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Abstract
The limited organizational scholarship on past adversity has characterized it as something to cope with, positing that how past adversity is perceived is key to employees' coping effectiveness (Nummohamed et al., 2021; Stephens et al., 2015; Vogel & Bolino, 2020). Conversely, lay theory suggests that “what does not kill you makes you stronger.” Through this dissertation, I aim to provide empirical evidence for this claim in an organizational setting. To do so, I draw on positive identity growth theorizing (Maitlis, 2009; 2020) to empirically examine the organizational benefits of identity growth after experiences of overcoming adversity. In doing so, I introduce a new concept to the organizational behavior literature, an “overcoming adversity identity,” which is when an experience of hardship, whether singular or continuous, has been redeemed in the eyes of the person with that experience, thereby becoming a positive part of that person's identity. Through two longitudinal studies and one randomized experimental intervention, I find promising evidence that having a stronger overcoming adversity identity is associated with interpersonal, intrapersonal, and intellectual character enrichment (the tripartite model of character; Park et al., 2017). I also find some evidence that suggests that this character enrichment, in turn, is positively related to extra-role performance and in-role performance, and negatively related to burnout. Implications and future directions are discussed. In conclusion, this dissertation provides preliminary empirical evidence to suggest that indeed, what does not kill you can make you stronger.

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WHAT DOES NOT KILL YOU MAKES YOU STRONGER: THE EFFECTS OF AN
OVERCOMING ADVERSITY IDENTITY ON PERFORMANCE AND BURNOUT

Arianna Maria Beetz

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I dedicate this dissertation to my mom, Marilyn. Mom, I am forever grateful for all the sacrifices you have made for me to succeed. Thank you for leaving all of your friends and family behind in Peru to move to the States to provide me with a better education. Thank you for all the sweat you have shed, literally, to make sure that I had a chance to achieve the “American Dream.” Not only did you never doubt my abilities, but you never let me doubt my abilities either. Not only did you instill in me an unwavering belief that anything is possible, but also a desire to be kind, gentle, and respectful while achieving my dreams. I hope to give back to the world in a way that makes your sacrifices worth it.

Thank you for exemplifying an overcoming adversity identity.
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ABSTRACT


Arianna Beetz
Nancy Rothbard
Adam Grant

The limited organizational scholarship on past adversity has characterized it as something to cope with, positing that how past adversity is perceived is key to employees’ coping effectiveness (Nurmohamed et al., 2021; Stephens et al., 2015; Vogel & Bolino, 2020). Conversely, lay theory suggests that “what does not kill you makes you stronger.” Through this dissertation, I aim to provide empirical evidence for this claim in an organizational setting. To do so, I draw on positive identity growth theorizing (Maitlis, 2009; 2020) to empirically examine the organizational benefits of identity growth after experiences of overcoming adversity. In doing so, I introduce a new concept to the organizational behavior literature, an “overcoming adversity identity,” which is when an experience of hardship, whether singular or continuous, has been redeemed in the eyes of the person with that experience, thereby becoming a positive part of that person’s identity. Through two longitudinal studies and one randomized experimental intervention, I find promising evidence that having a stronger overcoming adversity identity is associated with interpersonal, intrapersonal, and intellectual character enrichment (the tripartite model of character; Park et al., 2017). I also find some evidence that suggests that this character enrichment, in turn, is positively related to extra-role
performance and in-role performance, and negatively related to burnout. Implications and future directions are discussed. In conclusion, this dissertation provides preliminary empirical evidence to suggest that indeed, what does not kill you can make you stronger.
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Chapter 1

Theory and Hypotheses

“In addition to a difficult family environment (Alcoholic father), I had a major accident as a teen resulting in loss of a leg. It was very difficult to get through all the hospitalizations/surgeries and then still need to learn to walk all over again at a time when peers were finishing high school and going to college - lots of physical and emotional pain over several years. Luckily, somehow I pushed through, really as I look at it what were my options, lay in bed forever? I am pretty sure most people would do the same. As I look at it now, there are really no issues I cannot surmount, I've done the hardest things I have ever had to do already in my life. I would not change it in any way. I needed to get through all of the issues to be the person I am now.”

-Participant 32

Introduction

Employees gain skills and “toolkits” that they use to navigate organizational life from their past experiences in life (Martin & Cote, 2019). However, not everyone has the same past experiences. Whereas some employees may come from relatively adversity-free backgrounds, others may have overcome various forms of adversity in the past (Stephens et al., 2014). How do these past experiences of overcoming adversity shape the ways employees effectively navigate organizations? The limited organizational scholarship on past adversity has generally characterized it as something to cope with, positing that how past adversity is perceived is key to employees’ coping effectiveness (Nurmohamed et al., 2021; Stephens et al., 2015; Vogel & Bolino, 2020). Yet artists, popular press, and lay theory have long professed German philosopher Frederick Nietzsche’s aphorism that “what does not kill you makes you stronger,” suggesting that there may be benefits to overcoming adversity. Moreover, fields outside of organizational behavior, such as positive psychology, clinical psychology, philosophy, and psychiatry
have long acknowledged that adversity can yield benefits over time, via strengthening and growth (e.g., Caplan, 1964; Tedeschi & Calhoun, 1995). This includes a wide breadth of adversity, ranging from bereavement, divorce, serious illness and disability, emotional and physical abuse, sexual assault, combat, and being born into poverty (Tedeschi, Calhoun, & Groleau, 2015), to more moderate forms of adverse experiences (Dooley, Slavich, Moreno, & Bower, 2017). In fact, Abraham Maslow, one of the pioneers of the field of modern psychology, was one of the first to recognize the transformative power of adversity, suggesting that confrontations with tragic experiences were precursors to achieving self-actualization (Butler, 2010). Thus, although we know that adversity in the moment is generally depleting (draining) (Rothbard, Beetz, & Harari, 2021), can having one’s identity transformed by overcoming adversity be enriching (enhancing) to organizational outcomes?

Given the transformative nature of adversity, I draw on positive identity growth theorizing (Maitlis, 2009) to empirically examine the character enriching organizational benefits of identity growth after experiences of overcoming adversity. The concept of posttraumatic identity growth suggests that the benefits of overcoming hardships are based on the extent to which people can effectively transform their assumptions and feelings about themselves and their identity in a superior manner than prior to their hardships (Maitlis, 2009; Janoff-Bulman, 2004). While the process of posttraumatic growth after adversity is relatively well understood, the organizationally-relevant outcomes of this growth is still vastly under-researched (Maitlis, 2020). This is problematic because work contexts can cultivate employee flourishing through the way
they develop the identities that employees have activated at work (Dutton, Roberts, & Bednar, 2020). Thus, in not understanding how a particular positive identity—that of overcoming adversity—may enrich employees at work, organizational leaders may be missing out on a key strategy to help employees effectiveness and wellbeing.

Moreover, while the positive identity literature does recognize that the development of a positive identity that is active at work can strengthen of employees via the development of positive resources (Dutton, Roberts, & Bednar, 2010), the benefits of an overcoming adversity identity are likely to be different than that of other positive identities, such as a prosocial identity (Ramajaran, Berger, & Greenspan, 2017). An overcoming adversity identity is unique in that inherent to its development is experiencing—and growing after—a negative experience. The underlying processes behind the development of an overcoming adversity identity suggests employees have learned how to overcome difficult challenges, which may translate into the ability to overcome difficult challenges at work. This makes understanding this identity critical to organizational leaders.

Altogether, while scholarly work has called organizational leaders to harness the sense of strength of employees that have gone through adverse life events (Stephens et al., 2014), thus acknowledging there may be some benefit to adversity, the organizational benefits of an overcoming adversity identity remain unclear. To close this critical gap, I draw on scholarly work on the tripartite model of character strengths (Park et al., 2017). This provides a strong theoretical backdrop via which to examine how having an overcoming adversity identity, in strengthening people’s character, can have enriching
effects on organizational behavior. Character strengths, the propensities to act, think, and feel in ways that benefit the individual and society (Peterson & Seligman, 2004), are beneficial (Peterson & Park, 2006), yet understudied, in organizational contexts. In particular, the tripartite model of character strengths posits a taxonomy of character that captures the core competencies of human nature: interpersonal, intrapersonal, and intellectual (Park et al., 2017). Character strengths are trainable (Harzer & Ruch, 2015; Peck et al., 1960), to the extent that they require rebuilding one’s identity after a difficult experience. Accordingly, I examine how the character strengths developed from having an overcoming adversity identity provide organizational benefits.

To do this, I created and tested a theoretical model of the enriching benefits of having an overcoming adversity identity through a multi-method investigation. I posited that having a strong overcoming adversity identity enriches organizational outcomes via “heart, mind and will” character enrichment—that is, it provides a sense of gratitude, developmental skills, and perseverance (Park et al., 2017). In accordance with the enriching benefits of psychological character strengths (Greenhaus & Powell, 2006), I posited that developing these character strengths would have a positive effect on in-role and extra-role performance, and a negative effect on burnout. To examine my theoretical model, given the novelty of the concept of overcoming adversity identity, I first developed and validated a scale of overcoming adversity identity. Moreover, considering that I was looking at the impact of having an overcoming adversity identity beyond that of the adverse experience themselves, I validated a scale of experiencing general adversity to use as a critical control variable throughout this investigation. Second, I
designed and execute a three-wave longitudinal online panel study that investigates how having an overcoming adversity identity enriches employees with psychological character strengths, thereby having a positive impact on work outcomes. Third, I utilized a three-survey longitudinal field study that attempts to replicate such relationships in the field, thereby providing ecological validity. Fourth, I administered an experimental intervention in that organizational setting, which was designed to help harness the benefits of an identity of overcoming adversity on organizational outcomes.

This dissertation makes several theoretical contributions. First, it adds a novel, counterintuitive resource to the positive organizational scholarship literature: having an overcoming adversity identity. Positive organizational scholarship is a small but growing field of research concerned with the study of especially positive outcomes, processes, and attributes of organizations and their members, such as thriving, virtuousness, and resilience (Cameron, Dutton, & Quinn, 2003; p.4). While the small but growing subfield of research on posttraumatic growth in organizations investigates how individuals can grow positive identities and virtues after adversity, the scholarly work in this field has not only been primarily theoretical or qualitative in nature (Maitlis, 2009; 2020; Vogel & Bolino, 2020), but in mostly lacking an empirical nature, has not assessed the benefits of such identity growth on key performance and behavior organizational outcomes. The limited empirical work on growth from adversity has focused on how employees can effectively cope with past adversity via self-reflection or meaning-making interventions (Nurmohamed et al., 2021; Stephens et al., 2015), but has not examined how employees may actually become “better off” or “stronger” from adversity. Thus, this is the first
organizational study of its kind to investigate how adverse experiences are psychologically harnessed in such a way that they can help employees develop identity-laden virtues, and ultimately, experience better performance and wellbeing at work.

Second and relatedly, this study contributes to the work-life enrichment literature (Greenhaus & Powell, 2006; Rothbard, 2001). Enrichment, the extent to which experiences in one role improve the quality of life in another role, is theorized to occur through various mechanisms, such as skills, perspectives, material, psychological, and physical resources (Greenhaus & Powell, 2006). While the majority of enrichment mechanisms are associated with socially privileged community groups (e.g., schedule and workplace flexibility, human capital connections, material and pecuniary resources, tacit knowledge regarding career success; Greenhaus & Powell, 2006), the current study captures a form of enrichment that is more frequent amongst socially unprivileged groups (Stephens et al., 2015). Adverse circumstances are usually more frequent for racial/ethnic minorities, low-income communities, and those with disabilities or other health concerns, among other disadvantaged groups (Mulia & Zemore, 2011; Slopen et al., 2016; Stephens et al., 2014). Thus, I further a diversity, inclusion, and equity approach to work-life literature by investigating how those who are able to overcome and identify with adverse circumstances may experience a unique form of work enrichment that may help compensate for the depletion associated with belonging to a marginalized group.

The third contribution of this investigation is to the growing literature on positive organizational behavior (POB; Luthans, 2002), a field that aims to advance research regarding how positively oriented human resources and strengths can be measured,
developed, and effectively harnessed to contribute to workplace performance (Luthans, 2002; Nelson, 2007). I do this by conducting the first study of its kind to investigate the tripartite model of character strengths in an organizational setting (Park et al., 2016). By investigating how people who have an overcoming adversity identity can experience higher levels of enrichment via interpersonal, intrapersonal, and intellectual character strengths, I not only pave the transition from a primarily dispositional focus of positive individual strengths to one that is both based on dispositions and experiences (Mischel & Schoda, 1998), but I also investigate a specific venue via which such strengths can be developed: through an overcoming adversity identity. Moreover, by investigating how character strengths relate to the work-related outcomes of burnout and performance, I further bridge the gap between positive psychology and organizational behavior, which is one of the primary aims of POB research (Luthans & Youssef, 2007).

**Theory**

**Adversity**

Adversity is defined as a state or instance of serious or continued difficulty or grave misfortune (Merriam-Webster, 2022), and can either be attributed to a particular event (e.g., a sudden diagnoses of a serious illness) or a more general state (e.g., being born into poverty; McEwen & McEwen, 2017). Posttraumatic growth scholars generally use the terms adversity, trauma, crisis, highly stressful events, and other similar terms interchangeably (Tedeschi & Calhoun, 2004). The bulk of research on adversity, both inside and outside of work, focuses on its negative impact (Balducci et al., 2011; Liang et al., 2020; Skogstad et al., 2013). For example, adversity in the form of serious illnesses
and deaths in the family is related to anxiety and depression (Badenhorst et al., 2009; Spiegel, 1996). Moreover, socioeconomic adversity is also damaging—for example, only three percent of those in the lowest income bracket quartile attend a prestigious university (Carnevale & Rose, 2004), suggesting that socioeconomic adversity is consequential to career outcomes.

Additionally, whereas there can be positive health and psychological outcomes of currently experiencing adversity (Taylor et al., 1984; Thompson, 1991), the ability to experience such benefits are often contingent on certain factors. Personality traits and dispositions, such as trait optimism, extraversion, and openness to experience (Affleck & Tennen, 1996) are positively related to employees’ ability to find the “silver lining” in negative circumstances such as job loss, abuse, disease, and poverty, as is social support (Helgeson & Lopez, 2010). Moreover, finding such positive aspects of constantly depleting (straining) experiences that do not provide any form of enrichment is difficult and theorized to only be possible in the short-term (Rothbard et al., 2021). In support of this, peak-end theory explains that humans place great weight on both the last event and the most meaningful event when effectively evaluating an experience (Redelmeier & Kahneman, 1996). Thus, if an employee has yet to experience an event or series of events that signal “overcoming” an adverse experience, the most meaningful and last events of the focal adverse experience are still likely to be negative, thereby making it likely that the whole experience will be evaluated as negative. For this reason, most research on posttraumatic growth focuses on growth after an adverse experience has occurred (e.g., Janoff-Bulman, 2004; Tedeschi & Calhoun, 2004).
In sum, while there indeed are circumstances where current adversity, such as others having low expectation of ones’ abilities, can be beneficial (e.g., Nurmohamed, 2020), the overwhelming majority of management research of current experiences of adversity shows it is generally detrimental for that particular moment in time. Accordingly, in this research, I advance the current limited literature of adversity and work (e.g., Maitlis, 2009; 2020; Nurmohamed et al., 2021; Vogel, & Bolino, 2020) beyond the effects of the experience of adversity itself. Specifically, I draw on identity-based theorizing of adversity (Maitlis, 2009) to make a key distinction between an experience of adversity and the subsequent identity transformation that occurs for those who are able to effectively sense-make that they have overcome that adversity such that it becomes a key part of who they are. Importantly, I recognize that given that in the moment, an experience of adversity is generally depleting (Rothbard et al., 2021), many people are not able to grow from adversity, and instead, experience reoccurring distress from it (Ehlers & Clark, 2000). As such, my dissertation instead focus on the character development outcomes of the identity transformation that occurs for individuals who are able to grow from adversity over time.

Identity Reconstruction After Overcoming Adversity

The identity-based perspective (Maitlis, 2009) of posttraumatic growth (PTG) supports the counterintuitive notion that key to the process of overcoming an experience of adversity is making sense of its impact on the self (Pals & McAdams, 2004). This theory suggests that identity growth can be experienced via sensemaking of how adversity triggers a disruption, deepening, and growth of affective, cognitive, and social
processes (Maitlis, 2009; Neimeyer, 2004). Key to individuals who achieve —whether radical or incremental—positive identity growth, is the understanding that they can not only cope with, but also transcend, the adverse experience (Maitlis, 2009).

Current organizational behavior theorizing of identity growth after trauma is mostly limited to the process leading to identity growth (Maitlis, 2009; 2020). This process suggests that an adverse event that has caused a trauma challenges an identity. This leads to a period characterized by feelings of loss and uncertainty while questioning one’s identity (Maitlis, 2009, p.67). Due to various theorized negative intrapersonal, interpersonal, and environmental factors, such as lacking a complex concept of the self (Vogel & Bolino, 2020), lacking social support (Layous & Nelson-Coffey, 2020), or the perception of lacking control of adverse events (Foa et al., 1992), some people experience posttraumatic identity deterioration. Such identity deterioration can lead to cognitive and emotional depletion, leading people to experience intrusive thoughts, avoidance, hyperarousal, and psychopathologies such as posttraumatic stress disorder (Vogel & Bolino, 2020).

Conversely, due to positive intrapersonal, interpersonal, and environmental factors, such as having a complex concept of the self (Vogel & Bolino, 2020), having social support (Layous & Nelson-Coffey, 2020), and the perception of having control over experiences of adversity (Foa et al., 1992), some people are able to experience posttraumatic identity growth (Vogel & Bolino, 2020). In other words, they are able to revise their former identity and, through iterative identity work, settle into a positive identity (Maitlis, 2009, p.67). Accordingly, I draw on past theorizing about positive
identity development through adversity (Maitlis, 2009; Vogel & Bolino, 2020), to define an identity of overcoming adversity as when an experience of hardship, whether singular or continuous, has been redeemed in the eyes of the person with that experience, thereby becoming a significant and positive part of that person’s identity. The key to this identity is its perceptual nature: via sense-making of adverse experiences, people perceive whether or not, and to what extent, they have overcome adversity, and to what extent the experience(s) of doing so becomes a central part of one’s identity (Maitlis, 2009; Stephens et al., 2014; Weick, 2005; Vogel & Bolino, 2020; Ramarajan et al., 2017).

Prior to building and testing a theoretical model on how an overcoming adversity identity can be enriching to organizational outcomes, it is critical to theoretically distinguish it from related constructs in order to portray a clear understanding of how it fits into the broader field of organizational behavior.

**Distinguishing Overcoming Adversity Identity from Related Constructs**

Overcoming adversity identity is theoretically distinct, yet shares notable similarities with, the constructs of resilience, posttraumatic growth, and grit. The two critical dimensions uniting an overcoming adversity identity to these constructs are 1) a response to hardships and 2) psychological strength.

First, perhaps the construct most theoretically proximal to overcoming adversity identity is resilience. Resilience, in its most narrow definition, is a personal trait operating after a single short-lived trauma (Herrman et al., 2011). In a broader sense, it is an “interactive concept that refers to relative resistance to environmental risks or overcoming stress or adversity” (Herrman et al., 2011, p. 260). Because resilience is
critical to positive adaptation in the context of significant adversity (Yule et al., 2019), both resilience and overcoming adversity identity are associated with overcoming adversity. However, the two key differences between these two constructs are 1) their temporal location in the process of positive adaptation in the context of adversity and 2) their antecedents. First, resilience is a psychological strength that helps people overcome adversity. Thus, it is actively harnessed during experiences of adversity. Conversely, overcoming adversity identity is an outcome of the process of positive identity growth after experiencing adversity (Maitlis, 2009). Yet both are psychological strengths that are helpful during future instances of hardships and adversity. Second, in terms of their antecedents, overcoming adversity identity, by definition, has a critical experiential antecedent: having overcome adversity. Conversely, while some scholars suggest that there may be some experiential antecedents to resilience (Herman et al. 2011), most scholars focus on trait and dispositional antecedents. For example, self-regulation is the most consistent predictor of resilience (Yule et al., 2019).

Second, posttraumatic growth also shares some theoretical underpinnings to overcoming adversity identity. Posttraumatic growth occurs when there is “positive psychological change experienced as a result of the struggle with highly challenging life circumstances” (Tedeschi & Calhoun, 2004, p.1). Because posttraumatic growth is characterized by a set of reactions to traumatic events involving perceptions of personal benefits, both posttraumatic growth and overcoming adversity identity are associated with learning from adversity. Posttraumatic growth, however, can result in many different positive outcomes, such as increased meaningfulness at work or home (Vogel & Bolino,
and can be manifested in many different ways, such as positive identity growth (Maitlis, 2009). It is this positive identity growth, achieved through the process of revision, reconstruction, and positive radical expansion (Maitlis, 2009), that may result in an overcoming adversity identity. Indeed, a review of posttraumatic growth in organizations suggested that a positive identity can be an outcome of the process of posttraumatic growth (Maitlis, 2020).

Third, grit and overcoming adversity identity also share some theoretical commonalities. Grit, the perseverance and passion for long-term goals (Duckworth et al., 2007), is related to overcoming adversity identity because both are psychological benefits that help people overcome challenges. However, similar to resilience, grit is helpful during the process of adversity because it helps people continue to exert effort towards their goals despite obstacles. Conversely, as aforementioned, overcoming adversity identity is an outcome of the process of positive identity growth after experiencing adversity (Maitlis, 2009). Thus, again similar to the relationship between resilience and overcoming adversity identity, while both grit and overcoming adversity identity are beneficial, the primary antecedent of overcoming adversity identity is experiential (i.e., overcoming adversity). In contrast, the theoretical underpinnings of grit are generally considered to be psychological and not experiential (Duckworth & Eskreis-Winkler; 2013). Specifically, ample research has suggested that grit shares phenomenological underpinnings with Big Five conscientiousness: the personality trait of being orderly, dependable, and diligent (Costa & McCrae, 1992; Schmidt, Nagy, Fleckenstein, Moller, & Retelsdorf, 2018; Schmidt, Lechner, & Danner, 2020; Ponnock et al., 2020).
In sum, while the construct of an overcoming adversity identity shares some theoretical connections with other psychological strengths and processes, such as resilience, posttraumatic growth, and grit, it is unique in the following ways. First, as the name implies, overcoming adversity identity is an identity, while the other related constructs are psychological assets that are not, by definition, developed by identity-based processes. Second, a critical antecedent to an overcoming adversity identity is the experiencing and overcoming of adversity, whereas perseverance and grit’s primary antecedents are generally theorized to be traits or dispositional differences.

