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The Passion Bug: How and When Do Leaders Inspire Work Passion?

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The Passion Bug: How and When do Leaders Inspire Work Passion?

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Abstract

Drawing from signaling theory, we propose a work passion transfer model where leaders' passion is transmitted to employees through the former's leadership style, and is contingent on employees' perceived importance of performance to self-esteem (IPSE). Data from 201 supervisor-employee dyads from the healthcare industry show that leaders' harmonious passion led to employees' harmonious passion through charismatic leadership, whereas contingent reward leadership accounted for the transfer of obsessive passion; IPSE did not play a moderating role for either form of passion. Results from a supplementary study further reveal that the link between leadership and employee passion operated through employees' perception of leader passion, and that employees' IPSE accentuated the relationship between perceived leader obsessive passion and employees' obsessive passion. This study advances research in work passion, leadership, and signaling theory, and provides important implications for managerial practice.

Keywords: work passion, harmonious passion, obsessive passion, passion transfer, charismatic leadership, contingent reward leadership, importance of performance to self-esteem, signaling theory

The Passion Bug: How and When do Leaders Inspire Work Passion?

The motivational construct of work passion, defined as one's strong inclination toward work that the individual loves and that is part of one's identity (Vallerand, 2015; Vallerand, Houliort, & Forest, 2014), has received growing attention in both academic literature and the business press (e.g., Hagel, Brown, Ranjan, & Byler, 2014; Vallerand & Houliort, 2019). Cultivating passion at work is viewed as "a cornerstone of talent development" (Hagel et al., 2014) because of the positive impact work passion has on individuals' work attitudes, behaviors, and well-being (Vallerand et al., 2014). Surprisingly, however, scant knowledge exists on how work passion can be fostered in the workplace. The few studies on work passion antecedents have primarily adopted an individual-focused approach, arguing that the roots of passion stem from individuals' pre-existing capacities and abilities (e.g., signature strengths), personality traits (e.g., autonomy personality), and identity centrality and salience (Forest et al., 2012; Murnieks, Mosakowski, & Cardon, 2014; Vallerand et al., 2006). However, self-determination theory, which provides the theoretical underpinning for the work passion construct, suggests that such an individual-focused approach can be incomplete, given that social and/or environmental influences also "catalyze both within- and between-person differences" in the person's motivation (Ryan & Deci, 2000, p. 68; Vallerand et al., 2014), thereby warranting investigations of environmental antecedents of work passion.

To address this missing perspective in passion research, we examine the role of leaders and their work passion as an environmental factor that can influence employees' work passion. Of the multitude of situational forces that can shape employee passion, leaders are particularly salient because in their role as "entrepreneurs of identity" (Reicher, Haslam, & Hopkins, 2005, p. 547), they have profound influence on subordinates' self-concepts and identities (Lord, Brown, & Freiberg, 1999), and can be instrumental in shaping the extent to which work becomes part of

employees' identity (a fundamental element of work passion). Additionally, because "(l)eaders are important links between individuals and their organizations..., and the relationship with one's supervisor is a lens through which the entire work experience is viewed" (Lord et al., 1999, pp. 169-170), leaders can directly or indirectly influence subordinates' experiences and motivation at work (Barling, Christie, & Hopton, 2010). Finally, to the extent that leaders are viewed by employees as role models by virtue of their positional power and status (Brown & Treviño, 2014; Gibson, 2003), they are particularly salient and relevant in shaping employees' views of whether and why work should be important to them. Together, these reasons underscore the key role that leaders play in influencing employees' work experiences and identities, and the need to investigate whether, how, and when leaders' passion shapes employees' passion.

To date, only one study has attempted to examine how work passion passes from leaders to employees. Drawing on the argument that leaders' emotional states can be mirrored by workers via emotional contagion (e.g., Bono & Ilies, 2006), Li and colleagues (2017) found that leaders' work passion increased employees' emotional contagion (albeit measured as an individual difference) and, in turn, employees' passion. However, despite its applicability for explaining the transfer of positive emotions associated with passion, the emotional contagion argument fails to account for the identity component of work passion, whereby work is internalized into employees' identity and defines who they are. Consequently, emotional contagion may not be sufficient in explaining the transfer of passion, and while "primitive emotional mimicry may increase the emotional display of employees, it alone will not induce employee passion" (Cardon, 2008, p. 83). Thus, we draw on an alternative conceptual framework, signaling theory (Spence, 1973, 2002), to address a broader series of questions – Can a leader's work passion transfer or transmit to employees? If so, can leadership style function as a signaling mechanism through which leaders' passion is transmitted to shape employees'

passion? Additionally, are certain employees more susceptible than others to such signals from leaders?

The significance and relevance of signaling theory to the present study is three-fold. First, because passion incorporates an internalization component where work is internalized into one's identity, employees need to know *why* work is important and meaningful to their identities (e.g., for its inherent characteristics and learning value, or for the instrumental rewards and outcomes), as this determines whether work is internalized in an autonomous or controlled fashion and, in turn, whether employees have harmonious or obsessive passion (Vallerand, 2015). Signals from the leader are particularly salient in addressing these identity-related issues because, as described earlier, leaders are especially influential in shaping subordinates' self-identity (Lord & Brown, 2001, 2004; Lord et al., 1999). Second, signaling theory recognizes that the signaling process is deliberate in nature, whereby passionate leaders intentionally convey their work passion through their leadership behaviors for certain strategic effects. This contrasts against emotional contagion, which tends to be subtle, unconscious, and automatic (Hatfield, Cacioppo, & Rapson, 1993) and does not recognize the possibility that leaders can be intentional and strategic in deciding how to convey their work passion. A third advantage of signaling theory is that it considers not only the signaler's (i.e., leader) characteristics but also those of the receiver (i.e., employee), thereby recognizing that signals do not necessarily get received and interpreted in the same way by all receivers, and allowing for a more granular investigation of when (and when not) a signal may impact the receiver.

In the present context, this granular investigation takes the form of the moderating role of the employees' importance of performance to self-esteem, or IPSE, which captures the extent to which an individual's self-esteem is contingent on workplace performance (Ferris, Lian, Brown, & Morrison, 2015) and, we predict, modifies employees' attention to signals sent by the leader.

Because high-IPSE employees stake their self-worth on work performance (Ferris et al. 2015), they will be more vigilant in scanning for signals from leaders, whose traditional function in organizations “involves the control and evaluation of employee job performance” (Waldman, Bass, & Einstein, 1987, p. 177) and thus convey cues and signals relevant to performance. In particular, compared to broader personality traits and individual differences (e.g., the Big Five traits), IPSE is more relevant to the present context as it captures one’s “plasticity” or malleability to external influences (Ferris et al., 2010), which is a unique component embedded in contingent self-esteem constructs like IPSE but not in more general personality traits (Ferris et al., 2010). Thus, IPSE is particularly well-suited to predict one’s reactivity to performance-relevant cues and signals in the workplace.

Overall, signaling theory and its elemental aspects offer a more fine-grained account of how and when leaders’ passion gets transmitted to shape employees’ passion, and form the basis for our proposed moderated mediation model of passion transfer where leaders’ passion is signaled (mediated) through their leadership styles to shape employees’ passion, and employees’ IPSE moderates the degree to which leadership styles influence their passion. In testing this model, our study makes at least three contributions to extant research in work passion. First, it is one of few empirical studies to not only provide evidence for passion transfer from leaders to employees but also explicate the mechanism through which this occurs. Even more importantly, because leadership style expresses the leader’s morals, values, and emotions to employees (Antonakis, Bastardo, Jacquart, & Shamir, 2016) and conveys a psychologically central leader identity (Shamir & Eilam, 2005), our proposed mechanism (leadership styles) is well-suited to capture both the strong liking and identity elements central to passion, over and above the emotional contagion mechanism previously proposed.

The second contribution pertains to the synthesis of passion and leadership research to theorize about how leaders' work passion can manifest in distinct leadership approaches. While prior research has linked leadership styles to employees' passion (Houlihan, Vallerand, & Koestner, 2013), the connection between the leader's own passion and his/her leadership approach has yet to be explored. Addressing this missing link contributes to the passion literature by showing that the reach of work passion extends beyond conventional psychological states (e.g., well-being) and work attitudes and behaviors (e.g., job satisfaction, task performance) to also include one's leadership style. It also contributes to the leadership literature by introducing a heretofore neglected predictor of leadership style. Previous leadership studies have emphasized the importance of leaders' characteristics in shaping their leadership style, focusing primarily on leaders' personality (e.g., Cable & Judge, 2003) and much less on their motivational state (e.g., Barbuto, 2005). The latter, however, not only directs, energizes, and sustains actions (Latham & Pinder, 2005) but is also malleable, making it instrumental in both identifying and developing effective leadership approaches.

The third contribution relates to the extension of the contextual application of signaling theory, which has been traditionally applied to macro-level contexts, to describe interactions at the micro-level. Further, in contrast to prior studies that examined signaling theory in contexts with limited interpersonal interactions (e.g., recruitment and hiring), our study applies this theory to a context typified by frequent interactions (i.e., those between leader and employee) and, in demonstrating that this theory is also predictive in such instances, we broaden the scope and reach of signaling theory to varied situations characterized by information asymmetry, independent of the frequency of interactions between signaler and receiver. Finally, from a practical standpoint, the findings from this study offer multiple suggestions for how leaders can enhance and manage employees' work passion.

Theoretical Framework

Dualistic Model of Work Passion

The motivational construct of work passion developed its conceptual roots from passion for a general activity (Vallerand et al., 2003), and refers to a strong inclination for and liking of one's work that becomes a part of the individual's identity and defines who s/he is (Vallerand, 2015). Based on the dualistic model of passion developed by Vallerand and colleagues (2003), passion can be harmonious or obsessive, with the defining criterion being the type of internalization that integrates passion into one's identity. Harmonious work passion is associated with autonomous internalization, whereby work is important to and defines the individual because of characteristics of the work itself (e.g., challenging; enjoyable). Consequently, harmoniously passionate employees engage in work freely and without any contingencies attached to it, such that work is well-balanced with the individual's other roles and obligations. In contrast, controlled internalization produces obsessive work passion, whereby work is important and internalized because of certain pressures or outcomes associated with that work (e.g., the need to boost one's self-esteem or receive external rewards). As such, employees experience a rigid form of work pursuit that inhibits their ability to focus on other life activities and obligations.

Because work passion incorporates both elements of positive feelings and internalization, it is distinct from other common motivational constructs like intrinsic motivation and various forms of extrinsic motivation (e.g., external, introjected) which capture individuals' reasons for engaging in work rather than reasons for internalizing work into one's identity (van den Broeck, Ferris, Chang, & Rosen, 2016). Empirically, work passion has also been distinguished from these forms of motivation and shown to have additional predictive value over intrinsic and extrinsic motivation (e.g., Ho & Astakhova, 2018; Ho, Kong, Lee, Dubreuil, & Forest, 2018; Liu, Chen, &

Yao, 2011; Vallerand et al., 2003). Similarly, prior studies have consistently shown that passion is distinct from common work attitudes such as job satisfaction and organizational commitment (e.g., Ho, Wong, & Lee, 2011), and has additional explanatory value in predicting both employee attitudes and behaviors such as turnover intention, job performance, and citizenship behaviors (e.g., Astakhova & Porter, 2015; Burke, Astakhova, & Hang, 2015 – see Pollack, Ho, O’Boyle, & Kirkman, 2020 for a meta-analytic review of work passion outcomes).

Unlike outcomes of work passion, its antecedents are less well-understood, with the majority of studies examining the predictive validity of individual characteristics. For instance, employees’ confidence was found to be positively related to harmonious passion but not to obsessive passion (Thorgren & Wincent, 2013), and autonomy personality orientation, which allows freedom in pursuing one’s actions and goals, predicted harmonious passion (Liu et al., 2011; Vallerand et al., 2006), whereas controlled personality orientation predicted obsessive passion (Vallerand et al., 2006). The role of situational influences has received less attention, but preliminary evidence indicates that harmonious passion is facilitated in the presence of job autonomy (Fernet, Lavigne, Vallerand, & Austin, 2014) and cooperative psychological climate (Ho et al., 2018). A couple of studies have also called attention to leaders as an important situational factor influencing employees’ passion. Specifically, Robertson and Barling (2013) found that leaders’ environmentally-specific transformational leadership style positively predicted subordinates’ harmonious passion for the environment. Similarly, in an unpublished study by Houlfort and colleagues (2013), employees’ perceptions of leaders as being transformational or transactional in nature were correlated to employees’ harmonious and obsessive passion for work, respectively. However, those two studies provide a narrow and incomplete understanding of the role of leaders in predicting work passion, as the underlying logic for why transformational and transactional leadership predict harmonious and obsessive

work passion remains unknown. Thus, there is still much to be learned about how leadership styles predict employees' work passion, and drawing on signaling theory as the foundational framework, we not only provide conceptual arguments for why these two forms of leadership predict employee passion, but also position these leadership styles as the signaling mechanism that transmits work passion from leaders to employees.

