohen, Garcia, Purdie-Vaughns, Apfel, & Master, 2009) or weight loss (Logel & Cohen, 2012). By applying self-affirmation theory to an organizational context wherein members work together to achieve organizational goals, we extend self-affirmation theory to collaborative and interdependent activities. Thus, this investigation offers insight into the potential boundaries of self-affirmation theory.

SELF-AFFIRMATION THEORY AND VALUES

Self-affirmation theory suggests that organizations may benefit from enabling individuals to make salient the opportunity to express their own values as long as these values are aligned with organizational membership. Along these lines, Cable, Gino, and Staats (2013) showed that encouraging employees to express their personal identities facilitated performance and retention. By considering that individuals' values differ and enabling them to see how their values can be expressed through the organization, adapting self-affirmation theory to an organizational context potentially offers a comprehensive and practical extension of values-based fit research.

The central tenet of self-affirmation theory is that individuals are motivated to maintain self-integrity, the sense of being capable of acting in accordance with their values. Self-affirming acts are activities that make salient the important aspects of one's life (Sherman & Cohen, 2006). That is, self-affirming acts make salient individuals' important personal values and opportunities to fulfill those values (Cohen & Sherman,

2014). Acts of self-affirmation can be behavioral or cognitive. For example, when an individual volunteers, the act affirms the person's prosocial values, whereas studying for an exam affirms a person's achievement values. Self-affirmation can also be achieved cognitively, through an exercise in self-reflection wherein the individuals identify their core values (e.g., Cohen et al., 2006). Either way, self-affirmation creates an expanded view of the self and its resources. In this expanded view, threats are perceived as being less significant (Wiesenfeld, Reyt, Brockner, & Trope, 2017) and the situation is construed in terms of opportunities to express or fulfill one's values, creating an approach orientation to activities (Cohen & Sherman, 2014).

Self-affirmation can produce lasting change in behavioral and attitudinal outcomes. Affirming personal values triggers a self-reinforcing process between the construal of the environment and the outcomes achieved. As individuals perceive more opportunities to pursue important values, they direct their efforts toward outcomes that affirm these values, thereby reinforcing the construal of the environment. As well, self-affirmation can trigger a self-reinforcing cycle of influence between the self and the social environment. As individuals pursue opportunities to fulfill values, others in the social environment may recognize their efforts through positive feedback and rewards. These reinforcing processes with the task and social environment facilitate growth and adaptation over time (Cohen & Sherman, 2014; Wiesenfeld et al., 2017).

Scholars have developed and validated a values affirmation intervention as a form of self-affirmation in a variety of contexts. Self-affirmation can be induced by having people reflect on their core personal values and how they relate to their current activities. The efficacy of the values affirmation intervention has been demonstrated on a range of

outcomes. As examples, the values affirmation intervention has been shown to enhance academic performance among high-risk students in a given term (e.g. Cohen et al., 2006; Kinias & Sim, 2016); buffer against academic decline in the months and years following the affirming act (Cohen et al., 2009; Sherman et al., 2013), lead to decreases in weight, waistline, and BMI in a population of undergraduate females (Logel & Cohen, 2012), and mute biological stress-based responses to difficult midterms for undergraduate students (Sherman et al., 2009).

As noted, while the majority of research on self-affirmation has focused on independent activities, there are compelling reasons to expect self-affirmation to influence individuals' relationships with their organizations. Affirmation should lead individuals to perceive greater values alignment and fulfillment in their social environment (Wiesenfeld et al., 2017). The affirmation intervention is designed to access each individual's unique valued identity (Sherman et al., 2013), and thus enables individuals to perceive a connection to organizations whose members might otherwise possess a diverse array of values.

CURRENT STUDY

Self-affirmation positively affects individuals' relationships with their social environment (Cohen & Sherman, 2014). Individuals should feel more socially integrated within the organization when they experience affirmation. Thus, the values affirmation intervention should bolster individuals' identification with, commitment to, and intent to remain in their organizations (Kristof-Brown et al., 2005; Meglino & Ravlin, 1998; Vogel et al., 2016). Indeed, the self-reinforcing processes described in self-affirmation theory are similar to the temporal processes described person-environment fit (Jansen &

Shipp, 2018; Shipp & Jansen, 2011). Individuals are not passive recipients of fit information but rather actively make sense of their organizational experiences through the lens of fit. Research suggests that this process leads to gradual shifts in perceptions and attitudes. At the same time, an individual's identity also plays an important role in the sense-making process of fit (Jansen & Shipp, 2018).

Similarly, self-affirmation theory emphasizes the role of identity. At its core, the values affirmation intervention makes salient to the individual opportunities to affirm their identities within a given setting (Cohen & Sherman, 2014). These self-affirming acts should enhance individuals' experiences of fit within the organization. As individuals' values are fulfilled in this enhanced view, a feedback loop occurs that further enhances their view and their attitudes (Cohen & Sherman, 2014). Thus, the values affirmation intervention should lead to growth in individuals' identification with, commitment, and intent to remain in their organization.

Given that both affirmation and fit are processes that unfold over time (Cohen & Sherman, 2014; Jansen & Shipp, 2018), we use a longitudinal framework of 15 measurement occasions over four months to examine how self-affirmation may bolster individuals' bonds with their organization. Based on our theoretical framework, we examine three outcomes indicative of individuals' attachment to the organization: organizational identification, affective commitment, and intent to remain. We test the impact of the self-affirmation intervention as the impetus for growth in these three outcomes by modeling trajectory changes following the intervention. Below we elaborate on theory related to the specific outcomes and present hypotheses.

Organizational Identification

Organizational identification is the process through which individuals reduce uncertainty by categorizing themselves as organizational members (Ashforth & Mael, 1989; Hogg, 2012; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). While organizational identification is an evolving state, it has not typically been examined as unfolding over time. Mael and Ashforth (1992) developed a measure of organizational identification reflecting the degree to which individuals have formed bonds and identify with their organization. Their measure is not inherently static, but most studies of organizational identification rely on one or two waves of data (e.g., Edwards & Cable, 2009, Cole & Bruch, 2006) which limits researchers' ability to examine temporal processes (Bliese & Ployhart, 2002; Ployhart & Vandenberg, 2010).

We examine organizational identification as a temporal process by focusing on the trajectory of organizational identification over time. We expect that positive changes in organizational identification should occur following self-affirmation (Ashforth & Mael, 1989; Schneider, 1987; Walton, 2014). We reason that self-affirmation will lead individuals to construe the organization as a place that supports and enables the fulfillment of their personal values, which should lead to stronger identification with the organization (Cable & Edwards, 2004; Shipp & Jansen, 2011; Wiesenfeld et al., 2017). Further, self-affirmation theory suggests that small positive shifts in how people construe their relationships to others can accumulate through a self-reinforcing process of self-affirmation and value expression (Cohen & Sherman, 2014). Self-affirming acts make salient the opportunity to fulfill important personal values in the social environment related to membership. As individuals fulfill their values in the organization over time,

their organizational identification is likely to accumulate in a cyclical manner, represented by a growing trajectory. Thus, an affirming act will lead individuals to experience a positive organizational identification trajectory change.