**Overcoming Adversity Identity and Character Strength Development**

While the identity growth that occurs from overcoming adversity is theorized to yield psychological assets that enrich work functioning (Maitlis, 2009), how the development of an identity of having overcome adversity is enriching, and to what extent its enriching, to work outcomes, is unknown. Thus, the tripartite model of character strengths provides an excellent theoretical framework via which to empirically examine how post-trauma identity growth (Maitlis, 2009) aids the development of character strengths (Park et al., 2017), thereby enriching the work role.

Character strengths, interchangeably also referred to as virtues and character skills, refer to propensities to act, think, and feel in ways that benefit the individual and society (Peterson & Seligman, 2004). While frequently examined as dispositions (Park et al., 2017), there is a growing group of scholars which examine how character strengths can be developed (Harzer & Ruch, 2015; Peck et al., 1960). To do this, numerous researchers have argued for, empirically classified, and subsequently investigated the
effects of the wide variety of character strengths in terms of their smaller factors or groups (Eg., Lickona & Davidson, 2005; McGrath, 2015; Pellegrino & Hilton, 2012).

Thus, this dissertation contributes to this growing field of character research. To do so, I utilize the tripartite taxonomy of character strengths (Park et al., 2017), which posits that interpersonal, intrapersonal, and intellectual dimensions of character are key to how people engage with others, manage goals, and engage with ideas. Although character strengths are primarily discussed in the realm of educational and developmental psychology (Yin, & Majid, 2018), they are central to various organizational-relevant outcomes such as effective relationships (Park et al., 2017), positive work experiences (Harzer, & Ruch, 2012, 2013), job performance (Harzer & Ruch, 2014; Harzer et al., 2021), and burnout (Allan et al., 2017). Building on this research, I propose that character strengths are the key mechanism explaining how an overcoming adversity identity can enrich such work outcomes.

In the context of adversity, the limited character strength research has primarily looked at how experiencing adversity impairs character strengths via the development of posttraumatic stress disorder (e.g., Duan, Guo, & Gan, 2015; Kashdan, Julian, Merritt, & Uswatte, 2006). However, there is a burgeoning stream of literature which suggests the opposite—that sometimes, experiences of adversity can actually lead to more character strengths later in life. For example, moderate stress exposure throughout one’s life is associated with psychological resilience during future hardships such as serious illnesses (Dooley et al., 2017). Similarly, reflecting on failures from the past is related to higher levels of perseverance (DiMenichi & Richmond, 2014). Lastly, people who have dealt
with more adversity in the past show more “zest” for life—that is, they are able to appreciate and feel grateful for life’s pleasures (Croft et al., 2013). Considering this together suggests that developing an overcoming adversity identity may help people develop character strengths. In particular, I present evidence below on how an overcoming adversity identity may be positively related to the development of the tripartite grouping of character (e.g., Park et al., 2017): interpersonal character via gratitude, intrapersonal character via perseverance, and intellectual character via developmental skills.

**Interpersonal Character: Gratitude**

I propose that people who strongly identify with having overcome adversity develop high levels of gratitude, which has been examined both in the emotions’ literature (Fehr et al., 2017), and the character literature (Park et al., 2017), as a key interpersonal character strength. Interpersonal character strengths, sometimes more widely referred to as moral character, refer to the qualities needed for successful interpersonal relationships (Lickona & Davidson, 2005; Park et al., 2017). These can include empathy, benevolence, gratitude, social intelligence, and compassion, among others (Park et al., 2017). While research shows that experiences of adversity in themselves can inhibit social functioning via increasing the likelihood of depression (Monroe & Harkness, 2005), and diminishing the belief in a benevolent society characterized by virtuous acts (Franklin, Janoff-Bulman & Roberts, 1990; Janoff-Bulman, 1992), scholars have also suggested that those who are able to experience posttraumatic growth gain interpersonal character strengths (Lim & DeSteno, 2016). For example, Staub and Volhardt (2008) propose that posttraumatic growth from adversity
helps individuals adopt the perspectives of others and gain a sense of responsibility for
other’s welfare, thereby contributing to the development of altruism and care towards
others. This suggests that while experiencing adversity may deplete people’s
interpersonal functioning abilities at work, the ability to experience positive identity
growth from adversity may enrich such functioning abilities. In support of this, people
who have experienced posttraumatic growth generally report greater appreciation of
friends and family (Linley & Joseph, 2004). Similarly, research shows that individuals of
lower socioeconomic status, who, by definition, often face greater difficulties in meeting
the daily challenges of life and thus may be more likely to adopt overcoming adversity
identities, evidence higher levels of dispositional compassion (Stellar, Manzo, Kraus, &
Keltner, 2011). Relatedly, adults who experienced posttraumatic growth from childhood
trauma have higher levels of empathy (Greenberg, Baron-Cohen, Rosenberg, Fonagy, &
Renfroe, 2018), which suggests that they may have experienced identity growth from
their trauma which made them more empathetic. The life orientation view of gratitude
proposes that gratitude is a critical aspect uniting much of these positive interpersonal
competencies that emerge from posttraumatic growth (Wood, Froh, & Geraghty, 2010).
Extending this line of work, I propose and empirically examine gratitude as an
interpersonal character strength that emerges from developing an overcoming adversity
identity for the following reasons.

First, I acknowledge that the traditional episodic emotion conception of gratitude
is narrow (e.g., a feeling of appreciation in response to an experience that is beneficial to,
but not attributable to, the self; Fehr et al., 2017, p. 363). However, this conception does
not fully capture the parts of life that people report to be their sources of gratitude (Wood et al., 2010), such as being grateful to still be alive after experiences of adversity such as surviving war or a cancer diagnosis (Kashdan, Uswatte, & Julian, 2006; Ruini & Vescovelli, 2013). Conversely, the broader life orientation conception of gratitude defines it as a life orientation—that is, a habitual focus on—notice[ing and appreciating the positive in the world which include relationships, and acknowledging that one is better off than others, which encourages empathy and compassion towards others (Wood et al., 2010, p.891).

Second, research supports the notion that people who have a strong overcoming adversity identity should experience higher levels of the life orientation conceptualization of gratitude (Janoff-Bulman, 2004; Tedeschi & Calhoun, 2004; Wood et al., 2010). A key part of the theorizing I draw on to explain the development of a positive identity after overcoming adversity is that the ability to find a benefit in the adverse experience leads to the process of growth from adversity (Davis, Nolen-Hoeksema, & Larson, 1998; Frazier, Conlon, & Glaser, 2001). This can result in positive identity growth (Maitlis, 2009), and as a result, the development of an overcoming adversity identity. Accordingly, people who identify as having overcome adversity regularly report changes such as valuing every day, “living life to the full,” and deeper appreciation of friends and family, partially through appreciation of how their current situation is better of than other people’s situations and partially through appreciation of the finiteness of life (Linley & Joseph, 2004; Wood et al., 2010). Such changes seem remarkably described by a life orientation towards noticing and appreciating the positive in life, incorporating several of the
interpersonal facets of the life orientation gratitude (e.g., appreciation of others, being grateful of what one has and empathetic towards those with less, and gratitude displays towards others, etc., Wood et al., 2010).

Fourth, research also shows that in addition to people who have overcome adversity having a more grateful life orientation in general, they are also specifically grateful for their experiences of overcoming adversity. This suggests that they deeply identify with such past experiences. For example, a qualitative study of elderly women found that participants generally reframed their past adversity, shifting their focus from the hardship to a place of appreciation, thereby expressing gratitude for the resilience that such adversity has brought them (Manning, 2014). In fact, vivid gratitude-laden recollections of people’s past experiences of overcoming adversity are frequent amongst popular press and lay theory. This is exemplified by the following quote from writer Reynolds Price in regards to his paralysis from cancer: “[Trauma forces a person] to be somebody else, the next viable you—a stripped-down whole other clear-eyed person, realistic as a sawed-off shotgun and thankful for air, not to speak of the human kindness you'll meet if you get normal luck” (Price, 1994, p. 183; Tedeschi & Calhoun, 2004, p.5). Similarly, research on downward counterfactual thinking, which is the reflection of an alternative to reality that is more negative than the actual situation (Roese & Olson, 1995), suggests that people may feel a general sense of gratitude to not be in fictional alternatives of either having failed to overcome a focal obstacle or still amidst said obstacle. In support of this, an intervention asking participants to share what they are grateful for in life found that people frequently mentioned overcoming obstacles
Altogether, research generally supports the notion that overcoming adversity is related to a deep sense of gratitude. Given that strongly identifying with an identity of overcoming adversity suggests that such identity should be frequently activated, this indicates that people who have an overcoming adversity identity should experience a generalized sense of gratitude, thus leading to the following hypothesis.

*Hypothesis 1*) Having a stronger overcoming adversity identity at Time 1 is positively related to having higher levels of gratitude at Time 2.

**Intrapersonal Character: Perseverance**

Beyond the interpersonal enrichment of gratitude, I also propose that having a strong overcoming adversity identity is positively related to intrapersonal enrichment. The National Research Council (NRC) has identified intrapersonal competencies to be work ethic, conscientiousness, self-control, and grit (Pellegrino & Hilton, 2012). Similarly, character scholars have defined them as virtues that include diligence, perseverance, work ethic, and self-discipline (Park et al., 2017). Relatedly, some scholars have broadly generalized intrapersonal competencies as self-control characteristics (McGrath, 2015). Intrapersonal competencies have been included in the broader conceptualization of character strengths needed to “realize one’s potential for excellence,” i.e., performance character strengths (Lickona & Davidson, 2005), and thus are considered vital to achieving one’s long-term goals.

There is ample evidence connecting the process of positive identity growth from adversity to the development of intrapersonal competencies. Most importantly, it is
widely accepted that a key characteristic of posttraumatic growth is an increased sense of personal strength (Janoff-Bulman, 2004; Tedeschi & Calhoun, 2004). In support of this, research has shown that disaster workers who experience posttraumatic growth tend to report gaining psychological strengths such as self-esteem and a sense of accomplishment in their work (Brooks et al. 2018). Moreover, people who experience posttraumatic identity growth tend to experience a sense of agency because of the realization that that they are strong in ways that they had not previously known, and the appreciation that this strength would serve them well in the future (Maitlis, 2009, p. 69).

Thus, given that the bulk of posttraumatic growth theorizing and research posits that people who grow a positive identity from overcoming adversity develop a general sense of psychological strength (Maitlis, 2009; Vogel & Bolino, 2020), I posit and empirically investigate perseverance as a critical intrapersonal character strength that develops from an overcoming adversity identity. I focus on perseverance because perseverance has been posited to be synonymous to mental strength and ability, two characteristics underlying the “what does not kill me makes me stronger” mindset of post-traumatic growth (Janoff-Bulan, 2014). Indeed, character scholars often use the terms persistence, perseverance, and industriousness interchangeably, broadly characterizing this character strength as the ability to finish what one starts, persisting in a course of action despite obstacles, and taking pleasure in completing tasks (Peterson & Seligman, 2004, p.29).

While empirical research about the development of perseverance is still nascent (White et al., 2017), there is evidence that it is malleable, and thus may be developed via
adopting a positive overcoming adversity identity. The fact that perseverance can be developed is evidenced via interventions which by helping positively adapt children’s beliefs about themselves, increases their perseverance over time, ultimately increasing their school performance (Bettinger et al., 2018). In addition, self-efficacy theory also lends evidence to the theorizing that having an overcoming adversity identity may lead to higher levels of perseverance. According to this theory, people’s beliefs in the extent to which they are able to exercise control over their situation is influenced by past experiences (Bandura et al., 1999). Thus, accomplishing something difficult in the past helps develop the belief that one can exercise control of their current situation (Bandura et al., 1999). This, in turn, motivates the ability to persist towards a goal despite obstacles, i.e., persevere (Bandura & Cervone, 1983; Seo & Ilies, 2009). Given that overcoming adversity is by definition difficult, as adversity is frequently considered interchangeable with trauma, crisis, challenging life circumstances, and highly stressful events stressful events (Tedeschi & Calhoun, 2004), it follows that people who have overcome adversity such that they develop a positive identity from it develop perseverance. Thus, considering together the limited research on the malleability of perseverance, together with related theorizing on self-efficacy, suggests that those who have stronger overcoming adversity identities should indeed experience higher levels of perseverance. Given that overcoming adversity is by definition difficult, as adversity is frequently considered interchangeable with trauma, crisis, challenging life circumstances, and highly stressful events stressful events (Tedeschi & Calhoun, 2004). It follows that people who have overcome adversity such that they develop a positive identity from it develop the ability to persevere.
Lastly, research on self-distancing also suggests that people who identify with having overcome adversity may have higher levels of perseverance. Specifically, one of the cognitive effects of overcoming obstacles and adversity is being able to step back and look at the bigger picture, i.e., engage in global processing (Marguc et al., 2011). Global processing helps make the path to goal achievement clearer (p.83, 1935), such that it helps people develop perseverance towards a goal. Indeed, a study on young children has shown that taking a mental step back from one’s situation—that is—viewing it less from a self-immersed point of view and more from a self-distanced point of view, is related to higher levels of perseverance on a repetitive task (White et al., 2017). This suggests that people who strongly identify with overcoming adversity, in being able to step back to see their path to a goal more clearly, will have higher levels of perseverance towards such a focal goal. Indeed, scholarly work on posttraumatic growth suggests that people who have grown from adversity generally have a sense of being more clearly able to see their life and the steps they need to take to accomplish what “really matters” (Janoff-Bulman, 2004; Maitlis, 2020; Tedeschi & Calhoun, 2004).

Altogether, research on the mental strength gained from adversity, together with research on self-efficacy and global processing, suggests that people who strongly identify with overcoming past adversity should experience higher levels of perseverance. This suggests the following hypothesis:

*Hypothesis 2*) Having a stronger overcoming adversity identity at Time 1 is positively related to having higher levels of perseverance at Time 2.

**Intellectual Character: Developmental Skills**
The third groups of character strengths of the tripartite model of character strengths is that of intellectual character strengths, which reflect how effectively people engage with ideas, that is, how much zest and curiosity they show towards ideas and learning (Park et al., 2017). Also known as developmental skills or developmental assets, Park et al (2017) argues that intellectual character strengths encompass a broad variety of logical strengths such as reasoning, critical thinking, and creativity. Importantly, intellectual character is different than being intellectually “gifted” or having a high IQ: whereas cognitive ability refers to the capacity to learn easily or quickly, intellectual character refers to dispositions towards lifelong learning (Park et al., 2017, p.17). Work-life research (Carlson, Kacmar, Wayne, & Gryzwacz, 2006) takes a slightly broader conceptualization of developmental skills, encompassing the skills that help further people in a given role (e.g., work or home), such as understanding different viewpoints and expanding one’s knowledge base (Carlson et al., 2006). Thus, I draw on both Park et al’s (2017) and Carlson et al.’s (2006) conceptualization of developmental skills as logical strengths that help expand one’s knowledge base in a specific area of life. Accordingly, I theorize and empirically investigate how having a strong overcoming adversity identity is related to higher levels of developmental skills, a broad manifestation of intellectual character strengths.

First, posttraumatic growth scholars posit that surviving trauma helps people be more prepared for subsequent obstacles (Janoff-Bulman, 2004), and this preparedness may stem from expanding developmental skills. Specifically, they suggest that through experiencing and coping with the stress of trauma, people not only discover their
strengths, but develop new coping skills and resources that provide them with new possibilities in life (Janoff-Bulman, 2004). In fact, through the sensemaking process of positive identity growth after adversity (Maitlis, 2009), people gain awareness of the developmental skills that they attain via overcoming adversity, which may lead to higher levels of self-confidence in one’s abilities (Janoff-Bulman, 2004). Indeed, many scholars consider the ability to gain developmental skills from adversity a key indicator of posttraumatic growth (e.g., Vogel & Bolino, 2020). Some scholars go as far as to say that “real” posttraumatic growth is not achieved until people actualize their new cognitions into action via putting into practice their newly acquired or strengthened skills that enhance everyday living (Hobfoll et al., 2007).

Second, in support of the theorizing that identifying with having overcome adversity leads to higher levels of developmental skills, qualitative accounts of people who have experienced life-altering injuries tend to include the construction of expanded self-understandings that incorporate their resourcefulness in the face of extreme difficulty (Maitlis, 2009). Indeed people who have experienced posttraumatic growth often believe that this resourcefulness can continue to help them in their daily life (Tedeschi & Calhoun, 2004). Similarly, in the field of education, qualitative research suggests that children who have been able to withstand adversity outperform those that have not been able to withstand adversity because they know how to learn from difficulties, and thus have enhanced learning skills (Ratno Abidin et al., 2021). Beyond qualitative evidence, there is also empirical evidence which supports the notion that having an overcoming adversity identity is positively related to developmental skills. For example, it is widely
acknowledge that parents often face adverse circumstances through the caretaking process (Gavidia-Payne, Denny, Davis, Francia, & Jackson, 2015). Accordingly, parents and others with more complex family structures, in their day-to-day of overcoming more family demands and domestic stressors, actually have a greater ability to become absorbed at work despite distractors that may be present in their workplace (Dumas & Perry-Smith, 2018). This suggests that overcoming the daily adversities of caretaking may help the development of focusing skills. Relatedly, scholars have proposed that in response to the obstacles they have overcome, working-class people develop the skill of hard interdependence, which gives them the toughness and skills to cope with challenges in unstable environments (Stephens et al., 2014).

Third, both qualitative and quantitative research suggests that having an overcoming adversity identity may be related to developmental skills linked to creativity and adaptability. In the process of overcoming adversity, people tend to become more adaptable as they are often forced to rethink their assumptions and find novel ways to cope with their current circumstance (Tedeschi & Calhoun, 2004), and an increased capacity for adaptability is positively related to increased creative performance (Bennett, 2009; Thomson & Jaque, 2017). Accordingly, research suggests that people who have experienced more adversity in their childhood have more creative experiences at work (Thompson & Jacque, 2018). Relatedly, an online panel study showed that adversity-induced distress predicts self-reported growth in creativity (Forgeard, 2013). Lastly, having a shared experience of adversity leads to higher measures of objective group creativity (Bastian, Jetten, Thai, & Steffens, 2018) via increased supportive interactions
between team members. Given that having effective, supportive interactions is a key characteristic of having a shared identity (Alfadhli, Guler, Cakal, & Drury, 2019; Greenaway, Wright, Willingham, Reynolds, & Haslam, 2015), this suggests that having an overcoming adversity identity as a group is related to higher levels of creativity skills. Considering this altogether suggests that having an overcoming adversity identity is related to higher developmental skills linked to creativity.

In sum, there is bountiful evidence from posttraumatic growth theorizing and research, work-life research, and creativity research to support the idea that having an overcoming adversity identity results in developmental skills, that is, logical strengths that provide people with the intellectual capabilities to advance in a given area of life. Thus, this brings me to the following hypothesis:

*Hypothesis 3*) Having a stronger overcoming adversity identity at Time 1 is positively related to having higher levels of developmental skills at Time 2.

**Enrichment at Work Via Character Strengths**

While the benefits of gaining character strengths via developing an overcoming adversity identity are seemingly obvious, it is less well understood, how such strengths can enrich work outcomes. Drawing both on Greenhaus and Powell (2006) and Rothbard et al., (2021), I use the term work enrichment to refer to the extent to which experiences in one domain enhance the work domain. A recent review on posttraumatic growth acknowledges that research has only begun to explore the potentially enriching relationship between posttraumatic growth and work and career-related outcomes (Maitlis, 2020). Moreover, this limited work has thus far primarily only been theoretical.
For example, theoretical work suggests that experiencing identity growth after being denied a promotion is positively linked to work engagement and career proactivity via career resilience (Vough & Caza, 2017). Similarly, theoretical work also suggests that experiencing posttraumatic growth from past abusive supervision can lead to the building of a positive identity, which can ultimately lead to positive work behaviors such as positive leadership (Vogel & Bolino, 2020). In terms of empirical work, research has shown that scientists who overcame adversity in the form of almost obtaining a research grant subsequently outperform those who barely did obtain a research grant, suggesting that overcoming adversity has a positive effect on performance (Wang, Jones, & Wang, 2019). Together, this nascent research suggests that the development of an overcoming adversity identity may have an enriching effect on work outcomes. However, the mechanisms via which this occurs is not clear, and I present evidence to suggest that this occurs via the development of interpersonal, intrapersonal, and intellectual character strengths (the tripartite model, Park et al., 2017). To do this, I review evidence suggesting how interpersonal, intrapersonal, and intellectual character strengths in general, and in particular, gratitude, perseverance, and developmental skills, can positively relate to work outcomes.

While character strengths at work is still a nascent field, existing character research suggests such widespread benefits that leaders and policy makers have called scholars to not investigate whether—but rather which—character strengths they should prioritize (Park et al. 2017), as well as how to activate them such that their benefits on work outcomes such as job satisfaction, work engagement, and work meaning are
actualized (Harzer & Ruch, 2013). As a result, character scholars are beginning to directly investigate how, when, and which character strengths positively relate to a variety of work outcomes. For example, a multi-method study investigated the effect of character strengths on leadership, finding positive relationships between leader humanity and employee wellbeing, leader wisdom and employee affective commitment, and between leader temperance and employee trust (Thun & Kelloway, 2011). Similarly, a study using match-report data of 191 top-level US executives found positive relationships between direct reports' ratings of executive integrity, bravery, and social intelligence and bosses' and board members' ratings of executive performance (Sosik, Gentry, & Uk Chun, 2012). In addition, ethics scholars have proposed that character strengths are key to ethical decision making in organizational contexts (Crossan, Mazutis, & Seijts, 2013).

Altogether, given that aforementioned studies suggest a connection between character strengths and outcomes that may be helpful to performance and wellbeing, I investigate the effects of the tripartite model of character on extra-role performance, intra-role performance, and burnout.

First in terms of interpersonal character enrichment, research on character strengths preliminarily shows that interpersonal character strengths, including those indicating social intelligence, predict leader performance (Sosik et al., 2012). Moreover, in terms of the focal interpersonal character strength of this study, gratitude, it is generally believed to be positively related to organizational outcomes (E.g., Cortini et al., 2019; Fehr, Fulmer, Awtrey, & Miller, 2017). Traditional emotions research on gratitude focuses on how in helping social bonds (Fehr et al., 2017), it motivates prosocial
behavior (Grant & Gino, 2010) and similarly, extra-role behaviors (those beyond one’s job description; Ford et al., 2018), such as organizational citizenship behaviors (Spence et al., 2014). This suggests that in turn, it should also be associated with extra-role performance (i.e., employees’ discretionary and voluntary behavior that promotes the functioning of the organization; Schreurs et al., 2012, p. 263).

