

A Passion for Leadership: Three Studies

by

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Abstract

This dissertation sought to further our understanding of the nature of leadership by developing and investigating a novel construct: a passion for leadership. In Study 1, I developed a dualistic model of a passion for leadership by distinguishing between a harmonious and an obsessive passion for leadership. Harmonious passion for leadership involves an intense, controllable desire to engage in leadership thereby creating a flexible form of persistence. In contrast, obsessive passion for leadership reflects an intense, incessant need to engage in leadership such that activity involvement is considered rigid. Then, across 7 studies involving 9 separate samples, I developed a reliable and valid measure of a passion for leadership, in which the harmonious and obsessive passion for leadership demonstrated internal and temporal stability and manifested content, construct, convergent, discriminant, and concurrent-related validity.

Study 2 extended the first study by testing whether the passion for leadership is psychometrically invariant across groups. In particular, I investigated whether the factor structure of the passion for leadership was equivalent across biological sex (male vs. female) and country (USA vs. China). Two separate cross-sectional online surveys were conducted with leaders for each group. The results demonstrated that, for both sex and country, the passion for leadership measure was partially invariant.

Based on the dualistic model of a passion for leadership, Study 3 examined whether harmonious and obsessive passion for leadership predict transformational leadership and abusive supervision, respectively. I also investigated the moderating role of gender. Within the context of a laboratory-based experiment, the findings showed that priming harmonious passion for leadership led to higher levels of transformational leadership; in contrast, priming an obsessive passion for leadership had no effect on abusive supervision. Furthermore, gender did not

moderate the effects of harmonious or obsessive passion for leadership on either transformational leadership or abusive supervision, respectively.

I close this dissertation with a general discussion of the three studies and recommendations for future research.

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Statement of Originality

I hereby certify that all of the work described within this dissertation is the original work of the author. Any published (or unpublished) ideas and/or techniques from the work of others are fully acknowledged in accordance with the standard referencing practices.

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Chapter 1

A Passion for Leadership: An Introduction

A great leader's courage to fulfill his [her] vision comes from passion, not position.

— John C. Maxwell, 1999, p. 148

In today's organizations, leaders are expected to adapt and rise to unprecedented challenges that companies face both internally and externally (Hannah, Avolio, Luthans, & Harms, 2008; Paglis & Green, 2002). To meet such challenges, leaders must expend consistently high levels of physical and mental energy if they are to successfully fulfill their leadership roles. For example, leaders are expected to create a collective sense of purpose, encourage and motivate their followers to accomplish their goals, foster creativity, act with compassion and empathy, mentor and develop future leaders, and focus on the long-term benefits for the collective good of the organization (Bass & Riggio, 2006). Given this enormous undertaking, what could possibly drive leaders to push forward throughout this process while sustaining high levels of effort?

One possible explanation is passion. Indeed, from politicians to CEOs, leaders are told that being passionate for what they do will drive business outcomes and personal fulfillment. For example, searching the words "leadership" and "passion" in *Harvard Business Review* results in countless articles which suggest that leaders who have passion "[are] constantly striving for your 'best self'...to reach new levels of mastery" (Bunea, Khapova, & Lysova, 2018) and "distinguishes good leaders from great ones" (Love, 2008). Yet, is having passion always a "good thing"? If passion drives leaders to sustain high levels of effort, why are some leaders perceived as remaining in control such that they freely and willingly engage in leadership

activities, whereas others are perceived as having an uncontrollable urge or compulsion when engaged in their leadership role?

In this dissertation, I adapt Vallerand et al.'s (2003) dualistic model of passion, which conceptualizes passion as a motivational force toward specific activities, to the leadership context to help answer these questions. Accordingly, I introduce and define *passion for leadership* as a strong inclination toward engaging in leadership that one loves, values, invests time and energy in on a regular basis, and is part of one's identity. Furthermore, given its dualistic nature (Vallerand et al., 2003; Vallerand, Houliort, & Bourdeau, 2019), I conceptualize two types of passion: harmonious and obsessive passion for leadership.

In the remaining sections of this introductory chapter, I will explain why studying a passion for leadership is important, as well as provide an overview of how I investigate this phenomenon. First, while there is no shortage of research on organizational leadership, with hundreds of studies published annually (Barling, 2014) dedicated towards its theoretical and empirical advancement, the majority of this research has focused on its nature, effectiveness, and under what conditions these effects take place. Furthermore, of the studies examining the determinants of leadership behaviors, research has emphasized leaders' or followers' traits or attitudinal dispositions, thus identifying factors that may be more difficult to change. Alternatively, addressing the dualistic nature of a passion for leadership through a motivational lens may help to explain, for instance, the emergence of high- vs. poor-quality leadership behaviors.

Second, grounded in the psychology and management literatures, the study of a passion for leadership takes a multidisciplinary approach to further our understanding of the development of leaders' thoughts, feelings, and behaviors in organizational contexts. As such, I posit that

studying the dualistic nature of a passion for leadership may help to explain the development of different psychological (e.g., well- vs. ill-being) and behavioral (e.g., positive vs. negative leadership behaviors) outcomes.

Finally, by taking an actor-centric perspective which focuses on leaders' intrapersonal experiences, a passion for leadership may help to explain the emotional toll that leaders experience when enacting high-quality (e.g., Zwingmann, Wolf, & Richter, 2016) or destructive (e.g., Lin, Ma, & Johnson, 2016) leadership behaviors.

Taken together, the goal of my dissertation is to enhance our understanding of the nature of leadership by investigating a novel construct, namely a passion for leadership. I first develop a conceptual model of a passion for leadership. Then, across three studies involving different samples and methodologies, I develop a psychometrically reliable and valid scale for its measurement (Study 1), examine whether the factor structure of a passion for leadership is invariant across groups (sex, country; Study 2), and investigate whether a passion for leadership can be experimentally manipulated to influence positive and negative leadership behaviors (Study 3). Below, I outline my three studies.

Summary of Studies

Study 1

Given the novelty of my construct, the purpose of the first study was to introduce and develop a dualistic model of a passion for leadership, followed by the development of a psychometrically sound scale for its measurement. Specifically, by adapting Vallerand et al.'s (2003) dualistic model of passion to the leadership context, I distinguished between a harmonious and an obsessive passion for leadership as separate but related constructs. Harmonious passion for leadership reflects a strong, controllable desire to engage in leadership

whereby activity involvement is considered flexible. In contrast, obsessive passion for leadership involves a strong, relentless need to engage in leadership thereby creating a rigid form of persistence.

Following best practices outlined in the scale development literature (e.g., Crawford & Kelder, 2019; DeVellis, 2012; Hinkin, 1998; Hinkin & Schriesheim, 2008), I conducted seven separate studies with 1,123 respondents and 67 leader-follower dyads from diverse professions to develop a reliable and valid measure of a passion for leadership. In Study 1a, I used two separate approaches (substantive validity and content adequacy) to establish content validity. Construct validity was examined in Studies 1b and 1c using exploratory and confirmatory factor analyses, respectively. In Study 1d, convergent and discriminant validity were assessed, while Study 1e reported on concurrent-related validity. Extending concurrent-related validity by excluding mono-method bias was assessed in Study 1f, and temporal stability in Study 1g. As a result, research can now begin developing the full nomological network, such as antecedents, outcomes, and boundary conditions, of the harmonious and obsessive passion for leadership.

Study 2

As an extension from Study 1, my second study examined whether the factor structure of a passion for leadership was psychometrically equivalent across groups; indirectly, this provides important conceptual information about the nature of a passion for leadership. Specifically, I investigated whether a passion for leadership was invariant across biological sex (male vs. female) and country (USA vs. China). Two cross-sectional online surveys were conducted with leaders in each sample. Sample 1 consisted of 126 males and 143 females who lived in North America, and sample 2 consisted of 150 people who lived in the USA (English-speaking) and 150 of whom lived in China (Mandarin-speaking). Establishing whether the factor loading

pattern, slopes, and intercepts are equivalent is important because it ensures that any comparisons made regarding a passion for leadership are stable and replicable across groups.

Study 3

Based on the dualistic model of a passion for leadership, my third study examined the effects of harmonious and obsessive passion for leadership on positive and negative leadership behaviors. Specifically, using a randomized between-subjects experimental design with data collected from 161 undergraduate students, I investigated whether and under what conditions harmonious and obsessive passion for leadership influence transformational leadership and abusive supervision, respectively. This study is important as it has the potential to expand the nomological network of a passion for leadership by enabling causal inferences about the outcomes of harmonious and obsessive passion.

Conclusion

Overall, the goal of my dissertation research is to advance our understanding of the nature of leadership by examining a novel construct—the passion for leadership. Through model conceptualization, measurement development and replication, and an examination of the effects of harmonious and obsession passion for leadership, I provide a theoretical framework upon which futures studies on the passion for leadership might be built, and has the potential to further our understanding of how leaders think, feel, and behave in organizational settings.

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Chapter 2

Study 1: A Passion for Leadership:

Model Conceptualization and Development of a Measure

Abstract

In Study 1, I conceptualize a dualistic model of a passion for leadership that distinguishes between a harmonious and an obsessive passion for leadership based on Vallerand et al.'s (2003) general model of passion. Then, across 7 studies involving 9 separate samples of 8 graduate students, 1,115 leaders, and 67 leader-follower dyads, I develop a 14-item scale assessing the harmonious and obsessive passion for leadership as separate but related constructs that is internally and temporally consistent, and manifests content, construct, convergent, discriminant, and concurrent-related validity.

2.1 Introduction

For leadership to be effective, leaders must deal with inherently difficult and challenging people and situations. Indeed, Hannah, Avolio, Luthans, and Harms (2008) suggest that leaders are expected to consistently ‘rise to the occasion’ and exercise a high degree of personal agency to meet demands from their followers and organization. What is it then that drives leaders to continuously exert high levels of effort? And why are some leaders perceived as being in control *of* their leadership efforts, while others are perceived to be controlled *by* their engagement in leadership activities? Given the broad role of passion as a motivational force toward targeted activities, I adapt Vallerand et al.’s (2003) dualistic model of passion to the context of leadership, and propose a dualistic model of a passion for leadership that distinguishes between a harmonious and an obsessive passion for leadership. Thereafter, in a sequence of seven studies, I develop a psychometrically reliable and valid measure upon which future research on the antecedents and consequences of the harmonious and obsessive passion for leadership might be built; this is a necessary and crucial step before developing the full nomological network of emerging constructs.

This study has the potential to make several contributions. First, by adapting Vallerand et al.’s (2003) dualistic model of passion to the leadership context, I follow recommendations from previous scholars (e.g., Lord, Day, Zaccaro, Avolio, & Eagly, 2017) to integrate insights from other domains, such as social psychology, to deepen our understanding of how leaders think, feel, and behave in organizational settings. Second, while leadership researchers continue to address the antecedents of leadership behaviors (e.g., Bono & Judge, 2004; Zhang & Bednall, 2016), the majority of these studies have focused on traits or attitudinal dispositions, be it those of followers or leaders themselves, and therefore identify factors that may not be as malleable to

change. Applying a motivational lens, and directing attention towards the inherent dualism in the passion for leadership model, may help to explain the emergence of high-quality vs. destructive leadership behaviors both within and between individuals, as well as offer more opportunities for interventions that are more amenable to change. Finally, and more generally, developing a psychometrically acceptable passion for leadership scale answers calls from previous scholars (Curran, Hill, Appleton, Vallerand, & Standage, 2015) seeking further development on research instruments of different targets of passion.

Passion

Across various disciplines, definitions of passion share several defining characteristics. First, passion is both motivational and target specific. Research on entrepreneurship, for example, shows that passion is an energy that enables individuals to persist through obstacles or setbacks associated with accomplishing challenging entrepreneurial tasks (Murnieks, Mosakowski, & Cardon, 2014). Separately, in the context of interpersonal relationships, passion involves an intense desire or feeling of unity that is motivated by needs for sex, affiliation, or self-esteem with another person (Sternberg, 1986). In both examples, passion is described as a motivational force (i.e., an energy, intense desire) that moves or directs individuals (i.e., to persist through obstacles, fulfil inherent needs) toward a specific target (i.e., task, person).

Second, in addition to its motivational and target specific nature, passion is a common experience. One study showed that 84% of college students had at least a moderate level of passion (a minimum score of 4 on a 7-point scale) for a given activity, ranging from individual sport/physical activity (e.g., jogging; 35%) to engaging in interpersonal relationships (e.g., being with friends; 2%; Vallerand et al., 2003). Furthermore, across four samples totaling 782

participants between the ages of 18 to 90, 75% of individuals reported experiencing high levels of passion for at least one life activity (Philippe, Vallerand & Lavigne, 2009).

Third, passion influences a wide array of outcomes. Research indicates that passion plays a statistically significant role in entrepreneurial decision-making (Chen, Yao, & Kotha, 2009), environmental sustainability in organizations (Robertson & Barling, 2013), the quality of the coach-athlete relationship (Lafrenière, Jowett, Vallerand, & Carbonneau, 2011), and the attainment of expert levels of performance in music (Bonneville-Roussy, Lavigne, & Vallerand, 2011). Importantly, these outcomes do not necessarily have to be positive: passion has also been associated with psychological burnout experienced by professional nurses (Vallerand, Paquet, Philippe, & Charest, 2010). Taken together, then, passion reflects a target-specific psychological energy that drives individuals toward behavioral initiation, maintenance, or persistence, and influences a diverse range of outcomes across contexts.

Despite conceptual and empirical curiosity into the nature and effects of passion across the social sciences, the concept of passion is virtually absent in attempts to enhance our understanding of the nature of leadership, which I suggest has led to a truncated understanding of leadership. One major impediment has been the absence of (1) a conceptual model of a passion for leadership, and (2) a psychometrically reliable and valid scale for its measurement. Thus, I first introduce a dualistic model of a passion for leadership, and then report on the development of an instrument for its measurement from nine independent samples that include 1,123 respondents and 67 leader-follower dyads from diverse professions.

The Dualistic Model of Passion

According to Vallerand and colleagues (2003, 2015), passion reflects a strong desire toward a specific activity, object, or person that one loves, finds meaningful, devotes time and

energy to consistently, and is central to one's identity. Regardless of the term used, there is an inclination, impulse, tendency, or striving toward an activity; in this sense, passions are viewed as active and purposive (Vallerand, 2015). Thus, like Vallerand (2015) and others (e.g., Murnieks et al., 2014), I view passion as a motivational construct. Clarifying its motivational nature allows us to distinguish between the pursuit of an activity and any feelings experienced during or after engagement with the activity. Within this motivational framework, passion is differentiated from conceptualizations that define passion as an emotion (Baum & Locke, 2004; Cardon, Wincent, Singh, & Drnovsek, 2009).

Furthermore, compared to research (e.g., Baum & Locke, 2004; Chen, Lee, & Lim, 2020; Chen et al., 2009) that has conceptualized and solely examined the positive nature of passion, a central tenet of the dualistic model of passion is that it is multidimensional in nature. Based on self-determination theory (Deci & Ryan, 1985, 2000), the dualistic model of passion posits that individuals have a natural tendency toward self-growth, such that they seek out activities, objects, or people that become a passion through activity selection, valuation, and how they are internalized in one's identity. In addition, personal (e.g., personality orientations; Vallerand et al., 2006) and social-environmental factors (e.g., parental and teacher autonomy-supportive behaviors; Mageau et al., 2009) facilitate or inhibit individuals' experience of activity selection, valuation, and identity internalization such that passions are developed along a continuum from being fully autonomous to controlled. As such, the dualistic model of passion proposes two distinct types of passion, namely harmonious and obsessive passion (Vallerand et al., 2003; Vallerand, 2015).

Emanating from the integrative (i.e., driven by self-awareness) and intrinsic (i.e., driven by pure interest and enjoyment) aspects of the self and resulting in an autonomous internalization

process (consistent with self-determination theory; Deci & Ryan, 1985; Ryan & Deci, 2003), harmonious passion occurs when individuals freely and willingly choose to engage in the activity rather than doing so from feelings of obligation or compulsion (Vallerand et al., 2003).

Individuals are in control of the activity such that they decide when, and when not, to engage in the activity, to what/whom their energy will be directed and how long it will be maintained; thus, involvement in the activity is considered flexible. Furthermore, the activity is regarded as a significant, but not overpowering, part of the individual's identity (Vallerand et al., 2003).

Obsessive passion, in contrast, derives from inter- and/or intra-personal pressures wherein certain contingencies are attached to the activity, such as the need for social acceptance or feelings of self-worth (Lafrenière, Bélanger, Sedikides, & Vallerand, 2011; Mageau, Carpentier, & Vallerand, 2011). Originating from the external (i.e., driven by compliance, rewards, and punishments) and introjected (i.e., driven by ego-involvement, self- and other-approval) aspects of the self and resulting in a controlled internalization process (Deci & Ryan, 1985; Ryan & Deci, 2003), the activity controls individuals such that they feel pressured to pursue it relentlessly, thereby creating a more rigid form of persistence. Because activity involvement is now felt to be beyond the person's control, it becomes an overly salient aspect of the individual's identity (Vallerand et al., 2003).

Empirical support exists for the dualistic nature of passion, with differential outcomes associated with harmonious and obsessive passion, respectively. For example, harmonious passion is positively related to flow, positive emotions, and concentration (Vallerand et al., 2003), job creativity (Liu, Chen, & Yao, 2011), and career satisfaction (Burke, Astakhova, & Hang, 2015). In contrast, obsessive passion is related to negative affect and cognition (Vallerand

et al., 2003), fear of failure (Bélanger, Lafrenière, Vallerand, & Kruglanski, 2013), and incivility instigation (Birkeland & Nerstad, 2016).

As well as their substantive conceptual and empirical distinctions, harmonious and obsessive passion also share an important characteristic: Individuals with a predominantly harmonious passion for an activity are no more or less passionate than those who are obsessively passionate for the same activity; the difference lies not in the *levels* of harmonious or obsessive passion, but rather in the *nature* of their experience of passion (Marsh et al., 2013; Vallerand, 2015). Supporting this, after statistically controlling the other form of passion, Vallerand and his colleagues (2003) showed that both harmonious and obsessive passion were positively and distinctively associated with each element related to the definition of passion: activity that one loves (HP: $r = .43$; OP: $r = .46$), finds meaningful (HP: $r = .37$; OP: $r = .57$), invests time and energy to consistently (HP: $r = .35$; OP: $r = .20$), and is central to one's identity (HP: $r = .16$; OP: $r = .49$).

A Passion for Leadership

Given the role of passion as a motivational force toward specific activities, I adapt Vallerand et al.'s (2003) theoretical framework to the context of leadership, and define *passion for leadership* as a strong inclination toward engaging in leadership, that one loves, values, invests time and energy in on a regular basis, and is part of one's identity. Furthermore, I conceptualize two types of passion: harmonious and obsessive passion for leadership.

Based on the autonomous nature of harmonious passion (Vallerand et al., 2003), the harmonious passion for leadership would involve a strong but controllable desire to engage in leadership activities. Furthermore, the flexibility inherent in harmonious passion (Vallerand et al., 2003) would enable leaders to adapt to various situations, such that they know when to

engage in leadership, and just as importantly, when to disengage and focus on other activities that require their attention. Consequently, given that Vallerand et al. (2003) state that harmonious passion stems from the integrative and intrinsic aspects of the self (Deci & Ryan, 1985; Ryan & Deci, 2003) and individuals who engage in harmonious passion are in control of their activity, harmonious passion for leadership is likely to be associated with personal fulfillment. Supporting this, findings demonstrate that harmonious passion is related to a host of positive psychological experiences, such as higher levels of flow (Carpentier, Mageau, & Vallerand, 2012; Philippe, Vallerand, Andrianarisoa, & Brunel, 2009) and positive affect (Mageau & Vallerand, 2007; Vallerand et al., 2006), feeling more energetic (Vallerand et al., 2006), and better general well-being (Rousseau & Vallerand, 2008).

