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## Work Design Characteristics as Moderators of the Relationship between Proactive Personality and Engagement

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Work Design Characteristics as Moderators of the Relationship between Proactive  
Personality and Engagement

by

Damon Thomas Drown

A dissertation submitted in partial fulfillment of the  
requirements for the degree of

Doctor of Philosophy  
in  
Applied Psychology

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## Abstract

This study examines which and how trait relevant work design characteristics moderate the relationship between proactive personality and engagement. Proactive personality is defined as an individual's tendency to intentionally and directly affect change in their environment (Bateman & Crant, 1993; Crant, 2000). Previous research has been primarily focused on the positive aspects of proactive personality; to fill this gap, I used trait activation theory (Tett & Burnett, 2003) to identify which work characteristics will activate proactive personality to affect engagement and developed specific hypotheses about which work characteristics will attenuate the proactive personality engagement relationship. In the study I identified five work characteristics (autonomy, feedback from job, problem solving, social support, and feedback from others) that may be moderators of the proactive personality- engagement relationship. Data were collected from 258 participants who worked in organizations located in north and northeast Italy. Data were collected at two time points. At time 1, proactive personality and work design characteristics were collected. Work engagement was collected at time 2. Although main effects for proactive personality and the job characteristics on engagement were found, the data did not support most of the hypotheses in this study. However, supplemental analyses found interesting interactions with regards to the impact of decision making autonomy and feedback from others on the relation between proactive personality and work engagement. The supplemental results suggest that proactive personality may act as a personal resource when work design characteristics are lacking. However, when decision making autonomy or feedback from others is high there is a negative relationship between proactive personality and engagement.

The results of this study have several implications for management theory and practice. On the theoretical side there are at least three contributions. First, while the majority of research on PAP has focused on main effects, few studies have identified moderators (Crant, 2000). Second, this study adds to research by extending trait activation theory to apply to how proactive workers view work characteristics. Third, while all work design characteristics coexist simultaneously within a work environment, they are usually discussed individually, not simultaneously. Additionally, the results of this study have implications for practice. The results of this study suggest that organizations should consider the work design characteristics and their impact on proactive workers prior to selecting proactive workers. Also organizations who are interested in employing proactive workers can use the results of this study to optimize the success of both high- and low-proactivity workers. By having a more in depth understanding of how work design characteristics impact proactive people organizations will be better able to meet an employee's needs, and the theoretical understanding of proactive personality is advanced.

Dedication

I dedicate this dissertation to my wife Andrea. Without your patience and constant support this dissertation would not have been possible.

## Acknowledgements

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## Table of Contents

Abstract.....	i
Dedication.....	iii
Acknowledgements.....	iv
List of Tables.....	vii
List of Figures.....	viii
Chapter 1	
Introduction.....	1
Chapter 2	
Proactive Personality and the Workplace .....	8
Chapter 3	
Work Design.....	26
Chapter 4	
Trait-Activation Theory and Key Characteristics of Work Design for Proactive Personality.....	37
Chapter 5	
Method.....	54
Chapter 6	
Results.....	64
Chapter 7	
Discussion.....	86
References.....	122

Appendices

A: Study Survey – Time 1 .....147  
B: Study Survey – Time 2 .....163



## List of Tables

Table 1: Confirmatory Factor Analyses of Proactive Personality & Work Engagement Measures.....	105
Table 2: Confirmatory Factor Analyses of WDQ.....	106
Table 3: Mean, Standard Deviation and Correlations among study variables.....	107
Table 4: Moderating Effects of Decision making Autonomy on the Proactive Personality – Work Engagement Relationship with Bootstrapping .....	111
Table 5: Moderating Effects of All Variables on the Proactive Personality – Work Engagement Relationship.....	112
Table 6: Moderating Effects of Task Identity on the Proactive Personality – Work Engagement Relationship .....	114

List of Figures

Figure 1: Conceptual model of relationships hypothesized in this dissertation.....115

Figure 2: Study Design and Variables Collected at Each Time Point.....116

Figure 3: The Moderating Effect of Decision Making Autonomy on the Proactive Personality-Work Engagement Relation with Bootstrapping .....117

Figure 4: The Moderating Effect of Decision Making Autonomy on the Proactive Personality-Work Engagement Relation with All Study-Relevant Work Design Characteristics Included Simultaneously .....118

Figure 5: The Moderating Effect of Feedback from Others on the Proactive Personality-Work Engagement Relation with All Study-Relevant Work Design Characteristics Included Simultaneously .....119

Figure 6: The Moderating Effect of Task Identity on the Proactive Personality-Work Engagement Relation .....120

Figure 7: The Proactivity Dynamics Framework .....121

*Chapter 1: Introduction*

In response to a smaller, more interconnected and decentralized work world than ever, employers now covet employees who can rapidly adapt to new job demands and quickly innovate to develop new products and services (Campbell, 2000; Frese & Fay, 2001). Moreover, to maintain a competitive edge, organizations have become increasingly interested in workers who are self-starting and use their own initiative (Chan, 2006; Crant, 2000). Consequently, organizations are both more likely to hire employees with a proactive orientation (Campbell, 2000) and evaluate proactive behaviors as part of performance appraisals than they have in the past (Griffen, Neal, & Parker, 2007).

Indeed, scholars have noticed this trend as well and have examined the effects of proactive employee behavior in a variety of areas such as newcomer socialization (Ashford & Black, 1996; Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007), job performance (Fuller & Marler, 2009), innovation (Scott & Bruce, 1994), career management (Seibert, Crant, & Kraimer, 1999) and coping with stress (Aspinwall & Taylor, 1997). Crant (2000) defined proactive behavior as “taking initiative to improve circumstances which may involve challenging the status quo rather than passively accepting the present conditions.” Since people differ in their tendency to display proactive behaviors, Bateman and Crant (1993) proposed an individual difference construct, proactive personality (PAP), to measure personal dispositions toward proactive behavior.

PAP reflects an individual's tendency to intentionally and directly affect change in their environment (Bateman & Crant, 1993; Crant, 2000). Proactive individuals will take the initiative to improve current circumstances, rather than adapt to them. Furthermore, proactive individuals are capable of identifying opportunities for change and growth, acting on those opportunities, and persisting in their efforts until change has occurred. In contrast, less proactive people are more prone to letting opportunities to change pass them by. Instead, they simply accept their present circumstances rather than actively work to change them (Crant, 2000). Since proactive people more actively seek information, better identify opportunities, and persevere until needed change occurs, Crant (2000) posited that proactive people are more likely to benefit from the positive consequences (e.g., job performance and job attitudes) of their proactive behaviors. Consistent with this model, a meta-analysis by Fuller and Marler (2009) reported positive relationships between PAP and career success, contest mobility (e.g., job performance), sponsored mobility (e.g., taking charge/voice behavior), employability-related variables (e.g., learning goal orientation, career self-efficacy), and job satisfaction.

While the majority of scholarly attention has focused on the benefits of employing proactive workers, Campbell (2000) suggests that the utility of hiring proactive employees depends on the organizational context and the nature of the employees' jobs. For example, in positions where there is focus on stability and/or routine, non-innovative work, proactive workers may become frustrated. Consequently, they may perform worse in their positions than others who are less proactive. Campbell argues managers should only employ individuals with proactive personalities after consideration of situational

factors and a review of the competencies needed for employees to be successful in their jobs. Indeed, McCune, Cadiz, Drown, and Bodner (2009) found that the effects of PAP vary across different industries, such as service or sales as compared to accounting or manufacturing.

While one of the most universally accepted “truths” of psychology is that behavior is a function of both person and environment (Lewin, 1936), very little research has been conducted to determine the extent to which people with proactive personalities are, or are not, influenced by the environment. In fact, in the original article introducing the PAP construct, Bateman and Crant (1993) stated that if proactive people engage in misguided proactive behavior it can cost organizations time and money. These costs can lead organizations to have what Campbell (2000) labeled the “initiative paradox” where organizations actively encourage proactive behavior in policy and then punish it in practice. Since proactive behaviors are not equally favorable and desirable in all organizations or jobs, it is important to identify the boundary conditions under which PAP is likely to lead to positive work relevant outcomes to aid in selection, career planning, and job design.

Even though there is a clear need to understand the boundary conditions for when PAP leads to positive or negative outcomes, the majority of research has focused on main effects, while few have examined the moderators of PAP (Crant, 2000). However, in one of the few studies to examine a moderator of the PAP and outcome relationship, Fuller, Hester, and Cox (2010) found that job autonomy significantly moderated the relationship between PAP and job performance. The results of this study indicated that while high

levels of perceived job autonomy appear to enhance the relationship between PAP and job performance, in low levels of job autonomy the positive relationship was attenuated. The findings from this study suggest that PAP research would benefit from examining a more complete array of work design characteristics as moderators. In this way, scholars may determine which work characteristics are productive or detrimental for proactive employees.

The present study makes three significant contributions to extant PAP research. First, I address the aforementioned gap by introducing work characteristics as moderators of the PAP engagement relationship. Second, I apply trait activation theory (TAT) (Tett & Burnett, 2003) to the work design literature to explain the interaction between PAP and job characteristics. Third, the present study examines differential relationships between task, knowledge, and social job characteristics on work engagement.

First, with regard to examining the role of work characteristics as a moderator of the PAP-work outcome relationship, Morgeson and Humphrey (2006) developed a comprehensive work design questionnaire which identified twenty-one distinct work characteristics within four broad categories: (1) Task characteristics (consisting of work scheduling autonomy, decision-making autonomy, work methods autonomy, task variety, significance, task identity, feedback from job); (2) Knowledge characteristics (consisting of job complexity, information processing, problem solving, skill variety, and specialization); (3) Social characteristics (consisting of social support, interdependence-initiated, interdependence-received, interaction outside the organization, and feedback from others); (4) Contextual characteristics (consisting of ergonomics, physical demands,

work conditions, and equipment use). To determine which of the twenty-one work characteristics are relevant to this particular study, I followed Parker, Wall, and Cordery's (2001) recommendation that both theory and context be considered. For example, social interaction might be an important characteristic for someone in sales, but not have as much significance for the relatively solitary job of a long haul truck driver. Additionally, following TAT (Tett & Burnett, 2003), I chose work characteristics that act as trait-relevant situational cues to activate the expression of PAP. Following these guidelines, I will examine how five work characteristics (autonomy, feedback from job, problem solving, social support, and feedback from others) moderate the PAP-outcome relationship. Examining the moderating effect of trait relevant work characteristics on the relation between PAP and engagement will help fill the gap in this area identified in the recent engagement meta-analysis conducted by Christian, Garza, & Slaughter (2011).

Second, the present study contributes to the work design literature by extending TAT to PAP research. Tett and Burnett's (2003) theory of trait activation posits that personality traits will be expressed in response to trait relevant cues. For example, certain features of the service industry such as identifying opportunities to make a sale are likely to "activate" PAP traits and make the impact of PAP more pronounced than in other industries. Therefore, for a trait to be expressed, an individual must view or subjectively perceive the situation to be trait relevant, making the subjective evaluation of work characteristics more relevant to whether or not the trait is activated compared to objective evaluation of work characteristics. Since the bulk of work characteristic research has not accounted for individual difference, moderators beyond growth need

strength in the work design literature (Grant, Fried, & Juillerat, 2010); this study will provide needed insight into the interaction between trait relevant work characteristics and PAP.

Third, the present study extends Morgeson and Humphrey's (2007) model of work characteristics and examines each under the lens of PAP. Their model includes task characteristics (autonomy and feedback from the job), knowledge characteristics (problem solving), and social characteristics (social support and feedback from others). By including PAP in evaluations of the relationship between work characteristic and engagement in each of these three domains, this study provides needed insight into motivational processes in the workplace. Parker (2002) argued that the effect of work characteristics on employee motivation is likely dependent on individual's personality and ability. An important individual difference such as PAP is likely to interact with work characteristics - not simply in their effect on motivational states (the focus of traditional research) but also on motivational processes.

### *Overview of the Dissertation*

In the following pages, I will lay out the theoretical framework, review the relevant literature, develop specific study hypotheses, review study methods and results, and discuss the implications and limitations of the study in the following manner. In Chapter Two, I begin by describing how proactivity is conceptualized and define PAP. I then explore the emergence of proactivity from three distinct literatures. Next, I will examine how proactivity is measured and the relationship between PAP and the Five Factor Model. Finally, I develop a hypothesis about the relationship between



engagement and PAP. A graphical representation of the proposed relationships is included in Figure 1. In Chapter 3, I briefly review the history of work design research focusing on the motivational approach to work design. Next, I examine the role that individual differences play in work design research. Finally, I discuss how the diverse field of work characteristics was integrated with the development of the Work Design Questionnaire (Morgeson & Humphrey, 2006). In Chapter 4, I review Tett and Burnett's (2003) model of trait activation. Then I develop hypotheses about how the trait activating dimension of the WDQ will interact with the relationship between PAP and engagement. Chapter 5 describes the research design, and study participants. Chapter 6 reviews the analytic procedures and study results. Finally, in Chapter 7, I review the results from the study. Additionally, I examine the theoretical and practical implications of the study, discuss the study limitations and the future directions.

*Chapter 2: Proactive Personality and the Workplace*

The purpose of this chapter is to describe PAP and its relationship to engagement. I will begin by discussing the origins and development of proactivity that emerged from a separate literature. I will then examine the relationship between PAP and the Five Factor Model (FFM). Finally, I will describe the relationship between PAP and engagement.

*Conceptualizing Proactivity*

Research of proactive traits and behaviors reflects the role of agency in human behavior (e.g., Bateman & Crant, 1993; Grant & Ashford, 2008). Instead of viewing employees as merely reacting to the reinforcement contingencies or environmental stimuli under the control of the organizations, employees are believed to be able to purposefully work to shape, influence, and change their environment to create favorable conditions (Crant, 2000). While there is general agreement on the emphasis of active rather than passive behavior, the examination of proactive workers emerged in three largely separate literatures (i.e., social processes, work structures, and development and change processes; Grant & Ashford, 2008), resulting in disparate ways of conceptualizing and measuring proactivity. To develop a more integrative understanding of proactivity research I will first define PAP then briefly describe the three literatures in which proactive research evolved using the rubric developed by Grant and Ashford (2008). Finally, I will describe the methods which are used to measure proactivity and the relationship between PAP and the Five Factor Model.

### *Proactive Personality Defined*

PAP is defined as an individual's tendency to intentionally and directly affect change in their environment (Bateman & Crant, 1993; Crant, 2000). Proactive individuals will take the initiative to improve current circumstances, rather than adapt to them. Furthermore, proactive individuals are capable of identifying opportunities for change and growth, acting on those opportunities, and persisting in their efforts until change has occurred. The literature that has evolved from PAP has shown that it is related to a wide range of proactive behaviors and cognitions (e.g., Seibert, Crant, & Kraimer, 1999). Additionally, a recent meta-analysis by Fuller and Marler (2009) showed that PAP is positively related to a number of outcomes such as career success, job performance, engagement, and job satisfaction. In the following paragraphs I will describe the three literatures – social processes, work structures, and development and change process – in which the study of proactivity and PAP evolved.

### *Social Processes*

Researchers on social processes examine how proactive employees actively seek out and develop interpersonal relationships. According to Grant and Ashford (2008) there are six social processes that proactivity researchers have examined: (1) influence, (2) socialization, (3) feedback, (4) citizenship behaviors, (5) stress, and (6) social networks. In the influence literature researchers have examined the tactics that proactive people employ to influence others (Kipnis, Schmidt, & Wilkinson, 1980; Williams, Gray, & von Broembsen, 1976). Studies of proactivity and newcomer socialization (e.g.,

Ashford & Black, 1996) have shown that proactive individuals are more likely to seek out information pertinent not only to tasks, but to organizational norms and politics, and newcomer job performance was positively affected by this information seeking. Additionally, proactive individuals have been shown to engage in higher levels of feedback seeking (Ashford & Tsui, 1991). Proactive individuals are constantly trying to identify and take advantage of opportunities for growth and change, and seeking feedback is a critical element of this process. As proactive individuals are provided with the feedback they seek, their performance improves. In the citizenship behavior literature researches have focused on the active discretionary contributions made by employees such as offering help (Rioux & Penner, 2001), taking charge (MacAllister, et al., 2007), and intentionally breaking rules (Morrison, 2006). People high in PAP may benefit from the way that they direct their energies to cope with occupational stressors (Aryee, Tan, & Srinivas, 2005). Proactive individuals direct their energies to identify opportunities for change and act to change the environment to make it more suitable for them (Crant, 2000). Therefore, when proactive people have decision latitude they will utilize it to reduce the impact of stressors. For example, Bateman and Crant (1993) suggested that proactive individuals utilize problem focused coping strategies to enact behaviors that will directly reduce stressors. In contrast, less proactive people are likely passive and endure job demands without capitalizing on their ability to change the situation, leading them to experience higher levels of stress (Parker & Sprigg, 1999). In the social networking literature, researchers focused on how proactive people work to actively identify networking opportunities and marshal the resources needed to maintain social

networks (Morrison, 1993a, 1993b, 2002; Ostroff & Kozlowski, 1992). As a whole, these lines of research emphasize the active role that proactive people take to shape their social interactions and interpersonal relationships.

### *Work Structures*

In the literature on work structures, proactivity researchers have tended to take either a job design (e.g., Hackman & Oldham, 1975) or job crafting (e.g., Wrzesniewski & Dutton, 2001) approach. The job design perspective has historically been the dominant method for assessing how workers experience their jobs. According to this theory, workers derive job motivation and satisfaction from the characteristics of the job (i.e., skill variety, task significance, task identity, autonomy, and feedback; Hackman & Oldham, 1980). In this model it is the role of the managers or organization to design or craft the job by changing features of the job. The employee, in contrast, is viewed as a passive recipient that acts in response to the static job characteristics developed by the organization (Wrzesniewski & Dutton, 2001).

Proactivity researchers utilizing the job design approach have focused on how PAP as an individual difference moderates the motivational potential of job characteristics (e.g., Chung-Yan & Butler, 2011; Fuller, Hester, & Cox, 2010). Researchers using the job crafting approach examine the active role that employees take to shape, mold, and alter their jobs (Grant & Ashford, 2008; Grant, Fried, & Juillerat, 2011). Instead of focusing on how job design elicits motivation and satisfaction, job crafting examines the opportunities and individual motivations to alter the job

characteristics to make them more satisfying (Wrzesniewski & Dutton, 2001).

Proactivity can be viewed as one of the individual motivations that will propel employees to actively engage in job crafting. For example, a proactive employee might engage in career management activities to gain higher autonomy by changing the scope of their job or actively seeking to move to a business division which provides them with the autonomy they are looking for. In sum, while the job design approach emphasizes that workers passively react to the work structures developed by the organization or organizational leaders, the job crafting approach focuses on the active role that employees use to influence work structures.

#### *Development and Change Processes*

In the literature on development and change processes, researchers focused on how employees actively shape their career trajectories, developmental opportunities, and organizational change. The way that proactive individuals approach their job and careers helps them to identify and act on job opportunities, such as training. Rather than abiding by the status quo as less proactive individuals would do, proactive individuals engage in behaviors that will help them gain the skills and support needed for obtaining promotions, overcoming obstacles in their careers, and performing better on the job (Crant, 2000). For example, proactive people are more likely to seek out information, build relationships with organizational insiders, and engage in career planning (Ashford & Black, 1996). In the face of organizational change proactive individuals are more likely to direct their energies to act to make the changes in the environment more suitable to them through proactive behaviors such as issue selling (Dutton & Ashford, 1993; Dutton, Ashford,

Lawrence, & Miner-Rubino, 2002; Dutton, Ashford, O'Neill, & Lawrence, 2001). These behaviors likely lead to the direct positive relationships that have been found in previous research such as a positive relationship between PAP and promotions (Seibert, Kraimer, & Crant, 2001), salary (Seibert, Kraimer, Crant, 1999; Seibert et al., 2001), perceived career success (Eby, Butts, & Lockwood, 2003), and career satisfaction (Seibert et al., 1999).

### *Measurement of Proactivity*

With the conceptualization of proactivity developing largely in three separate literatures (social processes, work structures, and development and change processes), several methods for assessing and measuring proactivity were developed. To further an understanding of how proactivity is measured in this study (as PAP) I will briefly discuss measures of proactivity as a state or trait then compare PAP to the FFM.

### *Trait versus State Proactivity*

Proactivity has been conceptualized as both trait (i.e., PAP) and state (i.e., proactive behavior). Conceptualizations of proactivity as a trait view proactivity as dispositional and typically focus on research questions that involve the extent to which proactivity affects a given outcome (e.g., Bateman & Crant, 1993; Crant, 1995). Conceptualizations of proactivity as a state view proactivity as variable within a given context and typically focus on research questions aimed at identifying the situational characteristics that inhibit or promote proactive behaviors (e.g., Morrison & Phelps, 1999). These two conceptualizations are certainly not mutually exclusive. Instead, the

distinction between the two conceptualizations is centered on measurement.

Measurement of proactivity as a trait has primarily relied on the Proactive Personality Scale (PPS; Bateman & Crant, 1993) or the Personal Initiative scale developed by Frese, Fay, Hilburger, Leng, and Tag (1997). Measurement of proactivity as a state, on the other hand, is much more diverse. For example, in his seminal review of the proactive literature, Crant (2000) identified three general proactive behaviors and six context specific proactive behaviors. Clearly the most appropriate method to decide whether to assess proactivity as a state or trait in any specific study is to determine which the most appropriate is given the context of the study and the study hypotheses.

In this study, I have chosen to operationalize proactivity as PAP for two primary reasons. First, I am interested in how proactivity interacts with job design characteristics to influence engagement and job satisfaction, rather than examining the motivating potential of job design characteristics to promote or inhibit proactive behaviors. While both processes have merit, the design of this study and the gaps in the literature suggest that proactivity should be measured as a trait in this study. Second, while these are two primary methods for evaluating proactivity as a trait (PAP and personal initiative), Fay and Frese (2001) found a disattenuated correlation of .96 between the PAP and personal initiative scale, suggesting that these measures are essentially identical. Since the bulk of the literature that has examined proactivity as a trait uses the PAP scale, which has been shown to be psychometrically sound, I have chosen to utilize this scale.



*Proactive Personality and the Five Factor Model*

In addition to the state versus trait discussion, another important issue to discuss with regard to PAP is its relationship to the Five Factor Model. The Five Factor Model of personality holds that humans vary along five central dimensions of personality consisting of conscientiousness, neuroticism, extraversion, openness to experience, and agreeableness (McRae & John, 1992). These five factors have been shown to be generalizable across languages and cultures (e.g., Digman, 1990), and have supporting evidence for construct validity (e.g., Goldberg, 1999) and criterion-related validity (e.g., Barrick & Mount, 1991). While the FFM is typically conceptualized as encompassing the key factors of personality, several researchers have noted that it does not contain all aspects of human personality (Ashton et al., 2004; Briggs, 1989; Hough, 1992). The need to examine areas of personality not directly covered by the FFM has given rise to what Hough and Oswald (2000) called “compound traits”. Compound personality traits are a collection of basic personality traits that researchers have constructed to predict a specific criterion, which tends to be correlated with one or more dimension of the FFM. According to Hough (2003), PAP is likely a compound trait. Supporting this assertion, a meta-analysis by Thomas, Whitman, and Viswesvaran (2010) found significant correlations between PAP and conscientiousness ( $p = .39$ ), emotional stability ( $p = .31$ ), extraversion ( $p = .42$ ), and openness ( $p = .38$ ). However, they did not find evidence for a generalizable relationship between agreeableness and PAP. While there is a correlation between PAP and the FFM, at least two studies have demonstrated that PAP contributes incremental variance in outcomes beyond the variance accounted for by the FFM (Crant

1995; Major, Turner, & Fletcher, 2006). For example, Major et al. demonstrated that PAP contributed incremental variance to training activity even when the FFM traits were measured at the facet level. Taken together, although these findings show that while PAP shares moderate relationships with extraversion, conscientiousness, emotional stability, and openness to experience, it is clear that PAP is a distinct construct from these other traits.

### *Proactive Personality and Its Relation to Engagement*

Now that I have described how PAP is defined, the disparate literatures from which proactive research evolved, the ways proactivity is measured, and the relationship between PAP and the Five Factor Model, I will develop my hypothesis about the relationship between PAP and engagement. To do this I will first briefly review the academic literature that led to the development of an engagement measure by Schaufeli, Salanova, Gonzalez–Roma, and Bakker (2002). Next, I will describe the extant empirical research on engagement and PAP. Finally I will develop a hypothesis about the relationship between PAP and engagement.