Importantly, however, the life orientation view of gratitude encompasses broaden and build characteristics beyond its socially-binding prosocial nature, such as fully focusing on the present moment, and being grateful for life in general (Wood, Froh, & Geraghty, 2010). Thus, these characteristics may point to a link between gratitude other positive work outcomes beyond that of extra role behaviors. Indeed, research on engagement and flow shows that being fully absorbed in one’s present task is key to work performance (e.g., Engeser & Rheinberg, 2008; Ho, Wong, & Hoon Lee, 2011). Moreover, theorizing on the deep appreciation of life of grateful people suggests that it helps people “take care of business” at work because it motivates action to show gratitude for what one has (e.g., a job) (Watkins, 2013). Accordingly, research supports the notion that gratitude is related to in-role performance, i.e., behavior directed toward formal tasks, duties, and responsibilities such as those included in a job description (Williams & Anderson, 1991). For example, a daily diary study of dispositional, relational, and collective gratitude found that the three are predictors of job performance (Cortini et al., 2019). In addition, a study of salespeople showed that salesperson gratitude directed towards customers enhance customer commitment, a key predictor of future sales performance (Mangus et al., 2017), and that this effect was mediated by salesperson
prosocial behaviors. Moreover, for other-oriented employees, the mere anticipation of gratitude enhances performance (Grant & Wrzesniewski, 2010). Considering this together suggests that the interpersonal nature of gratitude, alongside its general appreciative nature, may be drivers of in-role performance.

In addition to its benefits on in-role and extra-role performance, gratitude should also be protective against job burnout. Job burnout is a psychological syndrome that involves a prolonged response to chronically interpersonal stressors on the job (Maslach, 2006, p.37). It is characterized by an overwhelming exhaustion, detachment and cynicism of one’s job, and feelings of incompetence at work. Drawing on the life orientation of gratitude (Wood et al., 2010), I propose that gratitude should be negatively related to burnout for the following three reasons. First, people determine whether an experience is positive, stressful, or unrelated to well-being (Lazarus & Folkman, 1984). Thus, the appreciative nature of gratitude should help people approach work demands from more appreciative, positive lens. Second, the interpersonal strengths that gratitude provides (e.g., appreciation of others and gratitude towards others) may help highly grateful people have stronger social support systems, which buffers against burnout (Etzion, 1984). Third, the performing regular behaviors to remind oneself to be grateful of things (Wood et al., 2010), which is characteristic of grateful people, has been shown to be an effective coping strategy against work stressors (Cheng, Tsui & Lam, 2015), thereby reducing the likelihood of experiencing burnout. Accordingly, research supports this notion that gratitude is negatively related to stress, depression, and burnout (Wood et al., 2008; Lanham et al., 2012)
In addition, it is important to note that the relationship between gratitude and burnout may be especially relevant in the context of having an overcoming adversity identity. Although work demands can be straining (Karasek, 1979), they are unlikely to be comparable to severe experiences of adversity. Thus, as previously theorized, these downward “counterfactuals” of current stressors compared to prior adversity may activate gratitude that such work circumstances are more tolerable. As a result, people with a strong overcoming adversity identity should have a positive appraisal of their work, thereby experiencing less stress from it. The following telling quote from a first-generation college student encompasses this effect: “I’ve been through a lot in my life and that defines who I am now. Midterms and papers are hard, but at the same time they seem like another drop in the bucket” (Stephens et al., 2015).

Altogether, considering both the extra-role and in-role performance benefits to gratitude, alongside its negative effect on burnout, as well as the theorizing presented in Hypothesis 1, which suggests that having a strong overcoming adversity identity is positively related to gratitude, brings us to the following hypothesis:

*Hypothesis 4)* Having a stronger overcoming adversity identity at Time 1 is positively related to having higher levels of a) extra-role performance, b) in-role performance, and lower levels of c) burnout at Time 3 via its effect on gratitude at Time 2.

Beyond gratitude, I also propose that having a strong overcoming adversity identity should be positively related positive work outcomes via strengthening one’s “will,” that is, their intrapersonal character (Parke et al., 2017). First, given that
intrapersonal character strengths are often referred to as “performance character” (Lickona & Davidson, 2005), not surprisingly, they are related to work performance. For example, a study of nurses found that their intrapersonal values were positively related to self-rated performance and patient-rated caring behaviors (Geyer, Coetzee, & Ellis, 2017). Similarly, another study of nurses found that intrapersonal skills were positively related to nurses’ performance, having the strongest effect on performance when assessed alongside interpersonal skills and technical skills (Widjaja & Saragih, 2018). Lastly, a review of athletic performance suggests that intrapersonal competencies promotes athletic participation and performance (Iso-Ahola, 1995).

Specifically, perseverance, the intrapersonal competency this paper focuses on, is critical to work performance (Littman-Ovadia & Lavy, 2016). In terms of extra-role performance, perseverance is interchangeably referred to as “going the extra mile” (Littman-Ovadia & Lavy, 2016) at work. In support of this, a study of 310 hair salon employees found that their perseverance is positively related to their levels of OCB (Kim & Park, 2020). Relatedly, scholars have theorized that character strengths such as perseverance are likely to be predictive of prosocial behaviors at work, given the complexity of prosocial behavior calls for mental strength (Freidlin & Littman-Ovadia, 2020). Altogether, this suggests that perseverance should be positively related to extra-role performance.

In addition, given that perseverance helps employees keep going despite the inevitable challenges of the workplace (Littman-Ovadia & Lavy, 2016), it follows that it is also a key predictor to in-role performance. Accordingly, an examination of the effect
of several character strengths at work found that perseverance was the character strength most positively associated with in-role performance and most negatively associated with counterproductive work behaviors (Littman-Ovadia & Lavy, 2016). Moreover, perseverance is the most robust predictor of academic performance in middle and college students (Park & Peterson, 2009). Lastly, perseverance, when factored together with passion into the construct grit, consistently predicts performance, including supervisor-rated in-role performance (Jachimowicz, Wihler, Bailey, & Galinsky, 2018).

Beyond the positive effects of perseverance on in-role and extra-role performance, I also expect perseverance to be negatively related to burnout. This is because in having the ability to keep going despite difficulties, individuals may be less likely to experience the emotional, physical, and mental exhaustion created by excessive and prolonged stress (Magtibay et al., 2017). Indeed, passion and perseverance for long term goals (Duckworth et al., 2007), when factored together, is considered a resiliency factor because it is frequently found to protect against burnout and its negative effects (Jumat et al., 2020; Tang et al., 2021; Teuber et al., 2020), and is even found to be positively related to better health care management skills and quality of life (Sharkey et al., 2017). Moreover, perseverance of effort has been shown to be protective against symptoms of burnout (e.g., loneliness and depressive symptoms) for youth who are at high risk of burnout (Tang et al., 2021).

In sum, considering the past theorizing of Hypothesis 2, which posits that having a strong identity of overcoming adversity should positively relate to perseverance, together with the evidence I have presented which suggests that perseverance positively
relates to extra-role performance, intra-role performance, and burnout, this brings us to the following hypothesis.

_Hypothesis 5) Having a stronger overcoming adversity identity at Time 1 is positively related to having higher levels of a) extra-role performance, b) in-role performance, and lower levels of c) burnout at Time 3 via its effect on perseverance at Time 2._

Lastly, I propose that an overcoming adversity identity is positively related to positive work outcomes via intellectual character strengths. Given that intellectual character strengths specify a disposition towards lifelong learning (Baehr, 2016; Park et al., 2017), and that a key determinant of organizational success is the quality of individual learning (Hayes & Allinson, 1998), it follows that intellectual character strengths should be related to employee performance. Indeed, character scholars have argued that intellectual character should be sought in organizational contexts such as school and beyond because it signals an intrinsic desire to understand (Richhart, 2004). This understanding is vital to organizational effectiveness given that organizations are complex ecosystems that require various layers of understanding (Sandberg & Targama, 2007).

The desire to “understand” is manifested via a broad variety of developmental skills in several domains (Park et al., 2017) key to work performance, underscoring this dissertation’s focus on developmental skills. These include understanding of the ramifications of decisions (e.g., responsible decision making) (Park et al., 2017), and of the world around us (e.g., creativity) (Pellegrino & Hilton, 2012). For example, a study of
Chinese employees found that responsible decision making, reached via effective conflict management, was indirectly related to team in-role and extra-role performance (Tjosvold, Hui, & Yu 2002), and another study found that ethical decision-making by entrepreneurs was positively related to organizational performance (Wu, 2002). Lastly, it is widely believed that creativity is positively related to employee performance (Ribeiro, Duarte, & Filipe, 2018; Simonton, 2000) and is critical to organizations continuing to be innovative and thereby continuing to have competitive performance (Damanpour, Szabat, Evan, 1989).

In addition, work-life enrichment theories also supports the premise that that developmental skills acquired in overcoming adversity can enrich the work role (Greenhaus & Allen, 2006). Specifically, developmental enrichment in the work direction is correlated to work satisfaction and psychological well-being (Carlson et al., 2006), both which are key antecedents to both in-role (e.g., task) and extra-role performance (Biswas & Varma, 2012; Kundi et al., 2020; Somech & Drach-Zahavy, 200; Taris & Schaufeli, 2018). Moreover, the aforementioned study which found that scientists who overcame adversity in the form of rejections had better performance suggested that this was likely due to the desire to gain publishing skills as a result of this experience (Wang et al., 2019). Altogether, this research suggests that the applicable developmental skills that people gain through having an overcoming adversity identity should be useful to both in-role and extra-role work performance.

In addition to the proposed enriching effects of developmental skills on work performance, developmental skills should also be protective against burnout. Burnout is a
generalized state of exhaustion. If people have the desire to learn and the logical prowess to do so, in drawing on this desire to complete work tasks, they should feel less exhausted in doing so. Indeed, underlying the related research on flow, the state in which people are so involved in an activity that nothing seems to matter, is an underlying desire to learn and progress through such an activity (Nakamura & Csikszentmihalyi, 2014). Accordingly, a meta-analyses has shown that there is a negative experience between flow and burnout (Aust, Beneke, Peifer, & Wekenborg, 2022). Moreover, certain manifestations of developmental skills appear to be negatively related to burnout. For example, researchers have suggested that effective decision making is associated with less burnout (Pijpker, Vaandrager, Veen, & Koelen, 2020). In sum, this suggests that the developmental skills, which I have theorized is gained via an overcoming adversity identity, is negatively related to burnout.

Considering the above research regarding the relationship of developmental skills with extra-role and in-role performance and burnout together with the preceding theorizing in Hypotheses 3, which posits that having a strong overcoming adversity identity is positively related to higher developmental skills, brings forth the following hypothesis:

_Hypothesis 6_ Having a stronger overcoming adversity identity at Time 1 is positively related to having higher levels of a) extra-role performance, b) in-role performance, and lower levels of c) burnout at Time 3 via its effect on developmental skills at Time 2.

To investigate these hypotheses, I embarked in a multi-study investigation. Given
the novelty of the concept of overcoming adversity identity, I first developed and validated a scale of overcoming adversity. Moreover, considering that I was looking at the impact of having an overcoming adversity identity beyond that of the adverse experience themselves, I validated a scale of experiencing general adversity. This is detailed in the next chapter.

Chapter 2
Validation of Adversity Scales

To establish construct validity in overcoming adversity identity, I developed several scales in addition to an overcoming adversity identity scale. First, I developed an experiencing adversity scale. I developed this scale because the current theorizing calls for separation of the experience of adversity, overcoming adversity, and then subsequently experiencing identity growth (i.e., overcoming adversity identity). It is critical to differentiate the experience of adversity itself from the subsequent identity reconstruction process that contingent on several factors (Vogel & Bolino, 2020), which may help an overcoming adversity identity arise as a result.

While there are existing scales of experiencing adversity, most scales calculate the extent to which people have experienced adversity by counting the number of specific events of adversity. For example, the cumulative lifetime adversity measure (Seery et al., 2010) assesses a wide range of adverse events, ranging from more common ones (e.g., discrimination) to rarer ones (e.g., combat experience) to create a measure of adversity
over one’s lifetime. Similarly, the Childhood Trauma Questionnaire (Bernstein et al., 1998) assesses the extent to which people were exposed to physical, sexual, and emotional abuse, as well as physical and emotional neglect, during childhood, whereas the Brief Trauma Questionnaire (BTQ; Schnurr et al., 1999), assesses 10 specific traumatic events (e.g., natural disaster). Thus, no scale to date assesses people’s subjective perception of having experienced adversity. This is problematic because as previously explained, people differ in the way they process the stressors of adversity as a result of various factors, such as different personalities, worldviews, and physical, psychological, and social resources (Bolger & Zuckerman, 1995; Hobfoll, 1989). Thus, whereas some people may view their life as riddled with past adversities, others may consider those same life events less adverse. As a result, I developed a measure to assess people’s perceptions of their past experiences of adversity.

Second, as aforementioned, the current literature on overcoming adversity argues that many people grow from such experiences. Yet the identity literature suggests that people vary in the extent to which they internalize experiences as part of their identities (Maitlis, 2009). Thus, while people may have overcome adversity, the extent to which this experience helps them transition into a person with a strong overcoming adversity identity should vary. As such, given the call to both consider and differentiate an experience-based approach from that of an attribute/stable trait-based approach to organizational studies (George et al., 2021), prior to testing my theoretical model, I first showed that the experience of overcoming adversity is different than the more stable trait-like concept of having an overcoming adversity identity. To do this, I developed a
general overcoming adversity scale. In doing so, it allowed me to empirically examine how the concept of having an overcoming adversity identity is empirically different than that of simply having overcome adversity, thereby establishing construct validity.

Lastly, and most central to my theoretical model, I developed an overcoming adversity identity scale. While most existing identity scales have to do with demographic identities, such as ethnic identity (Phinney, 1992) or national identity (Keillor et al., 1996; Schwartz et al., 2012), or behavioral identities (e.g., those that describe propensity towards certain behaviors, such as a prosocial identity or an individualistic identity; Ramarajan et al., 2017), there has been scant research on the development of an experience-based identity. Thus, this was the first identity scale, to my knowledge, with experiential antecedents.

**Method**

To develop the experiencing adversity measure, the overcoming adversity measure, and the overcoming adversity identity measure, I based my methodology on Hinkin’s (1998) guidelines on measure development. The processes consisted of item generation and refinement, exploratory factor analysis, investigating the discriminant validity from related constructs, and lastly, confirmatory factor analysis.

**Item Generation**

I conducted item generation via a mix of observations, anecdotal evidence, and qualitative accounts of adversity in general, including the process of experiencing it, overcoming it, and strongly identifying with it. To do this, I utilized a hybrid approach, drawing both on Hinkin’s (1998) inductive and deductive methodology. First, I obtained a thorough theoretical understanding of the concepts of experiencing adversity,
overcoming adversity, and then identifying with such experience—albeit with the knowledge that it is not possible to perfectly learn nor measure the complete domain of interest (Hinkin, 1998). Thus, I drew on the Merriam-Webster definition of adversity as an event of grave misfortune or continued difficulty (Merriam-Webster, 2022). Then, using this definition, I proceeded to develop the items for 1) experiencing adversity and 2) overcoming adversity, via triangulating between three methods: observing common trends via interviews, reading free responses for trends, and lastly, feedback from colleagues and advisors.

To collect free-response data, I conducted a survey on an online panel of \( N = 242 \) full-time workers in the United States, of which 48.5% of participants were women, and 73.3% were White/Caucasian. On average, participants were 39.84 (\( SD = 10.79 \)) years old and 45.5% of participants had a household income of at least $70,000. I asked participants four free-response questions, as shown in Table 1. The first question was general: “Have you ever overcome adversity?” The second question drew on past self-narrative research (McAdams, 1993; Nurmohamed et al., 2021) and attempted to get participants to reflect on their journey of overcoming adversity:

“If you consider yourself as someone who has overcome adversity, please explain your past experiences overcoming adversity. You can choose to write about these past experiences in any way you would like. For example, you are welcome to write about your general journey of overcoming adversity. You are also welcome to focus on a specific event of overcoming adversity.”

Following the same line of scholarly work on self-narrative reflections, the next question drew on research on redemption sequences (McAdams et al., 2001), reflections of meaningful moments when negative events are “redeemed” into a subsequent good,
affectively positive life scenes (McAdams, 2001). It did this by trying to prime participants to reflect on the most meaningful moments of their overcoming adversity experiences:

“Thank you for your responses. If you shared a general journey of overcoming adversity or, more specifically, an event of overcoming adversity, can you please share when, where, and how did the most meaningful aspects of this experience occur?”

The last question was geared towards helping people reflect on how their experiences overcoming adversity have shaped their current identity, as follows:

“Have your past experiences, if any, of overcoming adversity, shaped the way you are today? For example, have they shaped the way you see the world in any way? Or approach life? Or have they shaped how you feel and behave?...I am really interested in how your past experiences may affect you today.”

The responses to these questions helped generate insights regarding the items in general as well as give color to the theorizing regarding the investigation of constructs at hand. I refined such initial items based on numerous iterations of feedback from colleagues who identified themselves as having experienced adversity as well as peers with no prior knowledge of the research.

INSERT TABLE 1

**Exploratory Factor Analyses (EFA)**

I conducted an exploratory factor analysis of 6 items for the scale of experiencing adversity and 6 items for the scale of overcoming adversity. The study participants were 841 working adults at least eighteen years of age ($M = 40.11$), 44.8% female, 26.7%
racial/ethnic minorities, and 60.8% had had a total household income of at least $50,000 in the past year. This follows the guideline that a sample size of at least 150 is necessary alongside strong intercorrelations for EFA’s (Guadagnoli & Velicer, 1988). Moreover, the scales were administered on a 1-7 Likert scale to generate appropriate variance among participants. An exploratory factor analysis using principal components extraction found the construct of experiencing general adversity to load unto one factor. Results of the EFA for both experiencing adversity and overcoming adversity are depicted in Tables 2 and 3.

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**Initial Item Reduction**

Following the exploratory factor analysis (EFA), I discussed the findings with academic management experts and triangulated these findings with the original free response observations and current theory. This, in conjunction with the strategy of analyzing item loadings guided the item reduction stage (Worthington & Whittaker, 2006). I retained four out of six items for each of the experiencing adversity measure and overcoming adversity measure. I based this decision on a combination of the highest factor loadings and help by experts in the field of management to have high content validity (Worthington & Whittaker, 2006). Despite its low factor loading, I retained the reverse-scored item for each of the measures. This was to ensure I was capturing the core of the construct without producing demand effects. Only four items were retained because additional items are temporally costly in terms of administration (Carmines &
Zeller, 1979), and adequate internal consistency. Moreover, accurate reliabilities can already be obtained with a minimum of three items (Cook et al., 1981). I also included established scales to establish discriminant validity, thereby adding a layer of empirical validation to the theoretical distinguishing I did in Chapter 1.

**Confirmatory Factor Analyses (CFA)**

Next, to establish that the new scales achieve proper goodness of fit of the resulting factor structure, a confirmatory factor analysis was conducted with the purpose of assessing the quality of the factor structure via permitting a statistical test that allows the researcher to test the significance of the overall model and corresponding individual loadings (Hinkin, 1998). To do this, I recruited 903 people from MTurk, excluding those that had participated in the EFA stage of analyses. Participant demographics approximated those for the EFA, age \( M = 40 \), women = 48.1 %, minority race participants (29%). I used Mplus 8.5 (Muthén & Muthén, 1998–2020) for the CFA. First, I began by fitting the four indicators of experiencing adversity into a single factor. The four-item one factor scale yielded excellent model fit, \( \chi^2_{899}=3.0, \) CFI =1, RMSEA = .0, SRMR = .0. Given the seemingly perfect fit and the small number of items, I did not assess other models with multiple factors. In addition, I fit the four indicators of overcoming adversity unto a single factor. The four item one factor scale also yielded excellent fit: \( \chi^2_{899}=3.0, \) CFI =1, RMSEA = .0, SRMR = .0, and as a result, I did not examine additional models. The final retained items for each of the focal scales are bolded in Tables 2 and 3.

**Adversity Identity Scale**

To examine the primary construct of my dissertation, overcoming adversity
identity, I modified a 3-item identity scale (Ramarajan et al., 2017), adding three items because of a combination of the free response data and feedback from peers and . I pilot-tested it on a sample of 228 full-time MTurk adult workers that self-identified to have experienced health adversity (Cancer, heart attack, stroke, diabetes, eating disorders, and legally approved disabilities). Participants were 57% female, 81% White or Caucasian, and on average, 35 years old. Items were scaled on a 1 (strongly disagree) to 7 (strongly agree) Likert Scale, with an example item being, “My identity as a person who has overcome adversity is important to how I see myself.” The Kaiser-Meyer-Olkin measure of sampling adequacy (.90), and Bartlett’s test of sphericity (1136.40, $df = 15$, $p < .001$) indicated the correlation matrix was appropriate for factor analysis (Dziuban & Shirkey, 1974; Kaiser & Rice, 1974). Kaiser’s (1958) criterion supported a 1-factor solution (eigenvalue = 4.56), explaining 75.94% of the variance. The corrected item-total correlation for the focal items and the Cronbach’s alpha was adequate, as shown in Table 4.

Internal validity was adequate in the pilot study ($\alpha = .93$). Moreover, there was ample variance in adversity identity ($M = 4.97$, $SD = 1.39$, $V = 1.93$) within this participant pool, whom all had experienced health hardships. This further validated the discriminant validity of this measure: showing that developing an overcoming adversity identity is different from experiencing hardship such as a health hardship. To further
assess discriminant, convergent, and criterion-related validity, beyond that of the theoretical distinguishing of overcoming adversity identity from related constructs in Chapter 1, I also included the following measures in the pilot: resilience (Connor & Davidson, 2003), posttraumatic growth (Tedeschi & Calhoun, 1996), positive affect (Watson, Clark, & Tellegen, 1988), adversity response (Stoltz, 2000), optimism (Gavrilov-Jerković, Jovanović, Žuljević, & Brdarić, 2014), core self-evaluations (Judge, Erez, Bono, & Thoresen, 2003), and hope (Snyder et al., 1991). As aforementioned, the reasons for including resilience and posttraumatic growth are outlined in Chapter 1. Grit was not included in this analyses, nor was it included as a control variable in hypothesis-testing analyses in subsequent chapters because of its two-facture nature. However, in Chapter 1, I review literature on both constructs to provide evidence on why grit is theoretically different than an overcoming adversity identity.