Conversely, an obsessive passion for leadership reflects a strong and uncontrollable need to engage in leadership. Indeed, due to the various pressures (e.g., protecting one's self-worth) inherent in this form of activity engagement (Vallerand et al., 2003), obsessive passion for leadership would be characterized by a sense of insecurity and uncertainty. In addition, given the rigid nature of obsessive passion whereby the activity comes to control the individual (Vallerand et al., 2003), leaders driven by an obsessive passion for leadership would feel compelled to pursue their goals relentlessly, both when they are engaged in or prevented from engaging in leadership. As a result, because Vallerand et al. (2003) posit that obsessive passion emanates from the extrinsic and introjected aspects of the self (Deci & Ryan, 1985; Ryan & Deci, 2003) and involves incessant activity engagement, obsessive passion for leadership is likely to be associated with negative outcomes. In support of this notion, empirical evidence links obsessive passion with negative affect (Vallerand et al., 2006) and stress (Philippe et al., 2009), as well as lower levels of general well-being (Rousseau & Vallerand, 2008; Vallerand et al., 2007).

In conceptualizing my model, it is important to differentiate the passion for leadership from other motivational constructs that exist within the leadership literature, specifically the motivation to lead (Chan & Drasgow, 2001). The motivation to lead, an individual-difference construct, is primarily associated with assuming a leadership position (Badura, Grijalva, Galvin, Owens, & Joseph, 2020), as well as leadership knowledge and skills, and abilities to lead (Van Iddekinge, Ferris, & Heffner, 2009). Although both constructs are multidimensional in nature (with the motivation to lead comprising affective-identity, noncalculative, and social-normative motivation to lead), they differ on several important dimensions. First, unlike motivation to lead, the definition of a passion for leadership explicitly states that leadership engagement is highly prioritized and fundamental to one's identity.

Second, the two constructs differ in affective intensity; affective-identity motivation to lead is conceptualized as an enjoyment or liking for leadership, whereas passion for leadership involves a deep or immense love of leadership. Furthermore, unlike noncalculative (i.e., agreeing to lead without calculating the costs relative to the benefits) and social-normative (i.e., leading out of a felt obligation or duty) motivation to lead, only affective-identity motivation to lead involves an affective component. In contrast, both dimensions of the passion for leadership include affect (i.e., a deep love for leadership).

Third, both constructs differ on overall purpose; while motivation to lead is primarily focused on why individuals might assume leadership positions (i.e., leadership role occupancy), it does not directly reflect how these individuals might think, feel, or behave once in that leadership role. Stated somewhat differently, motivation to lead primarily reflects individuals' motivation toward occupying a leadership position, whereas the dualistic model of a passion for leadership shifts the focus (depending on the nature of their passion for leadership) to what

drives leaders to continuously engage in leadership activities, and how they will experience their leadership involvement. For example, leaders might engage in high- or poor-quality leadership based on whether they experience harmonious or obsessive passion for leadership, respectively. Supporting this, Badura et al.'s (2020) meta-analysis showed that the three components of motivation to lead positively influenced leadership emergence and transformational leadership behaviors. However, beyond these main effects, the authors were "surprised" (p. 15) to note that affective-identity motivation to lead (which accounted for the majority of the variance in the main effect analyses) only mediated the relationship between leader attributes (e.g., gender, personality traits) and leadership emergence, but did not mediate the relationship between leader attributes and transformational leadership or leader effectiveness. This raises interesting questions about the overall purpose of leading out of enjoyment (i.e., affective-identity motivation to lead), and whether it is better suited to explain leadership emergence rather than behaviors or effectiveness.

Last, whereas motivation to lead is conceptualized as an individual-difference construct, passion for leadership reflects a target-specific energy that drives individuals to engage in leadership activities. As opposed to being a trait reflecting a general tendency to engage in a leadership role, passion for leadership involves consistently investing time and energy in leadership activities out of love, personal meaningfulness and the centrality of those activities to one's identity.

I also differentiate the dualistic model of a passion for leadership from the notion of the love of the job (Kelloway, Inness, Francis, Barling & Turner, 2010). Although both theories are conceptualized as affective in nature, Kelloway et al. (2010) note that the target of one's love can be broadly directed toward any job, while the passion for leadership focuses on a specific role.

Moreover, while the two theories are similar in intensity, the love of the job is comprised of a commitment to the employing organization, intimate relationships with coworkers, and a passion for the work itself, but operationalized as a unidimensional (or higher order) construct. In contrast, the two components inherent in the dualistic model are separate but related, allowing for the prediction of differential outcomes. Last, the love of the job is exclusively positively valenced, and includes no negative component such as hatred of one's job (Kelloway et al., 2010). In contrast, with its intent on both the harmonious and obsessive passion for leadership, the dualistic model enables a focus on both high- and poor-quality leadership.

Finally, I differentiate the dualistic model of a passion for leadership from general work passion (Chen et al., 2020). First, the two constructs differ in affective intensity. Whereas Chen et al. (2020) state that general work passion does not require that affect must be experienced intensely, passion for leadership entails a strong or deep love of leadership. Furthermore, unlike general work passion, a passion for leadership explicitly involves a significant amount of time and energy spent in leadership engagement. Last, and similar to the love of the job (Kelloway et al., 2010), general work passion is conceptualized as a unidimensional construct that is exclusively positively valenced where the target of one's love can be broadly directed toward any vocation. In contrast, the dualistic model of a passion for leadership is a multidimensional (i.e., two-factor) construct that involves harmonious and obsessive passion where the target of one's love is focused on a specific role.

Present Study

To develop a reliable and valid measure of a passion for leadership, I follow best practices outlined in the scale development literature (e.g., Crawford & Kelder, 2019; DeVellis, 2012; Hinkin, 1998; Hinkin & Schriesheim, 2008). I conduct seven separate studies and present

the results below. In Study 1a, I use two separate samples to develop an initial pool of items that were subject to tests for content validity. In Studies 1b and 1c, I conduct exploratory and confirmatory factor analyses, respectively, to assess construct validity and internal consistency. Convergent and discriminant validity are examined in Study 1d, and concurrent-related validity in Study 1e. Study 1f extends the focus on concurrent-related validity by excluding mono-method bias, while Study 1g reports on temporal stability.

2.2 Study 1a: Item Generation and Content Validation

Item Generation

I used a deductive approach in developing items for harmonious and obsessive passion for leadership (Ferris, Brown, Berry, & Lian, 2008; Hinkin, 1998). My supervisor and I initially wrote items independently, and then compared the similarities and differences between their lists. Thereafter, these items were supplemented with additional items from pre-existing passion scales which were adapted to reflect the leadership context. For example, I reworded items from Vallerand et al.'s (2003) Passion Scale (e.g., "This activity allows me to live a variety of experiences" was reworded to "Being a leader allows me to live a variety of experiences") and Allen and Meyer's (1990) Affective Organizational Commitment subscale (e.g., "This organization has a great deal of personal meaning for me" was reworded to "Being a leader has a great deal of personal meaning for me"). After completing this process, a total of 36 items were generated. Both myself and my supervisor subsequently reviewed the items to screen for redundancy and to ensure relevance within the leadership context, resulting in 24 items (12 for each subscale) being retained for further analysis.

Content Validity

Next, I sought to assess the content validity (i.e. substantive validity and content adequacy) of the 24 items using two separate approaches. The items were checked for substantive validity using an item-sort task (Anderson & Gerbing, 1991), while content adequacy of the items was assessed using a Likert-type scale (Hinkin & Tracey, 1999; Schriesheim, Powers, Scandura, Gardiner, & Lankau, 1993).

Participants and procedure. I invited eight doctoral students (5 males, 3 females; age range = 25 – 33 years) from a medium-sized Canadian university to complete the item-sort task. Participants were provided with definitions of both harmonious and obsessive passion for leadership, and asked to sort the 24 items (which were presented in random order) into their appropriate dimension. To assess substantive validity, the proportion of substantive agreement (PSA) index was used, which reflects the proportion of respondents who assign an item to its intended construct (Anderson & Gerbing, 1991). Items that are placed under the correct construct definition show higher levels of substantive validity than are items placed under the incorrect construct definition.

The same group of doctoral students completed the content adequacy assessment. They received definitions of harmonious and obsessive passion for leadership as well as the 24 items, and were then asked to rate the extent to which each item was consistent with the definition of the relevant passion for leadership dimension on a scale from 1 (not at all) to 7 (completely). Items were presented in random order. Examples of both procedures are presented in Appendix A.

Results. For substantive validity, I retained items with $PSA \geq .75$, which resulted in 2 harmonious passion items (HP7: $PSA = .00$; HP11: $PSA = .38$) not meeting this standard requirement. Furthermore, at face value, the content adequacy results suggested that no

differentiation could be made between the harmonious and obsessive passion definitions for one item (HP7) as the mean rating loaded on the incorrect definition (see Table 1). However, given the small sample size on which these analyses were based, these results were treated as tentative, and a replication was conducted on a separate sample.

Replication sample. Content adequacy was assessed on a sample of 113 undergraduate business students (62 males, 51 females; age range = 18 – 23 years) recruited from a medium-sized Canadian university. I compared the mean rating of each item across the two definitions using paired sample t-tests (Hinkin & Tracey, 1999). Items placed within the appropriate category, and whose mean rating are significantly higher ($p < .05$) on the correct dimension, demonstrate content adequacy.

The results of the paired sampled t-tests confirmed the need to delete items HP7 and HP11, as both were viewed as reflecting obsessive rather than harmonious passion (HP7: $t = -8.02, p < .001$; HP11: $t = -3.52, p < .001$). In addition, one additional harmonious passion item (HP12) could not be reliably differentiated between the harmonious and obsessive passion definitions (HP12: $t = -1.06, ns$), and was therefore removed. The resulting scale consisted of 21 items (9 items for harmonious passion and 12 items for obsessive passion; see Table 1) being retained for further analysis.

2.3 Study 1b: An Exploratory Factor-Analytic Test of Construct Validity

After establishing the content validity of the items, and following recommendations by Hinkin (1998), I conducted an exploratory factor analysis (EFA) to examine the factor structure of the passion for leadership scale. I supplemented this analysis with an assessment of the internal consistency of the harmonious and obsessive passion for leadership scales.

Method

Participants and Procedure

Participants were recruited through Clearvoice Research Panel Services (www.clearvoiceresearch.com). The sample consisted of 210 people holding a leadership position (54% male) from various industries, including financial (29%), sales and services (12%), health care (10%), government (8%), and manufacturing (8%). On average, participants were 45.55 years old ($SD = 10.33$), worked 43.93 hours ($SD = 6.94$) per week, had 13.02 years ($SD = 9.54$) of leadership experience, and supervised 22 employees ($SD = 40.29$). Questionnaires were completed online.

Measures

Passion for leadership. I measured passion for leadership with the 21 items retained from the content validity assessment. Items were rated on a 7-point scale (1 = *not at all* to 7 = *completely*).

Analytic Strategy

A maximum likelihood EFA with oblique rotation (direct oblimin) was conducted using SPSS 25. The number of factors retained was determined using conventional methods (e.g., scree plot, eigenvalues, percentage of variance explained, and the likelihood ratio test statistic; Fabrigar & Wegener, 2011). Items were deleted based on factor loadings ($< .50$; Hinkin, 1998) and cross loadings ($< .15$ difference between any two factor loadings).

Results

The factor loadings from the initial EFA ($\chi^2(169) = 415.12, p < .001$) indicated that two harmonious passion for leadership items (“Being a leader is a passion that I still manage to control” and “I can control my passion for leadership”) did not meet the standard factor loading requirement ($< .50$). In addition, two obsessive passion for leadership items (“The urge is so

strong, I cannot help myself from being a leader” and “I have difficulty imagining my life without being a leader”) cross-loaded (difference in loadings $< .15$). I removed these four items and re-computed the EFA.

The second EFA ($\chi^2(103) = 229.11, p < .001$; see Table 2) showed that the break in the scree plot, extracted eigenvalues, and percentage of variance explained all suggested a two-factor solution. All items loaded on their respective factors (range .51 to .84) and no cross-loadings were identified.

To determine whether a two-factor solution improved model fit over a one-factor solution, which would reflect a unidimensional measure of the passion for leadership, I computed a χ^2 difference test using the likelihood ratio test statistic (Fabrigar & Wegener, 2011). A significant χ^2 was yielded ($\chi^2(16) = 448.27, p < .01$) suggesting that the two-factor solution provided a better model fit than a unidimensional solution.

Both factors demonstrated satisfactory levels of internal consistency ($\alpha = .86, .91$ for harmonious and obsessive passion for leadership, respectively). The correlation between the two factors was .44, $p < .001$.

2.4 Study 1c: A Confirmatory Factor-Analytic Test of Construct Validity

To further assess construct validity, I conducted a confirmatory factor analysis (CFA), in which I specified that harmonious and obsessive passion for leadership reflect correlated but separate constructs. To do so, I compared the goodness of fit of a two- and one-factor model.

Participants and Procedure

Clearvoice Research Panel Services recruited a separate sample of 200 people in leadership positions to complete an online survey. Participants were employed within a variety of industries, including financial (26%), manufacturing (17%), sales and services (13%), health care

(6%), and government (6%). On average, participants were 45.99 years ($SD = 11.39$; 75% male). The average leadership tenure of participants was 13.88 years ($SD = 9.79$) and worked on average 44.11 hours ($SD = 8.57$) per week. Participants supervised on average 117 employees ($SD = 373.58$).

Measures

Passion for leadership. I measured passion for leadership with the 17 items retained from the EFA. Items were rated on a 7-point scale (1 = *not at all* to 7 = *completely*).

Analytic Strategy

I computed a confirmatory factor analysis with maximum likelihood estimation using AMOS 25. I contrasted a one-factor model, a unitary factor structure with all passion for leadership items loading on the same factor, against my hypothesized two-factor model, in which I specified that the harmonious and obsessive passion for leadership items only loaded on their respective factor.¹

As recommended by Hair, Black, Babin, and Anderson (2010), and consistent with suggestions by Hu and Bentler (1999), I used the comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean residual (SRMR) as model fit indicators to examine the fit of my hypothesized two-factor model, and the relative fit of the two- vs. one-factor model. Unacceptable model fit would be indicated if $CFI < 0.90$, $RMSEA > 0.08$, $SRMR > 0.10$; moderate model fit would exist if $CFI < 0.95$, $RMSEA < 0.08$, and $SRMR > 0.08$;

¹ It is not feasible to conduct a second-order confirmatory factor analysis as the model would be under-identified. To clarify, there is only one parameter linking harmonious and obsessive passion for leadership (i.e., the correlation) in the first-order confirmatory factor analysis, whereas in the second-order there are two loadings yet one is fixed so only one loading is estimated. As such, the second- and first-order models are mathematically identical (e.g., model fit indices would provide the same results) as only one parameter is estimated.

and, good model fit would be present when $CFI > 0.95$, $RMSEA < 0.08$, and $SRMR < 0.08$ (Hair et al., 2010; Hu & Bentler, 1999).

Following Podsakoff, MacKenzie, Lee, and Podsakoff (2003), I implemented a single method factor approach to control for any threats due to common method variance. Specifically, a common latent factor was created to allow all items to load onto that factor in addition to allowing the items to load on their respective theoretical construct. A zero constraints test was conducted using a CFA Tool Plugin (Gaskin & Lim, 2017) available in AMOS 25, which compares the constrained and unconstrained models.

Results

With the exception of the RMSEA, the hypothesized two-factor model yielded a moderate fit to the data, $\chi^2(118, N = 200) = 336.99, p < .01$; $CFI = 0.909$; $RMSEA = 0.097$; $SRMR = 0.075$. In evaluating the modification indices, the exclusion of three obsessive passion for leadership items (“Being a leader is critical to my self-esteem”, “Losing my position as a leader would be a huge blow”, and “I feel pressured to be a leader”) would improve model fit. I removed these three items and re-computed the CFA.

The second CFA provided a good fit to the data; $\chi^2(76, N = 200) = 185.30, p < .01$; $CFI = 0.945$; $RMSEA = 0.085$; $SRMR = 0.068$. In contrast, the one-factor solution did not provide a good fit to the model, $\chi^2(77, N = 200) = 606.24, p < .01$; $CFI = 0.736$; $RMSEA = 0.186$; $SRMR = 0.146$. Further supporting the dualistic model of the passion for leadership, the two-factor model provided a significantly better fit than the one-factor solution, $\Delta\chi^2(1, N = 200) = 420.94, p < .01$.

The zero constraints test showed that the constrained and unconstrained models were invariant, $\chi^2(62, N = 200) = 114.61, p = 1.00$, suggesting that common method variance did not affect the data.

Both factors demonstrated acceptable levels of internal consistency ($\alpha = .90, .93$ for harmonious and obsessive passion for leadership, respectively); the intercorrelation of the two factors was $.62, p < .01$.

Replication sample. To provide further support for the hypothesized two-factor model of passion for leadership, I conducted an additional CFA on the 14-item passion for leadership scale using a separate sample of 255 leaders (43% male) collected through Clearvoice Research Panel Services. Participants were employed within various industries, such as financial (25%), sales and services (15%), health care (13%), manufacturing (9%), and government (8%). On average, participants were 44.73 years old ($SD = 11.35$), worked 45.00 hours ($SD = 8.68$) per week, had 14.36 years ($SD = 10.22$) of leadership experience, and supervised 77 employees ($SD = 487.42$).

The results demonstrated that the two-factor model yielded a significantly better fit to the data, $\chi^2(76, N = 255) = 221.93, p < .01$; CFI = 0.920; RMSEA = 0.087; SRMR = 0.085, than the one-factor model, $\chi^2(77, N = 255) = 738.76, p < .01$; CFI = 0.636; RMSEA = 0.184; SRMR = 0.165; $\Delta\chi^2(1, N = 255) = 516.83, p < .01$.

Both factors demonstrated acceptable levels of internal consistency (harmonious and obsessive passion for leadership: $\alpha = .88$) and the intercorrelation of the two factors was $.49, p < .01$.

Appendix B contains the retained sets of items (harmonious passion: 7 items; obsessive passion: 7 items) for the passion for leadership measure.²

2.5 Study 1d: Convergent and Discriminant Validity

The optimal test of convergent validity would demonstrate that the newly-developed measures of harmonious and obsessive passion for leadership are significantly correlated with other scales assessing the same constructs. However, in the absence of such scales, I assessed convergent validity of the harmonious and obsessive passion for leadership scales with other theoretically similar constructs.

I posited that affective-identity motivation to lead (i.e., leading others out of pure enjoyment; Chan & Drasgow, 2001) and love for one's job (i.e., "high levels of healthy engagement with, involvement in, and excitement stemming from the work itself"; Kelloway et al., 2010, p. 115) would be positively associated with harmonious passion for leadership, as all three are conceptualized as motivational constructs and involve positive affect targeted toward an activity (in this case, toward the leadership role or one's job).³ In contrast, I hypothesized that obsessive passion for leadership, with its sense of obligation or compulsion to pursue the activity, would be positively associated with overcommitment at work (i.e., an overexertion of effort at work; Siegrist et al., 2004) and workaholism (i.e., a strong inner drive or compulsion to work incessantly; Taris, Schaufeli, & Verhoeven, 2005). Moreover, like obsessive passion for leadership, both overcommitment at work and workaholism involve a relentless pursuit of the goal at hand due to an inability to withdraw or distance oneself from an activity.

² It is important to note that 5 harmonious and 5 obsessive passion for leadership items retained for the finalized passion for leadership measure were adapted from Vallerand et al.'s (2003) original context-free passion scale.

³ Convergent validity was not assessed with Chen et al.'s (2020) general work passion scale because their article was not published at the time my research was conducted.

To establish discriminant validity, I predicted that harmonious passion for leadership should be unrelated to overcommitment at work or workaholism: unlike overcommitment at work or workaholism, harmonious passion involves an affective intensity for, specific prioritization of, identification with, and flexible engagement in leadership, and should thus still remain separate from overcommitment at work and workaholism. Similarly, obsessive passion for leadership should be unrelated to both affective-identity motivation to lead and the love of one's job. Only obsessive passion for leadership explicitly prioritizes and focuses on the strong and uncontrollable need to engage in leadership as well as being central to one's identity, and should therefore still remain distinct from affective-identity motivation to lead and the love of one's job.

