The Impact of Gender and Subtle Sexism on Perceptions of Transformational Leadership Style and its Effect on Employee Outcomes

by

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Abstract

The current research investigated the effect of transformational leadership style on employee outcomes, while taking gender and gender-related attitudes into consideration with an online sample of front-line employees (Study 1) and through an experimental vignette study with undergraduate students (Study 2). It was found that transformational leadership style positively influenced employees' hedonic and eudaimonic well-being through work engagement in the employed sample and the effect on work engagement was subsequently replicated in the email vignette study. These findings suggest that transformational leaders allow employees to become engaged at work; in turn, work engagement positively influences satisfaction and fulfillment in life. Although significant gender differences in perceptions of transformational leadership style were not found for male and female supervisors, employees' gender and subtle sexist attitudes appeared to influence perceptions of transformational leadership behaviours, such that participants who endorsed subtle sexist attitudes perceived fewer transformational leadership behaviours.

Keywords: Transformational leadership, gender, work engagement, well-being

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More employees are actively seeking workplaces in which they can find satisfying and meaningful work that contributes to their overall life satisfaction and meaning in life, in addition to traditional expectations of security and income (Cartwright & Holmes, 2006; Hurst & Good, 2009). Often, distinct work experiences (e.g., work engagement) and affect (e.g., interest) can contribute to employees' overall satisfaction or meaning in life, however do not necessarily contribute to both employees' satisfaction and meaning in life simultaneously (Straume & Vittersø, 2012). In order to thrive at work, most employees want to find workplaces that provide the necessary resources (e.g., training), allow employees to become fully engaged in their work, and contribute to their sense of purpose (Hurst & Good, 2009; Mauno, Kinnunen, & Ruokolainen, 2007). Encouraging employees to become engaged in their work is also beneficial for companies because engaged employees are more likely to perform better (e.g., Demerouti & Cropanzano, 2010), show greater organizational commitment, and experience higher levels of job satisfaction (Schaufeli, Taris, & van Rhenen, 2008) compared to unengaged employees (Bakker & Demerouti, 2007; Chughtai & Buckley, 2011; Robertson, Birch, & Cooper, 2012; Yalabik, Popaitoon, Chowne, & Rayton, 2013). Unfortunately, some job characteristics, such as increased demands, role ambiguity, low control, and limited resources, often prevent employees from becoming fully engaged in their work (Demerouti, Peeters, & van der Heijden, 2012). Conversely, possessing adequate job resources (e.g., supervisor support) allows employees to become more engaged in their work, which in turn, is associated with better health and higher life satisfaction, regardless of the job demands (Bakker & Demerouti, 2007; Hakanen & Schaufeli, 2012; Hakanen, Schaufeli, & Ahola, 2008; Shimazu, Schaufeli, Kubota, & Kawakami, 2012).

Arguably, few resources are as important to employees' work engagement and success as their supervisors' support (Demerouti et al., 2012; Schaufeli & Bakker, 2004). Supervisors, especially those who display transformational leadership style, are instrumental to engaging employees and providing them the necessary tools to perform well (Breevaart, Bakker, Demerouti, Sleebos, & Maduro, 2014; Demerouti et al., 2012; Schaufeli & Bakker, 2004). Unlike other leadership styles (e.g., transactional), transformational leaders can provide employees with an optimistic and meaningful vision, a role model, challenging tasks, and the necessary guidance, interpersonal support, and coaching (Barling, 2014; Bass, 1985).

Previous research suggests that leader and follower characteristics (e.g., gender, personality) can influence followers' perceptions and the effectiveness of transformational leadership style (Ayman, Korabik, & Morris, 2009; Felfe & Schyns, 2006; Loughlin et al., 2012). In particular, leaders' and followers' gender can play an important role in leaders' display (e.g., Eagly, Johannesen-Schmidt, & van Engen, 2003), followers' perceptions (e.g., Felfe & Schyns, 2006), and subsequently, the effect of transformational leadership style on employee outcomes (e.g., Ayman et al., 2009; Reuvers, van Engen, Vinkenburg, & Wilson-Evered, 2008). For instance, employees do not always recognize transformational leadership behaviours enacted by female supervisors (Loughlin et al., 2012), despite evidence that female supervisors are more likely to utilize transformational leadership style (Eagly et al., 2003). Thus, the perceptions and the effect of transformational leadership style on employee outcomes may differ for male and female employees, depending on gender of their leader, however, the impact of transformational leadership style on employees' well-being through work

engagement remains to be examined, while taking supervisors' and employees' gender into consideration.

The purpose of the current research was twofold: to examine the impact of transformational leadership style on employee outcomes – work engagement, hedonic well-being, and eudaimonic well-being – as well as to examine how leaders' and followers' gender can influence the perceptions and the impact of transformational leadership style on employee outcomes. The proposed relationships were explored through cross-sectional (Study 1) and experimental (Study 2) study designs with two independent samples of front-line employees and undergraduate students, respectively. These two particular samples of employees were chosen because few studies have examined employees at this career establishment stage, yet transformational leadership style may have a tremendous effect on front-line employees' work experiences and well-being. Altogether, the current research provides greater insight into the roles gender and gender-related attitudes play in perceptions of transformational leadership style, which in turn, affects work engagement and employee well-being.

Examination of Employee Well-Being

Occupational health and safety is an important and growing field of study (e.g., Quick & Tetrick, 2003; Sparks, Faragher, & Cooper, 2001), in which researchers examine workplace characteristics (e.g., safety policies), job-related outcomes (e.g., job satisfaction), organizational outcomes (e.g., absenteeism), and employees' overall well-being (e.g., health, life satisfaction; Danna & Griffin, 1999). The research on employees' health and well-being is particularly flourishing (Danna & Griffin, 1999), however most researchers examine health outcomes (e.g., General Health Questionnaire) and life

satisfaction when studying general employee well-being within the organizational context (Arnold, Turner, Barling, Kelloway, & McKee, 2007; Danna & Griffin, 1999).