I included trait positive affect in the pilot study because of its potential relationship with an overcoming adversity identity. Research on redemption sequences (McAdams et al., 2001) suggests that adversity is overcome when a person’s recollection of an event shifts from negative to positive. Given that trait positive affect is related to perceiving events in a more positive manner (Lyubomirsky, King, & Diener, 2005; Watson, Clark, & Tellegen, 1988), it follows that trait positive affect should be positively related to the construct of overcoming adversity identity. In addition, I also investigated the adversity response profile and its relationship to overcoming adversity identity. The adversity response profile is a measure of people’s adversity quotient (Stoltz, 1997; 2000). The adversity quotient predicts people’s ability to withstand and surmount
adversity. Accordingly, people who are better able to surmount adversity may be more likely to perceive themselves as people who have overcome adversity, and thus strongly identify with such experiences. Moreover, considering that the ability to find the benefits, i.e., the “silver lining,” in adverse circumstances such as major medical problems is related to optimism (Affleck & Tennen, 1996), positive “generalized outcome expectancies” (Scheier & Carver, 1985, p. 219), this suggests that the ability to develop an overcoming adversity identity may be in part, related to people levels of optimism throughout the adverse experiences. As a result, I also investigated optimism as a correlate of overcoming adversity identity. Similarly, I investigated the correlation between core self-evaluations and an overcoming adversity identity. Core self-evaluations measures having a positive self-concept (Judge, Erez, & Bono, 1998). Having a positive self-concept should be related to the belief that one can overcome, as opposed to be defeated by, adversity, which in turn should be related to developing an identity of overcoming adversity. Lastly, I included hope, a two-dimensional psychological construct that includes goal-directed determination and pathways (planning of ways to meet goals) (Snyder et al., 1991). Hope has been proposed to be a key asset in sustaining people through adversity (Marsay, 2020).

Results of the relationships between these constructs can be found in Table 5. As expected, discriminant validity was found between an overcoming adversity and its related constructs. Specifically, as shown in Table 5, no construct had a correlation with overcoming adversity identity that had a Pearson’s correlation coefficient higher than $r = .32^{**}$. Moreover, while most variables that I theorized to be positively related to an
overcoming adversity identity were related at a significance level of a p-value of .05 or below, there were some notable exceptions. For example, interestingly, the concept of core self-evaluation (CSE) was not related to overcoming adversity. This may be because key to the development of overcoming adversity identity is experiencing, and overcoming adversity experiences, and core self-evaluations is not an experiential measure. In other words, it measures stable perceptions of the self that are independent of one’s experiences.

In addition, given the importance of examining a scale in various samples to assure avoidance of common source variance, as well as the fact that factor analytical techniques that were used to develop the measures may result in factors that are sample specific and inclined toward high reliability (Krzystofiak et al., 1988), I utilized an additional independent sample to enhance the generalizability of the new measure. I utilized Amazon MTurk again to gather participants. However, I excluded those that had participated in the pilot study. Moreover, the inclusion criteria for this study was broader: working adults (of at least 18 years of age). There were $N = 242$ participants, who were on average $M = 39$ years old ($SD = 10.80$), 26.7% were ethnic/racial minorities, and were 48.5% women. The Kaiser-Meyer-Olkin measure of sampling adequacy (0.90), and Bartlett’s test of sphericity ($1074.57, df = 15, p < .001$) indicated the correlation matrix was appropriate for factor analysis (Dziuban & Shirkey, 1974; Kaiser & Rice, 1974). Kaiser’s (1958) criterion supported a 1-factor solution (eigenvalue = 4.34), explaining
72.35% of the variance. Internal validity was adequate in the pilot study ($\alpha = 0.92$), as shown in Table 4. Moreover, there was ample variance in adversity identity ($M = 4.77$, $SD = 1.44$, $V = 2.07$) within this participant pool, and as expected, it was somewhat larger than that of the participant pool of those who had experienced health hardships.

Once the three adversity scales were validated, I conducted a correlational study to examine how each of the constructs relate to each other. I recruited full-time working adults from MTurk, excluding those that had participated in prior surveys related to this dissertation. There were $N = 259$ participants, 44.4% being women, 49.2% having a household income of at least $70,000, and 19.4% being ethnic/racial minorities. As shown in Table 6, having an overcoming adversity identity was only moderately related to experiencing adversity ($r = .59**$) and to overcoming adversity ($r = .57**$). Interestingly, experiencing adversity and overcoming adversity were very highly correlated to each other. Accordingly, I only used one of these scales (i.e., experiencing adversity) as a control variable in the hypothesis-testing studies. The next chapter describes the process of hypothesis testing.

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Chapter 3

Correlational Study and Time-Lagged Online Panel Study

Study 1, presented in this chapter, is a time-lagged survey study that collects data for all hypotheses across a diverse online sample, testing the full theoretical model using structural equation modeling. First, to assess the correlational relationships between our
variables of interest, I piloted the hypothesized theoretical model in Study 1a, a
correlational study utilizing Amazon MTurk. To do this, I recruited $N = 422$ working
adults (18 years and over), 52.9% who were women, 26.6% who were ethnic/racial
minorities, and who were on average $M = 42$ years old. Participants who had participated
in prior validation or pilot studies were excluded from participating. In the study, I
included controls, independent variables, and outcomes in the survey. Results of the
correlations can be found in Table 7. Overall, the correlational relationships were
directionally consistent with expected trends, so I progressed to hypotheses testing.

To test my hypotheses, I conducted Study 1b: a time-lagged, three-wave survey
study. The second survey was administered approximately two months after the first
survey, and the third survey was administered approximately one month after the second
survey. To mitigate common method bias (Podsakoff et al., 2003), the first survey
measured controls and independent variables, the second survey measured mediators, and
the third survey measured dependent variables/outcomes.

Participant recruitment was as follows: in the Survey 1 MTurk description,
participants were informed that this was a longitudinal study, where they could be paid
up to $9.75 for their participation ($2.75 for the first survey, $3 for the second survey,
and $4 for the third survey). Inclusion criteria were that participants were full-time
working adults, had a HIT approval rate of at least 95%, lived in an English-speaking
country (i.e., Australia, Canada, United States, United Kingdom), and had not previously
completed any of our surveys. A total of 469 people completed the first survey, a total of 320 of those completed the second survey, and of those, 256 people completed the third survey, for a study completion rate of 54.58%.

**Data Quality Check and Participant Demographics**

I included attention checks in each of the three studies. In Survey 1, one individual failed the attention check, so I excluded that person from our analyses. In Survey 2, six people failed the attention checks, so I excluded them from the analyses. In Survey 3, five people failed the first attention check, and eleven people failed the second attention check, so I excluded them from the analyses. This resulted in a total of 247 participants. Participants were 54% female, 76.2% white/Caucasian, and 66.6% had a total annual household income of at least $50,000. Moreover, 53% of participants had been working in their organization for at least 5 years, and 39.3% of participants were in some form of managerial role.

**Measures**

Information about the measures used for the study are detailed below. A full description of the measures, including the items in each measure, can be found in Appendix A.

**Overcoming Adversity Identity.** I utilized the 6-item overcoming adversity identity, which I adapted from Ramarajan et al. (2017) and validated, as discussed in Chapter 2. The 6-item measure, which was assessed on a 1 (Strongly disagree) to 7 (Strongly Agree) Likert scale, showed excellent reliability ($\alpha = .93$), and was assessed in Survey 1.
**Experiencing Adversity.** I created and utilized a 4-item experiencing adversity scale, as discussed in Chapter 2, to assess experiencing adversity in Survey 1. The measure, which was assessed on a 1 (Strongly disagree) to 7 (Strongly Agree) Likert scale, showed excellent reliability ($\alpha = .90$).

**Perseverance.** To assess perseverance at work in Survey 2, I used the 9-item perseverance factor of the Whiteside and Lynam (2001) personality scale. An example of the original item is as follows, “I generally like to see things through to the end.” An example of the modified item to make it fit the work context is “I generally like to see things through to the end at work.” These items were measured on a 1 (Strongly disagree) to 7 (Strongly Agree) Likert scale. The scale showed excellent reliability, ($\alpha = .93$).

**Developmental Skills.** Through measuring developmental skills, I was trying to capture one broad measure of intellectual character strengths that signaled a disposition for learning (Park et al., 2017). To capture this broad developmental skills construct, I used a 6-item enrichment scale that assesses development skill enrichment. It is a subscale of Carlson et al.’s (2006) work–family enrichment scale. An example item was, “Helps me to develop my abilities and this helps me be a better worker.” I measured this on a 1 (Strongly disagree) to 7 (Strongly Agree) Likert scale. This scale showed strong reliability ($\alpha = .97$).

**Gratitude.** To assess gratitude in Survey 2, I used the Gallagher et al.’s (2020) two-item gratitude measure. The two items were, “thankful” and “grateful.” People were asked to indicate “to what extent you feel this way at work, that is, how you feel on average.” These two items were presented on a 1 (very slightly or not at all) to 5
(Extremely) Likert scale. This scale showed strong reliability ($\alpha = .96$).

**Extra-Role Performance.** To measure extra-role performance in Survey 3, I used Lynch et al.’s (1999) extra-role performance scale. The 6-item extra-role performance measure, which was assessed on a 1 (strongly disagree) to 7 (strongly agree) Likert scale, also showed strong reliability, ($\alpha = .91$). An example item was, “I volunteer for things that are not required.”

**In-Role Performance.** To measure in-role performance in Survey 3, I used William and Anderson’s (1991) 4-item in-role behaviors scale. The 4-item in-role performance scale showed strong reliability, ($\alpha = .89$). An example item was, “I engage in activities that will directly affect my performance evaluation.”

**Burnout.** To assess burnout in Survey 3, I used Maslach and Jackson’s (1981) burnout inventory, which consisted of 7 items. An example item was, “I feel fatigued when I get up in the morning and have to face another day on the job.” The scale, which was administered on a 1 (Strongly disagree) to 7 (Strongly agree) scale, showed strong reliability, ($\alpha = .95$).

**Core Self-Evaluations (CSE).** To account for differences in the way participants approach perceptions of themselves, I used Judge et al.’s (2003) core self-evaluations scale as a control, and this scale showed moderate reliability ($\alpha = .81$). It was assessed on a 1 (Strongly disagree) to 7 (Strongly Agree) Likert scale. An example item is, “When I try, I generally succeed.”

**Other Control Variables.** Given that an employee’s organizational level (e.g., entry-level, manager, etc.), is a proxy to their experience in the organization, which is
related to extra-role and in-role organizational performance (Ng & Feldman, 2010), I controlled for employees’ organizational level. In addition, given that women may be at risk for certain forms of discrimination and adverse household burdens, while men may be more at risk for substance abuse adversities, I controlled for the female gender (Evans, Grella, & Upchurch, 2017; Kromydas, 2020). Moreover, given this study focused on the impact of the development of an identity of having overcome adversity, beyond that of the experience of adversity itself, I controlled for experiencing general adversity. Additionally, considering that ethnic and racial minorities and other traditionally marginalized groups may experience more barriers at work as compared to non-minorities, I controlled for being a non-racial/ethnic minority (e.g., for self-identifying as being of White/Caucasian race). Lastly, considering that income is a form of extrinsic motivation that may influence performance (Ryan & Deci, 2000), and is also a proxy of an individual’s education status, which may account for socioeconomic barriers to performance, I controlled for income.

**Robustness Check**

To assure that an overcoming adversity identity created character enrichment beyond its effect on simply overcoming adversity, I conducted the following robustness checks. I modeled the measure of overcoming general adversity I validated (described in Chapter 2), in Path A regression models, unto the theorized mediators (gratitude, perseverance, and developmental skills), using Hayes PROCESS Macro (Hayes, 2017) in SPSS Version 27 (IBM, 2020). I also included the experiencing adversity measure I validated as well as the overcoming adversity identity measure. Overcoming adversity
identity generally continued to have a significant effect on the hypothesized enrichment mechanisms beyond that of the effect of overcoming adversity itself. For example, in a model with the dependent variable of Time 2 gratitude, $F(3,242) = 9.081, p < .001$, overcoming adversity identity ($b = .21, p < .001$) had an effect on gratitude over and above that of overcoming adversity ($b = .16, p = .06$). In the model with the dependent variable of Time 2 perseverance, $F(3,242) = 9.76, p < .001$, overcoming adversity identity ($b = .11, p = .002$) had an effect on perseverance over and above that of overcoming adversity ($b = .12, p = .02$). Lastly, in terms of the model with Time 2 developmental skills as a dependent variable, $F(3,241) = 4.96, p = .003$, overcoming adversity identity ($b = .084, p = .048$) had an effect on developmental skills even when accounting for overcoming adversity, ($b = .12, p = .046$). Thus, given the persisting effect of having an overcoming adversity identity beyond that of other adversity-related constructs, I proceeded to test my theorized model. Moreover, given the high correlation between overcoming adversity and experiencing adversity evidenced in the validation process of the scales, I chose to only include experiencing adversity as a control variable. In doing so, I was able to show that the effects of having an overcoming adversity identity are empirically different than that of experiencing adversity.

**Analytic Plan**

I used Mplus 8.5 (Muthén & Muthén, 1998–2020) for the confirmatory factor analysis (CFA) and hypothesis testing, and SPSS Version 27 (IBM, 2020) for descriptive statistics. I grand-mean-centered continuous predictors to attenuate nonessential multicollinearity and simplify the interpretation of moderating effects (Cohen et al.,
Following precedents from previous scholarly work and recommendations (e.g., Bindl et al., 2019; Hayes, 2017; Lau & Cheung, 2012; Parke et al., 2018), I calculated the hypothesized indirect effects with the code for mediation developed by Stride et al. (2015) for the MODEL CONSTRAINT procedure in Mplus 8.5, using 95% confidence intervals with 5,000 bootstrapped resamples (Muthén & Muthén, 2017).

**Results**

First, I conducted descriptive statistics and correlations of the study’s variables, which are reported in Table 8.

<table>
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Second, I conducted a confirmatory factor analysis (CFA) to confirm the structure of our measures. I included the focal independent variable, mediators, outcome variables, and control scales (i.e., core self-evaluations). Following past exemplary structural equation modeling studies (Gabriel et al., 2019), I excluded the single-item constructs, the commute from work and the commute to work experience, as well as the control variable, day of the week. Results indicated good model fit ($X^2(917, n = 247) = 1647.47$, SRMR = .055, RMSEA = .057, CFI = .92) according to relevant model fit criteria (Bentler, 1990; Cudeck & Browne, 1983; Steiger, 1990). Thus, I proceeded with hypothesis testing.

Third, I conducted analyses of multicollinearity in SPSS, because MPlus does not currently have the capacity to do multicollinearity analyses. As aforementioned, detecting
multicollinearity (when two or more predictors are correlated) is important because if this occurs, the standard error of the coefficients may be overinflated, which may make variables that should be statistically significant appear insignificant (Daoud, 2017). Accordingly, tests of the variance inflation factor (VIF) to see if the data met the assumption of collinearity indicated that multicollinearity was not a concern (overcoming adversity identity, tolerance = .70, VIF = 1.43, experiencing adversity, tolerance = .60, VIF = 1.66, gratitude, tolerance = .78, VIF = 1.29, perseverance, tolerance = .82, VIF = 1.23, developmental skills = .85, VIF = 1.18, the female gender, tolerance = .88, VIF = 1.14, core self-evaluations, tolerance = .601, VIF = 1.67, organizational level, tolerance = .91, VIF = 1.11, income, tolerance = .79, VIF = 1.27, and being White/Caucasian, tolerance = .96, VIF = 1.04). Thus, I proceeded with hypothesis testing.

In proceeding to hypothesis testing, I built a structural equation model including the focal independent variable (overcoming adversity identity), the three mediators (gratitude, perseverance, and developmental skills) and the three focal outcome variables (in-role performance, extra-role performance, and burnout). I also included the control variables (experiencing adversity, organizational level, income, being female, and being a non-racial/ethnic minority), the latter two of which inputted as dummy variables. I included these control variables at every step of the regression analyses. The structural equation model showed excellent model fit $\chi^2(57, n = 247) = 481.86$, SRMR = .00, RMSEA = .00, CFI = 1.00) according to relevant model fit criteria (Bentler, 1990; Cudeck & Browne, 1983; Steiger, 1990).

Coefficients and standard errors of the model can be found in Table 9. To
examine the first hypothesis, that having a stronger overcoming adversity identity at Time 1 is positively related to having higher levels of gratitude at Time 2, I regressed Time 2 gratitude on Time 1 overcoming adversity identity. As shown in Table 9, column 1, row 7, Hypothesis 1 was fully supported, ($b = .14, p = .01$). To examine the second hypothesis, that having a stronger overcoming adversity identity at Time 1 is positively related to perseverance at Time 2, I regressed Time 2 perseverance on Time 1 overcoming adversity identity. As shown in Table 9, column 2, row 7, Hypothesis 2 was fully supported, ($b = .088, p = .01$). To examine the third hypothesis, that having a stronger overcoming adversity identity at Time 1 is positively related to having higher levels of developmental skills at Time 2, I regressed Time 2 developmental skills on Time 1 overcoming adversity identity. As shown in Table 9, column 3, row 7, Hypothesis 3 was fully supported ($b = .098, p = .028$).

Hypotheses 4-6 tested the mediating effects of overcoming adversity, via character enrichment, on work outcomes. First, I examined Hypothesis 4), that having a stronger overcoming adversity identity at Time 1 is positively related to having higher levels of a) extra-role performance, b) in-role performance, and lower levels of c) burnout at Time 3 via its effect on gratitude at Time 2. In terms of extra-role performance, as shown in Table 9, column 4, row 8, gratitude at Time 2 was positively related to extra-role performance at Time 3 ($b = .20, p < .01$). The 95% confidence intervals of the indirect effects of having an overcoming adversity identity on extra-role performance as
mediated by gratitude did not include zero (estimate = .027, 95% CI [.006, .06]).

Interestingly, in terms of in-role performance, as shown in Table 9, column 5, row 8, gratitude at Time 2 was negatively related to Time 3 in-role performance on a marginal level \( b = -.061, p = .09 \). However, analyses of indirect effects revealed that the 95% confidence interval contained zero (estimate = -.008, CI [-.026, .00]). Next, in terms of burnout, as shown in Table 9, column 6, row 8, gratitude at Time 2 was significantly negatively related to burnout \( b = -.35, p < .01 \). The 95% confidence intervals of the indirect effects of having an overcoming adversity identity on burnout as mediated by gratitude did not include zero (estimate = -.049, 95% CI [-.10, -.12]). Thus, Hypothesis 4 was partially supported.

Next, I examined Hypothesis 5. Hypothesis 5 examined whether having a stronger overcoming adversity identity at Time 1 was positively related to having higher levels of a) extra-role performance, b) in-role performance, and lower levels of c) burnout at Time 3 via its effect on perseverance at Time 2. In terms of extra-role performance, as shown in Table 9, column 4, row 9, perseverance at Time 2 was related to extra-role performance at Time 3 \( b = .29, p = .02 \). The 95% confidence intervals of the indirect effects of having an overcoming adversity identity on extra-role performance as mediated by perseverance did not include zero (estimate = .025, 95% CI [.004, .064]). In terms of in-role performance, as shown in Table 9, column 5, row 9, perseverance at Time 2 was related to in-role performance at Time 3 \( b = .37, p < .01 \). The 95% confidence intervals of the indirect effects of having an overcoming adversity identity on in-role performance as mediated by perseverance did not include zero (estimate = .032, 95% CI [.009, .056]).
Lastly, in terms of burnout, as shown in Table 9, column 6, row 9, perseverance at Time 2 was negatively related to burnout on a marginal level ($b = -.27, p = .08$). Furthermore, an analyses of indirect effects revealed that the 95% confidence intervals of the relationship of overcoming adversity identity on burnout via perseverance contained zero ($\text{estimate} = -.023, 95\% \text{ CI } [-.023, .00]$). Overall, Hypothesis 5 was partially supported.

The last hypothesis of this section, Hypothesis 6, examined whether having a stronger overcoming adversity identity at Time 1 is positively related to having higher levels of a) extra-role performance, b) in-role performance, and lower levels of c) burnout at Time 3 via its effect on developmental skills at Time 2. In terms of extra-role performance, developmental skills at Time 2 was positively related to extra-role performance at Time 3 ($b = .14, p = .047$). The 95% confidence intervals of the indirect effects of having an overcoming adversity identity on extra-role performance via developmental skills did not include zero ($\text{estimate} = .014, 95\% \text{ CI } [.001, .036]$). In terms of in-role performance, developmental skills at Time 2 was not related to in-role performance ($b = .027, p = .64$). Thus, I did not examine the indirect effects of this relationship. In terms of burnout, as shown in Table 9, column 6, row 10, developmental skills at Time 2 was not related to burnout at Time 3 ($b = .087, p = .41$). Thus, I did not examine the indirect effects of this relationship. Overall, Hypothesis 6 was partially supported.

In addition, given that the tripartite model of character strengths, both empirically

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1 As an auxiliary analyses, I also examined whether the extent to which people have experienced adversity at Time 1 interacted with the extent to which they had an overcoming adversity identity. I examined moderating effects of such an interaction effect on the mediators (Path A) and found no moderating effects. I then proceeded to examine moderating effects of such an interaction on the outcomes (Path B) and found no moderating effects.
factor together, as well as theoretically belong together (Park et al., 2017), in the sense that they are generally beneficial to the individual and society (Peterson & Seligman, 2004), it follows that when considered in unison, they should give a more holistic picture of how an overcoming adversity identity enriches each of the three focal work outcomes (extra-role performance, in-role performance, and burnout). As such, I also examined the total effects of overcoming adversity identity via the tripartite model of character enrichment (e.g., gratitude being interpersonal enrichment, perseverance being intrapersonal enrichment, and developmental skills being intellectual enrichment). In terms of the total effect of having an overcoming adversity identity on extra-role performance via the three mediators (gratitude, perseverance, developmental skills), I found that the 95% confidence interval of the total effect did not include zero ($estimate = .066$, 95% CI [.027, .12]. Thus, there was a significant total effect of overcoming adversity on extra-role performance via the tripartite model of character. Next, I examined the total effect of having an overcoming adversity identity on in-role performance via the focal three mediators ($estimate = .027$, CI [.000, .059]), finding that the 95% confidence interval of the total effect did include zero. Thus, there was not a significant total effect of overcoming adversity on in-role performance via the tripartite model of character. Lastly, I examined the total effect of having an overcoming adversity identity on burnout via the focal three mediators ($estimate = -.064$, CI [-.13, -.016], finding that the 95% confidence interval of the total effect did not include zero. Results revealed there was a significant total negative effect of overcoming adversity on burnout via the tripartite model of character strengths.
Study 1 Discussion

Study 1, a longitudinal three-wave online panel study, provided initial evidence that having an overcoming adversity identity would advance the development of “heart, mind, and will” character strengths, thereby enriching people at work. In particular, this study finds that having a higher overcoming adversity identity is associated with having higher levels of gratitude, persistence, and developmental skills. In turn, these character strengths enrich employee’s work life. In particular, having a stronger overcoming adversity identity was positively associated with extra-role performance, via gratitude and developmental skills. In addition, having a stronger overcoming adversity identity was positively associated with in-role performance via its effect on perseverance. Lastly, having a stronger overcoming adversity identity was negatively associated with burnout, via gratitude. Altogether, this study provides promising preliminary evidence of the character-enriching effects of an overcoming adversity identity, and how such effects translate to positive work outcomes.