### *History of Engagement*

Both practitioners and academic researchers have developed a keen interest in employee engagement, over the last five years (Crawford, et. al., 2010). Human resource companies offer advice on how it can be developed and utilized, and academic researchers are developing theoretical models as well as empirical research (Macey & Schneider, 2008). The interest in engagement is not surprising given its relationship with several organizational outcomes, leading to positive job attitudes (e.g., Harter, Schmidt,

& Hayes, 2002; Schaufeli, Taris, & van Rhenen, 2008), lower turnover (e.g., Bakker, Demerouti, & Schaufeli, 2005; Harter et al., 2002; Saks, 2006; Schaufeli & Bakker, 2004), and increased task performance and contextual behavior (Christian et. al., 2011). However, there are two primary streams of research that have evolved in the academic literature (Saks, 2006). In order to develop a fuller understanding of engagement I will review these two different but related streams of research that both consider work engagement as a positive, work-related state of well-being or fulfillment.

The first stream of research on engagement was conceptualized by Kahn (1990, p. 694) as the “... harnessing of organization member’s selves to their work roles: in engagement, people employ and express themselves physically, cognitively, emotionally and mentally during role performances”. From this definition it follows that there is a dynamic relationship between the work role allowing a person to express themselves and the person directing their personal energies (physical, cognitive, emotional, and mental) into the work role. Therefore, those who are engaged feel a connection to their work on multiple simultaneous dimensions. Kahn (1992) further defined the concept of engagement by differentiating it from psychological presence or the experience of “being fully there,” namely when “. . . people feel and are attentive, connected, integrated, and focused in their role performance” (p. 322). Or in other words, Kahn is suggesting that engagement is a behavior (the energy one puts into their work role) that results from the mental state, psychological presence. He further postulated that behavioral engagement results from psychological presence, due to a focused attentive experience which draws all of the skills, abilities, and personal resources one has to respond to the demands of a

work role. While Kahn did not operationalize engagement, Rothbard (2001, p. 684) built upon his work by defining engagement as self-reported attention (e.g., “I focus a great deal of attention on my work.”) and absorption (e.g., “When I am working, I often lose track of time.”).

In Kahn’s (1990) qualitative study he examined engagement and disengagement by interviewing summer camp counselors and organizational members. He found that when his participants were more engaged in work that they found the work more psychologically meaningful, psychologically safe, and psychologically available. In one of the few studies to empirically test Kahn’s (1990) model, May et al. (2004) found support for his model by showing that meaningfulness, safety, and availability were significantly related to engagement.

The second stream of engagement research was stimulated through the empirical examination of burnout. Maslach and Leiter (1997) argue that the characteristics of engagement are energy, involvement, and efficacy, which are the direct opposites of the three burnout dimensions of exhaustion, cynicism, and ineffectiveness. According to Maslach and Leiter (1997) engagement is the direct antithesis of burnout such that “Energy turns into exhaustion, involvement turns into cynicism, and efficacy turns into ineffectiveness” (p. 24). By implication, burnout and engagement are opposite poles that can be measured on the same scale.

However, after Maslach and Leiter (1997) proposed that engagement and burnout were two opposite poles of the same scale, parallel research on affect demonstrated that positive and negative affect are independent states rather than two poles of the same

bipolar dimension (e.g Diener, 1999; Russell & Carroll, 1999). This led researchers to propose engagement and burnout were independent states as well (Schaufeli & Bakker, 2004). This belief led Schaufeli, Salanova, Gonzalez–Roma, and Bakker (2002, p. 74) to define work engagement as a ‘positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption’. Rather than being focused on a specific object, event, or behavior, engagement refers to a persistent affective/cognitive motivational state. *Vigor* refers to high levels of energy while working, a willingness to invest effort, and persistence when experiencing adversity. *Dedication* refers to feelings of strong identification with one’s job which results in experiencing a sense of significance, enthusiasm, and challenge. The final dimension of engagement, *absorption*, refers to the level of engrossment or intensity of focus on role tasks. When workers are fully absorbed in their work it resembles flow, the “holistic sensation that people feel when they act with total involvement” (Csikszentmihalyi, 1975, p. 36). However, absorption and flow are distinct, in that flow typically is considered a complex short-term peak experience (Csikszentmihalyi, 1975), while absorption is a pervasive and persistent state of mind.

The research that followed the ensuing debate about whether burnout and engagement were two poles of a single scale or separate scales supported the notion that engagement and burnout are separate scales (Schaufeli et al., 2002; Schaufeli & Bakker, 2004). In the first major test of these this argument, Schaufeli et al. (2002) found support for the separate scale argument by doing confirmatory factor analysis on two samples (one student and one employee). They found that there were two latent factors in the

model: (1) the core of burnout (exhaustion and cynicism) and (2) all of the engagement scales plus efficacy. Additionally, they found that the factors are negatively related and share about 22% to 38% of their variance. From this and the studies that followed (e.g., Schaufeli & Bakker), the general consensus in the engagement literature is that engagement is a separate dimension from burnout.

When compared to Kahn's (1990, 1992) definition of engagement, Schaufeli et al.'s (2002) has been operationalized and validated to a much greater extent. While Kahn (1990, 1992) did develop a comprehensive theoretical model that established engagement in the academic field, he did not propose an operationalization of his construct. Due to the lack of operationalization and the paucity of research that has examined Kahn's model, I have chosen to utilize Schaufeli et al.'s (2002) model and approach to the measurement of engagement.

#### *Proactive Personality and Engagement Relationship*

In a recent review of the various definitions of engagement, Macey and Schneider (2008) proposed a framework to untangle the conceptual confusion surrounding employee engagement. In their framework they proposed dividing engagement into different types; two of those are *trait engagement* and *state engagement*. *Trait engagement* consists of a number of interrelated personality attributes (e.g., positive affectivity, conscientiousness, and PAP) that can be regarded as an inclination toward a positive approach to life that involves demonstrating effort and a willingness to initiate change to facilitate organizationally desired outcomes. *State engagement* is defined as feelings of energy, absorption, and identification towards work (very similar to the

Schaufeli et al., 2002 definition). In their model they suggest that trait engagement is significantly, directly related to state engagement. This suggests that PAP (trait engagement) is positively related to the Schaufeli et al. (2002) definition of engagement (state engagement).

Macey and Schneider's (2008) proposal that PAP is an important individual difference predictor of state engagement was empirically supported by Dikkers et al. (2009) and a recent meta-analysis by Christian et al. (2011). Dikkers et al. (2009) suggested that PAP may function as a personal resource for engagement through the general tendency of highly proactive people to create or influence their work environment to meet their needs. When proactive people are able to get their needs met in the workplace, they are more intrinsically motivated or engaged in their work. In a test of this proposition, Dikkers et al. (2009) found a significant positive association between PAP and facets of engagement (i.e., dedication and absorption). A recent meta-analysis on engagement by Christian et al. (2011) added further support to the positive relationship between PAP and engagement. They hypothesized that PAP would be related to engagement because proactive individuals demonstrate initiative and perseverance, which leads them to being more involved and immersed in their work and thereby increases their feelings of engagement. Although they only found six studies that examined PAP and engagement, they found a corrected mean correlation of .44.

When comparing the tendencies of people with proactive personalities with the facets of engagement (vigor, dedication, and absorption), the reason for the positive correlation is affirmed. First, as discussed earlier vigor is defined as having high levels

of energy while working, a willingness to invest effort, and persistence when experiencing adversity. When examining this definition, there are several overlapping behaviors that are part of the behavioral tendency of people with high levels of proactive personality. For example, proactive people take the initiative which suggests that they will put forth high levels of energy and are willing to invest effort. Additionally, since proactive people persist in their efforts until their desired change has occurred and will take steps to improve situations rather than adapt, it follows that they would persist in their efforts when experiencing adversity. Taken together the overlap in the behavioral tendencies of proactive people and the definition of vigor suggests that proactive individuals will be more likely to be vigorously engaged in their work.

Second, it is likely that proactive people will have a strong identification in their job, which will lead them to be dedicated as defined as a facet of work engagement. Previously, I defined dedication as referring to feelings of strong identification with one's job which results in experiencing a sense of significance or enthusiasm. There are at least three primary ways that proactive personality is likely to increase feelings of dedication: social processes, job crafting, and coping styles. Through the social processes that proactive people use they are able to identify and act on opportunities for change as well as develop and maintain social networks (Morrison, 1993a, 1993b). When a worker is able to and motivated to change and develop to fit their environment and have stronger social relationships at a job, they are likely to have stronger dedication and identification with their job (Brown, 1996). Instead of passively reacting to work structures it is likely that proactive people engage in job crafting and take an active role to influence how their



work is designed (Grant & Ashford, 2008). By actively engaging in job crafting likely leads to a broader ownership of work problems and a stronger identification with ones work (Grant, Fried, & Juillerat, 2011). It then follows that when proactive workers that engage in job crafting to make job characteristic that fit their needs, they will be more satisfied and dedicated to their work. The last way that proactive workers likely experience higher levels of dedication is through the coping styles that they use. Proactive people typically are thought to utilize problem focused coping to change the situation to make it less stressful (Bateman & Crant, 1993). It is likely that by actively altering the environment to make it less stressful proactive workers will be have more enthusiasm for their work and thus higher feelings of dedication.

Third, the active approach that proactive workers take towards their work likely make them more absorbed in their jobs. Previously, I defined absorption as the level of engrossment or intensity of focus on role tasks. Proactive workers likely feel more absorbed in their work compared to passive workers due to their willingness to craft the job to suit their needs, their ability to cope with stress, and their ability to identify and act on job opportunities such as training. By crafting the job to suit their needs proactive workers will likely feel more absorbed in jobs that do not derail them when problems occur. Since proactive people take the initiative to improve circumstances rather than merely adapt, and because they have a tendency to affect change in their environment (Crant, 2000), it is likely that they will use their initiative to create a work environment that suits their needs. When work environments are tailored to meet the needs of the worker, it is likely that they will be less distracted and able to be more absorbed in their

work. The tendency for proactive workers to use problem solving likely increases their willingness to meet job demands which in turn leads workers to feel more absorbed in their work as well as more engaged (Bakker & Demerouti, 2007). The final method that I have identified for PAP to be positively related to absorption is the willingness of proactive workers to identify and act on job opportunities. Proactive people actively engage in career building activities that provide them with skills needed to meet the demands of the workplace and perform better on the job (Crant, 2000). These skills help proactive workers be more engrossed in their work because they will have the knowledge, skills and abilities necessary to do the tasks.

Taken together, both the theoretical and research finding suggest that there is a positive relationship between proactively and engagement. In an examination of engagement constructs Macey and Schneider (2008) proposed that PAP would predict state engagement. In the recent meta-analysis, Christian et al. (2011) found a corrected mean correlation of .44 between PAP and engagement. Additionally, when examined at the facet level of engagement (vigor, dedication, and absorption) there is both empirical and theoretical support as well. These findings lead me to hypothesize the following:

Hypothesis 1: There will be a positive relationship between PAP and engagement.

However, following TAT (Tett & Burnett, 2003), the relationship between PAP and engagement may differ depending on the extent to which the trait is relevant to the situation or context. For example, certain features of the service industry such as

identifying opportunities to make a sale are likely to “activate” the PAP trait and make the impact of PAP more pronounced than in other industries (McCune et al., 2009).

Additionally, in their meta-analysis on engagement, Christian et al. (2011) called for further examination of the moderating effect of work design characteristics on the PAP and engagement relation. Therefore, in the next few chapters I will examine the PAP and engagement relation with consideration of the context, taking into account the role of job characteristics (e.g., Hackman & Oldham, 1975; Humphrey, Nahrgang & Morgeson, 2007; Morgeson & Humphrey, 2006).

### *Chapter 3: Work Design*

Having described the relationship between PAP and engagement, I will now describe how work design characteristics may moderate the relationship between PAP and engagement. In this chapter, I will first briefly review the history of work design research, focusing on the motivational approach to work design as this is the primary method used to explain the relationship between PAP, work design characteristics and outcomes. Next, I will describe the role that individual differences play in job characteristics model. Then, I will discuss how the disparate field of work characteristics has been integrated, resulting in the development of the Work Design Questionnaire (Morgeson & Humphrey, 2006). Finally, I will argue that five specific work design characteristics (autonomy, feedback from job, problem solving, social support, and feedback from others) moderate the relationship between PAP and engagement.

#### *Motivational Approach to Work Design*

Partly in reaction to the negative outcomes associated with specialization and division of labor, researchers began to focus on the motivating features of work (Hackman & Lawler, 1971; Hackman & Oldham, 1975; Herzberg, Mausner & Snyderman, 1959; Turner & Lawrence, 1965). Motivational approaches to work design acknowledged that workers have higher-order needs and focused on the work characteristics that increased satisfaction and met those needs (Morgeson & Campion, 2003). In this section I will first review Hackman and Oldham's *job characteristic theory*, since it the dominant model of work design. Additionally, I will review the job demands theory, as many of the recent advancements of Hackman and Oldham's theory

have been forwarded by job demand authors (e.g., Crawford et al., 2010; Salanova & Schaufeli, 2008).

*Job characteristics theory.* Hackman and Oldham (1975, 1976) extended and synthesized previous research on work design to develop the Job Characteristics Model (JCM). The JCM suggests that five “core” characteristics of jobs that enhance critical psychological states, resulting in desired work outcomes. The five core job characteristics are *skill variety* (the extent to which the job requires a wide variety of skill and ability use); *task identity* (the extent to which the job requires completing a whole task from beginning to end which is identifiable and engenders feelings of responsibility); *task significance* (the extent to which the job has an impact on others’ lives), *autonomy* (the extent to which the job provides freedom, independence, and discretion to determine the procedures used and the schedule in which the work is done); and *feedback from the job* (the extent to which the job itself provides workers with clear knowledge about the results of the job incumbents performance).

Hackman and Oldham (1976) suggested that these five work characteristics would impact behavioral (performance and turnover) and attitudinal (job satisfaction and internal work motivation) outcomes through three critical motivational states:

*experienced meaningfulness* (the extent to which an employee experiences the a job is valuable, meaningful, and important), experienced *responsibility* (the extent to which a worker feels responsible and accountable for the work they produce), and *knowledge of results* (the extent to which a worker has continual knowledge of his or her performance).

While Hackman and Oldham (1975, 1976) originally proposed that these three critical

psychological states were independent mediators that must all be present for desired work outcomes to be produced, more recent research has suggested that experienced meaningfulness was the best mediator between the motivational characteristics and work outcomes (Johns, Xie, & Fang, 1992). This proposition was further supported by Humphrey et al. (2007) in the first meta-analytic test of the mediational role of psychological states between job characteristics and job outcomes. In this meta-analysis, Humphrey et al. found results consistent with Johns et al. (1992), specifically, that experienced meaningfulness captures most of the mediational effects of the task characteristics and outcome relationship. These findings are consistent with research in other areas which has concluded an important primary motivating goal human beings pursue is meaning in their life (Ryan & Deci, 2001). Scholars have found that promoting intrinsic motivation helps promote meaning (Deci & Ryan, 2000) and that experienced meaning mediates the relationship between life events and positive outcomes (Fredrickson, 2003). It therefore follows that the five job characteristics put forth by Hackman and Oldham should be expected to impact experienced meaningfulness.

*Job demands models.* In recent years, researchers using the job demands-resources model have begun to propose that work engagement is an additional psychological state (e.g., Crawford, LePine, & Rich, 2010; Nahrgang, Morgeson, & Hofmann, 2010; Salanova & Schaufeli, 2008). The job demands-resources (JD-R) model is an extension of Karasek's (1979) demand-control model (DCM) (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Karasek aimed to determine how the negative effects of job demands (i.e., stress, burnout, and illness)

could be diminished. By utilizing a job characteristics approach, Karasek proposed that workers would feel psychological strain when they experienced high demand (work load) with low control (autonomy). Later social support was added to the model upon finding evidence that social support also helped to ameliorate the negative effects of job demands (Karasek & Theorell, 1990). However, the buffering of job control and social support (in which job demands do not cause strain as long as job control and or social support are high) has been largely inconclusive or mixed (Halbesleben & Buckley, 2004; Marshall, Barnett, & Sayer, 1997; Van Yperen & Snijders, 2000; van der Doef & Maes, 1999; Wall, Jackson, Mullarkey & Parker, 1996).

In response to these mixed results, scholars developed a new model which they called the JD-R model (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). The primary assumption behind the JD-R model is that every occupation may have its own specific factors that are associated with stress that can be classified as either job demands or job resources (Bakker & Demerouti, 2007). Job demands refer to the aspects of the job that require sustained effort and are thereby associated with negative psychological impacts (i.e., exhaustion). Examples of job demands include physical demands, time pressure, and workload. Job resources refer to the aspects of the job that help employees achieve work goals, and reduce job demand and the associated psychological costs. Examples of job resources include many of the job characteristics put forth by Hackman and Oldham, such as autonomy, feedback, and task variety. By defining job demands and job resources in a broad way that is specific to each job, JD-R theorists hoped to answer many of the weaknesses in the DCM and the

demand control support model. Namely, these models only focused on specific resources (autonomy) and specific demands (work load), when the reality of working organizations is that there is a diverse array of possible resources and demands. Additionally, JD-R researchers believed that it is unclear why autonomy is the most important resource across all jobs and why work load is the most important demand (Bakker & Demerouti, 2007). JD-R researchers answered these weaknesses by developing an overarching model that first examines the specific organizational setting, and then classifies relevant factors as a job demand or resource thereby accounting for a wider range of work characteristics and helping to ensure that the demand and resources selected are relevant to the organizational context.

Similar to how job characteristics theory hypothesizes that job characteristics have motivational potential that impacts outcomes via psychological states, job demands-resources researchers postulate that the intrinsic motivating potential of job resources will impact outcomes through engagement (e.g., Crawford et al., 2010; Salanova & Schaufeli, 2008). When employees have sufficient resources, they experience meaning when meeting demands and utilize problem-focused coping which increases their willingness to invest energy to meet job demands. This results in feelings of engagement and thereby positive outcomes (i.e., positive job attitudes, lowered turnover, and increased performance; Bakker & Demerouti, 2007). This supposition has been supported by several empirical tests (e.g., Hakanen, Bakker, & Schaufeli, 2006; Bakker, Demerouti, & Verbeke, 2004). For example, Bakker et al. (2004) found that the relationship between job resources (autonomy and social support) and extra-role performance was mediated



through engagement. These findings suggest that engagement can be used as a psychological state for job design researchers utilizing other models to examine the relationship between job characteristics and outcomes.

#### *Individual Differences in the Effectiveness of Job Design*

In the work design literature it has often been noted that an individual difference moderator of the work design outcome relationship will increase the precision and effectiveness of work redesign by taking into account the people who do the work. One of the first individual differences proposed as a moderator was growth need strength (GNS). GNS reflects the extent to which the worker desires stimulating or challenging work (Hackman & Oldham, 1975). Hackman and Oldham hypothesized that people with high GNS would find enriched jobs more motivating and satisfying, resulting in a stronger relationship between motivating job designs and job satisfaction. Unfortunately, the research on GNS has been plagued by inconsistent findings. While the meta-analyses by Fried and Ferris (1987) and Loher et al. (1985) initially found support for this relationship, it was later realized that the results were largely the result of methodological artifacts (Morgeson & Campion, 2003). The research that followed continued to have mixed findings. For example, in a comprehensive test of GNS and context satisfaction Tieg, Tetrick and Fried (1992) found almost no support for a moderating effect. However, in the same year, Johns, Xie, and Fang (1992) tested if GNS moderated the relationship between psychological states and outcomes or between job characteristics and psychological states and found that it was only a significant moderator between psychological states and outcomes.

These inconsistent findings led Parker, Wall, and Cordery (2001) to suggest that more individual differences, such as PAP, should be considered in work design research. People who are high in PAP have a greater sense of their work self, which results in them assuming a responsibility for constructive change with a willingness to persevere until they have brought about that change (Seibert, Crant, & Kraimer, 1999). In contrast, people who are not proactive tend not to identify themselves with their work, leading them to be reactive and passive in their work environment (Crant, 2000). In their review of work design research, Oldham and Hackman (1980) stated that researchers should consider other individual differences based on the extent to which the individual difference impacted the motivational readiness for workers to perform enriched jobs. Since people with high PAP identify with their job and actively work to bring about constructive change, PAP fits the criteria put forth by Oldham and Hackman (1980).

Beyond functioning from a theoretical perspective, several empirical studies have supported the notion that PAP moderates the relationship between job characteristics and outcomes (Chung-Yan & Butler, 2011; Dikkers et al 2009; Fuller, Marler & Hester, 2006; Fuller, Hester, & Cox, 2011; Parker & Sprigg, 1998). For example, in a test of Karasek's (1979) DCM of stress, Parker and Sprigg (1999) used a sample of 268 production employees to examine if PAP moderates the relationship between job demands and job control when predicting strain (a three-way interaction). They found that for proactive employees Karasek's DCM was supported, such that when job demands were high and control was high, there was an almost negligible association between job demands and stress, but high demands were associated with stress when

control was low. In contrast, for employees with low PAP, Karasek's DCM was not supported, since job demands were related to strain regardless of how much autonomy they had. In another study, Fuller et al. (2006) showed that the relationship between access to resources and strategy-related information on felt responsibility for constructive change (a belief that one is personally responsible or obligated to bring about constructive change) depends on PAP. The results of this study showed that the relationship between access to resources and felt responsibility for constructive change was strongly positive for proactive persons, while for passive individuals there was no significant relationship. Similarly, the relationship between strategy-related information and felt responsibilities for constructive change was positive for proactive people and negative for passive individuals. These studies have led several work design researchers to cite PAP as a promising individual difference moderator of the job characteristic and outcome relationship (e.g., Morgeson & Humphrey, 2009; Vough & Parker, 2008).

#### *A Multi-Disciplinary Approach*

Since the conception of Hackman and Oldham's job characteristics theory, subsequent researchers have extended and developed diverse theories of work design. In large part this was in response to many of the concerns with the job characteristics model, which had become the dominant model of work design. For example, researchers had reservations about the model due to weak relationships between job characteristics and objective ratings of performance (Aldag, Barr, & Brief, 1981). Other researchers argued enriched jobs might not be preferred by employees unless there is a corresponding increase in compensation (Simonds & Orife, 1975), and recognition that the five job

characteristics in the job characteristics model contained only a subset of job characteristics, which left out other important aspects of work design such as social interaction (Zalesny & Ford, 1990).

Over time, these concerns led scholars to expand the basic model to an enhanced, interdisciplinary model of job design. In recognition that the extant research in I/O psychology primarily used a motivational approach, Campion (1988) classified job design characteristics into four strategies: motivational (e.g., job enrichment, enlargement, and characteristics of motivational jobs), biological (e.g., biomechanics, work psychology, anthropometry, and ergonomics), perceptual (e.g., human factors engineering, skilled performance, human information processing), and mechanistic (e.g., scientific management, time and motion study, and work simplification). With this approach, Campion not only identified the benefits of each strategy but also the cost or loss of benefit. For example, by utilizing a mechanistic model, typically efficiency is improved, training demands are decreased, and staffing is simplified, yet at the same time satisfaction and motivation are reduced. In contrast, if a motivational approach is utilized, work generally becomes more satisfying, but perhaps less efficient. These findings highlight one of the major limitations of only having five job characteristics which all come from the motivational approach to job design. By considering a wider range of work or job characteristics, it may be possible to eliminate or at least mitigate the trade-offs (e.g., Edwards, Scully, & Brtek, 2000).

Concerns over the limited focus on five motivational job characteristics in the Hackman and Oldham model (1976) and the related psychometric issues with it led

Morgeson and Humphrey (2006) to develop the Work Design Questionnaire (WDQ). The WDQ is a comprehensive integration of several diverse literatures of work design (e.g., Campion, 1988; Edwards, Scully, & Brtek, 1999; Goodman, 1986; Hackman & Lawler, 1971; Hackman & Oldham, 1975; Hackman & Oldham, 1980; Jackson, Wall, 1993; Karasek, 1979; Kiggundu, 1981; Martin, & Davids, 1993; Sims et al., 1976; Wall et al., 1995) with twenty-one distinct work characteristics within four broad categories (task, knowledge, social, and contextual). The process they used to find the job characteristics was to search PsychInfo, ABI-Inform, and O\*NET for work characteristic terms. They then reduced their findings down to 21 dimensions on the basis of perceived similarity. This process was done without reference to previous overarching models other than the four broad categories they were sorted into: task, knowledge, social, and contextual. The first two categories (task and knowledge) are subdimensions of the motivational approach to jobs. The central tenet of the motivational approach is that when there are high levels of these characteristics the job is more enriching. Task work characteristics are skill variety, task identity, task significance, work scheduling autonomy, decision making autonomy, work methods autonomy, and feedback from the job. Knowledge characteristics include job complexity, information processing, problem solving, skill variety, and specialization. The third category, social work characteristics, covers the broader social environment of the workplace. The work design characteristics included in social work characteristics are social support, interdependence-initiated, interdependence-received, interaction outside the organization, and feedback from others. Contextual characteristics are the fourth category that Morgeson and Humphrey (2006)

put forth. This category reflects the physical and environmental context in which work is performed. The work characteristics that Morgeson and Humphrey found were ergonomics, physical demands, work conditions, and equipment use.

