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Exploring the Effects of Autotelic Personality, Proactive Personality, and Positive Affectivity on Dispositional Employee Engagement

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"*The world is full of magic things, patiently waiting for our senses to grow sharper*. "

– W.B. Yeats

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Abstract

The increasing focus on employee well-being and its organizational implications has shifted scholarly attention towards the dynamics of employee engagement. Prevailing research largely concentrates on the influence of the work environment in fostering engagement. However, the role of individual predispositions remains insufficiently explored. This study seeks to address this gap by evaluating the predictive capacity of specific individual traits – autotelic personality, proactive personality, and positive affectivity – on the innate tendency towards employee engagement. It also examines the extent to which an organization's climate for engagement can enhance these individual characteristics' impact. A survey was conducted with 403 adult participants in the United States, using the Prolific Academic platform. Structural regression analyses were utilized to evaluate the proposed relationships. The analysis revealed that all three personality variables significantly predict dispositional employee engagement, and that autotelic personality significantly influences all three subdimensions of dispositional employee engagement (cognitive, emotional, and behavioral), positioning it as a key predictor in its development. Proactive personality was particularly influential in behavioral engagement, whereas positive affectivity strongly predicted all subdimensions, especially emotional engagement. Furthermore, climate for engagement was found to buffer the relationship between dispositional and state employee engagement, particularly for those lower in dispositional engagement. These findings not only enrich our understanding of the multifaceted nature of dispositional employee engagement but also provides strategic direction for organizations aiming to cultivate specific facets of employee engagement.

Keywords: employee engagement, employee wellbeing, dispositional employee engagement, autotelic personality, proactive personality, positive affectivity, organizational climate

Chapter I: Introduction

"In human behavior, what is most intriguing is not the average, but the improbable."

Mihalyi Csikszentmihalyi, 2000

An early mandate of psychology as a science was to identify and nurture that which was best in human capabilities (Seligman & Csikszentmihalyi, 2000). Post-World War II psychology moved away from a focus on optimal human functioning to a disease paradigm, wherein pathologies were identified to alleviate individual human suffering. This led to beneficial advances, as many disorders were recognized and treatment protocols created. However, with the empirical push focused on pathology, cultivating people's talents, strengths and flourishing were largely set aside (Seligman and Csikszentmihalyi, 2000).

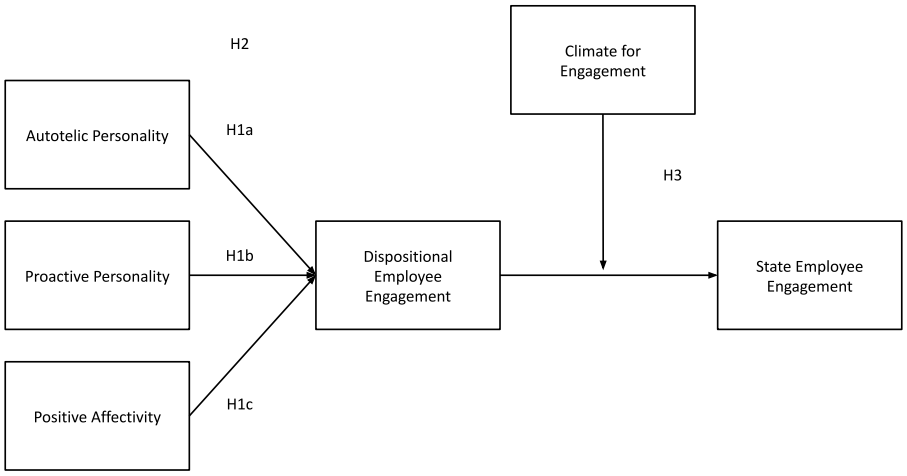
Paralleling this paradigm shift in therapy, organizational psychologists often adopted a deficit-based approach to organizational issues wherein dysfunctions were identified and attempts made to 'fix' the systems and employees connected to the dysfunction (Seligman, 2002). Recently, organizational researchers have increased their focus on identifying and nurturing strengths such as hope, creativity, and work ethic, with positive psychology at the forefront of the movement (Luthans & Youssef, 2007). The role of positive psychology has expanded and gained support in recent years in accordance with organizational needs for innovative, self-directed, energetic employees (Wright & Quick, 2009). Within this concept, organizational researchers have identified employee wellness and flourishing at work as an area of interest and of value creation for both organizations and employees.

Employee engagement represents one of the wellbeing constructs that has received considerable attention in the workplace (Diener et al., 2020). Employee engagement has typically been studied as a state, with individuals experiencing ebbs and flows over their workweeks and at times experiencing little or no work engagement (Shuck et al., 2017). However, Macey and Schneider (2008) theorized that an individual difference characteristic called dispositional engagement likely exists. To date, little research has explored whether the theory and posited model predict dispositional engagement. I propose that dispositional engagement is a relatively stable, enduring individual difference variable and is based on a

combination of autotelic personality, proactive personality, and trait positive affectivity. Further, it is proposed that dispositional engagement predicts state engagement, and this relationship is moderated by the work environment, specifically an organizational climate for engagement that either facilitates or inhibits the expression of individual's dispositional engagement. The purpose of this study is to assess whether the three personality characteristics of autotelic personality, proactive personality, and positive affectivity predict dispositional employee engagement, and the extent to which the relationship between dispositional engagement and state engagement is moderated by climate for engagement (See Figure 1).

Figure 1

Proposed Dispositional Employee Engagement Model



In the following discussion, I will begin by outlining the overarching theoretical rationale which this research seeks to support. This will be followed by a discussion of employee engagement. Next, the three proposed constructs that are hypothesized to combine to predict employee engagement will be reviewed. Finally, climate for engagement as a moderator of the relationship between dispositional engagement and state engagement will be discussed.

Chapter II: Literature Review and Theoretical Framework

"Your car goes where your eyes go. Simply another way of saying that which you manifest is before you."

Garth Stein, 2008

Theoretical Framework

The extent to which engagement is an attribute of the person or the result of the situation is a central question in the research and represents the ongoing debate that psychologists have had over the last century about the determinants of all human behavior (Ilies et al., 2006). For example, Bowers (1973) proposed a synthesis of trait and situationist theories called interactionism. Rather than attributing human behavior to traits-those relatively stable individual characteristics determined by a combination of genetic heritage and nurture, or to the situation, where behavior is caused by environmental cues and triggers, interactionism posited that behavior was due to the interaction between the two. In other words, neither traits nor the situation individually determined behavior, rather it was the two working together in combination. Thus, individuals can act within situations to affect outcomes, consequently influencing the nature of the situation itself (Bowers, 1973; Schneider, 1983). In this way, people are not passive but are agentic in thought and behavior (Bandura, 2011), engaging in metacognition both before and after actions to navigate into and create the situations they find themselves in, set goals, monitor progress, and analyze outcomes. Human agency is foundational to Social Cognitive Theory (SCT; Bandura, 2011), wherein the person, the situation, and behavior interact in tripartite reciprocal causal interactions.

There are a number of processes by which people can act to influence and change the situation around them. For example, cognitive restructuring involves the processes by which people perceive, construct, and appraise the environment (Lazarus, 1984), with individual mental models informing each step. The outcome of these cognitive processes is a decision of which environments people choose to participate in (Schneider, 1983). Once in a situation, people can both intentionally (manipulation) and unintentionally (evocation) influence and exploit the social fabric of a situation. Finally, people can employ behaviors that directly

change the circumstances of the environment (Buss, 1987). The proclivity for people to be engaged at work is likely to follow a similar pattern: some people are more likely to see and, in turn, create conditions that increase their engagement.

Much research has been dedicated to understanding the work settings that foster engagement and the outcomes of engagement (e.g., Christian et al., 2011; Demerouti et al., 2001; Harter et al., 2002 & Shuck et al., 2017); however, relatively less research has been conducted that assesses which individual characteristics predispose people to being engaged. In the following section the state of theory and research regarding employee engagement will be discussed.

Employee Engagement

Seminal work on engagement was conducted by Kahn (1990), who defined *personal engagement* as the simultaneous expression and employment of cognitive, emotional, and behavioral energies brought to bear on work tasks. Interest in engagement remained low until a rise in concern for worker burnout brought renewed attention to the topic. Maslach and Leiter (1997) found that burnout was characterized by exhaustion, cynicism, and low professional efficacy. Using this as a foundation Schaufeli et al. (2002) conceptualized *work engagement* as the positive antipode to burnout. They defined work engagement as being comprised of three dimensions of vigor, absorption, and dedication (Schaufeli et al., 2006). While work engagement has been widely studied, it differs from Kahn's original conceptualization of engagement as a process in which an employee decides to employ their full self to achieve organizational objectives and instead sees engagement as a psychological state that is focused on work activity or work itself (Shuck et al., 2017).

With Kahn's work on personal engagement as its foundation but with an interest in focusing on employee experiences of work, research on *employee engagement* has begun to emerge. Employee engagement is defined as a positive, work-related, active psychological state that is inclusive of the entirety of the work experience (e.g., the experience of working, one's team, one's work tasks, etc.; Shuck et al., 2014) and is comprised of three dimensions: cognitive, emotional, and behavioral engagement. When viewed as a process, employee

engagement is a series of decision points with employees deciding multiple times per day, in a series of micro- and macro-transactions, whether organizational requests warrant the deployment of their personal resources, and to what extent to invest them (Barrick et al., 2015).

Research indicates that employee engagement is related to a variety of desirable organizational outcomes including higher job satisfaction and organizational commitment and decreased turnover intentions and turnover (Demerouti et al., 2001; Maslach et al., 2001; Bakker et al., 2003; Shuck et al., 2011). Highly engaged employees display relatively higher levels of discretionary effort (Christian et al., 2011), extra-role behavior and proactive behavior than employees with low work engagement (Saks, 2006; Salanova et al., 2008). Employee engagement is related to performance and in turn increased service climate, customer service, customer satisfaction (Christian et al., 2011; Salanova et al., 2005), productivity, and profitability (Christian et al., 2011; Harter et al., 2002; Rich et al., 2010). Employees with higher levels of engagement receive higher safety ratings (May et al., 2004), report lower levels of psychosomatic complaints (Demerouti et al., 2001), and are less likely to be depressed and distressed (Bakker et al., 2003). Thus, employee engagement has multiple connections to outcomes of value to both organizations and individuals, which has fueled prolific research interest and investment in the construct.

Synthesizing and drawing together the proliferate strands of research on employee work engagement that had been previously performed, Macey and Schneider (2008) proposed a process-based model of engagement with three related dimensions: dispositional engagement, state engagement, and behavioral engagement. Dispositional engagement, also known as trait engagement, is a relatively stable individual tendency to be engaged and to seek out environments that will afford opportunities to be engaged in their work (Holland, 1997; Schneider, 1983) and is defined as the tendency toward positive affect and feelings of enthusiasm when experiencing the world (Macey & Schneider, 2008). For purposes of this study, the term dispositional engagement will be utilized.

Dispositional engagement precedes state engagement. Those high in dispositional engagement will have a relatively higher average level of engagement over time. State engagement is an affective state in which employees feel high levels of commitment, occupation, and presence in their work at a point in time which, in turn, leads to behavioral engagement. Behavioral engagement is defined as an intention to engage one's cognitive, emotional, and behavioral resources to accomplish an organizational objective (Zigarmi et al., 2009). Finally, the observable behaviors that result from this process are most appropriately termed performance (Shuck et al., 2017), as they are the organizationally relevant outcomes of this process of investment decisions that employees undertake.

In order to investigate factors contributing to dispositional engagement, Macey and Schneider's (2008) conceptual model of employee engagement serves as a foundation. They predicted that the factors that likely impact dispositional engagement include positive affectivity, proactive personality, autotelic personality, and conscientiousness. Positive affectivity is included as a factor in dispositional engagement due to its characterization as a tendency to experience activation and enthusiasm (Tellegen, 1985). Inclusion of proactive personality rests on its being a tendency to reject the status quo (Bateman & Crant, 1993). Autotelic personality is an inclination to engage in activities for their own sake rather than for external reward (Csikszentmihalyi, 1990). Dispositional employee engagement is characterized as a tendency to experience the world through an active, energetic, agentic, and reward-sensitive lens (Macey & Schneider, 2008). However, Macey and Schneider include conscientiousness, which includes elements of conformity which can be counter-productive to an individual's agentic, creative drive. Macey and Schneider's primary rationale for including conscientiousness in their conceptual model rests upon its proactive aspects, specifically industriousness and order. However, conscientiousness also includes elements of compliance, such as caution and duty, which are focused on preventing mistakes rather than proactive motivation. Therefore, it was not included in this study, since the enterprising, creative elements of conscientiousness are represented by the remaining constructs in the model. That is, proactive personality encompasses both cognitive and behavioral tendencies to create

change, to contradict the existing paradigm. While Macey and Schneider contend that the compliance facet of conscientiousness should predict engagement, I argue that this is oppositional to the proactive aspect of dispositional employee engagement, which is characterized as an agentic drive toward action, and not as a sense of obligation to fulfill performance expectations. Each construct will be discussed in subsequent sections.

Research has demonstrated connections between organizational variables such as job satisfaction and commitment and personality variables ranging from self-efficacy (Saks, 2006) to curiosity (Reio & Callahan, 2004), and the connection of personality variables to the development of individual employee engagement (Judge et al., 2004; Maslach et al., 2001). Research has further shown that predictors of engagement can improve the development of engagement (Saks, 2006), and that these predictors must be in place prior to experiencing the benefits of an engaged workforce (Rich et al.,2010). Thus, there is a sound basis for investigating personality variables as they relate to outcomes of interest in organizations. In addition, there is a dearth of human resource development literature in relation to the factors that precede engagement, leaving practitioners with limited information on how to identify challenges to improving engagement and in communicating clear strategies to stakeholders (Wollard & Shuck, 2011). Knowledge of factors contributing to dispositional engagement may potentially influence hiring and onboarding practices, coaching and organizational learning, individual development strategies and guide organizational development strategy as a whole.

As noted earlier, research has focused primarily on state engagement with limited attention devoted to the personality elements that characterize someone high in dispositional engagement. It is proposed that three psychological traits combine to create a proclivity in individuals to seek out, perceive and experience activities in their lives as highly engaging. Specifically, it is proposed that highly engaged individuals will exhibit autotelic personality, proactive personality, and positive affectivity. Each will be reviewed in the following sections.

Autotelic Personality

In his pursuit of understanding performance and focus, Csikszentmihalyi (1975)

interviewed top athletes, chess players, rock climbers, dancers, and concert instrumentalists regarding their cognitive and affective experiences in the situations in which they practiced. He coined the term *autotelic personality* to capture the suite of individual difference characteristics that facilitate the experience of flow (Csikszentmihalyi, 1990). Flow is a state typified by effortless concentration, sense of control, a sense of time being distorted, and loss of self-consciousness. Thus, autotelic personality is a set of personality attributes that precedes and facilitates the experience of flow and is defined as the propensity to engage in an activity for its own sake, rather than in service of achieving an external goal (Asakawa 2004; 2010; Csikszentmihalyi 1975; 1990).

Autotelic personality as a construct has been assessed and operationalized in a variety of ways, with two dominant models utilized. Those adhering to the meta skills model propose that individuals possess certain attributes which facilitate entering and maintaining a flow state (Nakamura & Csikszentmihalyi, 2002), with curiosity, persistence, and low self-centeredness being the primary attributes. In the second model, called the active-receptive model (Baumann, 2012), high autotelic individuals receptively notice challenges and engage and persist in the face of challenges (i.e., active mastery; Nakamura & Csikszentmihalyi, 2002). Tse and Lau (2020) created an instrument combining these competing models with success (the Autotelic Personality Questionnaire, APQ). The APQ assesses the collection of personality characteristics that precede and facilitate flow, rather than assessing individual flow proneness and inferring personality characteristics. It is proposed that a combined model of autotelic personality with the seven dimensions are critical predictors of dispositional engagement.

The first dimension of autotelic personality is *curiosity* and is defined as a need for new knowledge, information, or experiences in order to fill gaps, reduce incongruencies, or to increase competency (Grossnickle, 2014). *Persistence* is the ability to maintain effort over long periods (Abuhamdeh, 2020). *Low self-centeredness* is defined as low self-consciousness or lack of preoccupation with self-image (Tse et al., 2020), which facilitates engaging in challenging situations and learning from mistakes and setbacks. *Intrinsic motivation* is a tendency to be motivated by internal rather than external rewards (Csikszentmihalyi, 1975). The next

dimension, *enjoyment and transformation of challenge*, encompasses the tendency of high autotelic individuals to perceive high challenge situations as opportunities to learn new skills and strategies, and low challenge situations as opportunities to transform the situation into one that is more enjoyable and engaging (Baumann, 2012). *Transformation of boredom and tedium* is the ability to alter the situation in which they find themselves to make it more engaging. Those who score high on autotelic personality tend to engage in high levels of environmental scanning, looking for new opportunities to alleviate boredom, as well as in job crafting and job evolution, in which they change their defined job role to make it more interesting or expand it to encompass more than the original (Young & Steelman, 2017). The final dimension is *attentional control* and is defined as the ability to focus narrowly on the task at hand, while maintaining wide focus on team and organizational objectives and opportunities (Baumann, 2012; Nakamura & Csikszentmihalyi, 2002).