Neither of those constructs measure well-being in a manner that captures a key aspiration of many employees – to find purpose and become a fully functioning person (Sterner, 2012). The research that does examine meaningfulness in organizational settings primarily focuses on the antecedents and outcomes of meaningful work, instead of overall meaning and purpose in life (e.g., Arnold et al., 2007; Geldenhuys, Laba, & Venter, 2014; Soane et al., 2013; Steger & Dik, 2009). To address this research gap, the current study examined general employee well-being from a philosophical perspective that encompasses two complimentary, but distinct approaches to well-being – hedonic and eudaimonic (Ryan & Deci, 2001).

Hedonic well-being. From the hedonic approach, well-being encompasses the experience of physical pleasures and avoidance of pain (Diener, 2000; Ryan & Deci, 2001). Research examining hedonic well-being has a long history within psychology (Ryan & Deci, 2001), in which it is often assessed as subjective well-being, or commonly referred to as happiness and satisfaction with life (Diener, Suh, Lucas, & Smith, 1999; Ryan & Deci, 2001). For the purpose of the current study, hedonic well-being was equated with subjective well-being and the terms were used interchangeably throughout the paper (Ryan & Deci, 2001). According to Diener et al. (1999), hedonic well-being encompasses individuals' subjective cognitions and affect regarding their overall lives. High hedonic well-being is often characterized by a high frequency of positive affect, a low frequency of negative affect, and a general satisfaction with life (Diener et al., 1999). Traditionally within organizational psychology, researchers predominately use

individuals' subjective life evaluations (i.e., life satisfaction) to measure employees' well-being because individual differences in negative affect (e.g., consistently high scores) and a general preference for using Satisfaction With Life Scale by the researchers (Danna & Griffin, 1999; Diener, Emmons, Larsen, & Griffin, 1985).

Previous research provides evidence for the relative stability of hedonic well-being throughout individuals' lives, as a large portion of variance in individuals' hedonic well-being is explained by individual differences (e.g., personality) and environmental factors (e.g., culture; Diener, Oishi, & Lucas, 2003). Nonetheless, dynamic factors also play a significant role in individuals' hedonic well-being (Diener et al., 2003; Judge & Watanabe, 1993), such that individuals who are satisfied with their jobs and have higher incomes are more likely to be satisfied with their lives (Diener et al., 2003; Judge & Watanabe, 1993). Additionally, hedonic well-being varies across the life span, such that older individuals report being more satisfied with their lives compared to younger individuals (Horley & Lavery, 1995).

Eudaimonic well-being. Within the eudaimonic approach, well-being is associated with individuals' pursuit of meaningfulness, reaching one's full potential, and becoming a fully functioning person (Ryan & Deci, 2001; Straume & Vittersø, 2012). As a result of much debate in definition (e.g., Ryan & Deci, 2001), purpose (Ryan, Huta, & Deci, 2008), conceptualization (Ryff, 1989; Waterman et al., 2010) and even the need to study eudaimonic well-being (Kashdan, Biswas-Diener, & King, 2008), eudaimonic well-being is studied less frequently as an outcome within organizational psychology. For example, Ryan and colleagues (2008) point out that self-determination theory captures aspects of eudaimonic well-being, where eudaimonic well-being is viewed as a

continuous process of living and an intermediate step to a happy and fulfilling life. Similarly, Kashdan and colleagues (2008) claim that the construct of hedonic well-being encompasses all of the variance associated with eudaimonic well-being, thus the authors infer that individuals who live fulfilling and meaningful lives are automatically satisfied with their lives. Nonetheless, Keyes, Shmotkin, and Ryff (2002) provided concrete evidence that hedonic and eudaimonic well-being are distinct when they found that most individuals had contrasting levels of hedonic and eudaimonic well-being simultaneously.

Distinguishing hedonic and eudaimonic well-being. Although more theoretical research is available for eudaimonic well-being relative to hedonic well-being, important distinctions can be made between hedonic and eudaimonic well-being. Specifically in terms of demographic variables, women, highly educated individuals, and individuals who are open to new experiences tend to report greater levels of eudaimonic well-being as compared to hedonic well-being (Keyes et al., 2002; Ryff & Keyes, 1995; Waterman et al., 2010).

The evidence for distinction between hedonic and eudaimonic approaches has also been noted in workplace studies, such that different workplace tasks can uniquely contribute to hedonic and eudaimonic well-being. Through a day-reconstruction method, Straume and Vittersø (2012) found that challenging work tasks increased employees' feelings of interest, whereas easy tasks were associated with greater feelings of joy. The authors argue that feelings of joy are representative of hedonic well-being, whereas feelings of interest are representative of eudaimonic well-being. These authors note that both types of feelings are positive, but they are unique. Given that each workday brings both easy and difficult work tasks, the relative frequency of easy and difficult work tasks

may contribute to greater hedonic or eudaimonic well-being. Thus, it is important to examine both hedonic and eudaimonic well-being within organizational research.

Work Engagement

As much as different work tasks can separately influence hedonic and eudaimonic well-being, employees' overall perceptions of tasks can depend on various individual (e.g., affect) and organizational (e.g., supervisor support) factors, which can impact how the task is viewed (Kraiger, Billings, & Isen, 1989; Joo & Lim, 2009). In the right work conditions, employees can experience positive emotions and be engaged in their work, regardless of the actual task characteristics. Work engagement is conceptualized as "a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication and absorption" (Schaufeli, Salanova, González-Romá, & Bakker, 2002, p.74). Employees experiencing vigour display high levels of energy, possess mental resilience, invest time and effort, and are persistent in the face of challenges at work. Dedicated employees are actively involved and enthusiastic about their work. When employees are absorbed in their work, they experience a sense of flow at work and time goes by without noticing (Schaufeli et al., 2002).