Participants and Procedure

I conducted an online survey with participants recruited through Qualtrics Panel Services (www.qualtrics.com). 105 people holding a leadership position (48% male) agreed to participate, and were employed within various industries such as finance (26%), sales and services (14%), health care (12%), manufacturing (11%), and education (10%). Participants were on average 37.53 years ($SD = 10.57$), worked on average 42.83 hours ($SD = 6.53$) per week, had on average 8.74 years ($SD = 7.24$) of leadership experience, and supervised on average 46 employees ($SD = 120.28$).

Measures

Passion for leadership. Passion for leadership was measured with the 14-item scale developed in Study 1b-c. Items were rated on a 7-point scale (1 = *not at all* to 7 = *completely*) (harmonious and obsessive passion for leadership: $\alpha = .93$).

Affective-identity motivation to lead. I used Chan and Drasgow's (2001) 9-item affective-identity motivation to lead subscale of the motivation to lead measure ($\alpha = .80$). Participants responded to items (e.g., "Most of the time, I prefer being a leader rather than a follower when working in a group") on a 5-point scale (1 = *strongly disagree* to 5 = *strongly agree*).

Love of the job. I used 3 items from Inness et al.'s (2018) love of the job scale. Participants rated the following items: "My work is more than a job to me, it is a passion", "I am excited to do my job each day", and "I adore what I do at work" ($\alpha = .92$) on a 5-point scale (1 = *strongly disagree* to 5 = *strongly agree*).

Overcommitment at work. Overcommitment at work was measured with the 6-item overcommitment subscale of the effort-reward imbalance questionnaire (Siegrist et al., 2004). Participants responded to statements, such as "People close to me say I sacrifice too much for my job" ($\alpha = .78$), on a 5-point scale (1 = *strongly disagree* to 5 = *strongly agree*).

Workaholism. Workaholism was assessed with Taris et al.'s (2005) 8-item compulsive tendencies subscale of the Work Addiction Risk Test (WART; Robinson, 1999). Participants answered items (e.g., "I find myself continuing to work after my coworkers have called it quits") using a 5-point scale (1 = *strongly disagree* to 5 = *strongly agree*). Internal consistency was acceptable ($\alpha = .86$).

The measures are presented in Appendix C.

Results

Descriptive data, zero-order and partial correlations for harmonious and obsessive passion for leadership appear in Table 3. All analyses were conducted using SPSS 25.

Partial correlations were computed because of the significant correlation ($r = .62, p < .001$) between harmonious ($M = 5.51, SD = 1.24$) and obsessive ($M = 3.76, SD = 1.68$) passion for leadership in this study. Demonstrating convergent validity, after controlling for obsessive passion for leadership, harmonious passion for leadership was positively related to affective-identity motivation to lead ($r = .65, p < .001$) and love of the job ($r = .57, p < .001$). In addition, after controlling for harmonious passion for leadership, obsessive passion for leadership positively correlated with overcommitment at work ($r = .47, p < .001$) and workaholism ($r = .35, p < .001$). Supporting discriminant validity, harmonious passion for leadership was not significantly associated with overcommitment at work ($r = -.16, p = .12$) or workaholism ($r = .17, p = .09$) after controlling for obsessive passion, and obsessive passion for leadership was not significantly related to affective motivation to lead ($r = -.12, p = .22$) or love of the job ($r = .13, p = .18$) after controlling for harmonious passion for leadership.

2.6 Study 1e: Concurrent Validity

I extended my assessment of the psychometric properties of the harmonious and obsessive passion for leadership scales by establishing concurrent validity. Specifically, I expected that harmonious passion for leadership would be associated with positive affect, autonomy, self-control, and work engagement, while obsessive passion for leadership would be correlated with negative affect, perfectionism, fear of failure, and anxiety.

Positive and Negative Affect

The dualistic nature of a passion for leadership suggests that harmonious and obsessive passion would be differentially associated with positive and negative affect. Harmonious passion for leadership is likely to elicit positive experiences, as leaders freely and willingly engage in leadership rather than doing so from a feeling of obligation. Supporting this rationale, a meta-

analysis by Curran et al. (2015) identified 28 studies from various domains (e.g., education, work, and sport) that demonstrated a positive relationship between harmonious passion and positive affect when controlling for obsessive passion. In contrast, obsessive passion for leadership involves an insecure or uncontrollable need to engage in leadership, in which task engagement is contingent upon inter- and/or intra-personal pressures, and is thus likely to consume leaders and result in negative affective outcomes. Based on the same meta-analysis (Curran et al., 2015), 23 studies were identified that demonstrated obsessive passion was positively associated with negative affect when controlling for harmonious passion. Thus:

Hypothesis 1: Harmonious passion for leadership will be positively related to positive affect.

Hypothesis 2: Obsessive passion for leadership will be positively related to negative affect.

Autonomy

Autonomy reflects a sense of choice in the initiation and maintenance of actions (Deci, Connell, & Ryan, 1989). Given that harmonious passion for leadership is characterized by individuals freely engaging in leadership rather than from feelings of obligation, with individuals choosing when and when not to engage in leadership, its flexible nature will likely be associated with a sense of autonomy. Supporting this, evidence showed a positive relationship between an autonomous orientation (i.e., the tendency toward volitional engagement) and harmonious passion toward sport (Vallerand et al., 2006, Study 1 & 3) and harmonious passion for work (Liu et al., 2011). Thus:

Hypothesis 3: Harmonious passion for leadership will be positively related to autonomy.

Self-Control

Self-control, the ability to change or adjust one's inner responses as well as refrain from acting on undesirable behavioral tendencies (Tangney, Baumeister, & Boone, 2004), is linked to a host of positive outcomes including task performance, psychological adjustment, and high-quality interpersonal relationships (Shoda, Mischel, & Peake, 1990; Tangney et al., 2004). Because harmonious passion for leadership involves a strong, controllable desire to engage in leadership, leaders will be able to self-regulate and change or adapt to various situations that require their attention. Evidence supporting this rationale derives from a positive association between harmonious passion for work in general, and self-control (Briki, 2017). Thus:

Hypothesis 4: Harmonious passion for leadership will be positively related to self-control.

Work Engagement

Work engagement reflects a fulfilling and positive state of mind at work that enables employees to be energetic and effectively deal with the demands of the job (Shaufeli, Bakker, & Salanova, 2006). Moreover, work engagement is a multidimensional construct comprising vigor, dedication and absorption. Because harmonious passion for leadership enables individuals to freely participate in the chosen activity from a secure sense of self and with flexibility, and integrates personal and work identity in a balanced manner, it is likely to be associated with feelings of vigor, dedication, and absorption. Some support for my hypothesis stems from research showing that harmonious passion for work was positively correlated with work engagement (Birkeland & Buch, 2015). Thus:

Hypothesis 5: Harmonious passion for leadership will be positively related to vigor, dedication, and absorption.

Perfectionism

Perfectionism is characterized by holding excessively high standards of achievement and striving for excellence, as well as being overly critical in evaluating one's own behavior (Flett & Hewitt, 2002). Although multiple conceptualizations of perfectionism exist, I focus on three aspects of self-evaluative perfectionism, namely concern over mistakes, need for approval, and rumination (Hill et al., 2004). Given that obsessive passion for leadership derives from ego-invested pressures wherein leaders feel driven to pursue their goals relentlessly, it is likely to be associated with the three aspects of perfectionism as the rigid pursuit of being perfect may be experienced in a way that is similar to the uncontrollability and insecurity that drives the concern for mistakes, need for approval, and rumination. Verner-Filion and Vallerand (2016, Study 1) showed among a group of students that obsessive, but not harmonious, passion for one's studies was positively related to socially prescribed perfectionism (i.e. exerting and achieving high standards of excellence to feel valued by others; Hewitt & Flett, 1991). Thus:

Hypothesis 6: Obsessive passion for leadership will be positively related to concern over mistakes, need for approval, and rumination.

Fear of Failure

Fear of failure is the dispositional tendency to avoid failure in achievement settings because of the shame associated or experienced personally with failure (Elliot & Thrash, 2004). Individuals seek to protect themselves from the possibility of failure either by withdrawing effort mentally or physically, or by striving for success (Covington, 1992; Elliot & Church, 1997). Lafrenière, Vallerand, and Sedikides (2013) showed that individuals characterized by obsessive (but not harmonious) passion engage in self-enhancement strategies to protect themselves from situations associated with failure. Similarly, activity engagement based on insecure pressures

(Vallerand et al., 2003) results in a rigid form of persistence characteristic of obsessive passion.

Thus:

Hypothesis 7: Obsessive passion for leadership will be positively related to fear of failure.

Anxiety

Anxiety is reflected in the presence of uncontrollable and persistent worry about a variety of topics (e.g., safety, health, finances), accompanied by physiological or psychological consequences such as disrupted sleep, fatigue, muscle tension, irritability, restlessness, and difficulty concentrating (Rowa, Hood, & Antony, 2013). Given the nature of obsessive passion for leadership, in which activity involvement is a function of obligation or compulsion and potentially conflicts with other life activities, I predict that obsessive passion for leadership will be associated with anxiety. Indeed, because an overwhelming need to engage in the activity is characteristic of obsessive passion (Vallerand et al., 2003), it would be difficult for leaders to actively disengage from their leadership thoughts or behaviors. The uncontrollable experience to continuously engage in leadership may therefore leave individuals feeling anxious. Supporting this rationale, Mageau, Vallerand, Rousseau, Ratelle, and Provencher (2005) showed that obsessive, but not harmonious, passion for gambling was positively associated with anxiety.

Thus:

Hypothesis 8: Obsessive passion for leadership will be positively related to anxiety.

Method

Participants and Procedure

A separate sample of 202 participants who occupied leadership roles was recruited by Clearvoice Research Panel Services to participate in an online survey. Participants were on average 44.37 years old ($SD = 10.46$, 44% male), and worked in numerous industries such as

financial (36%), manufacturing (12%), sales and services (10%), health care (5%), and government (5%). The average hours worked per week of participants was 41.61 ($SD = 6.20$), their average leadership experience was 12.37 years ($SD = 9.07$), and the average number of employees supervised was 35 ($SD = 90.56$).

Measures

Passion for leadership. The 14-item passion for leadership measure developed in Study 1b-c was used in this study. Items were rated on a 7-point scale (1 = *not at all* to 7 = *completely*) (harmonious passion for leadership: $\alpha = .87$; obsessive passion for leadership: $\alpha = .89$).

Positive and negative affect. I used Watson, Clark, and Tellegen's (1988) PANAS scale. Participants rated 20 adjectives (i.e., 10 each) associated with positive (e.g., excited) and negative (e.g., guilty) affect on a 5-point scale (1 = *not at all* to 5 = *extremely*). Cronbach alphas were .89 and .93 for positive and negative affect, respectively.

Autonomy. Autonomy was assessed using 3 items from Spreitzer's (1995) adaptation of Hackman and Oldham's (1975) autonomy scale. Participants responded to statements, such as "I have significant autonomy in determining how I do my job" ($\alpha = .83$), using a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*).

Self-control. Tangney et al.'s (2004) 13-item self-control measure was used in this study ($\alpha = .87$). Participants replied to items (e.g., "I am good at resisting temptation") on a 5-point scale (1 = *not at all like me* to 5 = *very much like me*).

Work engagement. I used 3 subscales (vigor, dedication, and absorption) from Schaufeli, Salanova, González-Romá, and Bakker's (2002) Utrecht Work Engagement Scale.⁴

⁴ A confirmatory factor analysis demonstrated that the three-factor model of work engagement yielded a significantly better fit to the data, $\chi^2(116, N = 202) = 496.54, p < .01$; CFI = 0.83; NFI = 0.79; RMSEA =

Example items for vigor (6 items, $\alpha = .86$), dedication (5 items, $\alpha = .89$), and absorption (6 items, $\alpha = .82$) included “At my work, I feel bursting with energy”, “I find the work I do full of meaning and purpose”, and “I am immersed in my work”, respectively. Participants replied on a 7-point scale (1 = *never* to 5 = *always*).

Perfectionism. Perfectionism was measured using 3 subscales (concern over mistakes, need for approval, and rumination) from Hill et al.’s (2004) self-evaluative perfectionism measure.⁵ Example items for concern over mistakes (8 items, $\alpha = .94$), need for approval (8 items, $\alpha = .91$), and rumination (7 items, $\alpha = .93$) included “If I make mistakes, people might think less of me”, “I compare my work to others and often feel inadequate”, and “When I make an error, I generally cannot stop thinking about it”, respectively. Participants responded on a 5-point scale (1 = *strongly disagree* to 5 = *strongly agree*).

Fear of failure. Lang and Fries’s (2006) 5-item fear of failure subscale from their achievement motives scale ($\alpha = .91$) was used in this study. Participants replied to statements such as “I am afraid of failing in somewhat difficult situations when a lot depends on me” on a 5-point scale (1 = *strongly disagree* to 5 = *strongly agree*).

Anxiety. Anxiety was measured using the 7-item generalized anxiety disorder scale validated for the general population (Löwe et al., 2008). Participants responded to items (e.g., “feeling nervous, anxious, or on edge”) on a 4-point scale (1 = *not at all* to 4 = *nearly every day*). Cronbach alpha was .91.

0.13, than the single-factor model, $\chi^2(119, N = 202) = 605.38, p < .01$; CFI = 0.78; NFI = 0.74; RMSEA = 0.14; $\Delta\chi^2(3) = 108.84, p < .001$. Thus, the 3 subscales were analyzed separately.

⁵ A confirmatory factor analysis showed that the three-factor model of perfectionism yielded a significantly better fit to the data, $\chi^2(227, N = 202) = 700.00, p < .01$; CFI = 0.88; NFI = 0.83; RMSEA = 0.10, than the one-factor model, $\chi^2(230, N = 202) = 937.56, p < .01$; CFI = 0.82; NFI = 0.77; RMSEA = 0.12; $\Delta\chi^2(3) = 237.56, p < .001$. As a result, the 3 subscales were used separately for analysis.

The measures can be found in Appendix D.

Results

Descriptive data, partial correlations, and scale reliabilities for harmonious and obsessive passion for leadership appear in Table 4 and 5, respectively. SPSS 25 was used for all analyses.

Given the significant correlation ($r = .37, p < .001$) between harmonious ($M = 5.59, SD = 0.96$) and obsessive ($M = 3.74, SD = 1.58$) passion for leadership in this study, partial correlations were conducted. As predicted, the results showed that, after controlling for obsessive passion for leadership, harmonious passion for leadership was positively associated with positive affect ($r = .68, p < .001$), autonomy ($r = .45, p < .001$), self-control ($r = .44, p < .001$), and work engagement (vigor: $r = .56, p < .001$; dedication: $r = .58, p < .001$; absorption: $r = .49, p < .001$).

Additional support for concurrent validity emerged as obsessive passion for leadership was positively related with negative affect ($r = .59, p < .001$), perfectionism (concern over mistakes: $r = .58, p < .001$; need for approval: $r = .59, p < .001$; rumination: $r = .40, p < .001$), fear of failure ($r = .43, p < .001$), and anxiety ($r = .30, p < .001$) after controlling for harmonious passion for leadership.

2.7 Study 1f: Mono-Method Bias

The prior two studies demonstrate the convergent/discriminant and concurrent validity of the harmonious and obsessive passion for leadership scales. Nonetheless, data for both those studies were derived from a single source, namely the leaders themselves. More robust support for convergent/discriminant and concurrent validity would need to exclude possible mono-method bias. As a result, I assessed concurrent validity in this study using leader-follower dyads to examine the relationship between passion for leadership and employee perceptions of leader behaviors.

I posit that harmonious passion for leadership will be associated with follower reports of leader-member exchange, which takes a relational perspective to leadership and emphasizes a high-quality leader-follower relationship. High-quality leader-member exchange relationships are characterized by autonomy, trust, support, role latitude, and decision-making involvement, whereas poor quality leader-member exchange relationships are defined by social distance, role distinctions, contractual obligations, and one-way communication (Schriesheim, Castro, & Coglisier, 1999). Because harmonious passion involves a meaningful and healthy identification with leadership activities, leaders may internalize interpersonal values that focus on nurturing close relationships with employees such as tending to employee needs and providing social support (what Johnson, Venus, Lanaj, Mao, & Chang, 2012 refer to as relational identity) – the essence of high-quality leader-member exchange behaviors. Supporting this rationale, research in sport (Lafrenière, Jowett, Vallerand, Donahue, & Lorimer, 2008), romantic (Ratelle, Carbonneau, Vallerand, & Mageau, 2013), and organizational (Philippe, Vallerand, Houliort, Lavigne, & Donahue's; 2010, Study 1) domains have all provided empirical support for the notion that harmonious passion is positively associated with relationship quality. Thus:

Hypothesis 9: Harmonious passion for leadership will be positively related to leader-member exchange.

In contrast, I predict that an obsessive passion for leadership will be associated with follower reports of despotic leadership, defined as self-serving leadership behaviors that include being controlling, domineering, and exploitative of others (De Hoogh & Den Hartog, 2008). Because obsessive passion is characterized by an insecure and unhealthy identification with leadership activities, leaders may internalize individual values that solely enhance personal goals and interests or protect oneself from negative events. This predominant focus on the self (what

Johnson et al., 2012 refer to as individual identity) for personal gain is consistent with the need to exert control over others, paradoxically resulting in enacting overly authoritative behaviors in an effort to exert, maintain, or regain control. Supporting this rationale, Guzell and Vernon-Feagans (2004) showed that parents with low perceived control were more likely to use directive play (e.g., reminding, restraining, urging, questioning, correcting) with their infants than parents with high perceived control. Thus:

Hypothesis 10: Obsessive passion for leadership will be positively related to despotic leadership.

Method

Participants and Procedure

Clearvoice Research Panel Services recruited a separate sample of 79 leader-follower dyads to complete an online survey. Specifically, leaders who completed the online questionnaire were asked to voluntarily invite one of their employees to participate and confidentially complete a separate online questionnaire. Due to missing data, the final sample consisted of 67 leader-follower dyads. Leaders were on average 41.93 years old ($SD = 10.03$, 39% male), worked 42.58 hours per week ($SD = 7.51$), and had 12.27 years of leadership experience ($SD = 9.55$). Among the followers, the average age was 40.04 years ($SD = 12.69$, 52% male) and their average tenure with their present leader was 5.67 years ($SD = 7.15$).

Measures

Passion for leadership. Passion for leadership was measured with the 14-item scale developed in Study 1b-c. Leaders responded to items on a 7-point scale (1 = *not at all* to 7 = *completely*) (harmonious and obsessive passion for leadership: $\alpha = .88$).

Leader-member exchange. I used Liden and Maslyn's (1998) 12-item measure. Followers responded to statements such as "My supervisor would defend me to others in the organization if I made an honest mistake" ($\alpha = .89$) using a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*).

Despotic leadership. Despotic leadership was measured with De Hoogh and Den Hartog's (2008) 6-item scale. Items (e.g., "My supervisor is punitive; has no pity or compassion") were rated by followers on a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*) ($\alpha = .92$).

The measures are presented in Appendix E.

Results

All analyses were conducted using SPSS 25.

Partial correlations were computed given the significant correlation ($r = .41, p < .001$) between harmonious ($M = 5.62, SD = 1.08$) and obsessive ($M = 3.76, SD = 1.61$) passion for leadership in this study. After controlling for leader ratings of obsessive passion for leadership, leader ratings of harmonious passion for leadership was positively associated with follower ratings of leader-member exchange ($r = .43, p < .001$). Similarly, after controlling for leader ratings of harmonious passion for leadership, leader ratings of obsessive passion for leadership was positively correlated with follower ratings of despotic leadership ($r = .52, p < .001$). Thus, additional support for concurrent validity is provided as mono-method bias was excluded in these analyses.

2.8 Study 1g: Temporal Stability

After establishing the internal consistency of the harmonious and obsession passion for leadership scales in the prior 5 samples (i.e., Studies 1b-1f), I assessed the test-retest reliability of

both passion for leadership measures. This is an important step as the presence of internal consistency does not establish temporal stability.