Research suggests that these dimensions are additive to produce individuals who possess high autotelic personalities, with dimensions being moderately correlated yet independent and all seven dimensions significantly contributing to the higher order factor (Tse et al., 2020). Autotelic personality should predict dispositional engagement as highly autotelic individuals tend to engage in behaviors that likely contribute to employee engagement: they tend to scan for opportunities, to interact with their environment to create challenge, to persist once tasks are undertaken, and to be curious and willing to develop new skills and strategies to achieve goals. Additionally, high autotelic individuals have a relatively higher tendency to engage in tasks for the sake of intrinsic rather than extrinsic rewards.

Hypothesis 1a: Autotelic personality will be positively related to dispositional engagement.

Proactive Personality

Autotelic personality is largely a cognitive trait, reflecting thought processes in relation to motivation, opportunity, and risk. In contrast, proactive personality is an instrumental trait, indicating the extent to which people act to directly influence the environment (Buss & Finn, 1987). *Proactive personality* is a relatively stable, individual difference variable and is therefore considered a trait (Tisu et al., 2020). It is defined as a relatively stable tendency to

alter and/or influence the environment (Crant, 2000). Individuals high in proactive personality identify and act on opportunities, taking initiative and persevering until change occurs, regardless of situational factors (Bateman & Crant, 1993). *Proactive personality* is the dispositional variable that predicts the extent to which people differ in their tendency to engage in *proactive behavior*.

Proactive behavior is an action that directly alters the environment or situation (Bateman & Crant, 1993) and is defined as the tendency to take initiative in creating new opportunities or improving existing ones (Crant, 2000). However, people do not act simply to alter their environments; they create the environments they choose to play in. Miles and Snow (1978) call this prospecting behavior, wherein individuals seek out opportunities and actively alter the environment to create new ones. The antipode is defenders, who strive to maintain the status quo. Similarly, Maddi (1989) called this transcendent rather than acquiescent behavior, and Bandura (1986) defined it as foreactive rather than counteractive behavior. Proactive behavior is not a defense of the status quo, but rather is a challenge to it.

Proactive behavior is predicted by proactive personality (Parker & Collins, 2010), with a highly proactive individual engaging in high levels of scanning for opportunities for improvement, taking initiative, and persevering until change is made (Seibert et al., 1999). In contrast, those low in proactive personality react to changes rather than bring them about, are passive and are invested in maintaining the existing condition (Bateman & Crant, 1993). Proactive personality should be related to dispositional employee engagement, as highly proactive individuals are in active relationship with their work environment, have a desire to create positive change, and are relatively unrestricted by the situation.

Hypothesis 1b: Proactive personality will be positively related to dispositional engagement.

Positive Affectivity

In contrast to the cognitive/instrumental variables described previously, positive affectivity is an affective trait. Positive affect (PA) is the extent to which a person feels energetic, attentive, and enthusiastic (Watson, et al., 1998). High PA is characterized by high

activity, absorption, and pleasurable engagement, while low PA is characterized by sadness and lethargy. The dispositional tendency to experience feelings related to positive affect is trait positive affect, otherwise called positive affectivity (Kaplan at el., 2009). Positive affectivity is defined as a stable tendency to experience positive emotional reactivity (Tellegen, 1985).

Affect is linked to sensitivity to reward and punishment stimuli in the environment (Larsen & Ketelaar, 1989) and influences the type of information people pay attention to (Necowitz & Roznowski, 1994). In relation to motivation, affect can have direct effects on direction and intensity of effort and persistence, and indirect effects on judgments related to progress (Seo et al., 2004). In addition, those high in positive affectivity tend to assess situations and outcomes as having relatively higher valence, expectancy, and instrumentality than those with low positive affectivity (Erez & Isen, 2002). Those high in positive affectivity tend to be relatively more sensitive to reward cues, attending to information related to opportunities and adopting approach tendencies rather than avoidance behaviors (Lyubomirsky, 2001). Thus, those high in positive affectivity tend to interpret relatively more situations as positive and thus engage in behaviors meant to promote resource building and goal attainment.

Individuals high in positive affectivity have a stable tendency to have a positive general outlook: on work, themselves, on others, and on potential opportunities. They tend to be relatively confident, sociable, energetic, and have high self-efficacy and effective coping strategies (Lyubomirsky et al., 2005). High positive affectivity is related to optimism (Steed, 2002) and to the ability to connect efforts more objectively to outcomes (Erez & Isen, 2002). In addition, positive affectivity is related to more positive evaluations of work (Thoresen et al., 2003). Positive affectivity should be related to dispositional employee engagement, as those high in positive affectivity tend to see opportunities for reward, engage in approach behaviors, and have more positive outlooks on their capabilities, potential rewards, and progress, which should predispose them to being engaged in organizational objectives while at work.

Hypothesis 1c: Positive affect will be positively related to dispositional engagement.

Combining Autotelic, Proactive and Positive Affectivity

As argued above, each of the three personality dimensions should be individual elements and predictive of dispositional engagement. However, it is further proposed that it also their combination that is important.

Development and Maintenance of Employee Engagement

Multiple theorists have posited process-based models of the development of engagement-related variables (see Alagaraja & Shuck, 2017; Shuck et al., 2014; Macey & Schneider, 2008; Zigarmi et al., 2009). The combination of the variables selected in this study to predict dispositional employee engagement is based on these models and thus the rationale will be described here.

One of the foundations of Social Cognitive Theory is that human behavior is agentic and is foreactive (Bandura, 1986; Deci & Ryan,2002). Individuals do not simply respond to the situations in which they find themselves, but instead predict potential outcomes, determine whether they have the resources to bring about those outcomes, and determine whether the outcomes are desired. Then, they choose courses of action that are not only reactive to but change the situations in which they occur. Thus, appraisal of the situation is a crucial step in deciding whether and how to act (Zigarmi et al., 2009), or whether to be engaged at any moment at work. As Barrick et al. (2015) state, engagement as a process is a series of decision points throughout the day.

This conceptualization of the development of employee engagement hews close to Kahn's (1990) original research and understanding of personal engagement as being based on contract theory, with individuals choosing which organizational tasks to focus on and at what performance level to accomplish them throughout their workdays. Cognitive appraisal largely acts to impact the target of emotional engagement (Shuck et al., 2017). If a positive cognitive appraisal is rendered, affective appraisal acts to direct behavioral intentions, with behavioral intentions being the antecedent to observable behaviors related to performance. Cognitions and emotions interact continuously throughout the appraisal process, and further service to maintain employee engagement as outcomes are assessed and strategies are corrected as needed for success.

The three dispositional variables in this study represent different aspects of the process of the development of employee engagement: cognitive, affective, and instrumental. Autotelic personality is largely a cognitive trait and can be summarized as the tendency to transform threats into challenges (Csikszentmihalyi, 1990). Proactive personality is an instrumental trait and is summarized as taking action to alter the environment for the better (Bateman & Crant, 1993). Trait positive affectivity is an affective trait and is summarized as a disposition to view the world in an active and positive way (Staw, 2004). Each variable is likely necessary to dispositional employee engagement; further, they likely act synergistically, combining in multiplicative interactions with each other.

Hypothesis 2: Autotelic personality, proactive personality, and trait positive affectivity interact synergistically to predict dispositional engagement.

In addition to providing a description of the development of employee engagement, this model acknowledges that the context in which work interactions occur plays an important role, as behaviors are manifestations of cognitive-affective appraisals, which are dependent on employee perceptions of the organizational climate in which their work occurs (Alagaraja & Shuck, 2015; Shuck & Reio, 2014). Following is a discussion of organizational climate as a potential moderator of the relationship between dispositional engagement and state engagement.

Climate for Engagement

As noted throughout, it is expected that dispositional engagement will be predictive of state engagement as individuals seek out, interpret, and experience their work as engaging. However, it is not proposed that the two are perfectly related, as there are situational factors that can impact state engagement, such as the work environment. People in highly stimulating environments will have a greater opportunity to experience opportunities for cognitive, emotional, and behavioral engagement.

Context has been recognized as an important factor in organizational behavior by various lines of research (e.g., Pinder, 1988), with behavior strongly influenced by employee perceptions of their work environment (Schneider, 1983). Organizational climates are visible in

the policies and procedures an organization espouses (Ahmed, 1998) and are defined as events, practices, and organizationally supported behaviors that are identifiable to employees, who then attach a shared meaning to them (Ehrhart et al., 2014). Thus, climates are organization-level variables comprised of the aggregate, shared impressions of employees (Newman et al., 2020). In contrast, organizational cultures are the shared values and assumptions that explain why organizations do what they do (Schneider et al., 2017). Where researchers study climate through employee surveys and often utilizing quantitative methods, culture is often studied utilizing qualitative and immersive methods.

Organizations can have multiple climates (Schneider et al., 1998), making it important to study the specific climate of interest when conducting research. Additionally, previous research has found that narrow climates predict behavior better than measures of general organizational climate (Schneider, 1990). Previous research has identified climates for implementation (Klein & Sorra, 1996), climate sustainability (Magill et al., 2020), and proactivity (Fay et al., 2004), among others.

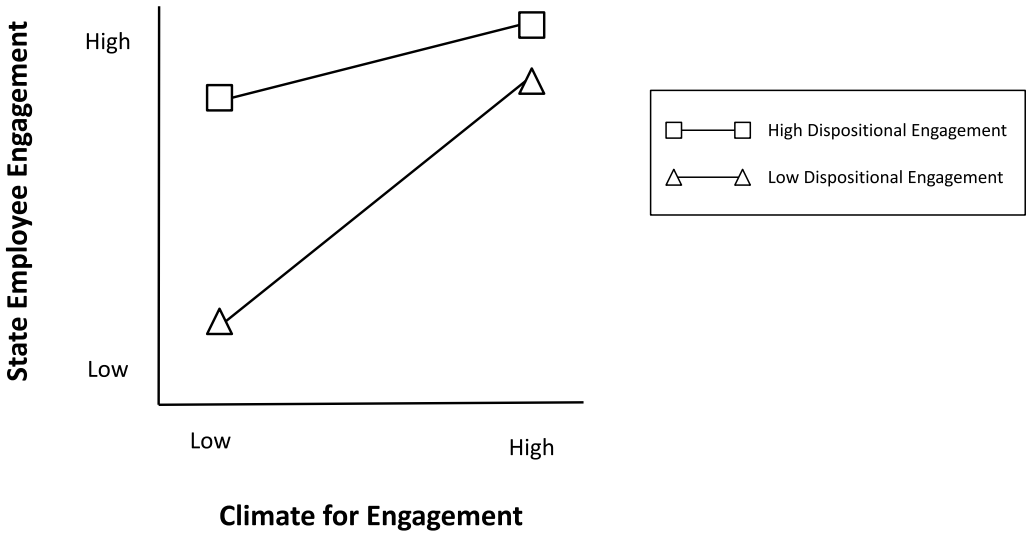
Albrecht (2014) defined organizational engagement climate as the shared perceptions regarding the energy and involvement that employees are willing to invest toward organizational goals. Thus, climate is characterized by what employees observe and how they react to and align with, or do not align with, these perceptions. While research has shown that an authentic culture precedes high employee engagement (May et al., 2004), culture is outside of employee control (Shuck & Herd, 2011). Therefore, climate for engagement is included in this study, as it impacts employee perceptions, attitudes, and actions, yet can be addressed through purposeful policies in an organization. Albrecht et al (2018) identified factors contributing to an organizational climate for engagement utilizing a Job Demands-Resources lens such as autonomy and leadership modeling of values and attitudes. Primarily, an organizational climate for engagement is described by employee perceptions regarding enthusiasm, involvement, and performance striving.

Organizations can be characterized as having climates that include policies and practices that promote or inhibit employee engagement. Thus, it is proposed that individuals

who have a low trait proclivity to be engaged are likely to experience low state engagement when the organizational climate does not support engagement. Likewise, those with low dispositional engagement will likely experience relatively greater state engagement when working in an organizational climate that supports engagement. In contrast, individuals with a high proclivity for engagement will be engaged at moderate levels in any environment. They will likely see a small increase in state engagement when working in an organization with a high engagement climate. However, the increase in state engagement will likely be relatively less than that experienced by those low in dispositional engagement. This is due to the combination of characteristics that precludes them to be dispositionally engaged, i.e., curiosity, environmental scanning, transformation of challenge, high proactivity, a tendency toward positive and active emotions, etc. (See Figure 2).

Figure 2

State Employee Engagement and Dispositional Engagement, Moderated by Climate for Engagement



Hypothesis 3: Climate for engagement will moderate the relationship between dispositional employee engagement and state employee engagement such that the relationship will be stronger when climate for engagement is higher.

Chapter III: Method

Participants and Procedures

The proposed study is a concurrent correlational design using a cross-sectional self-report survey. The design is appropriate because this research seeks to understand the prevalence of behaviors within a sample without manipulation or intervention by the researcher (Sedgwick, 2014).

Sampling

Participants were recruited through Prolific Academic (ProA), a crowdsourcing tool that connects researchers with a sizable candidate pool. There is a growing body of support for the use of crowdsourcing platforms in psychological research (e.g., Goodman et al., 2013; Paolacci & Chandler, 2014; Peer et al., 2017). Evidence suggests that data quality obtained using ProA is comparable to data derived using similar platforms, with the additional benefits of ProA participants being somewhat more naïve, less dishonest, and more diverse than participants from Amazon's Mechanical Turk (Peer et al., 2017), with both tools attaining similar data quality levels. Moreover, the use of crowdsourcing platforms supports the goal of obtaining an adequately powered sample through access to a large and diverse workforce.

Preliminary Screening Criteria

Five inclusion criteria were utilized for participant inclusion. First, participants had to be over the age of 18 years old. They additionally had to be employed a minimum of 25 hours per week and reside in the United States. ProA workers with ≥ 95% approval rating and ≥ 15 previous submissions were included to ensure data quality.

ProA workers who met the preliminary screening criteria were asked to complete an informed consent, followed by a 20-minute survey. The survey included measures of the independent variables, dependent variables, demographic items, and additional screening questions to ensure data quality. Survey items required Likert-type responses and were closed-ended. To reduce response bias associated with participant fatigue due to the anticipated length of the survey (97 items), the IV scales (autotelic personality, proactive personality, and positive affectivity) were randomly sequenced for each participant.

Survey Screening Methods

Only those participants who met the screening criteria received the survey link. To increase confidence that participants truly meet selection criteria, they were asked to self-report answers to the screening criteria as part of the demographic section of the survey. In addition, three instructed response items (IRIs; Meade & Craig, 2012) were included to assess data integrity, as well as one attention check question (ACQ) as recommended by Peer et al. (2017). IRIs specify an expected answer (e.g., *Please select Most of the time for this item*), while ACQs act as "trick" questions, requiring attention to answer correctly (e.g., *Have you ever had a fatal heart attack?;* Paolacci et al., 2010). A strict exclusion policy was applied, whereby the data from participants who incorrectly answered the IRI or AQC, or whose responses were not in alignment with the screening criteria were deleted from the sample prior to analysis.

Sample Size, Power, and Precision

The software program *A-priori sample size calculator for structural equation modeling* (Soper, 2022) based on Cohen's (1988) power equations, was used to conduct a power analysis to determine the sample size needed for this study. As suggested by Fisher (1925), an alpha level of .05 was selected and Cohen's (1988) suggestion for power level of 80% and a small (.02) to modest (.15) effect size was assumed. While a rule of thumb for SEM asserts that a sample size of approximately 300 is sufficient to detect a moderate effect, Westland (2010) found a systematic bias toward choosing sample sizes approximately 50% too small to detect significant effects. The final sample and dataset used in this research was 403.

Measures

Five measures were used to test the proposed hypotheses. Study variables include dispositional and state employee engagement, autotelic personality, proactive personality, positive affect, and climate for engagement. Demographic questions collected information on age, gender, race, education level, and type of organization.

Dispositional and State Employee Engagement

The Employee Engagement Scale (EES; Shuck et al., 2017) was utilized to assess

participants' dispositional and state engagement, aligning with the study's process-based definition of engagement that incorporates cognitive, emotional, and behavioral dimensions into a unified construct of overall employee engagement. Drawing from the methodology in assessing trait and state affect (Thoresen et al., 2003), the EES instructions were modified to capture dispositional engagement by asking participants about their average experiences over six months, and state engagement through their recent experiences over a few days. This differentiation — 'over the past six months' versus 'over the past few days' — is rooted in the literature's distinction between enduring traits and transient states (Watson, 2000; Brief et al., 1995), with extended time frames indicating dispositional constructs and shorter periods indicating state constructs. This distinction underscores that traits are stable characteristics, whereas states are ephemeral. To minimize confusion and bias, these time frames were highlighted, and the two measures were administered at the survey's start and end, respectively.

Three dimensions of employee engagement: emotional, cognitive, and behavioral engagement are assessed with five items each. Participants were asked to rate the extent to which they agree with each item using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). A sample item for the *emotional engagement* scale is “Working at my current organization has a great deal of personal meaning to me.” The *cognitive engagement* scale includes items such as, “When I am at work, I give my job a lot of attention,” and the *behavioral engagement* scale includes, “I really push myself to work beyond what is expected of me.” Participant responses were averaged into an overall employee engagement score, with higher scores indicating higher levels of employee engagement.