By measuring such a broad range of distinct work characteristics, the selection of design and redesign choices are much greater than they were previously. This allows researchers or practitioners to determine what the best course is to increase desired outcomes. For example, a meta-analysis by Humphrey, Nahrgang, and Morgeson (2007) that used the dimensions of the WDQ found that social characteristics were strongly related to turnover ( $\Delta R^2 = .24$ ), while the set of motivational characteristics had almost no relationship ( $\Delta R^2 = .02$ ). This suggests that if one was interested in reducing turnover they should focus on the social characteristics which would have been missed if only the five work characteristics suggested by Hackman and Oldham (1976) had been used.

Moreover, researchers interested in the relationship between an individual difference and an outcome can select from the WDQ those work characteristics that are the most likely to be activated by a specific work characteristic (Tett & Burnett, 2003). It is possible that previous researchers who sought to find individual differences which would moderate the work characteristic-outcome relationship did not examine the relevance of that specific individual characteristic. Since it is probable that individual differences may moderate some work characteristics and not others, it is useful to review Tett and Burnett's (2003) model of trait activation to determine which specific dimensions of the work environment are likely candidates.

*Chapter 4: Trait-Activation Theory and Key Characteristics of Work Design for Proactive Personality*

In this section I will first review Tett and Burnett's (2003) model of trait activation. Then, using the model of trait activation, I will select the dimensions of the WDQ that are relevant to PAP. Next, I will examine frame of reference (FOR) as a possible explanation for differential effects of PAP. Finally, I will develop hypotheses on how the trait activating dimension of the WDQ will interact with the relationship between PAP and engagement.

*Trait-Activation Theory*

For the purposes of this study two elements of trait-activation theory (Tett & Burnett, 2003) are particularly relevant: *situational trait relevance* and the *intrinsic value of personality expression*. *Situational trait relevance* is the process by which situational demands activate relevant traits (Tett & Burnett, 2003). For example, jobs high in autonomy "activate" people with PAP. People with high PAP are capable of identifying opportunities for change and growth, acting on those opportunities, and persisting in their efforts until change has occurred. When the situation provides them with the decision latitude to express this tendency, they likely will develop methods to enhance performance that they would not have been able to explore if the situation did not allow them the autonomy to do so. In contrast, when people low in PAP are in situations with high autonomy, they will likely not seize upon the opportunities that autonomy provides them and are unlikely to identify more efficient methods for completing tasks. When autonomy is low there are few cues that proactive behaviors are accepted or desired, so it

is probable that proactive individuals will not thrive in this environment. Therefore, the relationship between situational trait relevance and a specific trait (e.g., PAP for this study) is an interaction, because whether or not an individual will exhibit their trait-related tendencies is dependent on the extent to which the situation is relevant to that trait.

Relevant to the discussion of situational trait relevance is how individuals feel when a trait is expressed or when the expression of the trait is thwarted. TAT holds that there is an intrinsic value of personality expression such that the expression of a trait leads to pleasure and satisfaction, while the inability to express that trait leads to anxiety, dissatisfaction, and displeasure (e.g., Allport, 1951; Tett & Burnett, 2003). Tett and Burnett (2003) argue that this motivational force of traits is a central assumption in several interpersonal approaches to personality (e.g., Leary, 1957) and circumplex models of personality (e.g., Plutchick & Conte, 1997). Therefore, it follows when a work design characteristic allows an individual to express their personality traits, he or she will be satisfied and more engaged in the work they perform. In contrast, when a work design characteristic does not allow an individual to express his or her personality trait they will feel less satisfied and less engaged, or at the very least the personality trait will likely not have an effect. For example, in a study which examined the moderating role of autonomy on the relationship between Big Five Personality dimensions and job performance, Barrick and Mount (1993) found that the validity of Conscientiousness and Extraversion was greater when autonomy was high compared to when autonomy was low. A likely explanation for these results is that when employees have discretion in



selecting appropriate work behaviors they will be more intrinsically motivated which will in turn lead to increases in performance.

Taken together, trait activation theory indicates that to determine which of the 21 dimensions of the WDQ are relevant moderators of the PAP and engagement relationship, both the situational trait relevance and intrinsic value of personality expression should be taken into account. Therefore, I reviewed the WDQ and selected the following work characteristics that met this criterion: autonomy, feedback from job, problem solving, social support, and feedback from others.

#### *FOR as a Possible Explanation for Differential Effects of PAP*

Following the JD-R model (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) many of the dimensions of the WDQ can be considered a job resource. As stated previously, job resources act to reduce job demands and their associated costs by supplying or helping employees with the resources needed to achieve their work goals. For the purposes of this study I have selected five WDQ dimensions (autonomy, feedback from job, problem solving, social support, and feedback from others) that can be considered job resources for proactive people. Although not often addressed, what can be considered a resource is likely highly dependent upon each individual's personality. For example, while autonomy is often cited as a job resource (e.g., Karasek, 1979), the relationship it has to performance has been shown to be altered based on how proactive a person is (Fuller et al., 2010). Fuller et al. (2010) found that there was a positive relationship between PAP and performance when autonomy was high and a negative relationship when PAP was low. Or to put it in terms of job resources, employees high in PAP likely found autonomy to be a resource and those low

in PAP likely found it to be a demand. Conversely, when autonomy was low this likely acted as a resource (role clarity) for employees low in PAP and a lack of a resource for those high in PAP. The WDQ dimensions that I have selected are ones that I expect will act as a resource for those high in PAP. This implies that the presence of these resources will likely strengthen positive relationships to engagement, while the absence of them will either reduce positive relationships or create a negative relationship to engagement.

One rationale as to why a work characteristic might be interpreted as a resource or a demand is that work characteristics may act as a frame of reference (FOR). According to Wright and Mischel (1987), how a personality trait is manifested is dependent on the situation or what they labeled as “conditional dispositions”. The theory of conditional dispositions suggests that while individuals may generally exhibit stable patterns of behaviors within similar situations, they may behave in a very different way in a different situation. For example, an individual may consistently be agreeable at home, but consistently not be agreeable at work. This theory has yielded several studies that have shown that providing a context-specific personality measure, or a FOR, is a stronger predictor of outcomes than asking individuals to describe how they typically feel or behave in general (e.g., Hunthausen, Truxillo, Bauer, & Hammer, 2003; Robie et al., 2000; Schmit, Ryan, Stierwalt, & Powell, 1995; Shaffer & Postlethwaite, 2012). In further support on the impact of FOR, a recent meta-analysis by Shaffer and Postlethwaite (2012) found that context specific measures had at least twice the validity of non-context specific measures for four of the Big Five traits (Emotional Stability, Extraversion, Agreeableness, and Openness to Experience). These findings may help

explain why the PAP-outcome relationship has been shown to vary depending on work characteristics (e.g., Fuller et al., 2006; Parker & Sprigg, 1999).

While it has been shown that the relationship between PAP and organizational desired outcomes is generally positive (Fuller & Marler, 2009; Thomas et al., 2010), contextual factors such as work characteristics may function as a FOR and alter how proactive people behave. For example, while proactive people's tendency to take the initiative to improve situations rather than adapt is generally positive across situations, when they have low autonomy it is likely not effective. In this situation they are not provided the decision latitude to act as they see fit and must follow the direction of their superiors. However, it is likely that their tendency to take initiative interferes with their ability to perform effectively under these conditions. The varying degree of effectiveness that a proactive person might have indicates that not only does it matter whether an item is specific to work in general; it must also specify the work characteristics.

It follows that the relationships in this study will also be dependent on the work characteristics. If a proactive person is likely to be more or less engaged it depends on whether or not the work characteristic is a demand or resource for them. Work characteristics provide the FOR which in turn determines how a proactive person will respond.

*Key Characteristics of Work Design for Proactive Personality*

*Autonomy.* Autonomy is “the freedom an individual has in carrying out work” (Humphrey et al., 2007, p. 1333). It has long been viewed as one the most crucial work characteristics in the motivational approach to job design and as such, is likely the most widely studied (Campion, 1988; Hackman & Oldham, 1976; Karasek, 1979). Meta-analytic results (Humphrey et al., 2007) have supported the interest in autonomy by showing that it is related to a broad range of outcomes ranging from behavioral outcomes (e.g., job performance, and absenteeism), well-being outcomes (e.g., stress and burnout), cognitive outcomes (e.g., role ambiguity and role conflict), and attitudinal outcomes (e.g., job satisfaction and internal work motivation).

While Hackman and Oldham (1975) conceptualized autonomy as a unitary construct defined as the amount of independence and freedom workers have to carry out their work, more recent research has posited that autonomy is a multi-faceted construct (Breugh, 1985; Jackson, Wall, Martin, & Davids, 1993; Morgeson & Humphrey, 2006). These researchers have defined autonomy as three interrelated aspects consisting of: (a) *work scheduling autonomy*, the extent to which workers control the timing of work; (b) *work methods autonomy*, the extent to which workers control how work is performed; and (c) *decision making autonomy*, the extent to which workers have the ability to make decisions at work. While meta-analytic research has shown that these dimensions are related to each other with intercorrelations ranging from .63 to .71 (Humphrey et al., 2007), it has also shown that they have differential predictive validity for specific outcomes. For example, job satisfaction is strongly related to decision making autonomy

( $\rho = .58$ ), has a moderate relation to work methods autonomy ( $\rho = .34$ ), and a relatively small relation to work schedule autonomy ( $\rho = .11$ ). While it is theoretically and empirically sound, researchers have concluded that future research will have to establish how these facets of autonomy interact to determine how they will influence work-related constructs (Morgeson & Humphrey, 2008). For example, in the development of the WDQ, Morgeson and Humphrey (2006) found intercorrelations between these dimensions ranging from .74 to .79. This makes it possible that for any individual study these dimensions may be better defined as a single, global construct rather than as three dimensions. Therefore, for the purposes of this study the dimensionality of this construct will need to be assessed. Additionally, since previous research has shown that the relationships are in the same direction, albeit of differential strength, I will postulate that three facets of autonomy will impact the relations in this study in generally the same manner.

TAT suggests that when autonomy is high there will be a positive relationship between PAP and engagement. For example, employees with high proactive personalities may be particularly able to capitalize on many of the benefits provided by autonomy such as the opportunity to acquire new skills and master new responsibilities (Parker, 1998), increase engagement in problem solving (Parker, Williams, & Turner, 2006), garner control derived from the ability to use individual discretion (Parker & Sprigg, 1999), and be more receptive to organizational changes (Cunningham, et al., 2002). These benefits derived from autonomy are similar in many respects to the behaviors ascribed to proactive people by PAP researchers, such as the capacity to

identify and act on opportunities for change and growth or a willingness to persist until desired changes have occurred (Crant, 2000). It follows that by providing proactive people the ability to use their own discretion, the organization is removing many of the organizational barriers that would impede proactive employees from acting out their organizationally desired proactive tendencies. For example, Parker and Sprigg (1999) found that autonomy only predicted higher levels of role-breadth self-efficacy (a state measurement of proactivity) for employees with proactive personalities. In contrast, it is likely that individuals with proactive personalities may find it difficult to perform many of their dispositional tendencies, such as implementing change in environments with low levels of autonomy. Following the intrinsic value of personality expression it is likely that proactive people will feel less engaged in jobs that thwart their ability to express their personality and feel more engaged in environments that provides them the autonomy to express their personality.

In contrast, there may be a negative relationship between PAP and engagement when autonomy is low. Jobs with high job autonomy provide ambiguous information with regard to how and when tasks should be performed. Passive people, who do not have the internal motivation to develop clarity around these issues, will likely feel increasingly stressed and disengaged in jobs that do not provide specific instruction about how and when to perform their job. In a recent study on the moderating effect of autonomy between PAP and job performance, Fuller et al. (2010) found that this may be the case. For participants in jobs with high autonomy there was a positive relationship between PAP and job performance. In contrast, when participants had low autonomy

there was a negative relationship between PAP and job performance. The authors of this study focused on the positive high autonomy relationship when describing the results of the study. However, following Campbell's (2000) suggestion that in stable or routine jobs proactive people may become frustrated, this leads me to believe that in jobs with low autonomy, passive employees may be more effective than proactive employees. Specifically, under conditions of high autonomy, there will be a positive relationship between PAP and engagement, while under conditions of low autonomy, this relationship will be negative. I have presented a graphical example of this disordinal interaction based on Hypothesis 2:

Hypothesis 2: Job autonomy (work scheduling autonomy, work methods autonomy, and decision making autonomy) will moderate the relationship between proactive personality and engagement, such that there will be a positive relationship when job autonomy is high and a negative relationship when job autonomy is low.

*Feedback from the Job.* Feedback from the job is “the extent to which a job imparts information about an individuals’ performance” (Humphrey et al., 2007, p. 1333). Rather than focusing on feedback from others, this work characteristic examines a worker’s ability to receive and accurate information that enhances knowledge of the results of the job (Hackman & Oldham, 1980). An example of feedback from the job would be an employee who monitors the organizations website using a daily count of hits to determine if the website is attracting customers or has become less popular. The feedback from the job that the employee receives can then be used to monitor the

performance of the website in relation to goals and thus this knowledge allows the employee to modify their behavior by adding features to the website that might attract more customers or making it more user friendly. Given the importance of feedback for employees to perform at optimal levels, it is not surprising that timely feedback has played a central role in several other motivational theories such as goal setting (Locke & Latham, 1990). The meta-analytic results of Humphrey et al. (2007) demonstrated the importance of feedback from the job by showing that it has a strong relationship with several work outcomes such as work motivation ( $\rho = .42$ ) and job satisfaction ( $\rho = .43$ ), role ambiguity ( $\rho = -.43$ ), role conflict ( $\rho = -.32$ ), and anxiety ( $\rho = -.32$ ).

I propose that feedback from the job will increase engagement more for proactive people than less proactive people. The rationale for this hypothesis is that more proactive people are more likely to actively monitor their environment and act on feedback that they have received (Ashford & Cummings, 1985). Since proactive people are more likely to capitalize on feedback to achieve their goals and reduce uncertainty, they are likely to be engaged in their work. Feelings of vigor will be increased due to an ability to persist when barriers occur due to the pre-set back-up plans. Increases in dedication will result from feeling a personal identification with a job that provides feedback and thus provides a sense of how significant that job is. Finally, the worker will likely feel more absorbed in a job that does not derail them when problems occur, since the feedback provided by the job will likely provide them with the information needed to solve problems when they arise. In contrast, passive workers may receive the feedback from the job but fail to act on the information or not take the initiative to develop feedback



systems. Because they are less likely to fully utilize the feedback they receive, they will not benefit as much from the feedback from the job, and thus are more likely to have lower level of engagement than a proactive person. This leads me to hypothesize that feedback from the job will increase the engagement more for proactive employees compared to less proactive employees.

Hypothesis 3: The relationship between proactive personality and engagement is moderated by feedback from the job, such that the positive relationship is strongest when feedback from the job is high.

*Problem Solving.* Problem solving reflects the active cognitive processing requirements of a job which require the development of unique ideas or solutions (Jackson, Wall, Martin, & Davids, 1993; Wall et al., 1995). Problem solving is conceptually related to creativity due to the focus of both of these concepts on idea generation, innovation, and correcting errors (Jackson, Wall, Martin, & Davids, 1993; Wall, Corbett, Clegg, Jackson, & Martin, 1990). In jobs with high problem solving requirements there are enhanced mental demands and an opportunity to develop or reinforce feelings of competence by performing challenging and or novel tasks (Deci & Ryan, 2000). While there has been limited empirical research on this work characteristic (Morgeson & Humphrey, 2008), researchers believe that it should be both satisfying and motivating for employees (Morgeson & Humphrey, 2006).

For decades, researchers (e.g., Gioia & Poole, 1984; Weick, 1979) have argued that there is a competition between developing relatively more risky creative ideas or

continuing with routine behaviors that are easier to enact and often successful enough in the past. Proactive people have a greater propensity to go beyond the routine to develop creative ideas and problem solve due to their tendency to identify opportunities for change and willingness to persist until the change has occurred (Crant, 2000). Following the intrinsic value of personality expression it is likely that proactive people will feel more engaged in jobs with high problem solving because it allows them to express their natural tendencies. Taken together, this suggests that when problem solving is high there is likely a positive relationship between PAP and engagement. In contrast, when problem solving is low, it is likely that there is a negative relationship between PAP and engagement due to proactive people's tendency to challenge the status quo and problem solve even when it is not desired by the organization. For example, in a qualitative study of two dozen organizations, Frohman (1997) found that proactive change agents, who worked to institutionalize change in the organization in response to perceived problems, were willing to question the status quo, even if it was not viewed as a positive behavior. Since the efforts of proactive people to effect change may not be received well by upper management, it is likely that when problem solving is low, there will be a negative relationship between PAP and engagement, due to not feeling appreciated for their efforts to effect change and problem solve. Thus, it is hypothesized that there will be a positive relationship between PAP and engagement when problem solving is high and a negative relationship when problem solving is low. This leads me to hypothesize the following which is represented in a graphical example in Figure 4:

Hypothesis 4: Problem solving will moderate the relationship between proactive personality and engagement, such that there will be a positive relationship when problem solving is high and a negative relationship when problem solving is low.

*Social Support.* Social support reflects the degree to which the job provides resources (e.g., advice and assistance) from coworkers and supervisors (Karasek, 1979; Karasek, Brisson, Kawakami, Houtman, Bongers, & Amick, 1998). As noted earlier, the idea that job resources such as social support would help buffer against the negative workplace demands was one of the key insights to emerge from the job demands theories (e.g., Karasek et al., 1998). Until recently, there was limited research regarding social support in the context of job design (Morgeson et al., 2006). However, research from the well-being literature suggests that social support is crucial for well-being, particularly in jobs that are high stress or those that lack motivational work characteristics. Not surprisingly, given the theoretical interest in social support, meta-analytic results (Humphrey et al., 2007) demonstrated that social support is related to several desirable work outcomes such as to organizational commitment ( $\rho = .77$ ), job satisfaction ( $\rho = .56$ ), turnover intentions ( $\rho = -.34$ ), role ambiguity ( $\rho = -.32$ ), and role conflict ( $\rho = -.31$ ).

Social support is more likely to increase engagement for more proactive people than for less proactive people. One of the methods that proactive individuals' likely use to effect change in their environment is by obtaining social support through networking (Thompson, 2005). According to social capital theory, networking breadth and quality will impact access to information, help increase coordination, and provide more influence to effect change in the organization (Adler & Kwon 2002; Brass, 2001; Hansen, 1999).

Proactive employees leverage these benefits by actively seeking out and developing relationships with people who have the ability to help them pursue initiatives beyond their ability to manage alone. In contrast, passive individuals may shy away from developing or utilizing social support in the workplace due to the potential costs associated with information seeking (Crant, 2000). For example, rather than ask for advice from a coworker, a passive worker might stay silent because they believe that they are “already supposed to know,” or because they do not want others to think that they are inept. Therefore, while social support is likely to increase the engagement of both proactive and passive individuals, proactive people will be more likely to fully utilize the potential benefits of social support.

Hypothesis 5: The relationship between proactive personality and engagement is moderated by social support, such that the positive relationship is strongest when social support is high.

*Feedback from Others.* Feedback from others reflects the extent to which members of the organization (i.e., coworkers & supervisors) provide information about job performance (Humphrey et al., 2007; Morgeson & Humphrey, 2006). While Hackman and Oldham (1980) dropped feedback from others to focus on feedback from the job (which was described previously), Morgeson and Humphrey (2006) reintroduced interpersonal feedback when they designed the WDQ and showed that, while moderately related, they were distinct work characteristics. Adding to the distinct contribution of these constructs, Humphrey et al. (2007) showed that feedback from others had a

moderate relationship with turnover intentions ( $\rho = -.34$ ) while feedback from the job had a small or no relationship ( $\rho = -.02$ ).

Receiving accurate and timely feedback from coworkers and supervisors plays an important role in reducing the inherent ambiguity that exists in the workplace by clarifying role ambiguities, providing alternate strategies to enhance workplace effectiveness, and engendering accurate knowledge about how others evaluate work performance (Ashford & Tsui, 1991). For example, the concept of bounded rationality suggests that due to the limited processing ability of individuals and the inability of both parties to discuss all available future contingencies, people develop behavior uncertainty and are likely to be unsure of exactly what to do or what action to take (Miller & Jablin, 1991). Receiving feedback from others acts to ameliorate the behavioral uncertainty by providing information about the individuals' role within the organization and clarity about the effectiveness of procedures utilized to complete assigned tasks. Due to the satisfaction derived from increased awareness of expectation role ambiguity should be reduced, work motivation will likely increase, and the employee will likely feel more satisfied with the job (Morgeson & Humphrey, 2009). A meta-analysis by Humphrey et al. (2007) confirmed the importance of feedback to others by demonstrating that it was associated with job satisfaction ( $\rho = .42$ ), work motivation ( $\rho = .35$ ), performance subjective ( $\rho = .28$ ), and had a stronger relationship with role ambiguity than any other work characteristic examined ( $\rho = -.54$ ).

It is likely that there is a positive relationship between PAP and engagement when feedback from others is high and a negative relationship when feedback from others is

low. While the interpersonal feedback literature has not been fully integrated with work design theory, the seminal theoretical review by Kluger and DeNisi (1996) serves as a starting point (Grant & Parker, 2009). Kluger and DeNisi (1996) found that while feedback interventions on average increased performance ( $d = .41$ ), in over 1/3 of the cases negative effects were produced. One of the processes that might increase positive responses to feedback was setting goals to reduce feedback-standard discrepancies (e.g., Locke & Latham, 1990). Proactive people are more likely to engage in the active process of setting goals in response to feedback from others than less proactive people, thus are more likely to have a positive response to feedback. The active approach that proactive individuals take in response to feedback from others includes a greater acceptance of negative feedback, self-setting goals that are actively redefined to adjust to the work situation, and protecting their goals against disturbances to help them overcome barriers that develop (Frese & Frey, 2001). In contrast, less proactive people will likely not actively seek out and accept negative feedback, will allow goals to be set by outside forces, and be less responsive to the feedback that they receive (Frese & Fray, 2001). It follows that when feedback from others is high, the active process used by proactive people will make them more engaged than passive people, thereby creating a positive relationship between PAP and engagement.

In contrast, when feedback from others is low there will likely be a negative relationship between PAP and engagement. When proactive people do not receive adequate feedback they may take the initiative to work on projects or tasks that are not productive or desired by the organization (Frese & Fray, 2001). This could lead to

wasting time and energy that could be utilized on more productive activities, leaving the proactive person to be less engaged in their work. Passive people, on the other hand, may do much better when there is low feedback from others. When feedback from others is low they will be less likely to waste resources working on tasks that others in the organization do not value. In this case the tendency of passive people to only react and not self-start will lead them to less frustration and higher engagement. This leads me to conclude that when feedback from others is low there will be a negative relationship between PAP and engagement. I have presented a graphical example of this disordinal interaction based on Hypothesis 6:

Hypothesis 6: Feedback from others will moderate the relationship between proactive personality and engagement, such that there will be a positive relationship when feedback from others is high and a negative relationship when feedback from others is low.

*Chapter 5: Method**Participants*

There were two methods for recruiting participants in this study. In the first method, participants were recruited directly by a Master's student interning at an employment agency in Northern Italy when the participant went in for routine paper work. If the respondent agreed to fill out the questionnaire, they did so in the presence of the researcher. It took approximately twenty to forty minutes to fill out the questionnaire. For the second method, participants were asked to participate through their employer. There were eight organizations that took part in data collection, all of which were located in North and Northwest Italy. Participants were informed in both cases that their participation in the study was completely voluntary. They were also informed that their responses would be kept confidential and not shared with others.

Three-hundred forty participants were invited to participate in this study. Of the 340 invited to participate, 258 usable questionnaires were filled out for a response rate of 76%. One-hundred fifty-two of the respondents were recruited through the employment agency, and 106 were recruited directly through their organization. Data were collected at two time points to reduce common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Time 1 and Time 2 (2-3 weeks later) surveys were matched via a code chosen by participants. Demographics, PAP, the Big Five, and the work design characteristics were collected at Time 1, and engagement was collected at Time 2. See Figure 2 for a graphical depiction of the data collection.