Participants and Procedure

Recruitment notices were sent to 100 people holding leadership positions in the information technology industry from several medium-sized Canadian organizations. The final sample consisted of 30 volunteer participants (M age = 48.17, SD = 10.82; 80% male) who worked an average of 44.28 hours (SD = 7.67) per week, had an average of 17.47 years (SD = 11.33) of leadership experience, and supervised an average of 13 employees (SD = 10.71).

An online survey was conducted in which participants were asked to complete the passion for leadership measure at two time points, four weeks apart. Although different lengths of time between scale administrations (e.g., several days, weeks, or even years) have been reported when assessing test-retest reliability (Djurdjevic et al., 2017), I chose a four-week time period to minimize the likelihood that memory or recall could account for stability in responding over time.

Results

The test-retest reliability of the passion for leadership measure was assessed by correlating Time 1 with Time 2 scores (r_{12}) using SPSS 25. After establishing the internal consistency of the two scales (harmonious passion for leadership at T_1 : α = .91; obsessive passion for leadership at T_1 : α = .92), both harmonious (r_{12} = .75) and obsessive (r_{12} = .81) passion for leadership were significantly correlated over the four week period, demonstrating temporal stability.

2.9 Discussion

My two major goals in the current study were to develop (1) a conceptual model of the passion for leadership based on the dualistic model of passion (Vallerand et al., 2003; Vallerand, 2015), and (2) a psychometrically reliable and valid scale for its measurement. The dualistic model of a passion for leadership introduces harmonious and obsessive passion for leadership as separate but related constructs. Harmonious passion for leadership involves a strong, healthy desire to engage in leadership whereby activity involvement is considered flexible. In contrast, obsessive passion for leadership reflects a strong, uncontrollable need to engage in leadership resulting in a rigid form of persistence.

The psychometric properties of the newly-developed scale demonstrated content, construct, convergent, discriminant, and concurrent-related validity, as well as internal and temporal consistency. The measure is strengthened because the likelihood that the findings reported are distorted by common method variance are minimized for several reasons: First, construct validity of the harmonious and obsessive passion for leadership scales was replicated after introducing a method factor in the confirmatory factor analysis (Study 1c). Second, findings from the dyadic sample (Study 1f) suggest that concurrent validity was not threatened by common method bias. Last, conclusions about construct, convergent, discriminant, and concurrent validity are reinforced as the sample sizes used for these tests were sufficiently powerful (Crawford & Kelder, 2019).

Directions for Future Research

Given that a psychometrically reliable and valid scale for the assessment of a passion for leadership is now available, I offer several directions for future research to further corroborate the nature of the construct itself. First, construct validity of the passion for leadership scale should be extended by investigating its incremental validity. For example, given the moderately

high partial correlation between harmonious passion for leadership and affective-identity motivation to lead ($r = .65$), it would be imperative to demonstrate that harmonious passion for leadership adds incremental validity in predicting outcomes over and above affective-identity motivation to lead. Similarly, it would be important to examine whether its two-dimensional structure is invariant across subgroups of respondents. For instance, extensive research shows leadership differences between males and females (e.g., in leadership effectiveness; Paustian-Underdahl, Walker, & Woehr, 2014) and cultural groups (e.g., US vs. China; Shalhoop & Sanger, 2012). Consequently, in Study 2, I assess measurement invariance of the passion for leadership across sex (male vs. female) and country (US vs. China).

Second, to expand its nomological network, future studies should examine the antecedents of the passion for leadership. Consistent with findings showing that family socialization influences the development of later leadership behaviors (e.g., Bronfenbrenner, 1961; Zacharatos, Barling, & Kelloway, 2000), future research could investigate whether the established relationship between parental autonomy-support and children's harmonious passion toward an activity (Mageau et al., 2009) extend into adulthood, and whether parental autonomy-support predicts leadership behaviors in adulthood. Research such as this would expand the lifespan perspective of the development of different aspects of leadership (Liu, Venkatesh, Murphy, & Riggio, 2020)

Third, in addition to understanding the development of high- and poor-quality forms of leadership, the dualistic model of a passion for leadership might help to disentangle any effects of the emotional toll of leadership on leaders' own well-being (Barling & Cloutier, 2017). For example, underlying motivations for involvement in leadership may be as important as any resource demands from the leader role itself (e.g., Lin, Scott & Matta, 2019). Specifically, the

autonomous nature of harmonious passion, which enables leaders to engage and disengage from leadership behaviors and responsibilities with little fear of negative consequences, may be associated with experiencing leadership responsibilities positively. In contrast, feelings of being controlled by leadership responsibilities that is characteristic of obsessive passion may leave leaders experiencing their leadership responsibilities negatively. Support for this derives from research showing that harmonious passion is associated with positive affect, life satisfaction, and feelings of vitality (Mageau & Vallerand, 2007; Lafrenière, Vallerand, Donahue, & Lavigne, 2009; Vallerand et al., 2006, respectively), whereas obsessive passion is associated with rumination, symptoms of psychological burnout, and negative affect (Ratelle et al., 2004; Vallerand et al., 2010; Vallerand et al., 2006, respectively).

Fourth, replicating prior research (Vallerand et al., 2003; Marsh et al., 2013), the findings showed consistently that harmonious and obsessive passion for leadership were significantly and positively correlated across samples (r 's ranged from .37 to .62, $p < .001$). Thus, just as important as understanding the unique effects of harmonious and obsessive passion for leadership would be an understanding of their interactive effects given that they are not mutually exclusive, and can be assumed to exist simultaneously within individuals (Vallerand, 2015). Supporting this, Schellenberg et al. (2019) used a novel quadripartite approach to studying general passion such that four subtypes were developed based on the relative strength (i.e., high/low) of both harmonious and obsessive passion. The results demonstrated that what Schellenberg et al. (2019, p. 165) refer to as “pure” harmonious (i.e., high harmonious, low obsessive) passion related to greater physical and psychological well-being compared to “pure” obsessive (i.e., low harmonious, high obsessive), mixed (i.e., high harmonious, high obsessive), or low (i.e., low harmonious, low obsessive) passion. As such, one possibility is that any

negative experiences of obsessive passion for leadership may be mitigated by engaging in harmonious passion for leadership; in other words, experiencing harmonious passion for leadership may likely serve as protection against the costs associated with obsessive passion for leadership.

Fifth, across seven studies and a meta-analysis, Kim, Campbell, Shephard and Kay (2019) identified a phenomenon they term the “legitimization of passion exploitation”—which describes how employees may be treated unfairly, and taken advantage of, if they are perceived by others (e.g., leaders) as passionate about their work. Based on their research, I suggest it is also possible that leaders might suffer similar unfair treatment by their own leaders. For instance, if they are perceived as being high in passion for leadership, leaders may be exploited by having unusually demanding tasks placed upon them. Similarly, employees who perceive their leaders as high in passion for leadership might also choose to exploit the situation, fundamentally changing the leader-follower relationship. All this could be made more interesting, and more complex, depending on whether leaders are seen to be (too) high in harmonious and/or obsessive passion for leadership.

Last, within the passion for work literature, Cameron (2019) suggests there is considerable room in future research for a greater reliance on longitudinal and experimental designs to establish causal inferences; indeed, a recent meta-analysis (Curran et al., 2015) identifying 94 studies on passion showed that 98% of available effect sizes (1,282 out of 1,308) were based on cross-sectional data. Likewise, examining the causal effects of a passion for leadership is crucial if we are to fully understand its potential and establish its nomological network. As such, in Study 3, I examine the effects of a passion for leadership on high- and poor-quality leadership behaviors.

Practical Implications

Several practical implications emerge from the findings of the current study. First, despite the enormous body of empirical research on diverse aspects of leadership, and the long historical interest in selection within the field of industrial and organizational psychology, leadership selection has received far less empirical attention (Barling, 2014). Given the differing reasons why people assume leadership positions (e.g., increased status and recognition, increased compensation, desire to enhance organizational effectiveness, improve follower well-being, or bring one's work-related activities in line with one's leadership aspirations), understanding the nature of applicants' harmonious and obsessive passion for leadership might aid in predicting future leadership quality.

Second, while leadership development or training is effective (Lacerenza, Reyes, Marlow, Joseph, & Salas, 2017), many people attending such development opportunities are sent by their organizations irrespective of their motivation to be there or not (Barling, 2014). In this regard, lessons might be gleaned from other contexts in which people who are not necessarily psychologically ready for change, such as court-mandated treatment for inter-partner violence, benefit little from the intervention (Rosenfield, 1992). While mindful of not denying people holding leadership roles meaningful opportunities for development, addressing individuals' different leadership passions may provide insights into how we might enhance the effectiveness of leadership interventions.

Conclusion

In the present study, I introduced a dualistic model of a passion for leadership and described the nature of a harmonious and an obsessive passion for leadership. I also developed a psychometrically reliable and valid scale for its measurement, which is a critical step in the early

stages of research on any emerging construct. Thus, research can now proceed on the development of the full nomological network (e.g., antecedents, outcomes, boundary conditions) of the harmonious and obsessive passion for leadership.

2.10 References

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Table 2-1*Substantive Validity and Content Adequacy Results: Study A*

Item	Item description	Sample 1 (N =8)			Sample 2 (N = 113)		
		PSA Index	HP Mean	OP Mean	HP Mean	OP Mean	<i>t</i>
HP1	Being a leader allows me to live a variety of experiences.	1.00	5.38	2.88	5.50	4.27	6.19**
HP2	The new things that I discover as a leader allow me to appreciate it even more.	1.00	5.63	3.88	5.42	4.25	6.58**
HP3	Being a leader allows me to live memorable experiences.	1.00	5.25	4.13	5.54	4.57	6.02**
HP4	Being a leader reflects the qualities I like about myself.	.75	6.00	5.00	5.41	4.89	3.03*
HP5	Being a leader is in harmony with the other activities in my life.	1.00	6.75	2.25	5.90	3.23	11.46**
HP6	Being a leader is a passion that I still manage to control.	.88	5.88	2.00	5.42	3.04	10.45**
HP7	<i>I am completely taken with being a leader.</i>	.00	3.75	6.38	4.25	5.77	- .802**
HP8	I can control my passion for leadership.	1.00	5.00	1.75	5.05	3.17	8.53**
HP9	I freely choose to be a leader.	1.00	6.25	2.63	5.89	3.69	9.04**
HP10	I feel proud to be a leader.	1.00	6.25	5.50	5.99	5.53	2.98*
HP11	<i>I really want to be a leader.</i>	.38	6.00	5.75	5.26	5.85	-3.52**
HP12	<i>Being a leader has a great deal of personal meaning for me.</i>	1.00	6.63	5.50	5.43	5.61	-1.06

OP1	I cannot live without being a leader.	1.00	2.25	6.50	4.11	5.63	6.74**
OP2	The urge is so strong, I cannot help myself from being a leader.	1.00	3.63	6.63	4.86	5.90	5.01**
OP3	I have difficulty imagining my life without being a leader.	1.00	4.00	6.13	4.54	5.62	5.23**
OP4	I am emotionally dependent on being a leader.	1.00	2.63	6.38	4.41	5.97	7.36**
OP5	I have a tough time controlling my need to be a leader.	1.00	2.50	6.50	3.89	5.94	9.96**
OP6	I have almost an obsessive need for being a leader.	1.00	2.25	6.75	3.47	6.10	11.65**
OP7	My mood depends on me being a leader.	1.00	2.25	6.00	3.81	5.74	10.45**
OP8	There is nothing more important to me than being a leader.	1.00	2.88	6.00	3.43	5.59	10.02**
OP9	Being a leader takes away from the other activities in my life.	1.00	2.00	5.75	2.72	5.84	15.74**
OP10	Being a leader is critical to my self-esteem.	.88	4.63	5.63	4.19	6.13	11.28**
OP11	Losing my position as a leader would be a huge blow.	1.00	4.50	6.00	4.20	6.15	10.64**
OP12	I feel pressured to be a leader.	1.00	1.50	5.13	2.88	6.02	15.62**

Note. Italicized items did not meet PSA requirements and/or item means that were not significantly higher on the appropriate definition. PSA = proportion of substantive agreement; HP = harmonious passion; OP = obsessive passion.

* $p < 0.01$; ** $p < 0.001$.

Table 2-2*Exploratory Factor Analysis Results After Deletion of Four Items: Study B*

Item	Mean	SD	Factor 1	Factor 2
HP4	5.38	1.39	.11	.80
HP2	5.45	1.34	.08	.72
HP3	5.02	1.50	.13	.72
HP5	4.89	1.58	.31	.67
HP1	5.57	1.19	.13	.61
HP10	5.99	1.06	-.02	.59
HP9	5.80	1.19	-.21	.56
OP6	2.84	1.83	.84	.01
OP7	3.19	1.87	.79	.04
OP8	3.06	1.90	.76	.10
OP5	3.06	1.74	.75	.01
OP4	3.50	1.85	.74	.24
OP10	3.78	1.80	.69	.13
OP12	3.16	1.72	.62	-.19
OP9	3.33	1.86	.57	-.11
OP1	3.77	1.79	.52	.35
OP11	4.36	1.81	.51	.19
Eigenvalue			7.01	2.70
% of variance			41.24	15.89

Note. $n = 210$. HP = harmonious passion; OP = obsessive passion.

Table 2-3*Descriptive statistics, zero-order and partial correlations: Study D*

	<i>M</i>	<i>SD</i>	HP for Leadership		OP for Leadership	
			<i>r</i>	Partial- <i>r</i>	<i>r</i>	Partial- <i>r</i>
Affective MTL	3.52	0.72	.70*	.65*	.37*	-.12
Love of the job	3.81	1.07	.70*	.57*	.51*	.13
OC at work	2.95	0.85	.19	-.16	.48*	.47*
Workaholism	3.39	0.79	.43*	.17	.52*	.35*

Note: n = 105. HP = harmonious passion; OP = obsessive passion; MTL = motivation to lead; OC = overcommitment.

**p* < 0.001.

Table 2-4

Descriptive statistics, correlations, partial correlations (controlling for obsessive passion for leadership), and scale reliabilities: Study E

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Age (years)	44.37	10.46	-	-.19*	-.15*	-.01	-.01	.26**	.06	.13	.01
2. Gender	1.56	0.50	-.17*	-	-.04	-.07	-.04	-.11	-.07	-.13	-.06
3. HP for leadership	5.59	0.96	-.02	-.08	.87	.69**	.39**	.25**	.57**	.56**	.53**
4. Positive affect	3.87	0.65	.06	-.09	.68**	.89	.42**	.50**	.70**	.67**	.56**
5. Autonomy	5.63	0.95	-.04	-.03	.45**	.44**	.83	.26**	.45**	.44**	.34**
6. Self-control	3.59	0.71	.14*	-.08	.44**	.62**	.24**	.87	.47**	.45**	.27**
7. Vigor	5.07	1.03	.12	-.09	.56**	.70**	.47**	.56**	.86	.77**	.66**
8. Dedication	5.32	1.12	.15*	-.13	.58**	.68**	.45**	.50**	.77**	.89	.76**
9. Absorption	4.81	1.02	.10	-.08	.49**	.55**	.37**	.38**	.65**	.77**	.82

Note. $n = 202$; correlations are reported above the diagonal; partial correlations are reported below the diagonal; alphas are reported on the diagonal in bold. For gender, 1 = male, 2 = female. HP = harmonious passion.

* $p < 0.05$; ** $p < 0.001$.

Table 2-5

Descriptive statistics, correlations, partial correlations (controlling for harmonious passion for leadership), and scale reliabilities: Study E

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Age (years)	44.37	10.46	-	-.19*	-.36**	-.31**	-.27**	-.28**	-.14*	-.15*	-.25**
2. Gender	1.56	0.50	-.20*	-	.10	.19*	.23*	.21*	.15*	.18*	.17*
3. OP for leadership	3.74	1.58	-.33**	.12	.89	.54**	.49**	.49**	.30**	.33**	.26**
4. Negative affect	1.97	0.78	-.32**	.19*	.59**	.93	.67**	.69**	.57**	.60**	.62**
5. COM	2.55	1.01	-.29**	.23**	.58**	.67**	.94	.83**	.81**	.83**	.58**
6. Need for approval	2.67	0.97	-.31**	.20*	.59**	.70**	.83**	.91	.74**	.71**	.52**
7. Rumination	2.69	0.99	-.17*	.14*	.40**	.57**	.81**	.74**	.93	.76**	.59**
8. Fear of failure	2.70	1.04	-.17*	.18*	.43**	.60**	.83**	.70**	.75**	.91	.56**
9. Anxiety	1.62	0.66	-.26**	.17*	.30**	.62**	.58**	.51**	.59**	.55**	.91

Note. $n = 202$; correlations are reported above the diagonal; partial correlations are reported below the diagonal; alphas are reported on the diagonal in bold. For gender, 1 = male, 2 = female. OP = obsessive passion; COM = concern over mistakes. * $p < 0.05$; ** $p < 0.001$.

Chapter 3

Study 2: Testing the Measurement Invariance of a Passion for Leadership

Abstract

The purpose of Study 2 is to test whether the factor structure of the passion for leadership measure is invariant across biological sex (male vs. female) and country (USA vs. China). In other words, I test whether the passion for leadership is psychometrically equivalent across groups (sex and country). To do so, two separate cross-sectional online surveys were conducted, each with a sample of adults employed in leadership roles. The first sample involved 126 males and 143 females who lived in North America, and the second involved 150 adults who lived in the USA (English-speaking) and 150 of whom lived in China (Mandarin-speaking). For both sex and country, the results established partial invariance of the passion for leadership measure.

3.1 Introduction

The purpose of the current study is to extend the investigation of the passion for leadership scale by examining measurement validity, i.e., whether its factor structure is equivalent across subgroups of respondents. This is an important step in measurement development as meaningful statistical comparisons can only be made if measures are comparable across different groups (Chen, 2008; Van de Vijver & Poortinga, 1997). Two groups on which comparisons are commonly made are sex and national culture/country (Chen, Sousa, & West, 2005), and these two groups are the focus of the current study. Specifically, I investigate whether the factor structure of the passion for leadership scale is invariant across subgroups of males vs. females (i.e., sex) and the USA vs. China (i.e., country).

Invariance Across Sex

Research has investigated the role of sex in leadership extensively; indeed, numerous meta-analyses have been conducted to demonstrate the importance of sex on leader role occupancy (e.g., Badura, Grijalva, Newman, Yan, & Jeon, 2018; Eagly & Karau, 1991), leadership behaviors (e.g., Eagly, Johannesen-Schmidt, & van Engen, 2003; Eagly & Johnson, 1990), and leadership effectiveness (Eagly, Karau, & Makhijani, 1995; Paustian-Underdahl, Walker, & Woehr, 2014). For example, over the last 25 years, studies have shown that the gender⁶ gap in the gender-leadership emergence relationship has slowly declined due to women being viewed as more leaderlike, yet men are still more likely than women to assume leadership positions (Badura et al., 2018). To explain why these gender differences still exist, Badura et al.'s (2018) recent review showed that communal traits (e.g., exhibiting sensitivity and concern

⁶ While acknowledging the difference between sex (i.e., a person's biological status at birth) and gender (i.e., a socially constructed concept used to describe social characteristics attributed to sex), gender is the term used almost exclusively to describe results as operationalized in the leadership literature.

for others) negatively impacted leader role occupancy, and these traits are more likely to be possessed by women compared to men. Similarly, Eagly, Nater, Miller, Kaufmann, and Sczesny's (2019) meta-analysis on U.S. public opinion polls between 1946 to 2018 on gender stereotypes revealed that, despite the increasing belief that men and women are equally competent, stereotypical communal traits attributed to women compared to men increased over this time period.

Gender differences have also been confirmed in studies assessing different leadership behaviors and leadership effectiveness. For instance, Eagly et al.'s (2003) meta-analysis demonstrated that, on average, women were more likely to enact all four behaviors of transformational leadership and contingent reward than men, whereas men were more likely to display management-by-exception and laissez-faire leadership behaviors than women. Separately, Paustian-Underdahl et al.'s (2014) meta-analysis showed that men rated themselves as significantly more effective than women, although others rated women as significantly more effective than men; importantly, no overall significant gender differences in leadership effectiveness were found in their analyses.