Schaufeli and Salanova (2014) argue that employees' work experiences fall on two continua from positive to negative emotions and from high to low activation. Work engagement falls in the positive and high activation spectrum, which is considered optimal, as engaged employees enjoy their work, exert effort, and are energized by their work (Schaufeli & Salanova, 2014). Even though individuals' work experiences (e.g., work engagement) are prone to fluctuate daily, over time evaluations of work experiences reveal fairly stable differences between individuals (Breevaart, Bakker, Demerouti, &

Hetland, 2012; Christian, Garza, & Slaughter, 2011) that may be a result of stable work conditions, in which stable individual (e.g., personality) and job characteristics (e.g., task variety, leadership) shape employees' daily and longstanding work experiences (Christian et al., 2011). Thus, examining differences between employees in work engagement can provide a greater understanding of how stable work conditions (e.g., leadership) can affect employees' work engagement, which in turn can affect employees' general well-being (Christian et al., 2011; Hakanen & Schaufeli, 2012; Hakanen et al., 2008; Mauno et al., 2007).

Work engagement and employee well-being. The positive impact of work engagement on employee well-being is well-documented – engaged employees are more likely to be less depressed, more healthy, and more satisfied with their lives (Hakanen & Schaufeli, 2012; Shimazu et al., 2012). Work engagement impacts employees' general well-being through emotional spillover between work and non-work domains (e.g., Bakker, Shimazu, Demerouti, Shimada, & Kawakami, 2013; Danna & Griffin, 1999). Individuals, who experience positive emotions at work, are more likely to experience those positive emotions at the end of the day when they are at home (Bakker et al., 2013; Rodríguez-Muñoz, Sanz-Vergel, Demerouti, & Bakker, 2014). Although the process of spillover can occur with both positive and negative emotions (Demerouti, Bakker, & Schaufeli, 2005), work engagement is more instrumental in producing positive emotions, and subsequently, greater hedonic well-being, as explained by broaden and build theory (Fredrickson, 2001; Soane et al., 2013). Specifically, work engagement can mobilize employees to broaden their interests, which may include a variety of different work tasks (e.g., easy, difficult), and to build resources (e.g., supervisor support) within their

workplaces to sustain positive emotions at work (Fredrickson, 2001; Soane et al., 2013).

Work engagement and hedonic well-being have been examined within organization research, however limited attention has been committed to examining work engagement and eudaimonic well-being. Nonetheless, based on previous research on positive emotions, it is reasonable to expect that work engagement would be positively associated with eudaimonic well-being as well (Fredrickson, 2001; Soane et al., 2013).

Role of Leadership in Employee Well-Being

Various job characteristics can be detrimental or beneficial for employees' work experiences and well-being. Within the model of job demands and resources (Bakker & Demerouti, 2007), high job demands (e.g., role ambiguity, high work pressure) are associated with poor health and safety outcomes (Nahrgang, Morgeson, & Hofmann, 2010; Schaufeli & Bakker, 2004), as well as an increased risk for burnout and depression (Hakanen et al., 2008; Schaufeli & Bakker, 2004). Conversely, availability of job resources (e.g., supervisor support, job control) is associated with higher organizational commitment and work engagement, which in turn, is associated with better health and higher life satisfaction (Bakker & Demerouti, 2007; Hakanen & Schaufeli, 2012; Hakanen et al., 2008). Out of the few resources available to employees, positive work experiences may be contingent on one job resource in particular – the support and leadership style of their supervisors.

Within the job demands and resources framework (Bakker & Demerouti, 2007), supervisor support is consistently highlighted as an important job resource (e.g., Schaufeli & Bakker, 2004), however the provision of supervisor support can vary based on supervisors' leadership style (Avolio & Bass, 1991). For instance, transactional leaders

can provide tangible and informational support in task completion, whereas transformational leaders can also provide emotional support depending on the situation (Avolio & Bass, 1991; Barling, 2014). Thus, it is essential to examine the impact of supervisors' leadership style on work engagement and employee well-being.

Full range leadership model. Supervisors and other organizational leaders can use a wide spectrum of behaviours on a daily basis depending on the context and the situation, however over time supervisors tend to develop patterns of behaviour that result in a preferred leadership style (Barling, 2014). The full range leadership model (Avolio & Bass, 1991) categorizes those patterns of behaviours into three leadership styles – laissez-faire, transactional, and transformational (Avolio & Bass, 1991). Laissez-faire leaders are disengaged from their management role, as they provide little direction or support to their employees and rarely intervene in their employees' activities. Transactional leaders tend to use extrinsic rewards to motivate their employees to perform well purely through self-interest. Transactional leaders only focus on rewarding desirable behaviours and/or punishing undesirable behaviours of the employees in order to reach organizational goals. Transactional leaders are often action-orientated, however these leaders do not encourage innovation and maintain strict focus on task completion when guiding followers (Avolio & Bass, 1991).

By contrast, transformational leaders encourage their employees to become intrinsically motivated in their work in order to perform their best and achieve organizational objectives (Avolio & Bass, 1991; Bass, 1985). Transformational leadership style is characterized by four categories of behaviours (or dimensions): idealized influence, inspirational motivation, intellectual stimulation, and individualized

consideration. Through idealized influence, transformational leaders act as role models in order to motivate their employees to be ethical and moral agents themselves. Through inspirational motivation, transformational leaders provide clearly articulated, optimistic visions of the organizational goals and encourage employees to follow that vision. Through intellectual stimulation, transformational leaders promote employees' growth by challenging them to innovate and examine problems from new perspectives. Through individualized consideration, transformational leaders provide the necessary emotional and informational support to their employees when they need it through coaching and assistance, by being understanding, and knowing when circumstances require unique considerations (Avolio & Bass, 1991).