Signaling Theory

Signaling theory explains how signals are used to reduce information asymmetry between two parties (Spence, 1973, 2002), and has been applied to a variety of management contexts to examine information asymmetry between organizations and employees (e.g., Suazo, Martinez, & Sandoval, 2009), and between leaders and subordinates (e.g., Hermalin, 1998). As previously described, signaling theory is particularly appropriate to this study given its ability to capture both signaler's (i.e., leader's) and receiver's (i.e., employee's) characteristics, and its identification of criteria that effective signals should meet in order to transmit information from one party to another.

In the present context, we contend that leader's passion is a key characteristic that leaders aim to signal to employees, because leaders' motivational effectiveness is strongest when they act out the important aspects of the self (which is captured by work passion). Such self-expression primes employees' self-concepts and produces a strong sense of meaningfulness in doing their tasks and encouraging voluntary behaviors in the interest of the leader's mission (Kark & van Dijk, 2007; Shamir, House, & Arthur, 1993). In line with that, research on workplace leadership has emphasized the importance of leaders' value internalization and self-engagement with work and transfer of their own work identity (e.g., work passion) to followers, which can then increase "the extent to which followers also view their work as self-expressive" (Bono & Judge, 2003; p. 555). Work passion, which involves a salient representation of the

leader's work identity (Vallerand & Houliort, 2009), will thus have a particularly strong appeal to employees because of its informational value about the leader's self-expressive quality. However, self-concepts are not easily observable and can only be inferred from one's attitudes and behaviors (Arens, Yeung, Craven, & Hasselhorn, 2011), thereby creating information asymmetry between leaders and followers, which leaders then attempt to reduce.

The starting premise of signaling theory is that information asymmetry exists between two parties, such that one party has more information than another party (Spence, 1973). The signaler is the "insider" who possesses certain information or unobservable quality that the receiver is not aware of but would benefit from knowing. Because the signaler also expects to "benefit by some action from the receiver that the receiver would not otherwise have done (i.e., signaling should have a strategic effect)," the signaler will choose to "intentionally communicate positive, imperceptible qualities" to the receiver through the use of signals (Connelly, Certo, Ireland, & Reutzel, 2011, p. 45). The receiver is motivated to attend to these signals so as to learn about the signaler's unobservable qualities or information and reduce information asymmetry to enhance their decision-making (Stiglitz, 2000). After receiving and interpreting the signal, the receiver then provides feedback to the signaler in a form of an action or characteristic that ideally aligns with what the signaler originally intended to invoke by the signal.

Conceptualizing the signaling paradigm in the context of passion and leadership, we argue that information asymmetry exists in relation to employees' understanding of desired characteristics and qualities that leaders look for in employees, including whether and why work should be considered important to employees, and how much employees should value and identify with what they do. Because leaders play pivotal roles for both instrumental and symbolic reasons, particularly when identity issues are involved, they serve as vital signalers whom employees (i.e., receivers) look to in order to reduce such information asymmetry (Gibson, 2003;

Lord et al., 1999). At the same time, leaders are motivated to signal their work passion to employees to shape the latter's passion, because the similarity-attraction paradigm posits that individuals prefer others to be like them, in part because such similarity validates one's own values and beliefs, and also because it reduces potential conflicts and disagreements (Klohn & Luo, 2003). Thus, we posit that leaders who possess the unobservable quality of work passion will convey such passion via an observable signal to the employees, who then receive and interpret the signal and provide feedback in the form of their own work passion.

Another key concept in signaling theory is the signal itself, specifically the characteristics that define efficacious signals – signal observability and signal cost (Connelly et al., 2011). Signal observability captures the extent to which others are able to notice the signal, while signal cost represents the effort and cost required to acquire the signal. Efficacious signals that convey the underlying quality intended by the signaler should not only be observable by outsiders but also engender certain costs that deter those without that quality from engaging in such signaling (Connelly et al., 2011). In the present context, we contend that one's leadership style can serve as an efficacious signal because it is observable and verifiable by followers, corresponds to the leader's unobservable quality (work passion), and is costly (in terms of time, effort, energy) for those without such qualities to enact or feign. Therefore, we position leadership style as a signaling mechanism that conveys the leader's work passion to employees and, in turn, shapes the latter's work passion. More specifically, we examine charismatic and contingent reward forms of leadership styles because they not only are observable and costly to acquire and enact, but also signal a psychologically central leader identity (Shamir & Eilam, 2005) and represent proximal and authentic ways in which leaders' passion tends to manifest (as detailed in the next section). Further, this study being an initial investigation into the link between leadership styles and work passion, we chose to hone in on the core leadership dimensions – charismatic and

contingent reward – that make up transformational and transactional leadership theories respectively (e.g., Bass, 1985; House, 1977). Because both forms of leadership offer contrasting as well as complementary views of leadership, it is worthwhile to explore how each style differentially relates to work passion.

Harmonious Passion and Charismatic Leadership

Charismatic or inspirational leadership is a core transformational leadership approach that refers to the extent to which a leader “provides employees with a clear sense of purpose that is energizing... and builds identification with the leader and his or her articulated vision” (Avolio, Bass, & Jung, 1999, p. 444). Charisma is “an attribution made by employees who observe certain behaviors on the part of the leader” (Conger & Kanungo, 1987, p. 639), and charismatic leaders are perceived to have qualities such as expertise, self-motivation, and idealized vision (Conger & Kanungo, 1987). Because charismatic leadership grows out of love, passionate devotion, and enthusiasm for one’s work, rather than rewards and praise (House, 1977), and also conveys the leader’s strong sense of identity to followers (Howell & Shamir, 2005), we contend that this form of leadership will be a strong signal of the leader’s unobservable quality of harmonious work passion.

More specifically, because harmoniously passionate leaders love and internalize their work autonomously (i.e., without pressure or exigencies), they tend to experience positive emotions (Philippe, Vallerand, Houliort, Lavigne, & Donahue, 2010), feelings of vitality and flow (Dubreuil, Forest, & Courcy, 2014), vigor (Trépanier, Fernet, Austin, Forest, & Vallerand, 2014), and enhanced work engagement (Ho & Astakhova, 2018), all of which manifest in charismatic behaviors that are energizing and that compel employees to identify with the leader’s vision. In fact, anecdotal evidence shows that passionate leaders can “stir up a crowd with their rhetoric: they know how to hook people’s emotions” (Andersen, 2011). Further, harmonious

passion is associated with more high-quality interpersonal relationships (Ho & Pollack, 2014; Philippe et al., 2010), which help facilitate the leader's development of emotional attachment with employees and a focus on their welfare, both characteristics of charismatic leadership (Avolio & Yammarino, 2013; Shamir, 1995).

Beyond being a strong signal of leaders' harmonious passion, charismatic leadership style is also observable by employees, because charisma is conveyed through symbolic actions and the verbal propagation of the charismatic leader's ideas (Gardner & Avolio, 1998). Indeed, charisma has been referred to as a highly visible leadership style (Shamir et al., 1993). Additionally, a charismatic leadership style is costly to acquire or imitate. Such costs include investments in image building, whereby "charismatic leaders engage in impression management techniques to bolster their image of competence, increasing subordinate compliance and faith in them" (Bass, 1985, p. 40). Similarly, Conger and Kanungo (1987) noted that charismatic leaders actively engage in developing and displaying articulation so as to inspire followers to believe in and pursue their articulated vision. To the extent that such techniques and practices are easier for harmoniously passionate leaders to enact by virtue of their positive emotions, strong sense of work identity, and emotional attachment, those without such passion would have greater difficulty developing and enacting them convincingly (i.e., such signals would involve substantial cost for them). Accordingly, we expect that charismatic leadership serves as an efficacious signal of leaders' harmonious passion, such that those who are harmoniously passionate would enact, and be observed by followers as enacting, charismatic leadership behaviors.

Hypothesis 1. Leaders' harmonious passion is positively related to their charismatic leadership.

Mediating Role of Charismatic Leadership

We expect that leaders' harmonious passion will be transmitted to employees and enhance the latter's harmonious passion through the signal of charismatic leadership, as charismatic leadership makes it possible for leaders to convey the importance of a strong sense of self-concept to followers and assist the latter in building their own sense of identity (Howell & Shamir, 2005). Specifically, harmoniously passionate leaders can influence employees' harmonious passion through charismatic leadership in the following ways. Charismatic leaders, through their actions, appeal to the intrinsic value of work by emphasizing the inherent valence of effort and personal learning and competence development (Hetland, Skogstad, Hetland, & Mikkelsen, 2011), and the fact that effort itself reflects important values (Shamir et al., 1993). Additionally, charismatic leaders are able to inspire followers to voluntarily buy into and identify with their articulated vision (Avolio et al., 1999). Illustrating the strong motivational potential of charismatic leadership, scholars have referred to charismatic leaders as a "spark" and their followers as "inflammable material" (Klein & House, 1995). Charismatic leaders also emphasize the welfare of their followers and encourage them to focus their attention on the task itself and the learning process and individual development, rather than on earning rewards or outperforming others (Avolio & Yammarino, 2013, Bass, 1985).

Together, these actions and characteristics of charismatic leaders serve to emphasize to followers the inherent qualities and importance of work for its own sake, ultimately enhancing their autonomous internalization of work (i.e., their harmonious passion). More broadly, because leaders' harmonious passion manifests in their charismatic leadership behaviors, we expect such a charismatic style to serve as the signaling mechanism that transmits the leader's harmonious passion to their followers, thereby leading to the following hypothesis.

Hypothesis 2. Charismatic leadership will mediate the relationship between leaders' harmonious passion and employees' harmonious passion.

Obsessive Passion and Contingent Reward Leadership

Contingent reward leadership exemplifies an approach that builds on transactional contingent reinforcement of employees (Bass, 1985), and is considered the most important indicator of transactional leadership (Wang, Oh, Courtright, & Colbert, 2011). Contingent reward leaders focus on establishing clear exchanges with their employees (Bass, 1985) and clarifying what is expected from them and what they will receive if they meet these performance expectations (Avolio et al., 1999). Therefore, exchanges are often based on articulating “explicit contracts” regarding what the leader expects from employees, who then comply in return for praise, rewards, and resources or the avoidance of disciplinary action (Bass, Avolio, Jung, & Berson, 2003).

We expect that leaders’ obsessive passion will be manifested or signaled through a contingent reward leadership style. Because obsessively passionate leaders internalize and view work in a controlled or contingent fashion, such an exchange-based, contingent orientation toward work is likely to translate into an exchange-based, contingent approach toward leading, rewarding, and motivating followers. Specifically, obsessively passionate leaders value and internalize work because of the outcomes and contingencies work brings, and may thus naturally gravitate toward using similar external contingencies and rewards to incentivize and influence employees. Further, obsessively passionate leaders’ exchange-based, *quid pro quo* orientation suggests that they are less inclined or less able to engage in extraordinary behaviors that go beyond standard work expectations (i.e., charismatic leadership), as tangentially supported in a recent study showing that obsessively passionate workers did not voluntarily engage in helping behaviors toward coworkers (Ho et al., 2018). Finally, prior studies have found that obsessively passionate individuals, because of their proneness to negative emotions and defensiveness (Philippe et al., 2010), are seen by others as less approachable and trustworthy (Ho & Pollack,

2014), implying that such leaders may have to resort to more transactional, exchange-based leadership styles in order to lead and influence followers.

As a signal, contingent reward leadership style is observable to employees by virtue of the “explicit contracts” and contingent outcomes that leaders arrange with them. This form of leadership also engenders certain costs associated with specifying expectations, clarifying responsibilities, and providing rewards to followers (Bass, 1985). Specifically, contingent reward leaders have to invest continuous efforts to adhere to the contractual performance standards at work, and to monitor and assess employees’ job performance so as to allocate the appropriate rewards to them. Consequently, contingent reward leadership style represents an observable and costly signal of the leader’s obsessive passion.

Hypothesis 3. Leaders’ obsessive passion is positively related to their contingent reward leadership.

Mediating Role of Contingent Reward Leadership

Just as leaders’ harmonious passion is expected to transmit to employees, we expect that a similar phenomenon will occur in relation to obsessive passion, albeit through contingent reward leadership as the signaling mechanism. Contingent reward leaders foster a *quid pro quo* work environment where rewards (and not the inherent features of work itself) become the ultimate goal, and by emphasizing the linkage between goal accomplishment and work rewards, such a leadership style has been associated with increased follower motivation (e.g., Judge & Piccolo, 2004; Wang et al., 2011). Additionally, because workers’ performance is acknowledged and rewarded by the leader, this can potentially provide employees with meaning to their work (Breevaart, Bakker, Hetland, Demerouti, Olsen, & Espevik, 2014), thereby enhancing the internalization of work into employees’ identity. However, because contingent reward leaders emphasize the extrinsic characteristics associated with work and are strongly reward/outcome-

focused (Wang et al., 2011), this is likely to yield a controlled form of work internalization among followers, whereby work is important because of the outcomes associated with it rather than because of its inherent characteristics. In sum, a leader's obsessive passion, as manifested in his/her contingent reward leadership style, is predicted to promote an obsessive form of passion among employees.