Despite this study having many strengths, including its longitudinal nature across three time periods and a diverse sample, it also has several limitations. First, all variables were self-reported, making common method variance a concern (Podsakoff et al., 2012). However, the temporal lags between the independent variable, the mediator, and the outcome variables somewhat mitigates this concern. Second, although I ruled out some possible third variables, I cannot establish causality between the mediators and the outcome variables. Third, these findings may have limited generalizability given the artificial nature of the panel, although the use of such an online study panel assured that people from a wide breadth of socioeconomic backgrounds, cultures, and occupations
were represented. Fourth, the usage of an online crowdsourcing platform raises questions about data quality (Hauser et al., 2019). I attempted to mitigate this concern by screening out participants that did not pass our attention checks or provided nonsensical free responses in the surveys. Moreover, I sought to further mitigate this concern by examining the hypothesized model in a time-lagged 3-study field investigation and field experimental intervention in a multinational organization. By testing this dissertation both in the field in a longitudinal manner, in addition to in a longitudinal online panel, I attempted to mitigate the downsides of each approach and strengthen the likelihood of causality and external validity (Campbell & Fiske, 1959; Lykken, 1968).

Chapter 4

Longitudinal Field Study

Study 2, presented in this chapter, is a time-lagged survey study which collects data for all hypotheses across a diverse field sample, testing the full theoretical model using structural equation analyses. Thus, it provides an additional layer of external validity from that of an online panel (Steinfatt, 1991).

The timing of the time-lagged, three-wave study to test the theoretical model was as follows. The first survey was administered in mid-Summer 2021. The second survey was administered approximately two months after the first survey, and the third survey was administered approximately three months after the second survey\. To mitigate common method bias (Podsakoff et al., 2003), the first survey measured controls and

\[\text{\textsuperscript{1}}\text{ The first survey ran from June 16th to July 9th, 2022, the second survey ran from September 30th, 2021, to October 26th, 2021, and the third survey ran from January 26th, 2022, to February 11th, 2022.}\]
independent variables, the second survey measured mediators, and the third survey measured dependent variables/outcomes.

The field organization that participated was a large multinational technology corporation with several locations throughout the world. My primary contact to the field site was a vice president of the customer service arm of the organization and oversaw over 2,000 employees. Thus, all participants were part of the customer service arm, and were for the most part, located in the United States, India, and Central/South America. Participant recruitment was as follows: three vice presidents of the organization sent an email to all the employees of their departments (approximately 2,200 to 2,400 total employees) inviting them to participate in three surveys about their past experiences in life as well as their work experiences and attitudes. Participants were informed that the study was completely optional, and that each of the three surveys would take approximately 15 minutes each. Participants were also informed that as a token of gratitude for their time, they could receive up to $20 for their participation in the study ($5 for each of the three surveys, plus an additional $5 if their supervisor participated). Lastly, they were informed that if they did not wish to participate now, alternatively, in the future, they would be given the option to participate in a one-hour workshop, and that they would get up to $25 for participating in the workshop. Any employee within the customer service department was allowed to participate. A total of 549 people completed the first survey. Of those, 257 people completed the second survey. The third survey was sent to all participants who had participated in the first survey, regardless of whether they had completed the second survey. This was to be able to exploratorily assess the
relationships between the independent variables and outcome variables. Of those, 148 people completed the third survey. The low respondent rate could have been attributed to the following factors. First, there was high turnover between the onset and the termination of the study due to COVID-19 and other organization-wide stressors. Second, the large lag of time between study one and study three made it such that even without extenuating circumstances such as COVID-19, there would be turnover. In fact, 23 emails bounced when distributing the Study 3 recruitment email, suggesting that at a minimum, 23 people had left the organization since the onset of the study.

**Data Quality: Attention Checks and Excluded Participants**

To assess the degree to which participants were actually paying attention to each of the focal surveys, I included attention checks in each survey. In the first survey, 43 people answered the attention check incorrectly. In the second survey, I included two attention checks: 26 people failed the first attention check, and 29 people failed the second attention check. Lastly, in the third survey, 9 people failed the first attention check, and 9 people failed the second attention check. Thus, I removed these people from the analyses. This resulted in a total of 98 participants, which were, on average, $M = 34$ years old, 35.2% female, 18.4% White/Caucasian, 17.7% Hispanic, 56.9% Asian, and 7% were of another race/ethnicity. In addition, 41% of participants had a total annual household income of at least $50,000, and 56% had at least a bachelor's degree. Moreover, 39.6% of participants had been working in their organization for at least 4 years, and 22% of participants were in some form of managerial role.

**Measures**

**Overcoming Adversity Identity.** Paralleling Study 1, I utilized the 6-item
overcoming adversity identity scale that I had validated in Chapter 2, which was adapted from Ramarajan et al., (2017). The scale showed strong reliability ($\alpha = .86$).

**Experiencing Adversity.** Paralleling Study 1, I utilized the 4-item experiencing adversity scale that I developed in chapter 2, to assess past experiences of adversity. The measure showed strong reliability ($\alpha = .87$).

**Gratitude.** Paralleling Study 1, I utilized Gallagher et al.’s (2020) two-item gratitude measure. The scale showed excellent reliability ($\alpha = .93$).

**Perseverance.** To assess perseverance at work in Survey 2, I used the 9-item perseverance factor of the Whiteside and Lynam (2001) personality scale. The scale showed excellent reliability, ($\alpha = .93$).

**Developmental Skills.** Paralleling Study 1, to assess developmental enrichment in Survey 2, I used the modified the development enrichment 6-item subscale of Carlson et al.’s (2006) work–family enrichment scale. This scale showed strong reliability ($\alpha = .97$).

**Extra-Role Performance.** To measure extra-role performance, I used the same performance measure (Lynch et al., 1999). The 6-item extra-role performance scale also showed strong reliability, ($\alpha = .91$).

**In-Role Performance.** To measure in-role performance, I used the same performance measure as Study 1 (William & Anderson, 1991). The 4-item in-role performance scale showed strong reliability, ($\alpha = .89$).

**Burnout.** To measure burnout, I used Maslach and Jackson’s (1981) burnout inventory also sed in Study 1, which consisted of 7 items. The scale showed strong
reliability, \( \alpha = .93 \).

**Core Self-Evaluations.** Similar to Study 1, to account for differences in the way participants approach perceptions of themselves, I used Judge et al.’s (2003) core self-evaluations scale as a control. The scale showed moderate reliability \( \alpha = .82 \).

**Other Control Variables.** The control variables used in the longitudinal panel study and the present longitudinal field study remained the same with a few important exceptions. First, during the time of our field study, after the first survey was distributed, employees in our field site were given the opportunity to participate in four resiliency-building modules that were designed and administered by an individual who administers resiliency workshops. The modules were titled as follows: The chemistry of stress and resilience; micro beliefs, micro meals, and microclimates. Each module came with an assignment (e.g., try a certain different amount of journaling prompts). Thus, I included a question asking people about their participation in these resiliency modules in the Time 3 survey. I then included participating in the modules as a dummy variable in the structural equation model to control for any effects that the resiliency workshop may have had on the participants.

In terms of other control variables, the field site was a multinational organization spanning several countries. Thus, in the first survey, I asked people the location of the branch of the field site they report to. I then organized these answers into people that lived in the USA and people that lived outside of the USA. Accordingly, I included a variable, living in the USA, as a control variable. I did this because participants who live in the USA may have several benefits at work, such as being closer and in the same time
zone as their headquarters, being more likely to have the English language, which was the language of the survey, as their primary language, and having the privilege to enjoy the life quality benefits of a developed country, benefits which may enrich their work effectiveness.

Given the multinational nature of the investigation, I did not include the variable non-racial/ethnic minority as a control variable. This was because being White/Caucasian was actually an ethnic/racial minority in some of the participating countries (e.g., India). Relatedly, I did not include income as a control variable given the wide variety of dollar purchasing power in different countries. Altogether, this resulted in the following control variables included in all parts of the regression analyses of this field study: core self-evaluations, organizational level, being in the USA, participating in the resiliency workshops, the female gender, and extent of experiencing adversity.

**Analytic Plan**

Paralleling the methodology of Study 1, I used Mplus 8.5 (Muthén & Muthén, 1998–2020) for the confirmatory factor analysis (CFA) and hypothesis testing, and SPSS Version 27 (IBM, 2020) for descriptive statistics and multicollinearity analyses. I grand-mean-centered continuous predictors to attenuate nonessential multicollinearity and simplify the interpretation of moderating effects (Cohen et al., 2003; Dalal & Zickar, 2012). Following precedents from previous scholarly work and recommendations (e.g., Bindl et al. 2019; Hayes, 2017; Lau & Cheung, 2012; Parke et al., 2018), I calculated the hypothesized indirect effects with the code for mediation developed by Stride et al. (2015) for the MODEL CONSTRAINT procedure in Mplus 8.5, using 95% confidence
intervals with 5,000 bootstrapped resamples (Muthén & Muthén, 2017).

**Results**

First, I conducted descriptive statistics and correlations of the multi-study investigation, which are reported in Table 10².

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**INSERT TABLE 10 HERE**

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Second, I conducted a CFA to confirm the structure of our measures. I included the focal independent variable, mediators, outcome variables, and control scales (i.e., core self-evaluations). Following past exemplary structural equation modeling studies (Gabriel et al., 2019), I excluded the single-item constructs, such as the dummy control variables. Results indicated moderate model fit ($\chi^2(1485) = 9141.16$, SRMR = .11, RMSEA = .053, CFI = .80) according to relevant model fit criteria (Bentler, 1990; Cudeck & Browne, 1983; Steiger, 1990). It is important to note that the model fit may not have been as strong as expected because the several reverse-scored items lower the model fit (Woods, 2006).

Third, I conducted analyses of multicollinearity in SPSS, because MPlus does not currently have the capacity to do multicollinearity analyses. As aforementioned, detecting multicollinearity (when two or more predictors are correlated) is important because if this

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² To assure that it was an overcoming adversity identity, and not the act of overcoming adversity itself, that was key to the theorized enrichment outcomes, using the scale of overcoming general adversity I validated (described in Chapter 2), I modeled the scale of overcoming general adversity, in Path A regression models, unto the theorized mediators (gratitude, perseverance, and developmental skills), using Hayes PROCESS Macro (Hayes, 2017) in SPSS Version 27 (IBM, 2020), as I also did for the MTurk panel study. As expected, overcoming adversity identity generally continued to have a significant effect on the hypothesized enrichment mechanisms beyond that of the effect of overcoming adversity itself, and in two instances, having overcome adversity had no effect on the enrichment mechanisms, suggesting that it is having overcoming adversity be an important identity—rather than simply overcoming adversity, that is key to character enrichment.
occurs, the standard error of the coefficients may be overinflated, which may make variables that should be statistically significant appear insignificant (Daoud, 2017). Accordingly, tests of the variance inflation factor (VIF) to see if the data met the assumption of collinearity indicated that multicollinearity was not a concern (overcoming adversity identity, tolerance = .53, VIF = 1.89, experiencing adversity, tolerance = .72, VIF = 1.39, gratitude tolerance - .73, VIF = 1.37, perseverance, tolerance = .72, VIF = 1.38, developmental skills = .573, VIF = 1.75, being located in the United States, tolerance = .932, VIF = 1.073, core self-evaluations, tolerance = .803, VIF = 1.25, organizational level, tolerance = .76, VIF = 1.31, resiliency training program participation tolerance = .86, VIF = 1.17). Thus, I continued with hypothesis testing.

In proceeding to hypothesis testing, I built a structural equation model including the focal independent variable (overcoming adversity identity), the three mediators (gratitude, perseverance, and developmental skills), and the three focal outcome variables (in-role performance, extra-role performance, and burnout). I also included the control variables (extent of having experienced adversity, organizational level, being female, living in the United States, and participating in the resiliency workshop series), the latter two which inputted as dummy variables. I included these control variables at every step of the regression analyses. The structural equation model showed excellent model fit $\chi^2(57, n = 98) = 214.56$, SRMR = .00, RMSEA = .00, CFI = 1.00) according to relevant model fit criteria (Bentler, 1990; Cudeck & Browne, 1983; Steiger, 1990).

Accordingly, I proceeded to examine the first hypothesis: that having a stronger overcoming adversity identity at Time 1 is positively related to having higher levels of
gratitude at Time 2. As shown in Table 11, column 1, row 7, a regression of Time 2
gratitude on Time 1 overcoming adversity identity revealed full support for Hypothesis 1
\(b = .18, p = .003\). The next hypothesis was that having a stronger overcoming adversity
identity at Time 1 would be related to having higher levels of perseverance at Time 2. As
shown in Table 11, column 2, row 7, a regression analyses of Time 2 perseverance on
Time 1 overcoming adversity identity revealed that this hypothesis was not supported \(b
= -.034, p = .46\). Next, I examined Hypothesis 3, that having a stronger overcoming
adversity identity at Time 1 is positively related to having higher levels of developmental
skills at Time 2. As shown in Table 11, column 3, row 7, a regression of Time 2
developmental skills on overcoming adversity identity supported this hypothesis \(b = .21,
\ p = .025\).

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Hypotheses 4 to 6 dealt with the indirect effects of overcoming adversity on
organizational outcomes (in-role performance, extra-role performance, and burnout) via
the tripartite model of character. First, I examined hypothesis 4, that having a stronger
overcoming adversity identity at Time 1 is positively related to having higher levels of a)
extra-role performance, b) in-role performance, and lower levels of c) burnout at Time 3
via its effect on gratitude at Time 2. In terms of extra-role performance, first, I regressed
Time 3 extra-role performance on Time 2 gratitude. As shown in Table 11, column 4,
row 8, extra-role performance was related to gratitude at a marginally significant level \(b
= .17, p = .076\). Thus, I investigated the indirect effects of Time 1 overcoming adversity
identity on extra-role performance via gratitude. The 95% confidence intervals of these indirect effects did not include zero \((\text{estimate} = .032, 95\% \text{ CI} [.001, .084])\). In terms of in-role performance, I regressed Time 3 in-role performance on Time 2 gratitude. As shown in Table 11, column 5, row 8, in-role performance was related to gratitude at a marginally significant level \((b = .16, p = .09)\). Thus, I investigated the indirect effects of Time 1 overcoming adversity identity on Time 3 in-role performance via Time 2 gratitude. The 95% confidence intervals of these indirect effects did not include zero \((\text{estimate} = .029, \text{CI} [.001, .089])\). Next, in terms of burnout, I regressed Time 3 burnout on Time 2 gratitude. As shown in Table 11, column 6, row 8, Time 2 gratitude was significantly negatively related to Time 3 burnout \((b = -.57, p = .01)\). Thus, I investigated the indirect effects of Time 1 overcoming adversity identity on burnout via gratitude. The 95% confidence intervals of these indirect effects did not include zero \((\text{estimate} = -.10, p = .055, 95\% \text{ CI} [-.24, -.022])\). Thus, Hypothesis 4 was supported.

Next, was Hypothesis 5, that having a stronger overcoming adversity identity at Time 1 is positively related to having higher levels of a) extra-role performance, b) in-role performance, and lower levels of c) burnout at Time 3 via its effect on perseverance at Time 2. I did not further investigate this hypothesis given that the preceding hypothesis, that having an overcoming adversity identity at Time 1 was related to perseverance at Time, was not supported.

The last hypothesis was Hypothesis 6, that having a stronger overcoming adversity identity at Time 1 is positively related to having higher levels of a) extra-role performance, b) in-role performance, and lower levels of c) burnout at Time 3 via its
effect on developmental skills at Time 2. In terms of extra-role performance, I first regressed Time 3 extra-role performance on Time 2 developmental skills. As shown in Table 11, column 4, row 10, results revealed no effect of developmental skills on extra-role performance ($b = .12, p = .12$). Second, in terms of in-role performance, I regressed Time 3 in-role performance on Time 2 developmental skills. As shown in Table 11, column 5, row 10, results revealed no effect of developmental skills on in-role performance ($b = .026, p = .75$). Lastly, in terms of burnout, I regressed Time 3 burnout on Time 2 developmental skills. As shown in Table 11, column 6, row 10, results revealed no significant effect of developmental skills on burnout ($b = -.082, p = .65$).³

Lastly, paralleling Study 1, given that the tripartite model of character strengths both empirically factor together, as well as theoretically belong together (Park et al., 2017), I examined the total effects of overcoming adversity identity via the tripartite model of character enrichment. In terms of overcoming adversity identity having an effect on extra-role performance via the three mediators (gratitude, perseverance, developmental skills), I found that the 95% confidence interval of the total effect did include zero ($estimate = .044, CI [-.024, .117]$). In terms of overcoming adversity having an effect on in-role performance via the three mediators (gratitude, perseverance, developmental skills), I found that the 95% confidence interval of the total effect also included zero ($estimate = .025, CI [-.038, .10]$). Lastly, in terms of overcoming adversity having an effect on burnout via the three mediators (gratitude, perseverance,

³ As an auxiliary analyses, I also examined whether the extent to which people have experienced adversity at Time 1 interacted with the extent to which people had an overcoming adversity identity. I examined moderating effects of such an interaction effect on the mediators (Path A) and found no moderating effects. I then proceeded to examine moderating effects of such an interaction on the outcomes (Path B) and found no moderating effects.
developmental skills), I found that the 95% confidence interval of the total effect also included zero (estimate = -.029, .024). Thus, overall, whereas there were pathway specific effects of overcoming adversity identity, there were no total effects.

Study Two Discussion

Study 2 provides additional evidence of the effects of overcoming adversity identity on character enrichment. In particular, it replicates the positive effect of having an overcoming adversity identity on gratitude and developmental skills. Moreover, in agreement with Study 1, there was also a negative effect of overcoming adversity on burnout 10 months later, via gratitude. These results complement the findings from Study 1 by providing evidence of external validity of a field study. Relatedly, the cross-cultural nature of Study 2, as achieved by including participants of several different countries, provides evidence that the findings that replicate in Study 1 and 2 persist across cultures.

Although this study provides a number of benefits, it also includes a number of limitations. Perhaps the most restraining limitation of this study is that of sample size. Sample size not only takes a toll on statistical power (Aguinis, 1995), but also statistical precision (Hackshaw, 2008). However, this is somewhat ameliorated by the fact that Study 2 is not a standalone study but complements a larger longitudinal panel study as well as a field experiment (to follow). In addition, this study, in being a field study, is not able to establish generalizability across different organizations, and may also be subject to effects that pertain to technology organizations. Lastly, given that overcoming adversity identity was not manipulated, this study could not establish causality. Thus, to ameliorate this concern and establish causality, I conducted an experimental field
Chapter 5
Field Intervention

Given that the first two longitudinal studies provided evidence of the benefits of adopting an identity of overcoming adversity, Study 3 was an experimental field intervention that attempted to harness such benefits by activating people’s identities of having overcome adversity. It was based on the basic tenets of wise interventions, which argues for the importance of minimal time investment interventions that are wise to specific underlying psychological processes that contribute to social problems or prevent people from flourishing (Walton, 2014). Experiencing posttraumatic decline, as opposed to posttraumatic growth, in one’s identity after experiencing adversity, can be a hindrance to flourishing (Maitlis, 2004; Vogel & Bolino, 2020). Thus, I investigated a solution to this hindrance via designing and administering an intervention with the purpose of helping strengthen people’s identity of overcoming adversity. In doing so, I hoped to activate the psychological processes of character enrichment (e.g., gratitude, persistence, developmental skills), that occur because of having an overcoming adversity identity (as demonstrated in Study 1 and 2), thereby helping employees flourish at work.

Self-Narrative Reflections and Priming an Overcoming Adversity Identity

To design the intervention, I drew on past theorizing presented in this paper together with past field experiments on self-narratives (Nurmohamed et al., 2021), pilot testing via MTurk, and feedback solicited from my dissertation committee to determine what would be most effective in the focal context. Given my focus on strengthening
people’s overcoming adversity identity, self-narrative research provided an excellent theoretical background to guide the intervention. This field of research shows that people create self-narratives, stories that help one make sense of their world and worldview (McAdams, 2001). Self-narrative interventions have effectively helped people flourish in the face of adversity (e.g., Nurmohamed et al., 2021) by helping people interpret their past experiences in such a way that they derive meaning from them (Sherman et al., 2013).

However, there currently is a lack of nuanced understanding regarding the subtle differences between how slightly different forms of reflections can create different psychological outcomes. In the context of adversity, one form of self-reflection which may be especially effective at promoting positive psychological outcomes after adversity is a redemption sequence. Redemption sequences are life reflections of negative events being “redeemed” in the eyes of the person that experienced them to a subsequent good, affectively positive life scenes (McAdams et al., 2001).

Redemption sequences are positively associated with self-report measures of psychological well-being, even over and that of ratings of the overall affective quality of life-narrative accounts (McAdams, 2001). Similarly, narrative reflections of personal strivings toward success despite hindrances are also associated with higher levels of perception (McAdams et al., 1996). Considering this together in the context of adversity suggests that when people can reflect on a narrative where they have overcome adversity, such reflections should have an enriching effect. Thus, I examine the benefit of overcoming adversity reflections, that is, simply having individuals reflect on their past
experiences of overcoming adversity.

In addition, while extant research suggests that reflecting on overcoming adversity should have an enriching effect (McAdams et al., 1996; McAdams, 2001), I propose that overcoming adversity identity reflections should have an enriching effect above and beyond that of overcoming identity reflections. I draw on my past theorizing of developing an overcoming adversity identity to propose this for the following reasons. First, reflecting on overcoming adversity should cause people to reflect on experiences. While this experience-based approach to how an event impacts one’s role in the world is beneficial, it maintains the focus on the experience itself, rather than one’s attributes or characteristics during or as a result of such an experience (George et al., 2021). However, a focus on reflecting on the turning points of the development of one’s overcoming adversity identity helps people focus on the process of positive identity change (Montgomery et al., 2008). This should, in turn, help people focus on the enriching character attributes of that of being a person who overcomes adversity, as opposed to the experience of doing so. In accordance with this, an intervention that guided students to focus on constructing who they are as it relates to how they have dealt with life challenges helped promote positive self-transformation (Eichas et al., 2017). Relatedly, interventions also focused on identity transformations have shown similar results (Berma et al., 2008).

In sum, considering my past theorizing of the character enrichment benefits of having an overcoming adversity identity together with past research on the benefits of reflecting on one’s identity development, I propose that having people reflect on how
they developed their overcoming adversity identity—i.e., an overcoming adversity identity self-narrative reflection, should enhance people’s overcoming adversity identity over and that above other forms of self-reflection, thereby activating the character enriching effects of having an overcoming adversity identity (i.e., as detailed in the theorizing of Hypotheses 1-3 of Chapter 1). In turn, this should lead to the hypothesized benefits of character enrichment detailed in Hypotheses 4-6. Given the past hypotheses have already been outlined, altogether, this results in one additional hypothesis.