The effectiveness of these leadership styles (e.g., transactional, transformational) for motivating employees varies greatly. There is evidence that only the contingency reward dimension of transactional leadership style and all dimensions of transformational leadership style are deemed to be highly effective in motivating employees (Judge & Piccolo, 2004). Conversely, both active and passive management by exception dimensions of transactional leadership style are only somewhat effective, whereas laissez-faire is considered to be the least effective leadership style (Judge & Piccolo, 2004). Given the deemed effectiveness of transformational leadership style, it has become the most studied leadership style within the past decade (Barling, 2014; Judge & Piccolo, 2004).

Transformational leadership and employee well-being. Emerging research on transformational leadership style demonstrates the positive influence of this style of leadership on numerous organizational outcomes, such as employee development, performance (Dvir, Eden, Avolio, & Shamir, 2002; Grant, 2012; Wang, Oh, Courtright, & Colbert, 2011), job satisfaction, and organizational commitment (Emery & Barker, 2007). Simultaneously, transformational leadership style has also been connected with numerous positive employee outcomes, such as higher work engagement, perceived health, and well-being (Arnold et al., 2007; Barling, 2014; Hayati, Charkhabi, & Naami, 2014; Kelloway, Turner, Barling, & Loughlin, 2012; Nielsen, Randall, Yarker, & Brenner, 2008). In contrast, the influence of transformational leadership style on eudaimonic well-being remains uncertain. Theoretically, transformational leaders could promote employees' personal development and growth by challenging employees to broaden their perspectives and interests through intellectual stimulation, however the only indirect empirical evidence available to support this claim is through the research on transformational leadership and meaningful work. Arnold et al. (2007) found that transformational leadership was positively associated with employees' meaningful work, while Steger and Dik (2009) found that meaning at work was positively associated with meaning in life. Taken altogether, the aim of the current study was to fill the gap in the literature by examining the influence of transformational leadership style on eudaimonic well-being, in addition to hedonic well-being. It was expected that supervisors' use of transformational leadership style would be positively associated with employees' hedonic and eudaimonic well-being.

Role of Work Engagement in Transformational Leadership and Well-Being

Even though the relationship between transformational leadership style and employees' well-being, at least hedonic well-being, is well-established (e.g., Arnold et al., 2007), the mechanisms through which transformational leadership style affects employee well-being are only beginning to be examined. For instance, in a cross-sectional study, Arnold and colleagues (2007) found that meaningful work was an important mechanism through which transformational leadership style influenced employee well-being (i.e., perceived psychological health, satisfaction with life). In a longitudinal study, Nielsen and colleagues (2008) found that transformational leaders positively influenced employees' perceptions of work characteristics (i.e., role clarity, meaningfulness, opportunities for development), which in turn, was associated with heightened employee well-being (i.e., affect). The authors argue that transformational leaders change employees' perceptions of work characteristics by challenging employees to broaden their interests, learn and innovate, and to question their own assumptions. At the same time, transformational leaders can provide a meaningful vision and assist the employees in clarifying their own roles and performing their work tasks (Nielsen et al., 2008). Despite the investigations of these and other potential mediators, the connection between transformational leadership and employee well-being through work engagement has not been made thus far.

It is easy to envision that having a supervisor who uses transformational leadership style would be powerful job resource (Bakker et al., 2009; Breevaart et al., 2014). Transformational leaders can influence employees' perceptions of work characteristics (Nielsen et al., 2008) and job demands in a positive manner, thus allowing

their employees to experience positive emotions and to become fully engaged in their work (Bakker et al., 2009; Breevaart et al., 2014). In turn, being engaged at work can broaden employees' interests and reinforce the experience of positive emotions at work, which can then spillover into other life domains and affect employees' hedonic and eudaimonic well-being (Fredrickson, 2001; Soane et al., 2013). Consequently, in the current study, it was expected that transformational leadership style would be positively associated with work engagement, which in turn, would be associated with employees' hedonic and eudaimonic well-being.

Hypothesis 1a: Work engagement would mediate the relationship between transformational leadership style and employees' hedonic well-being.

Hypothesis 1b: Work engagement would mediate the relationship between transformational leadership style and employees' eudaimonic well-being.

Role of Leader and Follower Characteristics in Transformational Leadership

Despite apparent benefits associated with transformational leadership style, researchers are discovering that the effect transformational leadership on employee outcomes may depend on the leader and follower characteristics. One view is that followers are not passive recipients of transformational leadership style, instead followers actively interpret and react to displays of transformational leadership. Those reactions are influenced by the followers' similarity to leaders and followers' individual needs (Breevaart et al., 2014; Ehrhart & Klein, 2001; Felfe & Schyns, 2006). For instance, using a vignette study with undergraduate students, Felfe and Schyns (2006) found that participants' personality traits were closely associated with participants' perceptions of transformational leadership style, in which extraverts were the most likely to perceive

and accept transformational leadership style (Felfe & Schyns, 2006). The authors suggest that similarities between leaders and followers are important to followers' perceptions of transformational leadership style because followers are able to better identify with the leader and perceive their behaviours (Felfe & Schyns, 2006).

Comparatively, Breevaart and colleagues (2014) also highlighted the importance of followers' need for leadership in the relationship between transformational leadership, work engagement, and task performance. Specifically, Breevaart and colleagues (2014) found that transformational leaders had a greater influence on followers' basic need fulfillment (e.g., autonomy) when followers had a high need for leadership, whereas followers who were self-sufficient (i.e., low need for leadership) were able to perform well, regardless of the leaders' leadership style. As such, it is important to examine how both leader and follower characteristics impact the perceptions of transformational leadership style and the effect it has on employee outcomes. Arguably, few leader and follower characteristics are as noticeable and influential on followers' perceptions of transformational leadership style and its effect on employee outcomes, as gender.