Hypothesis 4. Contingent reward leadership will mediate the relationship between leaders' obsessive passion and employees' obsessive passion.

Moderating Role of Importance of Performance to Self-Esteem

As discussed earlier, another key premise of signaling theory is that a signal's efficacy is determined in part by the receiver's characteristics, including the extent to which a receiver scans the environment for signals, also known as receiver attention (Connelly et al., 2011). We contend that IPSE, encapsulating whether one's self-esteem is based on his/her work performance, is relevant to our study context compared to broader traits and individual differences (e.g., openness to experience, agreeableness). In part, this is because IPSE is specifically tailored to the work context, and also because it offers predictions on which cues and signals individuals would pay attention to (i.e., those relating to work performance), thereby being particularly well-positioned within signaling theory. Additionally, IPSE emphasizes the individual's "plasticity" or malleability to external influences (Ferris et al., 2010), which is a unique component embedded in contingent self-esteem constructs like IPSE but not in more general personality traits (Ferris et al., 2010). For these reasons, we expect IPSE to effectively capture employees' reactivity to leader's actions and to serve as a catalyst between leaders' signals (i.e., leadership style) and employees' responses (in the form of employee passion).

IPSE derives from the broader concept of contingent self-esteem developed by Crocker and colleagues (2001), who proposed that individuals' self-esteem can be contingent on

numerous domains such as their physical attractiveness or academic competence. In order to enhance their self-esteem, people seek to succeed and to avoid failure in that domain on which their self-esteem is based, and tend to pay particular attention to cues and signals relating to their performance in that domain (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). Contingent self-esteem has been distinguished from self-esteem level and the importance of a domain to an individual (e.g., Crocker et al., 2003). In the work context, IPSE has also been shown to be distinct from work centrality and work involvement (Ferris et al., 2010), in that individuals can consider work to be central but not base their self-worth on work performance. Extending from these, IPSE is also distinct from work passion in that the latter incorporates an affective element (love for one's work), whereas IPSE does not necessarily entail the individual having strong positive feelings for work.

For high-IPSE individuals, successes or failures at work hold strong implications for the individual's broader sense of self (Crocker & Wolfe, 2001; Ferris, Brown, Lian, & Keeping, 2009), and thus these individuals are especially attentive and responsive to social cues and signals that are relevant to their work performance (Ferris et al., 2010, 2015). In particular, because leaders play a major role in evaluating employee performance (Waldman et al., 1987), performance-relevant signals from leaders would be deemed more salient and, accordingly, have a stronger bearing on high-IPSE employees than on their low-IPSE counterparts. Applied to the present context, this suggests that IPSE will moderate the link between leadership styles (the signal) and employees' resultant work passion.

As a signal, charismatic leadership conveys to employees that work is worth doing because of certain inherent qualities and values (Shamir et al., 1993) rather than the resultant rewards and punishments (Yammarino, Dubinsky, Comer, & Jolson, 1997). These cues are more likely to be picked up by high-IPSE subordinates because of their greater attention and

sensitivity to signals from leaders. Consequently, these subordinates are more likely to believe that work is valuable for its inherent characteristics rather than for its outcomes and, accordingly, experience harmonious passion. In a similar fashion, high-IPSE employees are also more vigilant and responsive to cues from a contingent reward leadership approach, where work is worth doing because high performance would yield positive outcomes and rewards. As such, these workers are more likely to internalize work due to its contingencies (i.e., in a controlled or pressured fashion), thereby experiencing obsessive passion.

Hypothesis 5. IPSE moderates the relationship between charismatic leadership and employees' harmonious passion, such that the relationship is stronger for employees with high IPSE than for employees with low IPSE.

Hypothesis 6. IPSE moderates the relationship between contingent reward leadership and employees' obsessive passion, such that the relationship is stronger for employees with high IPSE than for employees with low IPSE.

Building on the advantage of signaling theory in integrating key elements of the signaler, the signal, and the receiver, we synthesize the prior arguments to offer a moderated mediation perspective of passion transfer. Specifically, we posit that the transfer of passion (the unobserved quality) from a leader (the signaler) to an employee (the receiver) operates through the former's leadership style (the signal), and contingent on the latter's IPSE (receiver attention), such signals may have stronger or weaker influence on the employee's passion (feedback). We also differentiate between two types of signals – charismatic versus contingent reward leadership – which we predict would respectively convey two forms of passion – harmonious and obsessive passion. The overall model is represented in Figure 1 and also formalized in the following hypotheses.

Hypothesis 7. The indirect relationship between leaders' and employees' harmonious passion (mediated through charismatic leadership) is stronger for employees with high IPSE than for employees with low IPSE.

Hypothesis 8. The indirect relationship between leaders' and employees' obsessive passion (mediated through contingent reward leadership) is stronger for employees with high IPSE than for employees with low IPSE.

 Insert Figure 1 about here

Methods

Sample and Procedures

Participants for this study were healthcare professionals (i.e., employees) and their immediate supervisors (i.e., leaders) working in healthcare organizations in the United States. The employees were enrolled in an online Healthcare MBA program and were invited to participate in the study for extra course credit. Three waves of data were collected two weeks apart to reduce potential common method bias, and participants were assured of confidentiality of their responses. Three hundred and eighty-five employees were invited to complete the Time 1 survey that measured demographic variables. Three hundred and thirty-one responses were received (86% response rate). Also, at Time 1, respondents were asked to contact their immediate supervisors to solicit their interest in participating in the study and permission to share their work email address with one of the researchers. The researcher then emailed to interested supervisors a link to the supervisor survey, which measured the supervisors' demographics and work passion. Of the 361 supervisor surveys sent out, 224 were returned (62% response rate). The Time 2 survey assessed employees' IPSE, and we received 302 completed surveys (91% response rate). Finally, the Time 3 survey assessed employees' perceptions of their supervisor's

leadership style and employee work passion, and we received 280 completed surveys (93% response rate). We used a matched code to link each employee's responses to those of the corresponding supervisor, and the final dataset contained 201 matching employee-supervisor dyads, equivalent to response rates of 52% and 56% for employees and supervisors respectively.

One hundred and twenty-eight respondents were women (64%), and 60% were Caucasian. On average, they were 34.37 years old ($SD = 8.23$), reported 11.56 years ($SD = 7.70$) of overall work experience and 4.41 years ($SD = 4.39$) of organizational tenure, with 55.7% occupying a management position. Ninety-nine percent held at least a 4-year college degree. Most supervisors were women (63.5%) and Caucasian (67%). On average, supervisors were 43.9 years old ($SD = 9.95$), had 20.40 years ($SD = 10.06$) of overall work experience and 10.07 years ($SD = 8.50$) of organizational tenure. Eighty-five percent held at least a 4-year college degree.

Measures

Harmonious and obsessive work passion of the employee and the leader were measured using the harmonious and obsessive passion scales originally developed by Vallerand and colleagues (2003) and subsequently refined by Marsh et al. (2013) to assess passion for an activity. We adapted the items to measure work passion; specifically, we replaced the phrase "this activity" in the original scale with "my work." Each form of passion was assessed with 6 items on a 7-point agreement scale, and sample items are "My work is in harmony with the other activities in my life" (for harmonious passion) and "I have almost an obsessive feeling for my work" (for obsessive passion). Cronbach's alphas were .94 and .90 for employee's harmonious and obsessive passion, and .95 and .92 for leader's harmonious and obsessive passion.

Charismatic and contingent reward leadership were assessed with 12 and 4 items, respectively, from Avolio et al.'s (1999) Multi-factor Leadership Questionnaire. Employees indicated the frequency of the behaviors manifested by their supervisors using a 5-point scale

ranging from 0 (not at all) to 4 (frequently, if not always). Sample items are “My supervisor displays power and confidence” (charismatic leadership) and “My supervisor rewards my achievement” (contingent reward leadership). Cronbach’s alphas were .95 and .94 for charismatic and contingent reward leadership, respectively. IPSE was measured on a 7-point agreement scale using the five items from Ferris et al.’s (2010) scale that assessed contingent self-esteem in the work context. A sample item is “Doing well at work gives me a sense of self-respect,” and Cronbach’s alpha was .79.

We controlled for employee organizational tenure and work experience, based on previous findings that these variables related to work passion (e.g., Ho et al., 2011; Ho & Astakhova, 2018). Theoretical work on leadership also suggests that motivational effects of leadership may be influenced by leader characteristics such as tenure and work experience (e.g., Bono & Judge, 2003), and we therefore controlled for these two possible covariates. Finally, because harmonious passion is associated with positive affect during and immediately after activity engagement, and obsessive passion is related to negative affect (Rousseau & Vallerand, 2007; Vallerand et al., 2003), it is conceivable that leader’s passion invokes employee emotions that then shapes employees’ passion (i.e., an emotional contagion process). Thus, to demonstrate that leader’s passion can be transmitted through a more deliberate process (i.e., through one’s leadership style), over and above a more unconscious, automatic emotional contagion process, we controlled for employees’ positive (negative) affect as the alternative mediating mechanism that transmits harmonious (obsessive) passion. Positive and negative affect were each measured by the short (5-item) scales developed by Mackinnon and colleagues (1999). Sample items were “inspired” and “upset” for positive and negative affect, respectively, and Cronbach’s alphas were .88 and .86 for positive and negative affect.

Results

Test of Measurement Model

We conducted confirmatory factor analyses (CFAs) to assess the discriminant validity of the nine scales (employee and supervisor harmonious and obsessive work passion, charismatic and contingent reward leadership, IPSE, positive and negative affect). Prior to this, we parceled the items for the scales with more than five items into three composite indicators to reduce the number of estimated parameters (Bandalos & Finney, 2001). The fit indices for the 9-factor model fell within acceptable ranges: $\chi^2_{(459)} = 680.52$, $p < .001$; root-mean-square error of approximation (RMSEA) = .05; comparative fit index (CFI) = .95; Tucker-Lewis Index (TLI) = .94. One item for charismatic leadership and a reverse-coded item from the IPSE scale had non-significant loadings below .50 each and were deleted from the subsequent analyses, consistent with past practice (e.g., Ferris et al., 2015; Piccolo & Colquitt, 2006). All other items loaded onto the corresponding latent factors, and the lowest standardized factor loading coefficient was .59 ($p < .001$). None of the alternative models (including an 8-factor model that combined employee's harmonious and obsessive passion in a single factor: $\chi^2_{(467)} = 1,024.88$, CFI = .88, TLI = .88, $\Delta\chi^2_{(8)} = 344.36$, $p < .001$; an 8-factor model that combined leader's harmonious and obsessive passion: $\chi^2_{(467)} = 1,056.66$, CFI = .87, TLI = .85, $\Delta\chi^2_{(8)} = 376.14$, $p < .001$; an 8-factor model that combined charismatic and contingent reward leadership: $\chi^2_{(467)} = 1,021.70$, CFI = .88, TLI = .86, $\Delta\chi^2_{(8)} = 341.18$, $p < .001$; and a single-factor model that combined all scale items: $\chi^2_{(495)} = 3,765.51$, CFI = .27, TLI = .22, $\Delta\chi^2_{(35)} = 3,084.99$, $p < .001$) demonstrated better fit than the hypothesized 9-factor measurement model.

Test of Conceptual Model

Descriptive statistics, bivariate correlations, and Cronbach's alphas for all the variables are presented in Table 1. We tested our hypotheses using path analytic procedures (Preacher, Rucker, & Hayes, 2007) and conducted bootstrapping analysis to assess the significance of

indirect effects (Shrout & Berger, 2002). To test the mediation hypotheses, we utilized the INDIRECT macro in SPSS (Hayes, 2012; Preacher et al., 2007). We controlled for the alternative (unhypothesized) type of leader passion in all the tests so as to account for its possible effect and to increase the robustness of the results. Additionally, to test the robustness of our prediction that the transfer of work passion from leaders to employees occurs via the hypothesized leadership style rather than via the other form of leadership style or solely through an emotional process, we controlled for the mediating roles of contingent reward leadership (charismatic leadership) and employee positive (negative) affect when examining the relationship between leader and employee harmonious (obsessive) passion.