All of the measures were originally written and validated in English, except for the engagement scale which was psychometrically validated in Italian in a previous study (Balducci, Fraccaroli, & Schaufeli, 2010). All other scales were translated into Italian using standard back translation procedures (Brislin, 1993). The average age of respondents was 37.8 years, average organization tenure was 10.3 years, and the average of lifetime work experience was 16.4 years. There were 116 women (46%) and 137 men (54%) in the sample. The education level reported by respondents was 31 middle school certificate or less (12.1%), 40 secondary-level education (15.6%), 116 high school education (45.3%), and 69 university-level education (27%). The employment sector of respondents was 51 engineering (20.3%), 55 trade (21.9%), 19 textile (7.6%), 13 agriculture (5.2%), 5 handicraft (2.0%), 20 service (8.0%), and 88 other (35.1%). The job type of respondents was 52 labor (20.2%), 27 service workers (10.5%), 153 office clerical (59.3%), 15 middle manager (5.8%), and 11 top manager (4.3%). Two-hundred ten (81.4%) had previous work experience while 42 (16.7%) had no previous work experience. 80 (32.7%) worked less than 40 hours per week, 116 (47.3%) worked 40 hours per week, and 49 (20.0%) worked more than 40 hours per week.

*Power analysis.* I conducted a power analysis using G\*Power3 software (Faul, Erdfelder, Lang, & Buchner, 2007). The goal of this power analysis was to determine the sample size needed for a power of .80. The power analysis was conducted for multiple linear regression with an  $\alpha$  error probability of .05 and two predictors (i.e., PAP and a work design characteristic.) To determine the  $f^2$ , an effect size measure for multiple regression, I examined the literature to assess what the best estimate of this value would

be. Since there is a paucity of studies that examine work design characteristics as moderators of the relationship between PAP and engagement, I choose to use Fuller et al. (2010), as the study variables were the best approximation of those used in this study. Fuller et al. (2010) examined the moderating effect of autonomy on PAP and engagement and found a  $\Delta R^2$  of .04. I then transformed the  $\Delta R^2$  into  $f^2$  using the following formula ( $\Delta R^2 / 1 - \Delta R^2$ ) and obtained an  $f^2$  value of .042. According to the power analysis, 149 data points are necessary to detect a  $\Delta R^2$  of .04 with a power of .80. This indicates that since there were 258 participants in this study, there was enough power to detect the effects in the proposed hypotheses.

### *Measures*

*Confirmatory factor analysis.* I conducted a confirmatory factor analysis of each scale using M plus. Confirmatory factor analysis allows researchers to specify a particular model or competing model and examine how well data fit the expected factor structure. I used maximum likelihood estimation with the raw data as input.

To test the fit of these models I used chi-square as an index to measure the absolute model fit. Significant chi-square values indicate that the model was not a good match to the data. However, for large sample sizes the chi-square values can become inflated so that they are nearly always significant. To account for this I used root-mean-square error of approximation (RMSEA) and the comparative fit index (CFI) to compare the fit of the different models. Brown and Cudeck (1993) suggest that RMSEA values greater than .10 indicate a poor fit, values between .08 and .10 indicate mediocre fit, and

values less than .05 indicate good fit. Additionally, RMSEA reports a 90% confidence interval, which shows how precise the fit estimate is. CFI compares the fit of a given model to a baseline model. The closer to 1, the better the fit, and a value of .90 was used as an indicator of good fit (Bentler, 1990).

*Proactive personality.* PAP was assessed with Seibert et al.'s (1999) 10-item scale. An example item is "Wherever I have been, I have been a powerful force for change." The response scale use for PAP was a Likert-type scale of "1" to "7" where "1" represented "Strongly Disagree" and "7" represented "Strongly Agree." The Cronbach's alpha for the scale in this study was .84. In order to confirm the factor structure of the scale, a CFA was run with maximum likelihood estimation using Mplus 5.21 (Muthén & Muthén, 2002). However, the overall fit indices of the model were less than adequate (e.g., root mean square error of approximation; RMSEA > .10). Modification indexes revealed that the fit indices could be improved by correlating the residuals between item 7 (I excel at identifying opportunities) and item 10 (I can spot a good opportunity long before others can). Since both of the items targeted ability to identify opportunities I reran the CFA with the variances correlated. A comparison of the models with a chi-square difference test, I found a significant difference between the two models  $X^2_{diff} [1, N = 257] = 45.37, p < .05$  and demonstrated adequate fit statistics: Comparative fit index (CFI) = .91; Tucker-Lewis index (TLI) = .88; root-mean-square error of approximation (RMSEA) = .08; standardized root mean square residual (SRMR) = .06. The fit statistics of the measurement models corresponding to both models are shown in Table 1.

*Work engagement.* Work engagement was assessed with Balducci et al.'s (2010) 9-item scale), which was designed to measure three dimensions (vigor, dedication, and absorption). An example item is "I am excited about my work." The response scale used was a Likert-type scale of "0" to "6" where "0" represented "Never" and "6" represented "Daily." The Cronbach's alpha for the scale is .94. In order to examine the multidimensionality of the engagement scales I compared the fit of a one-factor model in which all of the items loaded onto a single scale to one in which engagement forms a second order factor with three-factors (vigor, dedication, and absorption).

Fit statistics for these models are shown in Table 1. The results in Table 1 indicate that while the three-factor model with a second order factor is significantly better than the one-factor model,  $\Delta X^2(3, N = 256) = 136.44, p < .05$ . However, the fit statistics for the three-factor model with a second order factor did not fit the data well, CFI = .89, TFI = .83, RMSEA = .14, SRMR = .07. Since this would be considered a poor fitting model (Hu & Bentler, 1999), the modification indexes were examined to improve model fit. The modification indexes indicated that engagement item number 5 that measured vigor ("When I get up in the morning I feel like going to work") would fit better on both the dedication and absorption factors. Since this suggests a complex item, an exploratory factor analysis was performed to assess if this had occurred. Promax rotation with principal axis factoring was used and with three factors specified. This analysis showed that the item did not load into the same factor as the other vigor items, but instead loaded with a factor loading greater than .30 with both the dedication and absorption items. Since this suggests that the item was complex, this item was dropped from further

analysis. Cronbach's alpha was then rerun to determine the internal validity of the revised engagement scale. Dropping the item changed the internal consistency of the scale from  $\alpha = .94$  to  $\alpha = .93$ . Next, I reran the three-factor model with a second order factor CFA with 8 items. The results of this analysis demonstrated good to adequate fit: Model  $X^2 (17, N = 256) = 57.68, p < .05$ ; CFI = .95; TLI = .92; RMSEA = .10; SRMR = .03.

#### *Factor Structure of the WDQ*

Similar to how Morgeson and Humphrey (2006) examined the dimensions of the WDQ, I compared the WDQ items in five ways. First, I examined a 3-factor model that examines the three broad categories of work characteristics (task characteristics, knowledge characteristics, and social characteristics). Next, I examined a 5-factor model with *a priori* specified dimensions of work (autonomy, feedback from job, problem solving, social support, and feedback from others). Reviewing the items for social support from Morgeson and Humphrey (2006) revealed that the items came from two different sources. The first three items were from Sims et al. (1976) and focus on friendship opportunities in the workplace, which was defined as “The degree to which a job allows employees to talk with one another on the job and to establish informal relationships with other employees at work”. The last 3 items from Morgeson and Humphrey’s social support scale were derived from a Karasek et al. (1998) article which described the development of the job content questionnaire. The focus of these items was on the socioemotional, instrumental, and hostile nature of social relationships.

Therefore, I examined a 6-factor model which separated social support into three items

tapping social support opportunity and three items tapping social support quality. Then I examined a 7-factor model which separates autonomy into its three components (autonomy in work scheduling, decision making, and work methods). Finally, an 8-factor which separates both social support and autonomy into the identified components were examined.

The results of the CFAs are presented in Table 2. First, the three-factor model showed poor fit, as all of the statistics were below acceptable levels: CFI = .64, TLI = .60, RMSEA = .14, SRMR = .14. Second, the five-factor model showed improved levels of fit statistics (CFI = .84, TLI = .82, RMSEA = .09, SRMR = .08) and was significantly better than the three factor model,  $\Delta X^2(7, N = 257) = 727.71, p < .05$ . Third, I tested the six-factor model, which separated social support into two factors. The results of this analysis show that fit significantly increased,  $\Delta X^2(5, N = 257) = 144.20, p < .05$ , (CFI = .88, TLI = .86, RMSEA = .08, SRMR = .05). Fourth, I tested the seven-factor model, which separated autonomy into three factors. The model was significantly better than the five-factor model,  $\Delta X^2(11, N = 257) = 316.82, p < .05$ , (CFI = .93, TLI = .92, RMSEA = .06, SRMR = .08) and significantly better than the six-factor model  $\Delta X^2(6, N = 257) = 172.62, p < .05$ . Finally, I tested the eight-factor model, which was the best model overall regarding all of the fit statistics considered in this study (CFI = .97, TLI = .96, RMSEA = .04, SRMR = .04). In addition, this model was significantly better than the five-factor model ( $\Delta X^2(18, N = 257) = 464.19, p < .05$ ), six-factor model ( $\Delta X^2(11, N = 257) = 316.82, p < .05$ ), and seven factor model ( $\Delta X^2(7, N = 257) = 147.37, p < .05$ ). Thus, the eight-factor model, which separates social support into two factors and autonomy into

three factors, fit the data best. Therefore, I averaged items into these scales for all subsequent analyses. All measures of work design characteristics were measured using Morgeson and Humphrey's (2006) work design questionnaire.

*Autonomy.* This scale has three dimensions: (a) work scheduling, (b) decision making, and (c) work methods. Each of the three types of autonomy were addressed using 3 items. An example of work scheduling autonomy is "The job allows me to make my own decisions about how to schedule my work." An example of decision-making autonomy is "The job allows me to make a lot of decisions on my own." An example of work methods autonomy is "The job allows me to decide on my own how to go about doing my work." Each of the autonomy response scales used a Likert-type scale of "1" to "5" where "1" represented "Strongly Disagree" and "5" represented "Strongly Agree." The Cronbach's alpha for these scales are .91 (work scheduling autonomy), .93 (decision making autonomy), and .92 (work methods autonomy).

*Feedback from the job.* Feedback from job was measured with a 3-item scale. An example item is "The work activities themselves provide direct and clear information about the effectiveness (e.g., quality and quantity) of my job performance." Cronbach's alpha for the scale is .92.

*Problem solving.* Problem solving was measured with a 4-item scale. An example item is "The job involves solving problems that have no obvious correct answer." Cronbach's alpha for the scale is .66. For problem solving, alpha for the item deleted showed that Cronbach's alpha would not be improved if any items were deleted.

*Social support.* Problem solving was measured with a 6-item scale. The items for this scale may be divided into two separate factors of social support (social support opportunity & social support quality). An example of each possible subscale is “I have the opportunity to develop close friendships in my job.” (opportunity) and “My supervisor is concerned about the welfare of the people that work for him/her.” (quality). The Cronbach’s alpha for these scales are .87 (opportunity) and .72 (quality).

*Feedback from others.* Feedback from others was measured with a 3-item scale. An example item is “I receive feedback on my performance from other people in my organization (such as my manager or coworkers).” Cronbach’s alpha for the scale is .92.

*Possible control variables.* Because the data were collected through two different methods, I created a variable to control for collection method (0 = employment agency, 1 = different organizations). In order to control for the effects attributed to employment sector (i.e., engineering, trade, textile, agriculture, handicraft, service, and other) and job type (i.e., laborer, service, office, middle management, and top level management) these variables were dummy coded. The rationale for including this was that previous research (Hunter & Hunter, 1984) suggested that the relationship between individual differences in cognitive ability and job performance is stronger as job complexity increases. Further, since respondents were recruited through employment agencies which helped place them in jobs, I included the following possible control variables: gender (1 = male, 2 = female), education level (1 = middle school certificate, 2 = secondary-level education, 3 = high school education, 4 = university level education), age (years), organizational tenure (months), hours per week (1 = < 40, 2 = 40, 3 = >40), previous work experience



(0 = No, 1 = Yes), and job tenure (months) consistent with prior socialization research (Bauer & Green, 1998; Kammeyer-Mueller & Wanberg, 2003). Additionally, since meta-analytic research in both engagement (Christian, Garza, & Slaughter, 2011) and proactive personality (Fullet et al., 2009; Thomas, Whitman, & Viswesvaran, 2010) had hypothesized and shown a relationship with the Five Factor Model (conscientiousness, neuroticism, extraversion, openness to experience, and agreeableness), I included these variables as possible controls as well.

*The Big Five.* Goldberg's (1999) Big-Five personality scale was used to assess each of the traits in the five-factor model. Participants were instructed to rate how accurately each descriptive statement describes them on a 5-point Likert scale, ranging from 1 (*extremely inaccurate*) to 5 (*extremely accurate*). Eight items were used for each of the five subscales. Sample items include: "I make friends easily" (for extraversion), "I have frequent mood swings" (for neuroticism), "I pay attention to detail" (for conscientiousness), "I like to listen to new ideas" (for openness to experience) and "I believe that others have good intentions" (for agreeableness). The Cronbach's alpha for these scales are .84 (extraversion), .84 (neuroticism), and .78 (conscientiousness), .79 (openness to experience), and .77 (agreeableness).

*Chapter 6: Results*

Table 3 contains the descriptive statistics and zero-order correlations of all variables. No outliers were identified from the exploratory analysis I conducted and, therefore, no data were excluded before running further analyses. As noted in the Method chapter, the Cronbach's alpha was above .70 for all factors except for problem solving ( $\alpha = .66$ ).

*Correlation Analysis*

Consistent with Hypothesis 1, PAP as measured at Time 1 was significantly correlated with work engagement as measured in Time 2 ( $r = .27, p < .01$ ). Additionally, proactive personality was significantly related to all of the WDQ measures in this study with correlations ranging from  $r = .17$  to  $r = .36$  ( $p < .01$ ) except for social support quality. All of the Big Five measures were significantly related to proactive personality with correlations ranging from  $r = -.37$  to  $r = .55$  ( $p < .01$ ) except for agreeableness. The only control variables that were significantly related to proactive personality were previous work experience ( $r = .15, p < .05$ ) and the dummy coded job type variable "service job" ( $r = -.13, p < .05$ ).

In this study I found a relatively high correlation between proactive personality and conscientiousness of .55. To examine what the typical relationship in the literature is, I examined two meta-analyses. First, I looked at Fuller and Marler's (2009) meta-analysis on the proactive personality literature and found a correlation of .28 and 95% confidence interval from .28 to .40. Second, I utilized Thomas, Whitman, and Viswesvaran's (2010)

meta-analysis on the examination of proactive constructs and found a correlation of .32 and 95% confidence interval from .31 to .47. From examining the results of these meta-analyses, the correlation of .55 between proactive personality and conscientiousness is higher than the correlations typically seen in the literature. However, both of these studies noted in their limitations that many of the analyses should be interpreted with caution due to small sample size. For example, in the article by Thomas et al. (2010), there were only nine studies that examined the relationship between proactive personality and conscientiousness. The authors suggest that due to the small sample size their results should be considered as a preliminary empirical integration.

An additional reason why there was a high correlation between proactive personality and conscientiousness in this study may be found in how previous researchers have differentiated the constructs and measured them. While proactive personality drives proactive people to challenge the status quo or sell controversial issues, conscientiousness does not. Further, unlike proactive people, conscientious people adhere to the rules, are dutiful, and are cautious (Parker & Collins, 2010; Thomas et al., 2010). It follows that the extent to which a measure of conscientiousness has items that tap into adherence to rules, dutifulness, or cautiousness will impact whether it correlates with a measure of proactive personality. For example, a conscientiousness scale that has several dutifulness items will likely have a lower correlation with proactive personality and conscientiousness. I examined the conscientiousness scale used in this study and found that only one item, "I make plans and stick to them" that tapped rule adherence, dutifulness, and cautiousness. Thus it is likely that only having one item in the

conscientiousness scale that tapped the differences between proactive personality and conscientiousness may be responsible for the high correlation in this study between these two constructs. Since the scale does not fully cover the areas that have been identified in previous research to differentiate proactive personality and conscientiousness, the correlation may be higher due to the manner in which they have been operationalized.

Each of the WDQ scales was significantly correlated with work engagement, with correlations ranging from  $r = .14$  to  $r = .38$  ( $p < .05$ ). The Big Five measures were also correlated with engagement, with correlations ranging from  $r = -.16$  to  $r = .34$  ( $p < .05$ ). Additionally, work engagement was significantly related to the control variables of previous work experience ( $r = .15$ ,  $p < .05$ ), dummy coded employment sector “handicraft” ( $r = .13$ ,  $p < .05$ ), and dummy coded job type “top management” ( $r = .17$ ,  $p < .01$ ).

*Autonomy.* In general, the three dimensions of autonomy had similar intercorrelations to other study variables. All three dimensions were significantly correlated with all other WDQ dimensions in this study with correlations ranging from  $r = .19$  to  $r = .48$  ( $p < .01$ ). All three were positively significantly related to conscientiousness (ranging from  $r = .26$  to  $r = .35$  ( $p < .01$ )), and negatively related to neuroticism (ranging from  $r = -.35$  to  $r = -.24$  ( $p < .01$ )). Work scheduling autonomy and work methods autonomy were significantly positively related to agreeableness (respectively  $r = .14$ ,  $p < .05$ ;  $r = .16$ ,  $p < .01$ ), while decision making autonomy was not. All three autonomy measures were significantly related to the following controls: hours worked per week (ranging from  $r = .15$  to  $r = .26$ ,  $p < .05$ ), job tenure ( $r = .13$ ,  $p < .05$  for

all three types of autonomy), and dummy coded job type variables “middle management” (ranging from  $r = .15$  to  $r = .21$ ,  $p < .05$ ) and “top management” (ranging from  $r = .21$  to  $r = .28$ ,  $p < .01$ ). Only work scheduling autonomy was significantly related to age ( $r = .13$ ,  $p < .05$ ). Only decision making autonomy was significantly related to gender and the dummy coded job type variable “office worker” ( $r = -.14$ ,  $p < .05$ ). Only work methods autonomy was significantly related to dummy coded job type variable “service” ( $r = -.20$ ,  $p < .01$ ).

*Feedback from the job.* Feedback from the job had significant intercorrelations with all other WDQ dimensions with correlations ranging from  $r = .30$  to  $r = .48$  ( $p < .01$ ). Additionally, feedback from the job was significantly related to the following control variables: hours per week ( $r = .14$ ,  $p < .05$ ), previous work experience ( $r = .13$ ,  $p < .05$ ), conscientiousness ( $r = .29$ ,  $p < .01$ ), extraversion ( $r = .28$ ,  $p < .01$ ), and neuroticism ( $r = -.24$ ,  $p < .01$ ). It was also significantly related to the dummy coded variable employment sector “agriculture” ( $r = -.13$ ,  $p < .05$ ) and dummy coded job type variables “middle management” ( $r = .15$ ,  $p < .05$ ) and “top management” ( $r = .15$ ,  $p < .05$ ).

*Problem solving.* Problem solving had positive significant intercorrelations with all other WDQ dimensions with correlations ranging from  $r = .21$  to  $r = .42$  ( $p < .01$ ). Problems solving was significantly related to the dummy coded job type variable “middle management” ( $r = .19$ ,  $p < .01$ ).

*Social support.* Both social support opportunity and social support quality were significantly related to all other WDQ variables with correlations for social support

opportunity ranging from  $r = .23$  to  $r = .39$  ( $p < .01$ ) and social support quality ranging from  $r = .21$  to  $r = .35$  ( $p < .01$ ). Social support opportunity was significantly related to the following controls: hours working per week ( $r = .19$ ,  $p < .01$ ) and dummy coded job-type variables “service” ( $r = .14$ ,  $p < .05$ ), office ( $r = -.16$ ,  $p < .05$ ), and “top management” ( $r = .13$ ,  $p < .05$ ). Social support quality was significantly related to organizational tenure ( $r = -.13$ ,  $p < .05$ ), job tenure ( $r = -.13$ ,  $p < .05$ ), dummy coded employment sector “handicraft” ( $r = -.17$ ,  $p < .01$ ), and dummy coded job type “middle management” ( $r = .14$ ,  $p < .05$ ).

*Feedback from others.* Feedback from others had positive significant intercorrelations with all other WDQ dimensions with correlations ranging from  $r = .19$  to  $r = .36$  ( $p < .01$ ). Feedback from others was significantly related to the dummy coded job type variable “top management” ( $r = .16$ ,  $p < .05$ ).

I examined the intercorrelations between the variables to determine which ones to consider as controls in the regression analyses. Since each of the possible control variables was related to either the outcome (i.e., work engagement) or one of the independent variables (i.e., WDQ dimensions or proactive personality), it was evident that the controls should be chosen based on their relevance. After reviewing the control variables I decided not to use gender and organizational tenure, and job tenure as controls. Gender I chose not to use for two reasons. First, it was only related to one study variable. Second, the literature does not show or hypothesize significant differences for males and females for proactively, engagement or work design characteristics. Organizational tenure was also only related to one study variable as well.

I chose not to use organizational tenure as a control because people may have worked at one or more jobs within the same company making the target for work design characteristics possibly contaminated.

I did decide to use job tenure as a control. Although job tenure was related to four study variables I considered not using it because it is possible that when reading this scale, that respondents might rate how long they did a specific job, rather than a specific job within an organization. However, previous research (e.g. Gerhardt, Ashenbaum, & Newman, 2009) has shown that while proactivity is particularly important in the initial phases of an individual's job tenure, when individuals are established in their jobs there is less need to engage in proactive behaviors. Due to the differing levels of importance of job tenure (and likely differential relationships with outcomes) at different points during that tenure, I decided to control for this variable. After removing gender and organizational tenure as possible controls, I used the following in all further analyses: collection method, employment sector, job type, education level, age, hours per week, previous job experience, job tenure, conscientiousness, agreeableness, extraversion, neuroticism, and openness.

#### *Hypothesis Tests: Hierarchical Regression*

I examined the study hypotheses with hierarchical regression. To test the direct and moderation hypotheses, engagement was used as the dependent variable and the work design characteristics and proactive personality were used as the predictors in the

analysis. To reduce problems with multicollinearity and to increase interpretability, variables were centered (Tabachnick & Fidell, 2006).

To examine the incremental impact of the control variables I entered them in blocks each time rerunning all of the study hypotheses. First, I tested all of the hypotheses with only collection method as a control (Control Block A). Second, I added conscientiousness as a control and tested all of the study hypotheses (Control Block B). Third, I added the remaining Big Five Personality variables (agreeableness, extraversion, neuroticism, and openness) (Control Block C). Fourth, I added dummy coded employment sector variables (Control Block D). Fifth, I added dummy coded job type variables (Control Block E). Sixth, I added job related demographic variables: education level, age, hours per week, previous job experience, and job tenure (Control Block F). When testing each of the study hypotheses I will incrementally add each block of controls. For each hypothesis I will refer to the controls used by which Control Block utilized. For example, when I refer to Control Block E this will indicate that collection method, all Big Five Personality variables, dummy coded employment sectors, and dummy coded job type were used as controls.

First, I tested Hypothesis 1 which predicted that proactive personality would have a significant main effect on work engagement in two steps. In Step 1, centered control variables were entered; in Step 2, centered proactive personality was entered. For Control Block A in which only the collection method was used as a control the direct effect of proactive personality on work engagement was significant ( $\beta = .31, p < .05$ ). Control Block B through Control Block F found no significant main effect of proactive



personality after entering the controls. Therefore, although Hypothesis 1 was supported at the correlational level and when entered alone, it was not supported when additional controls were added.

Next, I tested the eight moderation hypotheses (Hypotheses 2-6). Since the CFAs showed that autonomy should be separated into three dimensions (work scheduling autonomy, decision making autonomy, work methods autonomy) and that social support was better represented by two dimensions (social support opportunity and social support quality) I divided hypotheses 2 and 5 accordingly. Hypothesis 2 was divided into Hypothesis 2a (work scheduling autonomy), Hypothesis 2b (decision making autonomy), and Hypothesis 2c (work methods autonomy). Hypothesis 5 was divided into Hypothesis 5a (social support opportunity) and 5b (social support quality). The subset of each hypothesis was the same as the initial hypothesis. For example, since Hypothesis 5 predicted that the relationship between proactive personality and engagement is moderated by social support, such that the positive relationship is strongest when social support is high, then the hypotheses that were divided from it (5a and 5b) will hypothesize the same effect on the proactive personality and engagement relationship.