Gender and leadership. Although there is an increasing number of women in management, only 18% of executive officers and 32% of senior managers in Canada are women (Catalyst, 2014; Catalyst, 2015). Such a trend is puzzling to many researchers and the general public alike, consequently a great number of theories, debates, and enquiries have been generated on the topic (Barling, 2014). The nature of the trend is multifaceted and could be attributed to various factors, such as the gendered expectations in domestic duties, an inability to secure a position after maternity leave, or to diminishing ambitions as a result of societal norms (Eagly & Karau, 2002; Hewlett & Luce, 2005). To illustrate,

Trzcinski and Holst (2012) surveyed male and female employees around the world and found that female employees were satisfied in most positions (managerial and non-managerial), whereas male employees were more satisfied in leadership positions. The authors argue these differences in satisfaction with workplace participation evolved from strong social norms, in which men are expected to take on more responsibilities at work and are chastised if they choose to become more involved in housework and childrearing (e.g., stay at home father). Conversely, women are expected to take care of domestic responsibilities (e.g., housework, childrearing) and are criticised for seeking greater responsibilities in the public sphere (i.e., management), which ultimately can thwart women's participation in management (Trzcinski & Holst, 2012). Nonetheless, even when women pursue leadership positions, they often encounter barriers to reaching senior leadership roles. Specifically, female leaders are often confronted with gender discrimination and subtle prejudices in the workplace, which can inhibit their full participation in the workforce and promotion to leadership positions (Ayman et al., 2009; Eagly et al., 2003; Eagly & Karau, 2002; Elsesser & Lever, 2011; Vinkenburg, van Engen, Eagly, & Johannesen-Schmidt, 2011).

Gender role congruity theory. Through the process of socialization, individuals grow up internalizing that men and women exhibit specific sets of traits and behaviours that are uniquely characteristic of only men or only women. The internalized stereotypes, which are founded in, and reinforced by, societal norms, can be descriptive or prescriptive in nature and are often attributable to both genders. Descriptive stereotypes describe how women and men actually behave, whereas prescriptive stereotypes express how women and men should behave ideally (Eagly & Karau, 2002; Elsesser & Lever,

2011; Vinkenburg et al., 2011). For example, men are expected to be confident, independent, and assertive, whereas women are expected to be affectionate, nurturing, and sympathetic. There is considerable overlap between descriptive and prescriptive stereotypes, however when men and women do not conform to either set of stereotypes, the violating individuals may face stark consequences (Eagly & Karau, 2002).

The infringement of internalized stereotypes is most likely to occur when a woman gains a supervisory position. In the role congruity theory, Eagly and Karau (2002) argue that when perceivers (e.g., employees, superiors) encounter female leaders in the workplace, they experience a cognitive incongruence because they are forced to confront their long held descriptive and prescriptive stereotypes for women (e.g., nurturing, caring) and the ideal leader (e.g., confident, assertive). Consequently, female leaders experience greater scrutiny and more judgment – often referred to as the double bind (Eagly & Karau, 2002). On the one hand, if female leaders are assertive, then they are perceived to go against the descriptive stereotypes associated with being a woman (e.g., nurturing). On the other hand, when female leaders are supportive or hesitant, they do not meet the prescriptive standard of the ideal leader (i.e., male, assertive). Subsequently, female leaders are judged more harshly and elicit unfavorable responses, regardless of their actions (Eagly & Karau, 2002). Furthermore, female leaders are often held to a higher standard compared to male leaders, are less likely to be preferred as supervisors, are less recognized for their leadership, and ultimately less likely to be promoted (Eagly & Karau, 2002; Elsesser & Lever, 2011; Loughlin et al., 2012; Vinkenburg et al., 2011).

Admittedly, gender stereotypes are slowly changing, however they are still very much ingrained in the current Western culture. Even contemporary studies are finding a high prevalence in the use of gender stereotypes today (Elsesser & Lever, 2011). For example, Elsesser and Lever (2011) found that almost half of employees in 2007 (54%) did not have a preference for female or male leaders; however out of the employees who did have a preference, the majority of participants (33% out of 46%) preferred a male leader. At the same time, this research is somewhat encouraging as it demonstrates a positive trend when compared to the research conducted in 1953, in which only 25% of employees did not have a preference for leaders' gender and most employees preferred a male supervisor (Elsesser & Lever, 2011). The contemporary research suggests that societies are slowly changing, however gender stereotypes continue to prevail, especially regarding women in the workplace.

Gender and transformational leadership. With the recent shifts in economic trends driven by globalization and innovation, the traditional model of leadership (i.e., transactional, assertive, direct) is no longer deemed as effective as the new style of leadership (i.e., transformational, caring) (Bass, 1999). Noticeably, transformational leadership style capitalizes on the more feminine characteristics of inspiring, guiding, and supporting. Consequently, researchers became interested in examining whether female leaders who use transformational leadership style are able to perform better and be more effective as leaders without encountering the gender role incongruence (Ayman et al., 2009; Eagly & Karau, 2002; Vinkenburg et al., 2011). Indeed, the results of a meta-analysis by Eagly and colleagues (2003) found that female leaders use transformational leadership style more frequently when motivating followers, compared to male leaders.

Furthermore, Vinkenburg and colleagues (2011) found that participants believed that female leaders displayed more transformational leadership style behaviours compared to male leaders in a hypothetical scenario. Given these findings, it was expected that female leaders would be perceived as using transformational leadership style more in the current study.

Hypothesis 2: Female supervisors would be perceived to use transformational leadership style more frequently compared to male leaders.