Autotelic Personality

The Autotelic Personality Questionnaire (APQ; Tse, et al., 2020) is a 26-item survey assessing seven dimensions (curiosity, persistence, low self-centeredness, intrinsic motivation, enjoyment of challenge, enjoyment of boredom, and attentional control) related to autotelic personality: the array of personality characteristics that predispose an individual to flow states (Csikszentmihalyi, 1990). As noted earlier, autotelic personality is the antecedent of flow,

which is the experience of heightened concentration, merging of action and awareness, time distortion and loss of self-consciousness while engaged in an activity (Csikszentmihalyi & Csikszentmihalyi, 1988).

Participants were asked to rate their level of agreement using a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) to assess *curiosity* (e.g., "I actively seek all the information I can about a new situation."), *persistence* (e.g., "I keep working on a problem until I solve it.") *self-centeredness* (reverse-scored, e.g., "I am easily affected by others' impressions of me."), *intrinsic motivation* (e.g., "I think the process of completing a task is its own reward."), *enjoyment of boredom* (e.g., "I am able to find pleasure even in routine types of work,"), *enjoyment of challenge* (e.g., "I would prefer a job that is challenging over a job that is easy."), and *attentional control* (reverse-scored, e.g., "I get distracted easily."). Curiosity, persistence, self-centeredness, intrinsic motivation, and enjoyment and transformation of boredom are each represented by four items, while attentional control, and enjoyment and transformation of challenge are each represented by three items. Participant responses were averaged into an overall score, with higher scores indicating higher levels of the characteristics of autotelic personality.

Proactive Personality

The Proactive Personality Scale (PPS; Bateman & Crant, 1993) is a 17-item survey assessing individual tendency to engage in proactive behavior, with proactive personality being the suite of characteristics antecedent to proactive behavior and measured as a unidimensional construct. Participants were asked to rate the extent to which they agree with items using a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items include "If I see something I don't like, I fix it" and "I am great at turning problems into opportunities." Participant responses were averaged into an overall score, with higher scores indicating higher levels of proactive personality.

Positive Affectivity

The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) is a 20-item measure with 10 items to assess positive affect. The items were contextualized to six

months, asking participants to describe their experience over the past six months to capture a stable tendency of positive affect rather than a state-like reflection. Participants were asked to rate the extent to which they have felt the positive affect emotions on average using a 6-point Likert scale ranging from 1 (*very slightly or not at all*) to 5 (*extremely*). Sample items include the extent to which someone feels "interested", "excited", or "inspired". Participant scores on the positive scale were averaged to create an overall assessment of positive affect.

Climate for Engagement

Climate for engagement was measured using Schneider et al. (1998) global climate instrument. This is a summary measure of climate encompassing facets of climate scales related to employee orientation, managerial practices, and employee feedback. Climate is always focused (e.g., a climate for service, ethics). The 7-item measure in this study was therefore contextualized to focus on a climate for employee engagement. Sample items include "How would you rate the job knowledge and skills of employees in your organization to create strong employee engagement?" and "How would you rate the leadership shown by management in your organization in supporting an engaging climate?" Participant scores were averaged into an overall climate for engagement score.

Procedure

The scales were administered in the following order: the work engagement measures were separated, with dispositional work engagement being the first scale administered, followed by the personality and climate scales (autotelic personality, proactive personality, positive affect, climate for engagement). These scales were administered in random order, with items within each scale being randomized to minimize response bias. While items related to each scale were administered in random order, and each scale administered in random order, scales were administered in their entirety in a single response block. These measures were followed by state work engagement. Demographic questions were administered following state work engagement and concluded the survey.

Chapter IV: Results

Preliminary Analyses

In order to evaluate whether statistical assumptions were met, the data was assessed for missingness, reliability, outliers, and adherence to other assumptions. A confirmatory factor analysis (CFA) was also conducted to validate each measurement model prior to conducting structural regression. The following sections will summarize the results of these preliminary analyses.

Missing Data

Missing data analyses were conducted and adhered to Parent's (2013) suggestions for managing missing data. Available Item Analysis (AIA) uses available data for analyses and excludes cases with missing data only for analyses in which the data points would be directly involved, with results suggesting that AIA is equivalent to more complex methods of managing missingness across variations in sample size, degree of missingness, and magnitude of item association (Parent, 2013). I began by assessing the level of missingness on the item level and according to each individual. This analysis revealed that no participant exceeded the tolerance for item-level missingness of 80% (n = 403). Less than 6% of the variables had missing values, and the majority of cases had no missingness (n = 400). Scales were calculated using Parent's recommendation that some reasonable amount of missingness (i.e., ~20%) be allowed. Little's MCAR test (1988), which identifies whether or not the missing observations are missing completely at random suggested that there was insufficient evidence to reject MCAR (x^2 (247) = 217.03, p =.916).

Assumption Testing

The presence of univariate outliers was assessed graphically, with boxplots revealing that only the climate for engagement and positive affectivity responses did not display the presence of potential outliers. Although regression is a robust measure with limited sensitivity to outliers and non-normal distributions (Field, 2013), the data was examined to ensure that extreme datapoints did not affect the results. Two measures did evidence what would traditionally be considered outlier cases (ranging from three 'outlying' points, +/-3 standard

deviations on the Autotelic Personality Questionnaire and 12 on the State Employee Engagement Scale). The impact of these outliers was assessed by performing correlation analyses both with and without them, revealing both measures were unaffected. Consequently, all data points were retained for analysis.

Beyond the individual variable distributions, the presence of multivariate outliers was assessed statistically by examining Mahalanobis' distances. While there is not an established, discrete cutoff to identify multivariate outliers, Byrne (2010) recommends identifying distances that deviate significantly from the dataset norm. Both visual and statistical examinations confirmed the absence of significant multivariate outliers.

Assessment of univariate normality included graphical inspection as well as statistical assessment of skew and kurtosis, which were within accepted tolerances (i.e., ≥ 3; Kline, 2016). Likert-scaled data is subject to kurtosis, with many responses grouped in the middle of the scale. Latent variable modeling and SEM in general is dependent on accurate tests of variances and covariances, which are impacted by multivariate kurtosis (Bentler, 2005). Tests of multivariate normality were therefore performed as a first step in analysis, with all measures indicating statistically significant deviations from normality as evidenced by significant critical ratios (CRs). Therefore, bootstrapped estimates, including beta (ß) weights, standard errors (SE), and confidence intervals (CI), are reported where appropriate. Variables displayed acceptable levels of linearity, with R^2 of linear models explaining relatively greater variance than quadratic or cubic regressions. Residuals were relatively randomly distributed about the fit line and did not evidence funneling, fanning, or curving.

Descriptives and Correlations

Descriptive, reliability, and correlational data are provided in Table 1. Results suggest that variables had acceptable means and standard deviations showing no significant range restriction or restricted variance. Reliabilities are reported using Cronbach's alpha (α) and were generally high (i.e., α > .90: Proactive Personality Scale, Positive Affectivity Scale, Dispositional Engagement Scale, Climate for Engagement Scale, and State Engagement Scale) and acceptable (α = .88) for the Autotelic Personality Questionnaire.

Table 1

Descriptives, Reliabilities, and Zero-Order Correlations

#	Variable	Mean *(SD)*	Range	1	2	3	4	5	6
Predictor									
1	Autotelic Personality	5.31 *(.60)*	3.96	α = 0.88					
2	Proactive Personality	5.03 *(.95)*	5.47	0.41**	α = 0.94				
3	Positive Affectivity	3.38 *(.85)*	4.00	0.58**	0.65**	α = 0.94			
Mediator									
4	Dispositional Employee Engagement	3.70 *(.78)*	4.00	0.54**	0.55**	0.62**	α = 0.94		
Moderator									
5	Climate for Engagement	4.04 *(1.00)*	4.00	0.43**	0.46**	0.59**	0.62**	α = 0.95	
Outcome									
6	State Employee Engagement	3.72 *(.80)*	4.00	0.56**	0.57**	0.64**	0.90**	0.66**	α = 0.95

Note. ** indicates significance at the $p < .001$ level.

Participant's average age was between 45 and 44 years, with 85% of the sample falling within one SD (i.e., 85% of respondents were between the ages of 25 and 54). 57% identified as male, 40.3% as female, and 2.5% as nonbinary or third gender. The majority of the sample identified as white (78.5%), 6.5% as Hispanic, 6% as Asian, 5.3% as Black, 2.8% as two or more races, and .3% as Native American or Alaskan Native.

Overall, the predictor, moderator, and mediator variables were moderately correlated. Correlations between predictor variables were moderate with a relatively lower correlation between (r = .41) autotelic personality and proactive personality, and the higher moderate (r = .65) relationship between autotelic personality and positive affectivity. Results furthermore indicate that the predictor variables were, in general, moderately related to dispositional employee engagement. There was a strong relationship between dispositional and state employee engagement (r = .90) which, as will be discussed later, potentially limits the ability to detect the moderating impact of engagement climate (hypothesis 3).

Confirmatory Factor Analyses: Roadmap to Model Fit

Byrne's (2010) general process for model evaluation was utilized in each phase of analysis:

1. Feasibility of parameter estimates (e.g., nonnegative variances, correlations <

1.00)

2. Appropriateness of standard errors (SE; i.e., no extremely large or small SEs)
3. Assessment of standardized residual covariances (i.e., values < 2.58)
4. Statistical significance of parameter estimates (critical ratio [CR] > ± 1.96)
5. Assessment of the fit of the model as a whole using fit indices

Confirmatory factor analyses (CFAs) are performed prior to conducting full latent variable modeling for the purpose of validating the measurement model. Primarily, the CFA tests whether indicators measure the latent factors they are associated with. CFAs calculate assessments of model fit: if the model does not fit the data, it suggests that the proposed relationships between the observed and latent variables do not accurately represent the sample data (Byrne, 2010).

In their work on standards for fit indices in evaluating model fit, Hu and Bentler (1999) established lenient guidance on utilizing fit indices, as well as argued that multiple fit indices should be utilized as each tests fit according to different perspectives. This view has evolved into a generally accepted rubric for assessing model fit (Hair et al., 2010). Therefore, multiple indices of model fit are reported for each test.

The basis for model respecification can be empirical or theoretical. Modifying models on empirical grounds alone can be 'capitalizing on chance' (Steiger, 1990), with critics citing resultant models based on sample-specific statistical appraisal and potentially leading to decreased replicability and narrowed confidence intervals. However, examination of areas of misfit can, when used appropriately and consistent with theoretical reasoning, result in a model with greater predictive accuracy (Pan et al., 2017).

For this study, model respecification was not undertaken unless a) the initially hypothesized model did not meet minimum fit indices, *and* b) there was theoretical basis underpinning model respecification such as allowing errors to covary for items that have similar wording (Cole et al., 2007). Therefore, if a substantive rationale and accompanying Modification Index (MI) and Expected Parameter Change (EPC) indicated, model respecifications were performed to better fit the model to the sample data. If respecification

was undertaken, each step is documented in the associated table. In the following sections the CFA for each measure will be briefly reviewed.

CFA: Dispositional Employee Engagement. A confirmatory factor analysis (CFA) was performed on the Dispositional Employee Engagement Scale as the initial step in assessing the full causal structure. Poor model fit was indicated by a significant chi-square test, x^2 (87) = 375.34, $p < .001$. However, studies have found that the chi-square statistic as an indicator of model fit in SEM is sensitive to small deviations from normality and independence assumptions, is overly sensitive to sample size, and is not sensitive to model complexity (Kline, 2016; Marsh et al., 2004). For these reasons multiple fit indices are examined in assessing model fit. The Comparative Fit Index (CFI) value for the model was > .95, Root Mean Square Error of Approximation (RMSEA) = .09 (90% CI [.08, .10]), and Standardized Residual Mean Variance (SRMR) = .08, indicating an adequate fit to the sample data.

Examination of standardized residual covariances revealed that item D4_C4 (*When working, I thought a lot about how I could give my best*) exhibited higher than reasonable covariances with multiple items. Standardized residual covariances provide an effect size estimate of the level of model misfit in relation to the item(s) (Maydeu-Olivares & Shi, 2017). Extant literature was searched to discover whether this item had been eliminated or modified in subsequent versions of the measure; no updated psychometric findings were available. Underlying subdimension structure or method bias may be the cause of misfit in this case, which are theoretically based rationales for respecification.

Elimination of this item greatly improved model fit: x^2 (74) = 207.99, CFI = .98, RMSEA = .07 (90% CI[.06, .08]). The $\Delta x^2/df$ was statistically significant (Δx^2 = 167.35, df = 1), and both F_{MIN} and CAIC had decreased; altogether, these measures of model fit indicate that eliminating the item with multiple high standardized residual covariances improves model fit. For this reason, this change was adopted for this study. Next, Modification Indices (MIs) were examined; however, no MIs stood out as exceptional and lack of a grounded rationale for model respecification led to the decision to accept the model as specified (see Figure A1). The model includes four latent variables, and all factor loadings were significant ($p < .001$), with

standardized factor loadings for subdimensions on the higher order factor of DEE between .66 and .76. Factor loadings for each item on its respective latent variable, as well as standardized factor loadings of subdimensions on the higher order factor are presented in Table 2.

Table 2

Standardized Factor Loadings for Dispositional Employee Engagement Scale

	Cognitive	Emotional	Behavioral
Item	0.70	0.66	0.76
D1_C1	0.89		
D2_C2	0.96		
D3_C3	0.94		
D5_C5	0.89		
D6_E1		0.84	
D7_E2		0.85	
D8_E3		0.85	
D9_E4		0.85	
D10_E5		0.84	
D11_B1			0.89
D12_B2			0.90
D13_B3			0.78
D14_B4			0.92
D15_B5			0.91

Note. All factor loadings are significant at the $p < .001$ level.

CFA: Autotelic Personality Questionnaire. A CFA was performed on the Autotelic Personality Questionnaire (APQ) prior to assessing the full latent variable model. Although a significant chi-square test, x^2 (292) = 556.49, $p < .001$ indicated poor model fit, SRMR = .06, CFI = .95, RMSEA = .05 (90% CI [.04, .05]), and SRMR = .06, indicate well-fitted model to the data (see Figure A2). The model included eight latent variables, and all factor loadings were significant ($p < .001$). Standardized factor loadings are presented in Table 3.

CFA: Proactive Personality Scale. A confirmatory factor analysis was performed on the Proactive Personality Scale (PPS) prior to assessing the full latent variable model. In addition to the significant chi square test, x^2 (119) = 601.08, $p < .001$, multiple fit indices failed to meet minimum criteria: CFI = .88, RMSEA = .10 (90% CI [.09, .11]), and SRMR = .05. There are several reasons to look to improve model fit in this initial stage of the analysis. First, mis specified error covariances represent systematic error and can be due to item characteristics (Byrne, 2010) or to shared method variance, with Bentler and Chou (1987) stating that leaving large error terms uncorrelated in real data is seldom appropriate. In the PPS there appear to be several pairs of items that are highly similar; allowing their error terms to covary improves

Table 3

Standardized Factor Loadings for Items and Subdimensions of the Autotelic Personality Questionnaire

	Curiosity	Enjoyment of Challenge	Self-Centeredness	Intrinsic Motivation	Persistence	Enjoyment and Transformation of Boredom	Attentional Control
Item	.75	.72	.30	.53	.67	.38	.35
A1_CU1	.73						
A8_CU2	.81						
A15_CU3	.80						
A22_CU4	.76						
A5_EC1		.92					
A12_EC2		.78					
A19_EC3		.68					
A3_SC1			.77				
A10_SC2			.76				
A17_SC3			.81				
A24_SC4			.79				
A4_IM1				.62			
A11_IM2				.64			
A18_IM3				.76			
A25_IM4				.67			
A9_PE1					.87		
A16_PE2					.89		
A23_PE3					.90		
A2_PE4					.81		
A6_EB1						.54	
A13_EB2						.89	
A20_EB3						.74	
A26_EB4						.54	
A7_AC1							.67
A14_AC2							.80
A21_AC3							.80

Note. All factor loadings are significant at the $p < .001$ level.

model fit and allows the model to be established as an adequate representation of the hypothesized relationships among study variables. In addition, examination of standardized residual covariances lead to discovery of a very high covariance (i.e., > 2.58; Joreskog & Sorbom, 1993), indicating model misspecification in relation to two highly similar items. Finally, model respecification in the initial CFA serves to confirm the appropriateness of the model to the data and does not necessarily indicate that the same trimming/respecifications will occur when the full latent variable model is tested (Byrne, 2010). For these reasons, model respecification was undertaken to validate the measurement model. Table B1 provides a summary of model respecifications.

After model respecification the final model demonstrated good fit, x^2 (114) = 323.30, $p < .001$, CFI = .95, RMSEA = .07 (90% CI [.06, .08]), and SRMR = .03. Item factor loadings are

presented in Table 4. All items had significant factor loadings except item 3: *I feel driven to make a difference in my community, and maybe the world.* This item was deleted and the CFA performed again without it. However, elimination of the item did not improve model fit. While deleting the item would improve parsimony, the nonsignificant parameter may simply indicate a sample size too small to capture a significant effect (Byrne, 2010). For this reason, as well as having no basis other than statistical assessment, item 3 was maintained in the final analysis. See Figure A3.