 Insert Table 1 about here

Table 2 presents the results for Hypotheses 1 through 4. The results indicate that leader's harmonious passion was positively and significantly associated with charismatic leadership ($B = .16, p < .01$), whereas leader's obsessive passion was positively and significantly associated with contingent reward leadership ($B = .21, p < .001$), consistent with Hypotheses 1 and 3 respectively. Hypothesis 2, proposing the mediating role of charismatic leadership in the link between leader and employee harmonious passion, was also supported, as evidenced by the non-zero confidence interval (CI) for the indirect effect mediated through charismatic leadership (LL 95% CI = .003; UL 95% CI = .090). In other words, leader harmonious passion was positively and indirectly (via charismatic leadership) associated with employee harmonious passion, and this indirect effect was observed even after accounting for the two other alternative mediating mechanisms: contingent reward leadership and positive affect.

Hypothesis 4, proposing that contingent reward leadership will mediate the link between leader's and employee's obsessive passion, was supported, as evidenced by the non-zero

bootstrapped 95% CI for the indirect effect mediated through contingent reward leadership (LL 95% CI = .035; UL 95% CI = .156). The robustness of the mediating role of contingent reward leadership is further supported by the fact that it remained significant above and beyond the mediating effects of both charismatic leadership and negative affect.

 Insert Table 2 about here

To test the moderated mediation hypotheses (i.e., a second-stage moderated mediation model), we utilized the PROCESS macro in SPSS (PROCESS Model 14; Hayes, 2012; Preacher et al., 2007). Prior to the analyses, we mean-centered all the input variables except for dependent variables. The procedure involved three steps (Preacher et al., 2007): in Step 1, the mediator variable was regressed on the independent variables. In Step 2, the dependent variable was regressed on the independent variables, the mediator, the moderator, and the interaction between the moderator and mediator. To demonstrate the validity and robustness of the proposed leadership mediator, we again included the two alternative mediators (i.e., affect and the other form of leadership), as well as each of their interactions with the moderator (IPSE). In Step 3, the conditional indirect effect of the independent variable on the dependent variable (through the mediator) was tested by probing specific effects at different values of the moderator and assessing the moderated mediation index.

Table 3 shows the results of the moderated mediation model for harmonious passion. Given the increased ratio of predictors to the sample size and the non-significant relationships that the five control variables (employee and supervisor organizational tenure and work experience and opposite type of leader work passion) had with the focal variables of interest, we excluded these controls from the moderated mediation analyses to conserve statistical power (Becker, 2005). Step 1a in Table 3 shows that leader's harmonious passion ($B = .16, p < .001$)

was positively associated with charismatic leadership, confirming the earlier support we found for Hypothesis 1. However, Step 2 indicates that the charismatic leadership \times IPSE interaction term did not significantly predict employee harmonious passion ($B = .08, p > .05$), failing to support Hypothesis 5. The lower half of Table 3 provides the specific results for the conditional indirect effects of leader harmonious passion on employee harmonious passion at different levels of employee IPSE and the moderated mediation index (Hypothesis 7). This effect was positive and significant (i.e., the CI did not contain zero) when employee IPSE was high (LL 95% CI = .005; UL 95% CI = .119), but was not significant at low IPSE (LL 95% CI = -.038; UL 95% CI = .091). However, the moderated mediation index was not significant (LL 95% CI = -.023; UL 95% CI = .065), thereby failing to support Hypothesis 7. In sum, these results indicate that while the indirect effect of leader harmonious passion on employee harmonious passion operated through charismatic leadership, this effect was not contingent on employee IPSE.

 Insert Table 3 about here

Table 4 presents the results of the moderated mediation model for obsessive passion. As seen in Step 1a, leader's obsessive passion was positively associated with contingent reward leadership ($B = .20, p < .001$), consistent with the earlier support we found for Hypothesis 3. However, the interaction term of contingent reward leadership \times IPSE was not significant (Step 2: $B = .05, p > .05$), failing to support the moderating role of IPSE predicted in Hypothesis 6. The results of the conditional indirect effects via contingent reward leadership, presented in the lower half of Table 4, also show that the conditional indirect effect of leader's obsessive passion on employee's obsessive passion via contingent reward leadership was significant at both high IPSE (LL 95% CI = .036; UL 95% CI = .168) and low IPSE (LL 95% CI = .014; UL 95% CI = .160). The moderated mediation index for contingent reward leadership was not significant (LL 95% CI

= -.025; UL 95% CI = .047). Jointly, the above results indicate that while the indirect effect of leader obsessive passion on employee obsessive passion operated through contingent reward leadership, this effect was not contingent on employee IPSE, thereby failing to support Hypothesis 8.

 Insert Table 4 about here

Supplementary Study

To investigate why IPSE was not a significant moderator as predicted, as well as to further explicate the signaling process from leader to employee, we conducted a supplementary study that extends our conceptual model in two ways (see dashed relationships and constructs in Figure 1). First, we expand the link between leadership style and employee passion by modeling employees' perception of leader passion as an intermediate step in the signaling process.¹ This is informed by signaling research that posits that individuals, upon receiving a signal (i.e., perceived leadership style), may uniquely calibrate and interpret such signal (Branzei et al., 2004; Connelly et al., 2011) to arrive at their own interpretation of the signaler's underlying quality (i.e., their perceptions of leader passion). In turn, this interpretation of signaler's quality is a more proximal predictor of receivers' response (i.e., employee passion), thereby suggesting that receivers' perception of the signaler's quality is an intermediate mechanism between signal and response. Second, with the inclusion of this intermediate mediator, we now model IPSE as a moderator in the link between employees' perception of leader passion and employee passion, so as to examine if IPSE interacts with a more proximal predictor (perceived leader passion) rather than a more distal one (perceived leadership style).

¹ We thank the action editor and an anonymous reviewer for this suggestion.

We collected three waves of data from full-time employees who were participants in Amazon's Mechanical Turk platform (Buhrmester, Kwang, & Gosling, 2011), and assessed their perceptions of their immediate supervisors' leadership style (Time 1), their perceptions of leader work passion (Time 2), and their own work passion and IPSE (Time 3).² We first tested the mediating role of perceived leader passion in the relationship between leadership style and employee passion, while controlling for two alternative mediators: perceived leader affect and the other (unhypothesized) form of leader passion. The results demonstrated that charismatic leadership was positively associated with perceived leader harmonious passion ($B = .93, p < .001$), and leader harmonious passion in turn was positively associated with employee harmonious passion ($B = .47, p < .001$). Further, leader harmonious passion mediated the link between charismatic leadership and employee harmonious passion, as evidenced by the non-zero confidence interval (CI) for the indirect effect (LL 95% CI = .212; UL 95% CI = .669). The mediating role of perceived leader harmonious passion was found to be significant above and beyond the two alternative mediating mechanisms of leader positive affect and leader obsessive passion. In the context of obsessive passion, we found that contingent reward leadership was positively associated with employees' perception of leader obsessive passion ($B = .41, p < .01$), and leader obsessive passion was in turn positively associated with employee obsessive passion ($B = .61, p < .001$). Leader obsessive passion also mediated the link between contingent reward leadership and employee obsessive passion, as evidenced by the non-zero confidence interval (CI) for the indirect effect (LL 95% CI = .071; UL 95% CI = .464), even after accounting for the two alternative mediating mechanisms of leader negative affect and leader harmonious passion.

² Details of the methods and analyses can be found in the Appendix.

To examine the moderating role of IPSE, we tested a moderated mediation model where leadership style predicted employee passion through perceived leader passion (mediator), and IPSE moderated the link between perceived leader passion and employee passion (i.e., second-stage moderation). We found that the interaction of leader harmonious passion and IPSE did not significantly predict employee harmonious passion ($B = .12, p > .05$). In contrast, the interaction of leader obsessive passion and IPSE significantly predicted employee obsessive passion ($B = .13, p < .05$), such that the indirect effect of contingent reward leadership on employee obsessive passion, as mediated through perceived leader obsessive passion, increased for employees scoring higher on IPSE (at low IPSE: LL 95% CI = .056; UL 95% CI = .374; at high IPSE: LL 95% CI = .075; UL 95% CI = .548; moderated mediation index: LL 95% CI = .004; UL 95% CI = .152). It is also worth noting that the interaction of leader obsessive passion and IPSE remained significant even after we included an additional interaction term of contingent reward leadership and IPSE, the latter of which did not significantly predict employee obsessive passion, consistent with the results in the main study. In sum, the supplementary study provides additional insights by demonstrating that the signal of leadership style predicts employees' work passion by shaping employees' interpretation of leader work passion (i.e., the signaler's quality). Additionally, while IPSE did not moderate the *direct* relationship between leadership style and employee passion, it moderated the *indirect* relationship by strengthening employees' obsessive passion in response to perceived leader obsessive passion, an arguably more proximal predictor of employee passion in the signaling process compared to leadership style.

Discussion

Our findings reveal that the process of passion transfer from leaders to employees operates in different ways for harmonious and obsessive passion. While leaders' obsessive passion is transferred through contingent reward leadership (and, in turn, employees' perception

of leader obsessive passion, as revealed in the supplementary study), the transfer of harmonious passion operates through charismatic leadership and, in turn, employees' perception of leader harmonious passion. This set of findings is noteworthy in that not only is it one of the first studies to show that passion transfer between leaders and employees does occur, but it also goes beyond the sole prior study examining this phenomenon (Li et al., 2017) to distinguish between harmonious passion and obsessive passion (which were combined into one general passion scale in Li et al.'s study) and demonstrate that the mediating mechanisms are different for each form of passion. Building on signaling theory as the foundational framework, we identify two different but important signals – charismatic and contingent reward leadership – that transmit leaders' passion to their followers.

It is noteworthy that the mediating role of leadership style in the passion transfer process was observed even after accounting for the affective mechanism previously posited (Li et al., 2017), thereby suggesting that there is more to the transfer of work passion than mere emotional contagion, a finding that aligns with the notion that passion goes beyond an affective component. Another indication that the transfer of passion involves more than simple contagion is that the direct relationships between supervisor and employee passion were non-significant, thereby refuting the notion that employees simply mimic or copy their leaders' affective display of passion. Per definition, emotional contagion is “the tendency to automatically mimic and synchronize expressions, vocalizations, postures, and movements with those of another person's and, consequently, to converge emotionally” (Hatfield et al., 1993, p. 96), and tends to be unconscious and automatic, whereas we contend that the passion transference process goes beyond simple mimicry. Specifically, we show that this transference process is indirect, whereby leaders' passion gets manifested in their leadership behaviors that then shapes employees' interpretation of leader passion and, in turn, their own work passion. Overall, this work

contributes to extant passion research that has thus far only alluded to the possibility of contagion but lacks systematic investigation.

Our findings regarding the moderating role of IPSE in the passion transfer process were equivocal. Our initial prediction that IPSE would modify the link between leader and employee passion was not supported, while the supplementary study revealed a significant moderating role of IPSE for obsessive but not harmonious passion. However, this moderating role was found in the relationship between perceived leader obsessive passion and employee obsessive passion, and not the relationship between contingent reward leadership style and employee passion as originally hypothesized. We interpret this to mean that IPSE is more likely to play a moderating role in relation to a more proximal or immediate predictor of obsessive passion, a possibility that should be further validated by future research.

Implications for Research

Implications for passion research. This study is one of the first to empirically disentangle the mechanisms through which passion transfers from leaders to employees. In doing so, we supplement what has been to date mostly anecdotal evidence that leaders “must work harder in order to make their own passion contagious to their employees” (Cardon, 2008, p. 83), and show that to nurture the desired form of passion in employees, leaders must send efficacious signals via the appropriate leadership styles that best correspond to the leader’s own passion.

Our findings also reinforce the notion that harmonious and obsessive passion are different, not only in predicting different outcomes, as shown in prior research, but also in terms of how each form of passion is manifested in leadership styles that then shape employee passion differently. Employees are indirectly influenced by leaders’ obsessive passion via contingent reward leadership style, such that this leadership style enhances employees’ obsessive passion by shaping their perceptions of the leader’s obsessive passion, particularly among those with high

IPSE. In contrast, employees are influenced by leaders' harmonious passion via charismatic leadership style, which increases employees' perceptions of the leader's harmonious passion and, in turn, employee harmonious passion; this transfer process is independent of employee IPSE.

While the different moderating roles of IPSE vis-à-vis the transfer of harmonious versus obsessive passion was not expected, we offer a tentative explanation for this finding. For high-IPSE employees, work performance plays an important role because of its implications for their self-esteem, not because of inherent features of the work. As such, when exposed to a leader who conveys that s/he has obsessive work passion whereby work is important to him/her because of the outcomes associated with it, this message is likely to be aligned with high-IPSE workers' own contingent view of work performance. In turn, based on research on confirmation bias (e.g., Nickerson, 1998) as well as the notion in signaling theory that receivers "may apply weights to signals in accordance with preconceived notions about importance" (Connelly et al., p. 55), high-IPSE employees may not only pick up on such signals but also be more receptive to them (compared to low-IPSE workers), because the leader's obsessive passion and contingent view of work reinforces and resonates more strongly with high-IPSE employees' own view of work. Consequently, they are more likely to be influenced by these signals, thereby accounting for the stronger association between their perceptions of leader's obsessive passion and their own obsessive passion. In contrast, leaders adopting a charismatic leadership style emphasize the inherent value of work itself and tend to promote a mastery goal orientation (Hamstra, van Yperen, Wisse, & Sassenberg, 2014) that focuses on learning and skill development for its own sake, and in turn conveys the impression that the leaders themselves value work because of its inherent characteristics (i.e., have harmonious passion). Thus, compared to the more contingent nature of perceived leader obsessive passion, the non-contingent nature of leader harmonious

passion suggests that the impact of such leader passion is not likely to vary based on employee's contingent view of work performance (i.e., IPSE).