I tested the moderation hypothesis with 4 steps using hierarchical regression running each work design characteristic individually without the other work design characteristics. In Step 1, the control variables were entered. In Step 2, the main effect for each individual work design characteristic was entered. In Step 3, the main effect for proactive personality was entered. In Step 4, the interaction term (i.e., the product of the centered variables) was entered.

The first moderation hypothesis that I tested was Hypothesis 2a, which predicted that work scheduling autonomy would moderate the relation between proactive personality and work engagement such that there would be a positive relationship when work scheduling autonomy is high and a negative relationship work scheduling autonomy is low. For Control Block A in which only the collection method was used as a control only the direct effect of work scheduling autonomy on work engagement was significant ( $\beta = .42, p < .05$ ). For Control Block B only the direct effect of work scheduling autonomy on work engagement was significant ( $\beta = .33, p < .05$ ). For Control Block C only the direct effect of work scheduling autonomy on work engagement was significant ( $\beta = .35, p < .05$ ). For Control Block D only the direct effect of work scheduling autonomy on work engagement was significant ( $\beta = .35, p < .05$ ). For Control Block E only the direct effect of work scheduling autonomy on work engagement was significant ( $\beta = .33, p < .05$ ). For Control Block F only the direct effect of work scheduling autonomy on work engagement was significant ( $\beta = .32, p < .05$ ). While the direct effect of work scheduling autonomy was significant for each block of controls, I did not find a significant interaction for work scheduling autonomy. Therefore, Hypothesis 2a was not supported.

The next moderation hypothesis that I tested was Hypothesis 2b, which predicted that decision making autonomy would moderate the relationship between proactive personality and work engagement such that there would be a positive relationship when decision making autonomy is high and a negative relationship decision making autonomy is low. For Control Block A in which only the collection method was used as a control

only the direct effect of decision making autonomy on work engagement was significant ( $\beta = .44, p < .05$ ). For Control Block B only the direct effect of decision making autonomy on work engagement was significant ( $\beta = .36, p < .05$ ). For Control Block C only the direct effect of decision making autonomy on work engagement was significant ( $\beta = .38, p < .05$ ). For Control Block D only the direct effect of decision making autonomy on work engagement was significant ( $\beta = .37, p < .05$ ). For Control Block E only the direct effect of decision making autonomy on work engagement was significant ( $\beta = .35, p < .05$ ). For Control Block F only the direct effect of decision making autonomy on work engagement was significant ( $\beta = .32, p < .05$ ). While the direct effect of decision making autonomy was significant for each block of controls, I did not find a significant interaction for decision making autonomy. Therefore, Hypothesis 2b was not supported.

Hypothesis 2c, which predicted that work methods autonomy would moderate the relation between proactive personality and work engagement such that there would be a positive relationship when work methods autonomy is high and a negative relationship when work methods autonomy is low was tested next. For Control Block A in which only the collection method was used as a control only the direct effect of work methods autonomy on work engagement was significant ( $\beta = .38, p < .05$ ). For Control Block B only the direct effect of work methods autonomy on work engagement was significant ( $\beta = .29, p < .05$ ). For Control Block C only the direct effect of work methods autonomy on work engagement was significant ( $\beta = .31, p < .05$ ). For Control Block D only the direct effect of work methods autonomy on work engagement was significant ( $\beta = .32, p < .05$ ). For

Control Block E only the direct effect of work methods autonomy on work engagement was significant ( $\beta = .30, p < .05$ ). For Control Block F only the direct effect of work methods autonomy on work engagement was significant ( $\beta = .31, p < .05$ ). While the direct effect of work methods autonomy was significant for each block of controls, I did not find a significant interaction for work methods autonomy. Therefore, Hypothesis 2c was not supported.

In Hypothesis 3, I predicted that the relationship between proactive personality and engagement was moderated by feedback from the job, such that the positive relationship is strongest when feedback from the job is high. For Control Block A in which only the collection method was used as a control only the direct effect of feedback from the job on work engagement was significant ( $\beta = .37, p < .05$ ). For Control Block B only the direct effect of feedback from the job on work engagement was significant ( $\beta = .28, p < .05$ ). For Control Block C only the direct effect of feedback from the job on work engagement was significant ( $\beta = .29, p < .05$ ). For Control Block D only the direct effect of feedback from the job on work engagement was significant ( $\beta = .30, p < .05$ ). For Control Block E only the direct effect of feedback from the job on work engagement was significant ( $\beta = .27, p < .05$ ). For Control Block F only the direct effect of feedback from the job on work engagement was significant ( $\beta = .28, p < .05$ ). While the direct effect of feedback from the job was significant for each block of controls, I did not find a significant interaction for of feedback from the job. Therefore, Hypothesis 3 was not supported.

Hypothesis 4, predicted that problem solving would moderate the relationship between proactive personality and engagement, such that there would be a positive relationship when problem solving is high and a negative relationship when problem solving is low. For Control Block A in which only the collection method was used as a control only the direct effect of problem solving on work engagement was significant ( $\beta = .29, p < .05$ ). For Control Block B only the direct effect of problem solving on work engagement was significant ( $\beta = .22, p < .05$ ). For Control Block C only the direct effect of problem solving on work engagement was significant ( $\beta = .21, p < .05$ ). For Control Block D only the direct effect of problem solving on work engagement was significant ( $\beta = .25, p < .05$ ). For Control Block E only the direct effect of problem solving on work engagement was significant ( $\beta = .22, p < .05$ ). For Control Block F only the direct effect of problem solving on work engagement was significant ( $\beta = .24, p < .05$ ). While the direct effect of problem solving was significant for each block of controls, I did not find a significant interaction for of problem solving. Therefore, Hypothesis 4 was not supported.

In Hypothesis 5a, I predicted that the relationship between proactive personality and engagement is moderated by social support opportunity, such that such that the positive relationship is strongest when social support opportunity is high. For Control Block A in which only the collection method was used as a control only the direct effect of social support opportunity on work engagement was significant ( $\beta = .31, p < .05$ ). For Control Block B only the direct effect of social support opportunity on work engagement was significant ( $\beta = .22, p < .05$ ). For Control Block C only the direct effect of social

support opportunity on work engagement was significant ( $\beta = .21, p < .05$ ). For Control Block D only the direct effect of social support opportunity on work engagement was significant ( $\beta = .20, p < .05$ ). For Control Block E only the direct effect of social support opportunity on work engagement was significant ( $\beta = .17, p < .05$ ). For Control Block F only the direct effect of social support opportunity on work engagement was significant ( $\beta = .16, p < .05$ ). While the direct effect of social support opportunity was significant for each block of controls, I did not find a significant interaction for of social support opportunity. Therefore, Hypothesis 5a was not supported.

In Hypothesis 5b, I predicted that the relationship between proactive personality and engagement is moderated by social support quality, such that such that the positive relationship is strongest when social support quality is high. For Control Block A in which only the collection method was used as a control only the direct effect of social support quality on work engagement was significant ( $\beta = .16, p < .05$ ). For Control Block B none of the direct effects (i.e., social support quality and proactive personality) or the interaction of social support quality were significant. For Control Block C none of the direct effects (i.e., social support quality and proactive personality) or the interaction of social support quality were significant. For Control Block D none of the direct effects (i.e., social support quality and proactive personality) or the interaction of social support quality were significant. For Control Block E none of the direct effects (i.e., social support quality and proactive personality) or the interaction of social support quality were significant. For Control Block F none of the direct effects (i.e., social support quality and proactive personality) or the interaction of social support quality were significant. While

the direct effect of social support opportunity was significant for Control Block A, it was not significant when additional controls were added. Additionally, since none of the interaction terms for social support opportunity were significant, Hypothesis 5b was not supported.

In Hypothesis 6, I postulated that feedback from others would moderate the relationship between proactive personality and engagement, such that there would be a positive relationship when feedback from others is high and a negative relationship when feedback from others is low. For Control Block A in which only the collection method was used as a control only the direct effect of feedback from others on work engagement was significant ( $\beta = .21, p < .05$ ). For Control Block B only the direct effect of feedback from others on work engagement was significant ( $\beta = .17, p < .05$ ). For Control Block C only the direct effect of feedback from others on work engagement was significant ( $\beta = .16, p < .05$ ). For Control Block D only the direct effect of feedback from others on work engagement was significant ( $\beta = .17, p < .05$ ). For Control Block E only the direct effect of feedback from others on work engagement was significant ( $\beta = .15, p < .05$ ). For Control Block F none of the direct effects (i.e., feedback from others and proactive personality) or the interaction of feedback from others were significant. While the direct effect of feedback from others was significant for Control Block A through E, it was not significant when Control Block F (education level, age, hours per week, previous job experience, and job tenure) was added. Additionally, since none of the interaction terms for social support opportunity were significant, Hypothesis 6 was not supported.

#### *Post Hoc and Supplemental Analyses*

Since all of the results of the hypothesis tests in this study were found to be non-significant, I conducted several supplementary analyses to provide additional insight and to complement the analyses described above. These analyses include examining if different methods for operationalizing work engagement impacted the results, bootstrapping, running all of the moderations simultaneously in a single regression equation, and testing if task identity moderated the proactive personality engagement relationship.

#### *Operationalization of Work Engagement*

As discussed earlier, work engagement in this study is formed by three dimensions: vigor, dedication, and absorption (Schaufeli et al., 2002). Since work engagement is formed by these three dimensions it is possible that the study hypotheses may have more relevance to one of the individual dimensions rather than their composite. Following this idea, I operationalized engagement in two different ways and reran each of the hypotheses. The first method that I used was running each of the individual dimensions of engagement (vigor, dedication, and absorption) as the dependent variable as in the previous moderation analyses. The second method was to calculate total scores of the work engagement scale as weighted by the first-order factors' loadings on the second-order factor (see Law, Wong, & Mobley, 1998, for a description of this analysis for engagement and its rationale). To test the first method I reran each of the previous moderation analyses with each of the individual dimensions of work engagement as the dependent variable. This led to a total of 24 moderation analyses run. None of the interaction terms were significant.



Next, I reran the analyses using the weighted factor loading approach. The second-order factor loadings of vigor, dedication, and absorption were all positive, strong, and statistically significant (.83, .96, and .92, respectively). In order to reflect the differential contribution of the three first-order factors to the second-order factor, I calculated total scores of the work engagement scale as weighted by the first-order factors' loadings on the second-order factor, and used those weighted scores in my hypothesis testing. None of the interaction terms was significant for this method as well.

### *Bootstrapping*

To supplement the previous analyses I next used bootstrapping with replacement to determine if this method would produce similar results. Bootstrapping techniques are nonparametric tests that are especially helpful for analyses with small to moderate sample sizes or non-normal distributions (Shrout and Bolger, 2002). The method involves repeated sampling of cases from a study sample with replacement after each selection. For example, in this study the data from 258 participants was used. Bootstrapping randomly selects an individual case, then puts the case back in the pool, until 258 cases have been selected, then it computes parameter estimates. The process was repeated 1,000 times resulting in the calculation of 1,000 test statistics. Based on this data, the bootstrapped standard errors and confidence intervals are obtained for direct and indirect effects through a calculation of the average median and/or standard error of test statistics.

For the purpose of these analyses Control Block F (collection method, Big Five Personality variables, dummy coded employment sectors, dummy coded job type, and job related demographic variables) was used.

Although the results of the bootstrapping analyses were generally similar to the regression analyses without bootstrapping, there were several notable differences. Although the direct effect of proactive personality was non-significant when run without bootstrapping, it was significant when bootstrapping was used ( $\beta = .19, p < .05$ ). For work scheduling autonomy none of the direct or indirect effects were significant, while the direct effect of work scheduling autonomy was significant without bootstrapping. The bootstrapped regression analysis for decision making autonomy found that both the direct effect ( $\beta = .24, p < .05$ ) and the interactive effect ( $\beta = -.13, p < .05$ ) of decision making autonomy were significant. Results for this analysis are in Table 4.

The interaction between PAP and decision making autonomy on work engagement was different than I hypothesized. Based on examining the simple slopes in the figures, worker engagement was nearly equivalent for employees with low levels of PAP ( $M = 4.24$ ) compared to workers with high levels of PAP ( $M = 4.25$ ) when decision making autonomy was high. However, when decision making autonomy was low, work engagement was higher for employees with high level of PAP ( $M = 4.02$ ) compared to workers with low level of PAP ( $M = 3.51$ ). To examine the nature of the significant interaction, I plotted the equation one standard deviation above (high) and one standard deviation below the mean (low) to represent the levels of decision making autonomy and PAP (See Figure 3).

For problem solving both the direct effect of proactive personality ( $\beta = .17, p < .05$ ) and problem solving were significant ( $\beta = .13, p < .05$ ), while only the direct effect of problem solving was significant when bootstrapping was not used. While only the direct effect of social support opportunity was significant when bootstrapping was not used, when bootstrapping was used only the direct effect of proactive personality was significant ( $\beta = .18, p < .05$ ). When Control Block F was used none of the direct effects or indirect effects of social support quality was significant when bootstrapping was *not* used. However, when bootstrapping was used the direct effect of both proactive personality ( $\beta = .17, p < .05$ ) and social support quality ( $\beta = .16, p < .05$ ) were significant. Similarly, for feedback from others neither the direct or indirect effects were significant when bootstrapping was *not* used, while proactive personality was significant ( $\beta = .18, p < .05$ ) when bootstrapping was used.

*All Study-Relevant Work Design Characteristics Included Simultaneously*

The rationale for this analysis was that all work design characteristics coexist simultaneously within a work environment; therefore, it makes sense to control for and consider all focal work design characteristics simultaneously while testing hypotheses. Statistically, it should be more conservative to test how the eight focal traits moderate the PAP-engagement relation at the same time. Such an approach has been used in the past (e.g., Nosek, 2005). Therefore, I examined the eight moderation-related hypotheses (Hypotheses 2-6) simultaneously. In addition, since the Big Five personality traits coexist within an individual along with PAP, it makes sense to control for them. Through this approach, I should be able to reveal the unique effect of the PAP-WDQ interactions on

employee engagement in a more complete context (i.e., with important individual differences and work design characteristics taken into account). Specifically, I ran moderated regression analyses using the following steps: Step 1, centered control variables (collection method, job type, employment sector, educational level, Big Five personality traits, age, hours worked per week, previous work experience, and job tenure) were entered; Step 2, the eight focal work design characteristics were entered after being centered; Step 3, centered PAP was entered; Step 4, all interactions terms between each focal work design characteristic and PAP were entered. When significant, interaction effects were plotted by using values that corresponded to one standard deviation above and below the scale means of PAP and moderators

When I examined if there was a significant change in  $R^2$  to determine if the interaction accounted for additional variance in worker engagement beyond the control variables and main effects, I found that the fourth step was non-significant ( $\Delta R^2 = .05$ ,  $\Delta F(8, 196) = 1.90$ ,  $p = .062$ ). This indicates that the interaction terms did not significantly account for additional variance. To examine if the non-significant results were due to the controls selected, I decided to remove job tenure as a control and reran the analyses.

Results for this analysis are in Table 5.

The fourth step of Table 5 approached significant change in  $R^2$  ( $\Delta R^2 = .05$ ,  $\Delta F(8, 196) = 1.96$ ,  $p = .05$ ), which indicates that the interaction terms accounted for 5% of additional variance in worker engagement beyond the control variables and main effects. Additionally, the overall equation was significantly different from zero ( $R^2 = .40$ ,  $F(38, 199) = 3.53$ ,  $p = .01$ ). The regression coefficients for the interactions of PAP with

decision making autonomy ( $\beta = -.19, p < .05$ ) and feedback from others ( $\beta = -.21, p < .05$ ) were significant. Additionally, the regression coefficients from the interactions of PAP with problem solving ( $\beta = .14, p = .05$ ) and social support quality ( $\beta = .16, p = .05$ ) approached significance. To examine the nature of the significant interactions, I plotted the equation one standard deviation above (high) and one standard deviation below the mean (low) to represent the levels of the WDQ variables and PAP (See Figures 4 and 5).

The interaction between PAP and decision making autonomy on work engagement was the opposite direction from what I hypothesized. Based on examining the simple slopes in the figures, worker engagement was higher for employees with low levels of PAP ( $M = 4.04$ ) compared to workers with high levels of PAP ( $M = 3.77$ ) when decision making autonomy is high. Conversely, when decision making autonomy is low work engagement is higher for employees with high level of PAP ( $M = 3.96$ ) compared to workers with low level of PAP ( $M = 3.38$ ).

The interaction between PAP and feedback from others on work engagement was also in the opposite direction from what I hypothesized. Based on examining the simple slopes in the figures, worker engagement was higher for employees with low levels of PAP ( $M = 3.99$ ) compared to workers with high levels of PAP ( $M = 3.68$ ) when feedback from others is high. Conversely, when feedback from others is low work engagement is higher for employees with high level of PAP ( $M = 4.05$ ) compared to workers with low level of PAP ( $M = 3.44$ ).

*Supplemental Analyses on Work Design Characteristic Dimensions*

As a supplemental analysis I decided to also examine if task identity moderated the relationship between proactive personality and engagement. Task identity is defined as degree to which a job requires completion of a whole and identifiable piece of work. For example, a cabinetmaker who designs a piece of furniture, selects the wood, builds the object, and finishes it to perfection has a job that scores high on task identity, rather than an assembly line worker who only selects the wood, but does not get the satisfaction derived from completing the finished product. It is likely that when task identity is high proactive people will be more engaged than their less proactive counterparts. Proactive people perform several behaviors that likely allows them to better leverage the outcomes of high task identify such as develop better social networks (Morrison, 1993a, 1993b) and craft the job to suit their needs (Grant & Ashford, 2008).

I ran this analysis in the same fashion as the prior regression which examined the moderating effect of each work design characteristic individually. Additionally instead of doing multiple blocks of controls I only examined Control Block F (collection method, Big Five Personality variables, dummy coded employment sectors, dummy coded job type, and job related demographic variables). I tested the moderation hypothesis with 4 steps using hierarchical regression running each work design characteristic individually without the other work design characteristics. In Step 1, the control variables were entered. In Step 2, the main effect for each individual work design characteristic was entered. In Step 3, the main effect for proactive personality was entered. In Step 4, the interaction term (i.e., the product of the centered variables) was entered. Results are in Table 6.

The test of the interactive effect showed significant change  $R^2$  ( $\Delta R^2 = .02$ ,  $\Delta F(1, 209) = 5.72$ ,  $p < .05$ ), which indicates that the interaction terms accounted for 2% of additional variance in worker engagement beyond the control variables and main effects. Additionally, the overall equation was significantly different from zero ( $R^2 = .31$ ,  $F(25, 209) = 3.84$ ,  $p < .01$ ). The regression coefficients for the interactions of PAP with task identity ( $\beta = .16$ ,  $p < .05$ ) was significant. Additionally, the regression coefficients for the main effect of task identity was significant ( $\beta = .25$ ,  $p < .05$ ). To examine the nature of the significant interactions, I plotted the equation one standard deviation above (high) and one standard deviation below the mean (low) to represent the levels of the WDQ variables and PAP (See Figure 6).

The interaction between PAP and task identity showed that there was a positive relationship when task identity is high and a negative relationship when task identity is low. Based on examining the simple slopes in the figures, worker engagement was lower for employees with low levels of PAP ( $M = 4.09$ ) compared to workers with high levels of PAP ( $M = 4.65$ ) when task identity is high. Conversely, when task identity is low work engagement is lower for employees with high level of PAP ( $M = 3.85$ ) compared to workers with low level of PAP ( $M = 3.93$ ).

*Chapter 7: Discussion*

The purpose of this study was to examine how trait-relevant work characteristics influence the relationship between PAP and engagement. While the extant literature (e.g., Fuller & Marler, 2009; Thomas, Whitman, & Viswesvaran, 2010) generally shows that PAP is positively related to organizationally desired outcomes, several researchers have suggested that under certain circumstances, acting proactively can be undesirable and lead to negative consequences (Bateman & Crant, 1999; Crant, 2000; Campbell, 2000). While prior research has found support for the supposition that under certain circumstances proactive behavior might be problematic, it is rarely the focus of the research (Bolino et al., 2010). To fill this gap, I used TAT (Tett & Burnett, 2003) to identify which work characteristics will activate PAP. I have also developed specific hypotheses about which work characteristics might lead proactive employees to become disengaged.

Unfortunately, the data did not support the hypotheses in this study, although supplemental analyses found interesting interactions regarding the impact of decision making autonomy and feedback from others on the relation between proactive personality and work engagement. In the following pages I first discuss the main effects of proactive personality on engagement, as well as some likely reasons that the primary tests of my interaction hypotheses were not supported. I will then discuss Grant and Ashford's (2008) Proactivity Dynamics Framework as a likely theoretical rationale for both significant interactions. Afterwards, I will discuss the implications of these results, study limitations, and the directions for future research.



*Hypothesis Tests*

In Hypothesis 1, I predicted the proactive personality would be positively related to work engagement. While the simple correlation was consistent with this hypothesis ( $r = .27, p < .01$ ), it was not supported when additional controls were added. However, when the regression analysis was bootstrapped, the main effect of proactive personality on engagement was significant when all of the study controls were added. All in all, these results suggest that proactive personality did relate to engagement among these workers.

Hypothesis 2 through Hypothesis 6 predicted that work design characteristics (i.e., autonomy, feedback from job, problem solving, social support, and feedback from others) would moderate the relationship between proactive personality and engagement. Unfortunately, none of these moderation hypotheses were significantly supported. Therefore, from these analyses, these work design characteristics do not moderate the relationship between proactive personality and engagement. It should be noted that there is a long history of researchers unsuccessfully attempting to find moderators of job characteristics and outcomes (Grant, Fried, & Juillerat, 2011). For example, the results for growth need strength as a moderator of job characteristics, first described by Hackman and Oldham (1975) have been plagued by inconsistent findings. When examined in this light, it is not surprising that work characteristics did not moderate the relationship between proactive personality and engagement. Put differently, the relatively strong main effects of the work characteristics on engagement may have left little variance to be explained by an interaction term.

While the moderation hypotheses were not significant, it should be noted that the main effects of the work design characteristics were significant. Specifically, all of the work design characteristics were significantly related to engagement in the zero-order correlations. Further, almost all of the work design characteristics showed a robust relationship that was not impacted by which controls were used. The only two work design characteristics used in this study that did not consistently show a significant relationship with engagement were social support quality and feedback from others. For social support quality the direct relationship was significant only when the only control was collection method. However, the direct effect was found when bootstrapping was used with all of the study controls. For feedback from the job there was a direct effect, except when the job related demographic control variables were added. Taken together these results are consistent with the bulk of work design/job characteristics literature which shows consistent effects of work characteristics on outcomes. (e.g., Humphrey et al., 2007).

Because the initial moderator hypotheses were not supported, I tried a number of supplementary analyses. First, I tried multiple ways of operationalizing the dependent variable engagement (e.g. using weighted scores or testing the individual facets of engagement) and found non-significant results. Next, I reran the analyses with bootstrapping to determine if this analysis method would alter the results. Although in general the bootstrapping confirmed the previous regression analyses, it found a few notable differences. First, bootstrapped proactive personality and social support quality were directly related to engagement when all of the study controls were present. Second,

decision making autonomy was found to be a moderator of the proactive personality and engagement relationship when bootstrapping was conducted. Additionally, I tested the eight moderation-related hypotheses (Hypotheses 2-6) simultaneously and found significant interactions for decision making autonomy and feedback from others. The rationale for this approach is that it takes into account a more complete context in which all of the work design characteristics coexist simultaneously. Unfortunately, the results for these significant interactions were not in the direction predicted and therefore, my hypotheses were unsupported. While these interactions should be interpreted with caution as they were not in the direction predicted and were found during post-hoc supplementary analyses, it is possible that they may help explain the impact that work design characteristics have on the proactive personality and engagement relationship. In later parts of the present chapter, I will use Grant and Ashford's (2008) Proactivity Dynamics Framework to provide a possible rationale for these findings.

Finally, I performed a supplementary analysis to determine if task identity significantly moderated the relationship between proactive personality and engagement. The analysis showed that there was a significant moderating effect of task identity such that there was a positive relationship when task identity is high and a negative relationship when task identity is low. When examining values that correspond to one standard deviation above and below the scale means of PAP and moderators, it appears that the moderating effect is driven by proactive people being more engaged when task identity is high. Conversely, when task identity is low there is little difference between how engaged an employee is, regardless of how proactive the person is.