Perceptions of Female Leadership and its Effect on Employee Outcomes

Female leadership and leadership effectiveness. Despite evidence that female leaders are more likely to use transformational leadership style, the perceived effectiveness and the impact of female leadership on employee outcomes appear to depend on the organizational context and followers' gender. For instance, in a meta-analysis examining both experimental and organizational research, Eagly, Karau, and Makhijani (1995) found that female leaders are deemed to be more effective when performing feminine congruent tasks (e.g., support) in female-dominated fields, whereas male leaders are deemed to be most effective when performing masculine congruent tasks (e.g., direction) in male-dominated fields across all studies regardless of the leadership style (also see Paustian-Underdahl, Walker, & Woehr, 2014). When context was not taken into consideration, the authors found that male and female leaders did not differ in terms of leadership effectiveness (Eagly et al., 1995; Paustian-Underdahl et al., 2014).

Ayman and colleagues (2009) found that male and female employees reported different evaluations of performance for male and female leaders, especially when they used transformational leadership style, across three large organizations in Canada.

Through dyadic analysis, the authors found that male employees reported lower performance for female leaders compared to male leaders, especially when the female leaders used transformational leadership style. The same devaluation of female leaders' performance did not occur when the association between transformational leadership style and performance was measured using leaders' self-report and reports from female followers. The researchers suggest that male employees' devaluation of female leadership occurs because male employees possess different leadership schemas (i.e., traditional, masculine) and frequently rely on gender stereotypes in order to understand dynamics in the workplace (e.g., attitudes towards women in management). Furthermore, when female leaders use certain behaviours of transformational leadership style (i.e., intellectual stimulation), male employees may question female leaders' legitimacy and dismiss their attempts to motivate their actions. Consequently, the authors suggest that subtle sexist attitudes may play an important role in the devaluation of transformational leadership style, thus subtle sexist attitudes, which are defined as “residual negative attitudes toward women” (Tougas et al., 1995, p. 843), were measured as a control variable in the current study using neosexism scale.

The discrepancy in the effectiveness of transformational leadership for female and male leaders on employee outcomes points to the fact that gender stereotypes still affect the perceptions of female leaders, even when they use transformational leadership style (Loughlin et al., 2012). Loughlin and colleagues (2012) suggest that gender stereotypes continue to impact the perceptions of female transformational leaders because individual facets of transformational leadership style are gendered, such that intellectual stimulation is considered more masculine, whereas individualized consideration is considered more

feminine. Unfortunately, even when employees rate the most feminine facet of transformational leadership style (i.e., individualized consideration), female leaders still encounter the double bind of being a female leader, such that female leaders are not rewarded for using individualized consideration, whereas male leaders are rewarded for displaying the same behaviours (Loughlin et al., 2012). The authors argue that individualized consideration is expected from female leaders due to gender stereotypes, hence it was not rewarded. In contrast, male leaders displaying the same behaviours are viewed as going above and beyond their duties, thus those same behaviours are rewarded (Loughlin et al., 2012). Taken together, it was expected that male and female employees would perceive transformational leadership behaviours differently in male and female leaders.

Hypothesis 3a: Male employees would rate transformational leadership style lower in female supervisors compared to male supervisors.

Hypothesis 3b: Female employees would rate transformational leadership style similarly in both female and male supervisors.

Female leadership and employee well-being. Despite apparent gender differences in perceptions and effectiveness of transformational leadership style, few studies have examined an employee outcome that is more in line with feminine stereotypes – employee well-being. In contrast to previous research examining leadership effectiveness and employee outcomes (e.g., Ayman et al., 2009; Reuvers et al., 2008), it can be argued that female leaders who display transformational leadership style can positively influence employees' well-being without being penalized. This argument can be made because women are expected to be nurturing, natural caretakers according to

gender stereotypes, and by extension are concerned about others' well-being (Eagly & Karau, 2002; Moore, Grunberg, & Greenberg, 2005).

Existing empirical evidence suggests that female leadership can have an enhancing effect on employee well-being. In 2005, Moore and colleagues examined the impact of female leadership on managers' well-being (i.e., work-family conflict, depression). The authors found that managers, especially female managers, indicated experiencing lower levels of work-family conflict and depression when they reported to female supervisors (Moore et al., 2005). As much as the mentioned study provides evidence for the positive influence of female leadership on employee well-being, the study has several important limitations. The authors did not actually measure transformational leadership style, instead the authors measured perceptions of social support at work for participants, who were managers themselves, as indicators of supervisors' transformational leadership style. Arguably, managers possess more resources and may have received workplace social support from other sources (e.g., coworkers), which could have influenced the results. Consequently, the effect of supervisors' gender on perceptions of transformational leadership style and its effect on employee outcomes need to be examined in a sample of non-management employees.

Overall, in the first study the impact of female leadership on employee well-being was examined, while taking employees' perceptions of transformational leadership style into consideration. It was expected that female supervisors would enhance employees' work engagement, hedonic and eudaimonic well-being. Furthermore, the positive influence of female leadership on employee well-being was expected to be mediated by the employees' perceptions of transformational leadership style, in which employees'

gender would moderate the relationship between supervisors' and employees' gender.

Hypothesis 4a: Employees with female supervisors, compared to employees with male supervisors, would experience higher levels of work engagement.

Hypothesis 4b: Employees with female supervisors, compared to employees with male supervisors, would experience higher levels of hedonic well-being.

Hypothesis 4c: Employees with female supervisors, compared to employees with male supervisors, would experience higher levels of eudaimonic well-being.

Hypothesis 4d: Employees reporting to female supervisors, compared to employees reporting to male supervisors, would experience higher levels of work engagement, hedonic and eudaimonic well-being through transformational leadership style.

Hypothesis 4e: The effect of female supervisors' transformational leadership style on employee outcomes (i.e., work engagement, hedonic well-being, eudaimonic well-being) would be greater for female employees, compared to male employees.

