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Personality Change Following Work-Related Adversity

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CHAPTER 1 INTRODUCTION

Embedded in our everyday conversation and discourse, personality is one of the most studied topics in psychological research. Although a precise definition of personality has never been agreed upon, psychologists have typically used personality traits to describe individual differences in how people behave, think, and feel (Winter, John, Stewart, Klohnen, & Duncan, 1998). More importantly, personality serves as a unique lens to dissect, analyze, and predict important life experiences and outcomes (John, Robins, & Pervin, 2008). Previous meta-analyses and reviews have established significant impact of personality on physiological and psychological health (e.g., Bogg & Roberts, 2004; DeNeve & Cooper, 1998; Diener & Lucas, 1999; Kern & Friedman, 2008; Miller, Smith, Turner, Guijarro, & Hallet, 1996). Pinpointing the mechanism underlying the personality-health relationship, Friedman and Kern (2014) proposed a causal model where the influence of personality on physical and mental health is partially mediated via lifestyle patterns, such as building healthy social networks (Hawkley & Cacioppo, 2010; Taylor, 2011), staying physically active (Wilson & Dishman, 2015), and maintaining a sense of purpose in life (Friedman & Martin, 2011).

In the field of organizational psychology, personality has been utilized to predict critical work-related outcomes such as job performance (e.g., Barrick & Mount, 1991; Barrick, Mount, & Judge, 2001), job satisfaction (e.g., Judge, Heller, & Mount, 2002), organizational citizenship behavior (e.g., Chiaburu, Oh, Berry, Li, & Gardner, 2011; Organ & Ryan, 1995), burnout (e.g., Alarcon, Eschleman, & Bowling, 2009), team performance (e.g., Peeters, Van Tuijl, Rutte, & Reymen, 2006), and leadership (e.g., Bono & Judge, 2004).

Much of the earlier personality research had been operationalized under the assumption that personality traits are static dispositions, with limited developmental changes attributed to

genetic factors (Lewis, 1999; McCrae & Costa, 1999; McCrae et al., 2000). This assumption largely precludes individual differences driven by environmental influences, such as normative and non-normative life experiences and events. Recent studies have challenged this notion by demonstrating personality changes across the life course (e.g., Ardelt, 2000; Caspi & Roberts, 2001; Roberts, Walton, & Viechtbauer, 2006) and identifying individual differences in patterns of personality changes associated with life experiences and events (e.g., Lüdtke, Roberts, Trautwein, & Nagy, 2011). In addition, a few studies have demonstrated the predictive validity of personality changes above and beyond personality traits (e.g., Boyce, Wood, & Powdthavee, 2013; Mroczek & Spiro, 2007; Siegler et al., 2003). As the topic of personality change receives increasing attention in the literature, a lack of research on factors that trigger personality changes in various contexts (e.g., in the work context) and different populations (e.g., older adults), as well as methodological limitations in the previous research (e.g., heavy reliance on data with two or fewer time points), have limited researchers' ability to draw conclusive inferences around personality change.

In this study, I address these gaps and advance the current literature by examining personality changes stemming from adversity in the workplace (unemployment and discrimination) and how they associate with job- and well-being-related outcomes in a nationally representative sample of older adults (age 50 and above) with three-wave, longitudinal data. On the one hand, work-related adversity, such as unemployment (i.e., the desire to work along with inability to find work; U.S. Bureau of Labor Statistics, 2016) and workplace discrimination, may contribute to personality changes over time by limiting the opportunities to express certain trait relevant behaviors (e.g., for Conscientiousness) and by eliciting negative emotions and cognitions (e.g., for Extraversion and Neuroticism). On the other hand, according to Conservation of Resource (COR) theory, personality can act as a personal resource that serves to aid stress resistance (Hobfoll, 1989,

2001). Therefore, fluctuations in personality traits reflecting gains or losses in resources are likely either enabling or hindering individuals' reactions and responses to situational demands, which subsequently affect well-being. Given the potential role of personality in coping (Carver & Connor-Smith, 2010), changes in personality may influence how individuals react to and their ability to cope with these stressful situations, resulting in either beneficial or detrimental effects in work-related and well-being outcomes.

This investigation is meaningful in four ways. First, unemployment and workplace discrimination are two important social issues. Expanding the limited literature on the impact of dramatic, unexpected life events and experiences on personality, especially in the work context, this study links these specific adversities to personality changes and provides insight on *what* drives personality to change. Second, building upon the existing research on the potential impact of personality changes, the current study further includes important outcomes (e.g., perceived work ability) that are theoretically relevant but have not typically been examined in this literature. Third, the working population is aging in the U.S. (Wang & Shultz, 2010); while older adults are more likely to experience adversity (e.g., age discrimination at work; Finkelstein & Truxillo, 2013), they might also be more vulnerable and less capable to successfully cope with adversity encountered at work, thus suffering from more substantial changes with regard to personality and well-being. Given that, it is important to examine the potential changes in personality as a function of adversity in the work context and how these changes predict well-being among older adults. Forth, the current study incorporates robust methodological designs, with a nationally representative sample of older adults and three waves of longitudinal data. The robustness in the current methodological design helps address concerns associated with the use of non-representative samples and two or

fewer waves of data that are typically seen in the personality literature, therefore providing a stronger basis to draw inferences that should be more generalizable to the population.

Personality and the Trait Approach

Since the beginning of human language, personality has been a key to understanding human behavior (Matthews, Deary, & Whiteman, 2009). In his examination of moral philosophy, Aristotle (384-322 BC) described moral virtues (e.g., prudence, temperance, and courage) as dispositions that manifest into moral or immoral actions. In spite of the ongoing debate on its definition (McAdams & Pals, 2006; Mischel & Shoda, 1995), personality has been commonly interpreted via the trait approach to represent "characteristics of the person that account for consistent patterns of feeling, thinking, and behaving" (Pervin & John, 2001, p.4). This approach signifies two important assumptions about personality traits. First, the trait approach presumes both rank-order (inter-individual) consistency (i.e., ranking of individuals on personality traits are stable) and absolute (intraindividual) consistency (i.e., personality traits are stable within an individual across situations and over time; Church, 2010). Second, personality traits manifest as behavioral patterns, from which data can be collected and used to infer other phenomena (Tellegen, 1991).

The most widely adopted taxonomy of personality traits is the five-factor model (FFM), which organizes personality along five dimensions: Openness to Experience (imaginative, aesthetic, curious, and open to emotions, new experiences, and re-examine values), Conscientiousness (competent, organized, moral, achievement-orientated, disciplined, and deliberate), Extraversion (warm, gregarious, assertive, active, excitement-seeking, and positive), Agreeableness (trusting, straightforward, altruistic, compliant, modest, and tender-minded), and Neuroticism (anxious, hostile, depressed, self-conscious, impulsive, and vulnerable; Costa &

McCrae, 1985). These five general factors have been validated cross-culturally (Digman, 1990) and with different instruments (e.g., Clark & Livesley, 2002; Lanning, 1994; Saucier, 1997).

Change in Personality

One of the assumptions of the personality trait model dictates viewing personality traits as static in nature (Lewis, 1999). However, research in the past two decades has provided evidence supporting the malleability of personality (e.g., Ardelt, 2000; Roberts & DelVecchio, 2000; Roberts et al., 2006). To understand why and how personality might change, I start this chapter by introducing the different conceptual patterns of personality consistency, followed by a discussion on the major sources of personality change, namely genes, environment, and an interaction between the two. Towards the end of this chapter, I talk about the potential impact of personality changes on important work- and life-related outcomes.

Patterns of Personality Consistency. Personality trait change can manifest in various forms. Roberts and DelVecchio (2000) proposed four types of trait consistency via which personality changes can be examined, including mean-level consistency and rank-order consistency that are on the population level, and intraindividual differences in consistency and ipsative consistency that are on the individual level. Relying on population-level indices, mean-level consistency refers to the average absolute change (i.e., increase or decrease) on the personality trait level a group exhibits over time, whereas rank-order consistency reflects individual standing on a trait in comparison to the others in a group, which can be obtained by assessing test-retest reliability or stability coefficients. On the individual level, intraindividual differences in consistency focus on one's tendency to change in trait magnitude over time (Alder & Scher, 1994; Jones & Meredith, 1996; Nesselroade, 1991), which is typically captured via the use of difference scores (Roberts & Helson, 1997), residualized change scores (Block & Robins,

1993), or change estimates from latent growth models (Tate & Hokanson, 1993). Meanwhile, ipsative consistency refers to the relative salience of traits in one's personality profile across time, which has been examined via the Q-sort technique (Block, 1971). The personality trait model posits high rank-order consistency and low intraindividual changes in personality (Church, 2010), such that the rank order of individuals on a particular personality trait is stable over time (population-level approach) and the extent to which an individual exhibits certain trait is stable over time (individual-level approach). It is important to differentiate between the various forms of personality consistency, as evidence for one form of consistency does not rule out the possibility of personality change in other forms. Though no particular approach is privileged per se, the decision on which personality consistency pattern to focus on should be driven by the research question and appropriately aligned with the research methodology and the inferences made (Fleeson & Noftle, 2008).

In the current study, I study both mean-level (in)consistency and individual differences in personality change in a nationally representative sample of older adults. In doing so, I present evidence on whether and how personality changes, as well as the potential triggers and outcomes associated with these changes. Particularly, mean-level (in)consistency is examined to study the average population-level changes over time in personality traits that, presumably, are due primarily to aging. Second, given the environmental influences and differences in experiences and life events, it is likely that people will differ in the degrees and forms of personality change (i.e., interindividual differences in personality change). On the premise that such interindividual differences do exist, I examine unemployment and workplace discrimination as two plausible contributors that can explain the individual differences in personality change, as well their relations with important work- and life-related outcomes.

Sources of personality change. Reviewing the sources of personality change can shed light on the mechanism underlying the change process. Today, there is little debate that personality changes can reflect both genetic and environmental influences (Bleidorn, Kandler, & Caspi, 2014). In this section, I review three major contributors of personality change: Genes, the environment, and person-environment transactions.

Genes. The classical psychometric theory or trait model of personality development represents a school of thought that emphasizes on the determining role of genetics in the development of personality (McCrae & Costa, 1999). Representing this school of thought, the FFM of personality argues that personality traits are "endogenous dispositions that follow intrinsic paths of development essentially independent of environmental influences" (McCrae et al., 2000, p. 173). According to this view, personality traits are essentially "temperaments" that develop through childhood and remain stable after reaching maturity in adulthood amongst "cognitively intact individuals" (McCrae & Costa, 1999, p. 145), and they should not be altered by external factors, such as culture (McCrae et al., 2000) or life events and experiences. Meanwhile, any observed changes in personality traits would be attributed to genetic factors that indicate various degrees of growth propensities at different life stages.

This "essentialist" approach of personality development has received some empirical support. In a large-scale (N = 7,363) cross-sectional study, McCrae et al., (1999) examined and found an overall universal trend of age differences in personality across five cultures (Germany, Italy, Portugal, Croatia, and South Korea), such that older cohorts scored higher on Agreeableness and Conscientiousness, and lower on Neuroticism, Extraversion, and Openness to Experience compared to younger cohorts. The findings suggested an increasing psychological maturity over the life course, such that people would become more agreeable, more conscientious, and less

neurotic as they age. By revealing minimum cultural differences, this study provided empirical evidence for the "essentialist" approach of personality development that emphasizes genetic influence on personality development and disputed the impact of environmental factors or experiences on personality (McCrae & Costa, 1999; McCrae et al., 2000). However, this study did not directly assess or control for environmental factors, and it used cross-sectional design. Therefore, findings from this study can be interpreted as a reflection of cohort effects rather than true development in personality.

Roberts and DelVecchio (2000) conducted a meta-analysis based on 152 longitudinal studies. The findings indicated that stability of personality increases throughout early and middle adulthood and plateaus around the age of 50. The authors suggested more research is needed before conclusions can be drawn regarding what factors (e.g., genetics, environment, etc.) contribute to personality stability. In another meta-analysis, Ferguson (2010) identified 47 independent studies that examined personality development. He found that personality becomes more stabilized toward the age of 30 and remains relatively stable afterwards. Although the findings supported the "essentialist" perspective of personality development, the author stated that the data did not directly support the determining role of genetics in personality development, but rather supported the stability of the origin of personality, whatever it might be.

Environment. Emphasizing the importance of the environment, researchers have argued for and examined the effects of environmental contingencies, such as roles, relationships, social networks, and constraints, on personality development. Representing this school of thought, the social-investment theory (SIT; Roberts, Wood, & Smith, 2005) states that life events and experiences, such as getting married, becoming a parent, and entering the workforce, trigger

individuals to invest in adapting to new behavioral demands in order to meet societal expectations, which stimulate personality development.

Some of the most convincing evidence that supports the importance of environmental impact on personality development, interestingly, stems from behavioral-genetic research. In a qualitative review, Plomin and Caspi (1999) concluded that, based on five large twin studies conducted in five different countries, genes only explained half of the variance in personality traits of Extraversion and Neuroticism. In a 10-year longitudinal twin study, McGue, Bacon, and Lykken (1993) followed 79 monozygotic and 48 same-sex dyzygotic twins and assessed their personality development between the age of 20 and 30. Although 80% of the personality consistency could be attributed to genetic influences, there were significant mean-level changes in Negative Emotionality and Constraint. The authors concluded that while the stability of personality was largely due to genetic factors, there was a diminishing influence of genetics on personality, and change in personality was primarily driven by environmental factors. In a meta-analysis, McCartney, Harris, and Bernieri (1990) examined personality developmental change similarity in twins based on 103 studies from 1967 to 1985. Results showed that the mean intraclass correlations for monozygotic and dizygotic twins were approximately .50 and .22, respectively, when all the personality traits were taken into consideration (i.e., Activity-Impulsivity, Aggression, Anxiety, Dominance, Emotionality, Masculinity-Femininity, Sociability, and Task Orientation). In addition, the authors revealed that intraclass correlations on personality were negatively associated with age (-.30 and -.32 for monozygotic and dizygotic twins, respectively), indicating that twins become less similar as they grow up. These findings suggest that the environment, in particular unique, non-shared experiences, account for a substantial portion of variance in personality development.

In a meta-analysis of 206 rank-order stability coefficients, Ardelt (2000) found evidence for personality changes over the life span. Particularly, findings suggested that personality is less stable in early adulthood and over the age of 50. To further detangle the sources of personality change, the author suggested that future research should explore unexpected or planned, drastic changes in life (e.g., unemployment, natural disasters, marriage, etc.) and examine their impact on personality traits.

Trait (Gene) × Environment. The person-environment interactional approach of personality development focuses on the active role people take in their environment, which emphasizes the interactive dynamics between the traits and environmental contexts in shaping personality changes (Fraley & Roberts, 2005). This interactional approach of personality is aligned with the life span development approach, which argues that people are active agencies that exhibit both continuity and change throughout the life course as they adapt to their environment (e.g., Baltes, 1997; Baltes, Lindenberger, & Staudinger, 2006). For instance, starting at an early age, children's genetic dispositions interact with adults' parenting behavior and other external stimuli to shape children's personality development. Parents' reactions to children's personality manifestation often act to reinforce (e.g., praising extraverted behaviors) or suppress (e.g., punishing neurotic behaviors) the development of these traits (Reiss et al., 2001).

In a meta-analysis of 92 longitudinal studies on mean-level change in personality traits, Roberts and colleagues (2006) derived several patterns in personality development that support the interactional theory. First, Social Dominance (a facet of Extraversion), Conscientiousness, and Emotional Stability increased linearly as people got older. Second, there was a quadratic relation between change and cohort, such that the levels of Social Vitality (a facet of Extraversion) and Openness increased in adolescence and decreased in old age. Results indicated normative change

in personality traits over the life span, even beyond middle adulthood. Contradicting the "essentialist" view that pinpoints a specific age (e.g., 30 years old) where personality becomes static (McCrae & Costa, 1999), findings from this meta-analysis are in line with the person-environment interactional view that recognizes the critical period of young adulthood where the most substantial personality changes should take place to facilitate successful social integration and developmental tasks (*maturity principle*; Caspi, Roberts, & Shiner, 2005; Roberts & Wood, 2006). However, it remains a question how personality development proceeds into older adulthood, given that information on older adults was limited in this meta-analysis.

More recently, Anusic and Schimmack (2016) conducted a meta-analysis where they analyzed 243 test-retest correlations from Roberts and DelVecchio's (2000) meta-analysis and those identified from a comprehensive literature search. Using the Meta-Analytic Stability and Change model (MASC), the authors were able to disentangle the stable causes of personality changes from the change (i.e., unstable) causes. They found that stable causes explained 83% of the variance in personality traits, whereas the changing factors explained 17%. By demonstrating the impact of changing factors on personality, this study refutes the "essentialist" view of personality and supports the potential linkage between instability in the environment and personality changes.

Personality Change associated with Life Experiences and Events. The trajectory of personality change is featured with individual differences (Roberts & Mroczek, 2008). However, personality psychologists had historically focused disproportionally on mean-level development of personality on the population level and largely ignored variability in personality changes (Mroczek & Sprio, 2003). While the developmental theories, which focus primarily on normative development on the population level, are underequipped to explain the variability in personality

changes, research on life events and experiences has shed light on what drive people's personalities to change differently.