It is likely that when task identity is high, proactive people are more engaged than their more passive peers due to their strong identification with their job (Crant, 2000). Previously, I defined task identity as the degree to which a job requires completion of a whole and identifiable piece of work. By examining the definition of task identity and the dedication facet of engagement the overlap between these constructs is readily apparent. Dedication is defined as feelings of strong identification with one's job which results in experiencing a sense of significance or enthusiasm. At their core both of these constructs deal with the ability of a worker to identify with his or her job. Since proactive workers are more likely to identify with their job due to social processes (i.e., networking), job crafting, and coping styles, it follows that their engagement will increase more when task identity is high.

#### *Proactivity Dynamics Framework*

Although I did not find support for most of my hypotheses through my primary analyses, my follow-up analyses did show some support for an interaction between proactive personality and some job design characteristics on engagement. While these results should be interpreted cautiously, they may have some importance for understanding the nature of proactivity and its results on engagement.

Grant and Ashford (2008) propose that proactive behaviors (independent of proactive personality) can be stimulated by certain work design characteristics – specifically autonomy and accountability for this study. Figure 7 displays the Proactivity Dynamics Framework as shown in Grant and Ashford's (2008) article. First, autonomy likely encourages proactive behaviors by signaling to employees that they will have

greater control of their tasks and providing the opportunity to take on broader roles (Parker, 2000, 2007). Consistent with this idea, researchers have shown that autonomy is positively associated with higher levels of proactive behaviors (e.g. Fay & Frese, 2001; Frese, Kring, Soose, & Zempel, 1996; Frese, Teng, & Wijnen, 1999; McAllister, Kamdar, Morrison, & Turban, 2007; Speier & Frese, 1997) such as role expansion (Axtell & Parker, 2003; Parker et al., 1997), prosocial rulebreaking (Morrison, 2006), and problem solving and idea implementation (Parker et al., 2006). Second, Grant and Ashford (2008) argued that accountability increases the likelihood of proactive behavior by requiring employees to justify and explain their thoughts, feelings, and emotions to others (Lerner & Tetlock, 1999; Tetlock, 1985). Being held accountable to others strengthens employees' feelings of responsibility for being proactive, thereby reducing perceived image costs of proactive behavior and increasing the perceived image benefits (Grant & Parker, 2009). In support of this proposition research has shown that being held accountable increases proactive behaviors such as task revision (Staw & Boettger, 1990), taking the initiative to improve work methods and processes (McAllister et al., 2007; Morrison & Phelps, 1999), and voicing ideas for constructive change (Fuller, Marler, & Hester, 2006). Taken together, the existing research lends clear support for the argument that work design features promote proactive behaviors.

The findings of the present study may be due in part to the role that these work design features play in encouraging proactive behaviors. The hypotheses written previously have been largely based on the proposition that due to the increase of proactive behaviors from proactive personality, engagement would increase. However,

Grant and Ashford's (2008) Proactivity Dynamics Framework suggests that the work features themselves may promote proactive behaviors. Since both the work features and proactive personality may lead to proactive behavior, it begs the question whether or not both are necessary. Since work features may increase proactive behaviors it is possible that work features may be sufficient to lead to the increases in engagement that were hypothesized in this study. Using this framework leads to a likely explanation for the interactions of decision making autonomy and feedback from others on the proactive personality and engagement relation. I explain each of these below.

#### *Decision-Making Autonomy*

Upon examining the significant interaction effects when bootstrapping was conducted and when all study relevant work characteristics were run simultaneously it appears that the results are consistent. In both analyses in the low-decision making autonomy condition, high proactive personality may lead to increases in proactive behaviors, which may have led to increases in engagement. In both analyses in the high-decision making autonomy condition proactive behaviors were likely promoted due to autonomy, following Grant and Ashford's (2008) Proactivity Dynamics Framework and research on proactive personality. These suppositions are supported by examining the mean one standard deviation above and below the scale means of PAP and moderators for analyses. They show that there is relatively little difference between how engaged proactive people are in either the high or low decision making autonomy conditions. Additionally, there is relatively little difference in how engaged passive people are when decision making autonomy is high compared to proactive people in either condition. The

central difference occurs when both decision making autonomy and proactive personality is low. This condition is the only condition in which proactive behaviors are not promoted by either autonomy or proactive personality. When autonomy does not signal to employees that they will have greater control of their tasks or proactive personality does not encourage them to take control, employees likely perform less proactive behaviors and are thereby less engaged in their work.

#### *Feedback from Others*

Grant and Ashford's (2008) Proactivity Dynamics Framework also provides an explanation for the moderating effects of feedback from others on the proactive personality and engagement relation. The moderating effect of feedback from others was such that when feedback from others is low there is a positive relationship between proactive personality and engagement. Conversely, when feedback from others is high there was a negative relationship between proactive personality and engagement. According to Grant and Ashford (2008) feedback from others is one of the primary methods of holding employees accountable and when high, promotes proactive behaviors. Subordinates are well aware that feedback from others involves both rewards and costs (Miller & Jablin, 1991). Rewards refer to the reduction of behavioral uncertainty through information acquisition or gaining social approval and respect (Blau, 1964), which likely leads employees to feel more engaged in their work. Costs refer to social disapproval or the absence of rewards (Roloff, 1981). Due to the high social costs often believed to be associated with feedback from others, it does not seem surprising that research has shown employees are cautious when asking other for feedback (Walster,

Berscheid, & Walset, 1978). When employees are not held accountable they often avoid seeking feedback from others so that they do not draw additional attention to their actions (Levy, Albright, Cawley, & Williams, 1995; Moss, Valenzi, & Taggart, 2003; Tuckey, Brewer, & Williamson, 2002). This helps explain why there is a positive relationship between proactive personality and engagement when feedback from others is low. In this condition passive employees do not perform the proactive behaviors necessary to get the rewards of feedback and thereby feel more uncertain about their job and are likely less engaged. Conversely, employees high in proactive personality are still willing to engage in the proactive behaviors that garner them the rewards associated with getting feedback and are thereby more engaged in their work.

When feedback from others is high, it is likely that employees are being held accountable by needing to justify their decisions and actions to others. In this condition the benefits of seeking feedback from others is far greater than the costs, as employees stand to gain considerably by getting information that will improve their performance and show others that they are performing well (e.g., Ashford & Tsui, 1991; Brett et al., 1990; Morrison & Bies, 1991; Stapel & Tesser, 2001). Therefore, even when an employee is low in proactive personality, they likely will recognize the decreased costs and increased benefits of proactive behavior, thereby exhibiting more proactive behavior and becoming more engaged in their job. Employees high in proactive personality likely seek out an even greater amount of feedback from others than their less proactive counterparts. When the amount of feedback they get from others is already high, it is possible that they will experience information overload when they seek out more feedback than is necessary.



Researchers have consistently shown that performance in the workplace increases positively as the amount of information increases up to a certain point (Eppler & Mengis, 2003). When information is provided beyond this peak performance point, performance rapidly declines (Chewning & Harrell, 1990; O'Reilly, 1980). For example, Chewning and Harrell showed that the relationship between the quality of financial decision-making under distress exhibited an inverted U relationship with the amount of information provided/available. These and similar findings led researchers to conclude that information overload occurs because there is a finite limit to the ability of human beings to assimilate and process information during any given unit of time. Once these limits are surpassed, the person becomes "overloaded" and performance becomes less effective and less accurate and the person more and more stressed. In the situation in which a highly proactive person is in a high feedback work environment, when they seek out more information they likely experience information overload and experience both decreases in performance and higher degrees of stress thereby causing them to become less engaged in their work.

### *Theoretical Implications*

This study had at least three potential theoretical implications for research in work design and engagement. First, while the majority of research on PAP has focused on main effects, few studies have identified moderators (Crant, 2000). In this study I identified eight work characteristics as possible moderators of the PAP and engagement relationship. While I did not find support for the hypotheses that I proposed, in

supplemental analyses I found three significant interactions. The results of these interactions add further support to the proposition that PAP may act as a personal resource that helps employees achieve work goals, and reduce job demands (e.g. Dikkers et al., 2009). In the framework of this study, when job demands were high (i.e., low decision making autonomy or low feedback from others) PAP likely acts as a personal resource by engendering proactive behaviors, which helps highly proactive people stay engaged in their work. These results imply that utilizing the JD-R model may be a promising avenue to examine PAP. Conversely, when the work environment provides resources (i.e., high decision making autonomy, high feedback from others, or high task identity), workers experience meaning when meeting demands and utilize problem-focused coping which increases their willingness to invest energy to meet job demands. This results in feelings of engagement and thereby positive outcomes (i.e., positive job attitudes, lowered turnover, and increased performance; Bakker & Demerouti, 2007). Second, this study adds to research by extending trait activation theory to apply to how proactive workers view work characteristics. For example, two highly proactive workers may be in an organization that is objectively rated as providing high autonomy. While this objective reality may be the same for both people, how they interpret the amount of autonomy they have and the extent that their proactive tendencies are activated may be different. One person may correctly view their workplace as allowing high autonomy, while the other believes the workplace provides little autonomy. In that case, how the individual viewed autonomy will impact whether the individual is motivated or demotivated, subsequently effecting how he or she behaves. By applying trait activation

theory to work design literature, I provided a needed insight into how PAP is activated by subjective evaluations of work characteristics.

Third, while all work design characteristics coexist in simultaneously within a work environment, they are usually discussed individually. The supplementary analysis that found significant moderating effects for work design characteristics examined all of the work design characteristics of this study simultaneously. This type of analysis controls for and considers the effect of all focal work design characteristics simultaneously while testing hypotheses. Finding significant interactions indicates that there may be important interrelationships between work design characteristics such as three way interactions.

### *Practical Implications*

In order to maintain a competitive edge, organizations have become increasingly interested in hiring employees with a proactive orientation (Crant, 2000). These organizations generally assume that having proactive employees who are willing to take the initiative and to challenge the status quo rather than passively adapting to the work conditions will result in universally positive outcomes (e.g., increases in job performance or innovation; Grant & Ashford, 2008). While this is generally supported in the extant literature (e.g., Fuller & Marler, 2009; Thomas, Whitman, & Viswesvaran, 2010), researchers have noted for over a decade that under certain circumstances, proactive behavior could be undesirable and lead to negative consequences (Bateman & Crant, 1999; Crant, 2000; Campbell, 2000). Although there is a need to be cautious in

interpreting the results of this study and a need for confirmation in future studies, the present study suggests that highly proactive people who experience high feedback from others, or low task identity in their jobs may be likely to be less engaged than their less proactive counterparts. Moreover, decision making autonomy seemed not to affect the engagement of highly proactive people, and proactive workers seemed to be moderately engaged regardless of their autonomy; rather, the most deleterious effects on engagement were when low proactivity workers also had low autonomy, suggesting that proactivity may buffer some of the negative effects of low autonomy. Taken together, these results suggest that organizations should consider the context prior to selecting proactive workers, or should consider training supervisors and workers to better structure the work environment to fit worker characteristics. This research will help organizations will be able to better identify the jobs proactive people are suited for, and how best to engage their employees depending on the personality of that employee.

Organizations that are interested in employing proactive workers will be able to consider how work characteristics can be optimized or redesigned to help proactive employees – and even less proactive employees – be more successful. Previous studies have only focused on one work design characteristic such as complexity or autonomy (e.g., Chung-Yen, Butler, 2011; Fuller, 2011). By examining a fuller array of work characteristics that are relevant to proactive employees, those in charge of job redesign will have many avenues to increase the engagement of proactive people and compare the impact the job redesign will have on less proactive people. In addition, it will help those conducting job redesign to be more aware of the costs and benefits of altering a specific

work characteristic. For example, decision making was found to be a disordinal interaction in which proactive people are more engaged when decision making autonomy is low and less proactive people are most engaged when decision making autonomy is high. By having more intricate knowledge of what the results a job redesign will be, the person responsible will be able to balance the potential negative or positive impacts based on their organization's needs.

#### *Potential Limitations and Future Directions*

The proposed study has limitations that will represent opportunities for future research. First, there are two design-related features that will need further investigation: (1) the common source variance, and (2) the time-lagged nature of the study. The findings of this study would be strengthened through addressing the common source variance by using different sources to measure study variables. For instance, co-workers could be used to verify work design characteristics. Additionally, these data were collected at two points in time, in this case, a time-lagged design. Although such a design is generally sufficient for testing the hypotheses I proposed in this study, the design also limits our ability to draw causal inferences and identify more intricate relationships (e.g., reciprocal effects) between the variables or completely eliminate the possible impact of common method variance. However, this study had the strength of using a time-lagged design with the predictors and outcome collected at two time points, and thus reducing the impact of common method variance (Podsakoff et al., 2003).

Future studies should conduct longitudinal research to improve the ability to make causal inferences between the variables in this study. For example, several researchers have recognized that employees take the initiative to alter their own roles and job characteristics (Grant & Ashford, 2008; Grant, Fried, & Juillerat, 2011; Wrzesniewski & Dutton, 2001). If proactive employees are crafting their jobs to meet their needs, collecting job characteristic ratings at one point in time will not describe the phenomenon fully. Even though this was not the focus of my study it is possible that the propensity for proactive people to alter their workplace may influence how they rated work design characteristics in this study. For proactive people it is likely that there is a need to assess if they attempted to alter the workplace to better suit their needs and whether or not they were successful in their efforts. For example, a proactive person who successfully crafted their job will likely view the work place differently than a proactive person who attempted to alter the workplace but failed. To assess this, future studies could follow applicants when they enter the workplace, track their engagement, ratings of work design characteristics, and attempts and success in job crafting over time to determine if this impacts the relationship between proactive personality and engagement.

There are two factors that may mitigate the generalizability of the finding of this study: 1) type of workplace and 2) Italian culture. The sample for this study was collected through an employment agency and eight organizations in North and Northwest Italy. Since many of the participants were from an employment agency and therefore may be temporary workers, this begs the question as to whether the engagement of a temporary worker differs from that of a permanent employee. While I controlled for

where the data were collected in all analyses, the degree of generalizability may still be affected. Additionally, following Hofstede's (1980) theory of cultural determination which has shown that there are five dimensions of culture that can shape the collective psyche, the culture of North or Northwest Italy may also impact the generalizability of these results. Subsequent studies examining the relationship between proactive personality and engagement should compare if the findings of this study can be replicated in other cultures and workplaces, for example, where work centrality is different. Despite these concerns, the psychometrics properties of the translated measures are satisfactory and consistent with those established in the literature, which suggests that there is at least some degree of construct generalizability.

Third, although trait activation theory suggests that the expression of personality traits is influenced by both *situational strength* and *situational trait relevance* (Tett & Burnett, 2003), this study did not assess situational strength. Situation strength refers to the magnitude of the psychological pressure provided by environmental forces that propel an individual to engage or refrain from specific behaviors (Mischel, 1977). In strong situations, an individual's personality may be less important for predicting behavior, because the situation is so powerful that everyone construes the situation the same way and is induced to behave in a certain manner. For example, in the "quiet area" of the library, regardless of how extraverted a person is they will understand that they should not talk in this area or risk the glares of the librarian and other library patrons if they raised their voice above a whisper. This is an example of a strong situation; there are definite expectations of how to behave (be quiet) and consequences for not following

them (annoyance of others in the library). Therefore, individual traits are likely to play a small role in how people behave, since everyone in this environment will be quietly working regardless of their personality traits. In contrast, within a weak environment, everyone does not interpret the appropriate way to act the same way and thus do not behave in a uniform manner. Thus, when situations are weak, individual personality characteristics may play a greater role in determining behavior. For example, in another area of the library that is not designated as a “quiet area” people may be studying, while others are talking amiably with others, or some may be taking the time to catch a quick nap. In this relatively weak situation, the environmental cues are reduced and the individual personality differences are more likely to manifest themselves. The results of this study are possibly conservative since the referent workplaces are likely a mix of both strong and weak situations. Therefore, future studies should assess situational strength to help ensure that research participants have the decision latitude to fully express their personalities.

A fourth limitation – and strength – of this study is that participants held a diverse range of jobs in several employment sectors. While not widely researched, the context shapes such things as which work characteristics are relevant, how individuals in a given occupation will react to work characteristics, as well as the underpinning mechanisms (e.g. Oldman & Hackman, 2010; Vough & Parker, 2008). The difference between these contexts likely has a large impact on how work design characteristics function. For example, while autonomy has been shown to have a significant positive impact on manufacturing jobs it is likely different for professionals since they typically have high



autonomy. Thus the amount of autonomy one perceives takes on a considerably different meaning in professional jobs in which almost everyone has high autonomy, compared to very few jobs in manufacturing having autonomy. Due to the inherent differences in these contexts it is unlikely that the findings from work design research will apply equally to all of them. While this is a limitation in this study, historically the majority of work design studies have focused solely on manufacturing contexts or call centers (Vough & Parker, 2008). In this study I expanded on this myopic focus by gathering data from five different job types, thus expanding traditional studies of work design. Unfortunately, in this study I did not have sufficient power to examine the hypotheses within each of the job types separately to determine if significant differences occurred. On the other hand, the range of job types examined in this study could also be seen as a strength due to the increased variability it provided on each of the job characteristics. Future studies should extend the effort to examine work design in non-traditional contexts, and make further attempts to compare different job types. One potentially promising method to compare how work characteristics function across different job types is to use objective measures of job characteristics. For example, the on-line resource called the Occupational Informational Network (O\*NET) (Peterson, et al., 2001) could be used to objectively provide ratings of work characteristics.

### *Conclusion*

These limitations notwithstanding, this study addressed several gaps in the literature and provided several theoretical and practical implications. While previous researchers have cited the need to take into account the organizational context and the

nature of the job (e.g., Campbell, 2000), to my knowledge no previous study has thoroughly examined whether or how work design characteristics might attenuate the presumed benefits of having proactive employees. A focus on determining in which environments proactive people will thrive will help organizations increase engagement and help ensure that proactive people are not incorrectly placed into jobs that encourage proactive behavior in policy but then punishes it in practice.

Table 1:  
Confirmatory Factor Analyses of Proactive Personality & Work Engagement Measures

Model	$\chi^2$	df	CFI	TLI	RMSEA	SRMR	$\Delta\chi^2 / \Delta df$
<i>10-Item Proactive Personality</i>	133.94*	35	.83	.78	.11	.07	
<i>10-Item Proactive Personality: Correlated Residuals</i>	88.57*	34	.91	.88	.08	.06	45.37**
<i>9-Item Work Engagement: One-Factor Model</i>	211.82*	27	.81	.75	.16	.06	
<i>9-Item Work Engagement: Three-Factor Model - Second-Order Factor</i>	136.44*	24	.89	.83	.14	.07	75.38**
<i>8-Item Work Engagement: Three-Factor Model - Second-Order Factor</i>	57.68*	17	.95	.92	.10	.03	

Note. N = 256-257; df = degrees of freedom; CFI = comparative fit index; TLI = Tucker-Lewis index;

RMSEA = root-mean-square error of approximation; SRMR = standardized root mean square residual. \*  $p < .05$ ; \*\* $p < .01$ .

Table 2:  
Confirmatory Factor Analyses of WDQ

Model	$\chi^2$	<i>df</i>	<i>CFI</i>	<i>TLI</i>	<i>RMSEA</i>	<i>SRMR</i>	$\Delta\chi^2 / \Delta df$
25-Item <i>WDQ</i> : Three-Factor Model	1546.67 **	272	.64	.60	.14	.14	
25-Item <i>WDQ</i> : Five-Factor Model	824.96 **	265	.84	.82	.09	.08	721.71 **
25-Item <i>WDQ</i> : Six-Factor Model	680.76 **	260	.88	.86	.08	.05	144.20 **
25-Item <i>WDQ</i> : Seven-Factor Model	508.14 **	254	.93	.92	.06	.08	316.82 **
25-Item <i>WDQ</i> : Eight-Factor Model	360.77 **	247	.97	.96	.04	.04	

Note. *N* = 257; *df* = degrees of freedom; *CFI* = comparative fit index; *TLI* = Tucker-Lewis index;

*RMSEA* = root-mean-square error of approximation; *SRMR* = standardized root mean square residual. \*  $p < .05$ ; \*\* $p < .01$ .

Table 3: Mean, Standard Deviation and Correlations among study variables

Variables	Mean	SD	1	2	3	4	5
1. Age	37.83	11.16	N/A				
2. Gender	1.46	.49	-.15*	N/A			
3. Educational Level			-.13*	-.01	N/A		
4. Sector- Engineering	.20	.40	-.08	-.36**	-.12	N/A	
5. Sector- Trade	.21	.41	-.14*	.12	.01	-.26**	N/A
6. Sector-Textile	.07	.26	-.05	.19**	-.21**	-.14*	-.15*
7. Sector- Agriculture	.05	.22	-.06	-.4	.16**	-.11	-.12
8. Sector - Handicraft	.02	.14	.90	.10	-.16*	-.07	-.07
9. Sector - Service	.08	.27	-.01	-.01	.12	-.14*	-.15*
10. Sector -Other	.34	.48	.24**	.06	.13*	-.36**	-.37**
11. Type - Laborer	.20	.40	.04	-.08	-.57**	.19**	-.14*
12. Type - Service	.10	.31	-.20**	.20**	.02	-.17**	.35**
13. Type - Office	.59	.49	-.05	.04	.36**	-.12*	-.07
14. Type – Middle Management	.06	.23	.14*	-.08	.18**	.04	-.05
15. Type – Top management	.04	.20	.18**	-.16*	.03	.14*	-.02
16. Organizational tenure	10.32	9.61	.74**	-.05	-.12	-.19**	-.07
17. Working hours per week	1.87	.72	-.08	-.28**	-.08	.30**	.08
18. Previous work experience	.83	.37	-.25**	-.07	-.07	.01	-.05
19. Job tenure	13.36	11.34	.94**	-.15*	-.28**	-.04	-.14
20. Proactive Personality	5.08	.82	.04	.01	.05	.12	-.09
21. Conscientiousness	3.92	.54	.01	.01	.14*	-.00	.06
22. Agreeableness	3.82	.57	.18**	.07	.05	-.02	.01
23. Extraversion	3.41	.67	-.12	.08	.09	-.05	-.02
24. Neuroticism	2.34	.65	.02	.06	.00	-.12	.16*
25. Openness	3.40	.66	.14*	.20**	.13*	-.08	-.01
26. Autonomy - Scheduling	3.56	.94	.13*	-.02	.01	.03	-.06
27. Autonomy - Decisions	3.28	1.04	.10	-.13*	.03	.10	-.07
28. Autonomy - Methods	3.41	.95	.10	-.10	.00	.12	-.12
29. Feedback Job	3.55	.88	.03	-.02	.01	.05	-.02
30. Problem Solving	3.42	.78	.04	-.12	.09	.20**	-.14
31. Social Opportunity	3.76	.93	-.10	.05	.07	-.03	.10
32. Social Quality	3.44	.82	-.12	-.07	.08	.10	-.03
33. Feedback Others	2.90	.97	-.01	.03	.04	-.07	.12
34. Engagement	4.27	1.10	.11	.05	.10	-.08	.08

Note: Data are standardized regression weights. N = 242 – 258. Variables starting with ‘Sector’ are dummy coded employment sectors. Variables starting with ‘Type’ are dummy coded job types.

\*p<.05, \*\*p<.01, \*\*\*p<.001

Table 3: Mean, Standard Deviation and Correlations among study variables – Continued.