*Hypothesis 7*) As compared to other forms of self-narrative reflections (overcoming adversity, experiencing adversity) and active controls (storytelling and experiencing adversity self-reflections), an overcoming adversity identity self-reflection will be positively related to higher levels of an overcoming adversity identity.

Thus, to investigate which self-narrative, if any, strengthens, or at the very least, activates, people’s extent to which they identify with having an overcoming adversity identity, I designed an experimental intervention in which people working in a multinational technology firm reflected, in three subtly different ways, on their past experiences of adversity. In addition to the aforementioned two forms of self-narrative reflections: overcoming adversity identity self-narrative reflections and overcoming adversity self-reflections, as, outlined in the hypothesis, I also included two variations of active control, as described below.

**Method**

To investigate to what extent I can prime the psychological process of developing an overcoming adversity identity effectively via different forms of self-reflection, I
designed a randomized field intervention “workshop” with a between-subjects design with four conditions for participant-constructed stories (i.e. different forms of self-narratives for three conditions, and a story for the baseline control). I developed the workshops by drawing on past wise interventions’ literature (Walton, 2014) together with recent self-narrative intervention research on overcoming adversity (i.e., incarceration; Nurmohamed et al., 2021).

Paralleling Study 2, given that this was a multinational technology organization, the workshop was administered online, and it was structured in the following manner. First, the link to the workshop was sent by three leaders of the organization to the employees in the support and customer services arm of the organization. In the email, employees were told that they were invited to participate in the workshop and that they would receive the following as a thank you for participating: a $10 gift card for participating in the workshop, a $10 gift card for participating in the follow-up workshop, and a $5 gift card for participating in the follow-up survey.

**Part 1: Initial Workshop**

The workshop lasted about 30-45 minutes, and each condition was identical with the exception of subtle changes to reflect the condition. A full manuscript of the condition manipulations of the intervention can be found in Appendix B. After participants consented to participate in the study, the workshop began with the experiencing adversity measure I validated in Chapter 2. This was to control for participants’ baseline levels of having experienced past adversity in life. Then, participants proceeded to the intervention manipulation. Participants were given a lesson
about Nobel Prize nominees (i.e., Marie Curie, Albert Einstein, and Helen Keller). Third, participants received three writing prompts with accompanying instructions, and afterwards, proceeded to the completion of survey measures.

The lessons of the Noble Prize Figures, as shown in Appendix B, differed per condition in the following ways: while all participants read a description of each of the nominees and why they were nominated for the Noble Prize, participants in the control condition also learned about their favorite childhood activities as part of those descriptions (i.e., “Growing up she was the child of two teachers and learned to read and write early”). This was because learning about their past childhood activities should have no association with adversity of any kind. In addition, participants in the experiencing adversity condition read about the adversity that the Noble Prize figures had experienced (i.e., “She experienced the following adversity: her father had too little money to support her desire to attend university”). Participants in the overcoming adversity condition read about this same adversity, but it was framed as adversity that had been overcome (i.e., She overcame the following adversity: her father had too little money to support her ambition to go to university). Lastly, when participants in the overcoming adversity identity condition read about this adversity, it was framed as adversity that had helped overcoming adversity become part of that person’s identity (i.e., “She identified as a person who overcame adversity as her father had too little money to support her ambition to go to university”). After participants finished reading about the past Noble Prize nominees, participants were asked a condition-specific attention check (i.e., according to what you just learned, what is one example of an adverse experience of Albert Einstein)?
In the next part of the workshop, participants moved to the self-narrative/story writing portion of the study. Participants were asked to share a past story (either a random story for the control condition, one of experiencing adversity for the experiencing adversity condition, one of overcoming adversity for the overcoming adversity condition, or one of developing an identity of overcoming adversity for the adversity identity condition). As part of the writing portion of the workshop, participants were told that they all have something in common with the Nobel Prize nominees: that they had all experienced/overcome/become a person that overcomes, adversity, respectively, contingent on each condition. Alternatively, in the control condition, participants were told that what they have in common with the Nobel Prize nominees is that they have all told stories at some point in their life. Depending on the condition, participants were then instructed to give a deeper example of how they had experienced/overcome/become a person who identifies with overcoming adversity (or alternatively, in the control condition, participants were told more about the different forms of stories they could tell).

Afterwards, participants were told to reflect on the respective prompt for at least one minute. The next button appeared after participants spent sixty seconds on the reflection page. After the reflection period was over, participants were either instructed to write a story with a main character, write an essay explaining their past experiences of adversity in life, write an essay explaining their past experiences of overcoming adversity in life, or write an essay explaining how overcoming adversity has become a major part of their identity. Then, participants were shown the next writing prompt. Contingent on the condition, participants were asked to explain how their past experiences of adversity,
overcoming adversity, or their identity as a person who overcomes adversity impacts them. In the control condition, participants were told to describe how they came up with the story. In the last writing prompt, contingent on the condition, participants were told to reflect on and share what lessons they have learned from experiencing adversity, overcoming adversity, or that made overcoming adversity an important part of their identity. In the control condition, participants were told to take a moment and reflect on what they learned from writing the story. Following Nurmohamed et al. (2021), I believed it was ethical to include an active control. Past scholars have suggested that ethical and responsible randomized field experiments should aim to minimize inequity between participants (Eden, 2003; Grant & Wall, 2009). Thus the purpose of the active control was so that participants assigned to the control condition may also experience benefits from storytelling (Worth, 2008). Conversely, a pure control condition without a narrative prompt may have been problematic since it would likely provide no benefits as compared to the other conditions. As such, in the active control group, participants were instructed to write a story and ask follow-up questions. After participants were done with the story-telling part of the workshop, they were subsequently asked to fill out the overcoming adversity identity scale.

**Part 2: Exploratory Follow-Up Workshop Activity**

To help solidify the narrative and reinforce the condition, one week later, participants were invited to partake in a brief follow-up portion of the workshop. Participants of the first part of the workshop received an automated invitation via email one week after taking the first workshop to participate in this workshop follow-up. The email invitation contained a link to the workshop and stated that this follow-up would
only take approximately 10 minutes and that participants would receive $10 as a token of gratitude for their time.

The first part of the workshop follow-up consisted of several scales and measures. Given past scholarly work suggesting the importance of temporal separation of variables, the hypothesized mediators from Hypothesis 1-3 were measured. For exploratory purposes, the outcome variables were measured as well. The temporal framing for the questions focused on the past week at work.

After participants were done with the measures, they proceeded to the next portion of the study. Given scholarly work suggests the importance of reinforcing a manipulation (e.g., Nurmohamed et al., 2021), the second part of the workshop was meant to reinforce the manipulation effect. After being reminded of the activity they participated in last week, participants were told that they were going to participate in an activity that will “make these reflections easily accessible to you whenever you need them.” Then, participants were given the instructions to write a phrase on a piece of paper. The specific instructions for the different conditions can be found in Appendix B. Those in the experiencing adversity condition were told: “that will help remind you of how experiencing adversity has impacted you.” Those in the overcoming adversity condition were told: “that will help remind you of how overcoming adversity has impacted you.” Those in the overcoming adversity identity condition were told, “that will help remind you how overcoming adversity being part of your identity has impacted you.” Lastly, those in the active control group were told, “that will help remind you of the story.”
Afterwards, participants were told to take at least one minute to think about a phrase that will remind the person of the story they wrote. Lastly, they were told to make sure that they have something to write before proceeding to the next page. The arrow to proceed to the next page appeared after one minute.

In the next page, participants were told to select a location where they would be able to store this piece of paper and easily access it when they wanted it. Examples of such places were provided (e.g., wallet, back of your phone, on top of your desk.) Afterwards, participants were instructed to share in what easily accessible location they will store the phrase.

On the subsequent page, participants were instructed to write the phrase down on a piece of paper, and subsequently, take a photo of the paper containing the phrase. Participants were instructed to upload it as part of the verification of participation, and they were provided with an upload button to do so. Lastly, participants were given a free-response section where they were instructed to write the phrase.

**Part 3: Exploratory Outcomes Survey**

Two weeks after participants completed the first part of the workshop, all participants who had completed the first part of the study received an email invitation to participate in the final part of the workshop. This included a link to the study. Participants were informed that this portion would take approximately 10 minutes and that as a thank you, they would receive a $5 Amazon gift card. Participation was not limited to those who had completed both the first and second parts of the workshop for the following reasons. First, the primary purpose of the intervention was to assess whether participant’s
overcoming adversity identity had become stronger in the overcoming adversity narrative condition as compared to the other conditions, and this was done in Study 1. Thus, the remaining portions of the intervention were done in an exploratory manner, to also be able to investigate the entirety of the hypothesized model. Second, studies show that the effects of intervention reinforcements sometimes do not work, or worse, backfire (Walton, 2014). Thus, the reinforcement was only done in an exploratory manner but temporally separated from the primary intervention of Survey 1. For this reason, everyone that participated in the first part of the intervention was able to participate in the outcomes study. Once participants clicked on the page, they were provided with a set of instructions that suggested participants should “reflect on their past few weeks at work when answering the following questions.” The subsequent survey pages contained the outcome variables, and the mediators were also included for exploratory purposes.

Variables and Measures

**Condition.** The main variable of interest, condition, was measured by the creation of three dummy variables: experiencing adversity condition, overcoming adversity condition, and overcoming adversity identity condition. The baseline condition was the control variable and was not included in any analyses.

**Overcoming Adversity Identity.** The extent to which people had an overcoming adversity identity was measured with the variable, overcoming adversity identity that I validated and utilized in the longitudinal studies. Time 1 overcoming adversity identity, which was measured immediately after the first part of the intervention, showed strong reliability ($\alpha = .86$).
**Gratitude.** To measure interpersonal character enrichment via gratitude, which was measured in the second survey, I used the same two-item gratitude measure as previously used in the two longitudinal studies (Gallagher et al., 2020). This measure showed strong reliability ($\alpha = .90$).

**Perseverance.** To measure intrapersonal character enrichment, i.e., perseverance, which was measured in the second survey, I used the same measure used in the past two longitudinal studies (Whiteside & Lynam, 2001). This measure showed adequate reliability ($\alpha = .81$).

**Developmental Skills.** To assess intellectual enrichment via developmental skills, which was measured in the second survey, I used the same scale used in the past two longitudinal studies (Carlson et al. 2006). This measure showed excellent reliability ($\alpha = .94$).

**Extra-Role Performance.** To measure extra-role performance, which was measured in the third survey, I used the same scale used in the past two longitudinal studies (Lynch, Eisenberger & Armeli, 1999). This scale showed adequate reliability ($\alpha = .85$).

**In-Role Performance.** To measure in-role performance, which was measured in the third survey, I used the same measure that I used in the past two studies: William and Anderson’s (1991) 4-item in-role behaviors scale. The scale showed adequate reliability ($\alpha = .80$).

**Burnout.** To assess burnout, I used the same scale used in the prior two longitudinal studies: Maslach and Jackson’s (1981) burnout inventory. The scale showed
excellent reliability (α = .92).

**Controls.** Given that the current study took place in the same organization as that of the longitudinal study, for the most part, the same control variables were used: the female gender, and resiliency module participation. Given that the manipulation effectiveness was based on being able to fluently read and write English, instead of controlling for living in the United States, I instead controlled for having English as your native language.

**Data Quality: Manipulation Check and Excluded Participants**

A key aspect of the narratives as they pertain to this study is ensuring consistency between the instructions provided to participants and the narratives that they subsequently created. To assess the degree to which each narrative fits with their respective conditions, I had two research assistants (blind to the study hypotheses) code the stories. The two coders displayed good interrater reliability for the control condition (ICC(2) = .74, p < .001), the experiencing adversity condition (ICC(2) = .97, p < .001), the overcoming adversity condition (ICC(2) = .94, p < .001), and the overcoming adversity identity condition (ICC(2) = .76, p < .001). Following Nurmohamed et al., (2021), when both coders determined that the narrative “did not at all” fit the respective narrative condition, I removed the participant from our analyses. This resulted in removing 1 participant from the control condition, 2 participants from the experiencing adversity condition, 3 participants from the overcoming adversity condition, and 7 participants from the overcoming adversity identity condition. Moreover, to assure that participants were paying attention to the condition-specific primes in the Nobel Prize sections,
participants were asked condition-specific questions at the end of such sections (e.g., according to what you just learned, what is one example of an adverse life experience of Albert Einstein?). This resulted in 55 additional people being removed from the final sample because they failed the attention checks. After taking these removals into account, there was a total of 81 people in the primary analyses. Participants were 23.1% female, 68.1% had at least a bachelor’s degree, and the average age was 45.

**Results**

I used SPSS Version 27 (IBM, 2020) for descriptive and analyses. Means, standard deviations, and correlations for the key study variables are displayed in Table 12. As Table 12 shows, there was sufficient variation in terms of prior experiences of adversity ($M = 4.61, SD = 1.49$).

First, to examine whether there is a difference between conditions on overcoming adversity identity, I conducted a one way between-subjects ANOVA. Results indicated there was not a significant difference between conditions regarding an overcoming adversity identity [$F(3,77) = 1.54, p = .21$]. Means and standard deviations per condition of overcoming adversity identity are shown in Table 13.
Notwithstanding the null results of the ANOVA, I decided to examine Hypothesis 7 in an exploratory manner. Given that the outcome variable of overcoming adversity of our model was continuous, I used a set of linear regressions to test our hypotheses. First and foremost, to examine the focal proposition(s) of this intervention: 1) whether an overcoming adversity identity self-narrative would enhance people’s overcoming adversity identity, and 2) whether it would do so over and above the effect of an overcoming adversity self-narrative, I used linear regression. Considering I was primarily interested in comparing the different interventions to the active control, I inserted the three writing conditions (experiencing adversity, overcoming adversity, and overcoming adversity identity) as predictor dummy variables and the active control group as the comparison group. I also included the focal control variables in the regression model (i.e., experiencing adversity, the female gender, organizational level, resiliency module participation, and living in the United States). I then regressed overcoming adversity identity on the focal variables. The results indicated that the model was a significant predictor of having an overcoming adversity identity at Time 1, $F(7,74) = 3.75, p = .002$. However, the overcoming adversity identity condition did not have an effect on overcoming adversity identity ($b = .01, SE = .32, p = .97$). This is likely due to the small sample size that resulted from variables being excluded because of missing data. The overcoming adversity condition also did not have an effect on overcoming adversity identity ($b = .29, SE = .28, p = .32$).

\[^1\] To investigate the effects of the additional surveys in an exploratory manner, I analyzed the other two surveys to see if being in the overcoming identity condition predicted the tripartite model of character (gratitude, perseverance, and developmental skills) or the organizational outcomes (in-role performance, extra-role...
Study 3 Discussion

Study 3 addressed the limitations on causality of Study 1 and 2. However, it did not find a significant effect of participating in the overcoming adversity identity self-narrative condition on overcoming adversity identity. Interestingly, although the ANOVA test was not significant, the overcoming adversity identity means of the overcoming adversity self-narrative condition and the experiencing adversity self-narrative condition were higher, the overcoming adversity condition being the highest. Thus, it could be that having people reflect on their experiences of overcoming adversity is more effective than having them reflect on their identity of overcoming adversity. This may be true because by having them reflect on their past experiences of overcoming adversity, as past self-narrative research shows, may get people to think about redemption sequences and how they became psychologically stronger through such experiences (McAdams et al., 2001). However, given the non-significant findings as well as the small sample size, the validity of these findings is not at all well-founded.

Overall, when considering it as a standalone study, given its small sample size, Study 3 does not provide enough statistical power to examine the effects of activating an overcoming adversity identity, and whether it thereby activates character enrichment, and in turn, enriches work outcomes. Thus, future investigations should attempt to create a similar investigation but with a larger sample size, to see if the expected benefits of a self-reflection arise. Notwithstanding the small sample size, this study had other performance, and burnout). No significant effects were found. Correlations of these exploratory analyses are in Table 14.
additional limitations. First, the final sample size was not equally divided across conditions, making it difficult to establish the robustness of any specific effects or lack thereof. Second, some participants also participated in an optional resiliency workshop put on by the organization. This limitation was somewhat ameliorated by including a dummy variable for participation in the workshop. In addition, similar to Study 2, this study suffered from a lack of generalizability given that participants were all from a multinational technology organization. Lastly, while all our studies were likely subject to self-selection bias, this study may have been especially subject to this effect (Heckman, 2010). This is because while studies 1 and 2 ranged from 5-15 minutes in length for each survey, Study 3, the intervention study, required a significant time investment for the first portion. Thus, only people that felt that it was worth the significant time investment were likely to participate. Future studies may wish to simplify this intervention in such a way that it more closely resembles a temporally short, i.e., “brief” intervention (Heather, 1995).
Chapter 6
Additional Analyses: Antecedents Of Developing An Overcoming Adversity Identity

Whereas my dissertation focused on the character-enriching effects of having an overcoming adversity identity, given that this is a new construct to the literature, the antecedents of an overcoming adversity identity have not been empirically tested. However, there is bountiful existing theorizing and evidence outside the field of organizational behavior (e.g., Tedeschi & Calhoun, 1995; 1996; Janoff-Bulman, 2004), and burgeoning theorizing and evidence within the field (Brooks, Amlot, Rubin & Greenberg, 2020; Maitlis, 2009; 2020; Vogel & Bolino, 2020; Vough & Caza, 2017), which suggests that experiencing adversity, and growing from it, often changes the way people see themselves and approach the world. As such, I conducted exploratory analyses using the data I collected for this dissertation to investigate how the process of experiencing and overcoming adversity can help people develop overcoming adversity identities. I combined both the correlational study and the Time 1 portion of the longitudinal study, both studies which were described in Chapter 3. I was able to combine them both because they were both based on MTurk samples. This allowed me to exclude any participant that had already participated in the correlational study from participating in the longitudinal study, thereby assuring there were only unique participants. Moreover, the participation criteria for both studies were the same: full-time employed adults in English-speaking countries. Due to random error as well as the fact that the studies were conducted 3 months apart could create differences in the sample, I created a dummy variable for the Time 1 longitudinal study. In addition, I included the following control
variables that were also included in the Chapter 3 study: income, female gender, White/Caucasian, and core self-evaluations. The combined study yielded 607 participants, 46.4% were women, 75% were White/Caucasian, and 49.7% had a total combined household income of at least $60,000. Correlations between variables can be seen in Table 15.

| INSERT TABLE 15 HERE |

First, given the high correlation between overcoming adversity and experiencing adversity, I conducted analyses of multicollinearity in SPSS between the two variables. The results (overcoming adversity, tolerance = .285, VIF = 3.51, experiencing adversity, tolerance = .285, VIF = 3.51) suggested serious multicollinearity was not a concern, given that the general rule of thumb is that VIFs more than 5 warrant further investigation, while VIFs more than 10 are signs of serious multicollinearity requiring correction (Marcoulides & Raykov, 2019).

Second, to create the baseline antecedent model, I drew on posttraumatic identity growth theorizing (Maitlis, 2009). As theorized in depth in Chapter 1, theorizing on posttraumatic identity growth suggests that experiences of adversity create a shock that, when is effectively overcome, can catalyze positive identity change, generally manifesting itself via a greater sense of personal strength and appreciation for life (Calhoun & Tedeschi, 2001; Maitlis, 2009). Empirically, this suggests that overcoming adversity should mediate the relationship between experiencing adversity and overcoming adversity identity. I examined this using Model 4 of the Hayes PROCESS Model Macro (Hayes, 2017). First, I regressed overcoming adversity on experiencing
adversity, $F(5, 873) = 491.47, p < .0001$. Results showed that accounting for the aforementioned control variables, experiencing adversity predicted overcoming adversity ($b = .80, p < .0001$). However, this was expected given the high correlations between the variables. Second, I regressed overcoming adversity identity on overcoming adversity, while control for the aforementioned control variables as well as for experiencing adversity, $F(7, 599) = 66.21, p < .0001$. Results showed that overcoming adversity positively predicted having an overcoming adversity identity ($b = .46, p < .0001$). Thus, I examined the indirect effects of experiencing adversity on having an overcoming adversity identity, via overcoming adversity. The confidence intervals of the indirect effect did not include zero ($estimate = .37, SE = .05, 95\ CI [.12, 33]$).

Next, I proceeded to examine exploratory moderators that may amplify the effect of overcoming adversity on having an overcoming adversity identity. Given both empirical reasons (the high correlations between experiencing adversity and overcoming adversity) and theoretical reasons (existing literature has already shown the processes between experiencing and overcoming adversity, e.g., Vogel & Bolino, 2020), I exploratorily examined factors that can amplify the relationship between overcoming adversity and overcoming adversity identity (Model 14 on Hayes PROCESS Macro; Hayes, 2017).

First, I examined the growth mindset. When people with growth mindsets experience a challenge, they are more likely to see it as an opportunity to develop additional abilities as opposed to an opportunity to fail (Dweck, 2015). Thus, this suggests that people with a higher growth mindset should be more likely to seek growth
opportunities in overcoming adversity, thereby growing into a more positive identity.

Second, I examined self-efficacy. Self-efficacy is an individual’s belief in his/her capacity to perform behaviors necessary to achieve specific goals (Bandura, 1977; 1986; 1997). Accordingly, people with higher self-efficacy should be more likely to believe that they have the capacity to turn experiences of overcoming adversity into opportunities to gain strength to reach their goals. Lastly, I examined the internal locus of control, which is the belief that the outcomes of your actions are the results of your own abilities (Lefcourt, 1991). People with a high internal locus of control should be more likely to believe that they overcame adversity because of their own abilities and not by chance. Thus, they may be more likely to internalize this positive experience of accomplishment, thereby enhancing their overcoming adversity identity. Interestingly, results showed that neither of these factors amplified the relationship between overcoming adversity and overcoming adversity identity.

Thus, I also exploratorily examined whether the aforementioned factors amplify the relationship between experiencing adversity and overcoming adversity identity. Similarly, results revealed no significant effect of the exploratory moderators on the relationship between experiencing adversity and experiencing adversity identity.

**Additional Analyses Discussion**

Chapter 6 exploratorily investigated the antecedents of having an overcoming adversity identity. It provided empirical evidence to prior theorizing (e.g., Maitlis, 2009; 2020; Vogel & Bolino, 2020) suggesting that people can experience identity growth after experiencing and subsequently overcoming adversity. While this is the first study of its kind to empirically show identity growth from adversity in an organizational context, as a
standalone investigation, it has several limitations. First and most importantly, not only was it correlational in nature, but also, the independent variables, mediators, and dependent variables were not time-lagged, making reverse causality a concern. Thus, future investigations should replicate this study in a longitudinal manner (Leszczensky & Wolbring, 2019), temporally separating the independent, mediating, and dependent variables. In addition, future investigations should consider investigating additional variables as moderators that may also amplify the process from overcoming adversity to developing an overcoming adversity identity. For example, scholars may consider examining the effects of grit, passion, and perseverance towards a goal (Duckworth et al., 2016), as it may help people perseverance such that they grow from overcoming adversity.
Chapter 7
General Discussion

In this dissertation, I theorize and find evidence for a new concept: that of an overcoming adversity identity, as well as for the key role that it plays in character development and as a result, work enrichment. In the validation study consisting of several MTurk studies (Chapter 2), I validate the concept of an overcoming adversity identity, showing that it is both empirically and theoretically different from that of overcoming adversity, experiencing adversity, or related constructs. In Study 1 of the hypothesis-testing studies, a time-lagged survey study on a diverse panel sample, I find empirical support for the enriching effects of an overcoming adversity identity. In particular, I find that an overcoming adversity identity predicts having higher levels of “heart, mind, and will” character strengths (Parke et al., 2017). In particular, having an overcoming adversity identity predicts having higher levels of extra-role performance via gratitude and developmental skills, higher levels of in-role performance via perseverance, and lower levels of burnout via gratitude. In addition, the tripartite model as a whole mediates the relationship between having an overcoming adversity and both lower levels of burnout and higher levels of extra-role performance.