Empirical evidence from longitudinal studies supports the notion of personality change stemming from life experiences. In the work environment, work experiences were shown to be related to personality trait changes, such that women with higher work participation and success reported increases in Agency (a domain of Extraversion, Goldberg, 1993) and Norm Adherence (a domain of Conscientiousness, Goldberg, 1993; Roberts, 1997). Likewise, in a New Zealand sample, Roberts, Caspi, and Moffitt (2003) found linkages between a variety of work experiences (e.g., advances in work status, acquisition of power, work satisfaction, autonomy, and stimulation) and personality trait changes (e.g., Positive Emotionality, Negative Emotionality, and Constraint). Other positive work experiences (e.g., positive role-quality, work satisfaction) were also found to correlate with decreases in domains of Neuroticism, such as Anxiety and Psychoneuroticism (e.g., Roberts & Chapman, 2000), and increases in Extraversion (e.g., Scollon & Diener, 2006). Social experiences can also trigger personality to change: Relationship satisfaction was associated with increases in Emotional Stability and Conscientiousness among women (e.g., Roberts & Chapman, 2000; Robins, Caspi, & Moffitt, 2002; Scollon & Diener, 2006), and first time in a serious partner relationship contributed to increases in Extraversion and Conscientiousness, as well as decreases in Neuroticism (e.g., Lehnart, Neyer, & Eccles, 2010; Neyer & Lehnart, 2007; however, see Asendorpf & Wilpers, 1998).

In addition to normative life experiences, researchers have looked at how major non-normative life events may impact personality traits (e.g., Löckenhoff, Terracciano, Patriciu, Eaton, & Costa, 2009; Specht, Egloff, & Schmukle, 2011; Vaidya, Gray, Haig, & Watson, 2002). An 8-year longitudinal study revealed that individuals who experienced an extremely adverse life event

(25% of the total sample, N = 458) reported increases in Angry Hostility, as well as decreases in Openness to Values and Compliance (Löckenhoff et al., 2009). Allemand, Hill, and Lehmann (2015) showed that divorce predicted decreases in Extraversion, Positive Affect, and Dependability. In addition, for individuals who experienced a divorce and later remarriage, there was a decrease in Orderliness. In an undergraduate sample in the U.S. (N = 1,108), Boals, Southard-Dobbs, and Blumenthal (2015) found that adverse events and experiences (defined both objectively and subjectively) predicted increases in Neuroticism. On the other hand, a 2-year study indicated that personality is relatively resilient against the impact of natural disasters, such that the 2010/2011 Christchurch earthquakes only contributed to a slight decrease in Emotional Stability (Milojev, Osborne, & Sibley, 2014). Likewise, Ogle, Rubin, and Siegler (2014) tracked individuals' exposure to traumatic events and personality scores over 10 years; no meaningful differences were found in pre- and post-trauma Neuroticism beyond normative changes. Given the mixed findings across studies, no consensus has been reached in how personality reacts to different types of life events and experiences; more research is needed.

The relationship between life events and personality is theorized to be interactive, termed as *selection effects* and *socialization effect*s. On the one hand, selection effects refer to the influence personality traits have on life events, such that people with different personality dispositions would self-select into or be selected into different events and situations (Headey & Wearing, 1989). On the other hand, socialization effects posit that personality changes as reactions to major life events and experiences (Roberts & Mroczek, 2008).

Evidence from longitudinal studies supports both selection and socialization effects (e.g., Lüdtke et al., 2011; Soto, 2015; Specht et al., 2011; Vaidya et al., 2002). In a two-wave study, Vaidya et al. (2002) found selection effects, such that more extraverted, agreeable, and

conscientious college students were more likely to experience positive events later on, whereas lower initial levels of Agreeableness and Conscientiousness, as well as higher initial levels of Neuroticism, predicted subsequent negative events. Socialization effects also emerged, where positive events (at Time 1) were related to increases in Extraversion, and negative events (at Time 1) predicted increases in Neuroticism over time. Lüdtke and colleagues (2011) showed similar patterns of results in a 4-year longitudinal study: Comparing samples of young adults who pursued different career paths, initial levels of personality traits had significant impact on career choices (i.e., attending college or vocational training), while experiences and events in different careers also predicted changes in personality traits over time.

Selection and socialization effects have also been studied in the work context. In a large German sample (N = 14,718), Specht and colleagues (2011) found that, while individuals were less conscientious before starting their first job, their Conscientiousness level increased afterwards. In addition, agreeable people were more likely to be unemployed. Li, Fay, Frese, Harms, and Gao (2014) found reciprocal relations between proactive personality and job demands and job control: Job demands and job control positively predicted increases in proactive personality, which in turn predicted increases in job demands and job control. In a nationally representative Australian sample (N = 3,489), Nieß and Zacher (2015) found that individuals with higher Openness to Experience also experienced more advancements into managerial and professional positions, and such job advancements in turn predicted increases in Openness to Experience. Given these findings, it can be suggested that personality traits predict as well as respond to life events and experiences across various life and work contexts.

Personality Changes Predicting Outcomes. The linkages between personality traits and outcomes in various domains of life have been well established. For instance, Conscientiousness

positively predicts work-related outcomes (e.g., job satisfaction, income, and occupational status; Judge, Higgins, Thoresen, & Barrick, 1999) and health-related outcomes (e.g., Bogg & Roberts, 2004), whereas Neuroticism is negatively associated with health-related outcomes (e.g., mortality, hypertension, obesity, and metabolic syndrome; Hampson & Friedman, 2008; Mroczek, Spiro, & Turiano, 2009; Spiro, Aldwin, Ward, & Mroczek, 1995).

In recent years, researchers have become increasingly interested in exploring how personality changes may shape important life outcomes. Mroczek and Spiro (2007) found that both high initial levels and gains in Neuroticism can predict mortality among aging men (N = 1,663). Siegler and colleagues (2003) showed that increases in Hostility were linked to a wide range of negative outcomes, such as social isolation, obesity, lower income (only for women), as well as negative changes in economic and work life, whereas declines in Hostility were related to reduced risks in these outcomes. In a large Australian sample (N = 8,625), Boyce and colleagues (2013) discovered associations between changes in personality and changes in life satisfaction, and the validity of personality changes greatly surpassed those of demographic variables (e.g., income, unemployment, and marital status) in predicting well-being.

Several research studies stemming from the survey of Midlife Development in the U.S. (MIDUS), a national longitudinal study of health and well-being (MIDUS, 2016), have shed light on the impact of personality changes on various health and well-being outcomes. In general, positive personality changes, such as increases in Conscientiousness, Extraversion, and Agreeableness, were found to predict enhanced physical health and psychological well-being (e.g., Hill, Turiano, Mroczek, & Roberts, 2012; Turiano et al., 2012; however, see Human et al., 2013), whereas undesirable personality changes, such as increases in Neuroticism and decreases in Conscientiousness, Extraversion, and Agreeableness, were associated with negative outcomes

(e.g., Hill et al., 2012; Human et al., 2013; Turiano et al., 2012). In addition, stability in Openness to Experience and Neuroticism was linked to better cognitive performance (i.e., faster reaction times and better inductive reasoning), while stability and decreases in Neuroticism predicted faster reaction times among older adults (Graham & Lachman, 2012). Similarly, other studies based on relatively large sample sizes have also shown significant relations between personality changes and both physical health (e.g., Magee, Heaven, & Miller, 2013; Mund & Neyer, 2015) and psychological well-being (e.g., Hounkpatin, Wood, Boyce, & Dunn, 2015; Magee, Miller, & Heaven, 2013; Mund & Neyer, 2015; Soto, 2015). Personality changes can also predict work-related outcomes. Using a latent change score model, Li and colleagues (2014) showed that positive proactive personality changes have lagged effects on increases in job demands, job control, and supervisory support, as well as decreases in organizational constraints.

In sum, there is considerable evidence suggesting that personality change can have substantial impact, yet the findings have been inconsistent. It is also worth noting that a significant amount of the research on personality change has methodological limitations. For instance, the majority of the studies in this literature relied on either cross-sectional data or two waves of data, while there has been a growing recognition that three (or more) waves of data are needed for longitudinal modeling in order to capture change over time. Cross-sectional data confounds age and cohort effects: Observed differences between cohorts of differing ages cannot be used to make inferences regarding change over time, as these differences can be due to alternative explanations rather than systematic individual changes. Studies relying on two waves of data also fall short to describe change over time. Particularly, data based on difference scores across two measurement occasions does not inform the *shape* of the growth trajectory and can be confounded with measurement error (Singer & Willett, 2003). Therefore, it is inappropriate to make conclusions on

personality change based on these studies. Given that there are different patterns and sources to personality changes, more research is needed to identify factors that trigger personality to change in different contexts and in different populations, and how these changes impact important work- and well-being-related outcomes.

Personality Changes among Older Working Adults. There has been an increasing proportion of older adults in the U.S. workforce (20% was age 55 and older; Wang & Shultz, 2010). Consequently, issues around work experiences and well-being of older workers are increasingly important to understand – including the role of personality change. While studies that rely on large representative samples have shed considerable light on personality change in adulthood in general (e.g., Lucas & Donnellan, 2011; Specht et al., 2011; Wortman, Lucas, & Donnellan, 2012), mixed findings have emerged from research on personality development among older adults.

In a sample of 450 older adults (ages around 81 to 87 for the first and second waves, respectively), Mõttus, Johnson, and Deary (2012) discovered significant mean-level decreases in Extraversion, Openness to Experience, Agreeableness, and Conscientiousness (*n.s.* for Emotional Stability) over six years. Using a sample of older adult twins (age 64-85), Kandler, Kornadt, Hagemeyer, and Neyer (2015) found declines in Extraversion and Conscientiousness. They also discovered increases in Neuroticism, which was inconsistent with the findings from Mõttus et al. Based on a large sample (N = 1,944) from the Baltimore Longitudinal Study of Aging, Terracciano, McCrae, Brant, and Costa (2005) also showed patterns of decreasing levels of Extraversion, Neuroticism, and Openness to Experience, as well as increasing levels of Agreeableness beyond the age of 60. In a large, nationally representative Australian sample (N = 13,134), Wortman and colleagues (2012) found that people became less extraverted, neurotic, and open to experience over the life span. Although Agreeableness generally increased in early adulthood, it plateaued

around middle-age and decreased after the age of 70. In addition, Conscientiousness was found to increase between early and middle adulthood. Similar patterns of personality changes were found on Extraversion and Openness in a national sample of Germans (N = 20,434; Lucas & Donnellan, 2011). In addition, declines in Conscientiousness and Neuroticism were found in this sample of older adults.

Previous meta-analyses have provided mixed findings regarding the patterns of personality changes over the life span: Some led to the conclusion that personality reaches stability around middle adulthood (Ferguson, 2010; Roberts & DelVecchio, 2000), whereas others found evidence for personality changes beyond middle adulthood (Anusic & Schimmack, 2016; Ardelt, 2000; Roberts et al., 2006). Particularly, Ardelt (2000) found evidence that personality stability declines after the age of 50 potentially due to social and family changes, whereas Roberts and DelVecchio (2000) suggested that stability peaks around that particular time in life. In another comprehensive meta-analysis, Roberts et al. (2006) discovered changes in Extraversion (the Social Vitality facet), Openness to Experience, and Agreeableness in old age.

It should be noted that, given the different types of personality trait consistency (i.e., mean-level consistency, rank-order consistency, intraindividual differences in consistency, and ipsative consistency), evidence that either supports or refutes one type of personality consistency (e.g., rank-order stability) does not preclude the possibility of personality changes in other forms (e.g., intraindividual differences in personality changes). Given the limited information, as well as the inconclusive and somewhat inconsistent patterns of findings, it remains a question whether and how personality changes in late adulthood.

In the organizational psychology literature, research on antecedents and outcomes of personality changes pertaining to older adults is scarce. There are several reasons why examining

changes in personality is important for this population. First, older adults might face more adversity relating to work, such as declining health and perceived work ability (e.g., Ilmarinen et al., 1991; McGonagle, Fisher, Barnes-Farrell, & Grosch, 2015), as well as age discrimination at work (e.g., Finkelstein & Truxillo, 2013). Some initial research has been conducted to draw connections between life experiences, personality changes, and well-being among older adults. For instance, increases in Neuroticism, as well as decreases in Extraversion and Conscientiousness, were found to coincide with well-being (Kandler et al., 2015). That being said, it is largely unknown how particular negative events and experiences would impact personality and subsequent well-being for this population.

Second, older adults are also likely to be more vulnerable to work-related adversity given their declining resources (e.g., age-related functional declines) to cope with and recover from the detrimental impact of negative events and experiences related to work. For instance, research has shown that sense of control, a critical characteristic that individuals rely on to cope with adversity, generally declines with age (Krause & Shaw, 2003; Lachman, 2006). Therefore, older adults might suffer from more substantial, long-lasting changes in personality traits after experiencing dramatic, adverse life events and experiences.

It is worth mentioning that old age does not necessarily relate to poor job performance or negative job attitudes. On the contrary, meta-analytic reviews have shown that older workers tend to engage in more citizenship behaviors and safety-related behaviors and less counterproductive work behaviors (Ng & Feldman, 2008), as well as having more positive job attitudes (i.e., task-based, people-based, and organization-based attitudes) in general (Ng & Feldman, 2010). Therefore, it would be worthwhile examining how adversity affects the generally positive job-related outcomes via personality changes in this population.

As the proportion of older adults in the U.S. workforce continues to grow, it is important to examine the impact of unexpected, drastic work-related events and experiences on personality traits, and how they subsequently relate to work and well-being outcomes in this population. Therefore, I focus the current study on examining changes in personality in reaction to two types of work-related adversity (unemployment and workplace discrimination), as well as how these personality changes predict changes in work-related outcomes and well-being among older adults. With three waves of longitudinal data from a nationally representative sample of older adults, findings from this study will provide a stronger basis to draw inferences concerning the relationships among worked-related adversity (in particular unemployment and workplace discrimination), personality changes, and well-being.

The Present Study

In the present study, I investigate mean-level and individual differences in personality changes. Building upon previous studies on personality development among older adults, I discuss and examine the average changes in Conscientiousness, Neuroticism, and Extraversion on the population level. In addition, it has been well-established that negative work-related experiences and events have detrimental effects on satisfaction and well-being both within and outside of the work context (e.g., Luhmann, Hofmann, Eid, & Lucas, 2012; McKee-Ryan, Song, Wanberg, & Kinicki, 2005; Murphy & Athanasou, 1999; Schmitt, Branscombe, Postmes, & Garcia, 2014; Zhao, Wayne, Glibkowski, & Bravo, 2007). In this study, I focus on unemployment and workplace discrimination as two potential antecedents of personality changes and subsequently work- and well-being-related outcomes. While work-related adversity may trigger personality changes, such changes may in turn affect individuals' capability to cope with the detrimental effects of these situations. Previous research has shown that extraverted, conscientious, and less neurotic people

are more likely to engage in positive coping strategies when they face adversity (e.g., Connor-Smith & Flachsbart, 2007). Thus, it is likely that undesirable changes in these personality traits due to adversity may further hinder someone's coping process, resulting in negative changes in work- and well-being-related outcomes.

In sum, I predict that (a) unemployment contributes to declines in Conscientiousness and increases in Neuroticism, which subsequently predict changes in subjective well-being; (b) workplace discrimination predicts increases in Neuroticism and decreases in Extraversion, which then predict changes in subjective well-being, job satisfaction, and perceived work ability. Prior to getting into the mechanisms via which unemployment and workplace discrimination affect personality changes, I first talk about normative personality changes pertaining to older adults, followed by a discussion on the potential impact of unemployment and discrimination on job satisfaction, subjective well-being, and perceived work ability.

Mean-level Personality Changes in Older Adults. A series of studies, including a few meta-analyses, have been conducted to examine patterns of personality changes into late adulthood. According to Marsh, Nagengast, and Morin (2013), mean-level personality changes in a late stage of life can be described as the *la dolce vita effect* (meaning "the sweet life" in Italian, p. 4), such that individuals become less conscientious, neurotic, extraverted, and open, and more agreeable following the age of 50. Specifically, with declined health and cognition, as well as shifted priorities in life, older adults tend to exert less effort into being orderly, dutiful, and productive, and feel a lesser need to pursue career advancement and success. This effect has been supported in various studies that indicate declines in Conscientiousness in late adulthood (e.g., Kandler et al., 2015; Lucas & Donnellan, 2011; Mõttus et al., 2012; Terracciano et al., 2005). At the same time, as people reach an older age, they may have a narrower bandwidth for interpersonal interactions

while becoming more satisfied with themselves (Marsh et al., 2013). As a result, they may also be less concerned with their social life and be more reserved and selective in investing in their time in social interactions compared to their younger selves, which correspond to decreasing levels of Extraversion in late adulthood (e.g., Kandler et al., 2015; Lucas & Donnellan, 2011; Mõttus et al., 2012; Roberts et al., 2006; Terracciano et al., 2005; Wortman et al., 2012). Changes in Neuroticism in late adulthood can be conceptualized based on the maturity principle (Caspi et al., 2005; Roberts & Wood, 2006), which states that people become more emotionally stable (e.g., Kandler et al., 2015; Lucas & Donnellan, 2011; Terracciano et al., 2005; Wortman et al., 2012) and report lower levels of negative affect (e.g., Almeida, 2005; Birditt & Fingerman, 2005; Lefkowitz & Fingerman, 2003) as they age.

Based on the la dolce vita effect and the maturity principle, I attempt to examine and replicate findings from previous research on personality changes in late adulthood. I expect the following mean-level personality changes among older adults:

Hypothesis 1: There is a mean-level decline over time in Conscientiousness in older adults.

Hypothesis 2: There is a mean-level decline over time in Extraversion in older adults.

Hypothesis 3: There is a mean-level decline over time in Neuroticism in older adults.

The Impact of Unemployment and Discrimination on Job and Well-being Outcomes. According to the U.S. Bureau of Labor Statistics (2016), there were 7.8 million people unemployed in February, 2016, representing 4.9% of the total U.S. population. Among them, 2.2 million experienced long-term unemployment and were jobless for at least 27 weeks. The high rate of unemployment and the potential detrimental impact from this experience highlight the importance to study and further understand this phenomenon.