Hypothesis 1: Individuals who engage in affirming personally relevant values will exhibit positive organizational identification trajectory changes compared to individuals who do not affirm personally relevant values.

Affective Commitment

Affective commitment describes individuals' attachment to, and desire to remain in their organization (Allen & Meyer, 1990). Similar to organizational identification, affective commitment develops over time (Klein, Molloy, & Brinsfield, 2012), but has not typically been examined as a temporal process (e.g. Choi, Oh, & Colbert, 2015). Therefore, we also examine how affective commitment changes over time as a function of self-affirmation. As noted above, an act of affirmation should make salient how the organization fosters individuals' fulfillment of personal values. Need fulfillment is an important determinant of affective commitment (Greguras & Diefendorff, 2009). Through the theorized self-reinforcing process of self-affirmation (Cohen & Sherman, 2014), affective commitment should grow over time following an affirming act, with a trajectory that is more positive than prior affective commitment. Thus, through affirming their organizationally-relevant personal values, individuals should experience a positive trajectory change in affective commitment following an act of self-affirmation.

Hypothesis 2: Individuals who engage in affirming personally relevant values will exhibit positive affective commitment trajectory changes compared to individuals who do not affirm personally relevant values.

Intent to Remain

Given the relationships that both organizational identification and affective commitment have with retention (Cole & Bruch, 2006; Meyer, Stanley, Herscovitch, Topolnytsky, 2002), the impact of self-affirmation is likely to unfold in a similar manner for intent to remain. Need fulfillment is an important component of retention (Schneider, 1987) and should be made salient through self-affirmation. Through the self-reinforcing process of affirmation (Cohen & Sherman, 2014), individuals who affirm their personal values are expected to have increasingly strong bonds to the organization over time that should be reflected by increasing intentions to remain. As individuals' opportunities to fulfill their needs in the organization are reinforced, their intentions to remain should grow over time. Specifically, we expect that self-affirming acts should impact trajectories associated with intent to remain such that individuals who engage in self-affirmation should experience a positive trajectory change following the act of affirmation.

> *Hypothesis 3*: Individuals who engage in affirming personally relevant values will exhibit positive intent to remain trajectory changes compared to individuals who do not affirm personally relevant values.

METHOD

We adapted the well-established (e.g. Cohen and colleagues 2006; 2009) values affirmation intervention to an organizational context. In this procedure, individuals were asked to rank a set of core values from most to least important to them personally. Then, the participants were randomly assigned to either the affirmation (treatment) condition where they were instructed to reflect and write about their most important value, or the control condition where they were instructed to write about why their least important

value might be important to someone else.

Setting

We tested our hypotheses in a university marching band. A collegiate marching band is an interdependent ensemble (e.g., Murnighan & Conlon, 1991) that performs different shows consisting of music in full instrumental arrangement and drill (marching) routines at football games. The organization's season is associated with their university's NCAA Division I football program. The organization performs in front of 80,000 or more fans at home games, which are also broadcast on national television. This setting provides an opportunity for longitudinal analysis across each week of the season to understand outcome trajectories and trajectory changes associated with the intervention. Membership in the organization is largely voluntary. Membership involves a significant on-going time commitment – 20 hours or more each week, on top of other academic obligations – and is both physically and intellectually challenging. While alignment of personal and organizational values is likely to be important within any organization, we contend that values may be particularly important as members evaluate their attachment to voluntary organizations such as the band (Boezeman & Ellemers, 2007; Sherman & Smith, 1984; Sundeen, 1992).

Sample

We met with all 396 members of the organization to explain the study, solicit voluntary participation, and acquire participant consent. A total of 226 individuals completed the intervention exercise and provided at least two repeated-measures responses both before and after the intervention representing a participation rate of 57%. Overall, 53% of respondents identified as female (46% male), and the average age was

19. Fifteen percent (34 of 226) of the participants had compulsory membership for two years to meet academic (major) requirements. There was no significant difference in the proportion of compulsory members across conditions (χ^2= 3.02, ns). Further, post hoc analysis indicated that the impact of the intervention was not related to the compulsory status of members as would be expected given that all individual differences are exogenous to the outcomes given the random assignment to condition (Bailey, 2016).

Procedure

To test the temporal efficacy of the intervention in our organizational setting we used a longitudinal study design, which consisted of an initial assessment of background characteristics and 15 repeated-measures survey occasions. Starting with the initial assessment, the repeated-measures surveys were administered weekly using a digital survey tool. We administered the surveys every Wednesday after rehearsal. We chose a repeated-measures design to collect sufficient longitudinal data from which to examine members' outcome trajectories and trajectory changes associated with the intervention. The design is particularly strong with respect to drawing inferences because we can examine how individuals change when exposed to the intervention and how this change varies between the two randomly assigned conditions.

Measures

For each survey administration, we prompted respondents to consider their experiences in the marching band and on campus during the previous week for all our outcome measures: organizational identification, affective commitment, and intent to remain, in each survey.

Organizational Identification. Using Mael and Ashforth's (1992) organizational identification scale, we adapted a 3-item measure to avoid respondent fatigue from a longer multi-item measure (Jones & Shah, 2016; Wanous, Reichers, & Hudy, 1997). Respondents rated the items using a 5-point Likert scale from (1) strongly disagree to (5) strongly agree. Sample items include "I am very interested in what others think about the (marching band)," and "When I talk about this band, I usually say "we" rather than "they"." Coefficient alphas were estimated for each observation period and were acceptable, ranging from 0.72 to 0.91.

Affective Commitment. Using the affective commitment portion of Allen and Meyer's (1990) organization commitment scale, we adapted a 2-item measure to avoid respondent fatigue (Jones & Shah, 2016; Wanous et al., 1997). Respondents rated the items using a 5-point Likert scale from (1) strongly disagree to (5) strongly agree. The two items used were "I feel like 'part of the family' in the (marching band)," and "I feel a strong sense of belonging to the (marching band)." The coefficient alphas for each observation period were acceptable and ranged from 0.89 to 0.96.

Intent to Remain. We used a 2-item measure adapted from Chen, Ployhart, Thomas, Anderson, and Bliese's (2011) turnover intention scale. Respondents rated the items using a 5-point Likert scale from (1) strongly disagree to (5) strongly agree. The items were "I plan to return to the (marching band) next season," and "I plan to return to the (marching band) every year that I am in school." The coefficient alphas for each observation period were acceptable and ranged from 0.64 to 0.83 across each week of data collection. Intent to remain was only assessed for members who were eligible to

return the following season and necessarily excluded graduating members, creating a subset of our full dataset that consists of 187 individuals.

***Intervention Condition*.** Participants were randomly assigned to the affirmation or control intervention conditions. Those in the affirmation condition were coded as 1 and those in the control condition were coded as 0.