Study 2, a time-lagged field study, provides an additional layer of external and ecological validity to the character-enriching effects of having an overcoming adversity identity. In particular, it replicated the effects of having an overcoming adversity identity on gratitude and developmental skills. Interestingly, the effects of having an overcoming adversity identity on perseverance did not replicate, although the free response questions
included in the field study, which are to be analyzed at a later stage, suggested that people do experience a sense of perseverance from identifying with adversity. In terms of organizational outcomes, there was a positive effect on extra-role performance and in-role performance, and a negative effect on burnout, via gratitude. Thus, across Study 1 and 2, gratitude seemed to be the most consistent character strength via which an overcoming adversity identity enriches work outcomes. Thus, the results of Study 2 provided complementary support for the enriching effects of having an overcoming adversity, although future studies should attempt to replicate these findings with a larger sample size to obtain more robust results.

Given that Study 1 and 2 empirically demonstrated the effects of an overcoming adversity identity, Study 3 attempted to expand the practical implications of this finding by empirically investigating how to prime an overcoming adversity identity. Drawing on past research on self-narrative reflections (E.g., Nurmohamed et al., 2021), Study 3 was an experimental intervention which attempted to manipulate an overcoming adversity identity and through that, create the hypothesized enrichment outcomes. Results were not significant, and the study itself did not have a large enough sample size to guarantee experimental validity. Notwithstanding the insignificant effect size due to the small sample size, it is interesting to note that participants in the overcoming adversity self-narrative reflection had higher post-intervention levels of overcoming adversity identity than those in the overcoming adversity identity self-narrative reflection condition, suggesting that something about recalling the experience of overcoming adversity may be more effective than recalling the factors that make people have an overcoming adversity
identity. However, future studies may wish to replicate this experiment with a larger sample size to see if these trends persist and become significant.

Taken together, the theory and empirical contributions of this dissertation provide an initial understanding of the novel concept of an overcoming adversity identity, including how it is enhances character strengths, and in doing so, enriches key work outcomes. All in all, this work helps both empirically clarify the benefits of adversity as well as paves the way for future management research to improve the work experiences of those who have overcome difficult life experiences.

**Theoretical Contributions**

This work has various theoretical contributions. First and foremost, it contributes to the burgeoning research on posttraumatic growth in organizations, which is part of the small but growing field of positive organizational scholarship (Cameron, Dutton, & Quinn, 2003). To date, most of the scholarly research of posttraumatic growth has been primarily qualitative or theoretical (Maitlis, 2009; 2020; Vogel & Bolino, 2020). In introducing the novel concept of overcoming adversity identity, this study is the first to empirically demonstrate the performance and wellbeing benefits of positive posttraumatic identity growth in an organizational context. Specifically, this study provides preliminary evidence that having a stronger overcoming adversity identity is associated enriches organizational outcomes (i.e., performance and lower burnout), via its effect on character strengths. In doing so, the current study redirects the literature on adverse experiences and growth by showing that the identity growth that may occur from overcoming initially depleting experiences (i.e., adversity) through time, may actually have long-term
enriching effects. This highlights the importance of temporality in adversity (Vogel & Bolino, 2020), beyond literature that focuses on the immediate negative effects of adversity (e.g., Chen et al., 2012; Hu et al., 2019), to the subsequent positive effects that identifying with overcoming such adversity may have over time. Thus, future studies should continue to build on this literature by investigating the factors that dictate the length of time that it takes for adversity to lead to an overcoming adversity identity, and ultimately, character enrichment and positive organizational outcomes.

Second and relatedly, this study contributes to the work-life enrichment and depletion literature. Past work has repeatedly shown that negative experiences such as discrimination, mistreatment, and working in poor organizational conditions (Chen et al., 2012; Hu et al., 2019) are depleting because the stressors that arise from such experiences exhaust people’s emotional, mental, and physical resources. Conversely, our study suggests that negative experiences, and specifically, identifying with having overcome them, may actually be able to be enriching. This is because in the process of rebuilding resources that have been exhausted, people’s identity and as a result, character, emerge stronger, such that future experiences that may have in the past been depleting may become easier to tolerate. Indeed, Study 1 and 2 both found promising evidence that people who have stronger overcoming adversity identities experience lower levels of burnout at work as compared to those with weaker overcoming adversity identities, answering the scholarly call to investigate how immediately depleting experiences may become enriching over time (Rothbard et al., 2021). In addition, my results suggest that some level of adverse experiences may be enriching, thereby adding a new form of
enrichment that is more common to marginalized community groups that may be more likely to experience adversity. Specifically, Study 1 finds that overcoming adversity identity indirectly relates to higher levels of extra-role and in-role performance, thereby also contributing to the research on the antecedents of performance. Relatedly, the literature on the antecedents of organizational performance has for the most part, primarily focused on trait and dispositional antecedents of performance, such that a seminal chapter on performance failed to consider any experience-based antecedents to performance (Motowidlo & Kell, 2013). This is concerning because research has shown that past experiences impact the lens with which people approach the organizational world (Rothbard & Wilk, 2011) and the resources that help their organizational effectiveness (Martin & Cote, 2019). Thus, Study 1 provides initial empirical evidence that people’s past adverse experiences can positively shape people’s identity-based resources, even after controlling for stable traits such as core-self evaluations, thereby positively influencing their performance at work.

The third contribution of this study is to positive organizational behavior (POB; Luthans et al., 2002), in that it is the first of its kind to examine the tripartite model of character (Park et al., 2017) in an organizational context. While past research on intellectual, interpersonal, and intrapersonal core competencies have generally been examined in an educational context, showing how they benefit outcomes such as peer relations, school grades, and active participation (Park et al. 2017), despite the widespread benefits of character strengths on organizational outcomes (Peterson & Park, 2006), their benefits have not been examined in unison in relation to organizational
outcomes. Accordingly, this dissertation provides insights to both the antecedents and the consequences of the tripartite model of character in an organizational context. Study 1 and 2 show that the interpersonal character strength of gratitude, resulting from an overcoming adversity identity, increases performance and reduces burnout, thereby providing empirical evidence to past primarily (with exceptions, e.g., Grant & Gino, 2010; Grant & Wrzesniewski, 2010) theoretical work on the benefits of gratitude in organizations (Fehr et al., 2017). In addition, Study 1 shows that the intrapersonal character strength of perseverance, resulting from an overcoming adversity identity, increases in-role performance. Additionally, developmental skills, a form of intellectual character, was found to be strengthened by stronger levels of overcoming adversity identity (Study 1 and 2), and as a result, had a positive effect on extra-role performance (Study 1). In addition to effectively showing how character strengths are beneficial to work-related outcomes, thereby answering the call to further bridge the psychological research on character strengths and organizational behavior (Harzer & Ruch, 2013; Strecker et al., 2020), the current study provides novel empirical insights to the antecedents of character development in an organizational context, broadening it beyond its traditional dispositional antecedent focus to a more experience-based antecedent focus. Study 1 and 2, in showing that character strengths are achieved by having a strong overcoming adversity identity, shows a novel avenue for character development beyond that of learning from educational experiences (Peck et al., 1960) to that of learning from adversity.

**Limitations and Future Directions**

The studies presented in this research contain many complementary strengths. For
example, Study 2 and 3 provide ecological validity because they are in the field, whereas Study 1 provides external validity because results are held across different jobs and organizational contexts. Yet despite these strengths, this study had numerous limitations that may be alleviated by future work. First, this paper primarily focuses on the outcomes of an overcoming adversity identity. Although Chapter 6 does exploratorily investigate antecedents, it does so with a non-time-lagged correlational design, raising the issue of reverse causality. Thus, future investigations may wish to temporally separate the antecedents of overcoming adversity identity to the development of the identity itself. In addition, given that this is a new concept to the literature, future studies should attempt to thoroughly investigate which combination of experiential (i.e., experiencing adversity), dispositional (e.g., personality traits), and external (e.g., social and physical resources), lead to the development of an overcoming adversity identity.

A second major limitation of this study is that it takes a generalized approach to an overcoming adversity identity, failing to investigate whether the effects of developing an overcoming adversity identity on organizational outcomes differ whether it is based on the type of adversity that a person has experienced in the past. Thus, future research should investigate whether developing an overcoming adversity identity from adversity experienced in the work domain is more enriching at work than that in the home domain. This may be the case considering that such enrichment would require less boundary work across roles (Ashforth, Kreiner, & Fugate, 2000). Conversely, it could also be that developing an overcoming adversity identity from adversity experienced in the work domain may be less, rather than more, enriching, because the negative aspects of the past
adverse experience may negatively contaminate work schemas, which is a key characteristic of posttraumatic disorder at work (Vogel & Bolino, 2020).

A third limitation of this study is the lack of consideration of the timespan from experiencing adversity, to the overcoming of adversity, to the identifying of overcoming adversity. Thus, future studies should investigate to what extent the recency of an adverse experience matters. For example, it could be that a recent experience of overcoming adversity, in being more salient, makes people experience more strengths, but then tapers out. Conversely, it could be that “fresh wounds” continue to be more painful in that if someone just experienced adversity, the negative aspects may be too salient to be enriching. Thus, future research should investigate the timespan required for positive identity transformation.

A fourth major limitation of this dissertation is that as standalone studies, Study 2 and 3 were too small to provide a sizeable effect size for robust findings. Study 2, a longitudinal study, was approximately 100 participants, and Study 3, an intervention, was less than 100 participants. This was due to many participants being removed either because they failed the attention checks or because they completed the study several times. The sample size limitations were especially problematic for the intervention study, as it had four between-subject conditions, which usually calls for a minimum of at least 50 people per condition (Brysbaert, 2019). Future studies should attempt to replicate the current investigation with a larger sample size, such that the hypothesized effects can be robustly examined. In addition to their small sample sizes, Study 2 and 3 were also limited by the fact that some participants also participated in a resiliency workshop that
was put on by the organization at the same time period as the assessment of the study. However, the concern that this workshop could have had an impact on the key psychological processes of the investigation was attenuated by the introduction of a dummy variable capturing participation in the study. Notwithstanding the small sample size, and the potential effects of the aforementioned workshop, taken together as a whole, the current investigation provides promising evidence that the effects of having an overcoming adversity identity are indeed beneficial, and future studies should attempt to replicate these findings in a field setting given the small sample size of the field sample.

As a final direction for future research, this investigation focuses only on the mechanisms via which an overcoming adversity identity enriches performance and decreases burnout at work. Future investigations may wish to examine which factors, both at the individual and contextual level, may amplify the enriching effects of an overcoming adversity identity. For example, in terms of person-level factors, it could be that being a member of a marginalized gender, racial/ethnic group, or socioeconomic group is related to experiencing more enrichment from having an overcoming adversity identity because such groups have experiences sensemaking and growing from past obstacles characteristic to belonging to such groups (Booysen, 2018; Umana-Taylor, 2011). In terms of organizational factors, it could be having a supportive supervisor (Mor Barak et al., 2009), an inclusive culture (Pless & Makk, 2004), or a psychologically safe environment (Frazier et al., 2017), in creating a work ambiance where people feel comfortable showing their multiple identities, may help enhance the connection between an overcoming adversity identity and performance. Another alternative route for future
research is to explore how having an overcoming adversity identity works as a moderating construct. Given that hardships are an unquestionable aspect of organizational life, future research should explore whether having a stronger overcoming adversity identity attenuates the toll of different forms of hardship via its character-enriching effects. This may be particularly interesting in the context of the COVID-19 pandemic. It could be that having an overcoming adversity identity was a protective asset at the onset of the pandemic, guarding people against the detrimental psychosocial effects of the pandemic, such as anxiety, burnout, and loneliness (Giorgi et al., 2020; Salari et al., 2020; Yıldırım & Solmaz, 2020).

**Practical Implications**

This research offers organizational leaders and employees alike a new understanding of how past experiences of adversity can be harnessed at work. Given that organizational members in marginalized communities are more likely to experience hardships (e.g., Kennedy, 2020; Stephens et al., 2014), the current research paves the way for the advancement of more effective diversity, equity, and inclusion practices in organizations.

First, by conceptualizing the phenomenon of overcoming adversity identity and illuminating the pivotal role of experiencing adversity in its development, this research advances managerial understanding of how people who have overcome difficult life experiences may actually be enriched by them when they ingrain such experiences into their identity. Given that organizational leaders have no control in regard to the past experiences of their employees, knowing that past negative experiences are not necessarily hindrances, but quite the opposite, may be assets to employees’ work
effectiveness and may be of comfort to organizational leaders.

Thus, knowing this, managers may wish to provide resources to their employees that help employees identify as people who have overcome adversity, thereby harnessing the enriching aspects of their past experiences of adversity. For instance, managers may choose to have employees reflect on how they have overcome adversity, following similar scripts to that of the intervention in Chapter 5. This is especially promising given past research has found that self-narrative reflections can help people grow from past difficult experiences (McAdams, 1993; Nurmohamed et al., 2021). Managers may even wish to do this as part of preboarding or onboarding practices (Klein, Polin, & Sutton, 2015), to assure that employees’ past experiences prior to joining an organization may have a positive effect on employees’ effectiveness once they join.

Another way that managers may be able to harness the enriching effects of their employees’ overcoming adversity identities is through creating a grateful culture in their organization. Collective gratitude, that is, gratitude that persists throughout the members of an organization, has been theorized to help organizational resilience by helping organizational members adapt to organizational hardships (Fehr et al., 2017). Given that Study 1 and 2 both showed that having an overcoming adversity is related to having greater levels of gratitude, promoting a more grateful culture may help people with higher levels of overcoming adversity experience higher levels of gratitude. This is because research on gratitude expressed as an emotion suggests that it is contagious” (Fehr et al., 2017; Frederickson, 2004), such that promoting a grateful culture should help employees, especially those who highly identify with having overcome adversity, feel more grateful.
In addition to practical implications for managers, this study also provides practical implications for employees. Specifically, it suggests that employees may wish to intentionally think about how they have grown from overcoming past adversity, such that they can gain the enriching benefits of doing so. For example, employees may choose to journal about their past experiences as doing so may promote sensemaking, and ultimately, growth, into an overcoming adversity identity. In fact, not only is journaling generally positively associated with psychological well being (Purcell, 2006), but journaling about the cognitions and emotions of stressful events is also associated with realizing the positive benefits from such events (Ullrich & Lutgendorf, 2002). Thus, journaling about identifying with overcoming adversity, or simply intentionally reflecting on it, may help employees harness the benefits of this identity.

Additionally, employees should consider talking through their past experiences of overcoming adversity, and how it became ingrained into an identity, with others who also strongly identify with overcoming adversity, as in doing so, this may help an overcoming adversity identity morph into a collective identity. Developing a collective overcoming adversity identity may make it easier to express the enriching benefits of the identity in an organizational context (Brewer & Gardner, 1996).

**Conclusion**

In conclusion, although the renowned German philosopher, Friedrich Nietzsche, once said “what does not kill you makes you stronger,” organizational work has, for the most part, taken the view that what does not kill you takes a toll on work outcomes. This dissertation attempts to dispel the view that adversity necessarily only has negative effects, reconceptualizing how organizational scholarly work approaches adversity.
Across two time-lagged survey studies, I find evidence of the phenomenon of an overcoming adversity identity, as well as the character-enriching aspects of this phenomenon which positively affect performance and negatively affect burnout. In addition, while the randomized experimental intervention did not have a strong enough effect size to establish results, the results were trending in the right direction, suggesting that enhancing people’s overcoming adversity identity via interventions such as a reflection intervention may indeed be an effective way to harness the benefits of adversity. In sum, this dissertation aimed to bring hope to those employees who have overcome onerous obstacles by showing that despite the effort and strain that may have gone into overcoming such adversity, there are redeeming qualities of identifying with such life narratives: they may help one become a more effective, and more psychologically healthy, worker.
Table 1

**Free Response Questions in Exploratory Survey**

<table>
<thead>
<tr>
<th>Free Response Prompt</th>
<th>Example Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you ever overcome adversity?</td>
<td>Worked my tail off in a single parent household to be the first in my family to graduate college and try to give the next gen a footing to follow my footsteps.</td>
</tr>
<tr>
<td>2. If you consider yourself as someone who has overcome adversity, please explain your past experiences overcoming adversity. You can choose to write about these past experiences in any way you would like. For example, you are welcome to write about your general journey of overcoming adversity. Or you are also welcome to focus on a specific event of overcoming adversity.</td>
<td>I have Asperger's Syndrome. Back when I was diagnosed at 15, I had some struggles coming to terms with it all. I didn't identify as someone with AS. As I grew, I learned that my weakness could become a strength. My disability caused me to realize latent ability and become stronger. I now can do things I could barely dream of when I was young.</td>
</tr>
<tr>
<td>3. If you shared a general journey of overcoming adversity or, more specifically, an event of overcoming adversity, can you please share when, where, and how did the most meaningful aspects of this experience occur?</td>
<td>I overcame being lgbt last year when I came out to friends and family. I survived my anoxic brain injury in 2015 or 2016 I believe, and I overcame schizophrenia when I was diagnosed with it in 2014 or so.</td>
</tr>
</tbody>
</table>

*Note. N = 242 working adults.*
Table 2

*Exploratory Factor Analysis Loadings of Experiencing Adversity*

<table>
<thead>
<tr>
<th>Item</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>My life has not been easy.</td>
<td>.89</td>
</tr>
<tr>
<td><em>I have experienced a lot of hardships in my life.</em></td>
<td>.91</td>
</tr>
<tr>
<td>I have dealt with more serious obstacles than the average person.</td>
<td>.88</td>
</tr>
<tr>
<td><em>In my life, I have gone through major difficulties.</em></td>
<td>.89</td>
</tr>
<tr>
<td>Most people that know my past experiences would say I have experienced adversity.</td>
<td>.90</td>
</tr>
<tr>
<td><em>I have not experienced much adversity in life.</em></td>
<td>.41</td>
</tr>
</tbody>
</table>

*Note. N = 841 working adults. Bolded items indicate items retained for the final measure because of high factor loadings. Asterisks indicate reverse-scored items. Items were retained for combination of the highest factor loadings and help by experts in the field of management to have high content validity (Worthington & Whittaker, 2006).*
Table 3

*Exploratory Factor Analyses of Overcoming Adversity*

<table>
<thead>
<tr>
<th>Item</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have overcome a lot of hardships in my life.</td>
<td>.90</td>
</tr>
<tr>
<td>I have triumphed over more serious obstacles than the average person.</td>
<td>.86</td>
</tr>
<tr>
<td>In my life, I have prevailed over major difficulties.</td>
<td>.89</td>
</tr>
<tr>
<td>In my life, I have overcome major difficulties.</td>
<td>.89</td>
</tr>
<tr>
<td>Most people that know my past experiences would say I have conquered adversity.</td>
<td>.90</td>
</tr>
<tr>
<td><strong>I have not beaten much adversity in my life.</strong></td>
<td>.31</td>
</tr>
</tbody>
</table>

Note. N = 841 working adults. Bolded items indicate items retained for the final measure. Items were retained for combination of the highest factor loadings and help by experts in the field of management to have high content validity (Worthington & Whittaker, 2006). Asterisks indicate reverse-scored items.
Table 4

Overcoming Adversity Identity Scale Reliability

<table>
<thead>
<tr>
<th>Item</th>
<th>Corrected Item-Total Correlation</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Health Adversity Population</td>
<td>General Population</td>
<td></td>
</tr>
<tr>
<td>1. My identity as a person who has overcome adversity is important to how I see myself.</td>
<td>.88</td>
<td>.84</td>
<td></td>
</tr>
<tr>
<td>2. My identity as a person who has overcome adversity is an important reflection of who I am.</td>
<td>.89</td>
<td>.88</td>
<td></td>
</tr>
<tr>
<td>3. My identity as a person who has overcome adversity has very little to do with who I am.*</td>
<td>.71</td>
<td>.49</td>
<td></td>
</tr>
<tr>
<td>4. If I had to think of all of my identities, I would say that my identity as a person who has overcome adversity is one the most significant identities to me.</td>
<td>.78</td>
<td>.79</td>
<td></td>
</tr>
<tr>
<td>5. My identity as a person who has overcome adversity is a meaningful part of who I am.</td>
<td>.86</td>
<td>.87</td>
<td></td>
</tr>
<tr>
<td>6. I would not be who I am today without taking into account my identity as a person who has overcome adversity.</td>
<td>.74</td>
<td>.76</td>
<td></td>
</tr>
<tr>
<td>Cronbach’s Alpha</td>
<td>.93</td>
<td>.92</td>
<td></td>
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</tbody>
</table>

Note. Asterisks indicate reverse-scored item. Health adversity population, N = 228. General population, N = 224.
Table 5

*Correlations With Overcoming Adversity Identity: Health Hardships Sample*

|                          |       | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  | 20  |
|--------------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                          | *M* (SD) | 4.97 | 3.88 | 3.63 | 3.79 | 3.65 | 3.21 | 3.68 |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 1. Adversity Identity    |       |     | .28** | .32** | .32** | .24** | .20** | .30** |     |     |     |     |     |     |     |     |     |     |     |     |
| 2. Resilience (Personal competence) |       |     |     |     |     |     |     | .77** | .70** | .73** | .78** | .74** |     |     |     |     |     |     |     |     |
| 3. Resilience (Trust in one’s instincts, etc.) |       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 4. Resilience (Positive acceptance of change and new relationships) |       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 5. Resilience (Control) |       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 6. Resilience (Spiritual) |       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 7. Post-Traumatic Growth (Relating to others) |       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