Taken together, the significant findings across different aspects of leadership suggest that it is critical to examine the role of sex in the passion for leadership. As such, I assess whether the factor structure of the passion for leadership measure is similar for men and women. While no prior research testing the measurement invariance of the passion for leadership exists due to the novelty of the construct, an initial study by Marsh et al. (2013) showed that the original context-free passion scale (Vallerand et al., 2003) was invariant across sex. Thus:

Hypothesis 1: The passion for leadership measure will demonstrate invariance across males and females.

Invariance Across Country

I also investigate whether the factor structure of the passion for leadership is similar across different countries, namely the USA and China. These two countries are selected on the basis of their cultural differences. In particular, the USA represents an individualistic culture (a score of 91 on the 0-100 Hofstede Independence Index; Hofstede, 2001), where individuals are expected to look after themselves and their immediate family, value autonomy and privacy, and are task-oriented. China, in contrast, represents a collectivistic culture (a score of 20 on the Hofstede Independence Index; Hofstede, 2001) such that people are integrated into strong, cohesive groups or families, value harmony and respect, and are relationship-oriented (Hofstede, 1980). While acknowledging its critics (Gelfand, Erez, & Aycan, 2007; Sivakumar & Nakata, 2001), Hofstede's (1980) cultural framework has been used successfully and is still favored due to its clear and parsimonious approach (Beugelsdijk, Kostova, & Roth, 2017; Kirkman, Lowe, & Gibson, 2006). Specifically, Hofstede's (1980) dimension of individualism-collectivism is selected as it is the most widely used and tested dimension in the field of cross-cultural management (Yan & Hunt, 2005).

Research lends support for cultural differences across the USA and China. For example, Forbes, Collinsworth, Zhao, Kohlman, and LeClaire (2011) demonstrated that respondents living in China reported higher conflict-reducing behaviors and lower verbal or physical aggression than their US counterparts. Separately, Spector et al. (2004) showed that the positive relationship between number of hours worked and work-family stress was stronger for those living in the USA (i.e., individualistic culture) than those living in China and Latin American countries (i.e., collectivistic cultures). The authors suggest that individualistic cultures view work and family as separate and competing demands (e.g., working longer hours will detract from time spent with

family), whereas collectivistic cultures view work and family as dependent and compatible demands (e.g., working longer hours will contribute to family well-being) (Spector et al., 2004).

In contrast, however, due to the political and economic changes in China's development over the last 20 years (Parker, Haytko, & Hermans, 2009), scholars have observed a cultural shift in China's values toward exemplifying a less collectivist to more individualistic orientation (Moore, 2005; Yan, 2010). For example, Steele and Lynch (2013) demonstrated that individuals who reside in China prioritized individualistic factors (e.g., freedom of choice and control over life, personal health) compared to collectivistic factors (e.g., national pride, support for group policies) when assessing their own happiness and life satisfaction. Separately, by conducting a large culture-wide content analysis of Chinese books between 1970 to 2008, Zeng and Greenfield (2015) showed that words indexing individualistic values (e.g., compete, private, autonomy) increased in frequency, whereas words indexing collectivistic values (e.g., communal, sacrifice, obedience) decreased (or were slower to increase) in frequency, over this time period.

Within the leadership context, Shalhoop and Sanger (2012) compared personality and value profiles of managers from the USA and China. Their results demonstrated that an American managerial style was characterized as directive and assertive, action-oriented and proactive, and prioritizing job autonomy. In contrast, a Chinese managerial style was described as collaborative and supportive of team efforts, concerned for group welfare, and viewing one's work as part of a larger initiative (Shalhoop & Sanger, 2012). In addition, using samples from Canada (similar to the USA as an individualistic culture with a score of 80 on the Hofstede Independence Index; Hofstede, 2001) and China, Wang and Gagné (2013) examined how employees' collectivistic values influence the positive relationship between transformational

leadership and employees' autonomous motivation. They showed that employees' collectivistic values positively related to autonomous motivation in both Canadian and Chinese samples. However, employees' collectivistic values did not moderate the relationship between transformational leadership and autonomous motivation in Canada or China (Wang & Gagné, 2013).

Given the mixed findings in cultural differences between the USA and China, it is important to evaluate the measurement invariant properties of the passion for leadership scale across countries. Thus:

Hypothesis 2: The passion for leadership will demonstrate invariance across the USA and China.

3.2 Method

Participants and Procedure

Two separate samples of 300 leaders were recruited through Clearvoice Research Panel Services. All eligible participants completed an online questionnaire.

Sample 1 consisted of 300 adults; 150 males and 150 females who lived in North America (English-speaking), and who were at least 25 years old, currently employed full-time in a leadership role, and supervised at least two subordinates. After removing participants due to failed attention checks, the final sample consisted of 269 leaders (47% male) who were employed within various industries including financial (30%), sales and services (13%), health care (11%), education (9%), and manufacturing (8%). Participants were on average 46.60 years old ($SD = 10.27$), worked on average 42.96 hours ($SD = 6.92$) per week, and had on average 14.78 years ($SD = 10.03$) of leadership experience.

Sample 2 consisted of 300 adults (both male and female); 150 of whom lived in the USA (English-speaking) and 150 who lived in China (Mandarin-speaking), and who were at least 25 years old, currently employed full-time in a leadership role, and supervised at least two subordinates. For the sample of leaders from the USA (44% male), participants were on average 44.53 years old ($SD = 9.77$), and worked in various industries such as financial (33%), sales and services (12%), health care (9%), manufacturing (9%), and recreation and sport (9%). Participants worked on average 42.25 hours ($SD = 6.56$) per week, and had on average 13.11 years ($SD = 8.71$) of leadership experience. For the sample of leaders from China (53% male), participants were on average 33.81 years old ($SD = 5.96$), and worked in numerous industries such as financial (37%), manufacturing (23%), recreation and sport (11%), natural and applied science (9%), and sales and services (4%). The average hours worked per week of participants was 42.32 ($SD = 7.54$), and their average leadership experience was 4.96 years ($SD = 3.46$).

Because sample 2 included participants who spoke Mandarin as their first language, the survey was translated into Mandarin using the translation-back-translation method (Brislin, 1970). Specifically, two translators who were native speakers in Mandarin translated the passion for leadership measure. The first translator translated the passion for leadership measure from English to Mandarin. Subsequently, the second translator translated the passion for leadership measure from Mandarin back to English. I then compared the two English versions of the passion for leadership measure to ensure their equivalence. Both were equivalent (see Appendix F), which confirmed that the Mandarin version of the passion for leadership measure was acceptable for use.

Measures

Demographics. Demographic questions included biological sex, age, type of work, weekly hours worked, and years of leadership experience.

Passion for leadership. Passion for leadership was measured with the scale developed in Study 1. Leaders responded to items on a 7-point scale (1 = *not at all* to 7 = *completely*) (Sample 1; Sample 2 – USA; Sample 2 – China: harmonious passion for leadership: $\alpha = .90, .92, .78$; obsessive passion for leadership: $\alpha = .90, .92, .83$, respectively).

3.3 Data Analysis

Prior to assessing measurement invariance, single-group confirmatory factor analyses were conducted to establish that the two-factor model of the passion for leadership provided adequate model fit for each subsample (Milfont & Fischer, 2010). As in Study 1c, the same model fit indicators were used: the comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean residual (SRMR). Furthermore, as was the case in Study 1c, an unacceptable model fit would be indicated if $CFI < 0.90$, $RMSEA > 0.08$, $SRMR > 0.10$; moderate model fit would exist if $CFI < 0.95$, $RMSEA < 0.08$, and $SRMR > 0.08$; and, good model fit would be indicated by $CFI > 0.95$, $RMSEA < 0.08$, and $SRMR < 0.08$ (Hair, Black, Babin, & Anderson, 2010; Hu & Bentler, 1999).

While several techniques have been developed to assess measurement equivalence, the most frequently used is multiple group confirmatory factor analysis (Steenkamp & Baumgartner, 1998; Chen et al., 2005). Using this approach, a series of measurement models were compared in AMOS 25 to assess three hierarchically-ordered levels of measurement invariance: configural, metric (weak factorial), and scalar (strong factorial) invariance (Meredith, 1993; Steenkamp & Baumgartner, 1998). Configural invariance tests whether the constructs have the same *pattern* of factor loadings across groups. In other words, the same items load on the same factors across

groups. Metric invariance assesses the equivalence of factor *loadings* such that the item loadings on the factors are equally constrained across groups. Scalar invariance tests the equivalence of item *intercepts*, in which the intercepts of the items that load on the latent construct are set to be equivalent across groups.

For metric and scalar invariance, a non-significant χ^2 difference test ($p > .05$) would indicate no difference between the more restrictive and less restrictive models, and therefore provide support for measurement invariance. However, given that metric and scalar invariance require stricter parameter equality constraints across groups, researchers (e.g., Byrne, Shavelson, & Muthén, 1989; Putnick & Bornstein, 2016) have suggested the need to establish partial invariance if full invariance cannot be supported. To do so, item factor loadings or intercepts are freely estimated based on modification indices (Byrne et al., 1989). Although Byrne et al. (1989) place no restrictions on the number of parameters to be freely estimated, Steenkamp and Baumgartner (1998) suggest that, ideally, if half of the factor loadings or intercepts on the factor are noninvariant, then partial invariance is supported. However, Putnick and Bornstein (2016) caution that no empirical studies to date are cited to support this guideline.

Although there is a fourth form of invariance, residual (strict) invariance (which assesses the equivalence of item residuals), researchers (e.g., Lin, Hirschfeld, & Margraf, 2019; Mellick et al., 2019) often omit this step for several reasons. First, if subsequently testing differences in latent factor means, residual invariance is not necessary because residuals are not connected to the latent factor (Putnick & Bornstein, 2016). Second, if subsequently comparing observed mean differences between groups, establishing configural, metric, and scalar invariance is sufficient (Schmitt & Kujanin, 2008). Third, given its strict standards, residual invariance is difficult to

establish statistically (Wang, Chen, Dai, & Richardson, 2018). Thus, only the first three forms of invariance were tested.

3.4 Results

Sample Characteristics

Table 1 lists participant subgroup demographic characteristics. Demographic differences between subgroups in sample 1 (male vs. female) and 2 (USA vs. China) were tested. Males and females in Sample 1 differed in age, $t(263) = 2.21, p = .028$, Hedges' $g = 0.21$, and years of leadership experience, $t(266) = 2.05, p = .041$, Hedges' $g = 0.25$, but did not differ in hours worked per week, $t(267) = 0.44, p = .664$, Hedges' $g = 0.05$. Participants from the USA and China in Sample 2 differed in age, $t(297) = -11.46, p < .001$, Hedges' $g = 1.33$, and years of leadership experience, $t(298) = -10.66, p < .001$, Hedges' $g = 1.23$, but did not differ in hours worked per week, $t(298) = 0.09, p = .928$, Hedges' $g = 0.01$.

Invariance Across Sex

The single-group confirmatory factor analyses showed that, with the exception of the RMSEA for both males and females, the hypothesized two-factor model yielded a moderate fit to the data: males, $\chi^2(76, N = 126) = 153.24, p < .01$; CFI = 0.921; RMSEA = 0.090; SRMR = 0.095; and females, $\chi^2(76, N = 143) = 199.69, p < .01$; CFI = 0.904; RMSEA = 0.107; SRMR = 0.098. As such, I proceeded with the multi-group confirmatory factor analyses.

First, configural invariance was supported as the model yielded a moderate fit to the data, $\chi^2(152, N = 269) = 352.74, p < .01$, CFI = 0.907, RMSEA = 0.070, SRMR = 0.095. Next, metric invariance was supported as indicated by a non-significant χ^2 difference test, $\Delta\chi^2(14) = 22.09, p = .08$. Third, during scalar invariance testing, modification indices suggested that releasing three intercepts for each factor (harmonious passion item 1, 3, and 5; obsessive passion item 2, 5, and

6) would improve model fit. After allowing these intercepts to be freely estimated across sex, partial scalar invariance was established given the non-significant χ^2 difference test, $\Delta\chi^2(22) = 32.93, p = .06$. Therefore, hypothesis 1 was partially supported.

Invariance Across Country

The single-group confirmatory factor analyses demonstrated that, with the exception of the RMSEA for country – USA, the hypothesized two-factor model yielded a moderate fit to the data: country – USA, $\chi^2(76, N = 150) = 196.82, p < .01$; CFI = 0.921; RMSEA = 0.103; SRMR = 0.089; and country – China, $\chi^2(76, N = 150) = 136.63, p < .01$; CFI = 0.913; RMSEA = 0.073; SRMR = 0.084. Thus, I proceeded with the multi-group confirmatory factor analyses.

First, configural invariance was supported as the model yielded a moderate fit to the data, $\chi^2(152, N = 150) = 364.90, p < .01$, CFI = 0.909, RMSEA = 0.069, SRMR = 0.084.

Subsequently, modification indices during metric invariance testing suggested that four items for each factor (harmonious passion item 2, 3, 4, and 5; obsessive passion item 2, 5, 6, and 7) were the largest sources of misfit. After freely estimating these item factor loadings, partial metric invariance was supported as indicated by the non-significant χ^2 difference test, $\Delta\chi^2(5) = 10.73, p = .06$. Third, despite attempting to freely estimate intercepts based on modification indices, partial scalar invariance could not be established given the significant χ^2 difference test, $\Delta\chi^2(16) = 63.17, p < .05$. As such, hypothesis 2 was partially supported.

3.5 Discussion

Results from the single-group confirmatory factor analyses validated the two-factor solution of the passion for leadership scale, thereby replicating findings regarding the passion for leadership measure from Study 1c, as well as supporting prior research on the general passion scale (Vallerand et al., 2003; Marsh et al., 2013).

Based on multi-group confirmatory factor analyses, partial measurement invariance of the passion for leadership measure was established across sex and country. Given that confirmation of full measurement invariance in all steps is often not supported due to stricter parameter equality constraints (Byrne et al., 1989; Wang et al., 2018), releasing certain factor loading constraints to establish partial invariance of the passion for leadership scale is deemed acceptable.

Across sex, the results demonstrated that configural and metric invariance were fully supported but only partially supported for scalar invariance. Across country, the findings demonstrated configural and metric invariance were fully and partially supported, respectively, but scalar invariance could not be established. These findings suggest that the pattern of factor loadings (i.e., the two-factor structure with 7 harmonious and 7 obsessive passion for leadership items) as well as the item loadings (i.e., each loading for the 7 harmonious and 7 obsessive passion for leadership items) were equivalent for males and females and American and Chinese groups. Furthermore, the item intercepts (i.e., each intercept for the 7 harmonious and 7 obsessive passion for leadership items) were equivalent for males and females but not for American and Chinese groups.

Limitations

The current study had several limitations that should be considered. First, sampling bias may be an issue because significant differences were found between the subgroups of respondents in each sample in terms of age and leadership experience. Second, in the single-group confirmatory factor analyses, the RMSEA value did not meet acceptable levels for both sex and country. In their assessment of the general passion scale, Marsh et al. (2013) argued that traditional independent cluster models of confirmatory factor analyses (ICM-CFA), in which

target items are required to load on only one factor and all non-target loadings constrained to be zero, are overly restrictive. Because dismissing nonzero cross-loadings can bias relationships among factors (Asparouhov, & Muthén, 2009; Marsh et al., 2009), Marsh et al. (2013) used exploratory structural equation modeling (ESEM), which allows all factor loadings to be estimated. Their results demonstrated that ESEM model fit indices of the general passion scale yielded a better fit to the data compared to traditional ICM-CFA results (e.g., RMSEA value and factor correlation between harmonious and obsessive passion were .077 and .175 vs. .092 and .451 for ESEM and ICM-CFA, respectively). Future research could therefore use an ESEM approach and investigate the psychometric properties of the passion for leadership scale to establish whether it also demonstrates better model fit indices.

Last, it was not feasible to demonstrate full or partial scalar invariance (i.e., differences in the means of observed items in different groups are due to differences in the means of the latent factors; Steenkamp & Baumgartner, 1998) of the passion for leadership scale across country. This suggests that harmonious and obsessive passion for leadership item intercepts function differently across American and Chinese groups; as one example, non-invariance of the item intercept ‘being a leader is in harmony with the other activities in my life’ means that the group mean difference on this item was not explained by the harmonious passion for leadership factor mean difference. This may be a function of item bias (Van de Vijver & Leung, 1997); however, I used the translation-back-translation method (Brislin, 1970) to mitigate item anomalies across country. Given that stricter parameter equality constraints are imposed with metric and scalar measurement invariance across groups (Byrne et al., 1989; Wang et al., 2018), future research (e.g., using an ESEM approach; Marsh et al., 2013) is necessary to establish scalar invariance of the passion for leadership scale across country.

Conclusion

The current study investigated the psychometric equivalence of the passion for leadership scale across sex (male vs. female) and country (USA vs. China). This is an important step in establishing the scale's construct validity as sex or cross-cultural differences cannot be meaningfully interpreted without first establishing that the passion for leadership measure is invariant. In general, my findings suggested that the underlying latent-factor structure of the passion for leadership scale can be interpreted similarly across sex and country.

3.6 References

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Table 3-1*Descriptive Statistics and Between-Group Comparison Results*

	Sample 1		<i>t</i>	<i>p</i>	Hedges' <i>g</i>	Sample 2		<i>t</i>	<i>p</i>	Hedges' <i>g</i>
	Male (N = 126)	Female (N = 143)				USA (N = 150)	China (N = 150)			
Age (years)	48.10 (10.74)	45.32 (9.71)	2.21	.028	0.21	44.53 (9.77)	33.81 (5.96)	-11.46	.000	1.33
L. Exp. (years)	16.12 (11.14)	13.62 (8.82)	2.05	.041	0.25	13.11 (8.71)	4.96 (3.46)	-10.66	.000	1.23
Work Hours (per week)	43.16 (6.80)	42.79 (7.04)	0.44	.664	0.05	42.25 (6.56)	42.32 (7.54)	0.09	.928	0.01

Note. Data are means (standard deviations). L. Exp. = leadership experience.

Chapter 4

Study 3: Examining the Causal Influence of a Passion for Leadership on Transformational and Abusive Leadership Behaviors

Abstract

Based on the dualistic model of a passion for leadership, Study 3 investigates the effects of harmonious and obsessive passion for leadership on high- (viz. transformational leadership) and poor-quality (viz. abusive supervision) leadership behaviors, respectively. In addition, I investigate the moderating role of gender in the effects of a passion for leadership on transformational leadership and abusive supervision. In a between-subjects experimental design, 161 undergraduate students from the Queen's Smith School of Business Research Participant Pool were randomly assigned to a harmonious passion for leadership, obsessive passion for leadership, or control condition; all participants then completed a leadership speech task. The findings demonstrated that harmonious passion for leadership positively affected transformational leadership, whereas no significant result emerged for the effects of obsessive passion for leadership on abusive supervision. Gender did not moderate the relationship between a passion for leadership and transformational leadership or abusive supervision.

4.1 Introduction

Just why some leaders enact high-quality (e.g., transformational leadership; Bass, 1985; Bass & Riggio, 2006) leadership, and others destructive (e.g., abusive supervision; Tepper, 2000) leadership, has intrigued scholars, practitioners and the lay public for many decades. Indeed, there are now meta-analytic reviews on various individual, interpersonal, or contextual antecedents to transformational leadership (e.g., Bono & Judge, 2004; Sun, Chen, & Zhang, 2017) and abusive supervision (e.g., Zhang & Bednall, 2016). However, the majority of the studies included in these reviews focused on traits or attitudinal dispositions, be it those of followers or leaders themselves, and therefore identify factors that may not be as malleable to change. Applying a motivational lens to address this question, the current study uses the dualistic model of a passion for leadership to examine whether and under what conditions (i.e., gender) harmonious and obsessive passion for leadership influence transformational leadership and abusive supervision, respectively. Specifically, using a randomized between-subjects experimental design, harmonious and obsessive passion for leadership are experimentally manipulated to enhance causal inferences.