Intervention

The values affirmation intervention was a writing exercise included with the repeated-measures survey during the eighth measurement occasion following the assessment of survey items. We followed procedures adapted from other values affirmation intervention studies (e.g., Cohen et al., 2006; Kinias & Sim, 2016; Logel & Cohen, 2012) with the exception that we asked respondents to reflect on their values as related to organizational membership. That is, all participants ranked a randomly presented list of eight values of membership in order of importance to their own membership in the organization, from most to least important. The eight values of membership in our intervention were based on the organization's core values statement established by the organization's student leaders. The values of membership that participants were asked to rank were: mastering music/choreography and drill; performances; sense of pride in representing (the university); close personal friendships; school spirit; (university) football; sense of community; visibility in the (university) community. These values represent the context-specific manifestation of universal personal values. Using Schwartz and Bilsky's (1987) framework in the band, for example, achievement is manifest through values such as performances and mastering

music, tradition is manifest through pride representing the university, and benevolence and conformity are manifest in close personal friendships and a sense of community.

After ranking the values, participants were randomly assigned to condition. Participants in the *affirmation condition* were presented with their most important value from the ranking exercise and asked to write for fifteen minutes about why it was important to them personally. Participants in the *control condition* were presented with their least important value from the ranking exercise and asked to write for fifteen minutes about why it might be important to another member of the organization. Thus, the intervention holds constant the activity of writing about values and differs only on whether the individual is reflecting on a personally-held value (e.g., Cohen et al., 2006).

Analytic Approach

Our hypotheses concerned changes in outcome trajectories as a result of a discrete intervention. We therefore used discontinuous growth modeling (Bliese & Lang, 2016; Singer & Willett, 2003) to test within-individual trajectory changes associated with the values affirmation intervention. This approach allowed us to contrast individuals' outcome trajectories before and after the intervention based on intervention condition.

Based on Bliese and Lang's (2016) coding scheme, we used two time covariates to model trajectories and trajectory changes. The first covariate (Pre-Intervention), was created to covary with the 15 measurement occasions (0 to 14) and serves as a baseline linear trajectory. The second time covariate (Post-Intervention Change) was coded for a linear trajectory change that started on the ninth measurement occasion, in the week after the intervention, and produces a parameter that represents the change between the pre- and post-intervention trajectories. To make inferences about intervention-based changes,

we only analyzed participants who had provided at least two responses before and two responses after the intervention resulting in usable responses from 105 participants in the affirmation condition and 121 in the control condition. In the non-graduating subset used for intent to remain, the affirmation condition had 88 participants and the control condition had 99 participants. Our analysis included a total of 3,416 responses nested within 226 participants (2,622 responses nested within 187 participants for the intent to remain subset), 159 of whom completed every survey instance.

Results

Descriptive statistics and correlations among composite mean variables used in the study are shown in Table B.1. The mean variables represent the overall, pre-intervention, and post-intervention means across measurement occasions for organizational identification, affective commitment, and intent to remain.

As a form of random coefficient growth modeling, the discontinuous growth model involves two levels of analysis: time-within individual (level 1) and between individuals (level 2), which includes the intervention condition. To establish the existence of a two-level model, we estimated the interclass correlation coefficients (ICC(1)) from a null model for our outcomes. The ICC(1)s for organizational identification (0.70), affective commitment (0.68), and intent to remain (0.79) met established conventions for growth modeling (Bliese & Ployhart, 2002). The marching band's structure contains fourteen instrumental groups and so we also examined variance associated with instrumental group membership to determine the appropriate nested structure of the data. The ICC(1)s for organizational identification, affective commitment, and intent to remain at the group level were all 0.00, suggesting no dependence in the data associated with

instrumental group membership. We therefore tested the hypotheses as a 2-level rather than a 3-level model.

Following Bliese and Ployhart's (2002) procedures for growth curve analysis, we used model comparison to establish differences between individuals' outcome trajectories and trajectory changes (see Table B.2). The models with random intercepts and random slopes for both the pre-intervention trajectory and post-intervention trajectory changes fit the data best for all three of our outcome variables. In other words, the models suggested that post-intervention trajectory change for all three outcomes varied between individuals, providing the possibility that some of the trajectory variation might be explained by intervention condition.

Next, we tested whether we needed to include control terms for the error structure. Model comparison indicated significant autocorrelation for each of the indicators (Bliese & Ployhart, 2002), and we used a log-1 autocorrelation control in all subsequent models. Model comparison did not find evidence of heteroscedasticity for organizational identification or affective commitment. However, the procedure did find heteroscedasticity for the data subset used for intent to remain. All subsequent intent to remain models include autocorrelation and heteroscedasticity terms.

Organizational Identification. Hypothesis 1 predicted that values affirmation would result in a greater positive change in organizational identification trajectories than no values affirmation. We expected that the post-intervention organizational identification trajectory changes would be more strongly positive in the affirmation condition than in the control condition. This hypothesis was tested by the interaction of the intervention condition and the post-intervention change. As reported in Model 2 of

Table B.3, this interaction was not significant at the 95% confidence level but was significant at the 90% level (t-value= -1.94, p= 0.052). To examine the shape of the interaction, we plotted a predicted growth plot in Figure B.1. The predicted growth plot in Figure B.1 shows the differences in trajectory changes associated with the conditions. Contrary to the hypothesized relationship, Figure B.1 shows that individuals in the control condition had a more positive trajectory change between pre- and post-intervention organizational identification than individuals in the affirmation condition. Within-condition tests of the trajectory changes found that while there was no change (t-value= 0.68, n.s.) following the intervention in the affirmation condition, there was a significant positive change (t-value= 2.86, p< 0.01) following the intervention in the control condition.

Affective Commitment. Hypothesis 2 predicted that values affirmation would result in greater positive change in affective commitment trajectories than no values affirmation. This hypothesis was tested by the interaction of the intervention condition and the post-intervention change. As reported in Model 4 of Table B.3, the interaction was also not significant at the 95% confidence level but was significant at the 90% confidence level (t-value= -1.79, p= 0.07). The predicted growth plot in Figure B.2 shows the differences in trajectory changes associated with the conditions. Contrary to the hypothesized relationship, Figure B.2 shows that individuals in the control condition had a more positive trajectory change between pre- and post-intervention affective commitment than individuals in the affirmation condition. Within-condition tests of the trajectory changes found that while there was no change (t-value= 0.08, n.s.) following

the intervention in the affirmation condition, there was a significant positive trajectory change (t-value= 2.68, $p < 0.01$) following the intervention in the control condition.

Intent to Remain. Hypothesis 3 predicted that values affirmation would result in greater positive change in intent to remain trajectories than no values affirmation. This hypothesis was tested by the interaction of the intervention condition and the post-intervention change. The interaction term reported in Model 6 of Table B.3 was significant (t-value= -2.78, $p < 0.05$). The predicted growth plot in Figure B.3 shows the differences in trajectory changes associated with the conditions. Contrary to the hypothesized relationship, Figure B.3 shows that individuals in the control condition had a more positive trajectory change between pre- and post-intervention intent to remain than individuals in the affirmation condition. Within-condition tests of the trajectory changes found that while there was no change (t-value= -0.70, n.s.) following the intervention in the affirmation condition, and there was a significant positive change (t-value= 4.01, $p < 0.01$) following the intervention in the control condition.

REVISED THEORY AND SUPPLEMENTAL ANALYSES

Quite surprisingly, our findings suggested that the control condition asking participants to write about values of other band members produced more favorable results. This pattern of results suggests that, rather than being neutral, the control condition had a persisting and positive influence. While speculative, our results appear to suggest that appreciating others' values can expand and broaden how individuals perceive their organization.