Job loss can be a stress-provoking event; it has been shown to have strong negative impact on physiological and psychological well-being and can predict anxiety, depression, and lowered physical health (McKee-Ryan et al., 2005; Mohr & Otto, 2011; Murphy & Athanasou, 1999; Paul & Moser, 2006, 2009). Particularly, individuals who lose their jobs are deprived of the positive benefits associated with working, such as opportunity for control, physical security, social support, social status, and sense of purpose, all of which are sources for positive work- and well-being-related outcomes (Jahoda, 1979; Warr, 1987). In a meta-analytic review, Murphy and Athanasou (1999) summarized findings from nine longitudinal studies between 1986 and 1996 and provided preliminary evidence on the linkage between unemployment and poor mental health. More recently, McKee-Ryan and colleagues (2005) conducted a meta-analysis containing 104 empirical studies and found support for negative effects of unemployment on psychological and physical well-being. Based on 237 cross-sectional studies, Paul and Moser (2009) showed that unemployed individuals tend to have significantly poorer psychological health compared to those who are employed. In a meta-analysis synthesizing data from more than 20 million people, Roelfs, Shor, Davidson, and Schwartz (2011) found that unemployment is associated with increased mortality risk. Given these findings, I hypothesize that unemployment is associated with mean-level decreases in subjective well-being.

Hypothesis 4: Unemployment negatively predicts changes in subjective well-being.

Perceived discrimination, defined as "a behavioral manifestation of a negative attitude, judgment, or unfair treatment toward members of a group" (Pascoe & Richman, 2009, p. 533), is rampant in the workplace. According to the U.S. Equal Employment Opportunity Commission (2016), there were 89,385 individual charges filed based on discrimination in 2015.

Comprehensive literature has established the detrimental effects of perceived discrimination on physiological and psychological outcomes (e.g., Pascoe & Richman, 2009; Schmitt et al., 2014; Sutin, Stephan, & Terracciano, 2016). In a meta-analysis, Pascoe and Richman (2009) found that perceived discrimination negatively influenced both physical and psychological health, and such relations were likely carried through via increased stress and unhealthy behaviors. These findings were further supported in Schmitt et al.'s (2014) meta-analysis, which showed significant associations between perceived discrimination and psychological well-being (e.g., self-esteem, depression, anxiety, psychological distress, and life satisfaction).

Discriminatory experiences can result in a variety of negative work-related outcomes. For instance, Raver and Nishii (2010) showed that ethnic and gender harassment negatively predicted organizational commitment and job satisfaction and positively predicted turnover intentions. Individuals who experienced discrimination based on their sexual orientation also tended to report having lower job satisfaction, lower organizational commitment, and greater turnover intentions (e.g., Button, 2001; Ragins & Cornwell, 2001).

In addition to job satisfaction and commitment, discrimination may also impact yet another important work outcome, perceived work ability. Perceived work ability describes "an individual's self-perception or evaluation of his or her ability to continue working in his or her job" (McGonagle et al., 2015, p. 377). Different from objective work ability that is largely dependent on diseases and physical and psychological limitations (Martus, Jakob, Rose, Seibt, & Freude, 2010; Radkiewicz & Widerszal-Bazyl, 2005), perceived work ability is more closely associated individuals' appraisal of personal experiences and resources (McGonagle et al., 2015) and should be a more relevant outcome for perceived discrimination.

According to COR theory, individuals are prone to obtain and preserve resources, and the potential or actual loss of resources will elicit stress and strain-related outcomes (Hobfoll, 1989). Being subject to discrimination, an individual may need to spend extra resources (e.g., time and energy) to cope with work-related burden (e.g., tasks that were unfairly distributed; needing to work extra hard for the same compensation) and emotional distress, resulting in a depletion of resources. In addition, individuals experiencing workplace discrimination may also be less likely to seek out and obtain additional resources and opportunities, given the potential perceived obstacles in the organization. Consequently, the loss of resources and difficulty in obtaining new resources may affect one's perceived capability to work.

Taken together, it is expected that perceived discrimination in the workplace would predict declines in job satisfaction, subjective well-being, and perceived work ability.

Hypothesis 5: Perceived workplace discrimination negatively predicts changes in job satisfaction (a), changes in subjective well-being (b), and levels of perceived work ability (c).

The Impact of Unemployment on Personality. A series of research has demonstrated a strong impact of unemployment on physiological and psychological well-being (McKee-Ryan et al., 2005; Mohr & Otto, 2011; Paul & Moser, 2006, 2009). However, it is less known how unemployment would influence personality. Similar to other types of major, non-normative events, the experience of unemployment is likely to introduce unexpected contextual changes in one's life (e.g., increased financial distress), which may in turn disrupt the normative development of personality traits or trigger personality traits to change. To date, only a few studies have explicitly examined the relations between unemployment and personality changes (e.g., Boyce, Wood, Daly, & Sedikides, 2015; Specht et al., 2011), and the findings are mixed. In this study, I explore the

linkages between unemployment and personality changes, both directly and via the mechanism of financial distress.

Conscientiousness. Conscientiousness describes how driven, achievement-oriented, and disciplined an individual behaves (Barrick & Mount, 1991; Barrick, Mount, & Strauss, 1993; Judge & Ilies, 2002). Hence, work-related incidents that either give rise to or undermine the opportunities for achievements might influence Conscientiousness-related behaviors. Previous research has shown that individuals with higher participation in the paid workforce and career advancement also became more confident, responsible, independent, and norm-adhering (e.g., Elder, 1969; Kohn & Schooler, 1982; Roberts, 1997; Roberts & Bogg, 2004). In addition, first-time employment was shown to trigger positive changes in Conscientiousness, whereas retirement was associated with decreases in Conscientiousness (Specht et al., 2011).

Unemployment cuts off one's participation in the workforce and is likely to restrain one's pursuit of achievement goals and therefore limits the opportunities for expression of Conscientiousness-related traits. In addition, not being at work may also constrain the opportunities for individuals to behave in a disciplined, responsible, and hardworking manner, all of which corresponds to a decrease in Conscientiousness. Supporting the arguments above, Boyce and colleagues (2015) found that men experiencing unemployment became less conscientious over a four-year period, although the same effect was not shown for women (see Specht et al., 2011 for non-significant findings). On the other hand, it is possible that experiencing unemployment may prompt some individuals to become *more* cautious and planful. For instance, one might become more resistant to unnecessary or luxury spending and plan his or her budget more carefully based on limited financial resources. Although previous research has not supported a relation between unemployment and increases in Conscientiousness, it is worthwhile exploring this possibility.

Research Question 1: What is the impact of unemployment on changes in Conscientiousness?

In addition to having a direct impact on Conscientiousness, unemployment may also affect the extent to which individuals exhibit conscientious behaviors via its influence on financial status. For most people, employment serves as a major source of income; thus, experiencing unemployment is likely to cause a significant drop in income and subsequently heightened financial strain. Indeed, it has been shown that unemployment was negatively associated with income and positively associated with financial strain (Whelan, 1992). Under the premise that work-related experiences and events may influence personality traits (e.g., Roberts, 1997; Roberts et al., 2003; Roberts & Chapman, 2000; Scollon & Diener, 2006), it can be argued that financial distress may deplete resources and lead individuals to become less cautious and planful, as well as having a decreased sense of confidence and motivation toward achievement goals. Indeed, Roberts et al. (2003) demonstrated that financial security predicted increases in Control (i.e., cautious and planful), a factor in the Multidimensional Personality Questionnaire (MPQ; Tellegen, 1982) under Conscientious (Rushton & Irwing, 2009; Tellegen & Waller, 2008). Therefore, the potential relation between unemployment and Conscientiousness may be partially explained by unemployment's positive association with financial distress.

Hypothesis 6: The relation between unemployment and changes in Conscientiousness is partially mediated by financial distress.

Neuroticism. Neuroticism refers to how anxious, hostile, impulsive, and vulnerable someone behaves. Positive work experiences (e.g., positive role-quality) were found to predict decreases in Neuroticism (e.g., Roberts & Chapman, 2000). Unemployment, on the other hand, is accompanied by unsettling and stress-promoting situations. Therefore, individuals who lose their

jobs are likely to experience a heighted sense of stress and depression (Frost & Clayson, 1991), both of which could be conceptualized as manifestations of an increased level of Neuroticism. Following unemployment, individuals are also deprived of the positive benefits associated with being employed, such as opportunities for control, physical security, social support, social status, sense of purpose, and others (Jahoda, 1979; Warr, 1987). As a result, individuals who are unemployed may find themselves vulnerable and lonely (Heinrich & Gullone, 2006) and depleted of resources to cope with negative emotions and cognitions evoked by such an experience. Thus, these individuals may be more likely to experience an upward change in Neuroticism. Despite the sound theoretical argument, Boyce et al (2015) did not find a direct linkage between unemployment and changes in Neuroticism. However, the authors pointed out that there could be temporary changes in Neuroticism that were not captured in the study, and their measure of Neuroticism was likely inadequate. Therefore, I hypothesize that unemployment would be related to increases in Neuroticism.

Hypothesis 7: Unemployment predicts increases in Neuroticism.

Unemployment may also be indirectly related to Neuroticism through its linkage with financial distress. As argued previously, unemployed individuals are likely to experience significant financial strain given the loss of a stable income source (e.g., Whelan, 1992). Consequently, financial distress may elicit negative emotions and cognitions and limit the extent to which individuals can utilize resources to cope with other stressors in life. Past research has shown that people who successfully achieved financial security were more likely to report decreased levels of Stress Reaction (i.e., tense and easily upset), a factor in MPQ (Tellegen, 1982) under Neuroticism (Rushton & Irwing, 2009; Tellegen & Waller, 2008). Therefore, financial

distress may partially count for the potential relation between unemployment and increases in Neuroticism.

Hypothesis 8: The relation between unemployment and increases in Neuroticism is partially mediated by financial distress.

The Impact of Discrimination on Personality. As discussed earlier, there is an abundance of research that has shown the relation between discrimination and poor physiological and psychological well-being (e.g., Paradies, 2006; Williams, Neighbors, & Jackson, 2003). Despite the established linkages between discrimination and outcomes, little is known regarding how discrimination may relate to personality. Building upon previous research on discrimination and well-being, I examine the relations between perceived discrimination and personality changes, and how personality changes subsequently impact life- and work-related outcomes.

Extraversion. Extraversion describes one's tendency to behave in a warm, gregarious, and assertive manner. Given that, it is possible that positive experiences and events may elevate Extraversion, whereas negative experiences and events can serve to demote Extraversion. In the past, studies have shown that Extraversion can not only predict positive events but also be enhanced after individuals have experienced such events (Vaidya et al., 2002). In the workplace, positive work experiences, such as higher work participation and advances in status, can also contribute to increases in aspects of Extraversion, such as self-confidence and assertiveness (Clausen & Gilens, 1990).

Limited research has been conducted to explore the linkage between negative workplace experiences and Extraversion changes. I argue that, individuals who undergo discrimination may experience negative emotions and become less sensitive to positive emotions over time. Being subject to discrimination can also affect one's confidence and subsequently making him/her less

assertive when interacting with others. In addition, extraverts tend to be more outgoing, participative, and energetic in social gatherings (Costa & McCrae, 1992). Based on the COR theory, when encountering workplace discrimination, victims may experience a depletion of physical (e.g., energy) and mental (e.g., positive affectivity) resources and consequently become reluctant to engage in social activities or to invest in enhancing their networks, both of which reflect declines in trait Extraversion. In a recent study, Sutin et al. (2016) found that individuals from the Health and Retirement Study (HRS) who encountered discrimination at any point of time during a 4-year period reported experiencing declines in Extraversion (in the HRS sample but not in the MIDUS sample). Thus, I predict that experiences of perceived discrimination would be associated with decreases in Extraversion.

Hypothesis 9: Perceived discrimination predicts decreases in Extraversion.

***Neuroticism*.** Neuroticism pertains to how anxious, hostile, impulsive, and vulnerable an individual behaves. While positive work experiences, such as positive role-quality, can predict decreases in Neuroticism (e.g., Roberts & Chapman, 2000), it is likely that negative work experiences may give rise to increases in Neuroticism.

Discrimination in the workplace, as a mood-provoking experience, can predict a variety of negative emotions and cognitions. In a review containing 138 empirical studies, Paradies (2006) found that perceived discrimination based on one's racial identity had significant effects on eliciting negative outcomes (depression, anxiety), which were stronger than it inhibiting positive outcomes (e.g., self-esteem). Individuals who experience workplace discrimination may feel attacked, which may in turn promote behaviors that exhibit vulnerability and hostility due to defense mechanism. In addition, workplace discrimination may trigger anxiety, given that the victims may worry about the prospect of their job and career opportunities for advancement. Over

time, these sustaining negative emotions and cognitions triggered by perceived workplace discrimination may manifest into an upward change in trait-level Neuroticism. Supporting this notion, Sutin et al. (2016) found some evidence suggesting that experience of discrimination can be associated with increases in Neuroticism in two large-scale studies (i.e., HRS and MIDUS). Therefore, it is hypothesized that experiences of perceived discrimination would be related to increases in Neuroticism.

Hypothesis 10: Perceived discrimination predicts increases in Neuroticism.

The Impact of Personality Changes on Work and Well-being Outcomes. Building upon the studies showing the impact of personality on various work- and life-related outcomes (e.g., Bogg & Roberts, 2004; Hampson & Friedman, 2008; Hill et al., 2012; Judge et al., 1999; Mroczek et al., 2009; Spiro et al., 1995; Turiano et al., 2012), researchers began to explore how personality changes may shape important outcomes. As discussed earlier, although there is considerable evidence suggesting personality changes might have significant implications, the findings have been inconsistent and inconclusive due to theoretical and methodological limitations. In addition, limited research has been conducted to directly measure and examine *changes* in work- and well-being-related outcomes associated with personality changes. In this study, I posit that changes in personality traits reflect gains or losses in personal resources beyond trait levels (Hobfoll, 1989, 2001), which have downstream impact on work and well-being outcomes. As an attempt to further illuminate how personality changes impact important outcomes, both in and out of the work context, I examine the relations various personality changes (Conscientiousness, Neuroticism, and Extraversion) might have with changes in job (job satisfaction and perceived work ability) and well-being outcomes.

***Job Satisfaction*.** Job satisfaction has been one of the most studied variables in the organizational literature (Locke, 1976; Lounsbury, Saudargas, Gibson, & Leong, 2005), and the relations between job satisfaction and various important outcomes, such as job performance (Iaffaldano & Muchinsky, 1985; Judge, Thoresen, Bono, & Patton, 2001), organizational commitment (Mathieu & Zajac, 1990; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002), and turnover (Griffeth, Hom, & Gaertner, 2000; Tett & Meyer, 1993) have been well established. Focusing on dispositional sources of job satisfaction, researchers have identified Neuroticism (ρ = -.29) and Extraversion (ρ = .25) as two robust predictors of job satisfaction in meta-analyses (e.g., Judge et al., 2002).

Given the known associations between personality traits and job satisfaction, I argue that changes in Neuroticism and Extraversion would be predictive of changes in job satisfaction. Neuroticism is closely associated with Negative Affect (NA), a dispositional tendency for an individual to experience unpleasant emotions and feelings (Watson & Clark, 1984). Provided with the negative link between NA and job satisfaction (Connolly & Viswesvaran, 2000), it is reasonable to argue that individuals who become more neurotic due to unemployment or workplace discrimination might become less and less satisfied with their jobs over time. Based on selection effects, people who experience elevated Neuroticism may also tend to select themselves into negative life events and situations (Emmons, Diener, & Larsen, 1986), including those on the job. In turn, these negative work-related events and experiences may predict reduced job satisfaction. Based on COR theory, increases in Neuroticism can also be seen as a reflection of losses in personal resources, which can have a negative impact on job satisfaction. Provided with these rationales, I suggest that job satisfaction might fluctuate with Neuroticism changes:

Individuals who become more neurotic (e.g., potentially due to unemployment and discrimination) may also experience decreases in job satisfaction.

Hypothesis 11: Increases in Neuroticism predict decreases in job satisfaction.

Extraverted people tend to be more satisfied with their jobs (Judge et al., 2002), and this association can be explained, in part, via the positive connection between Extraversion and Positive Affect (PA; Connolly & Viswesvaran, 2000), the tendency to experience pleasant emotions (George, 1992). To the extent that extraverts are prone to experiencing more positive emotions and enjoying social interactions at work (Watson, 1988; Watson, Clark, McIntyre, & Hamaker, 1992), decreases in Extraversion should be associated with decreases in job satisfaction. Given the association between trait level Extraversion and job satisfaction, I hypothesize that decreases in Extraversion triggered by negative work-related events and experiences, such as discrimination, would likely predict diminished job satisfaction over time. Particularly, individuals experiencing declines in Extraversion may engage in fewer social interactions at work, which may predict them being less satisfied with their jobs. In addition, becoming more introverted may predict one not seeking out for social support, a form of resources that can be quite helpful in buffering the detrimental impact of workplace adversity. Taken together, declines in Extraversion reflect losses in personal resource and should predict decreases in job satisfaction beyond the impact of Extraversion trait. Therefore, I predict that decreases in Extraversion would be associated with decreases in job satisfaction.

Hypothesis 12: Decreases in Extraversion predict decreases in job satisfaction.

Well-being. Researchers have established the impact of Neuroticism, Extraversion, and Conscientiousness on well-being-related outcomes, such as life satisfaction and psychological well-being (DeNeve & Cooper, 1998; Diener & Lucas, 1999; Schimmack, Diener, & Oishi, 2002;

Schimmack, Radhakrishnan, Oishi, Dzokoto, & Ahadi, 2002). In a recent meta-analysis, Alarcon et al. (2009) found that Neuroticism was the most robust predictor of exhaustion and depersonalization components of burnout compared to the other Big Five personality traits. In addition to the trait-level findings, recent research has also connected changes in personality traits to well-being outcomes (e.g., Hill et al. 2012; Hounkpatin et al., 2015; Human et al., 2013; Magee et al., 2013; Mund & Neyer, 2015; Soto, 2015; Turiano et al., 2012). In this study, I posit that changes in personality traits (Neuroticism, Extraversion, and Conscientiousness) after negative, dramatic work-related events and experiences (i.e., unemployment and discrimination) will predict changes in well-being.