In highlighting leadership styles as an antecedent of work passion, we also address calls for research exploring much-needed predictors of work passion (Ho et al., 2018), in particular those examining social and environmental determinants. Other than Houliort et al.'s (2013) unpublished study, there is little systematic comparison of how different leadership approaches can yield different forms of employee work passion. Our findings that followers' passion is shaped by a leader's approach that, in turn, operates through followers' perception of leader passion provide a more detailed understanding of the process through which leadership style shapes employee passion. Additionally, by showing that leaders' passion not only predicts their own leadership styles but also indirectly shapes followers' work passion, our findings underscore the far-reaching direct (personal) and indirect (interpersonal) implications of leaders' passion.

Implications for leadership research. We contribute to leadership research by simultaneously exploring aspects of both leaders' and followers' self-concept (in the form of self-identifying work passion). In their attempts to understand one's "motivation to lead, motivation to follow," leadership researchers have turned to identity and self-concept-based theories that posit that leaders can "affect followers by building on aspects of their own self-concept" (Kark & van Dijk, 2007, p. 500). However, as Kark and van Dijk (2007) noted, the majority of leadership theories has focused on followers' self-identity and overlooked leaders' self-identity, resulting in an incomplete understanding of leadership influences. To rectify this, the present study shows that both leaders' and followers' self-identity can indeed be related, such that leaders' self-identifying work passion can motivate employee passion, and the signaling mechanisms of leadership style and employees' perceived leader passion serve to ensure consistency between both aspects.

More broadly, our findings show that leadership styles play different signaling functions in leader-member relations. While previous research has indirectly alluded to leadership styles as signals of important information and valued behaviors (e.g., Rubin, Bommer, & Bachrach, 2010), this study is one of the first to explicitly test the signaling role of leadership and highlight the value of leadership style not merely as a predictor or an outcome, but also as a transmittal mechanism conveying leaders' passion at work. Additionally, our findings not only reiterate existing views that charismatic leadership yields beneficial outcomes (including promoting followers' harmonious passion), but also show that contingent reward leadership, which has been previously associated with positive follower outcomes (e.g., Judge & Piccolo, 2004; Wang et al., 2011), indirectly facilitates employees' obsessive passion, particularly among high-IPSE followers. Although contingent reward leadership has its limitations, it has been consistently described as instrumental to effective follower performance due to leaders being task-oriented and sensitive (albeit often manipulative) to employee needs (Yammarino et al., 1997). Our study, however, demonstrated that while followers of contingent-reward leaders do indeed develop a strong inclination toward work, this inclination can be obsessive in nature and potentially overwhelm or control these employees (Ho & Astakhova, 2018). Therefore, the broadly accepted suggestion that clarification of task goals and reward for employees' accomplishment is a panacea for low performance (Bass, 1985; Bass et al., 2003) should be approached with some caution, as such performance-contingent rewards may inadvertently promote obsessive passion and its associated dysfunctions (e.g., psychological distress, burnout) among employees. Consequently, further investigation on how to design performance-based rewards while not promoting obsessive passion is critical, and this study sets the stage for further exploration of the contexts under which contingent reward leadership may lead to positive and/or negative outcomes.

Implications for signaling research. Finally, our study extends signaling theory research. While signaling theory is traditionally applied to macro-level contexts (e.g., organizations signaling their quality in the market), we add to a short list of studies illustrating the validity of the theory for understanding micro-level interactions. In particular, we introduce leadership styles as a viable signaling device that reduces information asymmetry between individuals who may be concerned about another party's unobservable characteristics and intentions, thereby adding to the set of organizational and individual signals that impact employee actions and decisions. Further, our supplementary study empirically demonstrates that an intermediate step in the signaling process that connects the signal to receivers' response is the receivers' interpretation of the signaler's underlying quality, thereby adding to the limited body of empirical works that provide an expanded view of the signaling process. We thereby extend signaling theory by empirically integrating two complementary perspectives that have remained somewhat independent in signaling research. The first and most prevalent perspective posits the signal to be the mechanism that transmits information from the signaler to the receiver (Connelly et al., 2011), and the second (under-investigated) perspective posits the receiver's interpretation of the signal as an important mechanism in this transmittal process (Branzei et al., 2004; Connelly et al., 2011). The empirical support we found for both perspectives, albeit in two separate studies, suggests that signaling is a complex process that involves at least two sequential steps, the signal itself and its interpretation by the receiver. In turn, this points to the importance of considering not only the signal but also the receiver's interpretation of such signal, an aspect that is not as well understood despite some research in this area (e.g., Highhouse, Thornbury, & Little, 2007).

Implications for Practice

Insofar as employees can catch the “passion bug” from their leaders, leaders and managers should pay close attention to their own work passion and leadership style. Indeed, the findings from this study suggest that one’s leadership style is indicative not only of the type of passion the leader has, but also of the type of passion employees will have. Contingent reward leaders, in particular, should be aware that their obsessive passion can be transmitted to followers. However, this does not mean that contingent reward leadership should be avoided, especially in view of previous findings documenting the positive attitudinal and behavioral outcomes associated with this leadership approach. Instead, we offer three recommendations.

First, stemming from recent passion studies showing that employees’ obsessive passion can yield positive outcomes in certain situations, such as when employees have high trust in their organization, coworkers, and supervisors (Ho & Astakhova, 2018) or when they perceive certain forms of person-environment fit (Astakhova & Ho, 2018), we suggest that leaders who use contingent reward focus on fostering supporting conditions (e.g., enhancing followers’ trust) that allow for the benefits of obsessive passion to manifest. Second, in addition to emphasizing and strengthening the connection between employee performance and rewards, contingent reward leaders may consider highlighting to followers the inherent motivational characteristics of work itself, given that intrinsic and extrinsic forms of motivation are not mutually exclusive. In doing so, leaders could dampen the controlled internalization characteristic of obsessive passion or even transform it into autonomous internalization, thereby facilitating followers’ harmonious passion. Third, because prior studies show that autonomy support fosters harmonious passion and reduces obsessive passion (e.g., Mageau et al., 2009), another viable course of action involves training supervisors to become autonomy-supportive by providing good rationale for engaging in an activity, giving employees a choice on how approach it, and/or encouraging them

to exercise initiative (Williams, Gagné, Ryan, & Deci, 2002). In doing so, managers may be better able to foster the healthier form of passion among employees.

Limitations and Future Research Directions

This study is not without its limitations. First, we examined only two signaling mechanisms in the form of charismatic and contingent reward leadership styles, and while these mediators are theoretically derived from signaling and leadership theories, we cannot rule out the roles of other potential mediators beyond the affective mechanisms we controlled for. Additionally, while we expanded on the indirect link between leadership styles and employee passion (via employees' perceived leader passion) in the supplementary study, we did not test the full sequence of proposed signaling mechanisms in a single study. Nonetheless, we do not contend that leadership style is the only or primary mechanism through which leaders spread their passion, and acknowledge that multiple mechanisms at multiple levels (e.g., team climate; organizational norms) can potentially operate to disseminate passion from one party to another. Additionally, the social influence literature highlights that other social referents beyond one's formal supervisor (e.g., coworkers, friends, other senior leaders) can be involved in the contagion process (e.g., Ho & Levesque, 2005; Shah, 1998), and certain social referents may be more influential than others. Thus, beyond testing the entire sequence of mediating steps proposed here, future research should also explore alternative and supplementary signaling mechanisms and social referents and, even more importantly, what happens when different referents experience different forms of passion and convey divergent signals.

A limitation concerning causality should also be mentioned. Given the cross-sectional study design, we cannot rule out a reverse relationship whereby employee passion infects leaders rather than vice versa. Nonetheless, given that leaders have higher power, organizational status, and visibility, it is probable that passion trickles down, as evidenced by the broader leader-

follower contagion paradigm (e.g., Cherulnik, Donley, Wiewel, & Miller, 2001). At the same time, leadership researchers have argued that “what goes around comes around,” in that leaders’ actions trigger follower reactions that then spread to other employees and ultimately influence group climate, leader-member and team-member relationships, and attitudes toward the leader (Dasborough, Ashkanasy, Tee, & Tse, 2009, p. 571). Thus, it is conceivable that employees’ passion can trickle upward and across to directly and/or indirectly influence other organizational members and the leader, and future research should continue exploring the phenomenon of passion contagion, ideally with a longitudinal design. Such a design would also allow researchers to examine the stability and malleability of work passion. While we view passion as stable but also malleable (Vallerand, 2015), similar to other constructs that have been shown to fall within the state-trait continuum and are “state-like” (Youssef & Luthans, 2007) in being relatively stable but also open to change and development (e.g., goal orientation, psychological well-being), evidence on this aspect of work passion is somewhat limited. Nonetheless, preliminary studies found that work passion exhibited temporal stability over a three-month period (Carbonneau, Vallerand, Fernet, & Guay, 2008), and that passion (in a non-work context) can develop over a five-month period (Mageau et al., 2009). Further evidence of this, particularly in the context of work passion, would be valuable.

Another viable avenue for further research is to explore other mechanisms, beyond leadership, that may directly or indirectly influence employee work passion. Such factors may include organizational norms and climate or leaders’ norms and values. Nonetheless, we also believe that leadership is a broader, more encompassing concept that can directly or indirectly influence other factors like psychological climate and team norms (e.g., Feldman, 1984; Grojean, Resick, Dickson, & Smith, 2004). Thus, as an initial investigation into the role of situational factors, we focused on a broader factor (i.e., leadership) that can subsume other situational

factors, and the findings can then provide the basis for subsequent research to delve into more specific, nuanced predictors of work passion.

Future studies can also examine conditions that modify one's susceptibility to passion transfer. Given the equivocal findings on the moderating role of IPSE, further research is needed to test this moderator as well as social and environmental elements that are likely to play a part. For instance, the type and strength of norms and values in a group and/or the organization can shape the degree to which an individual is influenced by, and conforms to, the larger entity. The relationship quality between leader and follower may also play a role in accentuating or attenuating the passion transfer phenomenon. At the national level, the degree of cultural tightness and looseness, capturing the strength of social norms and the degree of sanctioning within societies (Gelfand, Nishii, & Raver, 2006), may indirectly shape individuals' susceptibility to social influence. Exploring these higher-level contingent factors can be particularly valuable in providing a more granular understanding of when and for whom passion transfer is more or less likely to occur.

In closing, this study is one of the first to demonstrate that work passion can be transmitted from leaders to employees, and that the leadership mechanisms underlying this process go beyond emotional contagion and vary depending on the type of passion. By shedding light on how and when leaders' work passion transfers to followers, this study not only demonstrates the passion contagion phenomenon but also sets the stage for further exploration of this phenomenon in the workplace.

References

- Andersen, E. (April 18, 2011). Mother Teresa and Henry Ford: The passionate leader. *Forbes*.
Last accessed from <https://www.forbes.com/sites/erikaandersen/2011/04/18/mother-teresa-and-henry-ford-the-passionate-leader/#6116c93581cd>
- Antonakis, J., Bastardo, N., Jacquart, P., & Shamir, B. (2016). Charisma: An ill-defined and ill-measured gift. *Annual Review of Organizational Psychology and Organizational Behavior*, 3, 293–319.
- Astakhova, M. N., & Ho, V. T. (2018). Chameleonic obsessive job passion: Demystifying the relationships between obsessive job passion and in-role and extra-role performance. *European Journal of Work and Organizational Psychology*, 27, 362–374.
- Astakhova, M. N., & Porter, G. (2015). Understanding the work passion-performance relationship: The mediating role of organizational identification and moderating role of fit at work. *Human Relations*, 68, 1315–1346.
- Arens, A. K., Yeung, A., Craven, R., & Hasselhorn, M. (2011). Toward twofold multidimensionality of academic self-concept: Domain specificity and separation between competence and affect. *Journal of Educational Psychology*, 103, 970–981.
- Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Re-examining the components of transformational and transactional leadership using the Multi-factor Leadership Questionnaire. *Journal of Occupational and Organizational Psychology*, 72, 441–462.
- Avolio, B. J., & Yammarino, F. J. (2013). Reflections, closing thoughts, and future directions. In B. J. Avolio & F. J. Yammarino (Eds.), *Transformational and charismatic leadership: The road ahead* (2nd ed., pp. 449–470). Bingley: Emerald Group Publishing.