Viewing the manipulation through the lens of perspective taking (Ku, Wang, & Galinsky, 2015) offers insights into these surprising findings. Following the established

protocol for the values–affirmation intervention, participants in the control condition were asked to reflect on what someone else in the organization may value. This activity is not unlike perspective taking, which involves imagining the world from the vantage point of another person (e.g., Parker & Axtell, 2001). Research indicates that perspective taking leads to a broader view of the self, encompassing the self and others, thereby leading to social bonds between the self and others (Galinksy, Ku, & Wang, 2005). While individuals may each be tied to the organization for a particular personal value, they may not necessarily see or appreciate differences among other members. Perspective taking facilitates empathy (Lamm, Batson, & Decety, 2007; Parker & Axtell, 2001), making individuals more caring about others and ultimately more likely to appreciate another's values of organizational membership.

Importantly, the procedures commonly used in the values affirmation intervention appear to be the inverse of a robust perspective taking intervention. Perspective taking interventions, similar to the control condition in a values affirmation study, typically involve asking individuals to consider the perspective of another party (Lamm, et al., 2007). This condition is often compared to a control condition that evokes self-focus in a manner similar to the values affirmation condition. For example, in a study of negotiation Galinsky, Maddux, Gilin, and White (2008) compared the effect of perspective taking to the effect of self-focus. They instructed participants in the perspective taking condition to visualize themselves as the other party and understand their thoughts and feelings, similar to the common values affirmation intervention procedures where the control condition prompts participants to consider the important values of someone else (e.g., Cohen et al., 2006). Importantly, Galinsky et al.'s (2008) control condition prompted participants to

focus on the most important features of their own role, instructions that bear a resemblance to the values affirmation intervention procedures in which participants in the affirmation condition consider their most important personal values (e.g., Cohen et al., 2006). Galinksy et al. (2008) found that relative to being self-focused, perspective taking led to more cooperative negotiated outcomes.

The pattern of results obtained by Galinsky et al. (2008) is similar to what we obtained and suggests that in a context requiring cooperation, being focused on one's own values and needs may be detrimental, whereas considering the values of others may lead to better outcomes. Similarly, taking the perspective of socially-related others may have a stronger influence on an individual's relationship to the organization than self-affirmation. Therefore, as a post-hoc analysis, we pose the following question:

> *Research Question*: Did individuals who engaged in perspective taking exhibit a more positive change in outcome trajectories compared individuals who did not engage in perspective taking?

To see if perspective taking helps to explain the contrary findings, a double-blind coder rated whether each of the written responses in both conditions of the intervention contained perspective taking (1 or 0). The coding scheme was reliable with a second coder on a subset of the observations (Cohen's Kappa= 0.63). Supporting the notion that the control condition activated perspective taking, there was a significant difference between the affirmation and control conditions in the proportion of participants who engaged in perspective taking (χ^2= 815.6, p< 0.001), indicating that a greater proportion of written responses in the control condition (68%) engaged in perspective taking than the affirmation condition (19%). The written responses provide examples of perspective

taking. For example, a participant in the control condition wrote about visibility in the community from the perspective of another member of the organization and said:

> *"Visibility in the community could be important to people because it could give them a sense of pride from being noticed for all the hard work they put in. For many people, working as hard as we do for no recognition can be very frustrating…"*

To assess whether perspective taking explained our results, we examined the interaction effect of perspective taking and post-intervention change on the outcome variable trajectories. As shown in Models 2 and 8 of Table B.4, there was a significant interaction between perspective taking and the post-intervention change for organizational identification and intent to remain; the interaction was in the anticipated direction but not significant for affective commitment. As Figures B.4 and B.5 illustrate, individuals who engaged in perspective taking had post-intervention trajectories that were more positive than pre-intervention trajectories for organizational identification and intent to remain. We also tested and obtained the same interaction patterns in the context of the effect of the intervention conditions (Model 3 and Model 9). These findings suggest that perspective taking explains the unanticipated results of the intervention.

While finding support for perspective taking as the mechanism for changes in organizational identification and intent to remain trajectories, these results are subject to endogeneity because there may be pre-existing individual differences around why people engaged in perspective taking. Therefore, as a final exploratory check, we ran two-stage least squares analysis. The two-stage least squares approach imposes a degree of casual rigor in our analysis by addressing endogeneity via an instrumental variable (Bailey,

2016). More specifically, we used experimental condition as an instrumental variable. In the first stage, the predicted degree of perspective taking was estimated using intervention condition. Assignment to condition is an excellent instrument because it is unrelated to error in the outcome variables by virtue of being randomly assigned. In addition, recall that assignment to condition was strongly related to perspective taking with 68% of those assigned to the control condition engaging in perspective taking versus 19% in the affirmation condition. In the second stage, the predictive variable from the first stage served as the independent variable in predicting trajectory changes.

To capture change trajectories as a single dependent variable for each outcome, we created empirical Bayes estimates of the post-intervention trajectory change in each subjects' organizational identification, affective commitment, and intent to remain (e.g., Chen et al. 2011).

As Table B.5 shows, the effect of perspective taking was not significant for changes in organizational identification or affective commitment but was significant for changes in intent to remain. Perspective taking positively predicted greater changes in subjects' intent to remain. These findings provide greater causal rigor for the inference that perspective taking was the causal mechanism for our surprising results.

DISCUSSION

The purpose of this study was to investigate how organizations can leverage the benefits of values alignment when members espouse a diverse set of values. Person-environment fit research suggests that value alignment is beneficial for organizations (Edwards & Cable, 2009), implying that members should share the same values. However, homogeneity can be impractical and detrimental for organizations (e.g.,

Choudhury & Haas, 2018). Self-affirmation theory offered a means to leverage the benefits of values alignment for organizations in which members have a diverse set of personal values. We examined the impact of values affirmation on a new range of relational outcomes – organizational identification, affective commitment, and intent to remain – relevant to organizational contexts, modifying a well-established values affirmation intervention design to consider organizations where members have heterogeneous values by integrating personal and organizational values.

Significant improvement occurred for all three relational outcomes following the intervention; however, the pattern of results was contrary to the hypotheses for each of the outcomes. Participants in the control condition manifested a significant positive change in the trajectory of their attitudes and intentions, whereas participants in the affirmation condition continued on a downward trajectory. We precisely replicated the standard procedure for a self-affirmation intervention, and a close examination of these procedures suggested that the control condition bears resemblance to manipulations of perspective taking. Viewed through the lens of research on perspective taking, which enhances cooperation and trust (Rumble, Van Lange & Parks, 2010; Schilke & Huang, 2018), our findings might be attributable to the impact that the control condition had on building stronger social bonds within the organization. The supplemental analyses supported this interpretation and suggest the importance of understanding – but not necessarily sharing – others' values in organizations.