Neurotic individuals are more likely to experience negative emotions (Watson & Clark, 1984). Therefore, it is not surprising that Neuroticism is associated with being less satisfied and less happy in life (e.g., DeNeve & Cooper, 1998). In addition to the predictive validity of trait Neuroticism on well-being, research suggests that people experiencing increases in Neuroticism are also more likely to have worse well-being (e.g., Human et al., 2013; Kandler et al., 2015). According to COR theory, increases in Neuroticism reflect losses in personal resources that can have detrimental downstream impact on well-being outcomes. Therefore, it can be argued that increases in Neuroticism would predict negative changes in well-being.

Hypothesis 13: Increases in Neuroticism predict decreases in subjective well-being.

Extraversion has been consistently shown to predict better subjective well-being (e.g., DeNeve & Cooper, 1998). Costa and McCrae (1980) argued that Extraversion leads to PA, such that extraverts are more cheerful and happy compared to introverts in general (see Connolly & Viswesvaran, 2000). In addition, extraverted individuals may select themselves into positive, meaningful events and social interactions, which may further serve to promote their sense of

happiness and well-being. Building upon that, several studies have demonstrated a relation between changes in Extraversion and well-being, such that individuals who become increasingly extraverted are also likely to experience enhanced subjective well-being (Hill et al., 2012; Hounkpatin et al., 2015; Kandler et al., 2015). At the same time, declines in Extraversion can be viewed as losses in personal resource that negatively impact subjective well-being. Therefore, decreases in Extraversion resulting from adverse work-related events and experiences, such as discrimination, may predict diminished well-being over time.

Hypothesis 14: Decreases in Extraversion predict decreases in subjective well-being.

Conscientiousness can predict the extent to which an individual is motivated in life. Therefore, it can be argued that those who are conscientious may be more likely to have positive experiences associated with achievements and gain more satisfaction in pursuing achievement tasks (McCrae & Costa, 1991). Supporting this notion, empirical evidence has shown that Conscientiousness and positive health outcomes (e.g., diabetes, hypertension, stroke, mental illnesses, and mortality; Bogg & Roberts, 2004) are related. Findings from meta-analyses suggest that conscientious individuals tend to be happier, more satisfied, and more engaged in life (Christian, Garza, & Slaughter, 2011; DeNeve & Cooper, 1998). In addition, research has also shown that conscientious individuals are also more likely to utilize active coping strategies (Connor-Smith & Flachsbart, 2007), which might partially explain why Conscientiousness can serve as a buffer for the negative impact of workplace stressor (e.g., bullying) on outcomes (e.g., job performance; Nandkeolyar, Shaffer, Li, Ekkirala, & Bagger, 2014).

As a form of depletion in personal resources, declines in Conscientiousness could have downstream impact on well-being outcomes beyond the trait level. Researchers have examined the impact of changes in Conscientiousness on well-being outcomes, showing that well-being

fluctuates in the same direction with Conscientiousness changes (e.g., Hill et al., 2012; Hounkpatin et al., 2015; Human et al., 2013; Kandler et al., 2015). Therefore, individuals who experience decreases in Conscientiousness (potentially due to unemployment) are expected to also have reduced subjective well-being over time.

Hypothesis 15: Decreases in Conscientiousness predict decreases in subjective well-being.

***Work Ability*.** Perceived work ability, one's perception regarding his or her capability to continue working, is capturing more and more attention in the organizational literature (McGonagle et al., 2015). Based on the job demands-resources (JD-R) theory (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) and the cognitive appraisal model of stress (Lazarus & Folkman, 1984), McGonagle and colleagues proposed and tested a conceptual model of perceived work ability, outlining individual differences, such as Conscientiousness and Emotional Stability (the opposite of Neuroticism), as key personal resources (along with job demands, job resources, and the interaction between job demands and job resources) for maintaining daily functions, positive appraisal, and stress coping (Hobfoll, 2011), which in turn predict sustained perceived work ability. In particular, Neuroticism is associated with negative appraisal and coping strategies, such that neurotic individuals tend to see adverse events and experiences as more threatening and utilize less effective strategies to cope with them (Connor-Smith & Flachsbart, 2007). Meanwhile, Extraversion promotes positive thinking and enables individuals to assess and cope with stressful situations in more proactive, engaging, and effective manners (Connor-Smith & Flachsbart, 2007). These coping strategies are in turn predictive of physical and psychological well-being (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001). McGonagle et al. (2015) found that both Emotional Stability and PA were positively associated with perceived work ability. Given that PA is closely associated with

Extraversion, it can be suggested that Neuroticism impairs perceived work ability whereas Extraversion promotes it.

As discussed earlier, individuals might become more neurotic and less extraverted after experiencing stressful situations (e.g., workplace discrimination). On the one hand, elevated Neuroticism might further aggravate the stressful situations by eliciting a more pessimistic and passive appraisal approach (e.g., seeing the situation as a threat rather than an opportunity, Lazarus & Folkman, 1984); diminished availability of personal resource may also predict more passive forms of coping strategies. On the other hand, individuals who become more introverted due to perceived discrimination are likely to become less positive, less confident, and more reluctant to seek for social support needed for coping with the stress. Therefore, it can be argued that changes in work ability perceptions might be negatively associated with Neuroticism changes and positively associated with Extraversion changes.

Hypothesis 16: Increases in Neuroticism negatively predict perceived work ability.

Hypothesis 17: Decreases in Extraversion negatively predict perceived work ability.

The relations between personality and life experiences and events can be interactive (i.e., selection effects and socialization effects). Therefore, it is important to acknowledge the possibility of reverse causality between personality and job and well-being outcomes. In particular, it can be argued that outcomes (i.e., job satisfaction, subjective well-being, and perceived work ability) may proceed changes in personality. Although reverse causality is not the focus of this study, additional analyses will be included to explore these possibilities. In addition, although formal hypotheses have not been developed for the other two traits in the FFM, exploratory analyses will be conducted to examine changes in Agreeableness as well as Openness to Experience.

CHAPTER 2: METHOD

Participants and Procedure

Participants in this study were drawn from the Health and Retirement Study (HRS), a nationally-representative, biennial longitudinal panel study in the United States. The HRS is a cooperative agreement between the National Institute on Aging (NIA-U01AG009740) and the Institute for Social Research at the University of Michigan (U01 AG009740). HRS data is publicly available at http://hrsonline.isr.umich.edu/.

Participants in the HRS are interviewed every other year. Beginning in 2004, the HRS implemented a paper-and-pencil psychosocial survey in conjunction with the interviews, which included job satisfaction and well-being measures. Starting with the 2006 wave of the HRS, this psychosocial survey has been administered to the same respondents every four years (Smith et al., 2013), and the survey further included measures on discrimination and personality (the Big Five personality traits). The net response rate for the psychosocial survey, which accounts for participation in the "core" HRS survey and the psychosocial survey, ranged from 68.3% to 74% across waves (Smith et al., 2013). See Table 1 for detailed information on the administration of measures included in this study.

Insert Table 1 about here

Participants in the current study completed the psychosocial questionnaire in 2006, 2010, and 2014. I used a subset of the HRS for this study, including only individuals who completed at least two of the three waves on the focal personality variables: Conscientiousness, Extraversion, and Neuroticism. The final sample consisted of 7,767 participants (59% females, 41% males; 78%

White/Caucasian, 14 % African American, 2% Hispanic, 6% Other; average age = 63, SD = 11). Items that were reversely coded across the three waves were recoded before scale scores were computed and used for analysis.

Measures

Antecedents

Unemployment. Each participant was asked, in 2004 and 2006, about his or her current employment situation, ranging from "working now," "temporarily laid off," "unemployed and looking for work," "disabled and unable to work," "retired," "a homemaker," and "other." Individuals who self-identified as "unemployed and looking for work" were further asked to indicate when (month and year) they became unemployed. For the hypotheses pertaining to unemployment, I used the subsample containing those who selected the option "unemployed and looking for work" (coded as 1; other choices were coded as 0) in 2004, 2005, and 2006 (N = 101).

Workplace discrimination. Workplace discrimination was assessed in 2006 using a six-item scale, with each item reflecting a potential workplace discriminatory scenario (Williams, Yu, Jackson, & Anderson, 1997). Respondents were asked to indicate how often they had experienced each of the six scenarios in the past 12 months. A sample item is, "How often are you unfairly given the tasks at work that no one else wants to do?" All items were answered on a 6-point Likert-type scale, ranging from 1 (*never*) to 6 (*almost every day*). This measure had a Cronbach's α of .80 in 2006.

Financial distress. Financial distress was measured in 2006 via two items: (a) difficulty in meeting monthly payments (5-point Likert scale); and (b) ongoing financial strain (4-point Likert scale, which was transformed to a 5-point Likert scale). Cronbach's α for this composite measure was .81 in 2006.

Personality

Items for personality traits (Conscientiousness, Neuroticism, and Extraversion) in 2006 were obtained from MIDUS (Lachman & Weaver, 1997). In 2010, additional items derived from the International Personality Item Pool (IPIP; Goldberg, 1999; Goldberg et al., 2006) were added to the Conscientiousness measure.

For the purpose of this study, only items that were commonly used across all three waves of data (i.e., 2006, 2010, 2014) were used for analysis, which included five items for Conscientiousness (e.g., "organized"), four items for Neuroticism (e.g., "calm," negatively worded), and five items for Extraversion (e.g., "outgoing"). Participants were asked to rate how well each item described themselves in general on a 4-point Likert scale, ranging from 1 (*a lot*) to 4 (*not at all*). The items were reversely coded, with higher scores indicating higher levels of these personality traits. Cronbach's alphas ranged from .66 to .67 for Conscientiousness, from .71 to .72 for Neuroticism, and from .75 to .76 for Extraversion across the three waves.

Outcomes

***Job satisfaction*.** The measure of job satisfaction in 2006 and 2010 was a nine-item scale from Quinn and Staines (1977). In 2014, job satisfaction was measured via one question, "All things considered I am satisfied with my job," which was one of the questions in the nine-item scale. All items were answered on a 4-point or 5-point Likert-type scale, ranging from 1 (*strongly disagree*) to 4 or 5 (*strongly agree*). Items on the 4-point scale were linearly transformed to a 5-point scale before scale scores were calculated. Cronbach's αs for this measure ranged from .79 to .80 across the waves.

Subjective well-being. Subjective well-being was assessed in 2006, 2010, and 2014 using two measures, namely *life satisfaction* and *depressive symptoms*. Life satisfaction was measured

using a five-item scale (Diener, Emmons, Larsen, & Griffin, 1985). A sample item is, "In most ways my life is close to ideal." All items were answered on a 6-point or 7-point Likert-type scale, ranging from 1 (*strongly disagree*) to 6 or 7 (*strongly agree*). Items on the 6-point scale were linearly transformed to be aligned with those on the 7-point scale before scale scores were calculated. This measure had a Cronbach's α of .89 for all three waves. For depressive symptoms, participants were asked to think about the past week and the feelings they had experienced. The measure had eight items that were answered by "Yes" or "No." The scale was then computed based on the sum of these items and reversely coded, with higher scores indicating higher levels of psychological well-being (i.e., fewer depressive symptoms). Cronbach's αs for this measure ranged from .80 to .82 across the waves.

Work ability. The measure of perceived work ability in 2014 was a four-item scale (see Ilmarinen & Rantanen, 1999). Participants were asked to indicate the extent to which they would rate (1) their current ability to work in general, and (2) their perceived work ability in meeting the physical, mental, and interpersonal demands of the job. All items were answered on an 11-point Likert-type scale, ranging from 0 (*cannot current work at all*) to 10 (*work ability is current at its lifetime best*). This measure had a Cronbach's α of .96 in 2014.

Control Variables

Income. Annual household income in 2006 was included as a control variable given its potential relations with financial distress and subsequently personality changes and outcomes. A natural log transformation was performed to reduce the negative skewness, which is common in income data.

Major Life Discrimination. I intended to control for major life discriminatory experiences, including those that are related to one's job (e.g., "unfairly dismissed from a job") and unrelated

to job (e.g., “unfairly stopped by police) that were identified in 2006, given their potential impact on personality and outcomes. However, individuals who experienced any major life discrimination represented less than 1% of the sample. Therefore, I decided not to include major life discrimination as a control variable.

Exploratory Variables

***Other Domains of Big Five Personality*.** Items for Agreeableness (5 items; αs = .78 to .79) and Openness to Experience (7 items; αs = .79 to .80) assessed across all three waves (i.e., 2006, 2010, and 2014) were obtained from MIDUS (Lachman & Weaver, 1997). A sample item for Agreeableness is, “helpful;” a sample item for Openness to Experience is, “creative.” Participants were asked to rate how well each of the items describes themselves on a 4-point Likert scale, ranging from 1 (*a lot*) to 4 (*not at all*). The items were reversely coded, with higher scores indicating higher levels of these personality traits.

CHAPTER 3: RESULTS

Data Screening

Prior to hypothesis testing, data was carefully screened, examined, and prepared for analysis. Item-level characteristics were examined for out-of-range data, normality (i.e., skewness and kurtosis) issues, and outliers, and no significant violations to normality were observed. Descriptive statistics and zero-order correlations are presented in Table 2. As expected, unemployment was negatively associated with life satisfaction (*r*s = -.09, -.11, and -.07, *p*s < .01) and psychological well-being (*r*s = -.11, -.09, and -.08, *p*s < .01) across the three waves, while workplace discrimination was negatively related to life satisfaction (*r*s = -.20, -.13, and -.13, *p*s < .01), psychological well-being (*r*s = -.20, -.16, and -.17, *p*s < .01), job satisfaction (*r*s = -.09, -.11, and -.07, *p*s < .01) across the three time points as well as perceived work ability in 2014 (*r* = -.11, *p* =.001).

Insert Table 2 about here

Hypothesis Testing

For hypothesis testing, latent growth modeling (LGM; Chan, 2002) was used via structural equation modeling for modeling and estimating change parameters in the longitudinal dataset (Chan, 2002; Lance, Meade, & Williamson, 1999). Two latent factors (Kaplan, 2009; Kline, 2005; e.g., Chan & Schmitt, 2000) were used to model the change trajectory of personality and outcome variables (excluding work ability, which was measured in 2014 only): (a) the latent intercept factor that represents the initial status (i.e., the level upon first assessment); and (b) the latent slope factor that represents the rate of change (i.e., how the level has changed across the measurement points).

Given the complexity of the models, I used observed scale composite scores in the LGM analysis (except for unemployment, which was measured on a single item).

Focusing on mean-level personality changes in late adulthood, Hypotheses 1, 2, and 3 state that older adults, on average, would experience declines over time in Conscientiousness, Extraversion, and Neuroticism. Each of these three hypotheses was tested via an unconditional latent growth model containing two latent factors (i.e., the latent intercept factor and the latent slope factor). In addition, for each personality variable, I also tested the linearity of the change by comparing two models: (a) a linear change model (i.e., slope terms = 0, 1, and 2 for T1, T2, and T3, respectively), and (b) a non-linear change model (i.e., slope terms = 0, x, and 2) using chi-square difference test.

For Hypothesis 1 (there is a mean-level decline over time in Conscientiousness in older adults), the linear model fit the data well: $\chi^2(1) = 3.34$, $p = .068$, *n.s.*; CFI = 1.00; RMSEA = .02; SRMR = .00; it did not have significant worse fit than the non-linear model: $\Delta\chi^2(1) = 3.34$, $p > .05$. Therefore, estimates from the linear model were used for hypothesis testing. Results showed that older adults experienced a significant, mean-level decline in Conscientiousness (unstandardized mean slope = -.02, standardized mean slope = -.20, $p < .001$). Therefore, it can be concluded that there was a linear decline in Conscientiousness, providing support for Hypothesis 1. In addition, there was significant variance in the rate of change (variance of slopes = .01, $p < .001$), indicating that individuals differed significantly in their change trajectory of Conscientiousness.

Hypothesis 2 states that there is a mean-level decline over time in Extraversion in older adults. The linear change model for Extraversion fit the data well: $\chi^2(1) = 15.12$, $p < .001$; CFI = 1.00; RMSEA = .04; SRMR = .01; but it was outperformed by the non-linear model: $\Delta\chi^2(1) = 15.12$, $p < .001$, slope estimate for Time 2 = 1.547. Therefore, I retained the non-linear model of

Extraversion. Results from this model revealed a significant mean-level decline in Extraversion (unstandardized mean slope = -.03, standardized mean slope = -.23, $p < .001$). Overall, the results supported Hypothesis 2 and demonstrated a non-linear, decelerating decline in Extraversion. In addition, there was significant variance in the rate of change (variance of slopes = .02, $p < .001$), suggesting individual differences in how their Extraversion changed over time.

Hypothesis 3 states that there is a mean-level decline over time in Neuroticism in older adults. The linear change model had an adequate fit for the data: $\chi^2(1) = 2.06$, $p = .151$, *n.s.*; CFI = 1.00; RMSEA = .07; SRMR = .01; the non-linear model did not fit the data better: $\Delta\chi^2(1) = 2.06$, $p > .05$. Therefore, results from the linear change model were used for hypothesis testing: There was a significant linear, mean-level decline in Neuroticism (unstandardized mean slope = -.05, standardized mean slope = -.32, $p < .001$), supporting Hypothesis 3. There was also significant variance in the rate of change (variance of slopes = .02, $p < .001$), suggesting that individuals differed significantly in their change trajectory of Neuroticism.