- Bandalos, D. L., & Finney, S. J. (2001). Item parceling issues in structural equation modeling. In G. A. Marcoulides & R. E. Schumacker (Eds.), *New developments and techniques in structural equation modeling* (pp. 269–296). Mahwah, NJ: Erlbaum.
- Barbuto, J. E. (2005). Motivation and transactional, charismatic, and transformational leadership: A test of antecedents. *Journal of Leadership and Organizational Studies, 11*, 26–40.
- Barling, J., Christie, A., & Hopton, C. (2010). Leadership. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology* (Vol. 1). Washington, DC: American Psychological Association.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Bass, B. M., Avolio, B. J., Jung, D. I., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology, 88*, 207–218.
- Becker, T. E. (2005). Potential problems in the statistical control of variables in organizational research: A qualitative analysis with recommendations. *Organizational Research Methods, 8*, 274–289.
- Bono J. E., & Ilies, R. (2006). Charisma, positive emotions and mood contagion. *Leadership Quarterly, 17*, 317–334.
- Bono, J. E., & Judge, T. A. (2003). Self-concordance at work: Understanding the motivational effects of transformational leaders. *Academy of Management Journal, 46*, 554–571.
- Branzei, O., Ursacki-Bryant, T. J., Vertinsky, I., & Zhang, W. (2004). The formation of green strategies in Chinese firms: Matching corporate environmental responses and individual principles. *Strategic Management Journal, 25*, 1075-1095.
- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science, 6*, 3–5.

- Breevaart, K., Bakker, A., Hetland, J., Demerouti, E., Olsen, O. K., & Espevik, R. (2014). Daily transactional and transformational leadership and daily employee engagement. *Journal of Occupational and Organizational Psychology, 87*, 138–157.
- Brown, D. J., Ferris, D. L., Heller, D., & Keeping, L. M. (2007). Antecedents and consequences of the frequency of upward and downward social comparisons at work. *Organizational Behavior and Human Decision Processes, 102*, 59-75.
- Brown, M. E., & Treviño, L. K. (2014). Do role models matter? An investigation of role modeling as an antecedent of perceived ethical leadership. *Journal of Business Ethics, 122*, 587–598.
- Burke, R. J., Astakhova, M. N., & Hang, H. (2015). Work passion through the lens of culture: Harmonious work passion, obsessive work passion, and work outcomes in Russia and China. *Journal of Business and Psychology, 30*, 457–471.
- Cable, D. M., & Judge, T. A. (2003). Managers' upward influence tactic strategies: The role of manager personality and supervisor leadership style. *Journal of Organizational Behavior, 24*, 197–214.
- Carbonneau, N., Vallerand, R. J., Fernet, C., & Guay, F. (2008). The role of passion for teaching in intrapersonal and interpersonal outcomes. *Journal of Educational Psychology, 100*, 977-987.
- Cardon, M. (2008). Is passion contagious? The transference of entrepreneurial passion to employees. *Human Resource Management Review, 18*, 77–86.
- Cherulnik, P. D., Donley, K. A., Wiewel, T. S. R., & Miller, S. R. (2001). Charisma is contagious: The effect of leaders' charisma on observers' affect. *Journal of Applied Social Psychology, 31*, 2149–2159.

- Conger, J. A., & Kanungo, R. N. (1987). Toward a behavioral theory of charismatic leadership in organizational settings. *Academy of Management Review*, *12*, 637–647.
- Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management*, *37*, 39–67.
- Crocker, J., Karpinski, A., Quinn, D. M., & Chase, S. K. (2003). When grades determine self-worth: Consequences of contingent self-worth for male and female engineering and psychology majors. *Journal of Personality and Social Psychology*, *85*, 507–516.
- Crocker J., Luhtanen, R.K., Cooper, M. L., & Bouvrette, A. (2003). Contingencies of self-worth in college students: Theory and measurement. *Journal of Personality and Social Psychology*, *85*, 894–908.
- Crocker, J., & Wolfe, C. T. (2001). Contingencies of self-worth. *Psychological Review*, *108*, 593–623.
- Dasborough, M. T., Ashkanasy, N. M., Tee, E. Y., & Tse, H. H. (2009). What goes around comes around: How meso-level negative emotional contagion can ultimately determine organizational attitudes toward leaders. *Leadership Quarterly*, *20*, 571–585.
- Dubreuil, P., Forest, J., & Courcy, F. (2014). From strengths use to work performance: The role of harmonious passion, subjective vitality, and concentration. *Journal of Positive Psychology*, *9*, 335–349.
- Elliot, A. J. (2005). A conceptual history of the achievement goal construct. In A. J. Elliot & C. S. Dweck (Eds.), *Handbook of competence and motivation* (pp. 52-72). New York: The Guilford Press.
- Feldman, D. (1984). The development and enforcement of group norms. *Academy of Management Review*, *9*, 47–53.

- Fernet, C., Lavigne, G. L., Vallerand, R. J., & Austin, S. (2014). Fired up with passion: Investigating how job autonomy and passion predict burnout at career start in teachers. *Work & Stress, 28*, 270–288.
- Ferris, D. L., Brown, D. J., Lian, H., & Keeping, L. M. (2009). When does self-esteem relate to deviant behavior? The role of contingencies of self-worth. *Journal of Applied Psychology, 94*, 1345–1353.
- Ferris, D. L., Lian, H., Brown, D. J., & Morrison, R. (2015). Ostracism, self-esteem, and job performance: When do we self-verify and when do we self-enhance? *Academy of Management Journal, 58*, 279–297.
- Ferris, D. L., Lian, H., Brown, D. J., Pang, F. X. J., & Keeping, L. M. (2010). Self-esteem and job performance: The moderating role of self-esteem contingencies. *Personnel Psychology, 63*, 561–593.
- Forest, J., Mageau, G. A., Crevier-Braud, L., Bergeron, É., Dubreuil, P., & Lavigne, G. L. (2012). Harmonious passion as an explanation of the relation between signature strengths' use and well-being at work: Test of an intervention program. *Human Relations, 65*, 1233–1252.
- Gardner, W. L., & Avolio, B. J. (1998). The charismatic relationship: A dramaturgical perspective. *Academy of Management Review, 23*, 32–58.
- Gelfand, M. J., Nishii, L. H., & Raver, J. L. (2006). On the nature and importance of cultural tightness-looseness. *Journal of Applied Psychology, 91*, 1225–1244.
- Gibson, D. E. (2003). Developing the professional self-concept: Role model construals in early, middle, and late career stages. *Organization Science, 14*, 591–610.

- Grojean, M., Resick, C., Dickson, M., & Smith, D. B. (2004). Leaders, values, and organizational climate: Examining leadership strategies for establishing an organizational climate regarding ethics. *Journal of Business Ethics, 55*, 223–241.
- Hagel, J., Brown, J. S., Ranjan, A., & Byler, D. (2014). *Passion at work: Cultivating worker passion as a cornerstone of talent development*. Deloitte University Press. Retrieved from: <https://dupress.deloitte.com/dup-us-en/topics/talent/worker-passion-employee-behavior.html>
- Hamstra, M. R. W., van Yperen, N. W., Wisse, B., & Sassenberg, K. (2014). Transformational and transactional leadership and followers' achievement goals. *Journal of Business and Psychology, 29*, 413-425.
- Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1993). Emotional contagion. *Current Directions in Psychological Science, 2*, 96–99.
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from www.afhayes.com/public/process2012.pdf
- Hermalin, B. E. (1998). Toward an economic theory of leadership: Leading by example. *American Economic Review, 88*, 1188–1206.
- Hetland, H., Skogstad, A., Hetland, J., & Mikkelsen, A. (2011). Leadership and learning climate in a work setting. *European Psychologist, 16*, 163-173.
- Highhouse, S., Thornbury, E. E., & Little, I. S. (2007). Social-identity functions of attraction to organizations. *Organizational Behavior and Human Decision Processes, 103*, 134–146.
- Ho, V. T., & Astakhova, M. N. (2018). Disentangling passion and engagement: An examination of how and when passionate employees become engaged ones. *Human Relations, 71*, 973–1000.

- Ho, V. T., Kong, D. T., Lee, C.-H., Dubreuil, P., & Forest, J. (2018). Promoting harmonious passion among unmotivated employees: A two-nation investigation of the compensatory function of cooperative psychological climate. *Journal of Vocational Behavior, 106*, 112–125.
- Ho, V. T., & Levesque, L. L. (2005). With a little help from my friends (and substitutes): Social referents and influence in psychological contract fulfillment. *Organization Science, 16*, 275–289.
- Ho, V. T., & Pollack, J. M. (2014). Passion isn't always a good thing: Examining entrepreneurs' network centrality and financial performance with a dualistic model of passion. *Journal of Management Studies, 51*, 433–459.
- Ho, V. T., Wong, S. S., & Lee, C. H. (2011). A tale of passion: Linking job passion and cognitive engagement to employee work performance. *Journal of Management Studies, 48*, 26–47.
- Houliort, N., Vallerand, R. J., & Koestner, R. (2013). *On the organizational and interpersonal determinants of passion*. Unpublished manuscript.
- House, R. J. (1977). A 1976 theory of charismatic leadership. In J. G. Hunt & L. L. Larson (Eds.), *Leadership: The cutting edge* (pp. 189-204). Carbondale, IL: Southern Illinois University Press.
- Howell, J. M., & Shamir, B. (2005). The role of followers in the charismatic leadership process: Relationships and their consequences. *Academy of Management Review, 30*, 96–112.
- Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. *Journal of Applied Psychology, 89*, 755–768.
- Kark, R., & van Dijk, D. (2007). Motivation to lead, motivation to follow: The role of the self-regulatory focus in leadership processes. *Academy of Management Review, 32*, 500–528.

- Klein, K. J., & House, R. J. (1995). On fire: Charismatic leadership and levels of analysis. *Leadership Quarterly*, 6, 183–198.
- Klohnen, E. C., & Luo, S. (2003). Interpersonal attraction and personality: What is attractive—self similarity, ideal similarity, complementarity, or attachment security? *Journal of Personality and Social Psychology*, 85, 709–722.
- Latham, G. P., & Pinder, C. C. (2005). Work motivation theory and research at the dawn of the twenty-first century. *Annual Review of Psychology*, 56, 495–516.
- Li, J., Zhang, J., & Yang, Z. (2017). Associations between a leader's work passion and an employee's work passion: A moderated mediation model. *Frontiers in Psychology*, 8, 1–12.
- Liu, D., Chen, X. P., & Yao, X. (2011). From autonomy to creativity: a multilevel investigation of the mediating role of harmonious passion. *Journal of Applied Psychology*, 96, 294–309.
- Lord, R. G., & Brown, D. J. (2001). Leadership, value, and subordinate self-concepts. *Leadership Quarterly*, 12, 133–152.
- Lord, R. G., & Brown, D. J. (2004). *Leadership processes and follower self-identity*. Mahwah, NJ: Lawrence Erlbaum.
- Lord, R. G., Brown, D. J., & Feiberg, S. J. (1999). Understanding the dynamics of leadership: The role of follower self-concepts in the leader/followership. *Organizational Behavior and Human Decision Processes*, 78, 167–203.
- Mackinnon, A., Jorm, A. F., Christensen, H., Korten, A. E., Jacomb, P. A., & Rodgers, B. (1999). A short form of the Positive and Negative Affect Schedule: Evaluation of factorial validity and invariance across demographic variables in a community sample. *Personality and Individual Differences*, 16, 405–416.

- Mageau, G. A., Vallerand, R. J., Charest, J., Salvy, S. J., Lacaille, N., Bouffard, T., & Koestner, R. (2009). On the development of harmonious and obsessive passion: The role of autonomy support, activity specialization, and identification with the activity. *Journal of Personality, 77*, 601–646.
- Marsh, H. W., Vallerand, R. J., Lafrenière, M.-A. K., Parker, P., Morin, A. J. S., Carbonneau, N., et al. (2013). Passion: Does one scale fit all? Construct validity of two-factor passion scale and psychometric invariance over different activities and languages. *Psychological Assessment, 25*, 796–809.
- Murnieks, C. Y., Mosakowski, E., & Cardon, M. S. (2014). Pathways of passion identity: Centrality, passion, and behavior among entrepreneurs. *Journal of Management, 40*, 1583–1606.
- Naseer, S., Raja, U., Syed, F., Donia, M. B., & Darr, W. (2016). Perils of being close to a bad leader in a bad environment: Exploring the combined effects of despotic leadership, leader-member exchange, and perceived organizational politics on behaviors. *The Leadership Quarterly, 27*, 14–33.
- Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology, 2*, 175–220.
- Philippe, F. L., Vallerand, R. J., Houffort, N., Lavigne, G. L., & Donahue, E. G. (2010). Passion for an activity and quality of interpersonal relationships: The mediating role of emotions. *Journal of Personality and Social Psychology, 98*, 917–932.
- Piccolo, R. F., & Colquitt, J. A. (2006). Transformational leadership and job behaviors: The mediating role of core job characteristics. *Academy of Management Journal, 49*, 327–340.