6	7	8	9	10	11	12	13	14	15	16
N/A										
-.07	N/A									
-.04	-.03	N/A								
-.08	-.07	-.04	N/A							
-.20**	-.17**	-.10	-.21**	N/A						
.34**	-.12	.14*	-.07	-.14*	N/A					
-.10	-.08	-.05	-.05	-.01	-.17**	N/A				
-.19*	.12	-.11	.09	.15*	-.61**	-.41**	N/A			
-.01	-.06	-.04	.05	.03	-.13*	-.09	-.30**	N/A		
-.06	.13*	.11	-.06	-.11	-.11	-.07	-.26**	-.05	N/A	
-.13*	-.02	.13*	-.01	.28**	-.06	-.10	.02	.04	.16*	N/A
.07	-.16*	.02	-.03	-.26**	.13*	-.16*	-.21**	.19*	.26**	-
										.19**
.05	.01	.06	.05	-.03	.09	-.16**	-.06	.07	.04	.03
-.01	-.06	.14*	-.02	.17**	.14*	-.17**	-.15*	.11	.22**	.74**
.05	-.11	.02	-.06	.03	-.01	-.13*	.05	-.02	.12	-.01
-.01	.02	-.04	-.02	.00	-.13*	-.05	.12	-.03	.08	-.03
-.16	-.03	.11	.00	.08	-.15*	.02	.04	.04	.13*	.16*
.11	-.16*	-.05	-.02	.05	-.04	-.03	.03	.06	-.02	-.13*
-.08	-.01	-.01	.05	-.04	.02	.21**	-.08	-.02	-.14*	.02
-.02	-.13	.00	.03	.16**	-.11	.03	-.04	.19*	.05	.02
								*		
.05	.03	.03	-.03	.02	-.11	-.10	.00	.15*	.21**	.09
.01	-.01	.08	-.00	-.07	-.01	-.09	-.14*	.21*	.28**	.08
								*		
.00	.01	.01	-.10	.03	-.05	-.20**	-.03	.19*	.26**	.09
								*		
.08	-.13*	-.00	-.06	.04	-.01	-.04	-.10	.15*	.15*	.00
-.00	-.05	-.07	-.06	.05	-.03	-.06	-.11	.19*	.20**	.03
								*		
.09	.07	-.00	-.00	-.14	-.03	.14*	-.16*	.08	.13*	-.11
.03	.12	-.17**	-.01	-.08	-.12	-.03	.00	.14*	.12	-.13*
.02	-.12	-.11	-.02	.05	-.06	.02	-.05	.03	.16*	-.11
-.05	.06	.13*	-.04	-.02	-.09	.03	-.06	.10	.17**	.04

Note: Data are standardized regression weights. N = 242 – 258. Variables starting with ‘Sector’ are dummy coded employment sectors. Variables starting with ‘Type’ are dummy coded job types.

\*p<.05, \*\*p<.01, \*\*\*p<.001

Table 3: Mean, Standard Deviation and Correlations among study variables – Continued.

17	18	19	20	21	22	23	24
N/A							
.11	N/A						
-.04	.29**	N/A					
.09	.15*	.10	(.84)				
.07	.08	.05	.55**	(.78)			
-.04	.01	.17**	.11	.19**	(.77)		
.11	.07	-.09	.38**	.26**	.07	(.84)	
-.09	-.07	-.03	-.37**	-.37**	-.28**	-.33**	(.84)
-.07	-.14*	.11	.30**	.16**	.27**	.31**	-.13*
.15*	.09	.13*	.32**	.35**	.14*	.05	-.32**
.26**	.12	.13*	.30**	.26**	.05	.03	-.24**
.24**	.10	.13*	.32**	.33**	.16*	.07	-.35**
.14*	.13*	.07	.36**	.29**	.06	.28**	-.24**
.12	.04	.06	.30**	.24**	.05	.17**	-.12
.19**	.03	-.07	.18**	.24**	.14*	.26**	-.16**
.09	-.01	-.13*	.12	.10	.20**	.16**	-.24**
.11	.06	-.03	.17**	.10	.03	.24**	-.09
.12	.15*	.09	.27**	.34**	.15*	.14*	-.16*

Note: Data are standardized regression weights. N = 242 – 258. Variables starting with ‘Sector’ are dummy coded employment sectors. Variables starting with ‘Type’ are dummy coded job types.

\*p<.05, \*\*p<.01, \*\*\*p<.001

Table 3: Mean, Standard Deviation and Correlations among study variables – Continued.

25	26	27	28	29	30	31	32	33	34
(.79)									
.05	(.91)								
.11	.69**	(.93)							
.06	.73**	.74**	(.92)						
.10	.41**	.44**	.48**	(.92)					
.19**	.37**	.42**	.42**	.33**	(.66)				
.08	.31**	.37**	.36**	.39**	.36**	(.86)			
.17**	.35**	.31**	.33**	.30**	.21**	.32**	(.72)		
.25**	.20**	.20**	.19**	.36**	.28**	.23**	.33**	(.92)	
.14*	.38**	.38**	.34**	.33**	.26**	.25**	.14*	.19**	(.93)

Note: Data are standardized regression weights. N = 242 – 258. Variables starting with ‘Sector’ are dummy coded employment sectors. Variables starting with ‘Type’ are dummy coded job types.

\*p<.05, \*\*p<.01, \*\*\*p<.001



Table 4:

Moderating Effects of Decision making Autonomy on the Proactive Personality – Work

Engagement Relationship with Bootstrapping

Predictors	Work Engagement			
	Step 1	Step 2	Step 3	Step 4
Collection Method	-.23	-.16	-.13	-.12
Education level	.23*	.22*	.20*	.19*
Sector -Engineering	.24	.37	.33	.38
Sector -Trade	.41	.52*	.50	.53*
Sector - Textile	.20	.26	.24	.26
Sector - Agriculture	.28	.32*	.32*	.33*
Sector - Handicraft	.15	.18	.18	.21*
Sector – Service	.27	.36	.32	.34*
Sector – Other	.45	.56	.52	.55
Type – Laborer	-.07	.01	.02	.02
Type – Service	-.02	.04	.06	.05
Type – Middle	-.12	-.03	-.02	-.02
Management				
Type – Top management	.04	.04	.07	.05
Age	-.29	-.24	-.22	-.19
Working hours/week	.06	.02	.02	.03
Prev. work experience	.06	.05	.05	.05
Job Tenure	.43	.35	.31	.28
Conscientiousness	.20*	.17*	.11	.11
Agreeableness	.01	.02	.02	.03
Extraversion	.08	.13	.10	.11
Neuroticism	-.14	-.09	-.08	-.08
Openness	.30	-.32	-.34	-.33
Autonomy Decision Making (AUTO DES)		.24*	.22*	.24*
Proactive Personality (PAP)			.16	.13
PAP * AUTO DES				-.13

Note: Data are standardized regression weights.

\*p&lt;.05, \*\*p&lt;.01, \*\*\*p&lt;.001

Table 5:  
Moderating Effects of All Variables on the Proactive Personality – Work  
Engagement Relationship

Predictors	Work Engagement			
	Step 1	Step 2	Step 3	Step 4
Collection Method	-.02	.08	.09	.10
Education level	.09	.10	.10	.13
Sector -Engineering	-.22	-.11	-.12	-.14
Sector -Trade	-.08	.02	.01	-.03
Sector - Textile	-.13	-.06	-.07	-.11
Sector - Agriculture	.05	.11	.11	.13
Sector - Handicraft	.07	.08	.07	.07
Sector – Service	-.12	-.04	-.05	-.06
Sector – Other	-.17	-.09	-.10	-.15
Type – Laborer	.06	.09	.09	.14
Type – Service	.09	.12	.12	.12
Type – Middle	.09	.01	.01	.02
Management				
Type – Top management	.13	.06	.06	.06
Age	.09	.05	.05	.02
Working hours/week	.08	.07	.07	.06
Prev. work experience	.08	.05	.05	.05
Conscientiousness	.31***	.19*	.17*	.16*
Agreeableness	.02	.05	.05	.07
Extraversion	.07	.08	.07	.08
Neuroticism	-.05	.01	.01	.03
Openness	.04	.04	.03	.06
Autonomy Scheduling		.14	.14	.15
Autonomy Decision Making		.11	.11	.10
Autonomy Methods		.01	.01	.03
Feedback Job		.15	.15**	.18*
Problem Solving		.10	.10	.08
Social Support – Opportunity		-.00	.00	-.01
Social Support – Quality		-.02	-.02	-.03
Feedback Others		.02	.02	.04
Proactive Personality (PAP)			.04	.07
PAP * AUTO SCH				.17
PAP*AUTO DESIGN				-.19*

Table 5: Continued

PAP * AUTO METHODS				-0.05
PAP * FEED JOB				.04
PAP * PROB SOLV				.14
PAP* SUPP OPP				.02
PAP * SUPP QUAL				.16
PAP * FEEDBACK OTHERS				-.21**
R <sup>2</sup>	.26	.36	.36	.40
ΔR <sup>2</sup>	.26	.10	.00	.05
ΔF	3.53	4.00	.21	1.96
F value	3.59***	3.61***	3.49***	3.53***

Note: Data are standardized regression weights.

\*p<.05, \*\*p<.01, \*\*\*p<.001

AUTO SCH = Autonomy Scheduling; AUTO DESIGN = Decision Making Autonomy; AUTO METHODS = Work Methods Autonomy; FEED JOB = Feedback from the Job; PROB SOLV = Problem Solving; SUPP OPP = Social Support Opportunity; SUPP QUAL = Social Support Quality; FEEDBACK OTHERS = Feedback from Others

Table 6:  
Moderating Effects of Task Identity on the Proactive Personality – Work  
Engagement Relationship

Predictors	Work Engagement			
	Step 1	Step 2	Step 3	Step 4
Collection Method	-.01	.02	.03	.02
Education level	.10	.07	.07	.09
Sector -Engineering	-.21	-.10	-.13	-.21
Sector -Trade	-.07	.01	-.02	-.09
Sector - Textile	-.13	-.05	-.07	-.12
Sector - Agriculture	.05	.10	.09	.07
Sector - Handicraft	.07	.09	.08	.05
Sector – Service	-.11	-.03	-.05	-.09
Sector – Other	-.16	-.06	-.09	-.19
Type – Laborer	.06	.07	.07	.06
Type – Service	.08	.13	.13	.13
Type – Middle	.09	.08	.08	.10
Management				
Type – Top management	.13	.12	.12	.11
Age	.07	.08	.08	.06
Working hours/week	.08	.10	.10	.09
Prev. work experience	.08	.08	.08	.07
Job Tenure	.01	-.05	-.06	-.05
Conscientiousness	.31***	.25***	.23**	.23**
Agreeableness	.03	.04	.04	.05
Extraversion	.06	.05	.05	.04
Neuroticism	-.05	-.03	-.03	-.04
Openness	.04	.07	.05	.04
Task Identity		.22**	.21*	.21**
Proactive Personality (PAP)			.07	.11
PAP * TASK ID				.15*
R <sup>2</sup>	.26	.29	.30	.32
ΔR <sup>2</sup>	.27	.04	.00	.02
ΔF	3.32***	11.22**	.67	5.72*
F value	3.32***	3.81***	3.68***	3.84***

Note: Data are standardized regression weights.

\*p<.05, \*\*p<.01, \*\*\*p<.001

Figure 1. Conceptual model of relationships hypothesized in this dissertation.

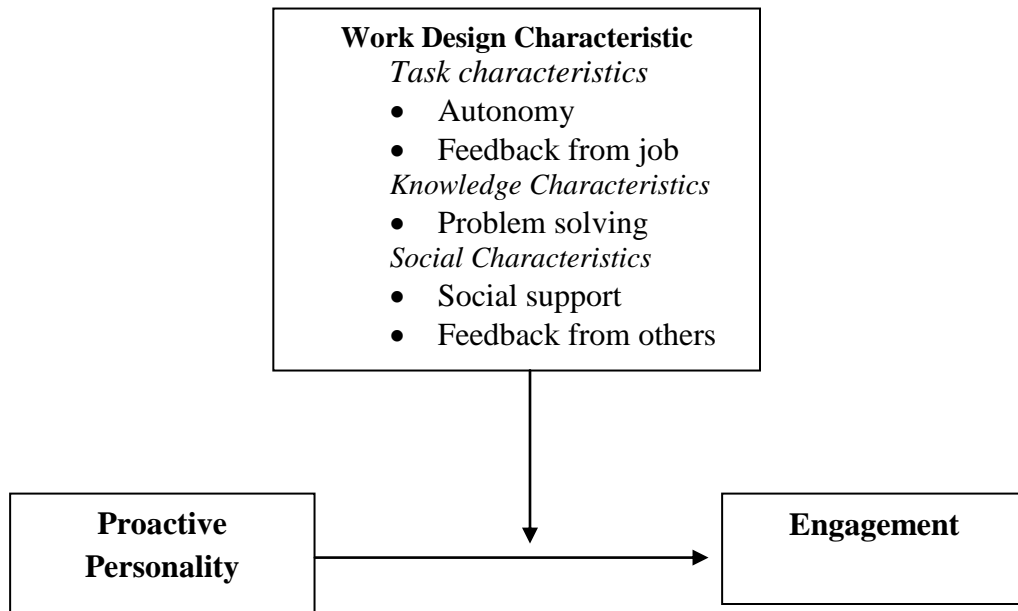


Figure 2. Study Design and Variables Collected at Each Time Point

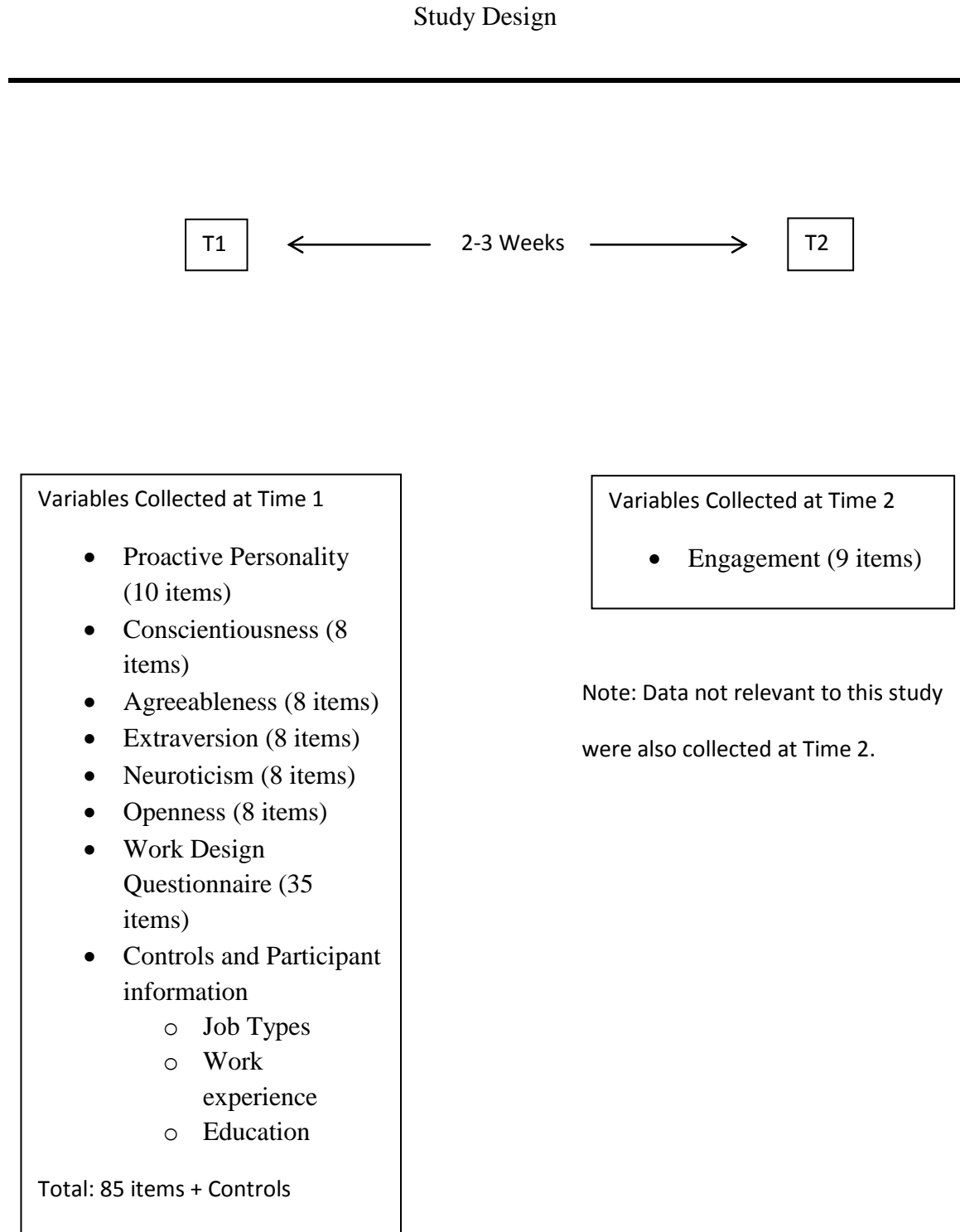


Figure 3.

The Moderating Effect of Decision Making Autonomy on the Proactive Personality-Work Engagement Relation with Bootstrapping

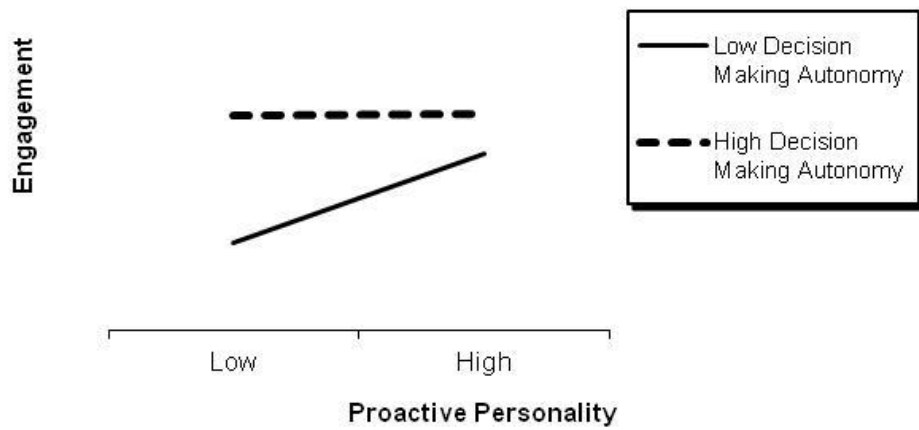


Figure 4.

The Moderating Effect of Decision Making Autonomy on the Proactive Personality-Work Engagement Relation with All Study-Relevant Work Design Characteristics Included Simultaneously

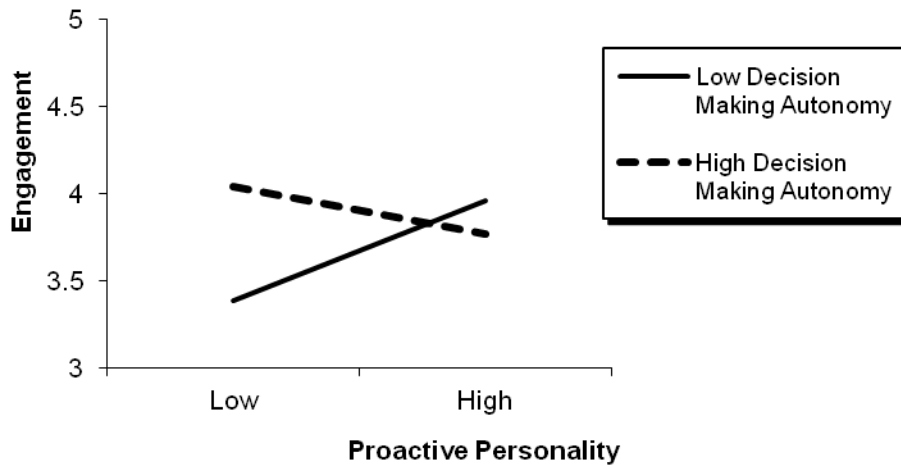




Figure 5.

The Moderating Effect of Feedback from Others on the Proactive Personality-Work Engagement Relation With All Study-Relevant Work Design Characteristics Included Simultaneously

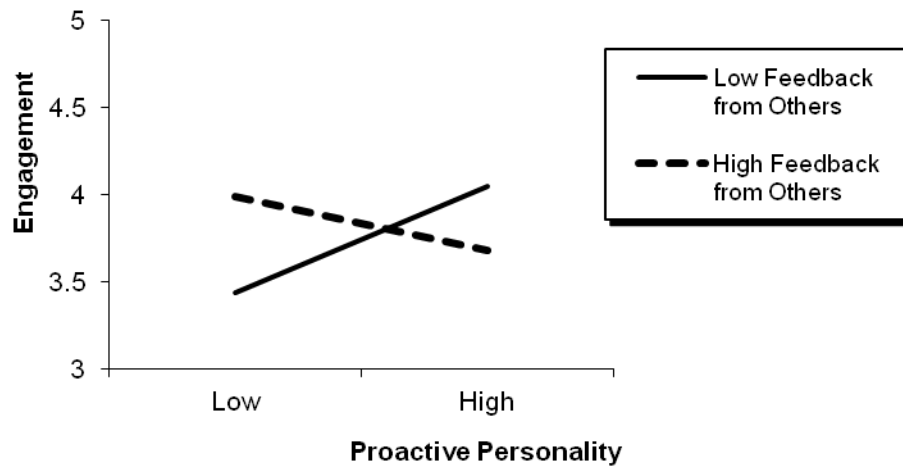


Figure 6.

The Moderating Effect of Task Identity on the Proactive Personality-Work Engagement Relation

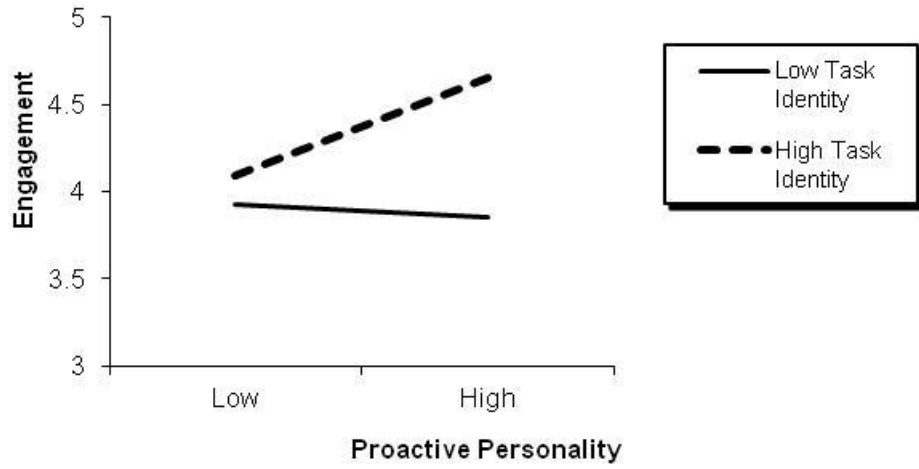


Figure 7.

The Proactivity Dynamics Framework (Grant & Ashford, 2008)

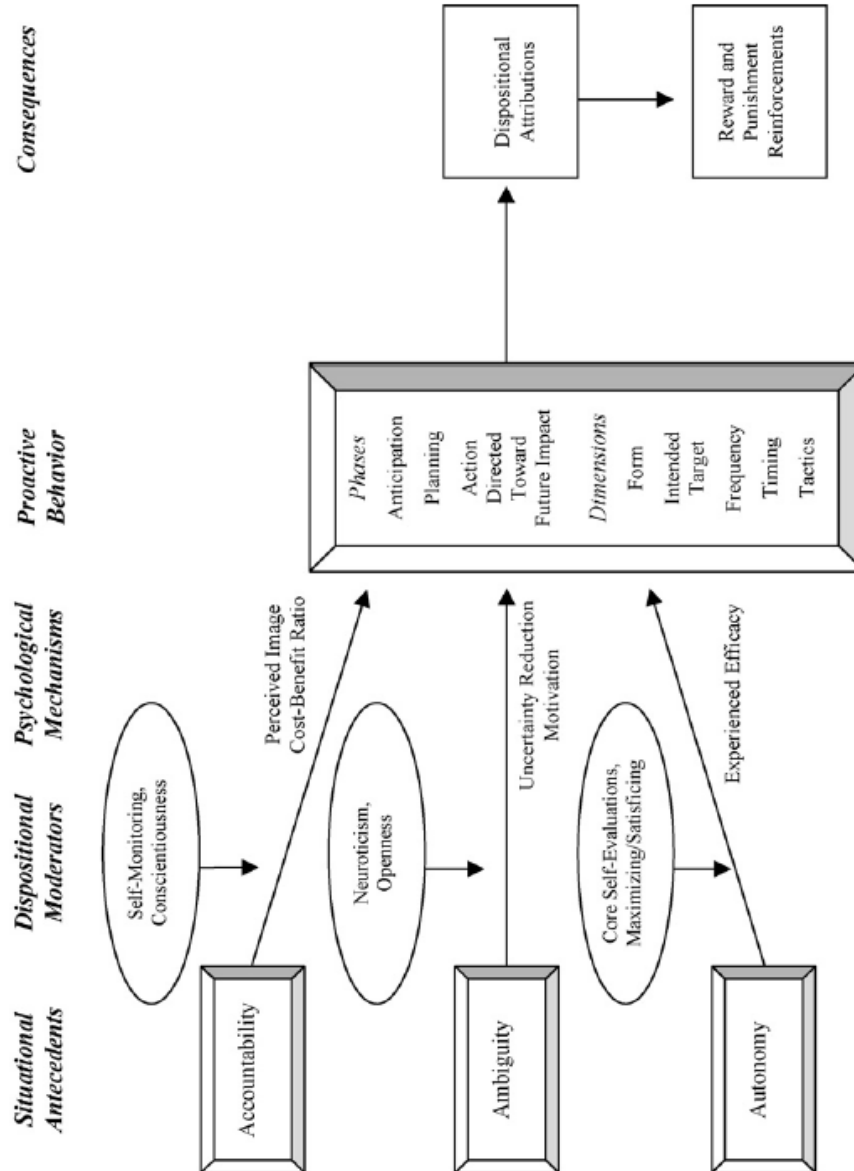


Fig. 1. The Proactivity Dynamics Framework.