Table 4

Standardized Factor Loadings for Proactive Personality Scale

Item	Proactive Personality
P1	.70
P2	.63
P3	.09[a]
P4	.76
P5	.79
P6	.70
P7	.67
P8	.77
P9	.72
P10	.81
P11	.69
P12	.80
P13	.57
P14	.70
P15	.84
P16	.73
P17	.53

Note. All items were statistically significant at the $p < .001$ level, except item 3, denoted with [a].

CFA: Positive Affect Scale. A confirmatory factor analysis was performed on the Positive Affect Schedule (PAS) prior to assessing the full latent variable model. Poor model fit was indicated by a significant chi-square test, x^2 (35) = 372.29, $p < .001$, CFI = .88, RMSEA = .16 (90% CI [.14, .17]), and SRMR = .07. Examination of MIs revealed only a single potential respecification: allowing the errors for the items *alert* and *attentive* to covary based on a high degree of item similarity. After model respecification the final model demonstrated adequate fit to the data, x^2 (34) = 229.04, $p < .001$, CFI = .93, RMSEA = .12 (90% CI [.11, .14]), and SRMR = .05 (see Figure A4). Although model fit does not meet minimum accepted fit standards, examination of MIs did not reveal correlations, covariances, or residual pathways that could be added or deleted to improve model fit substantively and rationally. Item factor loadings are

presented in Table 5.

Table 5

Standardized Item Factor Loadings for Positive Affectivity

Item	Positive Affectivity
PAS1	.82
PAS2	.79
PAS3	.82
PAS4	.84
PAS5	.82
PAS6	.58
PAS7	.82
PAS8	.77
PAS9	.64
PAS10	.74

Note. All items were statistically significant at the $p < .001$ level.

CFA: Climate for Engagement Scale. A confirmatory factor analysis was performed on the Climate for Engagement Scale (CES) prior to assessing the full latent variable model. The CFA of the CES yielded model fit statistics of x^2 (14) = 17.10, p = .25, CFI = .99, RMSEA = .02 (90% CI [.00, .06]), and SRMR = .10, with indices indicating a model well fit to the data and sufficient for analysis (see Figure A5). Item factor loadings are presented in Table 6.

Table 6

Standardized Item Factor Loadings for Climate for Engagement

Item	Climate for Engagement
C1	.84
C2	.84
C3	.90
C4	.86
C5	.86
C6	.89
C7	.81

Note. All items were statistically significant at the $p < .001$ level.

CFA: State Employee Engagement Scale. A confirmatory factor analysis was performed on the State Employee Engagement Scale prior to assessing the full latent variable model. Initial model fit was adequate, x^2 (87) = 388.25, $p < .001$, CFI = .95, RMSEA = .09 (90% CI [.08, .10]), and SRMR = .08. Item S4_C4 (*When working, I thought a lot about how I could give my best*) displayed high standardized residual covariance, similar to what was observed in the structure of the Dispositional Employee Engagement Scale.

The two measures are derived from the same primary scale but have been adapted to

capture engagement over different time frames: the State Employee Engagement Scale focuses on the short term (i.e., the past few days), while the Dispositional Employee Engagement Scale considers a longer term (i.e., the past six months). Given that both scales aim to measure the same underlying construct of employee engagement but over different time periods, it was anticipated that similar patterns would emerge across the data. This expectation is grounded in the notion that the core elements of engagement should remain consistent, whether assessed as a state or a trait.

The decision was made to eliminate item S4_C4, paralleling its treatment in the Dispositional Employee Engagement Scale, and to retest the model to verify this elimination improved the model fit. This single respecification yielded a well-fitted model, with x^2 (74) = 184.72, $p < .001$, CFI = .98, RMSEA = .06 (90% CI [.05, .07]), and SRMR = .03 (see Figure A6). The model includes four latent variables, and all factor loadings were significant ($p < .001$), with standardized factor loadings for subdimensions between .71 and .89. See Table 7 for item and subdimension factor loadings.

Table 7

Standardized Factor Loadings for State Employee Engagement Scale

	Cognitive	Emotional	Behavioral
Item	0.74	0.71	0.89
S1_C1	0.88		
S2_C2	0.90		
S3_C3	0.92		
S5_C5	0.88		
S6_E1		0.88	
S7_E2		0.85	
S8_E3		0.86	
S9_E4		0.86	
S10_E5		0.82	
S11_B1			0.89
S12_B2			0.89
S13_B3			0.84
S14_B4			0.91
S15_B5			0.90

Note. All factor loadings are significant at the $p < .001$ level.

Primary Analyses: Structural Regressions

Each model to be tested in this study is a fully latent variable model, as each variable in the structural model is represented by latent, unobserved variables (e.g., scale items). The strength of using a structural regression model for this study is that both the measurement

model, which depicts the correspondence between latent variables and their observed indicators, and the structural model, which measures the hypothesized direct and indirect effects between latent and observed variables, can be assessed simultaneously (Kline, 2016). In the following sections the hypotheses under consideration in this study will be tested utilizing structural regression, which will assess each predictor's association with the latent variable of dispositional employee engagement (DEE). In addition, the relationships amongst subdimensions will be evaluated. The final model tests the relationships among all three predictors (autotelic personality, proactive personality, and trait positive affect) and DEE.

Structural Regression: Autotelic Personality → Dispositional Employee Engagement. The full latent variable model was tested and demonstrated adequate fit, with x^2 (768) = 1383.03, $p < .001$, CFI = .94, RMSEA = .05 (90% CI [.04, .05]), and SRMR = .07 (see Figure 3).

Hypothesis 1a: Autotelic personality will be positively related to dispositional employee engagement

Table 8

Standardized Factor Loadings for the Relationships Between Autotelic Personality and Dispositional Employee Engagement

	Autotelic Personality	Dispositional Employee Engagement
Dimension		
Curiosity	.69	
Enjoyment of Challenge	.68	
Self-Centeredness	.29	
Intrinsic Motivation	.57	
Persistence	.72	
Enjoyment and Transformation of Boredom	.44	
Attentional Control	.34	
Cognitive Engagement		.70
Emotional Engagement		.67
Behavioral Engagement		.75

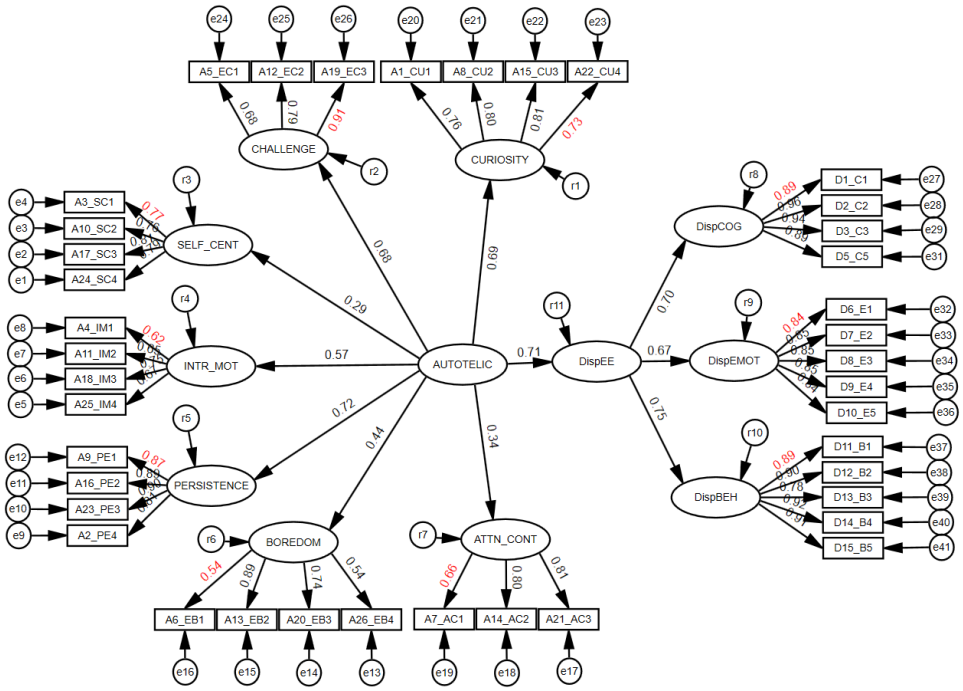
Note. All factor loadings are significant at the $p < .001$ level.

Autotelic personality significantly predicted dispositional employee engagement, ß = .71, $p < .001$, providing evidence supporting Hypothesis 1, with approximately 50.8% of the variance in dispositional employee engagement predicted in the model. This significant relationship suggests that employees who have relatively higher scores on autotelic personality and tend to naturally seek challenges, have intrinsic motivation, and have the ability to

transform mundane tasks into enjoyable experiences are more likely to be engaged at work. Standardized factor loadings for subdimensions are presented in Table 8.

Figure 3

Structural Regression Model for the Relationship Between Autotelic Personality and Dispositional Employee Engagement



Note. This figure denotes factor loadings for indicator variables (items) and the subdimensions of autotelic personality and dispositional employee engagement, as well as the relationships between subdimensions and the second order factors, the latent variables autotelic personality and dispositional employee engagement. Regression weights in red indicate the paths selected as the scaling indicator in the model.

SELF_CENT = low self-centeredness, INTR_MOT = intrinsic motivation, ATTN_CONT = attentional control. DispEE = dispositional employee engagement, DispCOG = dispositional cognitive engagement, DispEMOT = dispositional emotional engagement, and DispBEH = dispositional behavioral engagement.

All regressions are significant at the $p < .001$ level.

Structural Regression: Proactive Personality → Dispositional Employee Engagement.

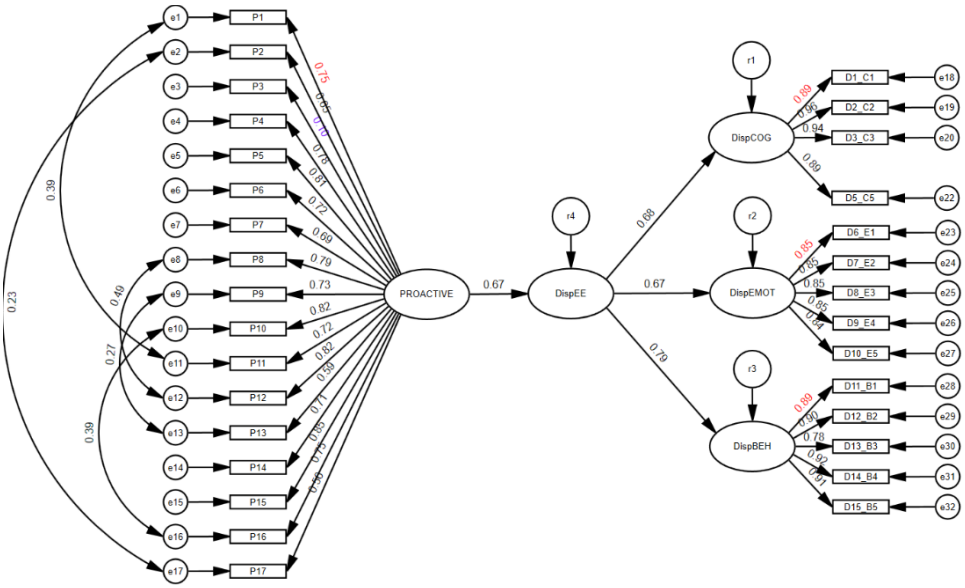
The full latent variable model was tested and demonstrated poor fit to the data. A significant chi-square value, $x^2(431) = 1277.04$, $p < .001$, CFI = .92, RMSEA = .07 (90% CI [.07, .08]), and SRMR = .05. Similar model respecifications indicated in the initial CFA were indicated in the full latent variable model when MIs were examined for areas to improve model fit. Model respecifications are summarized in Table B2 (see Figure 4). Although item three on the PPS was again found to be nonsignificant, it was maintained according to the same logic as described

previously. Proactive personality significantly predicted dispositional employee engagement, β = .67, $p < .001$, explaining approximately 44.4% of the variance in dispositional employee engagement and providing evidence supporting Hypothesis 1b.

Hypothesis 1b: Proactive personality will be positively related to dispositional employee engagement

Figure 4

Structural Regression Model for the Relationship Between Proactive Personality and Dispositional Employee Engagement



Note. This figure denotes standardized factor loadings between indicators and the higher order factors of proactive personality and dispositional employee engagement, and between dispositional employee engagement and its subdimensions. Regression weights in red indicate the paths selected as the scaling indicator in the model.

DispEE = dispositional employee engagement, DispCOG = dispositional cognitive engagement, DispEMOT = dispositional emotional engagement, DispBEH = dispositional behavioral engagement.

All regression coefficients are significant at the $p < .001$ level except PPS item three, which is purple in color.

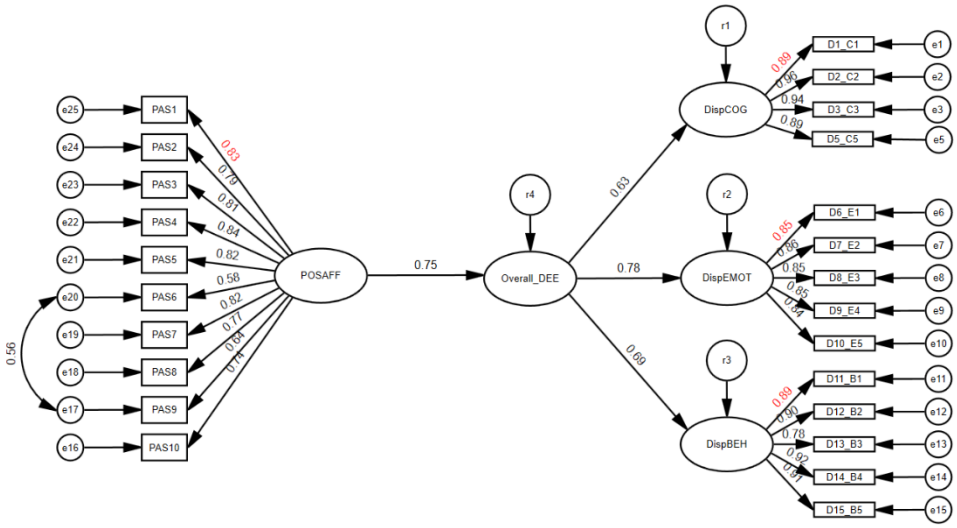
Structural Regression: Positive Affectivity → Dispositional Employee Engagement. In the initial test of the full latent variable model, the higher-order latent variable of dispositional employee engagement is represented, and when the model was tested it demonstrated equivocal fit to the data, with x^2 (248) = 907.13, $p < .001$, CFI = .93, RMSEA = .08 (90% CI [.08, .09]), and SRMR = .07. Examination of fit indices suggested a model respecification of allowing Positive Affect Scale items six and nine (*alert* and *attentive*) to covary, based upon similarity of items. The respecified model exhibited adequate fit to the

data, with x^2 (247) = 767.83, p < .001, CFI = .94, RMSEA = .07 (90% CI [.07, .08]), and SRMR = .06 (see Figure 5). Positive affectivity significantly predicted dispositional employee engagement, ß = .75, *p* < .001, and explained approximately 56.2% of the variance, providing evidence supporting Hypothesis 1b.

Hypothesis 1c: Positive affectivity will be positively related to dispositional employee engagement

Figure 5

Structural Regression Model for the Relationship Between Positive Affectivity and Dispositional Employee Engagement



Note. This figure denotes standardized factor loadings between indicators and the higher order factors of positive affectivity (POSAFF), and between dispositional employee engagement and its subdimensions. Regression weights in red indicate the paths selected as the scaling indicator in the model.

Overall_DEE = dispositional employee engagement, DispCOG = dispositional cognitive engagement, DispEMOT = dispositional emotional engagement, DispBEH = dispositional behavioral engagement.

All regression coefficients are significant at the *p* < .001 level.

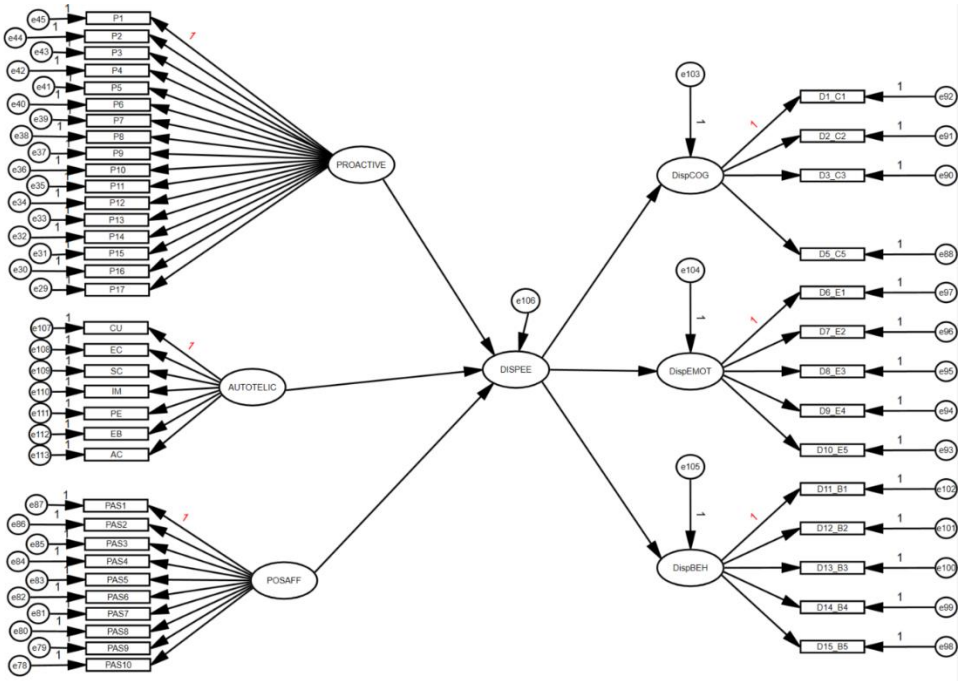
Testing the Main Effects: How Much Variance in Dispositional Employee Engagement do Autotelic Personality, Proactive Personality, and Positive Affectivity Explain?