Present Research

The impact of gender on the perceptions and the effect of transformational leadership style was examined on employee outcomes through cross-sectional (Study 1) and experimental (Study 2) study designs. Specifically, the impact of transformational leadership style on employees' well-being (i.e., hedonic, eudaimonic) through work engagement was explored in a sample of diverse, front-level employees in Study 1. Additionally, transformational leadership ratings were compared between female and male leaders with female and male employees. In Study 2, the impact of gender and status were examined on the perceptions of transformational leadership style in a sample of male and female undergraduate students through an experimental vignette study. The

positive influence of transformational leadership style on work engagement was replicated in Study 2. In both studies, subtle sexist attitudes were included either as a control variable (Study 1) or as a predictor (Study 2) to better understand the role of gender-related attitudes in perceptions of transformational leadership style. Altogether, the current research provides greater insight into the roles gender and gender-related attitudes play in the perceptions of transformational leadership style, which in turn, affect employee outcomes (i.e., work engagement, hedonic and eudaimonic well-being).

Purpose of Study 1

The purpose of the first study was to explore how gender differences in transformational leadership style influence employees' work engagement and well-being in a sample of front-line employees. Specifically, Study 1 had two interconnected objectives (Figure 1). The first objective was to examine the indirect effect of transformational leadership on employee well-being (i.e., hedonic, eudaimonic) through work engagement. The second objective was to examine gender differences in employees' perceptions of transformational leadership style in male and female supervisors, while controlling for subtle sexist attitudes.

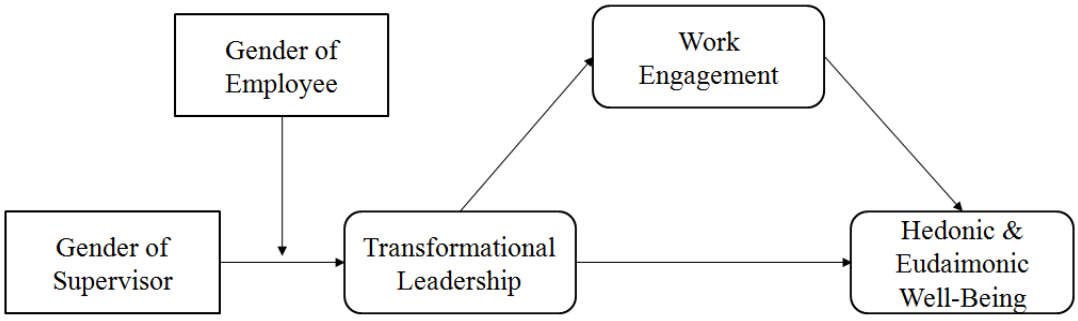

Figure 1. Conceptual model for Study 1.

Study 1 Method

Participants

Two separate recruiting sources were used to collect data for Study 1. Initially, the Crowdflower platform was used to recruit participants from Canada and the USA, however out of 84 cases obtained through this recruiting tool, 24 cases had too many missing values to be useful, thus resulting in only 60 valid cases. Given the unreliable pattern of responding and the high level of unusable responses, it quickly became apparent that an alternative data collection platform was required. Thus, a second recruiting tool, Qualtrics panels, was used, in which automatic screening questions were built into the platform to screen for the target population, missing data, and other unusable data (e.g., unreliable answers).

Through Qualtrics panels, an additional 130 participants were recruited from the USA only, which were then combined with the Crowdflower sample (n = 60) to create the total sample of 190. Out of this sample, 17 cases were deleted because participants indicated being unemployed and an additional 4 cases were excluded from analyses because the participants were managers, which was not the target population. Although there were differences between the two recruiting groups in terms of demographics, there were no significant differences revealed through a series of independent samples t-tests between the two recruitment groups for any of the main variables, see Appendix A for the t-tests comparing the samples from the two recruiting sources.

The final sample was comprised of 169 participants – 80.5% were from the USA and the remainder resided in Canada (19.5%). The average age of the participants was 23.68 years (SD = 12.78) with range 20 to 69; 57.8% of participants reported being under

the age of 40. Approximately half (52.1%) of the participants were male. The majority of the participants identified as being White/Caucasian (73.5%); Hispanic/Latino (9.6%) and Black/African American (9.0%) were the other two most commonly identified ethnic backgrounds. Given the sample was predominately comprised of front-line employees, the educational backgrounds of participants were as expected – just nearly a third of the sample had a Bachelor's degree (27.7%), many participants had a high school diploma (21.1%), some post-secondary education without a degree or certificate (21.1%), an associate's degree (10.2%), completed technical training (9.6%), or a graduate degree (9.6%). Only a small number of participants (.6%) reported not finishing high school.

All of the participants indicated that they were employed for wages with majority (75.7%) being employed full-time. Out of those who reported working part-time, all participants indicated working 0 – 12 hours a week (24.3%). The average length in current occupation (i.e., occupational tenure) was 11.73 years (SD = 8.87), with most of those years in the same position (M = 7.96, SD = 6.76) within the same company (M = 9.30, SD = 7.58). Upon a closer examination, almost a third of employees (29.3%) reported working in their occupation for 4 years or less. Similarly, almost half (48.8%) and two fifths (38.2%) of the sample reported working in their positions and companies for 4 years or less, respectively.

Participants worked in a wide variety of occupations, with a small majority of participants (20.7%) indicating that they worked in 'Administrative support,' followed by 'Other' (20.7%), and 'Sales' (16.6%). All other categories had fewer than 10% of the respondents. Although most participants worked in the same company for 10 years or less, many participants reported working with different supervisors during that time – the

average length with the current supervisor was 6.16 years (*SD* = 5.52) with majority of participants (52.1%) reported to their current supervisors for three years or less.