This study has the potential to make several contributions to the literature. First, it extends the leadership literature by identifying novel causal motivational antecedents of transformational and abusive leadership, which adds to a better understanding of the nature and development of these two leadership behaviors. Second, this study assesses the construct validity of the harmonious and obsessive passion for leadership manipulations. This is especially important because, although Bélanger, Lafrenière, Vallerand, and Kruglanski (2013) demonstrated that obsessive but not harmonious passion predicted higher goal-shielding behaviors, the construct validity of their harmonious and obsessive passion manipulations

remains questionable due to significance levels of $p = .06$ and $.08$, respectively. Two additional experimental studies showed that harmonious and obsessive passion positively predicted life satisfaction (Lafrenière, Vallerand, & Sedikides, 2013), and resulted in greater positive and negative affect respectively (albeit “marginally”, $p = .09$, p. 1376; Schellenberg & Bailis, 2015), yet neither study reported the results from the manipulation checks. Furthermore, although Schellenberg, Bailis, and Mosewich (2016) maintain positive effects emerged for obsessive passion on fear of self-compassion (yet on the basis of $p = .06$), the results from their manipulation checks showed that they were only able to prime obsessive but not harmonious passion. The mixed findings in these studies regarding the effectiveness of the manipulations of harmonious and obsessive passion leaves open the question of the construct validity of the different interventions. Last, making use of an experimental research design answers recent calls from scholars (Cameron, 2019; Curran, Hill, Appleton, Vallerand, & Standage, 2015) seeking further empirical investigation regarding causal inferences about the consequences of passion. More specifically, this study extends the nomological network of the passion for leadership by examining direct causal effects of harmonious and obsessive passion for leadership on high- and poor-quality leadership behaviors.

Transformational Leadership

Transformational leadership is composed of four behaviors (Bass, 1985; Bass & Riggio, 2006). First, *idealized influence* refers to the ethical component of transformational leadership, in which leaders serve as role models and engage in behaviors that build followers’ trust, create a collective sense of purpose, and provide a vision for the future. These leaders go beyond self-interest; they are guided by their moral commitments and responsibilities, and focus on the long-term benefits for the collective good of the organization. Second, *inspirational motivation*

reflects behaviors that encourage and inspire others to achieve their goals. Leaders high in inspirational motivation help others set realistic objectives and encourage them to perform beyond their own expectations, thus supporting follower self-efficacy. Third, *intellectual stimulation* involves behaviors that guide followers to think for themselves, question their commonly held ideas and beliefs, restructure the way they think about and approach problems, and foster creativity. In doing so, employees become more confident in tackling problems and resolving personal and work-related setbacks. Last, *individualized consideration* centers on behaviors that allow leaders to tend to the needs of their followers; leaders act as mentors, coaches, or advisors, and provide the necessary compassion, empathy, and care to support follower development and well-being.

Despite the distinctive nature of the four-factor model of transformational leadership, most empirical studies combine the four components due to the high intercorrelations between the four dimensions (e.g., Hoch, Bommer, Dulebohn, & Wu, 2018; Judge & Piccolo, 2004), thus reflecting a unidimensional construct. Following this practice, I discuss the potential effects of harmonious passion for leadership on a unidimensional model of transformational leadership.

I hypothesize that harmonious passion for leadership will positively affect transformational leadership for several reasons. First, given that harmonious passion emanates from the integrative (i.e., driven by self-awareness and value congruence) and intrinsic (i.e., driven by pure interest and enjoyment) aspects of the self and results in an autonomous internalization process (which is consistent with self-determination theory; Deci & Ryan, 1985; Ryan & Deci, 2003), leaders high in harmonious passion for leadership may engage in transformational leadership because it fulfills their basic psychological need of autonomy (i.e., the need to experience agency and volition; Deci & Ryan, 1985). Supporting this, research shows

that an autonomous personality orientation (i.e., a tendency toward volitional engagement) is positively associated with harmonious passion (Vallerand et al., 2006) and prosocial behaviors (Gagné, 2003). This is important, as Gilbert, Horsman, and Kelloway (2016) suggest that prosocial behaviors are similar to those reflected within transformational leadership. Additionally, Trépanier, Fernet, and Austin (2012) showed that managers who were autonomously motivated were more likely to engage in transformational leadership.

Second, because harmonious passion for leadership reflects a significant but adaptive part of the leader's identity, leaders may internalize values that support others and prioritize group rather than individual interests (i.e., referred to as a collective identity; Johnson, Venus, Lanaj, Mao, & Chang, 2012), which is the essence of transformational leadership. Indeed, transformational leadership is about inspiring, developing, and caring for others (as seen in inspirational motivation, intellectual stimulation and individualized consideration, respectively) and the collective good (as seen in idealized influence). The integration of these potential collective values that are characteristic of harmonious passion for leadership is likely to result in transformational leadership, because these values fulfill leaders' basic psychological need for relatedness (i.e., the need to feel a sense of belonging and connected to others; Deci & Ryan, 2000). Lending support for this notion, internalizing a collective identity (Johnson et al., 2012) and satisfying basic psychological needs (Lanaj, Johnson, & Lee, 2016) both positively related to transformational leadership.

In line with these predictions, harmonious passion for leadership also has the potential to add incremental validity in predicting transformational leadership over and above other constructs, such as the motivation for transformational leadership. To clarify, in a cross-sectional field study examining the relationship between motivation for transformational leadership

(conceptualized as intrinsic motivation; integrated, identified, introjected, and external regulation; and amotivation; Gilbert et al., 2016) and transformational leadership itself, intrinsic motivation did not predict transformational leadership. Instead, Gilbert et al. (2016) found that amotivation and identified regulation were related to transformational leadership in the hypothesized directions. Given that intrinsic motivation was hypothesized to best predict transformational leadership, the authors speculated that intrinsic motivation alone may not be sufficient for individuals to forgo self-interest for the group and, instead, may require an integration with one's life goals and values. I extend this, and suggest that an integration of collective values, as is potentially reflected in the identity component of harmonious passion for leadership, with one's life goals will predict transformational leadership.

In related fields, other empirical studies have investigated the relationship between harmonious passion and transformational leadership. For example, Robertson and Barling (2013) demonstrated that employees' pro-environmental harmonious passion mediated the relationship between environmentally-specific transformational leadership and employees' environmental behaviors. In a separate study, Sirén, Patel, and Wincent (2016) showed that CEO harmonious passion for work mediated the link between CEO change-oriented leadership and firm performance (reflected as both sales and profit growth). While interesting, neither of these studies explicitly examined the direct effects of leaders' harmonious passion on transformational leadership. In addition, data for both these studies were cross-sectional precluding any causal inference about this relationship. Thus:

Hypothesis 1: Harmonious passion for leadership will positively affect transformational leadership.

Abusive Supervision

As one of the most frequently studied negative leadership behaviors (Martinko, Harvey, Brees, & Mackey, 2013), abusive supervision is defined as “subordinates’ perceptions of the extent to which supervisors engage in the sustained display of hostile verbal and nonverbal behaviors, excluding physical contact” (Tepper, 2000, p. 178). Examples of these behaviors (as reflected in the items in Tepper’s [2000] scale) include mocking, yelling at, and lying to employees, criticizing and belittling employees in front of others, and blaming employees for their own mistakes. Abusive supervision is displayed infrequently; incidents of abusive behavior by a supervisor are followed by longer periods in which no such behaviors occur, potentially adding to any negative effects in the future for employees who might falsely believe their supervisor’s psychological abuse is finally over (Barling, 2014). Indeed, Duffy, Ganster, and Pagon (2002) showed that cycling between considerate and abusive behaviors had more detrimental consequences for individuals than a consistent pattern of abusive management.

While perceptions of abusive supervision are related to a plethora of employee variables, such as interpersonal deviance, depression, emotional exhaustion, and counterproductive work behavior (see Mackey, Frieder, Brees, & Martinko, 2017 for a review), I seek to understand why leaders engage in behaviors that could potentially have harmful effects, and focus on one potential explanation in particular, namely an obsessive passion for leadership. I suggest that there are several reasons why an obsessive passion for leadership could result in abusive supervision.

First, due to the persistent and rigid nature of obsessive passion whereby the activity comes to control and overwhelm the individual (Vallerand et al., 2003), leaders may feel a loss of control and, consequently, engage in hostile behaviors in an effort to maintain or regain control. Indeed, because obsessive passion emanates from the external (i.e., driven by rewards,

punishments, and compliance) and introjected (i.e., driven by ego-involvement, self- and other-approval) aspects of the self, resulting in a controlled internalization process (Deci & Ryan, 1985; Ryan & Deci, 2003), leaders high in obsessive passion for leadership may engage in abusive supervision because it threatens their basic psychological need of autonomy. In support of this notion, research shows that feelings of injustice or low self-control coupled with trait anger resulted in adverse behaviors such as interpersonal sabotage (Ambrose, Seabright, & Schminke, 2002) and verbal assaults (Douglas & Martinko, 2001), respectively, which are similar to the behaviors displayed in abusive supervision. Similarly, experiences of early family undermining were associated with later use of abusive supervision, and this relationship was exacerbated for supervisors with low levels of self-control (Kiewitz et al., 2012). In a related context, Hein, Koka, and Hagger (2015) showed that student perceptions of teachers' excessive controlling behavior was positively related to the thwarting of students' psychological needs (i.e., combined autonomy, competence, and relatedness), which resulted in students' anger and bullying behavior.

Second, because obsessive passion involves an insecure and unhealthy form of engagement with an activity (Vallerand et al., 2003), leaders high in obsessive passion for leadership may internalize individual values that focus primarily on the self (referred to as an individual identity; Johnson et al., 2012) that serve to protect from negative experiences or seek to enhance personal goals and interests. For example, leaders high in obsessive passion for leadership may feel threatened by various organizational factors, such as low employee performance. In turn, leaders may engage in abusive behaviors in an attempt to cope with feelings of inadequacy. This may be due to a threatened basic psychological need of competence (i.e., the need to feel effective in one's capacities and talents with the social environment; Deci &

Ryan, 1985). As such, leaders who perceive their employees to be performing below their expectations may internalize low performance as an intense threat or failure to their identity as competent leaders, and engage in harsh or controlling behaviors to mitigate that identity threat. Research lends some support for this notion, demonstrating that abusive supervisors are more likely to target lower-performing employees (Harris, Kacmar, & Zivnuska, 2007; Tepper, Moss, & Duffy, 2011). Thus:

Hypothesis 2: Obsessive passion for leadership will positively affect abusive supervision.

The Moderating Role of Gender

Finally, I posit that gender will moderate the effects of a passion for leadership on transformational leadership and abusive supervision. This is important, as Cameron (2019) states that further exploration of boundary conditions that facilitate or hinder the effects of passion are necessary. Although there are no empirical studies to date examining whether gender differences moderate the effects of passion (Vallerand & Houliort, 2019), some research has investigated gender differences in the expression of passion. For example, Skitch and Hodgins (2005) showed that males reported more harmonious passion for gambling than females. Similarly, Séguin-Levesque, Laliberté, Pelletier, Blanchard, and Vallerand (2003) demonstrated that males exhibited higher levels of harmonious and obsessive passion toward the internet compared to females. Furthermore, based on a sample of 3,571 respondents, Marsh et al. (2013) showed that gender interacted with age on the original context-free passion scale such that obsessive passion was higher for females and lower for males as age increased. No effects due to age, gender, or their interaction were found in regards to harmonious passion (Marsh et al., 2013).

In contrast, gender differences in high-quality leadership behaviors have attracted much research attention. For example, a meta-analysis by Eagly and Johnson (1990) demonstrated that

female leaders were more relationship-oriented and democratic compared to male leaders; and, communal traits stereotypically attributed to women increased between the period of 1946 to 2018 (Eagly, Nater, Miller, Kaufmann, & Sczesny, 2019). Separately, Eagly, Johannesen-Schmidt, and Engen's (2003) meta-analysis showed that women scored higher than men on transformational leadership. Based on role congruity theory (Eagly & Karau, 2002), the authors suggest that women are more likely to adopt a transformational style because these behaviors (e.g., individualized consideration) are congruent with stereotypical female gender roles (i.e., communal traits such as helpful, interpersonally sensitive, nurturant). In comparison, scholars examining the link between gender and poor-quality leadership is less developed. Eagly et al. (2003) found that men were more likely to exhibit management-by-exception and laissez-faire behaviors.

Taken together, given that harmonious passion for leadership may reflect a collective identity such that leaders internalize values that support others and prioritize group interests, and women are more likely than men to behave in communal ways because they are stereotypically congruent with female gender roles (Eagly & Karau, 2002), I hypothesize that gender will moderate the relationship between harmonious passion for leadership and transformational leadership such that the relationship will be stronger for females than men. Furthermore, given that obsessive passion for leadership may involve internalizing an individual identity where leaders prioritize their own goals and interests, combined with the agentic behaviors (e.g., controlling, assertive, aggressive, dominant, ambitious) that are stereotypically congruent with male gender roles (Eagly & Karau, 2002), I posit that the effects of gender on the relationship between obsessive passion for leadership and abusive supervision will be stronger for males than females. Thus:

Hypothesis 3a: Gender will moderate the relationship between harmonious passion for leadership and transformational leadership such that the relationship will be stronger for females than males.

Hypothesis 3b: Gender will moderate the relationship between obsessive passion for leadership and abusive supervision such that the relationship will be stronger for males than females.

4.2 Method

Design and Manipulation

A between-subject randomized experimental design was conducted, in which harmonious and obsessive passion for leadership were manipulated through different writing tasks. Following Bélanger et al. (2013), I developed three different writing conditions: a harmonious passion for leadership, an obsessive passion for leadership, and a neutral leadership condition. In the harmonious passion for leadership condition, participants were asked to think and write about a time at work when they absolutely wanted to take on the leadership role such that it was something they willingly chose to do. The obsessive passion for leadership condition asked participants to think and write about a time at work when they absolutely had to take on the leadership role, in other words, it was something that totally possessed them. In the neutral leadership condition, participants were asked to think and write about a time at work when they were randomly assigned to take on the leadership role, in which the role was determined on an arbitrary basis. To reduce the likelihood of unfair comparisons (Cooper & Richardson, 1986), all three writing conditions were similar in length (harmonious, obsessive, and neutral condition: 104, 104, and 103 words, respectively).

Pilot study. A pilot study was conducted to ensure that the writing tasks reflected the appropriate form of passion (i.e., to ensure construct validity). For this purpose, I recruited a sample of 130 undergraduate students (M age = 19.17 years, SD = 1.22; 50 males, 80 females) from the Queen's Smith School of Business Research Participant Pool. To be eligible to participate, students must have previously worked in the summer and/or currently worked in a leadership or supervisory position (M leadership experience = 28.68 months, SD = 28.99). The study took place within the Smith School of Business, and participants attended one of four sessions lasting approximately 20 minutes each. Participants were required to bring their own personal computer to complete the online experimental study hosted on Qualtrics.

When students attended their respective session, they were first asked to read a letter of information and give consent online. Thereafter, participants were randomly assigned to one of the three conditions: the harmonious passion for leadership ($n = 47$), obsessive passion for leadership ($n = 39$), or neutral leadership ($n = 44$) condition. Participants engaged in the writing task for 5 minutes. The three writing tasks are presented below.

Harmonious Passion for Leadership Condition

“Think about a time at work when you engaged in your leadership role because you absolutely wanted to (rather than absolutely had to), in other words, it was something you willingly chose to do. You loved being the leader, it meant a great deal to you, and the leadership role was very fulfilling. Now please write about what it was like to be the leader throughout that situation (e.g., why you really wanted to be the leader, why being the leader defined who you are as a person). Include as many details as you can (preferably at least 2 paragraphs) to relive the experience.”

Obsessive Passion for Leadership Condition

“Think about a time at work when you engaged in your leadership role because you absolutely had to (rather than absolutely wanted to), in other words, it was something that totally possessed you. You loved being the leader and it meant a great deal to you, although the leadership role was very consuming. Now please write about what it was like to be the leader throughout that situation (e.g., why you really had to be the leader, why being the leader defined

who you are as a person). Include as many details as you can (preferably at least 2 paragraphs) to relive the experience.”

Neutral Leadership Condition

“Think about a time at work when you engaged in your leadership role because it was randomly assigned to you, in other words, it was something that was determined on an arbitrary basis and had absolutely nothing to do with you are as a person. The only purpose of the leadership role was to ensure that deliverables were being met. Now please write about what it was like to be the leader throughout that situation (e.g., describe the leadership position, what were your responsibilities as the leader). Include as many details as you can (preferably at least 2 paragraphs) to relive the experience.”

After completing the writing task, all participants completed a manipulation check, in which they rated harmonious and obsessive passion for leadership items.

To assess the construct validity of the manipulations, I analyzed the data using a series of planned contrasts in one-way analyses of variance in SPSS 25. For harmonious passion for leadership, the results showed that the mean rating for the harmonious passion items was significantly higher in the harmonious passion for leadership ($M = 6.02$, $SD = 0.66$) condition compared to the obsessive passion for leadership ($M = 5.63$, $SD = 1.00$), $t(127) = 2.06$, $p = .043$, Hedges' $g = 0.46$, and neutral leadership conditions ($M = 4.88$, $SD = 1.34$), $t(127) = 5.11$, $p < .001$, Hedges' $g = 1.08$. In regards to obsessive passion for leadership, the results demonstrated that the mean rating for the obsessive passion for leadership items was significantly higher in the obsessive passion for leadership ($M = 3.80$, $SD = 1.35$) condition compared to the harmonious passion for leadership ($M = 3.22$, $SD = 0.93$), $t(127) = 2.29$, $p = .024$, Hedges' $g = 0.51$, and neutral leadership conditions ($M = 2.98$, $SD = 1.24$), $t(127) = 3.17$, $p = .002$, Hedges' $g = 0.63$. These results suggest that the manipulations were effective in priming harmonious and obsessive passion for leadership, thus supporting validity of the manipulations.

Participants and Procedure

Participants who previously worked in the summer and/or were currently employed in a leadership or supervisory position were recruited through Queen's Smith School of Business Research Participant Pool. Using G*Power (Faul, Erdfelder, Buchner, & Lang, 2009), in which I specified an a priori one-way ANOVA (effect size = .25, α = .05, power = .80, number of groups = 3), a total of 159 participants (i.e. 53 participants per condition) would be needed for this study. Accordingly, the final sample consisted of 161 participants (M age = 19.90 years, SD = 1.38; 68 males, 93 females), who had on average 23 months (SD = 21.57) of leadership experience.

The study took place within the Smith School of Business. Participants were asked to bring their own personal computer to complete a 30-minute online experimental study hosted on Qualtrics. When attending their respective session, students were first asked to read a letter of information and give consent online. Next, participants were randomly assigned to a harmonious passion for leadership ($n = 55$), obsessive passion for leadership ($n = 55$), or neutral leadership ($n = 51$) condition. In each condition, participants were asked to think and write about a time at work when they (1) absolutely wanted to take on the leadership role, in which it was something they willingly chose to do, (2) absolutely had to take on the leadership role, in other words, it was something that totally possessed them, or (3) were randomly assigned to take on the leadership role such that the role was determined on an arbitrary basis, respectively. Participants had 5 minutes to complete the writing task. Thereafter, all participants completed the harmonious and obsessive passion for leadership items, which were presented in randomized order.

Finally, all participants completed a second writing task in which they were asked to assume the role of a leader for a team of 10 people that involved writing a speech to their team. Participants were told that their team was responsible for an unsafe work practice that resulted in

a team member being seriously injured on the job. As team leaders, it was now their responsibility to deliver a speech to their team to ensure incidents like this would not happen again in the future. Participants were given 10 minutes to prepare and write the leadership speech. Cloutier (2019) established that this writing task is a valid method for assessing transformational and abusive leadership behaviors. A description of the instructions for both writing tasks appear in Appendix G. For the duration of the entire study, participants could not go back and review and/or edit any of their responses.