In order to assess how much variance in dispositional employee engagement was explained by the predictors in the model, the three predictors were entered as main effects into a combined model with dispositional employee engagement as the outcome. Though multiple models have been created prior to this point, the only assumption maintained *a priori* in this analysis was the decision to eliminate item D4_C4 to ensure consistency throughout

analyses. This model added additional complexity to the analyses, resulting in the initial model being unable to be identified. As a next step the latent subdimensions of autotelic personality were removed from the model and entered as observed variables (see Figure 6).

Figure 6

Structural Regression Model for the Relationship Between Positive Affectivity, Autotelic Personality, Positive Affectivity and Dispositional Employee Engagement



Note. Regression weights in red indicate the paths selected as the scaling indicator in the model.
DISPDEE = dispositional employee engagement, DispCOG = dispositional cognitive engagement, DispEMOT = dispositional emotional engagement, DispBEH = dispositional behavioral engagement. POSAFF = positive affectivity and PROACTIVE = proactive personality. CU = curiosity, EC = enjoyment of challenge, SC = self-consciousness, IM = intrinsic motivation, PE = persistence, EB = enjoyment of boredom, and AC = attentional control.

In an effort to identify the model, variances on the error terms associated with the subdimensions of dispositional employee engagement were added. Additionally, the subdimensions of dispositional employee engagement were entered as observed rather than latent variables. The model was thereafter determined to be too complex to logically identify, as it incorporated too many unknown paths in relation to known parameters to render a unique solution. Therefore, SPSS was used to run a multiple regression with all three predictors. The overall model was significant $F(3, 396) = 105.25$, $p < .001$), accounting for approximately 44% of the variance in dispositional employee engagement ($R^2 = .44$). Each predictor was significant,

with positive affectivity explaining the most unique variance in dispositional employee engagement, and proactive personality the least (see Table 9). In the following sections the potential interactions between the predictors are analyzed to assess if these relationships account for additional variance in dispositional engagement.

Table 9

Multiple Regression Analysis Predicting Dispositional Employee Engagement

Predictor	B	SE B	β	*t*	Sig
Autotelic Personality	.27	.07	.21	3.79	$p < .001$
Proactive Personality	.10	.05	.12	2.09	$p = .04$
Positive Affectivity	.39	.05	.42	8.33	$p < .001$

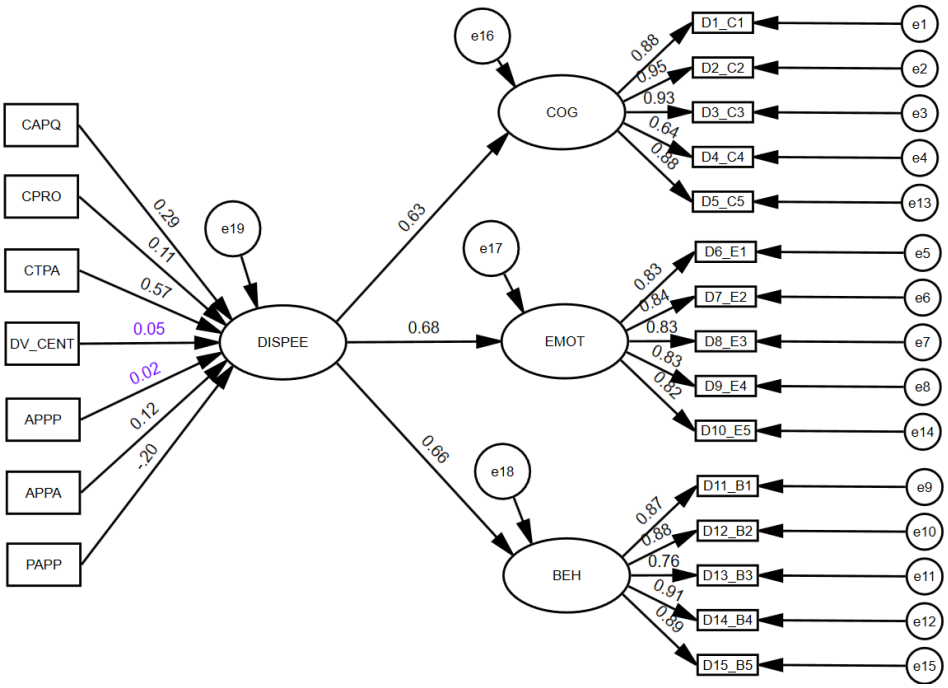
Structural Regression: Testing the Three-way Interaction. Next, the interaction between autotelic personality, proactive personality, and positive affectivity in predicting dispositional employee engagement. In preparation for this analysis all predictor variables were centered and an analysis to assess the degree of independence among the predictors was conducted. This was accomplished by calculating the variance inflation factor (VIF) for each variable, which calculates the extent to which variance is increased due to dependence among the variables as compared to what it would be if the predictors were completely uncorrelated (O'Brien, 2007). VIF values for all predictors and interaction terms were less than 5 and ranged from 1.9 to 3.6; this is below the recommended threshold of 5-10 (Vittinghoff et al., 2012), indicating that the predictors did not exhibit high multicollinearity.

Hypothesis 2: Autotelic personality, proactive personality, and trait positive affectivity interact synergistically to predict dispositional engagement

To ensure model identification and to simplify creation of interaction terms, predictor = .15 (90% CI [.15, .16]), and SRMR = .20. Poor fit in this case is likely primarily due to high covariances among the main effects variables and the interaction terms. It is usually inappropriate in SEM to allow these terms to covary, as it can increase issues such as inflated standard errors and unstable estimates that are associated with increased levels of multicollinearity (Kline & Dunn, 2000). MIs were examined for potential areas of model misfit.

Figure 7

Structural Regression Model for the Three-Way and Two-Way Interactions Between Positive Affectivity, Proactive Personality, Autotelic Personality, and Dispositional Employee Engagement



Note. This figure denotes standardized factor loadings between indicators and the subdimensions of dispositional employee engagement, as well as the relationships between those subdimensions and the higher-order factor of dispositional employee engagement. This statistical model also demonstrates the two-way and three-way interactions between the predictors (positive affectivity, autotelic personality, and proactive personality) and dispositional employee engagement. Nonsignificant regression weights are indicated in purple color.

DISPEE = dispositional employee engagement, COG = dispositional cognitive engagement, EMOT = dispositional emotional engagement, BEH = dispositional behavioral engagement. CAPQ = centered autotelic personality, CPRO = centered proactive personality, CTPA = centered positive affectivity. DV_CENT = the three-way interaction term: PA*PP*AP. APPP = the two-way interaction AP*PA, APPA = the two-way interaction term for AP*PA, PAPP = the two-way interaction term for PA*PP.

All regression coefficients are significant at the $p < .05$ level.

However, MIs had to be evaluated carefully, as multiple high standardized residual covariances were due to the presence of interaction terms. Therefore, the decision was made not to trim this model and to report the results as they stood (see Figure 7).

Table 10 summarizes the results of the test of the three-way interaction. The three main effects were significant in predicting dispositional employee engagement. This model, which includes the main effects, the two-way interactions, and the three-way interaction, explains approximately 47.4% of the variance in dispositional employee engagement. The

three-way interaction was nonsignificant, indicating that the combined effect of the three personality variables does not predict dispositional employee engagement beyond their individual contributions. In light of this finding, Hypothesis 2 is not supported.

Table 10

Test of the Three-way Interaction Between Autotelic Personality, Proactive Personality, and Positive Affectivity in Predicting Dispositional Employee Engagement

Variable	B	SE	CR	SIG.
Main Effects				
Autotelic Personality	.23	.05	5.19	***p* < .001**
Proactive Personality	.06	.03	2.31	***p* = .02**
Positive Affectivity	.33	.04	8.59	***p* < .001**
Two-Way Interactions				
Autotelic Personality*Proactive Personality	.01	.03	.42	*p* = .67
Proactive Personality*Positive Affectivity	-.10	.03	-3.81	***p* < .001**
Autotelic Personality*Positive Affectivity	.10	.04	2.30	***p* = .02**
Three-Way Interaction				
Autotelic Personality*Proactive Personality*Positive Affectivity	.02	.02	.89	*p* = .37

Analyses indicate that two of the two-way interactions were significant. Table 12 presents the analysis without the three-way interaction term to accurately assess the two-way interactions. The model demonstrated poor fit, with x^2 (167) = 1668.12, $p < .001$, CFI = .79, RMSEA = .15, and SRMR = .18; therefore, outcomes should be interpreted with care (see Figure 8).

Table 11

Test of the Two-way Interaction Between Autotelic Personality, Proactive Personality, and Positive Affectivity in Predicting Dispositional Employee Engagement

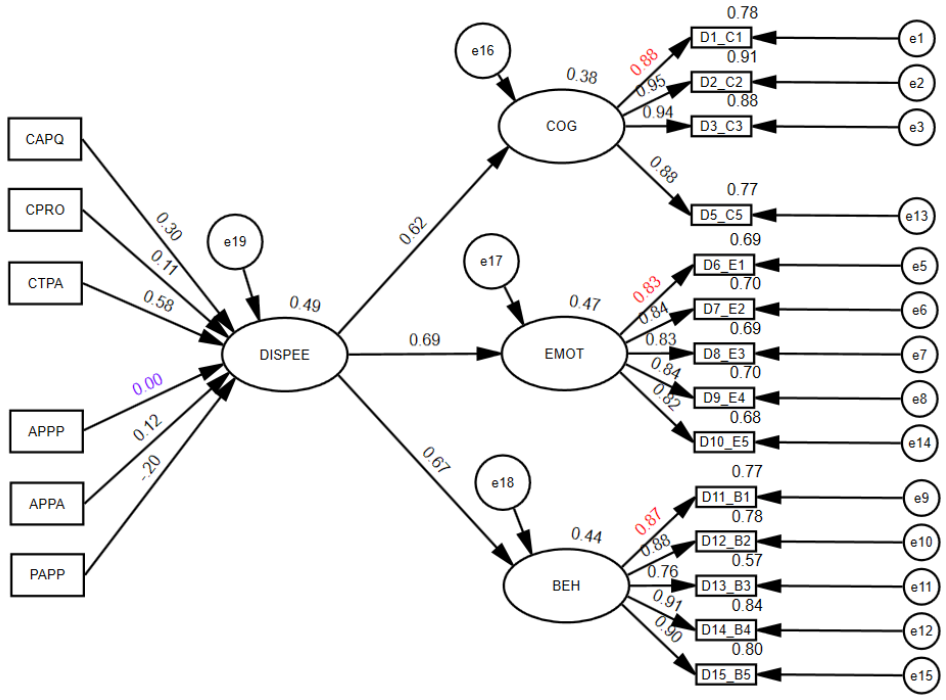
Variable	B	SE	CR	SIG.
Main Effects				
Autotelic Personality	.30	.05	5.50	***p* < .001**
Proactive Personality	.11	.03	2.22	***p* = .03**
Positive Affectivity	.57	.04	8.92	***p* < .001**
Two-Way Interactions				
Autotelic Personality*Proactive Personality	.00	.03	.01	*p* = .95
Proactive Personality*Positive Affectivity	-.20	.03	-3.92	***p* < .001**
Autotelic Personality*Positive Affectivity	.12	.04	2.7	***p* = .02**

The results indicate that the two-way interaction between autotelic personality and

proactive personality is nonsignificant in predicting dispositional employee engagement (β = .01, *p* = .99; see Table 11).

Figure 8

Structural Regression Model for the Two-Way Interactions Between Positive Affectivity, Proactive Personality, Autotelic Personality and Dispositional Employee Engagement



Note. This figure denotes standardized factor loadings between indicators and the subdimensions of dispositional employee engagement, as well as the relationships between those subdimensions and the higher-order factor of dispositional employee engagement. This statistical model also demonstrates the two-way interactions between the predictors (positive affectivity, proactive personality, and autotelic personality) and dispositional employee engagement. Nonsignificant regression weights are indicated in purple color.

DISPEE = dispositional employee engagement, COG = dispositional cognitive engagement, EMOT = dispositional emotional engagement, BEH = dispositional behavioral engagement. CAPQ = centered autotelic personality, CPRO = centered proactive personality, CTPA = centered positive affectivity. PA*PP*AP. APPP = the two-way interaction AP*PA, APPA = the two-way interaction term for AP*PA, PAPP = the two-way interaction term for PA*PP.

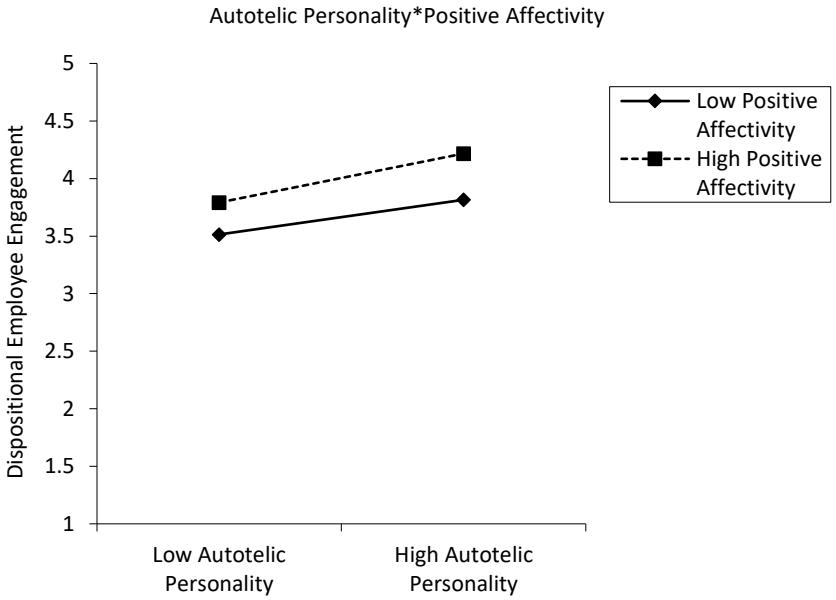
All regression coefficients are significant at the $p < .05$ level.

Both two-way interactions between autotelic personality and positive affectivity (β = .12, *p* = .02) and positive affectivity and proactive personality (β = -.20, *p* < .001) were significant. Approximately 49.1% of the variance in dispositional employee engagement is predicted with the three main effects and the two significant two-way interactions in the model. The relationship between autotelic personality and positive affectivity indicates a small but statistically significant synergistic effect (see Figure 9), suggesting that the two variables

work together to enhance employee engagement, with employees who score high on both autotelic personality and positive affectivity being more engaged in their work than is explained by either variable on its own.

Figure 9

Changes in Dispositional Employee Engagement as a Function of Autotelic Personality and Positive Affectivity



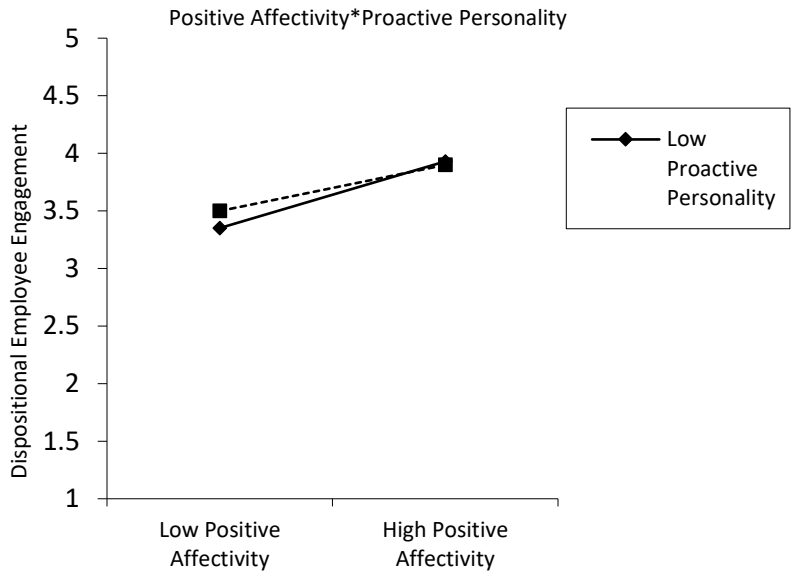
The relationship between positive affectivity and proactive personality indicates a buffering effect, where the combination of the two variables compensate for one another in dispositional employee engagement (see Figure 10). This small but statistically significant, negative relationship indicates that the presence of one variable partially counteract the effects of the other.