Taken together, the results supported Hypotheses 1, 2, and 3 by showing that older adults, on average, experienced declines over time in Conscientiousness (linear), Extraversion (non-linear), and Neuroticism (linear). In addition, significant variance in the rates of change for all three personality variables indicated individual differences in change trajectories, which gave grounds for further examining the subsequent hypotheses pertaining to the antecedents and outcomes of these personality changes.

The following hypotheses pertain to the antecedents and outcomes of changes in Conscientiousness, Neuroticism, and Extraversion. Given that only a subsample of participants (N = 2468 out of 7767) were employed, I could not proceed with examining all study variables in the full sample due to work-related variables missing not at random (i.e., individuals who were not

employed would not have data on workplace discrimination, job satisfaction, and work ability). Therefore, I tested and compared two conditional growth models: (a) Model A (see Figure 1) containing all study variables except for unemployment (which has to be examined in the full sample including both employed and unemployed individuals), which was tested in the working subsample (N = 2468), and (b) Model B (see Figure 2) containing unemployment and all other non-work-related variables (i.e., personality, life satisfaction, and well-being), which was tested in the full sample (N = 7767). Estimates from both models were then used for testing the hypotheses. Although these two models were not nested and therefore could not be directly compared using a chi-square difference test, I attempted to compare results from the two models based on the unstandardized b weights and the significance for each of the overlapping hypothesized relations (i.e., those with non-work-related variables) to examine whether differences exist between the work vs. full samples.

Insert Figures 1 and 2 about here

Model A contains all study variables except for unemployment. Therefore, it was used to test the relations between workplace discrimination and job- and well-being-related outcomes (Hypothesis 5), as well as the relations between workplace discrimination and changes in Extraversion (Hypothesis 9) and changes in Neuroticism (Hypothesis 10). In addition, estimates from Model A were also used to evaluate how changes in Conscientiousness (Hypothesis 15), changes in Neuroticism (Hypotheses 11, 13, and 16), and changes in Extraversion (Hypotheses 12, 14, and 17) relate to job- and well-being-related outcomes. To determine the appropriate slope terms for personality changes, I compared two models: (a) one with defined slope terms obtained

from the unconditional models of Conscientiousness (0, 1, and 2), Extraversion (0, 1.547, and 2), and Neuroticism (0, 1, and 2; see results for Hypotheses 1, 2, and 3), and (b) another model with freely estimated slope terms (i.e., slope terms = 0, x, and 2) for each personality variable. Results from chi-square difference test demonstrated that the model with defined slope terms did not have a worse fit ($\Delta\chi^2(3) = 7.39$, $p > .05$) and was therefore retained for hypothesis testing. Model A (see Figure 1) had an adequate fit for the data: $\chi 2(157) = 1751.36$, $p < .001$; CFI = 0.91; RMSEA = 0.06; SRMR = 0.06.

Income was controlled for in all hypothesized relations in this model. For changes in personality, income had significant, positive relations with changes in Conscientiousness ($b = .02$, *S.E.* = .00, $\beta = .17$, $p < .001$) and changes in Extraversion ($b = .01$, *S.E.* = .01, $\beta = .13$, $p = .030$), but not with changes in Neuroticism ($b = -.01$, *S.E.* = .01, $\beta = -.06$, $p = .107$, *n.s.*). Income was also significantly associated with changes in various outcomes, exhibiting positive relations with initial status of life satisfaction ($b = .26$, *S.E.* = .03, $\beta = .23$, $p < .001$), well-being ($b = .30$, *S.E.* = .03, $\beta = .24$, $p < .001$), and job satisfaction ($b = .07$, *S.E.* = .01, $\beta = .17$, $p < .001$), as well as negative relations with changes of life satisfaction ($b = -.08$, *S.E.* = .03, $\beta = -.16$, $p = .011$), well-being ($b = -.08$, *S.E.* = .03, $\beta = -.17$, $p = .012$), but not job satisfaction ($b = -.00$, *S.E.* = .02, $\beta = -.00$, $p = .967$, *n.s.*). Income also positively predicted higher levels of work ability ($b = .21$, *S.E.* = .08, $\beta = .10$, $p = .013$).

Pertaining to the main effects of workplace adversity (unemployment and workplace discrimination) on job- and well-being-related outcomes, Hypothesis 5 states that perceived workplace discrimination negatively predicts changes in job satisfaction (a), subjective well-being (b), and perceived work ability (c). Results from Model A showed that (a) perceived workplace discrimination had a negative relation with the initial status of job satisfaction ($b = -.23$, *S.E.* = .01,

β = -.56, p < .001) and a *positive* relation with changes in job satisfaction (b = .08, *S.E.* = .02, β = .38, p < .001); (b) perceived workplace discrimination negatively predicted initial status in life satisfaction (b = -.17, *S.E.* = .03, β = -.15, p < .001) and *positively* predicted changes in life satisfaction (b = .08, *S.E.* = .03, β = .15, p = .018); perceived workplace discrimination negatively predicted initial status in psychological well-being (b = -.20, *S.E.* = .04, β = -.15, p < .001), but it did not predict changes in psychological well-being (b = .04, *S.E.* = .03, β = .10, p = .179, *n.s.*); and (c) perceived workplace discrimination did not significantly predict perceived work ability (b = -.08, *S.E.* = .08, β = -.04, p = .346, *n.s.*). Taken together, the findings did not support Hypothesis 5; perceived workplace discrimination tended to be negatively associated with initial levels of well-being-related outcomes while *positively* predicting changes in well-being-related outcomes. I discuss this unexpected finding and its implications in detail in the Discussion section.

Using Model A to evaluate workplace discrimination as a potential antecedent for decreases in Extraversion (Hypothesis 9) and increases in Neuroticism (Hypothesis 10), the results showed a positive relation between workplace discrimination and increases in Neuroticism (b = .03, *S.E.* = .01, β = .18, p < .001) and a non-significant relation between workplace discrimination and decreases in Extraversion (b = -.00, *S.E.* = .01, β = -.05, p = .427, *n.s.*). The modeling results indicated that every unit difference in perceived workplace discrimination was associated with an average of .03-unit increase in Neuroticism across adjacent time points. Therefore, Hypothesis 10 was supported whereas Hypothesis 9 was disconfirmed.

Pertaining to personality changes and how they relate to job- and well-being-related outcomes, I used estimates from Model A to further evaluate Hypotheses 11 through 17. Hypotheses 11 and 12 state that increases in Neuroticism and decreases in Extraversion predict decreases in job satisfaction. Focusing on job satisfaction, results lent support for Hypothesis 12,

showing that decreases in Extraversion predicted decreases in job satisfaction (b = 1.89, *S.E.* = .34, β = .75, p < .001). On the other hand, changes in Neuroticism marginally predicted changes in job satisfaction (b = -.27, *S.E.* = .14, β = -.23, p = .050), tentatively supporting Hypothesis 11. Every unit increase in Extraversion and every unit decrease in Neuroticism was associated with 1.89 and .27 units of increases in job satisfaction, respectively. With regard to life satisfaction and psychological well-being as outcomes, Hypotheses 13, 14, and 15 state that increases in Neuroticism, decreases in Extraversion, and decreases in Conscientiousness predict decreases in subjective well-being, respectively. Results suggested that increases in Extraversion (b = 5.39, *S.E.* = .83, β = .85, p < .001) and decreases in Neuroticism (b = -.61, *S.E.* = .19, β = -.21, p = .001) predicted increases in life satisfaction, while increases in Conscientiousness (b = .79, *S.E.* = .40, β = .20, p = .045), decreases in Neuroticism (b = -.89, *S.E.* = .23, β = -.32, p < .001), and increases in Extraversion (b = 4.69, *S.E.* = .67, β = .79, p < .001) were related to increases in psychological well-being. Contrary to what was hypothesized, changes in Conscientiousness (b = .53, *S.E.* = .31, β = .13, p = .088, *n.s.*) did not predict changes in life satisfaction. Therefore, Hypotheses 13 and 14 were fully supported, whereas Hypothesis 15 was partially supported. The results suggest that, when Extraversion increased by one unit, life satisfaction and well-being increased by 5.39 and 4.69 units, respectively; when Neuroticism increased by one unit, life satisfaction and well-being decreased by .61 and .89 units, respectively; when Conscientiousness increased by one unit, well-being increased by .79 units. Focusing on perceived work ability as an important work-related outcome, Hypotheses 16 and 17 state that increases in Neuroticism and decreases in Extraversion negatively predict perceived work ability. Results supported both hypotheses by showing a negative relation between changes in Neuroticism and perceived work ability (b = -1.99, *S.E.* = .73, β = -.16, p = .006) and a positive relation between changes in Extraversion and perceived work

ability (b = 9.34, *S.E.* = 3.13, β = .34, p = .003). Although not hypothesized, changes in Conscientiousness were also associated with higher levels of perceived work ability (b = 5.51, *S.E.* = 1.35, β = .30, $p < .001$).

Model B contains unemployment and all other non-work-related variables (personality, life satisfaction, and well-being), which was tested in the full sample (N = 7767). Therefore, it was used to evaluate the relations between unemployment and well-being-related outcomes (Hypothesis 4), as well as the relations unemployment has with changes in Conscientiousness (Research Question 1) and changes in Neuroticism (Hypothesis 7). In conjunction with estimates from Model A, results from Model B were used to evaluate how changes in Neuroticism (Hypothesis 13), changes in Extraversion (Hypothesis 14), and changes in Conscientiousness (Hypothesis 15) relate to well-being-related outcomes.

To determine the appropriate slope terms for personality changes in Model B, I compared two models: (a) one with defined slope terms obtained from the unconditional models of Conscientiousness (0, 1, and 2), Extraversion (0, 1.547, and 2), and Neuroticism (0, 1, and 2; see results for Hypotheses 1, 2, and 3), and (b) another model with freely estimated slope terms (i.e., slope terms = 0, x, and 2) for each personality variable. Results from chi-square difference test demonstrated that the model with defined slope terms for Conscientiousness and Neuroticism did not have a worse fit ($\Delta\chi^2(2) = 3.74$, $p > .05$), but one with defined slope terms for all three personality variables did ($\Delta\chi^2(3) = 12.28$, $p < .05$). Therefore, I retained Model B with defined slope terms for Conscientiousness and Neuroticism, while leaving the slope terms for Extraversion to be freely estimated. Model B (see Figure 2) had an adequate fit for the data: $\chi 2(103) = 4036.75$, $p < .001$; CFI = 0.91; RMSEA = 0.07; SRMR = 0.05.

Income was controlled for in all hypothesized relations in Model B. Income was positively related to changes in Conscientiousness (b = .03, *S.E.* = .00, β = .29, p < .001) and changes in Extraversion (b = .01, *S.E.* = .00, β = .18, p < .001), as well as negatively related to changes in Neuroticism (b = -.01, *S.E.* = .00, β = -.05, p = .022). Income was also significantly associated with changes in the well-being-related outcomes, exhibiting positive relations with initial status of life satisfaction (b = .22, *S.E.* = .02, β = .20, p < .001) and psychological well-being (b = .38, *S.E.* = .02, β = .27, p < .001), as well as negative relations with changes of life satisfaction (b = -.09, *S.E.* = .02, β = -.19, p < .001) and psychological well-being (b = -.09, *S.E.* = .02, β = -.19, p < .001). In general, when comparing the b weights and significance level of the various relations between Model A and Model B, income has shown consistent relations with its corresponding covariates in the employed vs. full sample.

Hypothesis 4 states that unemployment negatively predicts changes in well-being-related outcomes. Results from Model B showed that unemployment negatively predicted the initial status of life satisfaction (b = -.50, *S.E.* = .12, β = -.06, p < .001) but was unrelated to changes in life satisfaction (b = .13, *S.E.* = .07, β = .04, p = .067, *n.s.*). In addition, unemployment was also not associated with either the initial status (b = -.29, *S.E.* = .15, β = -.03, p = .052, *n.s.*) or changes (b =.09, *S.E.* = .09, β = .03, p = .318, *n.s.*) of psychological well-being. Therefore, Hypothesis 4 was unsupported.

Using Model B to evaluate unemployment as a potential antecedent for changes in Conscientiousness (Research Question 1: What is the impact of unemployment on changes in Conscientiousness?) and changes in Neuroticism (Hypothesis 7: Unemployment predicts increase in Neuroticism.), it was shown that unemployment was unrelated to changes in either Conscientiousness (b = .03, *S.E.* = .02, β = .04, p = .121, *n.s.*) or Neuroticism (b = .00, *S.E.* = .03,

β = .00, p = .929, *n.s.*). Therefore, Hypothesis 7 was not supported. Hypotheses 6 and 8 pertain to the potential mediating effect of financial distress on the relations between unemployment and Conscientiousness/Neuroticism changes. Although the direct effects were non-significant, I tested the relations financial distress had with both Conscientiousness changes and Neuroticism changes nevertheless. Results from Model B showed that financial distress predicted changes in both Conscientiousness (b = .02, *S.E.* = .00, β = .19, p < .001) and Neuroticism (b = -.06, *S.E.* = .00, β = -.34, p < .001). In other words, higher levels of financial distress were significantly associated with increases in Conscientiousness and decreases in Neuroticism; for every unit difference in financial distress, Conscientiousness changed .02 units and Neuroticism changed .06 units.

Pertaining to personality changes and how those relate to well-being-related outcomes, I used estimates from Model B to further evaluate Hypotheses 13 through 15. Focusing on life satisfaction and psychological well-being as outcomes, Hypotheses 13, 14, and 15 state that increases in Neuroticism, decreases in Extraversion, and decreases in Conscientiousness predict decreases in subjective well-being. Results showed that increases in Extraversion (b = 4.71, *S.E.* = .58, β = .76, p < .001) and decreases in Neuroticism (b = -.69, *S.E.* = .10, β = -.25, p < .001) both predicted increases in life satisfaction, while decreases in Neuroticism (b = -1.07, *S.E.* = .12, β = -.39, p < .001) and increases in Extraversion (b = 4.27, *S.E.* = .45, β = .69, p < .001) predicted increases in psychological well-being. Although hypothesized, changes in Conscientiousness did not predict changes in life satisfaction (b = .38, *S.E.* = .30, β = .08, p = .200, *n.s.*) or changes in psychological well-being (b = .51, *S.E.* = .40, β = .10, p = .198, *n.s.*). Therefore, Hypotheses 13 and 14 were fully supported, whereas Hypothesis 15 was not supported. The results suggest that, in the full sample, when Extraversion increased by one unit, life satisfaction and well-being

increased by 4.71 and 4.27 units, respectively; when Neuroticism increased by one unit, life satisfaction and well-being decreased by .69 and 1.07 units, respectively.

Taken together, findings showed that older adults who perceived higher levels of workplace discrimination tended to become more neurotic and experience *increases* in job- and well-being-related outcomes (Model A), whereas unemployment did not have any meaningful impact on either personality or well-being (Model B). The two models (representing work sample vs. full sample) yielded similar results regarding the relations between personality changes and well-being outcomes; the only exception was the relation between Conscientiousness changes and well-being changes (which was significant in the work sample but not in the full sample). In general, older adults who experienced positive changes in personality traits (i.e., increases in Conscientiousness and Extraversion, as well as decreases in Neuroticism) also had improvements in life satisfaction and well-being over time. Using the work sample, I also found that increases in Extraversion and declines in Neuroticism both predicted higher levels of work ability.

Exploratory Analyses and Findings

In addition to hypothesis testing, I conducted exploratory analyses to examine (a) changes in Agreeableness and Openness to Experience, and (b) reverse causality between the personality variables and job and well-being variables (i.e., changes in job and well-being predicting changes in personality).

Changes in Agreeableness and Openness to Experience. To examine the growth trends of Agreeableness and Openness to Experience, I developed two unconditional models for each of the two personality variables to test the linearity of the change: (a) a linear change model (i.e., slope terms = 0, 1, and 2), and (b) a non-linear change model (i.e., slope terms = 0, x, and 2). For Agreeableness, the non-linear model did not have a significantly better fit: $\Delta\chi^2(1) = 2.63$, $p > .05$.

Therefore, the linear model was retained. Estimates from the model suggest that older adults experienced a significant mean-level decline in Agreeableness (unstandardized mean slope = -.03, standardized mean slope = -.27, $p < .001$). In addition, there was significant variance in the rate of change for Agreeableness (variance of slopes = .01, $p < .001$). Thus, it can be concluded that there was a linear decline in Agreeableness. For Openness to Experience, constraining the model to a linear change did significantly worsen the model fit: $\Delta\chi^2(1) = 7.84$, $p < 0.01$. Thus, the non-linear model was retained, with the slope terms estimated to be 0, 1.28, and 2, indicating a decelerating trend of change in Openness to Experience. The model showed a significant mean-level decrease in Openness to Experience (unstandardized mean slope = -.05, standardized mean slope = -.54, $p < .001$), as well as significant variance in the rate of change (variance of slopes = .01, $p = .024$). Taken together, the unconditional models revealed that older adults experienced mean-level declines in both Agreeableness (linear) and Openness to Experience (non-linear and decelerating), as well as individual differences in the change trajectory for both personality variables.

Reverse Causality. To explore the potential influence of job and well-being variables on personality changes, I constructed Model C (see Figure 3) using the work sample given that (a) unemployment did not have any significant relations with either personality or outcome variables and therefore was not included in this analysis, and (b) estimates from hypothesis testing showed that results from the work sample and the full sample were largely compatible. Model C was similar to Model A but (a) included exploratory personality variables (i.e., Agreeableness and Openness to Experience), (b) reversed the causal sequence between personality changes and job and well-being outcome changes, and (c) did not include job satisfaction (the model did not converge with job satisfaction included). The model had less than optimal fit for the data: $\chi^2(199) = 3408.12$, $p < .001$; CFI = 0.88; RMSEA = 0.08; SRMR = 0.10 and resulted in a negative variance

term (i.e., Heywood case; Kline, 2005) for the rate of change in Neuroticism. A common solution for this anomaly in model estimation is to constrain the problematic variance term to a small positive number and reestimate the model (Kline, 2005). However, constraining the variance for rate of change in Neuroticism to small positive numbers (e.g., .01, .001) did not result in model convergence because some other variance estimates became negative. This exploratory analysis suggested that the alternative model with reversed order of causality did not provide an acceptable fit the data and is likely misspecified.