Note: M = Mean; SD = Standard Deviation; * = p < 0.05; ** = p < 0.01.
<p>| 8. Post-Traumatic Growth (New possibilities) | 3.83 (1.03) | .29** .31** .26** .30** .32** .26** .34** |
| 9. Post-Traumatic Growth (Personal strengths) | 3.29 (.62) | .23** .25** .14 .19** .25** .11 .29** .47** |
| 10. Posttraumatic growth (Spiritual) | 3.17 (1.74) | .25** .09 .026 .069 .19** .59** .37** .30** .15* |
| 11. Posttraumatic growth (Appreciation of Life) | 6.16 (1.59) | .32** .25** .15* .25** .21** .20** .48** .52** .55** .30** |
| 12. PA | 3.62 (.76) | .20** .54** .40** .46** .55** .27** .22** .32** .28** .27** .21** |
| 13. Adversity response (Control) | 3.57 (.73) | .07 .49** .40** .45** .40** .070 .084 .22** .24** .004 .23** .24** .32** |
| 14. Adversity Response (Reach) | 3.71 (.84) | .10 .35** .35** .39** .34** .003 .053 -.008 .11 -.05 .090 .17** .23** .38** |
| 15. Adversity Response (Ownership) | 2.81 (.82) | .19** .30** .30** .26** .26** .26** .17** .24** .090 .20** .15** .27** -.13 .31** .028 |
| 16. Adversity Response (Endurance) | 3.26 (.64) | -.050 .23** .25** .30** .24** -.021 .021 .006 .12 -.005 .11 .20** .22** .19** .42** .083 |
| 17. Optimism | 3.41 (.77) | .16* .68** .56** .71** .65** .28** .26** .34** .27** .15 .29** .48** -.57** .41** .24** .33** .30** |</p>
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<tr>
<td>Core Self Evaluations</td>
<td>4.75</td>
<td></td>
<td></td>
<td>.096</td>
<td>.71</td>
<td>.56</td>
<td>.75</td>
<td>.64</td>
<td>.073</td>
<td>.12</td>
<td>.23</td>
<td>.20</td>
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**Note.** **= Correlation is significant at the 0.01 level. *= Correlation is significant at the 0.05 level (2-tailed). N = 228.
Table 6

*Descriptive Statistics and Correlations Between Different Adversity Measures*

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*Note.* ** = Correlation is significant at the .01 level. * = Correlation is significant at the .05 level (2-tailed). N = 259.
Table 7

Means and Bivariate Correlations of Pilot Study

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Note. ** = Correlation is significant at the .01 level. * = Correlation is significant at the .05 level (2-tailed). N = 422.
Table 8

*Descriptive Statistics and Correlations of Study 1*

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*Note.** Correlation is significant at the .01 level. * = Correlation is significant at the .05 level. $N = 247$. CSE = core self-evaluations.*
Table 9

*Study 1b Coefficients of the Hypothesized Model*

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*Note.* **= Correlation is significant at the 0.01 level. *= Correlation is significant at the .05 level. N = 98. CSE = core self-evaluations.
Table 10

*Descriptive Statistics and Correlations of Study 2*

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*Note.* **= Correlation is significant at the 0.01 level. *= Correlation is significant at the .05 level. *N* = 98. CSE = core self-evaluations.
Table 11

Study 2 Coefficients of the Hypothesized Model

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Table 12

Descriptive Statistics and Correlations of Intervention Study - Survey 1

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Note. † p < .10. * p < .05. ** p < .01. N = 81.
Table 13

*Intervention Study Means and Standard Deviations by Condition*

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### Table 14

*Correlations of Exploratory Surveys of Intervention Study*

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Note. N = 51-156.
### Table 15

**Correlations of Exploratory Study**

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*Note: N = 607.*
Figure 1

Theoretical Model

Character Strengths
- Gratitude
- Perseverance
- Developmental Skills

Overcoming Adversity Identity

Outcomes
- Extra-role performance
- In-role Performance
- Burnout
Appendix

Part A: Scales and Measures

Note: All scale items are measured on a 1 (“Strongly disagree”) to 7 (“Strongly agree”) scale unless otherwise noted, * indicates reverse scored.

Independent Variables

Overcoming Adversity Identity

1. My identity as a person who has overcome adversity is important to how I see myself.
2. My identity as a person who has overcome adversity is an important reflection of who I am.
3. My identity as a person who has overcome adversity has very little to do with who I am.*
4. If I had to think of all of my identities, I would say that my identity as a person who has overcome adversity is one of the most significant identities to me.

Experiencing Adversity

1. I have experienced a lot of hardships in my life.
2. In my life, I have gone through major difficulties.
3. Most people that know my past experiences would say I have experienced adversity.
4. I have not experienced much adversity in life.

Overcoming Adversity

1. I have overcome a lot of hardships in my life.
2. I have triumphed over more serious obstacles than the average person.
3. In my life, I have prevailed over major difficulties.
4. I have not beaten much adversity in life.

Mediators

Gratitude

The following words describe different feelings and emotions. Read each item and then indicate to what extent you feel this way at work, that is, how you feel on average. Use the following scale to record your answers.

1(Very slightly or not at all) to 5 (extremely).

1. Grateful
2. Thankful

**Perseverance**

1. I generally like to see things through to the end at work.
2. I tend to give up easily at work.
3. Unfinished work tasks really bother me.
4. Once I get going on something at work I hate to stop.
5. I concentrate easily at work.
6. I finish what I start.
7. I’m pretty good at pacing myself so as to get things done on time.
8. I’m a productive person who always gets the job done.
9. Once I start a project, I almost always finish it.


**Developmental Skills**

Please indicate how much you agree with the following items. Past experiences overcoming adversity, if any...

1. Helps me to understand different viewpoints and this helps me be a better worker.
2. Helps me to develop my abilities and this helps me be a better worker.
3. Helps me gain knowledge and this helps me be a better worker.
4. Helps me acquire new skills and this helps me be a better worker.
5. Helps me learn new behaviors and this helps me be a better worker.
6. Helps me expand my knowledge of new things and this helps me be a better worker.


**Outcomes**

**Extra-role Performance**

1. I make constructive suggestions to improve the overall functioning of my workgroup.
2. I encourage others to try new and more effective ways of doing their job.
3. I keep well-informed where opinion might benefit the organization.
4. I continue to look for new ways to improve the effectiveness of work.
5. I take action to protect the organization from potential problems.
6. I go out of my way to help new employees.
7. I volunteer for things that are not required.


**In-Role Performance**

1. I adequately complete assigned duties.
2. I fulfill the responsibilities specified in the job description.
3. I meet the formal performance requirements of the job.
4. I engage in activities that will directly affect my performance evaluation.


**Burnout**

1. I feel emotionally drained from my work.
2. I feel used up at the end of the day.
3. I feel fatigued when I get up in the morning and have to face another day on the job.
4. Working with people all day is really a strain for me.
5. I feel burned out from my work.
6. I feel frustrated by my job.
7. I feel I was working too hard on my job.

Part B: Experimental Intervention Manipulations & Workshop Design

Initial Workshop

Nobel Prize Lesson: Condition Specific Prompts

Condition 1: Control

Part 1
Thank you so much for agreeing to participate in this study. In the first part of this study, you are going to learn about different historical figures who were nominated for the Nobel Prize.
The Nobel Prize is a prestigious world-renowned award in the field of physics, chemistry, physiology, medicine, literature, and peace.
On the next page, you are going to learn about three Nobel Laureate nominees, some fun facts about them, and why they were nominated for the Nobel prize.
Afterwards, you will be asked a question that will test your knowledge about the information you read.
------------------------------------------------------------------NEXT PAGE------------------------------------------------------------------
Marie Curie was a Polish-French physicist and chemist renowned for her research on radioactivity. Growing up, she was the child of two teachers and learned to read and write early.

When she was younger, she worked as a tutor and governess.

In 1911, Marie was nominated for and received the Nobel Prize for advancing chemistry via the discovery of radium and polonium.

**Famous Quotes from Marie Curie:**

"*I am among those who think that science has great beauty.*"

"*In science, we must be interested in things, not persons.*"

--------------------------NEXT PAGE--------------------------

Albert Einstein was a theoretical physicist widely known for his theory of relativity. Growing up, he loved classical music and played the piano and violin.

In 1921, Albert was nominated and received the Nobel Prize for his discovery of the law of the photoelectric effect.

**Famous Quotes from Albert Einstein:**

"*If you can’t explain it simply, you don’t understand it well enough.*"

"*The environment is everything that isn’t me.*"
Helen Keller

Helen Adams Keller was an American author and advocate of disability rights. Growing up, she loved dogs and enjoyed eating candies.

In 1953, she was nominated for a Nobel Peace Prize for convincing Egypt's Minister of Education to create secondary schools for the blind that could lead to a college education.

Famous Quotes from Helen Keller:

“The highest result of education is tolerance.”

“Walking with a friend in the dark is better than walking alone in the light.”
**Condition 2: Experiencing Adversity Prompt**

**Part 1**

Thank you so much for agreeing to participate in this study. In the next section, you are going to learn about different historical figures who were nominated for the Nobel Prize. In addition, you will also learn interesting facts about their experiences of adversity in life.

The Nobel Prize is a prestigious world-renowned award in the field of physics, chemistry, physiology, medicine, literature, and peace.

---NEXT PAGE--

**Marie Curie**

Marie Curie was a Polish-French physicist and chemist renowned for her research on radioactivity. She experienced the following adversity: her father had too little money to support her desire to attend university and higher education was not available for women in Poland.

In 1911, Marie Curie was nominated for and received the Nobel Prize for advancing chemistry via the discovery of radium and polonium.

**Famous Quotes from Marie Curie:**

"*I was taught that the way of progress was of experiences that are neither swift nor easy.*"

"*Life is not easy for any of us. But what of that? We must have perseverance and above all confidence in ourselves when experiencing difficulties.*"

---NEXT PAGE---
Helen Keller

Helen Adams Keller was an American author and an advocate of disability rights. She experienced the following adversity: she became deaf and blind when she was 18 months old.

In 1953, Helen was nominated for a Nobel Peace Prize for convincing Egypt's Minister of Education to create secondary schools for the blind that could lead to a college education.

Famous Quotes from Helen Keller:

"Only through experience of trial and suffering can the soul be strengthened, ambition inspired, and success achieved."

"A happy life consists not in the absence, but in the experiencing, of hardships."

Albert Einstein

Albert Einstein was a theoretical physicist widely known for his theory of relativity. He experienced the following adversity: he never did well in school and even dropped out for a period to sell life insurance.

In 1921, Albert was nominated for and received the Nobel Prize for his discovery of the law of the photoelectric effect.

Famous Quotes from Albert Einstein:

"In the middle of experiencing adversity there is great opportunity."

"One's best success comes after experiencing the greatest disappointments."
Condition 3: Overcoming Adversity Part 1

Thank you so much for agreeing to participate in this study. In the next section, you are going to learn about different historical figures who were nominated for the Nobel Prize. In addition, you will also learn interesting facts about their experiences of overcoming adversity in life.

The Nobel Prize is a prestigious world-renowned award in the field of physics, chemistry, physiology, medicine, literature, and peace.

Marie Curie

Marie Curie was a Polish-French physicist and chemist renowned for her research on radioactivity. She overcame the following adversity: her father had too little money to support her ambition to go to university and higher education was not available for women in Poland.

In 1911, Helen was nominated for and received the Nobel Prize for advancing chemistry via the discovery of radium and polonium.

Famous Quotes from Marie Curie:

"I was taught that the way of progress was of overcoming experiences that are neither swift nor easy."

"Life is not easy for any of us. But what of that? We must have perseverance and above all confidence in ourselves when overcoming difficulties."

-------------------------------------------NEXT PAGE-------------------------------------------
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Helen Adams Keller was an American author and advocate of disability rights. She overcame the following adversity: she became deaf and blind when she was 18 months old.

In 1953, Helen was nominated for a Nobel Peace Prize for convincing Egypt's Minister of Education to create secondary schools for the blind that could lead to a college education.

Famous Quotes from Helen Keller:

"Only through overcoming of trial and suffering can the soul be strengthened, ambition inspired, and success achieved."

"A happy life consists not in the absence, but in the overcoming, of hardships."
Condition 4: Overcoming Adversity Identity

Part 1

Thank you so much for agreeing to participate in this study. In the next section, you are going to learn about different historical figures who were nominated for the Nobel Prize. In addition, you will also learn interesting facts about how overcoming adversity was an important part of who they were.

The Nobel Prize is a prestigious world-renowned award in the field of physics, chemistry, physiology, medicine, literature, and peace.

Marie Curie

Marie Curie was a Polish-French physicist and chemist renowned for her research on radioactivity. She identified as a person who overcame adversity as her father had too little money to support her ambition to go to university and higher education was not available for girls in Poland. Becoming a person who overcomes adversity was important to her.

In 1911, Marie was nominated for and received the Nobel Prize for advancing chemistry via the discovery of radium and polonium.

Famous Quotes from Marie Curie:

"I was taught that the way of progress was of being a person who overcomes experiences that are neither swift nor easy."

"Life is not easy for any of us. But what of that? We must have perseverance and above all confidence in ourselves when overcoming difficulties."

------------------------------NEXT PAGE-----------------------------
Helen Keller

Helen Keller was an American author and advocate of disability rights. She identified as a person who prevails over adversity as she became deaf and blind when she was 18 months old, but was able to overcome these limitations to reach success. Conquering adversity was a major part of her identity.

In 1953, she was nominated for a Nobel Peace Prize for convincing Egypt's Minister of Education to create secondary schools for the blind that could lead to a college education.

Famous Quotes from Helen Keller:

"Only through becoming a person who has overcome trial and suffering can the soul be strengthened, ambition inspired, and success achieved."

"A happy life consists not in being a person who has an absence of, but a person who overcomes, hardships."

Albert Einstein

Albert Einstein was a German theoretical physicist widely known for his theory of relativity. He identified as a person who triumphs over adversity as he never did well in school and even dropped out for a period to sell life insurance. Overcoming adversity was a central part of his being.

In 1921, Albert was nominated for and received the Nobel Prize for his discovery of the law of the photoelectric effect.

Famous Quotes from Albert Einstein:

"In the middle of becoming a person who overcomes adversity there is great opportunity."

"One's best success comes after turning into a person who overcomes their greatest disappointments."
**Writing Exercise: Condition Specific Prompts**

**Condition 1: Control**

Marie Curie, Albert Einstein, Helen Keller, and yourself all have something in common: **having told a story at some point in life.**

**As part of this study, we are interested in learning more about how you can tell stories.**

Stories are a fun way to arouse the imagination. In fact, people tell many stories throughout their life, both fictional and nonfictional.

Beyond telling stories the traditional way, you may also have experience telling stories in various other ways. For example, perhaps you have told stories through songs, or through poems such as haikus, which are short poems. These are only a few examples of the wide variety of storytelling you may be familiar with.

Please take at least one minute to reflect on a story you can tell. The story can be about anything, and it can be a true or a fictional story.

Feel free to jot down notes on your piece of paper to outline your thoughts.

**Note:** In the next part of this exercise, you will be asked to write this story.

Thank you for reflecting. Please write the story below.

[TEXT BOX HERE]

**Part 3**

Research shows that **storytelling fosters imagination.**

We would like for you to take at least one minute to reflect on **how you came up with your story.**

Feel free to jot down any notes on the scratch paper you have while you reflect.

Thank you for reflecting.
Now, we would like to understand this better from you. Please write about how you came up with your story.

[TEXT BOX HERE]

Lastly, please take a moment to reflect on and share what you learned from writing this story.

[TEXT BOX HERE]
Condition 2: Experiencing Adversity

Part 2

Marie Curie, Albert Einstein, Helen Keller, and yourself all have something in common: having experienced adversity.

As part of this study, we would like for you to think deeply about your past experiences of adversity.

It has been over a year since the onset of the COVID-19 pandemic, and you have experienced various forms of adversity as a result of the pandemic.

In addition to the pandemic, you may have also experienced some form of adversity in the past. For example, perhaps you experienced a difficult upbringing, or health issues, or problems at work. These are only a few examples of the wide variety of adversity you may have experienced.

Note: In the next part of this exercise, you will be asked to write about experiencing adversity.

Before you do so, please reflect on your past experiences of adversity for at least one minute.

Perhaps one particular instance of experiencing adversity comes to mind, or perhaps you think of a series of adverse events you experienced. Any form is acceptable to write about.

Feel free to jot down notes on your piece of paper to outline your thoughts.

Thank you for reflecting.

Please write an essay explaining your past experience(s) of adversity in life.
Part 3

Research suggests that when people experience adversity, it is impactful. In other words, research shows that past experiences of adversity can affect people.

We would like for you to take at least one minute to reflect on how your past experiences of adversity have impacted you.

Feel free to jot down any notes on the scratch paper you have while you reflect.

Thank you for reflecting.

Now, we would like to understand this better from you.

Please write about how your past experience(s) of adversity have impacted you.

Lastly, please take a moment to reflect on and share what lessons you have learned from experiencing adversity.

[TEXT BOX HERE]
CONDITION 3: OVERCOMING ADVERSITY

Marie Curie, Albert Einstein, Helen Keller, and yourself all have something in common: having overcome adversity.

As part of this study, we would like for you to think deeply about your past experiences of overcoming adversity.

It has been over a year since the onset of the COVID-19 pandemic, and you have overcome various forms of adversity because of the pandemic.

In addition to the pandemic, you may also have overcome some form of adversity in the past. For example, perhaps you overcame a difficult upbringing, or health issues, or problems at work. These are only a few examples of the wide variety of adversity you may have overcome.

Note: In the next part of this exercise, you will be asked to write about overcoming adversity.

Before you do so, please reflect on your past experiences of adversity for at least one minute.

Perhaps one particular instance of overcoming adversity comes to mind, or perhaps you think of a series of adverse events you overcame. Any form is acceptable to write about.

Feel free to jot down notes on your piece of paper to outline your thoughts.

Thank you for reflecting.

Please write an essay explaining your past experience(s) of overcoming adversity in life.

[TEXT BOX HERE]

Part 3

Research suggests that when people overcome adversity, it is impactful. In other words, research shows that past experiences of overcoming adversity can affect people.

We would like for you to take at least one minute and reflect on how your past
experiences overcoming adversity have impacted you.

Feel free to jot down any notes on the scratch paper you have while you reflect.

Thank you for reflecting.

Now, we would like to understand this better from you.

Please write about how your past experience(s) of overcoming adversity have impacted you.

Lastly, please take a moment to reflect on and share what lessons you have learned from overcoming adversity.
Condition 4: Overcoming Adversity Identity

Part 2

Marie Curie, Albert Einstein, Helen Keller, and you all have something in common: you are all people to whom overcoming adversity is a key part of your identity.

As part of this study, we would like for you to deeply reflect about how you are a person who has overcome adversity.

It has been over a year since the onset of the COVID-19 pandemic, and just from the pandemic, you have shown that you are the type of person who overcomes adversity.

In addition to the pandemic, your identity as a person who has overcome adversity may have formed through triumphing over other forms of adversity in the past. For example, perhaps overcoming adversity became an import part of who you are after conquering a difficult upbringing, health issues, or problems at work. These are only a few examples of the different ways you may have become a person who overcomes adversity.

Note: In the next part of this exercise, you will be asked to write about how overcoming adversity has become a major part of your identity.

Before you do so, please reflect on how overcoming adversity has become a major part of your identity for at least one minute.

Perhaps one particular transformative experience that made you define yourself as a person who overcomes adversity comes to mind. Alternatively, perhaps you can think of a series of events that led overcoming adversity to be a major part of who you are.

Feel free to jot down notes on your piece of paper as you reflect.

Thank you for reflecting.

Please write an essay explaining how overcoming adversity has become a major part of your identity.

[TEXT BOX HERE]
Part 3

Research suggests that when overcoming adversity becomes a major part of your identity, it is impactful.

In other words, research shows that your identity acts as a deeply held guide for your thoughts, motivations, and behaviors. This means that in overcoming adversity being part of your identity, it affects how you think, how you perceive yourselves, and how you approach life daily.

We would like for you to take at least one minute and reflect on how your identity as a person who overcomes adversity have impacted you.

Feel free to jot down notes on the scratch paper you have while you reflect.

Thank you for reflecting.

Now, we would like to understand this better from you.

Please write about how your identity as a person who overcomes adversity impacts you.

[TEXT BOX HERE]

Lastly, please take a moment to reflect on and share what you lessons you have learned that have made overcoming adversity an important part of your identity.

[TEXT BOX HERE]
1 Week Follow Up: Condition Specific Prompts

Condition 1: Control

Part 2

Thank you so much. You are almost done!

Last week, you were asked to reflect on how in a story you created, the experience(s) you describe in the story impacted the main character.

Now, we would like to make these reflections easily accessible to you whenever you may need them.

Today, you will be asked to write a phrase on a piece of paper that will help remind you of the story.

Please take at least a minute to think about a phrase that will remind you of the story you wrote.

Note: Please press next whenever you have come up with the phrase and something to write with (e.g., a pen or a pencil).

Condition 2: Experiencing Adversity

Part 2

Thank you so much. You are almost done!

Last week, you were asked to reflect on your past experiences of adversity.

Now, we would like to make these reflections easily accessible to you whenever you may need them.

Today, you will be asked to write a phrase on a piece of paper that will help remind you how experiencing adversity has impacted you.

Please take at least a minute to think about a phrase that will remind you how your past experience(s) of adversity has impacted you.

Note: Please press next whenever you have come up with the phrase and have something to write with (e.g., a pen or pencil).
Condition 3: Overcoming Adversity  

Part 2

Thank you so much. You are almost done!

Last week, you were asked to reflect on your past experiences **overcoming adversity**.

Now, we would like to make these reflections easily accessible to you whenever you may need them.

Today, you will be asked to write a phrase on a piece of paper that will help remind you how **overcoming adversity has impacted you**.

Please take at least a minute to think about a phrase that will remind you how **overcoming adversity has impacted you**.

Condition 4: Overcoming Adversity Identity

Part 2

Thank you so much. You are almost done!

Last week, you were asked to reflect about how **overcoming adversity has helped develop your current identity**.

Now, we would like to make these reflections easily accessible to you whenever you may need them.

Today, you will be asked to write a phrase on a piece of paper that will help remind you how **overcoming adversity being part of your identity has impacted you**.

Please take at least a minute to think about a phrase that will remind you how **overcoming adversity being part of your identity has impacted you**.

Note: Please press next whenever you have come up with the phrase and something to write with (e.g., a pen or pencil).

Common To All Conditions

Note: Please press next whenever you have come up with the phrase and something to write with (e.g., a pen or pencil).
Before writing the phrase on a paper, please select a location where you can store this piece of paper and easily access it when you want it. For example, you can fold it into your wallet or the back of your phone. If you work from home, you could even place it on top of your desk.

Please indicate in what easily accessible location you will store the phrase.

[TEXTBOX HERE]

Writing Task

Now, we would like for you to write the phrase down on a piece of paper.

Please take a photo of the paper containing the phrase and upload it below to verify that you have participated.

Please also write the phrase below.

[TEXT BOX HERE]

Thank you for completing the study! If you have any comments or suggestions for the researchers, please write them below.

[TEXT BOX HERE]


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