Structural Regression: Test of the Moderation. The hypothesized moderated relationship between dispositional employee engagement and state employee engagement with climate for engagement acting as the moderator was then tested. In preparation, the predictor variable (DEE), the moderator variable (CE), and the interaction term (CE*DEE) were centered and VIF calculated for each variable to detect multicollinearity. VIF values for all predictors and interaction terms were less than 5 and ranged from 1.10 and 1.79; this is below the

recommended threshold of 5-10 (Vittinghoff & Glidden, 2020), indicating that the predictors did not exhibit high multicollinearity.

Figure 10

Changes in Dispositional Employee Engagement as a Function of Positive Affectivity and Proactive Personality



To test the hypothesis that the relationship between dispositional employee engagement and state employee engagement is moderated by climate for engagement, dispositional engagement was entered in AMOS as a latent variable with three latent subdimensions and 15 observed variables as indicators (identical to the previous analyses). The predictor variables and interaction terms were centered and were entered as observed variables.

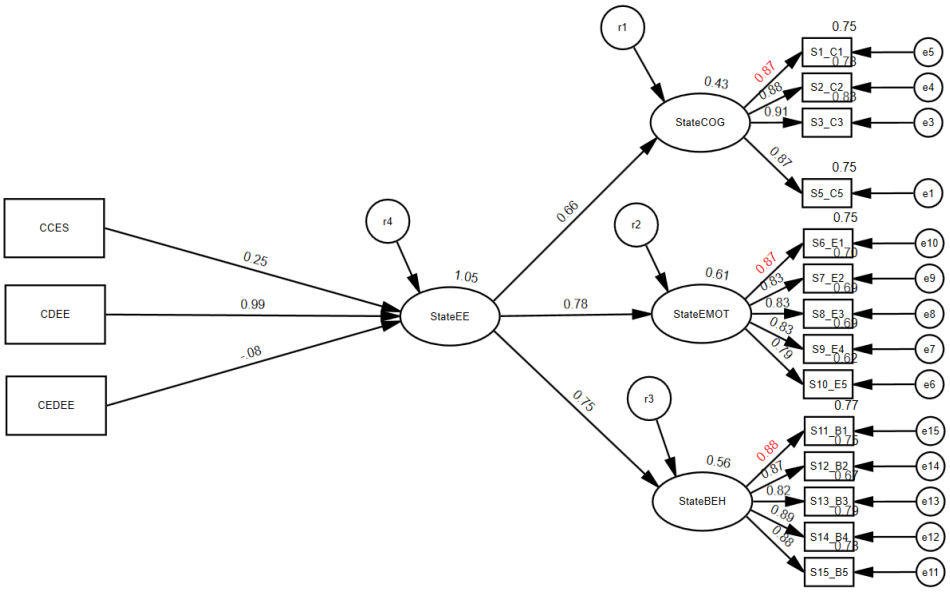
Hypothesis 3: Climate for engagement will moderate the relationship between dispositional employee engagement and state employee engagement such that the relationship will be stronger when climate for engagement is higher.

Model fit was poor, with x^2 (116) = 532.20, p < .001, CFI = .94, RMSEA = .10 (90% CI [.09, .10]), and SRMR = .14. This is likely primarily due to the high correlation between the measure of dispositional and state employee engagement (see Figure 11). Additionally, the residual term associated with dispositional employee engagement had a statistically significant,

negative variance estimate, indicating structural misspecification. This is an example of a Heywood case and is potentially due to small sample size, model misspecification , or empirical under identification (Bentler & Chou, 1998; Kolenikov & Bollen, 2012). Therefore, results should be interpreted with caution.

Figure 11

Structural Regression Model for the Test of the Hypothesized Moderated Relationship



Note. This figure denotes standardized factor loadings between the observed and centered variables of dispositional employee engagement (CDEE), climate for engagement (CCES), and their interaction term (CEDEE) and state employee engagement (StateEE). Indicators and the subdimensions of state employee engagement are included in the model. Regression weights in red indicate the paths selected as the scaling indicator in the model.

StateCOG = state cognitive engagement, StateEMOT = state emotional engagement, StateBEH = state behavioral engagement.

All regression coefficients are significant at the $p < .05$ level.

A small but statistically significant interaction between dispositional employee engagement and climate for engagement on state employee engagement (ß = -.08, $p = .002$) indicates a moderated relationship between dispositional employee engagement and state employee engagement and provides evidence to support hypothesis 3 (see Table 12).

Results indicate that those high in dispositional employee engagement have relatively higher state engagement, regardless of climate, when compared to those low in dispositional employee engagement. However, for those who score low on dispositional employee engagement, climate for engagement can compensate and results in relatively higher scores on state employee engagement when compared with low climates for engagement. (See Figure

12).

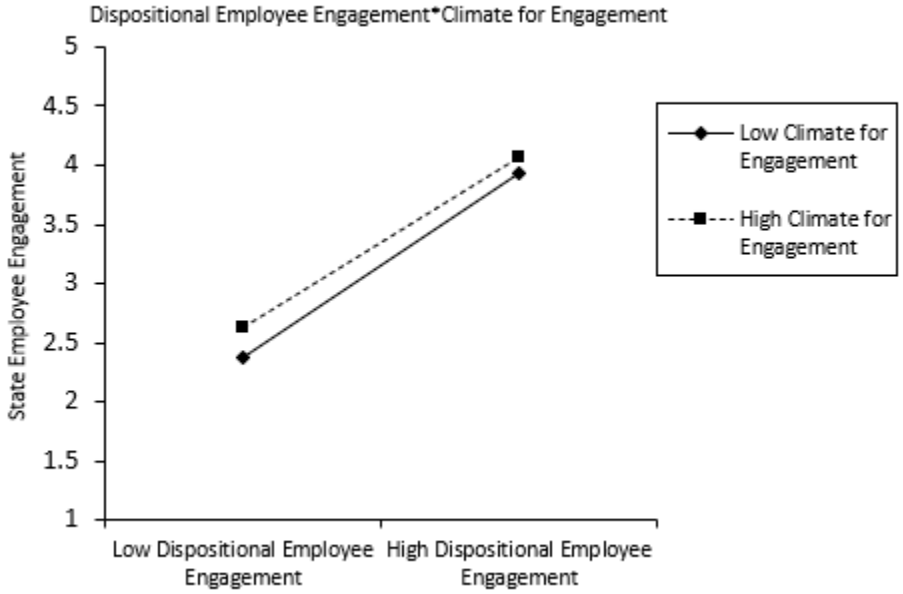
Table 12

Test of the Relationship Between Dispositional Employee Engagement and State Employee Engagement, Moderated by Climate for Engagement

Variable	B	SE	CR	SIG.
Main Effects				
Climate for Engagement	.25	.02	8.34	***p* < .001**
Dispositional Employee Engagement	.99	.04	15.49	***p* < .001**
Two-Way Interactions				
Climate for Engagement*Dispositional Employee Engagement	-.08	.01	-3.00	***p* = .002**

Figure 12

Changes in State Employee Engagement as a Function of Dispositional Employee Engagement and Climate for Engagement



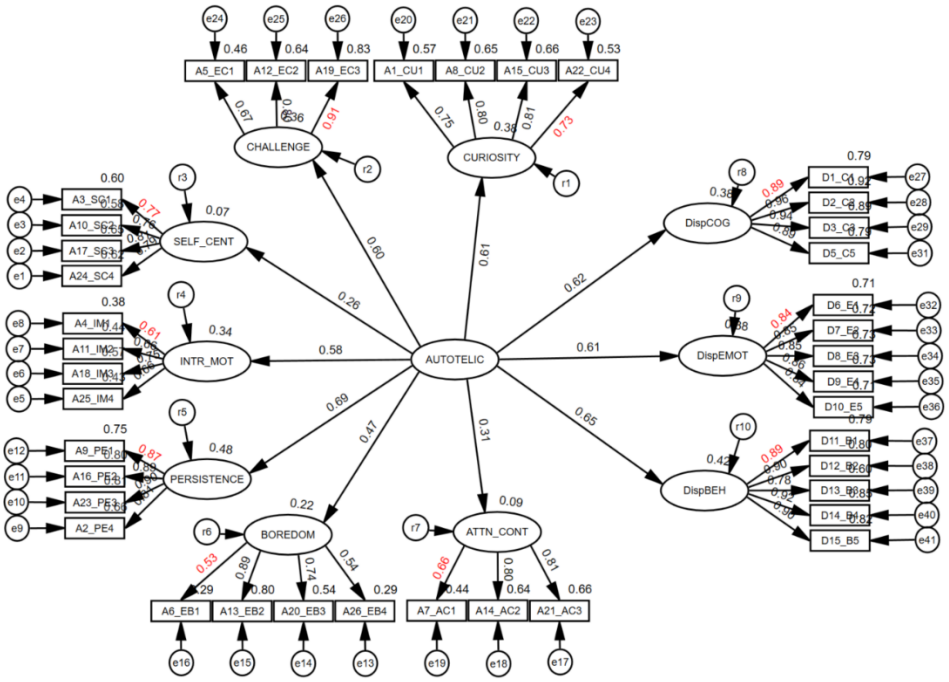
Post Hoc Analyses

The following sections summarize a series of post hoc analyses that explore the relationships between latent predictors and the subdimensions of dispositional employee engagement, namely, cognitive, emotional, and behavioral engagement. The rationale for these analyses stems from the multifaceted nature of dispositional employee engagement and the study's broader interest in understanding its development and maintenance as a process.

Employee engagement is a higher order construct that is operationalized by the "intensity and direction of cognitive, emotional, and behavioral energy" (Shuck & Wollard, 2010). Given the instrumental, affective, and cognitive nature of its predictors, it is pertinent to ask: Do the employee trait predictors differentially impact the subdimensions of dispositional employee engagement?

Figure 13

Structural Regression Model for the Relationship Between Autotelic Personality and Dispositional Employee Engagement Subdimensions



Note. This figure denotes factor loadings for indicator variables (items) and the subdimensions of autotelic personality and dispositional employee engagement, as well as the relationships between subdimensions and the higher order factors. Regression weights in red indicate the paths selected as the scaling indicator in the model.

SELF_CENT = low self-centeredness, INTR_MOT = intrinsic motivation, ATTN_CONT = attentional control. DispCOG = dispositional cognitive engagement, DispEMOT = dispositional emotional engagement, and DispBEH = dispositional behavioral engagement.

All regressions are significant at the $p < .001$ level.

Structural Regression: Autotelic Personality → Dispositional Employee Engagement Subdimensions

The previous models tested the relationships between overall dispositional employee engagement and its theoretical predictors. In line with the study's focus on understanding dispositional employee engagement as a process, the following models eliminate the overall

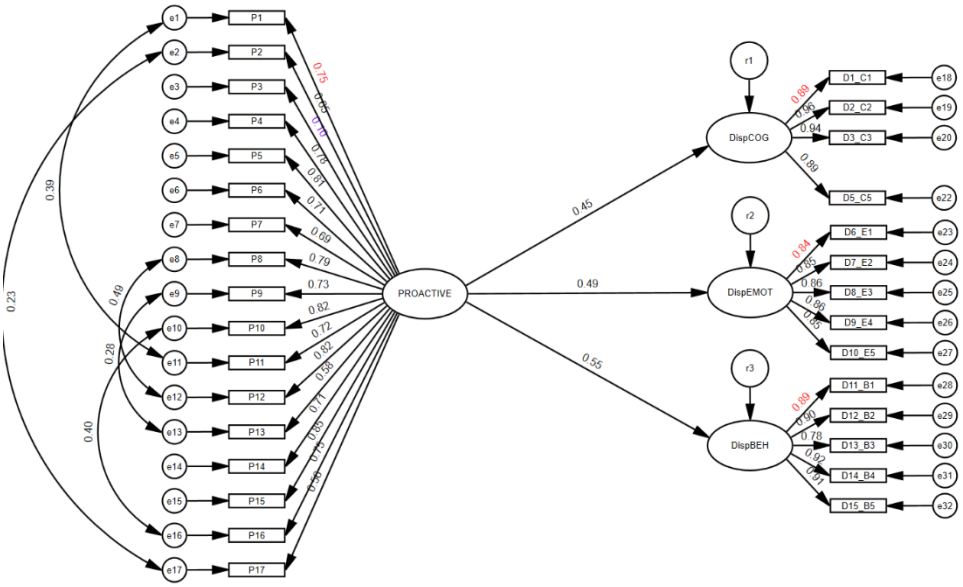
dispositional employee engagement variable to analyze its subdimensions. The model demonstrated good fit to the sample data, with x^2 (730) = 14444.74, p < .001, CFI = .93, RMSEA = .05 (90% CI [.05, .05]) and SRMR = .07 (see Figure 13). When the second-order factor of dispositional employee engagement was removed from the model, autotelic personality explained 42.2% of the variance in dispositional behavioral engagement, 38.4% of the variance in dispositional cognitive engagement, and 37.8% of the variance in dispositional emotional engagement. The strongest relationship was between autotelic personality and behavioral engagement (β = .65, p < .001), but the relationships between autotelic personality and cognitive engagement (β = .62, p < .001) and emotional engagement (β = .62, p < .001) were also both strong and significant indicating that individuals who are relatively high in autotelic personality are likely to be highly emotionally, cognitively, and behaviorally engaged. The results indicate that autotelic personality significantly contributes to all three subdimensions of dispositional employee engagement, thereby serving as a key predictor in its development.

Structural Regression: Proactive Personality → Dispositional Employee Engagement Subdimensions

In this section the specific relationships between proactive personality and the subdimensions of dispositional employee engagement are explored. When the modified model was tested model fit was poor, x^2 (432) = 1400.60, p < .001, CFI = .90, RMSEA = .08 (90% CI [.07, .08]), and SRMR = .09. MIs were examined for potential areas of model misfit. Proactive Personality Scale item three was again nonsignificant in this model but was maintained in the analysis as its elimination did not significantly improve model fit. Final model fit (see Table B3 for respecifications) was x^2 (427) = 1123.29, p < .001, CFI = .92, RMSEA = .06 (90% CI [.06, .07]), and SRMR = .09. Proactive personality had the strongest relationship with dispositional behavioral engagement (β = .55, p < .001), but was also significantly related to both dispositional emotional engagement (β = .49, p < .001) and dispositional cognitive engagement (β = .45, p < .001) (see Figure 14). The results suggest that proactive personality is a significant predictor in the development of overall dispositional employee engagement, particularly in behavioral engagement.

Figure 14

Structural Regression Model for the Relationship Between Proactive Personality and Dispositional Employee Engagement Subdimensions



Note. This figure denotes standardized factor loadings between indicators and the higher order factors of proactive personality and the subdimensions of dispositional employee engagement. Regression weights in red indicate the paths selected as the scaling indicator in the model.

DispCOG = dispositional cognitive engagement, DispEMOT = dispositional emotional engagement, DispBEH = dispositional behavioral engagement.

All regression coefficients are significant at the $p < .001$ level except PPS item three, which is purple in color.

Structural Regression: Positive Affectivity → Dispositional Employee Engagement Subdimensions

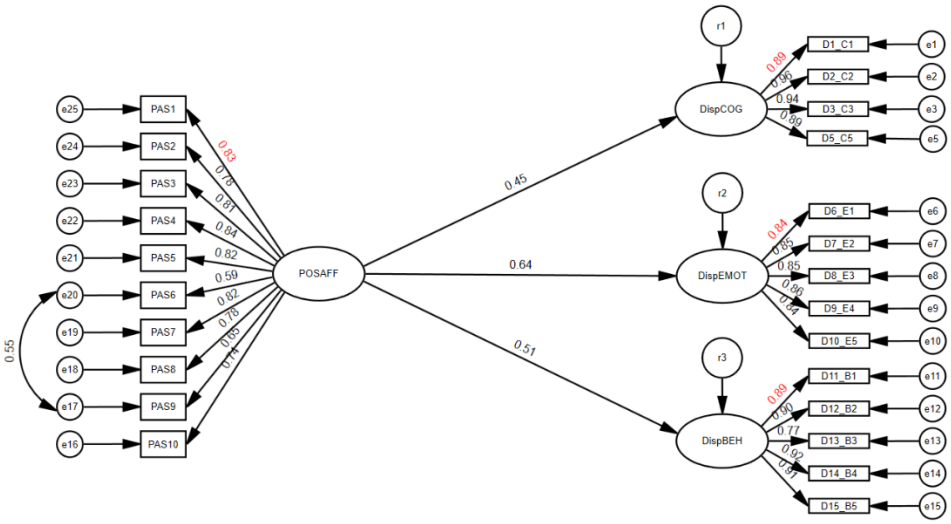
To further the understanding of how affective traits like positive affectivity influence dispositional employee engagement, this section focuses on its impact on the subdimensions of dispositional employee engagement. The model demonstrated poor fit to the data, with all fit indices falling outside accepted criteria: x^2 (249) = 983. 76, $p < .001$, CFI = .92, RMSEA = .09 (90% CI [.08, .90]), and SRMR = .10. MIs were examined to improve model fit, and the identical respecification of allowing Positive Affect Scale items six and nine was indicated as relevant, as described previously, and resulted in a moderately well-fitted model, x^2 (248) = 846.22, $p <$ .001, CFI = .93, RMSEA = .08 (90% CI [.07, .08]), and SRMR = .10 (see Figure 15).