Insert Figure 3 about here

CHAPTER 4: DISCUSSION

Much of the personality research in the organizational psychology literature had been operationalized under the assumption that personality traits are static dispositions (Lewis, 1999; McCrae & Costa, 1999; McCrae et al., 2000). Extending from studies that started to demonstrate personality changes across the life course (e.g., Ardelt, 2000; Caspi & Roberts, 2001; Roberts et al., 2006) and identified individual differences in patterns of personality changes associated with life experiences and events (e.g., Lüdtke et al., 2011), this dissertation focuses on personality changes associated with adversity in the workplace (unemployment and workplace discrimination) and their outcomes (job- and well-being-related outcomes) in a nationally representative sample of older adults. Methodologically, the current study incorporates robust research designs, with a nationally representative sample and three waves of longitudinal data from the HRS. This directly addresses concerns over the methodological limitations of the previous studies, such as relying heavily on either cross-sectional or two waves of data, as well as using samples that were not representative of their respective populations. Strengths in the current study design and methodology can help (a) provide a stronger basis to draw inferences regarding the patterns (e.g., direction and shape of the growth trajectory) and covariates of personality changes, and (b) enhance the generalizability of the findings.

The current study proposes hypotheses in four areas: (a) mean-level personality changes, (b) the impact of unemployment and workplace discrimination on job- and well-being-related outcomes, (c) the impact of unemployment and workplace discrimination on personality changes, and (d) the impact of personality changes on job- and well-being-related outcomes. The current findings uncovered a number of important relations that demonstrate both mean-level changes and individual differences in personality changes. In addition, personality changes were shown to have

significant relations with a variety of job- and well-being-related outcomes. Taken together, these findings shed light on the phenomena of personality change due to unemployment and workplace discrimination. Linking to the previous literature, this study makes several important theoretical and practical implications and contributions to personality research and the aging literature.

Study Findings

Expanding the personality literature to an understudied population, the current study features the growing aging population in the United States. Previous studies yielded mixed results regarding the stability/instability of personality (Anusic & Schimmack, 2015; Ardelt, 2000; Ferguson, 2010; Roberts et al., 2006; Roberts & DelVecchio, 2000) and patterns of personality changes in late adulthood (e.g., Mõttus et al., 2012; Roberts et al., 2006; Terracciano et al., 2005; Wortman et al., 2012). Supporting the la dolce vita effect (Marsh et al., 2013), findings from this dissertation indicate that there tend to be mean-level declines in Conscientiousness, Neuroticism, Extraversion, and Openness to Experience, as well as mean-level increases in Agreeableness amongst older adults. These results are in line with the meta-analytic findings that suggest continued development in personality beyond middle adulthood (Anusic & Schimmack, 2015; Ardelt, 2000; Roberts et al., 2006) and disconfirm the assertion that personality reaches stability around middle adulthood (Ferguson, 2010; Roberts & DelVecchio, 2000). On the one hand, the current findings support the life span development approach, which posits that people are active agencies that exhibit both continuity and change throughout the life course as they age and adapt to their environment (e.g., Baltes 1997; Baltes et al., 2006). On the other hand, the significant variance in personality changes suggest individual differences in personality change trajectories, allowing me to further examine factors, such as unemployment and workplace discrimination, that could be associated with personality change patterns.

It has been well-established that negative work-related experiences and events can have detrimental effects on satisfaction and well-being both within and outside of the work context (e.g., Luhmann et al., 2012; McKee-Ryan et al., 2005; Murphy & Athanasou, 1999; Schmitt et al., 2014; Zhao et a., 2007). In this study, I focused on unemployment and workplace discrimination as two potential sources of workplace adversity. I first examined the main effects of unemployment and workplace discrimination on work- and well-being-related outcomes (before examining the impact of unemployment and workplace discrimination on personality changes). Contrary to what was hypothesized, unemployment did not predict changes in life satisfaction or changes in psychological well-being. In addition, perceived workplace discrimination tended to be *positively*, instead of negatively, associated with changes in well-being-related outcomes. This finding seemed puzzling at first glance; however, when I took into consideration the initial status of the well-being outcomes, a plausible explanation emerged. Specifically, the data shows a pattern that older adults experiencing unemployment and workplace discrimination had lower initial levels of subjective well-being, followed by no changes or increases in well-being in subsequent years. It is possible that, workplace adversity could have an immediate, substantial effect on subjective well-being initially, leaving the individuals to "recover" in the following years. This explanation was supported via further analyses and data visualization (see Figure 4 for an example). For instance, when comparing individuals who did not experience workplace discrimination with those who did, the latter had significantly lower levels of well-being initially and slowly recovered in the subsequent two years; however, they never quite overcame such adversity – they ended up having lower levels of subjective well-being after two years despite the increasing trends compared to those who did not experience workplace discrimination in the first place. This indirectly supports the notion that workplace discrimination may have detrimental effects on well-being outcomes.

However, given that workplace discrimination was captured in a "snapchat," it is impossible to draw a conclusion on whether workplace discrimination actually *led to* decreases in well-being; that is yet to be determined in future research.

Insert Figure 4 about here

Extending beyond mean-level personality development, research in the past two decades started to explore and examine how life events and experience can impact personality trait changes (e.g., Löckenhoff et al., 2009; Specht et al., 2011; Vaidya et al., 2002). In the current research, I expanded the literature by examining two types of work-related adversity, unemployment and workplace discrimination, and their potential relations with personality changes over time. Unemployment and workplace discrimination can limit an individual's opportunities to express certain trait relevant behaviors (e.g., unemployment might limit opportunities to exert conscientious behavior at work) and elicit negative emotions and cognitions (e.g., workplace discrimination might elicit depressive emotions and neurotic behavior), which, over time, can manifest into changes in personality traits.

Pertaining to unemployment and how it relates to changes in Conscientiousness and Neuroticism, results showed that older adults who experienced unemployment did not experience meaningful changes in either Conscientiousness or Neuroticism. Linking these to findings from a recent study, Boyce et al. (2015) also did not find consistent changes in either Conscientiousness (only significant for men but not for women) or Neuroticism following unemployment. It is likely that, as Boyce et al. pointed out, unemployment could predict temporary changes in Neuroticism that was not captured in either study. Another plausible explanation is that, compared to younger

individuals who generally face more financial responsibilities (e.g., paying for loans, raising children, etc.) and expect to remain in the workforce, older adults might be better equipped both financially and emotionally when they become unemployed, and are thus less impacted negatively by such an event. Future studies should explore these possible explanations by comparing the potential age/generational differences. It is worth noting that, in the current sample, only a small percentage of individuals were unemployed (N = 101), making it challenging to draw a firm conclusion regarding the relation between unemployment and personality changes.

Although unemployment did not predict changes in either Conscientiousness or Neuroticism, higher levels of financial distress were shown to predict increases in Conscientiousness and decreases in Neuroticism. It is reasonable to suggest that, experiencing financial distress due to unexpected life changes (e.g., unemployment, loss in investment) may prompt individuals to become more cautious and planful, as well as less impulsive, which would be reflected in increases in certain aspects of Conscientiousness and declines in certain facets of Neuroticism. For instance, after becoming unemployed, one might become, voluntarily or involuntarily, more resistant to unnecessary spending due to limited financial resources. That being said, it is worth noting that the changes in Conscientiousness and Neuroticism associated with financial distress were quite small in magnitude (Conscientiousness changed .01 units and Neuroticism changed .06 units across adjacent time points for every unit difference in financial distress), thus limiting the practical significance of this finding.

Focusing on workplace discrimination, the findings suggest that older adults who perceive higher levels of workplace discrimination would be more likely to experience increases in Neuroticism but not in Extraversion. These findings are consistent with Paradies (2006)'s findings that racial discrimination elicited stronger negative mental health outcomes (depression, anxiety)

than inhibiting positive mental health outcomes (e.g., self-esteem). It is likely that workplace discrimination has a stronger, long-lasting effect on triggering negative emotions and cognitions, such as anxiety, depression, and hostility; this is consistent with Sutin et al.'s (2016) findings from both the HRS and the MIDUS sample. Although Sutin et al. did find some evidence suggesting the impact of discrimination on declines in Extraversion, the findings were inconsistent across the two samples (HRS and MIDUS) and were based on only two waves of data. Therefore, findings from the current study provide a more methodologically grounded conclusion regarding the impact of workplace discrimination on changes in Neuroticism. At the same time, findings from this study suggest that older adults generally experience declines in Extraversion, and the absence (presence) of workplace discrimination is unlikely to elicit (inhibit) changes in Extraversion over time.

Extending research on how personality changes can shape important life outcomes (e.g., Boyce et al., 2013; Mroczek & Spiro, 2007; Siegler et al., 2003), I leveraged the COR theory and proposed that changes in personality traits reflect gains or losses in personal resources beyond trait levels, which can serve to enable or hinder individuals' reactions and responses to situational demands and have downstream impact on work and well-being outcomes. Specifically, I examined various personality changes (Conscientiousness, Neuroticism, and Extraversion) and how they relate to job- and well-being-related outcomes. As expected, the findings supported the hypotheses and showed that positive changes (i.e., increases) in both Conscientiousness and Extraversion predicted improvements in job- and well-being-related outcomes (i.e., increases in job satisfaction and subjective well-being, as well as higher levels of work ability), whereas increases in Neuroticism were detrimental to these job and well-being outcomes (i.e., declines in job satisfaction and subjective well-being, as well as lower levels of work ability). Taken together, these findings are in line with the previous research (e.g., Boyce et al., 2013; Hill et al., 2012;

Human et al., 2013; Turiano et al., 2012) and suggest that personality changes can have significant implications. These linkages further underscore the importance of looking beyond personality traits and studying the impact of personality changes.

Theoretical and Practical Implications

Despite the growing interest in studying personality changes, the current study is one of the first to investigate antecedents and outcomes of personality changes (a) using a nationally representative sample of older adults, and (b) with three waves of longitudinal data. Taken together, the current study offers a number of theoretical and practical implications to the understanding of personality, industrial/organizational psychology research, and the aging literature.

This study advances the understanding of personality in three important ways. It demonstrates, in a nationally representative sample, that personality develops across life span and continues to change in late adulthood in meaningful ways. It adds to the cumulative evidence (e.g., Anusic & Schimmack, 2015; Ardelt, 2000; Roberts et al., 2006) that suggests that, contrasting the "traditional" trait approach, personality change should be an essential component (in conjunction with trait level personality) to the understanding and research of personality, as well as other areas of research that involves personality.

In the current psychological literature (and literature beyond psychology), personality has been overwhelmingly positioned as the antecedent of outcomes, whereas the relations between personality and life events and experiences should be seen as interactive in nature (selection effects and socialization effects). Acknowledging the malleability of personality opens more opportunities to position personality as an *outcome* of life events and experiences (socialization effects) to further understand (a) what environmental factors can trigger positive and negative personality changes,

and (b) the shape of the change trajectories of personality over an extended period of time after certain events and experiences have taken place.

Given the variability in personality changes uncovered in the current study and previous research (e.g., Löckenhoff et al., 2009; Specht et al., 2011; Vaidya et al., 2002), the search for factors that contribute to personality changes should also extend beyond those in the external environment. Other individual differences, such as locus of control and self-monitoring, can have potential impact on how an individual's personality changes or moderate the rate of personality change triggered by life events and experiences. In an experiment, Hudson and Fraley (2015) found that individuals who set goals to change their personality experienced meaningful personality changes in a 4-month period. Based on findings from this study, it is possible, for example, that an individual who wants to become more extraverted and has high internal locus of control could elevate more degrees of change in Extraversion compared to someone who has the same wish but has high external locus of control. It remains to be studied whether and how individual beliefs and characteristics (such as one's belief in his/her ability to influence outcomes) may influence and/or moderate changes in personality.

Recognizing the malleable nature of personality can further promote our understanding of selection effects (personality influencing life events and experiences) and enhance the predictive validity of personality by using both the trait level and change in personality to predict outcomes. For instance, the I/O literature has historically debated on the modest predictive validity of personality traits for job-related outcomes. It is possible that personality changes in the process of adjusting to a new work environment can account for additional variance above and beyond what's predicted by the initial levels of personality prior to entering the job, especially for criteria associated with how well an individual is adjusting to the job.

The current study also elevates the understanding of well-being and job satisfaction, particularly on when and how they change. In the past, researchers had typically captured work- and well-being-related outcomes in a snapshot (i.e., in one time point) and used them to examine and infer the impact of individual differences and environmental influences. Although it is important to examine the *levels* of work- and well-being-related outcomes, findings from this study provide vivid examples where one should consider the levels and changes of these outcomes in conjunction, instead of interpreting either in isolation. In this study, I found that individuals experiencing workplace discrimination had significantly lower levels of well-being initially but then slowly recovered in the subsequent two years. If one were to only look at the impact of workplace discrimination on the levels of well-being, they would be either (a) underestimating the detrimental influence of workplace discrimination, especially the potential acute effect at the beginning, if they were to only measure well-being at the last time point, or (b) overestimating the long-term damage from workplace discrimination by ignoring the recovery in well-being over time, if they were to measure well-being only concurrently with experience of discrimination. In theory, when we study the impact of individual differences or environmental influences on well-being and job attitudes, we inherently acknowledge that such impact happens in a *process*. Therefore, a more theory-driven, robust approach should be to capture the levels, trajectory, and pace of this change process, upon which inferences can be made about the full nature of such an impact. In I/O practice, we should also recognize that job attitudes and outcomes are changing. Although it is not realistic to be monitoring these regularly in the workplace, organizational practitioners should give more consideration regarding how and when these outcomes are captured to ensure that the information is representative and serves its purpose.

The current research pertains to a specific population, namely older adults in the United States. Given its growing proportion, it is becoming increasingly important to understand job- and well-being-related issues pertaining to this population. Findings from this study give support to the la dolce vita effect, such that older adults tend to become less conscientious, neurotic, extraverted, and open, and more agreeable. Linking this study to the aging and retirement literature, it demonstrates that older adults should view themselves and be viewed as active agencies that continue to exhibit change and development throughout the life course. In addition to changes in personality, psychological well-being in older adults has also been an area of interest for researchers. In a study based on the HRS, Wang (2007) showed that (1) older adults experienced different change patterns in psychological well-being as they transitioned into retirement and adjustment process, and (2) individual and contextual factors (e.g., hold a bridge job; engage in retirement planning; marital status, etc.) can predict these change patterns. Findings from this study also showed that individual differences in well-being changes can be predicted by changes in personality. Taken together, these findings suggest that quality of life for older adults does not follow a uniform pattern and is associated with changes in individual attributes, thus supporting the life course perspective.

Based on the findings, the current research also highlights the potential detrimental effects of workplace discrimination on changes in personality, which subsequently predicted negative changes in important job- and well-being-related outcomes. This is a notable finding given that older adults were found to have more positive job attitudes in general (Ng & Feldman, 2010). These trends and relations suggest that older adults may be subject to personality changes leading to detrimental impact on job- and well-being-related outcomes, which could be due to vulnerability of this population when faced with adversity and a potential lack of resources for coping. The

findings inform organizations to pay more attention to individuals, especially older adults, who are subject to workplace discrimination, as it may predict lasting effects on personality and subsequently job satisfaction, a key predictor of job performance (e.g., Judge et al., 2001). One of the potential solutions might be to provide resources, such as flexible work hours and mentoring programs, to compensate for the loss of personal resources in the process of coping with perceived discrimination and other types of adversity in the workplace. It is important to note that organizations should consider offering these resources to all employees, rather than targeting older adults (e.g., setting up mentoring programs just for older adults), to avoid encouraging further age-based discrimination.

Limitations and Future Directions

Despite the contributions, this study has four areas of limitations that should be discussed. First, the non-experimental design in this study does not allow causal inferences to be made (although this is common in the personality development literature). Given the notion that personality traits predict as well as respond to life events and experiences (i.e., selection effects and socialization effects), future studies should explore ways with an experimental design to (a) study selection effects by potentially manipulating personality traits or states and assess their impact on subsequent events and experiences; (b) study socialization effects by manipulating events and experiences and measure their influence on personality changes; and (c) examine reciprocal relations between personality and life events and experiences.

Second, there were three time points in the measures of personality and outcomes (except for work ability). Although having three waves of data was sufficient to estimate models of change, it constrained my ability to examine and articulate the specific form of change in personality

beyond quadratic terms. By including additional waves, future studies can do a better job at addressing the specific patterns of personality change trajectories.

Third, in the current study, I focused on the aging population and considered universal forms of change (e.g., 0, 1, 2) while allowing individuals to differ on their rate of change. In doing so, I did not allow the possibility in model construction that people may have different forms of change. It is possible that individuals or subgroups within this population, depending on their demographics (e.g., age, gender), individual differences (e.g., locus of control), and environmental factors (e.g., social support), would experience different change trajectories, and uncovering these different forms of personality changes remains to be an open topic for future research.

Another limitation lies with the archival data. In this study, only 101 individuals were unemployed from 2004 to 2006, which limited the extent to which any conclusive inferences can be drawn from the findings around unemployment. Despite some of the inherent limitations, archival data have been widely used and can be quite useful in studying health- and well-being-related issues (Fisher & Barnes-Farrell, 2013). The HRS is a very useful and powerful dataset to address the current research questions due to the large, heterogeneous, and representative sample, as well as the robust longitudinal design. Given that most of the existing literature on personality changes relied on results from cross-sectional or two-wave data, this study is a step forward in leveraging robust research design and methodology to adequately address research questions pertaining to personality change.