It is worth noting that in the affirmation condition the downward trajectory in all three outcomes continued after the intervention. The affirmation condition involves participants focusing their own values. There was considerable diversity in the ranking of

values produced by participants, suggesting diversity among participants in their values. Having participants in the affirmation condition reflect on their top values may have made salient experiences in which their values did not align well with the values of other organizational members. This process may have led a distinction between subgroups (i.e., organizational members who share the participant's values versus those who do not), which can promote conflict and undermine social integration (Thatcher & Patel, 2012). In contrast, perspective taking is known to reduce subgroup distinctions and foster social bonds across subgroups (Todd & Galinsky, 2014). This logic suggests that affirming one's own values within an organization that meets a diverse range of values for its members may be deleterious to forming bonds and working effectively with others in the organization.

Theoretical Implications

An intriguing potential explanation for our unexpected results lies in a closer examination of established procedures. In studies that compared affirmation and control groups, the affirmation condition prompted self-focus through individuals' reflection on their most important personal value. The intervention has been successful for independent, self-focused activities, but in contexts where individuals perform interdependent tasks, the self-focused nature of the values affirmation intervention may not serve to strengthen social bonds. On the other hand, the perspective taking that occurred in the control condition expanded the focus beyond the self to other members of the organization (Galinsky et al., 2005). The positive impact of this exercise is consistent with research suggesting that perspective taking leads individuals to derive more meaning from task performance, making them more committed and less likely to leave the

organization (Hoever, Van Knippenberg, Van Ginkel, & Barkema, 2012; Parker, Atkins, & Axtell, 2008).

Perspective taking helps organizational members appreciate the needs and concerns of other members, leading them to be more cooperative with others (Ku et al., 2015). For example, medical teams trained in perspective taking resulted in lower perceptions of social conflict (Sessa, 1996). Similarly, individuals instructed to take the perspective of their partners are more likely to achieve cooperative solutions in negotiations than those instructed to be self-focused (Galinsky et al., 2008). Taking the perspective of one's co-workers can even enable intrinsically motivated individuals to be creative (Grant & Berry, 2011). In short, considering the perspective of socially-related others has an impact on individuals' attitudes, cognitions, and behaviors.

The results that we obtained were from an organization in which people hold diverse sets of important values. In that setting, this study found that appreciating those different values was more beneficial than focusing on one's own unique values. Our findings do not mean that it is unimportant for people to ascertain whether they fit in their organizations. Rather, because the social environment is a key aspect of fit (Jansen & Kristof-Brown, 2006), our findings suggest that complementary fit is important in diverse environments. Much of the fit research implies that individuals in the same organization should share the same set of values, creating a homogeneous workforce. As our study shows, another way to think about fit is in terms of complementary fit where an individual offers a unique and valued contribution to the organization within a range of established values (Piasentin & Chapman, 2007). Ultimately, the sense-making process of fit may unfold differently depending on the social context. In diverse contexts,

individuals can achieve both a feeling of inclusion by fitting in, but also a sense of differentiation by appreciating the diversity in the social context and their unique role in the organization. This view is consistent with optimal distinctiveness theory, which posits that social identities emerge in groups that satisfy both the need for inclusion and the need for differentiation (Brewer, 2012). Thus, fit may be achieved differently in a diverse context as compared to a homogeneous context.

Finally, to date, research on self-affirmation has focused on task achievement in settings where individuals work relatively independent of others. To our knowledge, this investigation was the first to examine self-affirmation in the context of an organization where individuals are working on an interdependent task. Thus, the results suggest that task interdependence, or the need for cooperation, may be an important boundary condition for the use of values affirmation. Indeed, viewed through the lens of perspective taking, engaging in self-affirmation may create greater self-focus, thereby inhibiting empathy and the willingness to cooperate with others. As a consequence, social interactions with other members of the organization are less likely to run smoothly, thereby undermining the participant's social integration and attachment to the organization.

Practical Implications

Our study provides a link between scholarship and organizational management by considering diversity of members' values in organizations. This is practically important because fit research implies a degree of workforce homogeneity which is unrealistic in organizations and potentially detrimental. The intervention presented in this study was simple to implement, and ultimately appeared to produce ongoing desirable changes

among organizational members, albeit in ways that we did not originally intend. The intervention exercise offers a relatively unobtrusive way in which managers can leverage the diversity of their workforce to facilitate growth in relational outcomes such as commitment and retention. If these findings hold in other studies, managers may be able to improve organizationally-relevant outcomes by utilizing relatively simple values-based perspective taking exercises.

Finally, our findings for the effects of perspective taking and the lack of outcome changes associated with values affirmation has a broader implication for organizational diversity. Research suggests that perspective taking builds bonds across diverse subgroups (Todd & Galinsky, 2014). Our findings imply that the challenges associated with deep diversity, such as diversity of values, may be addressed through perspective taking. This is consistent with theory on inclusion which suggests that effective inclusion practices involve enabling individuals to maintain their uniqueness while treating the individual like an "insider" (Shore, Randel, Chung, Dean, Holcombe Ehrhart, & Singh, 2011).

Limitations and Future Directions

Our organization has largely voluntary membership and is hosted in the educational setting of a university. The interdependent nature of a collegiate marching band is similar to many traditional workplaces and we would expect similar findings in a traditional workplace (e.g. Grant 2008; 2012). While the majority of participants in our sample were voluntary members, we expect the effects to be similar in other more typical workplaces. We studied relational outcomes that are closely related to individuals' social ties in organizations and transcend economic considerations such as pay (Ashforth &

Mael, 1996; Sluss & Ashforth, 2007). That said, future work should integrate the values affirmation intervention and perspective taking in other interdependent work contexts. Further, in the spirit of building science, we believe that it is important to document findings which do and do not confirm expectations as a way to spur future research particularly when results (such as those reported here) are based on sound experimental designs and large samples. Additionally, while our study included a randomized trial with a large sample size, additional replication and extension is fundamental to advancing science.

Our supplemental analyses suggest that perspective taking was likely the casual mechanism for our surprising findings. Indeed, this makes theoretical sense. However, we recognize that not all the effects in these analyses were significant. First, our discontinuous growth model analysis in Table 4 found support for perspective taking as the mechanism for change in both organizational identification and intent to remain, but not for affective commitment. Support for two of the three outcomes is promising for our revised theory on perspective taking. Further, the subsequent two-stage least squares analysis in Table 5 only found support for intent to remain. The lack of significance for perspective taking in the two-stage least squares models for change in organizational identification and affective commitment results may be because we used different dependent variables and had considerably less power. However, we argue that the supplemental findings are encouraging because we found significant effects for perspective taking as the mechanism in both sets of analyses on the most practically important outcome: intent to remain.

Finally, this investigation offers a number of productive avenues for advancing theory on fit. For example, because fit is a within-person sense-making process, future work could examine how individuals' perceptions of diversity in their environment impact the degree to which perspective taking enhances their organizational attachment. Another intriguing potential line of inquiry could examine how appreciating diversity influences member turnover, and if there is a time-based component in that process. Finally, research can continue to explore fit as a temporal sense-making process by following employees as they join organizations and examining the variability in the impact of appreciating different values at different points in their organizational tenure. It would be interesting to explore if the salience of appreciating diversity is similar to the honeymoon effect (e.g. Boswell, Boudreau, & Tichy, 2005; Boswell, Shipp, Payne, & Culbertson, 2009) where newcomers have more (or potentially less) pronounced reactions to taking the perspective of someone else.