- Pollack, J. M., Ho, V. T., O'Boyle, E. H., & Kirkman, B. L. (2020). Passion at work: A meta-analysis of individual work outcomes. *Journal of Organizational Behavior*.
<https://doi.org/10.1002/job.2434>
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypothesis: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, *42*, 185–227.
- Reicher, S., Haslam, S. A., & Hopkins, N. (2005). Social identity and the dynamics of leadership: Leaders and followers as collaborative agents in the transformation of social reality. *Leadership Quarterly*, *16*, 547–568.
- Robertson, J. L., & Barling, J. (2013). Greening organizations through leaders' influence on employees' proenvironmental behaviors. *Journal of Organizational Behavior*, *34*, 176–194.
- Rubin, R. S., Bommer, W. H., & Bachrach, D. G. (2010). Operant leadership and employee citizenship: A question of trust? *Leadership Quarterly*, *21*, 400–408.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*, 68–78.
- Schmitt, N., & Stults, D. M. (1985). Factors defined by negatively keyed items: The result of careless respondents? *Applied Psychological Measurement*, *9*, 367–373.
- Shah, P. P. (1998). Who are employees' social referents? Using a network perspective to determine referent others. *Academy of Management Journal*, *41*, 249–268.
- Shamir, B. (1995). Social distance and charisma: theoretical notes and an exploratory study. *The Leadership Quarterly*, *6*, 19–47.
- Shamir, B., & Eilam, G. (2005). “What’s your story?”: A life-stories approach to authentic leadership development. *Leadership Quarterly*, *16*, 395–417.

- Shamir, B., House, R. J., & Arthur, M. B. (1993). The motivational effects of charismatic leadership: A self-concept based theory. *Organization Science, 4*, 577–594.
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods, 7*, 422–445.
- Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics, 87*, 355–374.
- Spence, M. (2002). Signaling in retrospect and the informational structure of markets. *American Economic Review, 92*, 434–459.
- Stiglitz, J. E. (2000). The contributions of the economics of information to twentieth century economics. *Quarterly Journal of Economics, 115*, 1441–1478.
- Suazo, M. M., Martinez, P. G., & Sandoval, R. (2009). Creating psychological and legal contracts through human resource practices: A signaling theory perspective. *Human Resource Management Review, 19*, 154–166.
- Tajfel, H. (1978). Social categorization, social identity and social comparison. In H. Tajfel (Ed.), *Differentiation between social groups*, Blackwell Synergy, Oxford.
- Thorgren, S., & Wincent, J. (2013). Passion and challenging goals: Drawbacks of rushing into goal-setting processes. *Journal of Applied Social Psychology, 43*, 2318–2329.
- Trépanier, S. -G., Fernet, C., Austin, S., Forest, J., & Vallerand, R. J. (2014). Linking job demands and resources to burnout and work engagement: Does passion underlie these differential relationships? *Motivation and Emotion, 38*, 353–366.
- Vallerand, R. J. (2015). *The psychology of passion: A dualistic model*. New York: Oxford.
- Vallerand, R. J., Blanchard, C., Mageau, G. A., Koestner, R., Ratelle, C., & Léonard, M., . . . Marsolais, J. (2003). Les passions de l'âme: On obsessive and harmonious passion. *Journal of Personality and Social Psychology, 85*, 756–767.

- Vallerand, R. J., Houliort, N., & Forest, J. (2014). Passion for work: Determinants and outcomes. In M. Gagné (Ed.), *The Oxford handbook of work engagement, motivation, and self-determination theory* (pp. 85–105). Oxford, UK: Oxford University Press.
- Vallerand, R. J., & Houliort, N. (2019). *Passion for work: Determinants and consequences*. New York: Oxford University Press.
- Vallerand, R. J., Rousseau, F. L., Grouzet, F. M. E., Dumais, A., Grenier, S., & Blanchard, C. B. (2006). Passion in sport: A look at determinants and affective experiences. *Journal of Sport and Exercise Psychology, 28*, 454–478.
- Waldman, D. A., Bass, B. M., & Einstein, W. O. (1987). Leadership and outcomes of performance appraisal processes. *Journal of Occupational Psychology, 60*, 177-186.
- Wang, G., Oh, I. S., Courtright, S. H., & Colbert, A. E. (2011). Transformational leadership and performance across criteria and levels: A meta-analytic review of 25 years of research. *Group and Organization Management, 36*, 223–270.
- Williams, G. C., Gagné, M., Ryan, R. M., & Deci, E. L. (2002). Facilitating autonomous motivation for smoking cessation. *Health Psychology, 21*, 40–50.
- Wood, J. V. (1996). What is social comparison and how should we study it? *Personality and Social Psychology Bulletin, 22*, 520–537.
- Yammarino, F. J., Dubinsky, A. J., Comer, L. B., & Jolson, M. A. (1997). Women and transformational and contingent reward leadership: A multiple-levels-of-analysis perspective. *Academy of Management Journal, 40*, 205–222.
- Youssef, C. M., & Luthans, F. (2007). Positive organizational behavior in the workplace: The impact of hope, optimism, and resiliency. *Journal of Management, 33*, 774–800.

Table 1. Descriptive Statistics of Study Variables

| Variable | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|-------------------------------------|-------|-------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|
| 1. Work experience (employee) | 11.56 | 7.70 | - | | | | | | | | | | | | |
| 2. Organizational tenure (employee) | 4.41 | 4.39 | .37 | - | | | | | | | | | | | |
| 3. Work experience (leader) | 20.40 | 10.06 | .13 | .07 | - | | | | | | | | | | |
| 4. Organizational tenure (leader) | 10.07 | 8.50 | -.05 | .18 | .45 | - | | | | | | | | | |
| 5. Leader harmonious passion | 5.72 | 1.13 | -.08 | -.05 | .12 | .07 | .95 | | | | | | | | |
| 6. Leader obsessive passion | 2.95 | 1.44 | .01 | .03 | -.02 | -.06 | -.04 | .92 | | | | | | | |
| 7. Charismatic leadership | 3.00 | .77 | -.07 | -.01 | .01 | -.02 | .24 | .00 | .95 | | | | | | |
| 8. Contingent reward leadership | 2.29 | 1.04 | .08 | .08 | -.09 | -.02 | .02 | .28 | .57 | .94 | | | | | |
| 9. Positive affect | 3.92 | .72 | -.11 | -.09 | -.00 | .04 | .18 | -.06 | .26 | .13 | .88 | | | | |
| 10. Negative affect | 1.73 | .68 | -.02 | .11 | .02 | .05 | -.10 | .09 | -.16 | -.12 | -.32 | .86 | | | |
| 11. Employee IPSE | 5.71 | 1.02 | -.01 | .13 | .06 | .12 | -.05 | -.01 | .18 | .24 | .06 | .14 | .79 | | |
| 12. Employee harmonious passion | 5.20 | 1.09 | -.11 | -.08 | -.03 | .09 | .22 | .00 | .42 | .39 | .43 | -.30 | .28 | .94 | |
| 13. Employee obsessive passion | 2.42 | 1.18 | .04 | .14 | -.09 | -.08 | -.04 | .20 | .01 | .28 | -.06 | .21 | .23 | .08 | .90 |

Note. $n = 201$. IPSE = importance of performance to self-esteem. Correlations at or greater than .14 are significant at $p < .05$ and correlations at or greater than .18 are significant are $p < .01$. Cronbach's alphas are in the diagonal.

Table 2. Mediating Roles of Charismatic and Contingent Reward Leadership

| Mediation Steps | Mediating Role of Charismatic Leadership | | | | |
|---|--|-----------|------------------|------------------|-----------------------|
| | <i>B</i> | <i>SE</i> | <i>t</i> | <i>p</i> | <i>R</i> ² |
| <i>Direct effect of IV on DV</i> | | | | | |
| Leader HP → Employee HP | .11 | .06 | 1.79 | .08 | |
| <i>Direct effects of IV on Mediator</i> | | | | | |
| Leader HP → Charismatic leadership | .16 | .05 | 3.31** | .00 | |
| Leader HP → Contingent reward leadership | .05 | .06 | .77 | .44 | |
| Leader HP → Positive affect | .11 | .05 | 2.39* | .02 | |
| <i>Direct effects of Mediators on DV</i> | | | | | |
| Charismatic leadership → Employee HP | .22 | .11 | 2.04* | .04 | |
| Contingent reward leadership → Employee HP | .28 | .08 | 3.46*** | .00 | |
| Positive affect → Employee HP | .47 | .09 | 5.13*** | .00 | |
| <i>Total effect of IV on DV</i> | | | | | |
| Leader HP → Employee HP (through charismatic leadership, controlling for the mediating effects of contingent reward leadership and positive affect) | .21 | .07 | 3.07** | .00 | .35*** |
| <i>Bootstrap results for indirect effect</i> | | | | | |
| | <i>M</i> | <i>SE</i> | <i>LL 95% CI</i> | <i>UL 95% CI</i> | |
| Total | .10 | .04 | .028 | .184 | |
| Effect (through charismatic leadership) – hypothesized | .04 | .02 | .003 | .090 | |
| Effect (through contingent reward leadership) | .01 | .02 | -.016 | .062 | |
| Effect (through positive affect) | .05 | .02 | .010 | .109 | |
| Mediation Steps | Mediating Role of Contingent Reward Leadership | | | | |
| | <i>B</i> | <i>SE</i> | <i>t</i> | <i>p</i> | <i>R</i> ² |
| <i>Direct effect of IV on DV</i> | | | | | |
| Leader OP → Employee OP | .06 | .06 | 1.09 | .28 | |
| <i>Direct effects of IV on Mediator</i> | | | | | |
| Leader OP → Contingent reward leadership | .21 | .05 | 4.10*** | .00 | |
| Leader OP → Charismatic leadership | .00 | .04 | .11 | .92 | |
| Leader OP → Negative affect | .04 | .03 | 1.21 | .23 | |
| <i>Direct effects of Mediators on DV</i> | | | | | |

| | | | | | |
|--|----------|-----------|------------------|------------------|--------|
| Contingent reward leadership → Employee OP | .42 | .10 | 4.18*** | .00 | |
| Charismatic leadership → Employee OP | -.26 | .13 | -2.01 | .05 | |
| Negative affect → Employee OP | .37 | .12 | 3.19** | .00 | |
| <i>Total effect of IV on DV</i> | | | | | |
| Leader OP → Employee OP (through contingent rewards leadership, controlling for the mediating effects of charismatic leadership and negative affect) | .16 | .06 | 2.84** | .00 | .19*** |
| <i>Bootstrap results for indirect effect</i> | | | | | |
| | <i>M</i> | <i>SE</i> | <i>LL 95% CI</i> | <i>UL 95% CI</i> | |
| Total | .10 | .03 | .051 | .164 | |
| Effect (through contingent reward leadership) – hypothesized | .09 | .03 | .035 | .156 | |
| Effect (through charismatic leadership) | -.00 | .01 | -.029 | .019 | |
| Effect (through negative affect) | .02 | .01 | -.007 | .050 | |

Note. $n = 201$. Unstandardized regression coefficients are reported. Bootstrap sample size=5,000; IV=independent variable; DV=dependent variable; LL=lower limit; CI=confidence interval; UL=upper limit; HP = harmonious passion; OP = obsessive passion.