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## Appendix A: Study Survey – Time 1

**INTRODUZIONE**

Gentile partecipante *l'obiettivo del presente studio* è quello di raccogliere le percezioni e i vissuti delle persone che lavorano all'interno delle organizzazioni.

Le chiediamo di *compilare il questionario in ogni sua parte*, seguendo le indicazioni riportate in ogni singola "sezione". Le ricordiamo che le affermazioni proposte consentono a ciascuna persona di esprimere la propria opinione, pertanto **non ci sono risposte giuste o sbagliate**.

I dati raccolti attraverso la presente indagine saranno trattati nel rispetto del D. Lgs. n. 1 96/2003 (Codice in materia di protezione dei dati personali) e saranno mantenuti **rigorosamente anonimi**. I dati saranno elaborati e conservati presso il Dipartimento di Scienze della Cognizione e della Formazione dell'Università degli Studi di Trento. Il responsabile del trattamento dei dati è il Prof. Franco Fraccaroli, direttore del Dipartimento di Scienze della Cognizione e della Formazione ([franco.fraccaroli@unitn.it](mailto:franco.fraccaroli@unitn.it)).

La ringraziamo per la gentile collaborazione.

PROACTIVE PERSONALITY {Seibert, 1999 #206}

Per favore indichi quanto crede che ogni affermazione la descriva usando una scala da 1 a 7 dove 1 indica "completamente in disaccordo", 2 "in disaccordo", 3 "abbastanza in disaccordo", 4 "né in disaccordo né in accordo", 5 "abbastanza in accordo", 6 "in accordo" e 7 "completamente d'accordo". Descriva se stesso come in generale è ora, non come desidera essere in futuro. Descriva se stesso come onestamente si vede, in relazione ad altre persone che conosce del suo stesso genere e circa della sua stessa età.

	Completamente in disaccordo (Strongly disagree)	Completamente d'accordo (Strongly agree)
1. Sono alla costante ricerca di nuovi modi per migliorare la mia vita  (I am constantly on the lookout for new ways to improve my life.)	①	② ③ ④ ⑤ ⑥ ⑦
2. Ovunque sono stato, ho avuto una grande forza per un cambiamento costruttivo  (Wherever I have been, I have been a powerful force for constructive change.)	①	② ③ ④ ⑤ ⑥ ⑦
3. Nulla è più eccitante di vedere le mie idee realizzate  (Nothing is more exciting than seeing my ideas turn into reality.)	①	② ③ ④ ⑤ ⑥ ⑦
4. Se vedo qualcosa che non amo, cerco di sistemarla  (If I see something I don't like, I fix it.)	①	② ③ ④ ⑤ ⑥ ⑦
5. Non importa quali siano le probabilità, se credo in qualcosa, riesco a realizzarla  (No matter what the odds, if I believe something I will make it happen.)	①	② ③ ④ ⑤ ⑥ ⑦

- 
6. Amo portare avanti le mie idee, anche contro l'opposizione degli altri
- ①   ②   ③   ④   ⑤   ⑥   ⑦
- (I love being a champion for my ideas, even against others' opposition.)
- 
7. Sono molto bravo ad individuare le opportunità
- ①   ②   ③   ④   ⑤   ⑥   ⑦
- (I excel at identifying opportunities.)
- 
8. Cerco sempre i modi migliori per realizzare le cose
- ①   ②   ③   ④   ⑤   ⑥   ⑦
- (I am always looking for better ways to do things.)
- 
9. Se credo in un'idea, non ci saranno ostacoli che mi impediranno la sua realizzazione
- ①   ②   ③   ④   ⑤   ⑥   ⑦
- (If I believe in an idea, no obstacle will prevent me from making it happen.)
- 
10. Riesco ad individuare una buona opportunità molto prima degli altri
- ①   ②   ③   ④   ⑤   ⑥   ⑦
- (I can spot a good opportunity long before others can.)
-

CONSCIENTIOUSNESS {Goldberg, 1999 #208}{Goldberg, 2006 #209}

Per favore indichi quanto esattamente ogni affermazione la descriva usando una scala da 1 a 5 dove 1 indica "molto inesatto", 2 "moderatamente inesatto", 3 "né esatto né inesatto", 4 "moderatamente esatto" e 5 "molto esatto". Descriva se stesso come in generale è ora, non come desidera essere in futuro. Descriva se stesso come onestamente si vede, in relazione ad altre persone che conosce del suo stesso genere e circa della sua stessa età.

	Molto inesatto (Very inaccurate)		Molto esatto (very accurate)		
11. Sono sempre preparato <i>(I am always prepared)</i>	①	②	③	④	⑤
12. Presto attenzione ai dettagli <i>(I pay attention to detail)</i>	①	②	③	④	⑤
13. Finisco subito le faccende <i>(I finish all my tasks immediately)</i>	①	②	③	④	⑤
14. Porto a termine i miei piani <i>(I execute my plans)</i>	①	②	③	④	⑤
15. Faccio piani e mi attengo ad essi <i>(I make plans and stick to them)</i>	①	②	③	④	⑤
16. Spreco il mio tempo <i>(I waste my time)</i>	①	②	③	④	⑤
17. Faccio fatica a mettermi a lavorare <i>(I struggle to get to work)</i>	①	②	③	④	⑤
18. Faccio appena il lavoro sufficiente per tirare avanti <i>(I do just enough work to get by)</i>	①	②	③	④	⑤
19. Non completo le cose <i>(I do not complete things)</i>	①	②	③	④	⑤
20. Sfuggo ai miei doveri <i>(I shirk my duties)</i>	①	②	③	④	⑤



AGREEABLENESS {Goldberg, 1999 #208}{Goldberg, 2006 #209}

Per favore indichi quanto esattamente ogni affermazione la descriva usando una scala da 1 a 5 dove 1 indica "molto inesatto", 2 "moderatamente inesatto", 3 "né esatto né inesatto", 4 "moderatamente esatto" e 5 "molto esatto". Descriva se stesso come in generale è ora, non come desidera essere in futuro. Descriva se stesso come onestamente si vede, in relazione ad altre persone che conosce del suo stesso genere e circa della sua stessa età.

	<i>Molto inesatto (very inaccurate)</i>		<i>Molto esatto (Very accurate)</i>		
21. Ho una buona parola per tutti <i>(I have a good word for everyone)</i>	①	②	③	④	⑤
22. Credo che gli altri abbiano buone intenzioni <i>(I believe that others have good intentions)</i>	①	②	③	④	⑤
23. Rispetto gli altri <i>(I respect others)</i>	①	②	③	④	⑤
24. Accetto le persone come sono <i>(I accept people as they are)</i>	①	②	③	④	⑤
25. Faccio sentire le persone a loro agio <i>(I make people feel at ease)</i>	①	②	③	④	⑤
26. Ho una lingua tagliente <i>(I have a sharp tongue)</i>	①	②	③	④	⑤
27. Faccio gli altri a pezzi <i>(I tear others to pieces)</i>	①	②	③	④	⑤
28. Sospetto moventi nascosti negli altri <i>(I suspect hidden motives in others)</i>	①	②	③	④	⑤
29. Pareggio i conti con gli altri <i>(I am on good terms with nearly everyone)</i>	①	②	③	④	⑤
30. Insulto le persone <i>(Exr)</i>	①	②	③	④	⑤

## EXTRAVERSION {Goldberg, 1999 #208}{Goldberg, 2006 #209}

Per favore indichi quanto esattamente ogni affermazione la descriva usando una scala da 1 a 5 dove 1 indica "molto inesatto", 2 "moderatamente inesatto", 3 "né esatto né inesatto", 4 "moderatamente esatto" e 5 "molto esatto". Descriva se stesso come in generale è ora, non come desidera essere in futuro. Descriva se stesso come onestamente si vede, in relazione ad altre persone che conosce del suo stesso genere e circa della sua stessa età.

	<i>Molto inesatto (Very inaccurate)</i>		<i>Molto esatto (Very accurate)</i>		
31. Mi sento a mio agio con le persone (I feel at ease with people)	①	②	③	④	⑤
32. Faccio amicizie facilmente (I make friends easily)	①	②	③	④	⑤
33. Sono abile nel gestire situazioni sociali (I am skilled at handling social situations)	①	②	③	④	⑤
34. Sono l'anima della festa (I am the life of the party)	①	②	③	④	⑤
35. So come accattivare le persone (I know how to captivate people)	①	②	③	④	⑤
36. Ho poco da dire (I have little to say)	①	②	③	④	⑤
37. Mi tengo in disparte (I keep to myself)	①	②	③	④	⑤
38. Vorrei descrivere le mie esperienze come alquanto noiose (I am somewhat boring)	①	②	③	④	⑤
39. Non mi piace attirare l'attenzione su me stesso (I do not like to draw attention to myself)	①	②	③	④	⑤
40. Non parlo molto (I don't talk a lot)	①	②	③	④	⑤

NEUROTICISM {Goldberg, 1999 #208}{Goldberg, 2006 #209}

Per favore indichi quanto esattamente ogni affermazione la descriva usando una scala da 1 a 5 dove 1 indica "molto inesatto", 2 "moderatamente inesatto", 3 "né esatto né inesatto", 4 "moderatamente esatto" e 5 "molto esatto". Descriva se stesso come in generale è ora, non come desidera essere in futuro. Descriva se stesso come onestamente si vede, in relazione ad altre persone che conosce del suo stesso genere e circa della sua stessa età.

	Molto inesatto (Very inaccurate)		Molto esatto (Very accurate)		
41. Spesso mi sento giù ( (I often feel down)	①	②	③	④	⑤
42. Non mi piaccio (I do not like myself)	①	②	③	④	⑤
43. Sono spesso depresso (I am often depressed)	①	②	③	④	⑤
44. Ho frequenti sbalzi d'umore (I have frequent mood swings)	①	②	③	④	⑤
45. Sono facilmente in preda al panico (I am easily panicked)	①	②	③	④	⑤
46. Mi irrito raramente (I rarely get irritated)	①	②	③	④	⑤
47. Raramente mi sento giù (I rarely feel down)	①	②	③	④	⑤
48. Mi sento a mio agio con me stesso (I am comfortable with myself)	①	②	③	④	⑤
49. Non sono facilmente infastidito dalle cose (I am not easily bothered by things)	①	②	③	④	⑤
50. Sono molto contento di me stesso (I am very pleased with myself)	①	②	③	④	⑤

OPENNESS {Goldberg, 1999 #208}{Goldberg, 2006 #209}

Per favore indichi quanto esattamente ogni affermazione la descriva usando una scala da 1 a 5 dove 1 indica "molto inesatto", 2 "moderatamente inesatto", 3 "né esatto né inesatto", 4 "moderatamente esatto" e 5 "molto esatto". Descriva se stesso come in generale è ora, non come desidera essere in futuro. Descriva se stesso come onestamente si vede, in relazione ad altre persone che conosce del suo stesso genere e circa della sua stessa età.

	<i>Molto inesatto (Very inaccurate)</i>		<i>Molto esatto (Very accurate)</i>		
51. Credo nell'importanza dell'arte <i>(I believe in art)</i>	①	②	③	④	⑤
52. Ho una vivida immaginazione <i>(I have a vivid imagination)</i>	①	②	③	④	⑤
53. Tendo a votare per candidati politici liberali <i>(I tend to vote for liberal political candidates)</i>	①	②	③	④	⑤
54. Conduco la conversazione ad un livello più elevato <i>(I take the conversation to a higher level)</i>	①	②	③	④	⑤
55. Mi piace ascoltare nuove idee <i>(I like to listen to new ideas)</i>	①	②	③	④	⑤
56. Non sono interessato a idee astratte <i>(I am not interested in abstract ideas)</i>	①	②	③	④	⑤
57. Non mi piace l'arte <i>(I do not like the arts)</i>	①	②	③	④	⑤
58. Evito discussioni filosofiche <i>(I avoid philosophical discussions)</i>	①	②	③	④	⑤
59. Non mi piace andare a musei d'arte <i>(I do not like going to art museums)</i>	①	②	③	④	⑤
60. Tendo a votare per candidati politici conservatori <i>(I tend to vote for conservative political candidates)</i>	①	②	③	④	⑤

**WORK DESIGN QUESTIONNAIRE {Morgeson, 2006 #210}**

Per favore risponda ad ognuna delle seguenti affermazioni.

<b>AUTONOMIA – AUTONOMY</b>	<i>Completamente in disaccordo (Strongly disagree)</i>	<i>Completamente d'accordo (Strongly agree)</i>
<p><b>Autonomia nella programmazione del lavoro – Work Scheduling Autonomy</b></p> <hr/> <p>61. Il lavoro mi permette di prendere le mie proprie decisioni su come programmare la mia attività</p> <p>(The job allows me to make my own decisions about how to schedule my work.)</p>	①    ②    ③    ④    ⑤	
<p>62. Il lavoro mi permette di decidere sull'ordine in cui le cose vengono fatte [sul lavoro]</p> <p>(The job allows me to decide on the order in which things are done on the job.)</p>	①    ②    ③    ④    ⑤	
<p>63. Il lavoro mi permette di pianificare come realizzo (= fare) la mia attività</p> <p>(The job allows me to plan how I do my work.)</p>	①    ②    ③    ④    ⑤	
<p>Quanto si sente soddisfatto rispetto a questi aspetti del suo lavoro?</p> <p>(How satisfied do you feel with these aspects of your work?)</p> <p>Per nulla (not at all) ①    ②    ③    ④    ⑤ Del tutto (completely)</p>		

<b>Autonomia decisionale – Decision-Making Autonomy</b>	<i>Completamente in disaccordo (Strongly disagree)</i>	<i>Completamente d'accordo (Strongly agree)</i>
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64. Il lavoro mi dà la possibilità di usare la mia iniziativa o il mio giudizio personale nell'eseguire l'attività

①      ②      ③      ④      ⑤

(The job gives me a chance to use my personal initiative or judgment in carrying out the work.)

---

65. Il lavoro mi permette di prendere molte decisioni per conto mio

①      ②      ③      ④      ⑤

(The job allows me to make a lot of decisions on my own.)

---

66. Il lavoro mi fornisce molta autonomia per prendere delle decisioni

①      ②      ③      ④      ⑤

(The job provides me with significant autonomy in making decisions.)

---

Quanto si sente soddisfatto rispetto a questi aspetti del suo lavoro?  
(How satisfied do you feel with these aspects of your work?)

Per nulla (not at all) ①      ②      ③      ④      ⑤ Del tutto (completely)

<b>Autonomia dei metodi di lavoro – Work Methods Autonomy</b>	<i>Completamente in disaccordo (Strongly disagree)</i>	<i>Completamente d'accordo (Strongly agree)</i>
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67. Il lavoro mi permette di prendere decisioni su quali metodi utilizzo per portare a termine la mia attività

①      ②      ③      ④      ⑤

(The job allows me to make decisions about what methods I use to complete my work.)

---

---

68. Il lavoro mi dà una considerevole opportunità di indipendenza e libertà su come svolgere l'attività

①      ②      ③      ④      ⑤

(The job gives me considerable opportunity for independence and freedom in how I do the work.)

---

69. Il lavoro mi permette di decidere per conto mio come fare per svolgere la mia attività

①      ②      ③      ④      ⑤

(The job allows me to decide on my own how to go about doing my work.)

---

<b>Feedback lavorativi – Feedback from the job</b>	<i>Completamente in disaccordo (Strongly disagree)</i>	<i>Completamente d'accordo (Strongly agree)</i>
--	--	---

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70. Le attività lavorative stesse forniscono informazioni chiare e dirette sull'efficacia (es.: qualità e quantità) della mia prestazione lavorativa

①      ②      ③      ④      ⑤

(The work activities themselves provide direct and clear information about the effectiveness (e.g., quality and quantity) of my job performance)

---

71. Il lavoro stesso fornisce feedback sulla mia prestazione

①      ②      ③      ④      ⑤

(The job itself provides feedback on my performance.)

---

72. Il lavoro stesso mi dà informazioni circa la mia prestazione

①      ②      ③      ④      ⑤

(The job itself provides me with information about my performance.)

---

Quanto si sente soddisfatto rispetto a questi aspetti del suo lavoro?

(How satisfied do you feel with these aspects of your work?)

Per nulla (not at all) ①      ②      ③      ④      ⑤ Del tutto (completely)

<b>Risoluzione di problemi – Problem Solving</b>	<i>Completamente in disaccordo (Strongly disagree)</i>					<i>Completamente d'accordo (Strongly agree)</i>
73. Il lavoro comporta la risoluzione di problemi che non hanno ovvie risposte corrette  (The job involves solving problems that have no obvious correct answer.)	①	②	③	④	⑤	
74. Il lavoro mi richiede di essere creativo  (The job requires me to be creative.)	①	②	③	④	⑤	
75. Il lavoro spesso comporta di affrontare problemi che non ho mai incontrato prima  (The job often involves dealing with problems that I have not met before.)	①	②	③	④	⑤	
76. Il lavoro richiede idee o soluzioni uniche ai problemi  (The job requires unique ideas or solutions to problems.)	①	②	③	④	⑤	
Quanto si sente soddisfatto rispetto a questi aspetti del suo lavoro? (How satisfied do you feel with these aspects of your work?)						
Per nulla (not at all) ①    ②    ③    ④    ⑤ Del tutto (completely)						



<b>CARATTERISTICHE SOCIALI</b>					
<b>Supporto sociale – Social Support</b>	<i>Completamente in disaccordo (Strongly disagree)</i>		<i>Completamente d'accordo (Strongly agree)</i>		
77. Ho l'opportunità di sviluppare amicizie strette nel mio lavoro  (I have the opportunity to develop close friendships in my job.)	①	②	③	④	⑤
78. Ho la possibilità nel mio lavoro di conoscere altre persone  (I have the chance in my job to get to know other people.)	①	②	③	④	⑤
79. Ho l'opportunità di incontrarmi con altre persone nella mia attività  (I have the opportunity to meet with others in my work.)	①	②	③	④	⑤
80. Il mio superiore si preoccupa del benessere delle persone che lavorano per lui/lei  (My supervisor is concerned about the welfare of the people that work for him/her.)	①	②	③	④	⑤
81. Le persone con cui lavoro si interessano personalmente a me  (People I work with take a personal interest in me.)	①	②	③	④	⑤
82. Le persone con cui lavoro sono simpatiche  (People I work with are friendly.)	①	②	③	④	⑤
Quanto si sente soddisfatto rispetto a questi aspetti del suo lavoro?  (How satisfied do you feel with these aspects of your work?)					
Per nulla (not at all) ①    ②    ③    ④    ⑤ Del tutto (completely)					

	<i>Completamente in disaccordo (Strongly disagree)</i>	<i>Completamente d'accordo (Strongly agree)</i>
--	--	---

83. Ricevo un gran numero di informazioni dal mio dirigente e (dai miei) colleghi sulla mia prestazione lavorativa

(I receive a great deal of information from my manager and coworkers about my job performance.)

①      ②      ③      ④      ⑤

84. Altre persone nella organizzazione, come dirigenti e colleghi, forniscono informazioni sull'efficacia (es., qualità e quantità) della mia prestazione lavorativa

(Other people in the organization, such as managers and coworkers, provide information about the effectiveness (e.g., quality and quantity) of my job performance.)

①      ②      ③      ④      ⑤

85. Ricevo feedback sulla mia prestazione da altre persone nella mia organizzazione (come il mio dirigente o colleghi)

(I receive feedback on my performance from other people in my organization (such as my manager or coworkers).)

①      ②      ③      ④      ⑤

Quanto si sente soddisfatto rispetto a questi aspetti del suo lavoro?

(How satisfied do you feel with these aspects of your work?)

Per nulla (not at all) ①      ②      ③      ④      ⑤ Del tutto (completely)

<p>Anno di nascita: 19 <input type="text"/> <input type="text"/> <input type="text"/></p> <p>(Birth year)</p> <p>Genere: <input type="radio"/> Maschio (Male) <input type="radio"/> Femminam(Female) (Gender)</p>	<p>Indicare la Nazione di nascita (country of birth)</p> <p>.....</p>
---	---

<p><i>Titolo di studio</i> (Qualification)</p> <p><input type="radio"/> Nessun titolo (No Title)</p> <p><input type="radio"/> Diploma professionale (Professional Diploma)</p>	<p><input type="radio"/> Licenza elementare (Primary School)</p> <p><input type="radio"/> Licenza scuola superiore (License School)</p>	<p><input type="radio"/> Licenza media inferiore (Middle School)</p> <p><input type="radio"/> Laurea (University Degree)</p>
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<p><i>Settore in cui attualmente opera</i> (Sector of work)</p> <p><input type="radio"/> Metalmeccanico (Engineering)</p> <p><input type="radio"/> Agricoltura (Agriculture)</p>	<p><input type="radio"/> Commercio (Commercial)</p> <p><input type="radio"/> Artigianato (Artisanship)</p>	<p><input type="radio"/> Tessile (Textiles)</p> <p><input type="radio"/> Altro (other):.....</p>
--	--	--

<p><i>Qualifica attuale</i> (Current Position)</p> <p><input type="radio"/> Operaio (Worker/laborer)</p> <p><input type="radio"/> Dirigente (Leader)</p>	<p><input type="radio"/> Impiegato (Office Worker)</p> <p><input type="radio"/> Altro (Other):.....</p>	<p><input type="radio"/> Quadro (Management)</p>
--	---	--

*Descriva brevemente la mansione che svolge attualmente* (Briefly describe the job you are currently performing):.....

.....

.....

<p><i>In servizio presso la sua attuale organizzazione dal</i> (Employed by the current organization from)</p> <p>.....</p> <p>.....</p> <p>(indicare mese ed anno)</p>	<p><i>Quante ore alla settimana lavora</i> (how many hours a week do you work?)</p> <p>.....</p> <p>.....</p> <p>(indichi il numero di ore alla settimana)</p>
---	--

*Prima di lavorare per la sua attuale organizzazione aveva già lavorato?*  SI

NO

(Were you employed prior to joining the current organization?)

*Se sì, specifichi quanti lavori ha svolto (If yes, please specify how many prior jobs you have had) .....*

(indicare il numero di lavori svolti escluso quello attuale)

*Se sì, specifichi da quanti anni lavora (If yes, please indicate how many years you have been employed)*

.....

(indicare il numero totale di anni considerando tutti i lavori che ha svolto) \_\_\_\_\_

## Appendix B: Study Survey – Time 2

**Ora le chiediamo di rispondere a qualche domanda che riguarda IL SUO LAVORO.****WORK ENGAGEMENT (Balducci, Fraccaroli, & Schaufeli; Schaufeli, Bakker, & Salanova, 2006)**

Per favore risponda ad ognuna delle seguenti affermazioni usando una scala da 0 a 6 dove 0 indica "mai", 1 "qualche volta in un anno", 2 "una volta al mese o meno", 3 "qualche volta al mese", 4 "una volta alla settimana", 5 "qualche volta alla settimana" e 6 "ogni giorno".

	Mai(Never)	Ogni giorno(Every day)
1. Nel mio lavoro mi sento pieno di energia (At my work, I feel bursting with energy)	① ② ③ ④ ⑤ ⑥	
2. Nel mio lavoro mi sento forte e vigoroso (At my job I feel strong and vigorous)	① ② ③ ④ ⑤ ⑥	
3. Sono entusiasta del mio lavoro (I am enthusiastic about my job)	① ② ③ ④ ⑤ ⑥	
4. Il mio lavoro mi ispira (My job inspires me)	① ② ③ ④ ⑤ ⑥	
5. La mattina, quando mi alzo, ho voglia di andare al lavoro (When I get up in the morning, I feel like going to work)	① ② ③ ④ ⑤ ⑥	
6. Sono felice quando lavoro intensamente (I feel happy when I am working intensely)	① ② ③ ④ ⑤ ⑥	
7. Sono orgoglioso del lavoro che faccio (I am proud of the work that I do)	① ② ③ ④ ⑤ ⑥	
8. Sono immerso nel mio lavoro (I am immersed in my job)	① ② ③ ④ ⑤ ⑥	
9. Mi lascio prendere completamente quando lavoro (I get carried away when I am working)	① ② ③ ④ ⑤ ⑥	