Leadership training for coding speeches. The leadership speeches were rated independently by two research assistants, who were blind to all study hypotheses. Using a similar methodology to Carleton et al. (2016) and Cloutier (2019), both raters received 6 hours of training in the form of lectures, discussions, and practice ratings. The training was conducted by my supervisor and myself with the aim of providing the research assistants with (1) knowledge about leadership in general, (2) an overview of the methodology, measures, and leadership speeches, (3) skills to perform accurate assessments, and (4) information on rater biases such as leniency bias, halo effects, and horn effects. After the formal lectures were complete, both research assistants rated six practice speeches, in which they were asked to read through each leadership speech entirely before making any assessment, to familiarize themselves with the leadership behaviors exhibited in each speech. After completing each speech, both raters had the chance to discuss their ratings for each item with each other, my supervisor, and myself in a group discussion.

Upon completion of the training session, the research assistants were provided with the leadership speeches to complete on their own time. They were asked to follow the same procedure as the practice speeches, in which they read each speech entirely before making any

formal assessment. A group meeting was held midway through to discuss and ensure that information in the speeches were not misinterpreted or ratings entered incorrectly.

Measures

Demographics. Leaders completed demographic questions including biological sex, age, level of education, and years of leadership experience.

Transformational leadership. I used 4 items from Podsakoff, Mackenzie and Bommer's (1996) transformational leadership measure. Items were adapted and validated by Cloutier (2019) to suit the leadership speech writing task (e.g., "Shows respect for my personal feelings" to "Shows respect for individual team members' feelings") ($\alpha = .86$). Two independent raters assessed the items on a 7-point scale (1 = "not at all" to 7 = "completely"). Inter-rater reliability (ICC[2]) was satisfactory: $r = .68$; ICC(2) = .84. As a result, scores from the two raters were combined and averaged to form the measure of transformational leadership.

Abusive supervision. I used 4 items from Tepper's (2000) abusive supervision scale, adapted and validated by Cloutier (2019) to fit the leadership speech writing task (e.g., "Puts me down" to "Puts team members down") ($\alpha = .95$). Items were assessed on a 7-point scale (1 = "not at all" to 7 = "completely") by two independent raters. Inter-rater reliability (ICC[2]) was satisfactory: $r = .79$; ICC(2) = .94. Thus, scores from the two raters were combined and averaged to form the measure of abusive supervision.

Manipulation check.

Harmonious and obsessive passion for leadership. Harmonious and obsessive passion for leadership were measured with the scale developed and validated in Study 1 to test the effectiveness of the manipulations. Leaders responded to items on a 7-point scale (1 = *not at all* to 7 = *completely*).

Attention check. Two attention check items were embedded into the survey to ensure leaders were paying attention (e.g., “This is a control question. Please select ‘not at all’ and move on”). In addition, after completion of the second writing task, leaders were asked to select which instructions were given to them in the first writing task (e.g., “I was asked to think about a time I absolutely wanted to be the leader”) as well as questions such as how easy it was to think of an example, and how much effort was put into the leadership speech.

The measures are presented in Appendix H.

4.3 Data Analysis

Data were analyzed using a 3×2 factorial analysis of variance in SPSS 25. Specifically, the first two hypotheses were tested using a series of planned contrasts. Hypothesis 1 compared the harmonious passion for leadership and neutral leadership manipulations on the transformational leadership ratings, and Hypothesis 2 compared the obsessive passion for leadership and neutral leadership manipulations on the abusive supervision ratings. Furthermore, Hypothesis 3a tested the interaction between harmonious passion for leadership and gender on transformational leadership, and Hypothesis 3b tested the interaction between obsessive passion for leadership and gender on abusive supervision.

Given that no formal hypotheses were offered as to whether harmonious and obsessive passion for leadership affected abusive supervision and transformational leadership, respectively, nor the moderating effects of gender on these relationships, supplemental analyses are presented in footnote 6 and 7 for comparative purposes only.

4.4 Results

Manipulation Check

For harmonious passion for leadership, the results showed that the mean rating for the harmonious passion items was significantly higher in the harmonious passion for leadership ($M = 6.04$, $SD = 0.72$) condition than the obsessive passion for leadership ($M = 5.09$, $SD = 1.05$), $t(158) = 5.55$, $p < .001$, Hedges' $g = 1.07$, and neutral leadership conditions ($M = 4.83$, $SD = 1.27$), $t(158) = 6.00$, $p < .001$, Hedges' $g = 1.19$.

Regarding obsessive passion for leadership, the results demonstrated that the mean rating for the obsessive passion for leadership items was significantly higher in the obsessive passion for leadership ($M = 3.38$, $SD = 1.07$) condition compared to the harmonious passion for leadership ($M = 2.93$, $SD = 1.05$), $t(158) = 2.23$, $p = .027$, Hedges' $g = 0.42$, and neutral leadership conditions ($M = 2.64$, $SD = 1.08$), $t(158) = 3.57$, $p < .001$, Hedges' $g = 0.69$.

These results replicate those from the pilot study and suggest that the manipulations were effective in priming harmonious and obsessive passion for leadership, therefore supporting construct validity of the manipulations.

Main Analyses

Hypothesis 1 posited that harmonious passion for leadership would positively affect transformational leadership. The results showed that the mean rating for the transformational leadership items was significantly higher in the harmonious passion for leadership ($M = 2.68$, $SD = 1.08$) condition than the neutral leadership condition ($M = 2.25$, $SD = 0.94$), $t(158) = 2.22$, $p = .028$, Hedges' $g = 0.42$, thus supporting Hypothesis 1.

Hypothesis 2 proposed that obsessive passion for leadership would positively affect abusive supervision. However, the results demonstrated no significant difference between the obsessive passion for leadership ($M = 2.89$, $SD = 1.56$) and neutral leadership ($M = 2.44$, $SD =$

1.49) conditions on the mean rating for the abusive supervision items, $t(158) = 1.50$, $p = .137$, Hedges' $g = 0.29$. Thus, Hypothesis 2 was not supported.⁷

Hypothesis 3a and 3b posited that gender would moderate the effects of harmonious and obsessive passion for leadership on transformational leadership and abusive supervision, respectively. However, neither the harmonious passion for leadership \times gender interaction predicting transformational leadership, $b = .37$, 95% CI [-0.40, 1.15], nor the obsessive passion for leadership \times gender interaction predicting abusive supervision, $b = .46$, [-0.78, 1.69], were significant. Thus, neither Hypothesis 3a nor 3b were supported.⁸

4.5 Discussion

The goal of Study 3 was to understand whether and under what conditions harmonious and obsessive passion for leadership predict high- or poor-quality leadership behaviors. Drawing from self-determination theory (Deci & Ryan, 1985; Ryan & Deci, 2003) and the dualistic model of passion (Vallerand et al., 2003), I theorized that harmonious and obsessive passion for leadership would affect transformational leadership and abusive supervision, respectively. Furthermore, I posited that gender would moderate these relationships; in particular, the direct effects of harmonious passion for leadership on transformational leadership would be stronger

⁷ Supplemental analyses showed that harmonious passion for leadership had no effect on abusive supervision; in particular, no significant difference was found between the harmonious passion for leadership ($M = 2.28$, $SD = 1.59$) and neutral leadership ($M = 2.44$, $SD = 1.49$) conditions on the mean rating for the abusive supervision items, $t(158) = 0.51$, $p = .608$, Hedges' $g = 0.09$. Furthermore, obsessive passion for leadership had no effect on transformational leadership; specifically, the results demonstrated no significant difference between the obsessive passion for leadership ($M = 2.31$, $SD = 0.91$) and neutral leadership ($M = 2.25$, $SD = 0.94$) conditions on the mean ratings of the transformational leadership items, $t(158) = 0.30$, $p = .768$, Hedges' $g = 0.06$.

⁸ Supplemental analyses demonstrated that neither the obsessive passion for leadership \times gender interaction predicting transformational leadership, $b = -.09$, 95% CI [-0.86, 0.69], nor the harmonious passion for leadership \times gender interaction predicting abusive supervision, $b = .20$, CI [-1.04, 1.44], were significant.

for females, and the direct effects of obsessive passion for leadership on abusive supervision would be stronger for males.

The results demonstrate three important findings. First, the direct causal effects of harmonious passion for leadership on transformational leadership were supported. This finding contributes to the leadership literature by highlighting a motivational antecedent to transformational leadership, which is important given that the majority of studies to date tend to focus on trait or attitudinal dispositions (e.g., Sun et al., 2017). Indeed, by showing that engaging in harmonious passion for leadership results in higher transformational leadership behaviors, my study aligns with research that identifies dynamic underpinnings of transformational leadership (e.g., Jin, Seo, & Shapiro, 2016; Trépanier, Fernet, & Austin, 2012).

Second, although no support was found for the causal effects of obsessive passion for leadership on abusive supervision, it may be premature to conclude that obsessive passion for leadership does not affect negative leadership behaviors. For example, the strength of the obsessive passion for leadership prime may not have been robust enough to affect abusive supervision (and will be discussed further in the limitation section). ‘Less severe’ operationalizations of negative leadership (e.g., interactional injustice; Bies, 2001) may be more sensitive to the effects of obsessive passion for leadership as manipulated in the current study.

Last, no significant gender effects emerged for either of the hypothesized relationships. This may be due to the fact that the autonomous and controlled internalization processes (inherent to harmonious and obsessive passion, respectively) are hypothesized to be equivalent across demographic variables such as gender (Deci & Ryan, 1987), and parallels the non-significant gender interactions with harmonious and obsessive passion on various outcomes (with one exception, namely life satisfaction) identified in Curran et al.’s (2015) meta-analysis.

Strengths

There were several strengths within my study. First, using a randomized experimental design enables causal inferences about the relationship between a harmonious passion for leadership and transformational leadership. Second, because the leadership control condition asked participants to think and write about their experiences when engaged in their leadership role rather than a completely dissimilar activity (as was the case in the method conducted by Bélanger et al., 2013), the treatment groups and the control group only differed on one dimension (i.e., passion for leadership), thus enabling fair comparisons (Cooper & Richardson, 1986).

Last, following best practices outlined for experimental research (Lonati, Quiroga, Zehnder, & Antonakis, 2018), I first confirmed the construct validity of the manipulations on a separate sample (i.e., pilot study) to verify that harmonious and obsessive passion for leadership can be primed. By replicating the construct validity of the manipulations in the main study, I extend previous research (e.g., Bélanger et al., 2013; Schellenberg et al., 2016) through establishing the passion for leadership writing task as a valid method for manipulating harmonious and obsessive passion.

Limitations and Directions for Future Research

This research is not without limitations. First, the generalizability of the findings may be limited given two issues. (a) The participants in the experimental study were university students. However, Lonati et al. (2018) note that using student samples are only problematic if the hypothesized relationships are suggested to be different using field samples. (b) The results from this study were based on a laboratory experiment. Nevertheless, concerns about generalizing from laboratory to field settings may be overestimated (Brown & Lord, 1999), and testing hypothesized relationships in a laboratory experiment is an important initial step to establish

directionality, prior to determining the magnitude, of the effects (Lonati et al., 2018). Thus, future research should establish external validity of the findings by showing that the direction of the effects remains the same across different environments (e.g., using a sample of organizational leaders in a field study).

Second, no support emerged for the direct effects of obsessive passion for leadership on abusive supervision. Although steps were taken to establish construct validity of the manipulations, as previously noted, the strength of the prime for obsessive passion for leadership may not have been strong enough to affect abusive supervision. Indeed, and similar to previous experimental research (Bélanger et al., 2013; Schellenberg et al., 2016), the mean ratings for priming obsessive passion for leadership were 3.80 and 3.38 (compared to the mean ratings for priming harmonious passion for leadership: 6.02 and 6.04; on a scale from 1 to 7) for the pilot and main study, respectively. Future research should establish whether other methods (e.g., interpersonal paradigms that allow for in-person interactions) are more effective in priming obsessive passion for leadership, and creating more fair comparisons.

Last, it would be important to extend the nomological network of a passion for leadership by investigating other potential boundary conditions that might exacerbate or mitigate harmonious and obsessive passion for leadership on positive and negative leadership behaviors, such as job autonomy (Gao & Jiang, 2019) or career adaptability (Amarnani, Lajom, Restubog, & Capezio, 2019), respectively. Equally important, future research could broaden the theoretical framework by examining distal (e.g., personality traits; Dalpé, Demers, Verner-Filion, & Vallerand, 2019) predictors of the development of a passion for leadership.

Practical Implications

The results provide at least two important managerial implications. First, based on the finding that harmonious passion for leadership positively affects transformational leadership, organizations might consider screening applicants for harmonious passion for leadership during the leader selection process. Indeed, as organizational trends have shifted to include the use of “soft” skills (e.g., self-awareness, empathy) with the goal of improving organizational performance (Marques, 2013), harmonious passion for leadership may be viewed as a crucial “soft” skill necessary for engaging in high-quality leadership behaviors.

Second, organizations might benefit from the role modeling behavior exhibited by leaders with a harmonious passion for leadership (as opposed to an obsessive passion for leadership). To clarify, because harmonious passion for leadership results in higher transformational leadership behaviors which focus on caring for others and the collective good, these leaders may function as qualitatively better role models than leaders dominated by an obsessive passion for leadership, and be more willing to help others who are underperforming or struggling to improve their leadership. However, leaders who exhibit harmonious passion for leadership may need to be cautious to avoid the potential for organizational “passion exploitation” malpractices (Kim, Campbell, Shephard & Kay, 2019).

Conclusion

The current study extends the nomological network of a passion for leadership by investigating its direct effects on different leadership behaviors. The findings suggest that the nature of leaders’ experience of passion for leadership matters; specifically, leaders who experience harmonious, but not obsessive, passion for leadership behave in a more transformational manner. As research on the two components of a passion for leadership continues to unfold, new conceptual advances may broaden our understanding by highlighting

the antecedents and conditions necessary for the development of harmonious and obsessive passion for leadership, as well as offer important practical insights into the selection and training initiatives of organizational leaders.

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Chapter 5

General Discussion

The main objective of my dissertation was to advance our understanding of the nature of leadership by investigating a novel construct, namely a passion for leadership. Adapting Vallerand et al.'s (2003) dualistic model of passion to the leadership context, I first conceptualized a model of a passion for leadership. Thereafter, across three studies involving over 1,900 participants and using different samples (i.e., students, organizational leaders) and designs (i.e., correlational, experimental), I developed a psychometrically reliable and valid scale for its measurement (Study 1), tested measurement invariance by investigating its factor structure across sex (i.e., male vs. female) and country (USA vs. China; Study 2), and examined its causal effects on high- and poor-quality leadership behaviors (Study 3).

The results of my dissertation research demonstrated several important findings. In study 1, I developed a 14-item scale to assess harmonious and obsessive passion for leadership as separate but related constructs that established internal and temporal consistency, as well as content, construct, convergent, discriminant, and concurrent-related validity. Study 2 extended the assessment of measurement validity; specifically, the results showed that the two-factor structure of the passion for leadership measure was partially invariant across male vs. female and American vs. Chinese leaders. After establishing the psychometric properties of the newly-developed passion for leadership scale, Study 3 expanded the nomological network of the passion for leadership by examining whether and under what conditions harmonious and obsessive passion for leadership affect transformational leadership and abusive supervision, respectively. The results demonstrated a positive effect of harmonious passion for leadership on transformational leadership, whereas no significant relationship emerged between obsessive

passion for leadership and abusive supervision. Furthermore, gender was not a significant moderator for either of the hypothesized relationships.

Theoretical and Methodological Contributions

My dissertation offers both theoretical and methodological contributions. Theoretically, drawing from both the psychology and management literatures, I took a multidisciplinary approach (Lord, Day, Zaccaro, Avolio, & Eagly, 2017) to conceptualize a dualistic model of a passion for leadership that distinguished between a harmonious and an obsessive passion for leadership. Furthermore, by applying the dualistic model of passion (Vallerand et al., 2003) to the leadership context, I demonstrated that the nature of leaders' experience of passion for leadership matters. For example, I showed that experiencing harmonious (but not obsessive) passion for leadership led to higher levels of transformational leadership.

Methodologically, I answered recent calls from scholars seeking further development on (1) research instruments of different targets of passion (Curran, Hill, Appleton, Vallerand, & Standage, 2015), and (2) experimental research designs to investigate causal inferences of the consequences of passion (Cameron, 2019). In addition, I extended previous research (Bélanger, Lafrenière, Vallerand, & Kruglanski, 2013; Schellenberg, Bailis, & Mosewich, 2016) by effectively priming harmonious and obsessive passion for leadership, therefore supporting construct validity of the manipulations and establishing the passion for leadership writing task as a valid method for manipulating harmonious and obsessive passion.

Directions for Future Research

I offer several directions for future research to advance the nomological network of a passion for leadership. First, because the effects of harmonious passion for leadership on transformational leadership have now been demonstrated, it would be important to examine the

antecedents of harmonious (and obsessive) passion for leadership. As one possible avenue, given that the dualistic model of passion (Vallerand et al., 2003; Vallerand, 2015) posits that individuals have a natural developmental tendency toward self-growth, in which they seek out activities, objects, or people that become a passion through activity selection, valuation, and how they are internalized in one's identity, taking a lifespan approach may prove beneficial in establishing the initial development of harmonious (and obsessive passion) for leadership. This would be consistent with Liu, Venkatesh, Murphy, and Riggio's (2020) recent framework on the lifespan antecedents of leadership in general.

Relatedly, it would be important to identify personal and social factors that foster or thwart the development of harmonious and obsessive passion for leadership. Within the entrepreneurship literature, for example, research has demonstrated that personal factors such as entrepreneurial effort (e.g., Gielnick, Spitzmuller, Schmitt, Klemann, & Frese, 2015), success (e.g., Lex, Gielnik, & Spitzmuller, 2016), and self-efficacy (e.g., Gielnik, Uy, Funken, & Bischoff, 2017) directly or indirectly predict entrepreneurial passion. Social-environmental factors, such as teachers' perceived autonomy-supportive or controlling behaviors (Bonneville-Roussy, Valleand, & Bouffard, 2013) have also been shown to facilitate or hinder the development of passion. All this could be made more nuanced by investigating the interaction between personal and social-environmental factors, and establishing how it influences the ongoing development of harmonious and obsessive passion for leadership.

Second, the temporal dimension associated with a passion for leadership remains to be investigated. Vallerand (2015) suggests that the dualistic nature of passion may change over time as a function of potential changes in its definitional elements (i.e., engaging in an activity that one loves, values, invests time and energy in on a regular basis, and is part of one's identity).

Lending some support, Collewaert, Anseel, Crommelinck, De Beuckelaer, and Vermeire (2016) demonstrated that entrepreneurs' identity centrality did not change whereas intense positive feelings toward their entrepreneurial passion decreased over a 10-month period. Thus, questions about the stability or malleability of a passion for leadership over time become salient. Is it possible for harmonious passion for leadership to change into obsession passion for leadership or vice versa, and if so, what factors enable or mitigate this change? In answering any such questions, longitudinal research designs are needed to provide insight into the temporal dynamics of a passion for leadership.

Last, future research could investigate how leaders adapt or cope with no longer being able to engage in harmonious or obsessive passion for leadership. For example, because of the adaptive and maladaptive nature of harmonious and obsessive passion (Vallerand et al., 2003), leaders who engage in harmonious or obsessive passion for leadership may navigate the experience of losing their leadership position with ease or difficulty, respectively. These hypothesized relationships could also depend on the nature of losing the leadership position, i.e., whether leaders were or were not in control (e.g., voluntarily quitting vs. being laid-off or fired).

Separately, in the passion for work literature, research has begun to examine the role of passion for work in retirement. In investigating teachers pre- and post-retirement at 2 time points over a 6-year period, Houliort et al. (2015) showed that teachers' harmonious passion for work at Time 1 predicted life satisfaction in retirement at Time 2 through the satisfaction of basic psychological needs, after controlling for work satisfaction at Time 1. As a result, future studies could examine how leaders experience transitioning into retirement based on the nature of their experience of a passion for leadership.

Conclusion

At the time of writing this Conclusion, organizations around the world are experiencing catastrophic disruptions and turmoil because of the COVID-19 pandemic. It is in moments like this that leaders (who are still employed) are expected to successfully deal with the enormous obstacles and challenges they face from their employees and organizations, and more generally, society at large. My dissertation sought to examine the dualistic model of a passion for leadership as a potential motivational force that drives leaders to continuously exert high levels of effort to fulfill their leadership roles. Moving forward, and based on research that suggests the influence of leadership behaviors on organizational performance outcomes are magnified in times of environmental uncertainty (de Hoogh et al., 2004; Waldman, Ramirez, House, Puranam, 2001), I can only begin to question whether harmonious and obsessive passion for leadership are of even greater importance during this period of environmental ambiguity.