MIs did not indicate additional relevant respecifications within theoretical bases.

Positive affectivity significantly predicted cognitive engagement, β = .45, $p < .001$, emotional engagement, β = .64, $p < .001$, and behavioral engagement, β = .51, $p < .001$. Positive affectivity emerged as a significant predictor across all subdimensions of dispositional employee engagement, particularly emotional engagement.

Figure 15

Structural Regression Model for the Relationship Between Positive Affectivity and Dispositional Employee Engagement Subdimensions



Note. This figure denotes standardized factor loadings between indicators and the higher order factors of positive affectivity (POSAFF) and the subdimensions of dispositional employee engagement. Regression weights in red indicate the paths selected as the scaling indicator in the model. All regression coefficients are significant at the $p < .001$ level.

Overall_DEE = dispositional employee engagement, DispCOG = dispositional cognitive engagement, DispEMOT = dispositional emotional engagement, DispBEH = dispositional behavioral engagement.

In summary, these post hoc analyses reveal that autotelic personality, proactive personality, and positive affectivity each make unique contributions to the subdimensions of dispositional employee engagement. These findings not only enrich our understanding of the multifaceted nature of dispositional employee engagement, but also offer insights for organizations aiming to enhance specific areas of employee engagement.

Chapter V: Discussion

This study embarked on an exploration of the individual personality traits predictive of dispositional engagement and the proposed interaction with an organizational climate for employee engagement. By examining the intricate relationship between these elements the research aimed to enrich our understanding of how employee engagement is influenced by inherent personality characteristics. This section delineates the pivotal findings that emerged, offering new perspectives on the dynamics of employee engagement.

Unlike previous studies that have focused largely on job design elements and the impact of leadership styles, this study delved into the role of specific personality traits—autotelic personality, proactive personality, and positive affectivity—in predicting dispositional employee engagement. The three identified traits accounted for substantial variance in dispositional employee engagement (47.4%), consistent with Macey and Schneider's (2008) proposal demonstrating their substantial predictive power. Evidence was found for the interaction of these traits in predicting engagement, even in the presence of high multicollinearity.

These traits were found to predict not only overall dispositional employee engagement (47.4% as noted above) but also all of its subdimensions. Autotelic personality predicted approximately 38% of the variance in dispositional cognitive engagement, 37% of the variance in dispositional emotional engagement, and 42% of the variance in dispositional behavioral engagement. Positive affectivity predicted approximately 20% of the variance in dispositional cognitive engagement, 41% of the variance in dispositional emotional engagement, and 26% of the variance in dispositional behavioral engagement. Finally, proactive personality predicted approximately 20% of the variance in dispositional cognitive engagement, 24% of the variance in dispositional emotional engagement, and 31% of the variance in dispositional behavioral engagement. This finding is crucial in understanding the processes underlying the development and maintenance of dispositional employee engagement and its outcomes. In the model, cognitive and emotional engagement interplay dynamically, influencing the decision-making process that governs behavioral engagement. Thus, the relationships between dispositional

employee engagement and its subdimensions, and between autotelic personality, proactive personality, and positive affectivity and the subdimensions provide insight into the dynamics of developing and sustaining employee engagement as a whole.

This study suggested that state employee engagement is relatively strongly and positively related to overall dispositional engagement and its subdimensions of cognitive engagement, emotional engagement, and behavioral engagement. Proactive personality is an instrumental trait and concordantly had the strongest relationship with behavioral engagement, and positive affectivity had the strongest relationship with emotional engagement. However, while autotelic personality is largely a cognitive trait, the findings suggest it had the strongest relationship to the behavioral engagement subdimension. These findings are significant in understanding both the relationships between these variables and the mechanisms through which employee engagement develops and is maintained over time.

This study also suggests that climate may play a role in the nuanced relationship between dispositional and state employee engagement. Although the observed effect size is relatively small compared to other relationships explored in this research, the statistically significant interaction between climate and dispositional engagement impacting state-level engagement lends preliminary support to the hypothesized significance of climate as the backdrop against which dispositional employee engagement unfolds. Specifically, it appears that individuals with inherently high levels of dispositional engagement consistently demonstrate robust state engagement, irrespective of the organizational climate. Conversely, for those characterized by lower levels of dispositional engagement, a supportive climate for engagement markedly enhances their state engagement. This finding highlights the conditional influence of engagement climate in fostering state employee engagement, particularly among individuals with lower inherent engagement tendencies.

Having established the significant role of personality traits in predicting dispositional employee engagement and its subdimensions, the subsequent discussion shifts focus to the broader theoretical implications of these findings. These insights not only advance theoretical

understanding but also have practical implications, which are explored in the subsequent section.

Theoretical Implications

Novel Predictive Model for Employee Engagement

Building upon the existing theoretical landscape, this dissertation represents a unique investigation into employee engagement, proposing its conceptualization as a trait characterized by stability and the potential to shape individual interactions in the workplace. This contributes to the emerging literature by assessing employee engagement through the lens of enduring personality variables. Furthermore, this study is one of the first to empirically evaluate a model where autotelic personality, proactive personality, and positive affectivity serve as the underpinnings of dispositional employee engagement, providing insight into their unique and combined to engagement.

Person-Environment Dynamics

Building on the analytical framework of this dissertation, this study makes significant theoretical contributions to the understanding of employee engagement. It provides empirical support for the interactionist model predicted by Social Cognitive Theory (Bandura, 1986), highlighting the intricate interplay between individual personality traits and situational factors in shaping employee engagement. The findings emphasize a critical paradigm shift from traditional models that predominantly emphasize environmental factors. Recent research by Veestraeton et al. (2021) corroborates this view, suggesting that the integration of dispositional factors like autotelic personality and proactive personality with situational elements offers a more comprehensive understanding of employee engagement dynamics. This alignment with emerging research reinforces the need for future investigations to adopt a holistic approach that encompasses *both* personal predispositions and environmental contexts.

Refining Employee Engagement Measures

The study furthermore illustrates the necessity to study additional empirically validated measures to assess dispositional employee engagement. This aligns with the recent summary by Moreiro et al. (2020) which emphasizes the limitations of current engagement

measurement tools in capturing its multifaceted nature. By addressing issues of model fit and validity, this research advocates for the assessment of both aggregate engagement and sub-dimensions as the observed relationships vary across the constructs. The research also suggests further development of the instruments, potentially incorporating psychometric advancements like item response theory (IRT). Expanding the assessment and understanding of employee engagement can yield more reliable and valid assessments, enhancing both academic research and practical engagement evaluations in organizational contexts.

Subdimensions of Employee Engagement

Delving deeper into the concept of dispositional employee engagement, this study specifically highlights the importance of its subdimensions—cognitive, emotional, and behavioral engagement (Kahn, 1990). These subdimensions, as explored in the structural regression analyses, reveal how different personality traits such as autotelic personality and proactive personality influence various aspects of engagement. The differentiation of engagement into these subdimensions provides a more layered understanding of how individual predispositions shape engagement, underscoring the complexity of this construct.

Expanding Engagement Predictors

While the traits assessed in this study explain over half of the variance in dispositional engagement, they also provide insights into integrating these findings with established models, such as Macey and Schneider's (2008). Initially, it was argued that conscientiousness should be excluded, as it was predicted that individuals high in dispositional employee engagement would also exhibit high scores in proactive personality, typically characterized by nonconformity. However, Macey and Schneider suggested that conscientiousness might predict dispositional engagement, particularly through its generalized compliance facet. Furthermore, it was believed that overall conscientiousness was not essential for high engagement – suggesting that even those low in conscientiousness could devise strategies to counteract this trait and remain effective and engaged. Nevertheless, with a significant portion of variance in dispositional employee engagement unaccounted for in this study's model, future research should investigate whether overall conscientiousness is a predictor of dispositional employee

engagement and if certain facets of conscientiousness have stronger correlations with it, specifically facets such as persistence (Akhtar et al., 2015) and dutifulness (Barrick et al., 2002).

Additionally, examining other individual difference variables, such as emotional intelligence – a proposed personal resource in employee engagement research (Barreiro & Treglown, 2020) - could offer a more comprehensive view of engagement determinants. Specifically, those higher in emotional intelligence have been found to effectively manage emotional resources from work-related social interactions (Duran et al., 2004) and exhibit resilience in the face of work stress (Akhtar et al., 2015). Furthermore, trait emotional intelligence is positively related to individual feelings of well-being and job satisfaction (Brunetto et al., 2012). Expanding the theoretical model to encompass a wider array of personality traits and cognitive-emotional factors is vital for a more holistic understanding of employee engagement.

Building on the previously discussed traits and emotional intelligence, a person's career narrative, goals, and values are pivotal in shaping dispositional engagement, deepening the sense of meaning, safety, and availability Kahn (1990) found to be foundational to engagement. McCrae and Costa (2008) describe characteristic adaptations as the bridge between enduring traits and workplace behavior, essential for purpose and organizational alignment. Tett and Burnett (2003) stress the role of trait-relevant cues across task, social, and organizational levels, suggesting that alignment between individual narratives and the organizational environment boosts engagement by meeting intrinsic needs. Wefald et al. (2009) add that such alignment enhances belonging and commitment. These perspectives collectively suggest that understanding and integrating employees' career narratives, goals, and values into their work environment can significantly contribute to enhancing dispositional engagement by providing a deeper sense of meaning and fulfillment in their roles.

The study also highlights the interplay between dispositional and state employee engagement, shedding light on the moderating role of organizational climate. This aspect is consistent with Bandura's (1986) reciprocal determinism illustrating how organizational

climates can influence the development and manifestation of dispositional engagement. Such insights are crucial for researchers to consider in the future; specifically, environmental factors emerged as important when personal dispositional factors were weak. Thus organizations striving to cultivate and sustain high levels of employee engagement should consider how to foster climates that support engagement, especially among those inherently lower in dispositional employee engagement.

In synthesizing these theoretical insights, it is evident that the implications of this study extend beyond academic discourse, directly informing practical applications in organizational settings. Moving from theoretical underpinnings to practical realities, the following section delves into how these findings can be effectively translated into strategies and interventions to enhance employee engagement within diverse organizational contexts.

Practical Implications

Building upon these theoretical insights, this study suggests opportunities in organizational development and human resources management. First, studying traits contributes to understanding essential employee selection variables when engagement is critical to a role. However, understanding personality traits gives organizations and individuals a place from which to start, and does not necessarily mark the end of the story. For example, research into characteristic adaptations – processes occurring between individual characteristics (what a person 'has') and their perceptions, interpretations, and adaptations to the social environment (what a person 'does'; Cantor, 1990), how individuals evolve their personal narratives to align with changing identities (McAdams, 2006), and training methods for enhancing cognitive strategies to increase personality scores (Kirby et al., 2006) – offers guidance beyond mere selection. It emphasizes using personality variables as foundational elements when developing employees and fostering environments in which they can thrive. The following sections discuss this interplay between personality variables and various organizational practices.

Selection

The identification of key personality traits such as autotelic personality, proactive

personality, and positive affectivity has significant implications for HR practices, particularly in selection. These traits are pivotal for roles demanding high engagement, such as customer-facing positions, leadership roles, and creative professions (Zula & Chermack, 2007). Aligning selection processes with the findings of this study enhances the probability of selecting individuals predisposed to higher levels of engagement, thereby contributing to a more dynamic and committed workforce. This strategic alignment is crucial in today's increasingly diverse and remote work environments.

Training and Development

Research into personality traits has revealed significant opportunities for personal growth, as demonstrated by notable shifts during young adulthood (Roberts et al., 2006) and the varied evolution of these traits throughout an individual's life (De Fruyt et al., 2006; Graham et al., 2020). According to Trait Activation Theory (Tett & Burnett, 2003) environmental cues play a pivotal role in shaping the expression of personality traits, with research showing that the correlation between behavioral intentions and personality traits is stronger in environments that provide appropriate cues (Tett & Guterman, 2000). Together, these findings suggest that the development and expression of traits is malleable, suggesting that adaptive or desired outcomes can be facilitated in organizations by altering the work environment or by empowering individuals with the skills to discern and navigate situational cues effectively. Consequently, the aim of interventions in organizational settings should extend beyond merely modifying personality assessment scores, focusing instead on fostering behavioral adaptations that enhance both personal and professional development (Yost, 2016). This perspective sets the stage for designing targeted development initiatives that bolster traits such as proactivity, resilience, and curiosity, thereby supporting individuals in realizing their potential within dynamic work environments.

Implications of Two-Way Interactions. The findings from the two-way interaction analysis offer intriguing practical implications for organizational development strategies. Although the statistical model suggests caution in interpretation due to poor fit indices, the significant interactions between certain personality traits and dispositional employee

engagement reveal potential pathways for enhancing work engagement.

Firstly, the interaction between autotelic personality and positive affectivity, although small, indicates a synergistic effect, where employees displaying high levels on both dimensions are more engaged than what would be expected from each trait individually. This suggests that HR strategies which screen for and foster both a deep intrinsic motivation (autotelic personality) and a tendency to experience positive emotions (positive affectivity) may create an environment with particularly high employee engagement levels.

Secondly, the relationship between positive affectivity and proactive personality unveils a buffering effect, indicating that these traits may compensate for each other to maintain engagement levels. This finding could inform interventions aimed at employee development by highlighting the importance of balancing traits within teams. For example, in teams where individuals may score lower on proactive personality, boosting positive affectivity could be a compensatory tactic to maintain overall engagement.

Proactive Personality Interventions. Evidence suggests that practices can be adopted that refine and develop these trait-like dimensions over time (Roberts et al., 2017; Yost, 2016). To facilitate this growth, establishing a culture of continuous learning and development is vital. Development initiatives encompassing a range of activities, such as workshops, coaching sessions, and experiential learning opportunities focused on nurturing these traits (Shirmohammadi et al., 2020) ensures comprehensive employee growth.

In emphasizing the necessity of ongoing personal and professional growth, this research offers actionable insights for structuring employee development programs. Training programs aimed at enhancing traits that foster engagement, notably a proactive mindset, can be integrated into the broader framework of the organization's learning culture. Moreover, introducing specific modules focused on developing problem-solving skills, enhancing decision-making autonomy, and stimulating creative thinking are essential steps in nurturing a proactive workplace culture (Kegalaers & Wylleman, 2019). Such interventions are instrumental in building a workforce that not only adapts to changing environments but also proactively seeks opportunities and solutions.

Autotelic Personality Interventions. Autotelic personality has been shown to be positively impacted by goal clarity, feedback, and perceived task difficulty, offering avenues for interventions related to goal setting, support, and personal development. Specifically, when employees and managers set clear goals around tasks that are balanced between skill and demand (Keller & Bless, 2008), establish lines of communication that are perceived as supportive (Thomson & Jaque, 2016), and are conducive to timely and relevant feedback, employees experience higher levels of autotelic attributes (Csikszentmihalyi et al., 2005).

Developing Grit and Curiosity. Additionally, research evidence supports the efficacy of interventions that target specific subdimensions of autotelic personality. Grit, a construct that is often likened to persistence (Sarkar & Fletcher, 2014), can be enhanced through interventions that help people reflect on past failures, improve growth mindset, and establish purpose (Hill et al., 2016; Hwang & Nam, 2021). Curiosity, another subdimension, can be fostered through training in direct questioning and interventions designed to help individuals generate better questions, thus developing a 'habit of curiosity' (Chukwuedo et al., 2021).

Fostering Positive Affectivity. Research into meaningfulness and positive work-related thoughts (PWRTs) provides guidance on effective strategies for enhancing positive affectivity among employees. Interventions that center around purpose creation in goal setting and career development effectively boost positive affectivity by linking employees' objectives to a sense of meaningfulness, thereby enhancing engagement (Daniel & Sonnentag, 2014). Furthermore, utilizing positive reframing techniques, particularly in after-action reviews and when addressing failures, can significantly influence the affective valence employees attribute to their work, and thereby improve wellbeing, competence, and reduce strain. These interventions offer a route to improved employee engagement through bolstering positive affectivity (e.g., Bono et al., 2013; Fritz & Sonnentag, 2006).

Enhancing Organizational Climate

Finally, the study's findings provide preliminary evidence supporting the role of organizational climate in influencing employee engagement. The small yet statistically significant interaction indicates that a supportive and engaging work environment can enhance

state employee engagement, particularly for those with lower levels of dispositional engagement. Organizations should focus on fostering a climate conducive to engagement by implementing policies and practices that support employee autonomy, provide adequate resources, and recognize employee contributions (Vance, 2006). Such an environment, based on the results in this study, can compensate for lower individual predispositions towards engagement, enhancing overall workforce motivation and productivity.