* $p < .05$

** $p < .01$

*** $p < .001$

Table 3. Moderated Mediation Model for Harmonious Passion

| Variable | <i>B</i> | <i>SE</i> | <i>t</i> | <i>R</i> ² |
|--|---------------|----------------|------------------|-----------------------|
| <i>Mediator variable model (Step 1a): Charismatic leadership</i> | | | | |
| Leader HP | .16 | .05 | 3.42*** | .06*** |
| <i>Mediator variable model (Step 1b): Contingent reward leadership (alternative mediator)</i> | | | | |
| Leader HP | .02 | .07 | .33 | .00 |
| <i>Mediator variable model (Step 1c): Positive affect (alternative mediator)</i> | | | | |
| Leader HP | .12 | .04 | 2.61** | .03** |
| <i>Dependent variable model (Step 2): Employee HP</i> | | | | |
| Leader HP | .12 | .06 | 2.05* | .38*** |
| Charismatic leadership | .21 | .11 | 2.04* | |
| Contingent reward leadership (alternative mediator) | .22 | .07 | 2.98** | |
| Positive affect (alternative mediator) | .51 | .09 | 5.64*** | |
| IPSE | .21 | .07 | 3.22** | |
| Charismatic leadership × IPSE | .08 | .11 | .70 | |
| Contingent reward leadership × IPSE | -.02 | .07 | -.30 | |
| Positive affect × IPSE | .18 | .09 | 1.94 | |
| <i>Conditional indirect effects via charismatic leadership (at different levels of IPSE) (Step 3a)</i> | | | | |
| | <i>Effect</i> | <i>Boot SE</i> | <i>LL 95% CI</i> | <i>UL 95% CI</i> |
| -1 <i>SD</i> | .02 | .03 | -.038 | .091 |
| Mean | .03 | .02 | .003 | .085 |
| + 1 <i>SD</i> | .05 | .03 | .005 | .119 |
| <i>Conditional indirect effects via contingent reward leadership (at different levels of IPSE) (Step 3b)</i> | | | | |
| | <i>Effect</i> | <i>Boot SE</i> | <i>LL 95% CI</i> | <i>UL 95% CI</i> |
| -1 <i>SD</i> | .01 | .02 | -.021 | .064 |
| Mean | .00 | .02 | -.023 | .045 |
| + 1 <i>SD</i> | .00 | .02 | -.025 | .043 |
| <i>Conditional indirect effects via positive affect (at different levels of IPSE) (Step 3c)</i> | | | | |
| | <i>Effect</i> | <i>Boot SE</i> | <i>LL 95% CI</i> | <i>UL 95% CI</i> |
| -1 <i>SD</i> | .04 | .02 | .006 | .092 |
| Mean | .06 | .03 | .015 | .119 |
| + 1 <i>SD</i> | .08 | .04 | .019 | .164 |
| <i>Index of Moderated mediation</i> | | | | |
| | <i>Index</i> | <i>Boot SE</i> | <i>LL 95% CI</i> | <i>UL 95% CI</i> |
| <i>Mediator</i> | | | | |
| Charismatic leadership | .01 | .02 | -.023 | .066 |
| Contingent reward leadership (alternative mediator) | -.00 | .01 | -.018 | .010 |
| Positive affect (alternative mediator) | .02 | .01 | .001 | .056 |

Note. Unstandardized regression coefficients are reported. HP = harmonious passion; OP = obsessive passion. Significance tests for the indirect effects were based on bias-corrected confidence intervals derived from 5,000 bootstrapped samples.

* $p < .05$; ** $p < .01$; *** $p < .001$

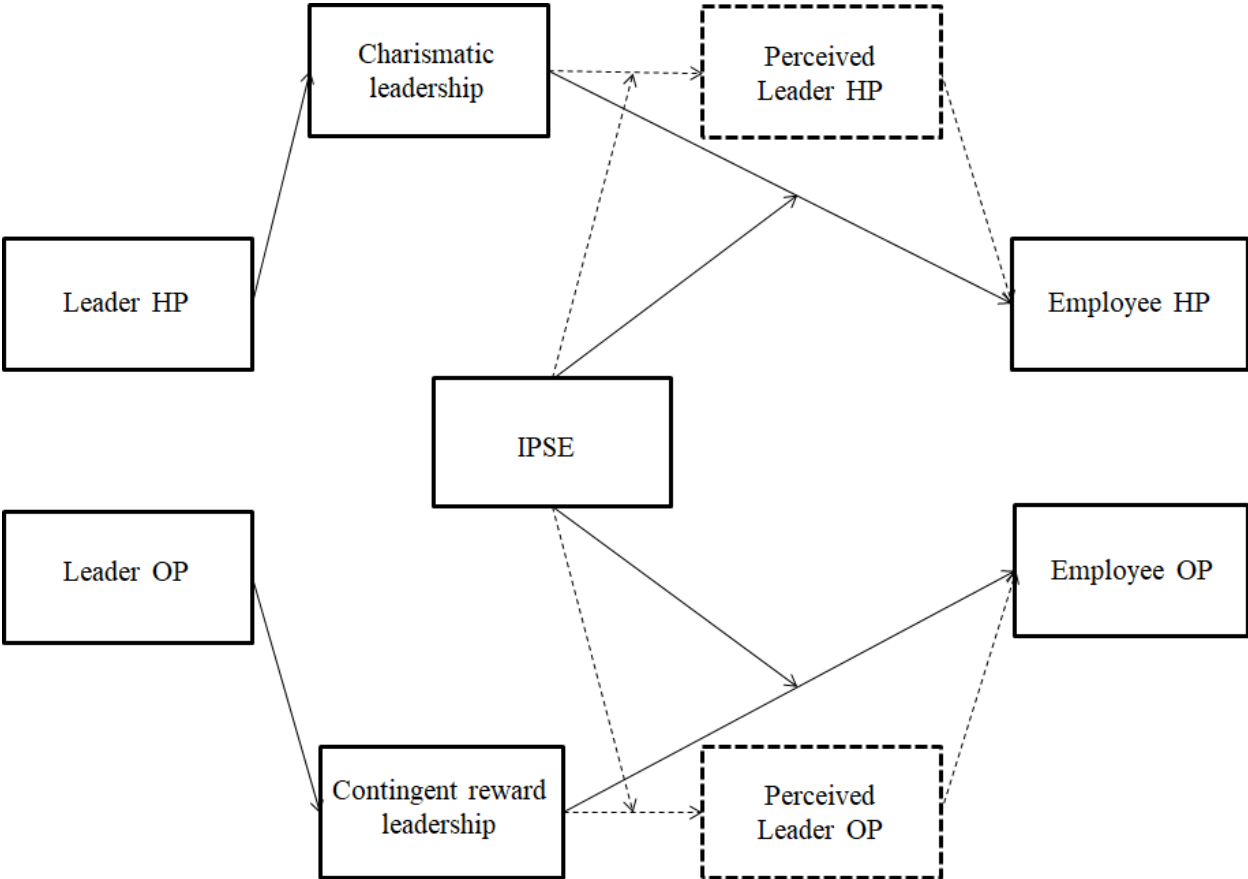
Table 4. Moderated Mediation Model for Obsessive Passion

| Variable | <i>B</i> | <i>SE</i> | <i>t</i> | <i>R</i> ² |
|--|---------------|----------------|------------------|-----------------------|
| <i>Mediator variable model (Step 1a): Contingent reward leadership</i> | | | | .08*** |
| Leader OP | .20 | .05 | 4.11*** | |
| <i>Mediator variable model (Step 1b): Charismatic (alternative mediator)</i> | | | | .00 |
| Leader OP | .00 | .04 | -.00 | |
| <i>Mediator variable model (Step 1c): Negative affect (alternative mediator)</i> | | | | .01 |
| Leader OP | .04 | .03 | 1.29 | |
| <i>Dependent variable model (Step 2): Employee OP</i> | | | | .19*** |
| Leader OP | .07 | .06 | 1.25 | |
| Contingent reward leadership | .39 | .10 | 3.92*** | |
| Charismatic leadership (alternative mediator) | -.27 | .13 | -2.16* | |
| Negative affect (alternative mediator) | .34 | .12 | 2.81** | |
| IPSE | .21 | .08 | 2.57** | |
| Contingent reward leadership × IPSE | .05 | .08 | .62 | |
| Charismatic leadership × IPSE | .06 | .13 | .49 | |
| Negative affect × IPSE | .02 | .11 | .21 | |
| <i>Conditional indirect effects via contingent reward leadership (at different levels of IPSE) (Step 3a)</i> | | | | |
| | <i>Effect</i> | <i>Boot SE</i> | <i>LL 95% CI</i> | <i>UL 95% CI</i> |
| -1 <i>SD</i> | .07 | .04 | .0142 | .1602 |
| Mean | .08 | .03 | .0326 | .1497 |
| + 1 <i>SD</i> | .09 | .03 | .0355 | .1678 |
| <i>Conditional indirect effects via charismatic leadership (at different levels of IPSE) (Step 3b)</i> | | | | |
| | <i>Effect</i> | <i>Boot SE</i> | <i>LL 95% CI</i> | <i>UL 95% CI</i> |
| -1 <i>SD</i> | .00 | .01 | -.0318 | .0266 |
| Mean | .00 | .01 | -.0238 | .0212 |
| + 1 <i>SD</i> | .00 | .01 | -.0206 | .0212 |
| <i>Conditional indirect effects via negative affect (at different levels of IPSE) (Step 3c)</i> | | | | |
| | <i>Effect</i> | <i>Boot SE</i> | <i>LL 95% CI</i> | <i>UL 95% CI</i> |
| -1 <i>SD</i> | .01 | .02 | -.0055 | .0599 |
| Mean | .01 | .01 | -.0040 | .0501 |
| + 1 <i>SD</i> | .02 | .01 | -.0049 | .0581 |
| <i>Index of Moderated mediation</i> | | | | |
| | <i>Index</i> | <i>Boot SE</i> | <i>LL 95% CI</i> | <i>UL 95% CI</i> |
| <i>Mediator</i> | | | | |
| Contingent reward leadership | .01 | .02 | -.0251 | .0468 |
| Charismatic leadership (alternative mediator) | .00 | .01 | -.0124 | .0102 |
| Negative affect (alternative mediator) | .00 | .01 | -.0086 | .0251 |

Note. Unstandardized regression coefficients are reported. HP = harmonious passion; OP = obsessive passion. Significance tests for the indirect effects were based on bias-corrected confidence intervals derived from 5,000 bootstrapped samples.

* $p < .05$; ** $p < .01$; *** $p < .001$

Figure 1. Theoretical Model



Note. HP = harmonious passion; OP = obsessive passion; IPSE = importance of performance to self-esteem. Variables in dashed boxes and relationships indicated in dashed lines are tested in the supplemental study.

Appendix: Methods in Supplementary Study

Sample and Procedures

Respondents in the supplementary study were full-time employees participating in Amazon's Mechanical Turk platform. Respondents were compensated for participating in the study (\$0.50, \$1.00, and \$1.50 for completing the first, second, and third surveys, respectively). Three waves of data were collected one week apart to reduce potential common method bias, and participants were assured of confidentiality of their responses. Six hundred employees were invited to complete the Time 1 survey that measured their perceptions of their immediate supervisor's leadership style and the supervisor's positive and negative affect. Five hundred and thirty nine employees (90% response rate) completed the Time 1 survey and were invited to complete the Time 2 survey one week later, assessing their perceptions of leader work passion. Of the 348 who completed the second survey (65% response rate) and were invited to complete the third survey, 262 responded (75% response rate) and provided data on their work passion, IPSE, and demographic characteristics. After removing respondents who failed attention check questions, our final sample consisted of 253 respondents, 93 (36.8%) of whom were women and 114 (45.1%) were Caucasian. The average respondent was 34.28 years old ($SD = 8.89$), had 11.04 years ($SD = 9.81$) of overall work experience, and 6.03 years ($SD = 5.15$) of organizational tenure. Seventy eight percent of respondents occupied a management position, and 49% had at least a 4-year college degree.

Measures and Analyses

To measure perceived charismatic and contingent reward leadership, leader and employee harmonious and obsessive work passion, employee IPSE, and leader positive and

negative affect, the same items used in the main study were used in the supplementary study as well. Cronbach's alpha for every variable exceeded 0.80.

We conducted CFAs to assess the discriminant validity of the nine scales (charismatic and contingent reward leadership, perceived supervisor harmonious and obsessive passion, perceived employee harmonious and obsessive passion, IPSE, positive and negative affect). Similarly to the main study, we parceled the items for the scales with more than five items into three composite indicators. The results revealed acceptable fit for the 9-factor model: $\chi^2_{(459)} = 889.56$, $p < .001$; root-mean-square error of approximation (RMSEA) = .06; comparative fit index (CFI) = .93; Tucker-Lewis Index (TLI) = .92. Consistent with the main study, the first item for charismatic leadership and a reverse-coded item from the IPSE scale had loadings below .50 each and were deleted from the subsequent analyses. The hypothesized measurement model was superior to four alternative models: an 8-factor model that combined perceived supervisor harmonious and obsessive passion in a single factor ($\Delta\chi^2_{(8)} = 770.77$, $p < .001$), an 8-factor model that combined employee harmonious and obsessive passion ($\Delta\chi^2_{(8)} = 838.45$, $p < .001$), an 8-factor model that combined charismatic and contingent reward leadership ($\Delta\chi^2_{(8)} = 56.8$, $p < .001$), and a single-factor model with all items loaded on a single factor ($\Delta\chi^2_{(36)} = 6,022.39$, $p < .001$).

Similar to the main study, tests of mediation were conducted using the INDIRECT macro in SPSS. We included two alternative mediators comprising perceived leader obsessive (harmonious) passion and perceived leader positive (negative) affect as predictors of employee harmonious (obsessive) passion. We also controlled for employees' organizational tenure and work experience initially, but their inclusion did not change the results substantially and hence they were excluded from the final analyses to conserve statistical power. To test the moderated

mediation models, we again utilized the PROCESS macro in SPSS and mean-centered all variables except for the dependent variables. We also included the same two alternative mediators and their interaction with IPSE. The detailed results of the analyses are available upon request from the authors.