Conclusion

This study examined the benefits of values-based fit in organizations with heterogeneous workforces. We leveraged self-affirmation theory to explore how personal values can enhance members' relational outcomes in diverse organizations. Theory suggested that affirming personal values related to organization membership should lead to positive trajectory changes for a series of relational outcomes – organizational identification, affective commitment, and intent to remain. We adapted the well-established values affirmation intervention in a complex interdependent organizational context. Using a longitudinal study design to test the influence of the intervention as a temporal process found results contrary to our hypotheses. Our findings showed that

individuals who considered why their least important values may be important to someone else in the organization exhibited desirable outcome trajectory changes. It appears that considering organizational peers' perspectives is an important component in members' identification with, commitment to, and intent to remain in their organizations.

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Table B.1
Descriptive Statistics and Correlations

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Condition	0.46	0.50											
2. Perspective Taking	0.44	0.50	-0.49*										
3. Organizational Identification$_{mean}$	4.27	0.61	0.02	0.05									
4. Organizational Identification$_{pre}$	4.31	0.56	0.05	0.01	0.96*								
5. Organizational Identification$_{post}$	4.19	0.72	-0.02	0.09	0.96*	0.86*							
6. Affective Commitment$_{mean}$	4.05	0.76	0.03	0.04	0.78*	0.74*	0.78*						
7. Affective Commitment$_{pre}$	4.10	0.73	0.04	0.03	0.72*	0.73*	0.69*	0.97*					
8. Affective Commitment$_{post}$	4.00	0.85	0.01	0.04	0.79*	0.71*	0.81*	0.96*	0.86*				
9. Retention$_{mean}$	3.20	0.69	-0.23	0.23	0.19	0.15	0.21	0.34*	0.32	0.33*			
10. Retention$_{pre}$	3.29	0.67	-0.24	0.29	0.13	0.12	0.13	0.29	0.31	0.25	0.96*		
11. Retention$_{post}$	3.09	0.76	-0.22	0.17	0.22	0.16	0.27	0.35*	0.30	0.38*	0.96*	0.83*	

N= 226. The mean for each is the average for all measurement occasions, pre is the average before the intervention, post is the average after the intervention. Condition is coded 1 for affirmation and 0 for control. Perspective Taking is coded 1 for perspective taking and 0 for no perspective taking. N= 187 for the retention measures based on data excluding graduating members.

* $p < 0.05$

Table B.2
Model Comparison of Random Effects

Organizational Identification

Fit Statistic	Random Intercepts	Random Intercepts & Random Pre-Intervention	Random Intercepts & Slopes (Both Time Covariates)	Autocorrelation	Heteroscedasti-city
AIC	3720.79	3193.97	3120.29	3085.31	3087.19
BIC	3751.04	3236.34	3180.82	3151.89	3159.83
LogLikelihood	-1855.89	-1589.99	-1550.15	-1531.65	-1531.60
DF	5	7	10	11	12
Δ DF		2	3	1	1
χ^2 Difference		530.80	79.68	36.99	0.11
P-value		<0.001	<0.001	<0.001	0.73

Affective Commitment

Fit Statistic	Random Intercepts	Random Intercepts & Random Pre-Intervention	Random Intercepts & Slopes (Both Time Covariates)	Autocorrelation	Heteroscedasti-city
AIC	5223.83	4880.01	4801.30	4723.94	4725.24
BIC	5254.09	4922.38	4861.83	4790.52	4797.88
LogLikelihood	-2606.91	-2433.01	-2390.65	-2350.97	-2350.62
DF	5	7	10	11	12
Δ DF		2	3	1	1
χ2 Difference		347.81	84.71	79.36	0.70
P-value		<0.001	<0.001	<0.001	0.40

Intent to Remain

Fit Statistic	Random Intercepts	Random Intercepts & Random Pre-Intervention	Random Intercepts & Slopes (Both Time Covariates)	Autocorrelation	Heteroscedasti-city
AIC	4652.68	3983.17	3859.19	3716.95	3709.79
BIC	4682.04	4024.27	3917.89	3781.52	3780.23
LogLikelihood	-2321.34	-1984.59	-1919.59	-1847.47	-1842.89
DF	5	7	10	11	12
Δ DF		2	3	1	1
χ2 Difference		673.51	129.99	144.24	9.16
P-value		<0.001	<0.001	<0.001	0.002

N=3,146 total observations nested within 226 individuals for Organization Identification and Affective Commitment. N= 2,622 total observations nested within 187 individuals for Intent to Remain.

Table B.3

Regression Results: Mixed Effect Discontinuous Growth Modeling for Values Affirmation Intervention

	Organizational Identification		**Affective Commitment**		**Intent to Remain**	
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	4.37***(0.05)	4.37***(0.05)	4.16***(0.07)	4.16***(0.07)	4.19***(0.10)	4.16***(0.10)
Pre-Intervention	-0.02***(0.00)	-0.02***(0.00)	-0.02***(0.01)	-0.02***(0.01)	-0.04***(0.01)	-0.04***(0.01)
Post-Intervention Change	0.02*(0.01)	0.03**(0.01)	0.02†(0.01)	0.03*(0.01)	0.03*(0.01)	0.05***(0.01)
Condition	0.07(0.07)	0.07(0.07)	0.05(0.10)	0.06(0.10)	0.03(0.14)	0.09(0.14)
Post-Intervention Change*Condition		-0.02†(0.01)		-0.03†(0.01)		-0.05**(0.02)

N=3,146 total observations nested within 226 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Condition was coded 1 for the affirmation condition and 0 for the control condition. Models 1 & 2 represent regression models used for organization identity, Models 3 & 4 represent regression models used for affective commitment, and Models 5 & 6 represent regression models used for turnover intention in hypothesis testing. Models 5 & 6 use a subset of the data that excludes graduating members; N= 2,622 total observations nested within 187 individuals.

† $p<0.10$

* $p< 0.05$

** $p< 0.01$

*** $p< 0.001$

Table B.4
Regression Results: Mixed Effect Discontinuous Growth Modeling for Perspective Taking

	Organizational Identification			Affective Commitment		
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	4.39****(0.05)	4.39***(0.05)	4.32***(0.07)	4.14****(0.06)	4.15****(0.07)	4.07***(0.10)
Pre-Intervention	-0.02***(0.00)	-0.02***(0.00)	-0.02***(0.00)	-0.02***(0.01)	-0.02***(0.01)	-0.02***(0.01)
Post-Intervention Change	0.02*(0.01)	0.01(0.01)	0.01(0.01)	0.02†(0.01)	0.01(0.01)	0.01(0.01)
Perspective Taking	0.02(0.07)	0.03(0.07)	0.08(0.08)	0.09(0.10)	0.08(0.10)	0.14(0.11)
Post-Intervention Change*Perspective Taking		0.03*(0.01)	0.03*(0.01)		0.02(0.01)	0.02(0.01)
Condition			0.10(0.08)			0.12(0.11)

	Intent to Remain		
	Model 7	**Model 8**	**Model 9**
Constant	4.16***(0.09)	4.19***(0.09)	4.12***(0.15)
Pre-Intervention	-0.04**(0.01)	-0.04***(0.01)	-0.04***(0.01)
Post-Intervention Change	0.03*(0.01)	0.01(0.01)	0.01(0.01)
Perspective Taking	0.08(0.14)	0.03(0.14)	0.08(0.16)
Post-Intervention Change*Perspective Taking		0.04*(0.02)	0.04*(0.02)
Condition			0.09(0.16)

N=3,146 total observations nested within 226 individuals. Unstandardized regression coefficients are reported (standard errors in parenthesis). Perspective taking was created as a dichotomous variable, coded 1 for perspective taking and 0 for not. Models 1, 2, & 3 represent regression models used for organization identity, Models 4, 5, & 6 represent regression models used for affective commitment, and Models 7,8, & 9 represent regression models used for turnover intention in hypothesis testing. Models 5 and 6 use a subset of the data that excludes graduating members; N= 2,622 total observations nested within 187 individuals.