Based on the current findings, I recommend five directions for future research. First, this study reveals that older adults who experience unemployment may not experience meaningful changes in either Conscientiousness or Neuroticism. It is possible that, according to the model of strength and vulnerability integration (SAVI), older age can serve as a strength in cognitive-

behavioral emotion-regulation skills that may help mitigate exposure to negative experiences (Carstensen, Fung, & Charles, 2003). At the same time, reduced physiological flexibility associated with aging may impose vulnerabilities when older adults are coping with a negative event, such as unemployment. To further understand the mechanism via which unemployment may or may not influence personality, future research should consider including potential moderators, such as attentional, appraisal, and behavioral emotion regulation strategies and physical flexibility. For instance, it is reasonable to expect that an older adult who exhibit positive emotion regulation strategies would be less affected and experience less changes in personality (e.g., Neuroticism) by unemployment than someone who tends to engage in negative emotion regulation. While issues around unemployment have received considerable attention in the psychological literature, researchers have also advocated that more attention should be paid on alternative types of employment status, such as underemployment (i.e., individuals who are involuntarily half-time employed or have jobs that do not match their education, experience, or economic needs), and how it affects well-being and other important life outcomes (e.g., Feldman, 1996; Dooley, Prause, & Ham-Rowbottom, 2000).

Second, in this dissertation, I targeted three of the Big Five personality traits (i.e., Conscientiousness, Neuroticism, and Extraversion) while exploring the other two (i.e., Agreeableness and Openness to Experience). Although lower-level personality traits are not within the scope of this research, future studies should examine if and how life events and experiences may have differential impacts on the various dimensions within each personality trait. For instance, unemployment may have a bigger impact on the Competence facet (i.e., belief in one's own self-efficacy) than the Order facet (i.e., personal organization) of Conscientiousness. It is even possible that one type of event, such as workplace discrimination, may have opposite effects on two facets

of the same trait (e.g., positive effect on the Anxiety facet and negative effect on the Impulsiveness facet of Neuroticism). Therefore, more research needs to be done to study lower-level personality facets and their changes due to life events and experiences.

Third, given the growing aging population, there is an increasing need to study personality changes and their antecedents and outcomes pertaining to this population. To that end, future research should further examine the unique challenges encountered by this group and explore ways in which the detrimental impact of these challenges can be mitigated. At the same time, the current findings beg the question whether such phenomena would differ in a more diverse population beyond older adults. For instance, I found that that older adults who experienced unemployment are unlikely to experience meaningful changes in either Conscientiousness or Neuroticism. It is possible that younger individuals going through a job loss would be more severely impacted due to potential differences in career expectations and financial responsibilities. On the other hand, this research indicates that older adults who are victims of workplace discrimination are likely to become more neurotic in the following years, which would likely impact a variety of job- and well-being-related outcomes subsequently. It can be argued that younger workers who experience workplace discrimination might be able to take advantage of other resources (e.g., good physical health, social support, network, etc.) to buffer the stress and better cope with this type of negative experience, while these resources may be lacking in an older population. Therefore, the same relations seen in this study between workplace discrimination and outcomes may not be observed in a younger population. Moving forward, researchers can study personality changes and their covariates in a more age-diverse population; while there might be age or generational differences in the form and rate of personality changes after certain life events and experiences, it is also

important to study potential moderators, such as physical and psychological resources, that impact the direction and/or strength of these relationships.

Fourth, the current study demonstrates that changes in personality are predictive of changes in important job- and well-being-related outcomes. Extending beyond the scope of the current study, it can be argued that changes in personality may also be used to predict changes in other types of individual or organizational outcomes. Given the established associations between personality and various work-related criteria (e.g., Alarcon et al., 2009; Barrick & Mount, 1991; Barrick et al., 2001; Chiaburu et al., 2011), potential directions for future research can be to link changes in personality with changes in job performance, organizational citizenship behavior, and burnout. Previous studies have also associated personality traits with vocational interests (Barrick, Mount, & Gupta, 2003; Gottfredson, Jones, & Holland, 1993; Larson, Rottinghaus, & Borgen, 2002); it would be interesting to explore whether individuals experiencing personality changes would also experience changes in vocational interests, which can subsequently impact important outcomes such as performance and turnover (Van Iddekinge, Roth, Putka, & Lanivich, 2011).

Fifth, in this study, personality was captured via self-reports (i.e., asking the participants what they think their personalities are). According to Socioanalytic theory (Hogan, 1983, 1991, 1996), personality should be defined from two perspectives, namely Identity and Reputation. Identity corresponds to people's internal understanding of who they are, whereas reputation refers to others' perceptions. Meta-analyses have shown that self-reports and other-reports of personality traits do have considerable unique variance (Connolly, Kavanagh, & Viswesvaran, 2007); in some cases (e.g., when the criteria are academic achievement and job performance), other-reports even show higher criterion-related validities compared to self-reports (Connelly & Ones, 2010). Based on Socioanalytic theory and the related research, it would be worthwhile to investigate (1)

congruence/incongruence of self- and observer's ratings of personality changes, and (2) the potential differences in predictive validity in self- and observer's ratings of personality changes.

Table 1. *Administrations of Study Measures*

	2006	2010	2014
Antecedents	Unemployment (2004-2006) Workplace Discrimination		
Mediator	Financial Distress		
Personality	Conscientiousness Neuroticism Extraversion	Conscientiousness Neuroticism Extraversion	Conscientiousness Neuroticism Extraversion
Outcomes	Job Satisfaction Life Satisfaction Psychological Well-being	Job Satisfaction Life Satisfaction Psychological Well-being	Job Satisfaction Life Satisfaction Psychological Well-being Work Ability
Control Variable	Income		
Exploratory Variables	Agreeableness Openness to Experience	Agreeableness Openness to Experience	Agreeableness Openness to Experience

Table 2. *Descriptive Statistics and Zero-order Correlations for Study Variables*

	M	***SD***	***α***	**1**	**2**	**3**	**4**
1.Unemployment	0.04	0.19	---	---			
2.WorkDiss_2006	1.68	0.86	0.80	0.03	---		
3.Finances_2006	1.91	1.02	0.81	.13**	.24**	---	
4.In_Income_2006	10.74	1.06	---	-.18**	-.10**	-.26**	---
5.Cs_2006	3.38	0.46	0.66	-.05**	-.08**	-.16**	.19**
6.Ns_2006	2.06	0.59	0.71	.07**	.25**	.28**	-.09**
7.Es_2006	3.22	0.54	0.75	-0.01	-.10**	-.11**	.08**
8.As_2006	3.53	0.46	0.78	0.00	-.05*	-0.02	0.03
9.Os_2006	2.96	0.54	0.79	-0.01	-.05*	-.08**	.17**
10.Cs_2010	3.38	0.48	0.67	-0.04	-.08**	-.11**	.21**
11.Ns_2010	2.02	0.61	0.71	.04*	.19**	.22**	-.10**
12.Es_2010	3.18	0.57	0.75	-0.02	-.07**	-.09**	.12**
13.As_2010	3.51	0.49	0.78	-0.02	-.05*	-0.02	.06**
14.Os_2010	2.92	0.56	0.79	-0.02	-0.02	-.05**	.22**
15.Cs_2014	3.36	0.49	0.66	-0.03	-.05*	-.11**	.228**
16.Ns_2014	1.99	0.62	0.72	.05*	.20**	.17**	-.08**
17.Es_2014	3.17	0.58	0.76	-0.04	-.09**	-.09**	.14**
18.As_2014	3.48	0.51	0.79	-0.02	-0.03	-0.01	.08**
19.Os_2014	2.90	0.58	0.80	-0.02	-0.03	-.06**	.21**
20.LSs_2006	5.11	1.44	0.89	-.09**	-.20**	-.40**	.20**
21.Well_depresss_2006	6.67	1.90	0.80	-.11**	-.20**	-.33**	.26**
22.JSs_2006	2.89	0.49	0.79	-0.04	-.46**	-.34**	.19**
23.LSs_2010	4.88	1.55	0.89	-.11**	-.13**	-.35**	.20**
24.Well_depresss_2010	6.62	1.93	0.81	-.09**	-.16**	-.29**	.23**
25.JSs_2010	2.94	0.52	0.80	-0.04	-.31**	-.27**	.20**
26.LSs_2014	5.00	1.51	0.89	-.07**	-.13**	-.27**	.21**
27.Well_depresss_2014	6.59	1.96	0.82	-.08**	-.17**	-.26**	.24**
28.JSs_2014	3.35	0.80	---	-0.05	-.21**	-.19**	.19**
29.WAs_2014	7.97	2.46	0.96	-.06*	-.11**	-.11**	.41**

	5	6	7	8	9	10	11
1.Unemployment							
2.WorkDiss_2006							
3.Finances_2006							
4.In_Income_2006							
5.Cs_2006	---						
6.Ns_2006	-.24**	---					
7.Es_2006	.39**	-.22**	---				
8.As_2006	.42**	-.11**	.56**	---			
9.Os_2006	.45**	-.20**	.53**	.40**	---		
10.Cs_2010	.64**	-.18**	.29**	.30**	.34**	---	
11.Ns_2010	-.22**	.63**	-.20**	-.10**	-.19**	-.24**	---
12.Es_2010	.30**	-.20**	.70**	.40**	.41**	.41**	-.24**
13.As_2010	.32**	-.10**	.41**	.63**	.31**	.45**	-.12**
14.Os_2010	.35**	-.16**	.39**	.28**	.68**	.46**	-.21**
15.Cs_2014	.60**	-.17**	.28**	.30**	.33**	.63**	-.20**
16.Ns_2014	-.21**	.58**	-.21**	-.12**	-.19**	-.21**	.64**
17.Es_2014	.30**	-.18**	.65**	.40**	.40**	.29**	-.22**
18.As_2014	.32**	-.10**	.39**	.60**	.29**	.32**	-.12**
19.Os_2014	.35**	-.17**	.39**	.29**	.67**	.33**	-.19**
20.LSs_2006	.21**	-.31**	.25**	.13**	.14**	.18**	-.28**
21.Well_depresss_2006	.20**	-.40**	.20**	.05**	.14**	.19**	-.35**
22.JSs_2006	.23**	-.27**	.22**	.18**	.22**	.20**	-.23**
23.LSs_2010	.18**	-.26**	.22**	.11**	.14**	.22**	-.31**
24.Well_depresss_2010	.20**	-.34**	.16**	.05**	.15**	.21**	-.40**
25.JSs_2010	.16**	-.23**	.18**	.11**	.17**	.17**	-.29**
26.LSs_2014	.19**	-.24**	.21**	.14**	.14**	.21**	-.29**
27.Well_depresss_2014	.19**	-.32**	.16**	.06**	.14**	.19**	-.35**
28.JSs_2014	.16**	-.21**	.07*	.10**	.10**	.09**	-.21**
29.WAs_2014	.23**	-.20**	.08**	.12**	.22**	.29**	-.18**

	12	13	14	15	16	17	18
1.Unemployment							
2.WorkDiss_2006							
3.Finances_2006							
4.In_Income_2006							
5.Cs_2006							
6.Ns_2006							
7.Es_2006							
8.As_2006							
9.Os_2006							
10.Cs_2010							
11.Ns_2010							
12.Es_2010	---						
13.As_2010	.57**	---					
14.Os_2010	.55**	.44**	---				
15.Cs_2014	.29**	.31**	.34**	---			
16.Ns_2014	-.24**	-.12**	-.18**	-.27**	---		
17.Es_2014	.71**	.41**	.42**	.45**	-.30**	---	
18.As_2014	.41**	.63**	.29**	.49**	-.19**	.59**	---
19.Os_2014	.43**	.31**	.71**	.49**	-.24**	.58**	.48**
20.LSs_2006	.24**	.14**	.12**	.18**	-.26**	.22**	.14**
21.Well_depresss_2006	.19**	.07**	.14**	.17**	-.31**	.17**	.06**
22.JSs_2006	.21**	.17**	.17**	.18**	-.23**	.22**	.15**
23.LSs_2010	.27**	.14**	.18**	.20**	-.26**	.23**	.13**
24.Well_depresss_2010	.20**	.07**	.16**	.20**	-.34**	.18**	.07**
25.JSs_2010	.18**	.13**	.17**	.15**	-.26**	.18**	.12**
26.LSs_2014	.25**	.15**	.15**	.24**	-.35**	.30**	.19**
27.Well_depresss_2014	.18**	.07**	.13**	.23**	-.42**	.23**	.10**
28.JSs_2014	.10**	.07**	.09**	.13**	-.26**	.14**	.12**
29.WAs_2014	.14**	.18**	.21**	.36**	-.24**	.22**	.25**

	19	20	21	22	23	24	25
1.Unemployment							
2.WorkDiss_2006							
3.Finances_2006							
4.In_Income_2006							
5.Cs_2006							
6.Ns_2006							
7.Es_2006							
8.As_2006							
9.Os_2006							
10.Cs_2010							
11.Ns_2010							
12.Es_2010							
13.As_2010							
14.Os_2010							
15.Cs_2014							
16.Ns_2014							
17.Es_2014							
18.As_2014							
19.Os_2014	---						
20.LSs_2006	.14**	---					
21.Well_depresss_2006	.14**	.38**	---				
22.JSs_2006	.16**	.33**	.24**	---			
23.LSs_2010	.15**	.52**	.31**	.25**	---		
24.Well_depresss_2010	.15**	.33**	.54**	.19**	.39**	---	
25.JSs_2010	.17**	.31**	.19**	.53**	.34**	.23**	---
26.LSs_2014	.20**	.49**	.27**	.25**	.57**	.32**	.31**
27.Well_depresss_2014	.17**	.31**	.48**	.20**	.32**	.56**	.21**
28.JSs_2014	.15**	.20**	.21**	.25**	.25**	.21**	.31**
29.WAs_2014	.30**	.17**	.27**	.24**	.14**	.28**	.20**

	26	27	28	29
1.Unemployment				
2.WorkDiss_2006				
3.Finances_2006				
4.In_Income_2006				
5.Cs_2006				
6.Ns_2006				
7.Es_2006				
8.As_2006				
9.Os_2006				
10.Cs_2010				
11.Ns_2010				
12.Es_2010				
13.As_2010				
14.Os_2010				
15.Cs_2014				
16.Ns_2014				
17.Es_2014				
18.As_2014				
19.Os_2014				
20.LSs_2006				
21.Well_depresss_2006				
22.JSs_2006				
23.LSs_2010				
24.Well_depresss_2010				
25.JSs_2010				
26.LSs_2014	---			
27.Well_depresss_2014	.41**	---		
28.JSs_2014	.34**	.24**	---	
29.WAs_2014	.22**	.33**	.30**	---

Note. * $p < .05$; ** $p < .01$; *** $p < .001$; † $p > .05$. *N*s = 2002-7533. WorkDiss = Perceived workplace discrimination scale. Finances = Financial distress scale. In_Income = Natural log transformed income. Cs = Conscientiousness scale. Ns = Neuroticism scale. Es = Extraversion scale. As = Agreeableness scale. Os = Openness to experience scale. LSs = Life satisfaction scale. Well_depress = Well-being scale measured with depressive symptoms (reversely scored). JSs = Job satisfaction scale. WAs = Perceived work ability scale.

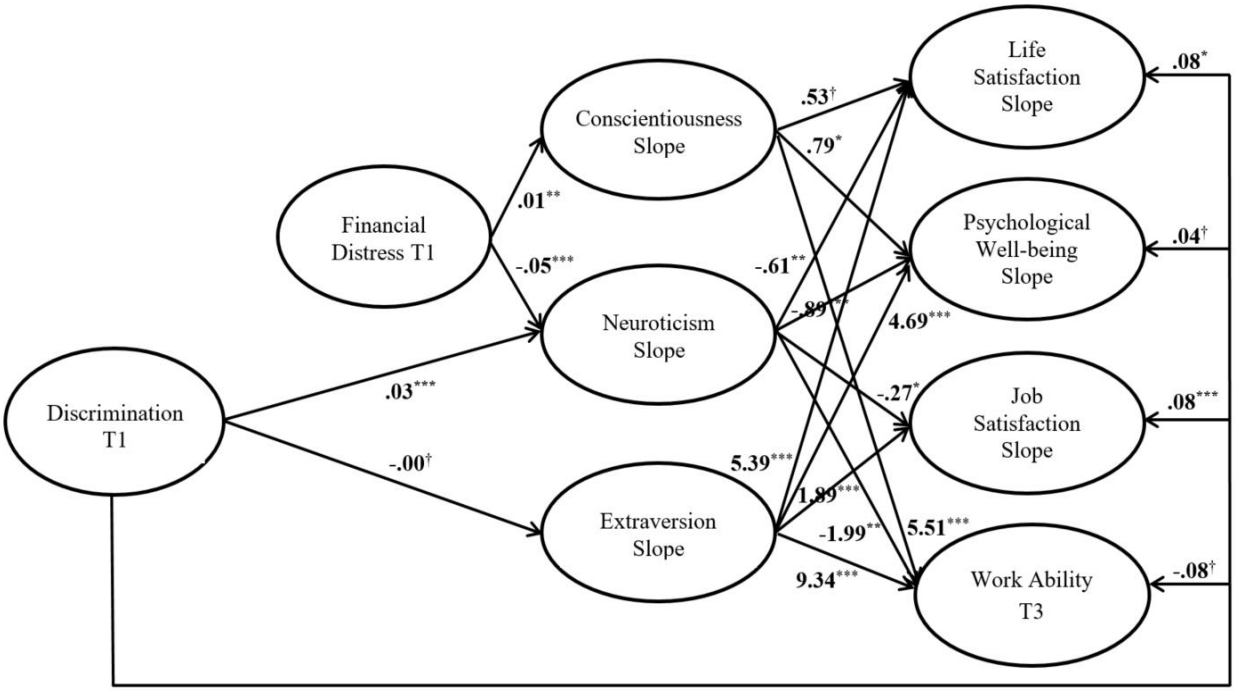

Figure 1. Model A. The effects of workplace discrimination on the intercepts of the outcomes were tested but not depicted in this figure. The effects of income on changes in personality and outcomes were controlled for but not depicted in this figure. * $p < .05$; ** $p < .01$; *** $p < .001$; † $p > .05$. $N = 2468$.