To enhance a climate for engagement and navigate the relationship between personality and employee engagement, it's essential to integrate situational variables into organizational strategies. Transformational leadership significantly fosters engagement by inspiring and nurturing employees, particularly resonating with those whose personality traits align with these leadership qualities (Wefald et al., 2011). Moreover, organizational support that extends beyond resources to include emotional and professional development strengthens this relationship, reinforcing engagement across the workforce. Implementing strategic reward systems, fostering positive team dynamics, and supporting work-life balance further enrich this climate, addressing diverse employee needs and predispositions towards work-life conflicts. These efforts towards a holistic organizational climate not only elevate engagement but also leverage the synergy between personality traits and environmental factors. Adopting such comprehensive strategies in human resource management is crucial for developing a highly engaged and productive workforce, emphasizing the importance of continued research into these complex dynamics.

These insights highlight the importance of integrating psychological principles into organizational strategies. The significant role of personality traits in shaping employee engagement underscores the need for tailored approaches in human resource management and organizational development. By holistically investing in employee development and creating a supportive climate, organizations can foster a more engaged and productive workforce. The next section will address the limitations of the current study and outline opportunities for future research.

Limitations and Opportunities for Future Research

As with many studies in theoretical domains, the present study has limitations, which in turn provide opportunities for future research, particularly in strengthening internal, statistical conclusion, and external validity. One significant concern is the potential for testing bias and construct validity issues. This stems from the use of a single instrument to measure both dispositional and state employee engagement. Furthermore, the strong correlation between these constructs raises the possibility that they may be capturing the same underlying phenomenon, thereby affecting both internal and construct validity. A greater longitudinal separation in time between the measurement of dispositional engagement and state engagement could decrease halo effects caused by offering the two instruments closely together. An even more rigorous future study could sample the traits, dispositional, and state engagement over multiple time periods to better assess changes over time and potential directional effects over time. Finally, the establishment of causality among the variables is limited. Future studies should consider employing such designs along with distinct measurement instruments for each construct to comprehensively address these gaps.

Testing these relationships with a larger sample size could yield deeper insights into complex interactions and moderations, a point of particular importance given that structural equation modeling generally necessitates large samples. The sample size in this study hovers at the border of what is considered adequate for comprehensively understanding the complex model. Employing a larger and more diverse sample would not only facilitate a more robust examination of the relationships, effect sizes, and boundary conditions related to climate for engagement, but it would also enhance the study's generalizability and enable nuanced subgroup analyses. Furthermore, a more robust sample would permit more stringent corrections for multiple comparisons and reduce the margin of error.

While the study concentrated on respondents within the United States to maintain data quality, future research should broaden its scope to include diverse geographical and cultural contexts. Such an expansion would not only enhance external validity but would also facilitate meaningful cross-cultural comparisons. An exploration of these relationships across a wide age spectrum and different levels of work experience could yield additional insights. Given the rise

of remote work, examining how these relationships manifest in remote versus in-person work settings could add another layer to the study's generalizability.

Future research should also focus on identifying which climate factors or organizational context variables influence the relationship between dispositional employee engagement and state employee engagement. For example, Christian et al (2011) found that the job characteristics of task variety and task significance create meaningfulness in work, which is then related to engagement. This could provide insights for organizations looking to foster a more engaging work environment.

Chapter VI: Conclusion

Throughout this dissertation, a comprehensive exploration of employee engagement has been conducted, delving into its roots in individual personality traits and the role of organizational climate. The journey from conceptualization to empirical analysis revealed insights into the dynamics of dispositional and state employee engagement, underscoring the interplay between personal predispositions and environmental contexts.

The study's emphasis on the individual's role in shaping their engagement experience aligns with a broader understanding of human agency in organizational settings. It suggests that employees are not merely passive recipients of organizational culture and leadership but active participants in creating their engagement journey.

In conclusion, this dissertation echoes the words of Viktor Frankl (1946): “A human being is a deciding being…The last of human freedoms is to choose one’s attitude in any given set of circumstances.” Just as individuals possess the freedom to shape their attitudes and responses through their perceptions, adaptations and narratives; organizations have the opportunity to create environments that foster positive engagement. It is through this lens of shared responsibility and empowerment that we can advance our understanding and practice of employee engagement in diverse and evolving organizational landscapes.

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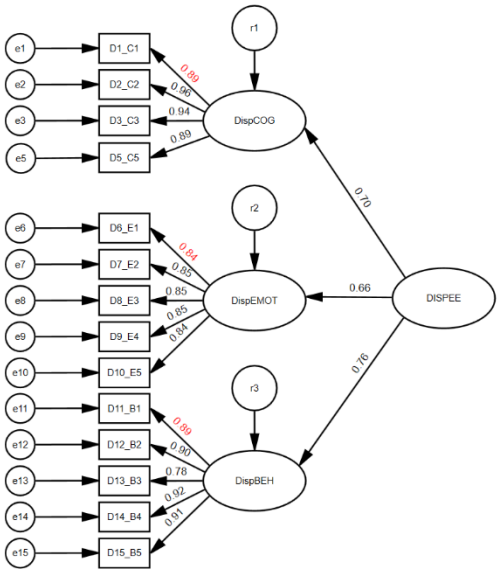
Appendix A: CFA Figures

Figure A1

CFA for the Outcome Variable Dispositional Employee Engagement



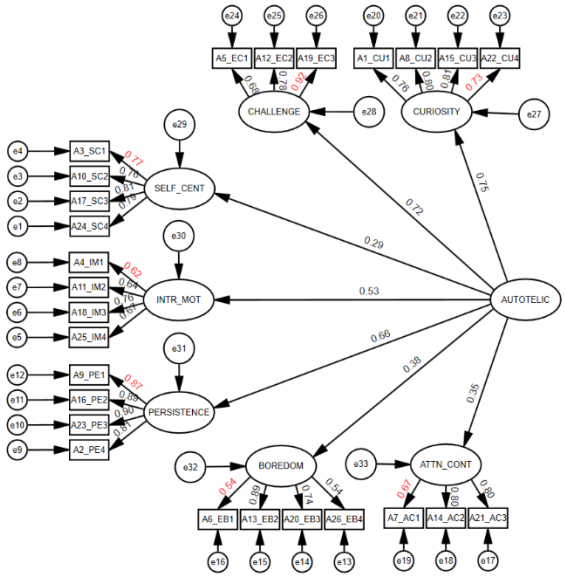
Note. This figure denotes factor loadings for indicator variables (items) and the subdimensions of DEE, as well as the relationships between subdimensions and the second order factor DEE. Regression weights in red indicate the paths selected as the scaling indicator in the model.

DISPEE = dispositional employee engagement, DispCOG = dispositional cognitive engagement, DispEMOT =dispositional emotional engagement, and DispBEH = dispositional behavioral engagement.

All regressions are significant at the $p < .001$ level.

Figure A2

CFA for the Predictor Variable Autotelic Personality

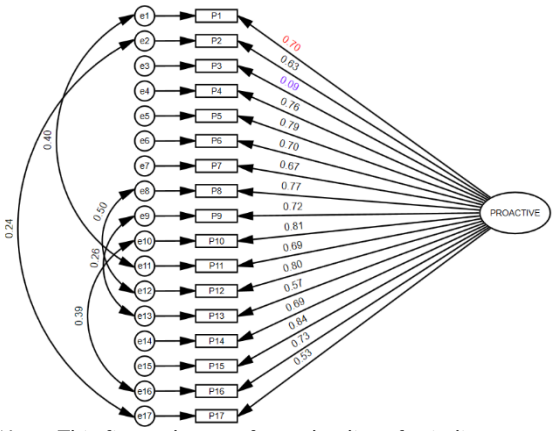


Note. This figure denotes factor loadings for indicator variables (items) and the subdimensions of AP, as well as the relationships between subdimensions and the second order factor, the latent variable AP. Regression weights in red indicate the paths selected as the scaling indicator in the model.

SELF_CENT = low self-centeredness, INTR_MOT = intrinsic motivation, ATTN_CONT = attentional control. All regressions are significant at the $p < .001$ level.

Figure A3

CFA for the Predictor Variable Proactive Personality

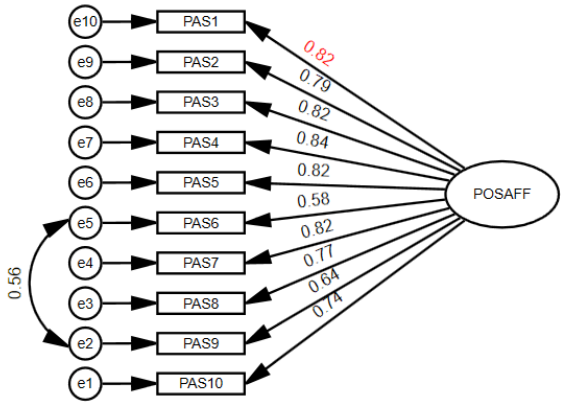


Note. This figure denotes factor loadings for indicator variables (items) and latent variable PP. Regression weights in red indicate the paths selected as the scaling indicator in the model.

All regressions are significant at the $p < .001$ level, except item three which is nonsignificant and denoted in purple.

Figure A4

CFA for the Predictor Variable Positive Affectivity

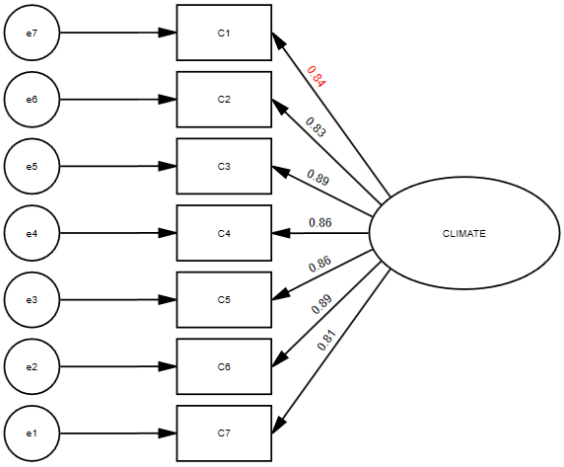


Note. This figure denotes factor loadings for indicator variables (items) and latent variable positive affectivity (POSAFF). Regression weights in red indicate the paths selected as the scaling indicator in the model.

All regressions are significant at the $p < .001$ level.

Figure A5

CFA for the Moderator Variable Climate for Engagement

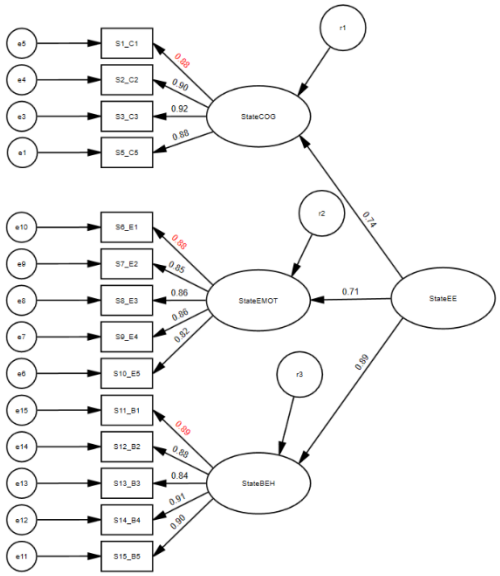


Note. This figure denotes factor loadings for indicator variables (items) and the latent climate for engagement (CLIMATE). Regression weights in red indicate the paths selected as the scaling indicator in the model.

All regressions are significant at the $p < .001$ level.

Figure A6

CFA for the Outcome Variable State Employee Engagement



Note. This figure denotes factor loadings for indicator variables (items) on their respective subdimensions as well as the relationships between subdimensions and the second order variable state employee engagement. Regression weights in red indicate the paths selected as the scaling indicator in the model.

StateEE = state employee engagement, StateCOG = state cognitive engagement, StateEMOT = state emotional engagement, and StateBEH = state behavioral engagement.

All regressions are significant at the $p < .001$ level.

Appendix B: SEM Respecification Tables for PPS

Table B1

Stepwise Model Respecification for Proactive Personality Scale

MODEL	x^2	Δx^2	CFI	RMSEA	SRMR	F_{MIN}	CAIC
M	(119, *N* = 400) = 601.08	--	.884	.101 90% CI [.093, .109]	.048	1.506	838.787
M^2	(118, *N* = 400) = 495.19	105.89*	.909	.090 90% CI [.081, .098]	.046	1.241	739.887
M^3	(117, *N* = 400) = 433.364	62.84*	.924	.082 90% CI [.074, .091]	.043	1.086	685.057
M^4	(116, *N* = 400) = 406.871	106.49*	.930	.079 90% CI [.071, .088]	.042	1.020	665.555
M^5	(115, *N* = 400) = 385.372	21.50*	.935	.077 90% CI [.068, .085]	.040	.966	651.048
M^6	(114, *N* = 400) = 323.30	62.07*	.950	.068 90% CI [.059, .077]	.037	.810	595.969

Note. M^2 allows error terms for items 8 & 12, *'No matter what the odds, if I believe in something, I will make it happen'* and *'If I believe in an idea, no obstacle will prevent me from making it happen'* to covary.

M^3 allows error terms for items 10 and 16, *'I excel at identifying opportunities'* and *'I can spot a good opportunity long before others can'* to covary.

M^4 allows the error terms for items 9 and 13, *'I love being a champion for my ideas, even against others' opposition'* and *'I love to challenge the* status quo' to covary.

M^5 allows the error terms for items 2 and 17, *'I feel driven to make a difference in my community, and maybe the world'* and *'If I see someone in trouble, I help out in any way I can'* to covary.

M^6 allows the error terms for items 1 and 11, *'I am constantly on the lookout for new ways to improve my life'* and *'I am always looking for better ways to do things'* to covary.

All x^2 values are significant at the $p < .05$ level.

Table B2

Stepwise Model Respecification for PP → DEE (V1)

MODEL	x^2	Δx^2	CFI	RMSEA	SRMR	F_{MIN}	CAIC
M	(431, *N* = 400) = 1277.04	--	.916	.070 90% CI [.066, .075]	.054	3.201	1731.486
M^2	(430, *N* = 400) = 1206.87	70.17*	.923	.067 90% CI [.063, .072]	.053	3.025	1668.31
M^3	(429, *N* = 400) = 1110.97	95.90*	.932	.063 90% CI [.059, .068]	.053	2.784	1579.399
M^4	(428, *N* = 400) = 1082.37	28.60*	.935	.062 90% CI [.057, .066]	.052	2.713	1557.786
M^5	(427, *N* = 400) = 1061.76	20.61*	.937	.061 90% CI [.056, .066]	.052	2.661	1544.167
M^6	(426, *N* = 400) = 1001.17	60.59*	.943	.058 90% CI [.054, .063]	.052	2.509	1490.575

Note. M^2 allows error terms for items 10 and 16, *'I excel at identifying opportunities'* and *'I can spot a good opportunity long before others can'* to covary.

M^3 allows error terms for items 8 & 12, *'No matter what the odds, if I believe in something, I will make it happen'* and '*If I believe in an idea, no obstacle will prevent me from making it happen'* to covary.

M^4 allows the error terms for items 9 and 13, *'I love being a champion for my ideas, even against others' opposition'* and '*I love to challenge the* status quo' to covary.

M^5 allows the error terms for items 2 and 17, *'I feel driven to make a difference in my community, and maybe the world'* and *'If I see someone in trouble, I help out in any way I can'* to covary.

M^6 allows the error terms for items 1 and 11, *'I am constantly on the lookout for new ways to improve my life'* and *'I am always looking for better ways to do things'* to covary.

All x^2 values are significant at the $p < .05$ level.

Table B3

Stepwise Model Respecification for PP → DEE (V2)

MODEL	x^2	Δx^2	CFI	RMSEA	SRMR	F_{MIN}	CAIC
M	(432, *N* = 400) = 1400.60	--	.904	.075 90% CI [.071, .079]	.094	3.510	1848.053
M^2	(431, *N* = 400) = 1299.51	101.09*	.914	.071 90% CI [.067, .076]	.094	3.257	1753.950
M^3	(430, *N* = 400) = 1268.66	30.85*	.916	.070 90% CI [.065, .074]	.093	3.180	1730.082
M^4	(429, *N* = 400) = 1246.66	22.00*	.919	.069 90% CI [.065, .074]	.093	3.124	1715.091
M^5	(428, *N* = 400) = 1184.43	62.23*	.925	.067 90% CI [.062, .071]	.092	2.968	1659.847
M^6	(427, *N* = 400) = 1123.29	61.14*	.931	.064 90% CI [.059, .068]	.092	2.815	1605.696

Note. M^2 allows error terms for items 8 & 12, *'No matter what the odds, if I believe in something, I will make it happen'* and '*If I believe in an idea, no obstacle will prevent me from making it happen'* to covary.

M^3 allows the error terms for items 9 and 13, *'I love being a champion for my ideas, even against others' opposition'* and '*I love to challenge the* status quo' to covary.

M^4 allows the error terms for items 2 and 17, *'I feel driven to make a difference in my community, and maybe the world'* and *'If I see someone in trouble, I help out in any way I can'* to covary.

M^5 allows error terms for items 10 and 16, *'I excel at identifying opportunities'* and *'I can spot a good opportunity long before others can'* to covary.

M^6 allows the error terms for items 1 and 11, *'I am constantly on the lookout for new ways to improve my life'* and *'I am always looking for better ways to do things'* to covary.

All x^2 values are significant at the $p < .05$ level.