† p<0.10

* p< 0.05

** p< 0.01

*** p< 0.001

Table B.5

Regression Results: Two-Stage Least Squares Analyses for Perspective Taking

	Change in Organizational Identification		**Change in Affective Commitment**		**Change in Intent to Return**
Variable		Variable		Variable	
Constant	0.01(0.01)	Constant	0.00(0.01)	Constant	-0.02(0.02)
Predicted PT	0.02(0.02)	Predicted PT	0.04(0.02)	Predicted PT	0.10**(0.03)
N= 226 observations		N= 226 observations		N= 187 observations	
**p<0.01		**p<0.01		**p<0.01	

Unstandardized regression coefficients are reported (standard errors in parenthesis). We recoded the assignment to condition variable to match our supplemental research question. The perspective taking condition variable used in the two-stage least squares analysis was coded 1 for perspective taking (original intervention control condition) and 0 for affirmation.

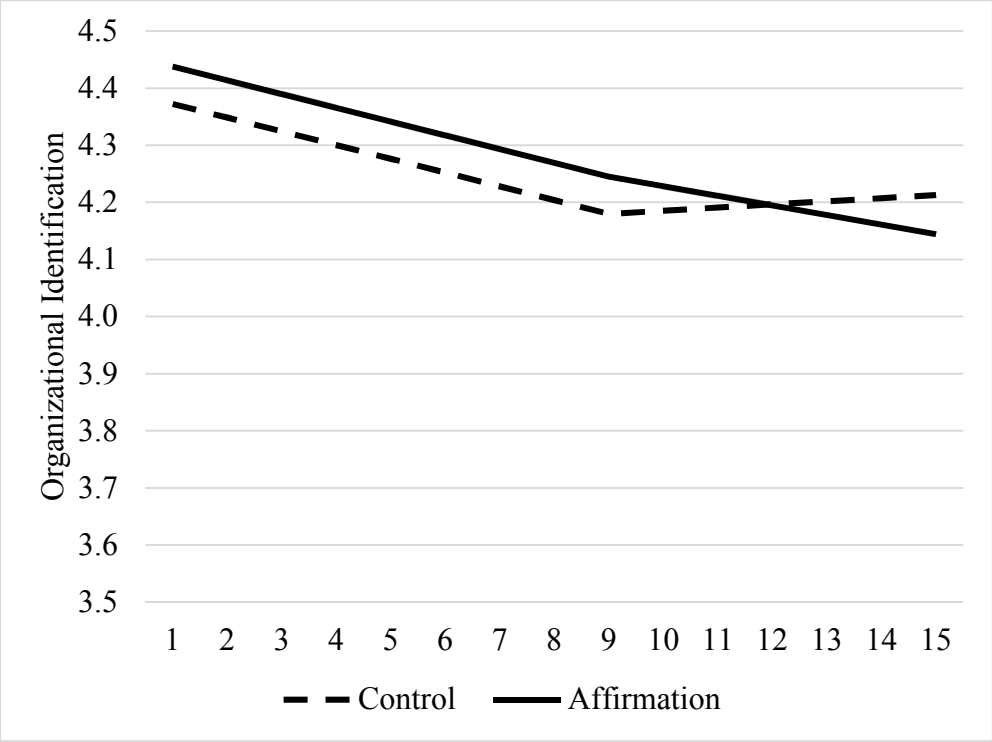

Figure B.1. Post-intervention change for organizational identification moderated by intervention condition.

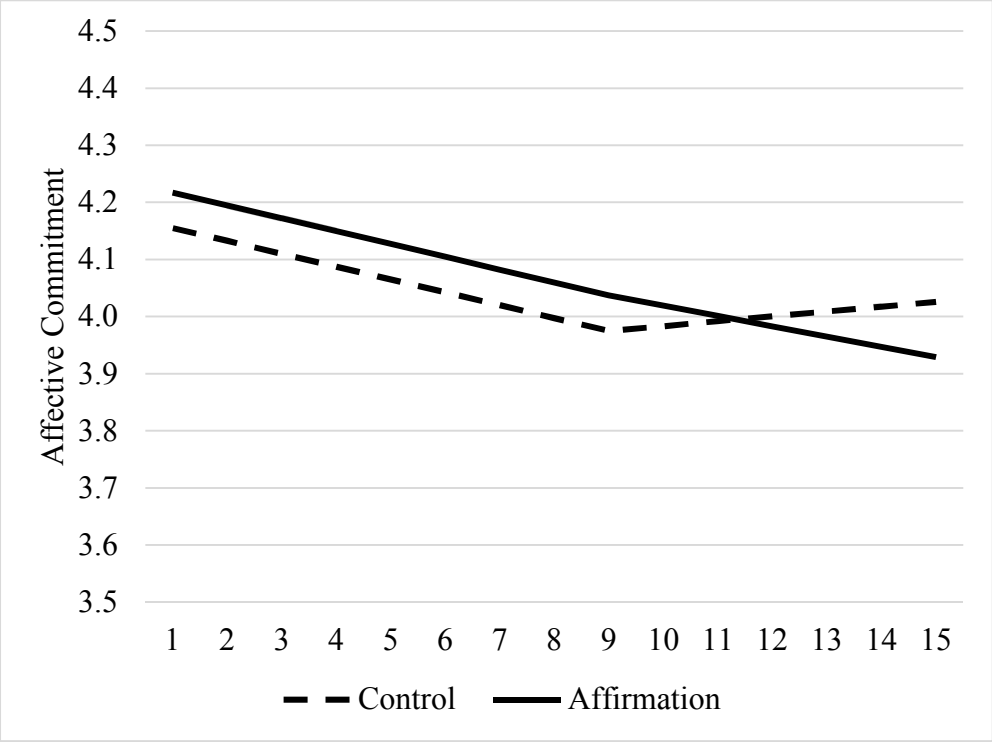

Figure B.2. Post-intervention change for affective commitment moderated by intervention condition.