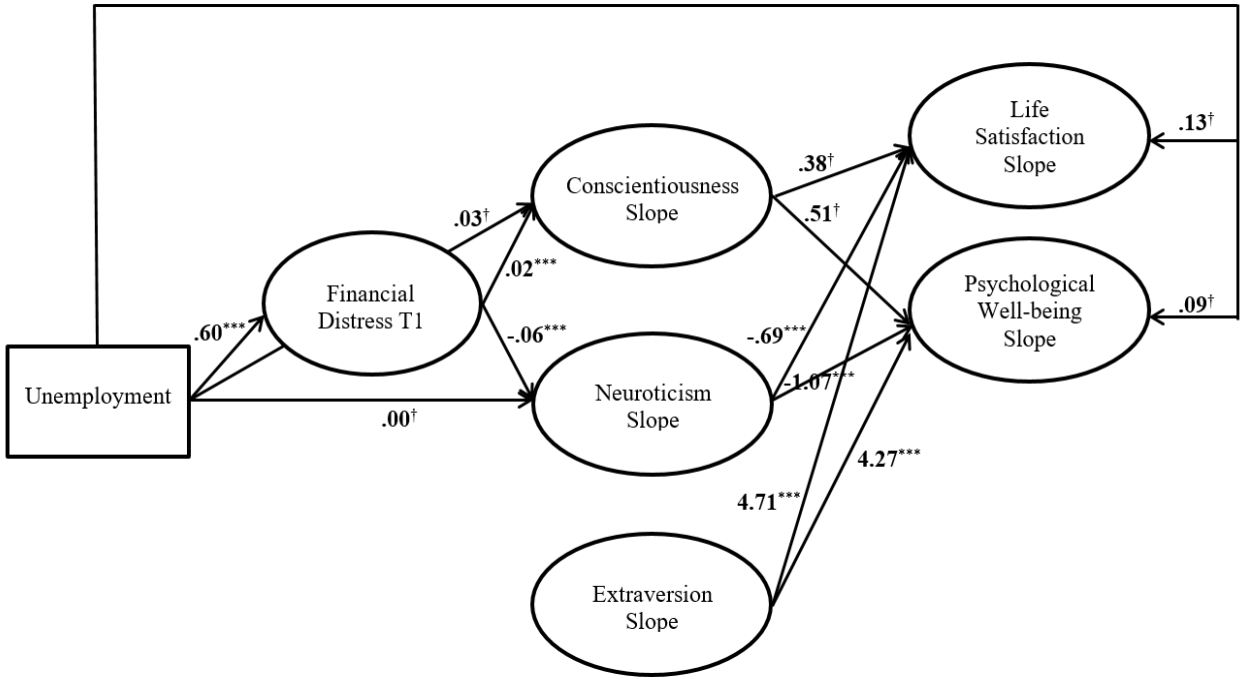

Figure 2. Model B. The effects of workplace discrimination on the intercepts of the outcomes were tested but not depicted in this figure. The effects of income on changes in personality and outcomes were controlled for but not depicted in this figure. * $p < .05$; ** $p < .01$; *** $p < .001$; † $p > .05$. $N = 7767$.

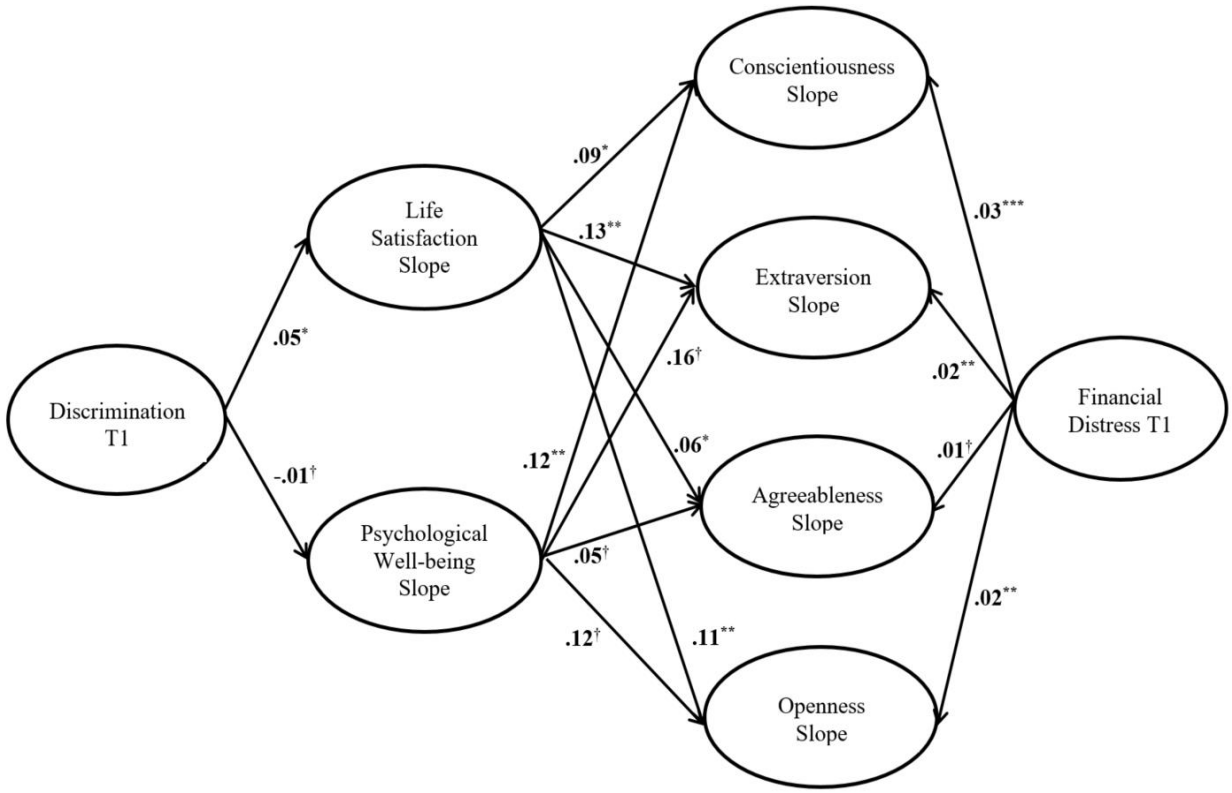

Figure 3. Model C. The effects of workplace discrimination on the intercepts of the outcomes were tested but not depicted in this figure. The effects of income on changes in personality and outcomes were controlled for but not depicted in this figure. * $p < .05$; ** $p < .01$; *** $p < .001$; † $p > .05$. $N = 2468$.

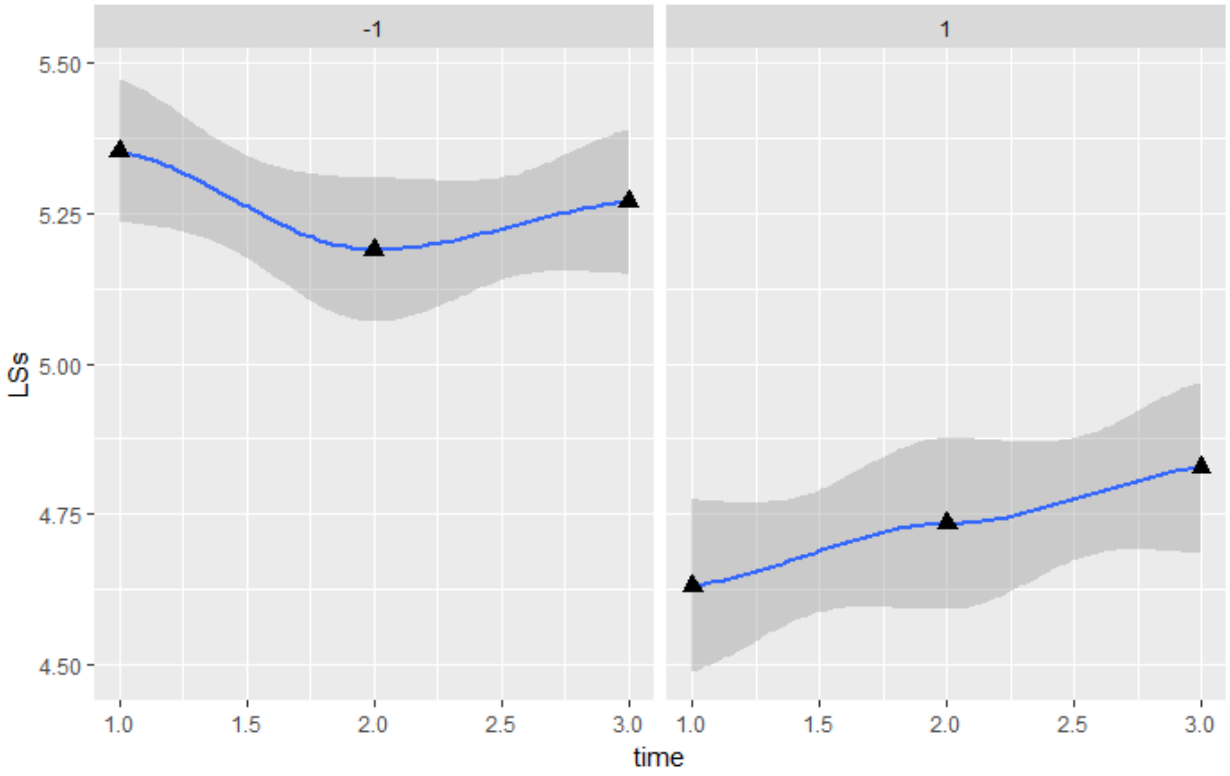

Figure 4. Impact of Perceived Workplace Discrimination on Changes in Life Satisfaction. – 1 = low workplace discrimination; 1 = high workplace discrimination.

APPENDIX: STUDY MEASURES

Unemployment

Now I'm going to ask you some questions about your current employment situation. Are you working now, temporarily laid off, unemployed and looking for work, disabled and unable to work, retired, a homemaker, or what?

1. Working now
2. Unemployed and looking for work
3. Temporarily laid off, on sick or other leave
4. Disabled
5. Retired
6. Homemaker
7. Other (specify)
8. DK (Don't know); NA (Not ascertained)
9. RF (Refused)

Workplace Discrimination

Here are some situations that can arise at work. Please tell me how often you have experienced them during the LAST 12 MONTHS.

1	2	3	4	5	6
Never	Less Than Once a Year	A Few Times a Year	A Few Times a Month	At Least Once a Week	Almost Everyday

A. How often are you UNFAIRLY given the tasks at work that no one else want to do?
B. How often are you watched more closely than others?
C. How often are you bothered by your supervisor or coworkers making slurs or jokes about women or racial or ethnic groups?
D. How often do you feel that you have to work twice as hard as others at work?
E. How often do you feel that you are ignored or not taken seriously by your boss?
F. How often have you been unfairly humiliated in front of others at work?

Financial Distress

Please indicate which of the following choices best describes how you feel about your current financial situation. (Mark (X) one box for each line.) How difficult is it for (you/your family) to meet monthly payments on (your/your family's) bills?

1	2	3	4	5

Not at All Difficult	Not Very Difficult	Somewhat Difficult	Very Difficult	Completely Difficult

Please read the list below and indicate whether or not any of these are current and ongoing problems that have lasted twelve months or longer. If the problem is happening to you, indicate how upsetting it has been. Check the answer that is most like your current situation.
Ongoing financial strain:

1	2	3	4
No, Didn't Happen	Yes, But Not Upsetting	Yes, Somewhat Upsetting	Yes, Very Upsetting

Personality

Please indicate how well each of the following describes you.

1	2	3	4
A Lot	Some	A Little	Not at All

Conscientiousness

A. Organized
B. Responsible
C. Hardworking
D. Careless
E. Thorough

Neuroticism

A. Moody
B. Worrying
C. Nervous
D. Calm

Extraversion

A. Outgoing
B. Friendly
C. Lively
D. Active
E. Talkative

Agreeableness

A. Helpful
B. Warm
C. Caring
D. Softhearted
E. Sympathetic

Openness to Experience

A. Creative
B. Imaginative
C. Intelligent
D. Curious
E. Broad-minded
F. Sophisticated
G. Adventurous

Job Satisfaction

Please say how much you agree or disagree with each of the following statements.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

A. All things considered, I am satisfied with my job.
B. I receive the recognition I deserve for my work.
C. My salary is adequate.
D. My job promotion prospects are poor.
E. My job security is poor.
F. I have the opportunity to develop new skills.
G. I receive adequate support in difficult situations.
H. At work, I feel I have control over what happens in most situations.
I. In my work I am free from conflicting demands that others make.

Life Satisfaction

Please say how much you agree or disagree with the following statements:

1	2	3	4	5	6
Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree

A. In most ways my life is close to ideal.
B. The conditions of my life are excellent.
C. I am satisfied with my life.
D. So far, I have gotten the important things I want in life.
E. If I could live my life again, I would change almost nothing.

Depressive Symptoms

Now think about the past week and the feelings you have experienced. Please tell me if each of the following was true for you much of the time during the past week.

Much of the time during the past week…

1	2	3	4
Yes	No	DK (Don't Know); NA (Not Ascertained)	RF (Refused)

A. You felt depressed.
B. You felt that everything you did was an effort.
C. Your sleep was restless.
D. You were happy.
E. You felt lonely.
F. You enjoyed life.
G. You felt sad.
H. You could not get going.

Work Ability

For the following questions, please think about your work on YOUR CURRENT MAIN JOB.

0	1	2	3	4	5	6	7	8	9	10
Cannot Currently Work at All										Work Ability Currently at Its Best

A. Assume that your work ability at its best has a value of 10 points. How many points would you give your CURRENT ABILITY TO WORK?
B. Thinking about the PHYSICAL DEMANDS of your job, how do you rate your current ability to meet those demands?
C. Thinking about the MENTAL DEMANDS of your job, how do you rate your current ability to meet those demands?

D. Thinking about the INTERPERSONAL DEMANDS of your job, how do you rate your current ability to meet those demands?

Major Life Discrimination

For each of the following events, please indicate whether the event occurred AT ANY POINT IN YOUR LIFE. If the event did happen, please indicate the year in which it happened most recently.

1	2
Yes (What Year?)	No

A. At any time in your life, have you ever been unfairly dismissed from a job?
B. For unfair reasons, have you ever not been hired for a job?
C. Have you ever been unfairly denied a promotion?
D. Have you ever been unfairly prevented from moving into a neighborhood because the landlord or a realtor refused to sell or rent you a house or apartment?
E. Have you ever been unfairly denied a bank loan?
F. Have you ever been unfairly stopped, searched, questioned, physically threatened or abused by the police?

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ABSTRACT

PERSONALITY CHANGE FOLLOWING WORK-RELATED ADVERSITY

by

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Personality is one of the most important topics in psychological research and has been studied extensively to understand human behavior in and out of the work context. Research in the industrial/organizational psychology literature has treated personality traits as static dispositions. Although some research has revealed evidence of personality change across the life course, there is limited understanding to what causes personality to change and what the outcomes are following personality changes.

The purpose of this dissertation is to study personality changes associated with adversity in the workplace (unemployment and workplace discrimination) and their outcomes (job- and well-being-related outcomes). Methodologically, the current study uses robust research designs with a nationally representative sample and three waves of longitudinal data from the Health and Retirement Study. The current findings uncovered a number of important relations that demonstrate both mean-level changes and individual differences in personality changes. Specifically, findings give support to the la dolce vita effect and the life span development theory, such that older adults tend to become less conscientious, neurotic, extraverted, and open, as well as more agreeable as they age. In addition, workplace adversity is likely to have an immediate,

substantial effect on subjective well-being as well as an influence on increases in Neuroticism. Pertaining to the outcomes of personality changes, findings suggest that positive changes in personality (e.g., increases in Conscientiousness and Extraversion) predict improvements associated with job- and well-being-related outcomes (i.e., increases in job satisfaction and subjective well-being, as well as higher levels of work ability), whereas negative changes in personality (e.g., increases in Neuroticism) tend to be detrimental to job and well-being outcomes (i.e., declines in job satisfaction and subjective well-being, as well as lower levels of work ability).

Taken together, the current findings shed light on the phenomena of personality change following unexpected, traumatic work-related adversity (unemployment and workplace discrimination), as well as how these personality changes relate to important job- and well-being-related outcomes. This study makes several important theoretical and practical contributions to personality research, the field of industrial/organizational psychology, and the aging literature. Implications and future directions are discussed.

AUTOBIOGRAPHICAL STATEMENT

Mengqiao Liu is a doctoral candidate in industrial/organizational (I/O) psychology at Wayne State University and a full-time consultant at DDI (Development Dimensions International). She graduated from Wayne State University in 2014 with a master's degree in I/O psychology and Wesleyan College in 2011 with a bachelor's degree in psychology.

As a scholar, Mengqiao's research addresses two areas: psychological measurement pertaining to careless responding and personality in the workplace. Her work has been published in journals such as *Journal of Applied Psychology*, *Journal of Business and Psychology*, *Journal of Personality and Social Psychology*, *Journal of Occupational and Organizational Psychology*, *Work, Aging, & Retirement*, etc., as well as book chapters and national conferences.

As an I/O practitioner, Mengqiao's expertise revolves around leadership assessment and selection. Her work is focused on product strategy execution and the research and development diagnostic solutions (e.g., interviewing, testing, 360 feedback) synthesized with cutting-edge technology capabilities.