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Appendix A – Study 1a: Measures

Substantive Validity Example

The following two definitions are presented. Please "drag and drop" the item into the box that best represents the definition (you can only choose one).

Harmonious passion results from an autonomous internalization of the activity into the person's identity. An autonomous internalization occurs when individuals have freely accepted the activity as important for them without any contingencies attached to it. This type of internalization produces a motivational force to engage in the activity willingly and engenders a sense of volition and personal endorsement about pursuing the activity. Individuals are not compelled to do the activity but rather they freely choose to do so. With this type of passion, the activity occupies a significant but not overpowering space in the person's identity and is in harmony with other aspects of the person's life.

Obsessive passion results from a controlled internalization of the activity into the person's identity. Such an internalization originates from intrapersonal and/or interpersonal pressure either because certain contingencies are attached to the activity such as feelings of social acceptance or self-esteem, or because the sense of excitement derived from activity engagement becomes uncontrollable. Thus, although individuals like the activity, they feel compelled to engage in it because of these internal contingencies that come to control them. They cannot help but to engage in the passionate activity. The passion must run its course as it controls the person. Because activity engagement is out of the person's control, it eventually takes disproportionate space in the person's identity and causes conflict with other activities in the person's life.

Items	Harmonious Passion	Obsessive Passion
Being a leader allows me to live a variety of experiences.		

Please indicate how confident you are in your answer.



Substantive Validity Items

1. Being a leader allows me to live a variety of experiences.
2. The new things that I discover as a leader allow me to appreciate it even more.
3. Being a leader allows me to live memorable experiences.
4. Being a leader reflects the qualities I like about myself.
5. Being a leader is in harmony with the other activities in my life.
6. Being a leader is a passion that I still manage to control.
7. I am completely taken with being a leader.
8. I can control my passion for leadership.
9. I freely choose to be a leader.
10. I feel proud to be a leader.
11. I really want to be a leader.
12. Being a leader has a great deal of personal meaning for me.
13. I cannot live without being a leader.
14. The urge is so strong, I can't help myself from being a leader.
15. I have difficulty imagining my life without being a leader.
16. I am emotionally dependent on being a leader.
17. I have a tough time controlling my need to be a leader.
18. I have almost an obsessive need for being a leader.
19. My mood depends on me being a leader.
20. There is nothing more important to me than being a leader.
21. Being a leader takes away from the other activities in my life.
22. Being a leader is critical to my self-esteem.
23. Losing my position as a leader would be a huge blow.
24. I feel pressured to be a leader.

Content Adequacy Example

Please rate the extent to which each item is consistent with the following definition on a scale from 1 (not at all) to 7 (completely).

Definition: *Harmonious passion* results from an autonomous internalization of the activity into the person's identity. An autonomous internalization occurs when individuals have freely accepted the activity as important for them without any contingencies attached to it. This type of internalization produces a motivational force to engage in the activity willingly and engenders a sense of volition and personal endorsement about pursuing the activity. Individuals are not compelled to do the activity but rather they freely choose to do so. With this type of passion, the activity occupies a significant but not overpowering space in the person's identity and is in harmony with other aspects of the person's life.

1. Being a leader allows me to live a variety of experiences.	1	2	3	4	5	6	7
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Please rate the extent to which each item is consistent with the following definition on a scale from 1 (not at all) to 7 (completely).

Definition: *Obsessive passion* results from a controlled internalization of the activity into the person's identity. Such an internalization originates from intrapersonal and/or interpersonal pressure either because certain contingencies are attached to the activity such as feelings of social acceptance or self-esteem, or because the sense of excitement derived from activity engagement becomes uncontrollable. Thus, although individuals like the activity, they feel compelled to engage in it because of these internal contingencies that come to control them. They cannot help but to engage in the passionate activity. The passion must run its course as it controls the person. Because activity engagement is out of the person's control, it eventually takes disproportionate space in the person's identity and causes conflict with other activities in the person's life.

1. Being a leader allows me to live a variety of experiences.	1	2	3	4	5	6	7
---------------------------------------------------------------	---	---	---	---	---	---	---

Content Adequacy Items

1. Being a leader allows me to live a variety of experiences.
2. The new things that I discover as a leader allow me to appreciate it even more.
3. Being a leader allows me to live memorable experiences.
4. Being a leader reflects the qualities I like about myself.
5. Being a leader is in harmony with the other activities in my life.
6. Being a leader is a passion that I still manage to control.
7. I am completely taken with being a leader.
8. I can control my passion for leadership.
9. I freely choose to be a leader.
10. I feel proud to be a leader.
11. I really want to be a leader.
12. Being a leader has a great deal of personal meaning for me.
13. I cannot live without being a leader.
14. The urge is so strong, I can't help myself from being a leader.
15. I have difficulty imagining my life without being a leader.
16. I am emotionally dependent on being a leader.
17. I have a tough time controlling my need to be a leader.
18. I have almost an obsessive need for being a leader.
19. My mood depends on me being a leader.
20. There is nothing more important to me than being a leader.
21. Being a leader takes away from the other activities in my life.
22. Being a leader is critical to my self-esteem.
23. Losing my position as a leader would be a huge blow.
24. I feel pressured to be a leader.

Appendix B – Study 1b & 1c: Passion for Leadership Scale

<i>Harmonious Passion for Leadership</i>	<i>Obsessive Passion for Leadership</i>
1. Being a leader allows me to live a variety of experiences.	1. I cannot live without being a leader.
2. The new things that I discover as a leader allow me to appreciate it even more.	2. I am emotionally dependent on being a leader.
3. Being a leader allows me to live memorable experiences.	3. I have a tough time controlling my need to be a leader.
4. Being a leader reflects the qualities I like about myself.	4. I have almost an obsessive need for being a leader.
5. Being a leader is in harmony with the other activities in my life.	5. My mood depends on me being a leader.
6. I freely choose to be a leader.	6. There is nothing more important to me than being a leader.
7. I feel proud to be a leader.	7. Being a leader takes away from the other activities in my life.

Note. Responses are based on a 7-point Likert-type scale (1 = *Not at all*, 7 = *Completely*).

Appendix C – Study 1d: Measures

Passion for Leadership

Passion for leadership was measured with the scale developed in Study 1b-c.

Affective-Identity Motivation to Lead

Please rate the following statements on a scale from 1 (strongly disagree) to 5 (strongly agree).

1. Most of the time, I prefer being a leader rather than a follower when working in a group.
2. I am the type of person who is not interested to lead others. (R)
3. I am definitely not a leader by nature. (R)
4. I am the type of person who likes to be in charge of others.
5. I believe I can contribute more to a group if I am a follower rather than a leader. (R)
6. I usually want to be the leader in the groups that I work in.
7. I am the type who would actively support a leader but prefers not to be appointed as leader. (R)
8. I have a tendency to take charge in most groups that I work in.
9. I am seldom reluctant to be the leader of a group.

Love of the Job

Please rate the following statements on a scale from 1 (strongly disagree) to 5 (strongly agree).

1. My work is more than just a job, it is a passion.
2. I am excited to do my job each day.
3. I adore what I do at work.

Overcommitment at Work

Please rate the following statements on a scale from 1 (strongly disagree) to 5 (strongly agree).

1. I get easily overwhelmed by time pressures at work.
2. I start thinking about work problems as soon as I get up in the morning.
3. When I get home, I can easily relax and forget all about work. (R)
4. People close to me say I sacrifice too much for my job.
5. Work is usually still on my mind when I go to bed.
6. If I postpone something that I was supposed to do today, I will have trouble sleeping at night.

Workaholism

Please rate the following statements on a scale from 1 (strongly disagree) to 5 (strongly agree).

1. I seem to be in a hurry and racing against the clock.
2. I stay busy and keep many irons in the fire.
3. I find myself doing two or three things at one time such as eating lunch and writing a memo, while talking on the phone.
4. I overly commit myself by biting off more than I can chew.
5. I feel guilty when I am not working on something.
6. I find myself continuing to work after my coworkers have called it quits.
7. I put myself under pressure with self-imposed deadlines when I work.
8. It is hard for me to relax when I am not working.
9. I spend more time working than on socializing with friends, on hobbies, or on leisure activities.

Appendix D – Study 1e: Measures

Passion for Leadership

Passion for leadership was measured with the scale developed in Study 1b-c.

Positive and Negative Affect

This scale consists of a number of words that describe different feelings and emotions. Indicate to what extent you generally feel this way, that is, how you feel on the average on a scale from 1 (not at all) to 5 (extremely).

1. Interested
2. Distressed
3. Excited
4. Upset
5. Strong
6. Guilty
7. Scared
8. Hostile
9. Enthusiastic
10. Proud
11. Irritable
12. Alert
13. Ashamed
14. Inspired
15. Nervous
16. Determined
17. Attentive
18. Jittery
19. Active
20. Afraid

Autonomy

Please rate the following statements on a scale from 1 (strongly disagree) to 7 (strongly agree).

1. I have significant autonomy in determining how I do my job.
2. I can decide on my own how to go about doing my work.
3. I have considerable opportunity for independence and freedom in how I do my job.

Self-Control

Please rate the following statements on a scale from 1 (not at all like me) to 5 (very much like me).

1. I am good at resisting temptation
2. I have a hard time breaking bad habits (R)
3. I am lazy (R)
4. I say inappropriate things (R)
5. I do certain things that are bad for me, if they are fun (R)
6. I refuse things that are bad for me
7. I wish I had more self-discipline (R)
8. People would say that I have iron self-discipline
9. Pleasure and fun sometimes keep me from getting work done (R)
10. I have trouble concentrating (R)
11. I am able to work effectively toward long-term goals
12. Sometimes I can't stop myself from doing something, even if I know it is wrong (R)
13. I often act without thinking through all the alternatives (R)

Work Engagement

Please rate the following statements on a scale from 1 (never) to 7 (always).

Vigor

1. At my work, I feel bursting with energy.
2. At my job, I feel strong and vigorous.
3. When I get up in the morning, I feel like going to work.
4. I can continue working for very long periods at a time.
5. At my job, I am very resilient mentally.
6. At my work, I always persevere even when things do not go well.

Dedication

1. I find the work that I do full of meaning and purpose.
2. I am enthusiastic about my job.
3. My job inspires me.
4. I am proud of the work that I do.
5. To me, my job is challenging.

Absorption

1. Time flies when I am working.
2. When I am working, I forget everything else around me.
3. I feel happy when I am working intensely.
4. I am immersed in my work.
5. I get carried away when I am working.
6. It is difficult to detach myself from my job.

Perfectionism

Please rate the following statements on a scale from 1 (strongly disagree) to 5 (strongly agree).

Concern Over Mistakes

1. If I make mistakes, people might think less of me.
2. I am particularly embarrassed by failure.
3. I over-react to making mistakes.
4. If someone points out a mistake I have made, I feel like I have lost that person's respect in some way.
5. If I mess up on one thing, people might start questioning everything I do.
6. To me, a mistake equals failure.
7. Making mistakes is a sign of stupidity.
8. If I make a serious mistake, I feel like I am less of a person.

Need for Approval

1. I am over-sensitive to the comments of others.
2. I compare my work to others and often feel inadequate.
3. I am sensitive to how others respond to my work.
4. I am concerned with whether or not other people approve of my actions.
5. I often do not say anything, because I am scared I might say the wrong thing.
6. I am self-conscious about what others think of me.
7. I am often concerned that people will take what I say the wrong way.
8. I spend a great deal of time worrying about other people's opinion of me.

Rumination

1. If I do something less than perfectly, I have a hard time getting over it.
2. I spend a lot of time worrying about things I have done, or things I need to do.
3. If I make a mistake, my whole day is ruined.
4. If I say or do something dumb I tend to think about it for the rest of the day.
5. When I make an error, I generally cannot stop thinking about it.
6. I often obsess over some of the things I have done.
7. After I turn in my work, I cannot stop thinking of how it could have been better.

Fear of Failure

Please rate the following statements on a scale from 1 (strongly disagree) to 5 (strongly agree).

1. I am afraid of failing in somewhat difficult situations, when a lot depends on me.
2. I feel uneasy to do something if I am not sure of succeeding.
3. Even if nobody would notice my failure, I am afraid of tasks which I am not able to solve.
4. Even if nobody is watching, I feel quite anxious in new situations.
5. If I do not understand a problem immediately I start feeling anxious.

Anxiety

In general, how often have you been bothered by the following problems on a scale from 1 (not at all) to 4 (nearly every day)?

1. Feeling nervous, anxious or on edge.
2. Not being able to stop or control worrying.
3. Worrying too much about different things.
4. Trouble relaxing.
5. Being so restless that it is hard to sit still.
6. Becoming easily annoyed or irritable.
7. Feeling afraid as if something awful might happen.

Appendix E – Study 1f: Measures

Passion for Leadership

Passion for leadership was measured with the scale developed in Study 1b-c.

Leader-Member Exchange

Please rate the following statements on a scale from 1 (strongly disagree) to 7 (strongly agree).

1. I like my supervisor very much as a person.
2. My supervisor is the kind of person one would like to have as a friend.
3. My supervisor is a lot of fun to work with.
4. My supervisor defends my work actions to a superior, even without complete knowledge of the issue in question.
5. My supervisor would come to my defense if I were “attacked” by others.
6. My supervisor would defend me to others in the organization if I made an honest mistake.
7. I do work for my supervisor that goes beyond what is specified in my job description.
8. I am willing to apply extra efforts, beyond those normally required, to meet my supervisor’s work goals.
9. I do not mind working my hardest for my supervisor.
10. I am impressed with my supervisor’s knowledge of his/her job.
11. I respect my supervisor’s knowledge of and competence on the job.
12. I admire my supervisor’s professional skills.

Despotic Leadership

Please rate the following statements on a scale from 1 (strongly disagree) to 7 (strongly agree).

1. My supervisor is punitive; has no pity or compassion.
2. My supervisor is in charge and does not tolerate disagreement or questioning, gives orders.
3. My supervisor acts like a tyrant or despot; imperious.
4. My supervisor tends to be unwilling or unable to relinquish control of projects or tasks.
5. My supervisor expects unquestioning obedience of those who report to him/her.
6. My supervisor is vengeful; seeks revenge when wronged.

Appendix F – Study 2: Translation Comparison of the Passion for Leadership Scale

<i>Harmonious Passion for Leadership</i>	
<i>Original</i>	<i>Back-Translated</i>
1. Being a leader allows me to live a variety of experiences.	1. Being a leader enriches my life experiences.
2. The new things that I discover as a leader allow me to appreciate it even more.	2. The things I learn while I am a leader make me cherish this position more.
3. Being a leader allows me to live memorable experiences.	3. Being a leader makes my life more memorable.
4. Being a leader reflects the qualities I like about myself.	4. Being a leader better reflects the qualities I like about myself.
5. Being a leader is in harmony with the other activities in my life.	5. Being a leader does not affect other activities in my life.
6. I freely choose to be a leader.	6. I freely choose to become a leader.
7. I feel proud to be a leader.	7. I am proud to be a leader.

<i>Obsessive Passion for Leadership</i>	
<i>Original</i>	<i>Back-Translated</i>
1. I cannot live without being a leader.	1. I cannot live my life as a non-leader.
2. I am emotionally dependent on being a leader.	2. I am emotionally reliant on being a leader.
3. I have a tough time controlling my need to be a leader.	3. I have difficulties controlling my desire to be a leader.
4. I have almost an obsessive need for being a leader.	4. I am somewhat obsessed about my need to be a leader.
5. My mood depends on me being a leader.	5. My emotions are influenced by my position as a leader.
6. There is nothing more important to me than being a leader.	6. There is nothing more important to me than being a leader.
7. Being a leader takes away from the other activities in my life.	7. Being a leader deprives me of other activities in my life.

Appendix G – Study 3: Writing Tasks

Writing Task #1

In the *harmonious passion for leadership condition*, participants were asked to:

Think about a time at work when you engaged in your leadership role because you absolutely wanted to (rather than absolutely had to), in other words, it was something you willingly chose to do. You loved being the leader, it meant a great deal to you, and the leadership role was very fulfilling.

Now please write about what it was like to be the leader throughout that situation (e.g., why you really wanted to be the leader, why being the leader defined who you are as a person). Include as many details as you can (preferably at least 2 paragraphs) to relive the experience.

In the *obsessive passion for leadership condition*, participants were asked to:

Think about a time at work when you engaged in your leadership role because you absolutely had to (rather than absolutely wanted to), in other words, it was something that totally possessed you. You loved being the leader and it meant a great deal to you, although the leadership role was very consuming.

Now please write about what it was like to be the leader throughout that situation (e.g., why you really had to be the leader, why being the leader defined who you are as a person). Include as many details as you can (preferably at least 2 paragraphs) to relive the experience.

In the *neutral leadership condition*, participants were asked to:

Think about a time at work when you engaged in your leadership role because it was randomly assigned to you, in other words, it was something that was determined on an arbitrary basis and had absolutely nothing to do with you are as a person. The only purpose of the leadership role was to ensure that deliverables were being met.

Now please write about what it was like to be the leader throughout that situation (e.g., describe the leadership position, what were your responsibilities as the leader). Include as much detail as you can (preferably at least 2 paragraphs) to relive the experience.

Writing Task #2

This task will involve you developing a speech to your team. This has become necessary because your team was directly responsible for an unsafe work practice that resulted in one of your team members being seriously injured on the job. The injured team member is now recovering and unable to work for the next three months. This is the first incident like this to have occurred, but is serious in nature. It is your responsibility to address the team to ensure similar errors do not occur in the future.

It is now your responsibility, as team leader, to prepare a speech to deliver to your team members related to this incident. Please write out this speech in preparation for your meeting. Imagine this speech should take no longer than three minutes to deliver.

You now have ten minutes to prepare this speech (as indicated on the timer on this page). This page will auto advance after the ten minutes is up.

Write your speech out below.

Appendix H – Study 3: Measures

Measures Completed by Leaders:

All responses were rated on a scale from 1 (not at all) to 7 (completely).

Harmonious Passion for Leadership

1. Being the leader allowed me to live a variety of experiences.
2. The new things that I discovered as the leader allowed me to appreciate it even more.
3. Being the leader allowed me to live memorable experiences.
4. Being the leader reflected the qualities I liked about myself.
5. Being the leader was in harmony with the other activities in my life.
6. I freely chose to be the leader.
7. I felt proud to be the leader.

Obsessive Passion for Leadership

1. I could not live without being the leader.
2. I was emotionally dependent on being the leader.
3. I had a tough time controlling my need to be the leader.
4. I had almost an obsessive need for being the leader.
5. My mood depended on me being the leader.
6. There was nothing more important to me than being the leader.
7. Being the leader took away from the other activities in my life.
8. Being the leader was critical to my self-esteem.
9. Losing my position as the leader would have been a huge blow.
10. I felt pressured to be the leader.

Writing Task #1 Attention Checks:

In the first writing task, I was asked to think about a time...

1. I absolutely wanted to be the leader
2. I absolutely had to be the leader
3. I was randomly assigned to be the leader

The following items were rated on a scale from 1 (not at all) to 7 (completely).

1. It was easy for me to think of an example.
2. I clearly remembered the example.
3. I was truthful in describing the example.

Writing Task #2 Attention Check:

The following item was rated on a scale from 1 (not at all) to 7 (completely).

1. I put a lot of effort into the leadership speech task.

Measures Completed by Research Assistants:

The following questions are in regards to the behaviours exhibited in the speeches. Please rate the degree to which the leader displayed the following behaviours on a scale from 1 (not at all) to 7 (completely).

Transformational Leadership

1. Develops a team attitude and spirit among employees.
2. Inspires others with his/her plans for the future.
3. Shows respect for individual team members' feelings.
4. Stimulates team to think about problem in a new way.

Abusive Supervision

1. Blames team members for accident.
2. Is rude in tone.
3. Makes demeaning or derogatory remarks.
4. Puts team members down.