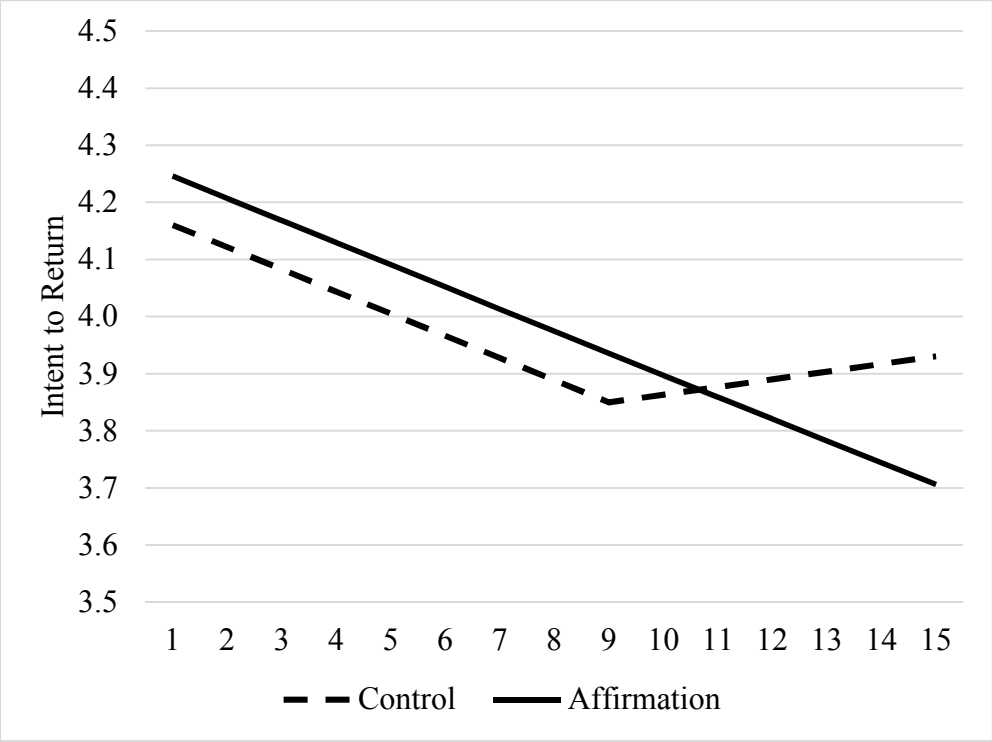

Figure B.3. Post-intervention change for intent to remain moderated by intervention condition.

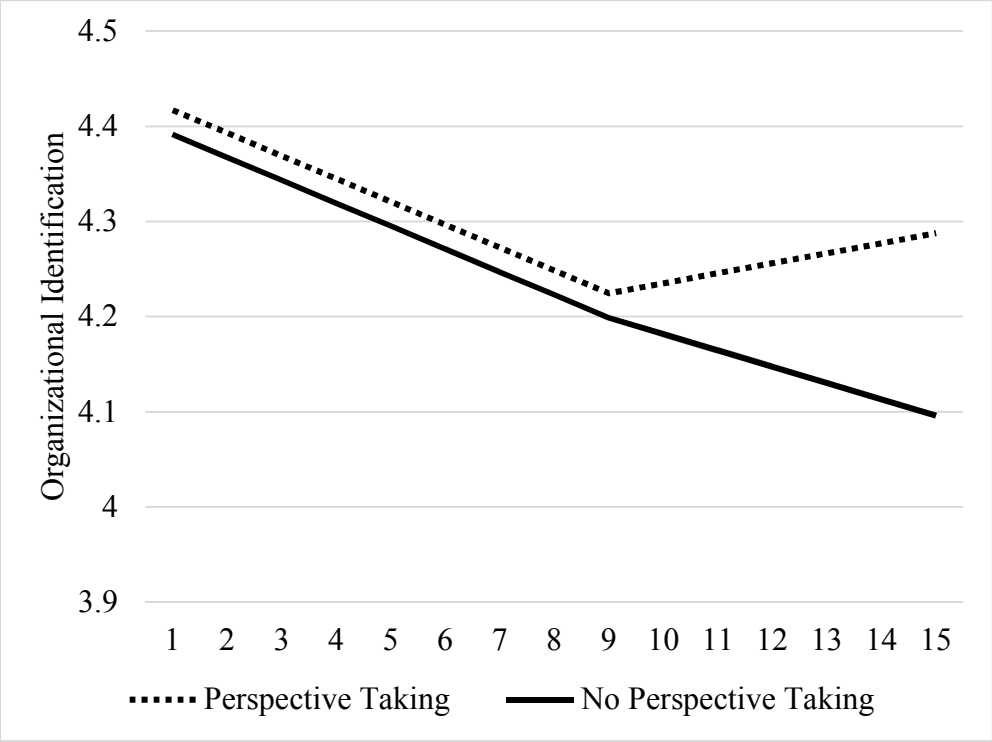

Figure B.4. Post-intervention change for organizational identification moderated by perspective taking.

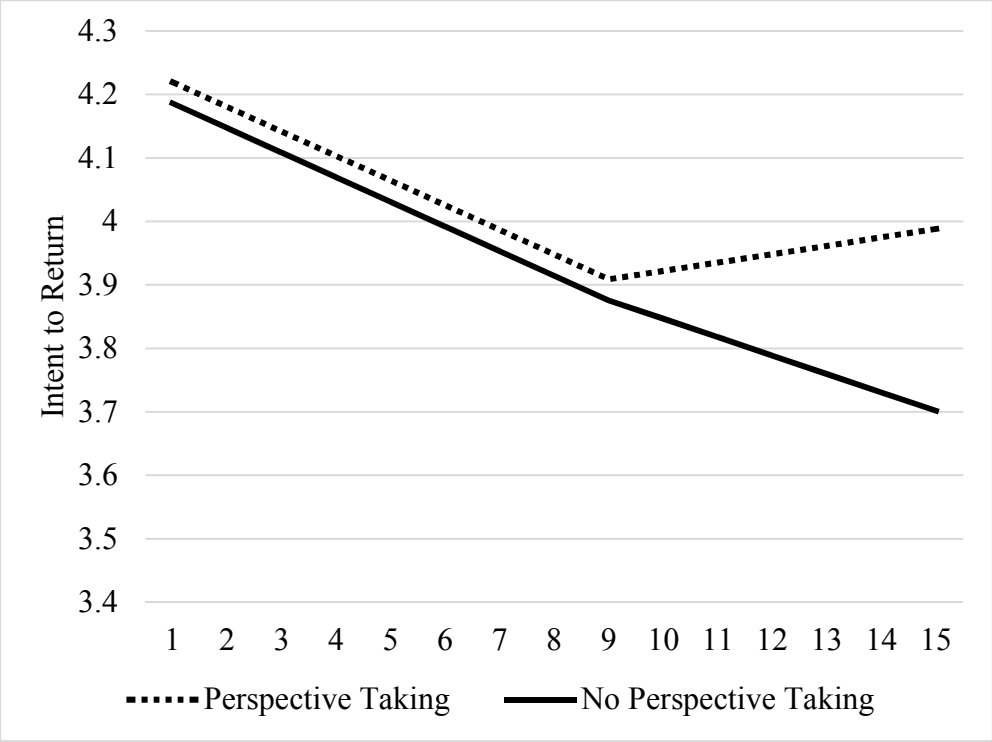

Figure B.5. Post-intervention change for intent to remain moderated by perspective taking.