Materials and Procedures

Recruitment. In order to recruit participants, both Crowdflower and Qualtrics platforms sent emails to individuals enrolled in their respective research panels (Appendix B). Interested individuals could click on the provided email link in order to view the consent information. Once individuals read and provided informed consent (Appendix C), the participants were automatically directed to the beginning of the survey.

The order of the questions and the quality of the responses differed between the two platforms. Given that Crowdflower did not contain any screening questions, all demographic questions were situated at the end of the survey. Furthermore, participants were able to provide only a few responses and still receive an honorarium for their participation automatically, regardless of the quality of responses or their eligibility. Conversely, Qualtrics participants were asked a number of demographic questions at the beginning of the survey in order to screen out participants if they were unemployed, employed part-time, or were in management positions. These screening questions were implemented to ensure that the final sample contained only the target population (i.e., employed full-time, front-line) with approximately an equal number of male and female employees. Each questionnaire took approximately 10 – 15 minutes for both samples. Upon completion of the questionnaire, the participants were given debriefing information and thanked for their participation (see Appendix D). Crowdflower and Qualtrics administered all honorariums to the participants on behalf of the researcher through internal systems.

Measures. All participants were asked to provide demographic information and to answer a number of validated scales. The entire questionnaire for Study 1 is available in Appendix E. Most scales are available in the public domain, except for the scale measuring transformational leadership style, which is copyrighted.

Transformational leadership style. The transformational leadership style from the *Multifactor Leadership Questionnaire* (Rater Form MLQ-5X; Avolio & Bass, 2004) was used to measure leaders' transformational leadership style from the followers' perspective. The MLQ is copyrighted with all rights reserved by Avolio and Bass (2004) and cannot be reproduced without permission from the authors. All copyright laws were followed – the rights for using this scale were requested and purchased specifically for this study. Twenty items, composed of five subscales, were rated on a 5-point Likert type scale (*0 = not at all; 4 = frequently*) with sample item, such as “Talks optimistically about the future.” The internal consistencies were strong in this study with Cronbach’s alpha of .96 for the full scale and Cronbach’s alphas ranging from .82 to .87 for each of the subscales. As expected, based on previous research (e.g., Avolio & Bass, 2004), the subscales were highly intercorrelated, r (169) = .79 to r (169) = .84 at $p < .001$.

Work engagement. The short version of the *Utrecht Work Engagement Scale* (UWES-9; Schaufeli et al., 2006) consists of three subscales with three items measuring each of the following components of work engagement: vigour, dedication, and absorption. The items were rated on a 7-point Likert type scale (*0 = never; 6 = always*) with example item such as "At my work, I feel bursting with energy.” The Cronbach’s alpha was .93 for the full scale.

Hedonic well-being. The *Satisfaction with Life Scale* (SWLS; Diener et al., 1985) is a five-item scale that measures the cognitive aspect of hedonic well-being. The items were rated on a 7-point Likert type scale (*1 = strongly disagree; 7 = strongly agree*) with a sample item such as "I am satisfied with my life." The scale had strong internal consistency in the current study with Cronbach's alpha of .91.

The *Scale of Positive and Negative Experience* (SPANE; Diener et al., 2010) is a 12-item scale used to measure the affective aspect of hedonic well-being. Participants were asked to report how often they experienced positive and negative emotions (e.g., happy, sad) on a scale from 1 (Never) to 5 (Always). Means for both positive and negative subscales were calculated individually. The subscales were negative correlated, r (168) = -.57 at $p < .001$. The Cronbach's alphas for positive and negative subscales were .90 and .89, respectively, in the current study. A total score for this scale was calculated by subtracting negative affect scores from positive affect scores, as suggested by authors (Diener et al., 2010). Only the total score was used in all subsequent analyses, which could have been positive or negative indicating predominately positive or negative affect, respectively.

Eudaimonic well-being. The *Questionnaire for Eudaimonic Well-Being* (Waterman et al., 2010) is a 21-item scale, which was designed to measure eudaimonic well-being based on an identity development theory (Waterman & Schwartz, 2013). In identity development theory, individual's path to self-realization is achieved by identifying their own skills and limitations, actively participating in activities that allow for exploration, self-expression, and reflection, and finally, choosing goals that align with their identity and self-concept (Waterman et al., 2010). As an individual engages in

activities that are intrinsically motivating, they establish their identity and develop their potential, which can contribute to their overall eudaimonic well-being. The scale measures six dimensions of eudaimonic well-being including self-discovery, perceived development of one's best potential, a sense of purpose and meaning in life, investment of significant effort in pursuit of excellence, intense involvement in activities, and enjoyment of activities as personally expressive. The items were rated on a 5-point Likert type scale (*0 = strongly disagree; 4 = strongly agree*) with a sample item such as "I can say that I have found my purpose in life." The scale had strong internal consistency in the current study with Cronbach's alpha of .85.

Subtle sexist attitudes. The *Neosexism Scale* (Tougas, Brown, Beaton, & Joly, 1995) is an 11-item scale measuring contemporary forms of sexism with a sample item such as "It is difficult to work for a female boss." The items were rated on a 7-point Likert type scale (*1 = strongly disagree; 7 = strongly agree*) with higher scores indicating higher levels of subtle sexist attitudes. The scale had strong internal consistency in the current study with Cronbach's alpha of .88.

Demographics characteristics. Participants were asked to provide personal information, which included gender, age, country of residence, ethnicity, and education, and employment-related information, which included current employment status, hours worked, occupation, tenure in occupation, position, and organization, the gender of their current supervisor, and length of time working with current supervisor.

Study 1 Results

Preliminary Analyses

Descriptive statistics. Descriptive statistics (e.g., mean, *SD*, range) were calculated for each scale and are listed in Table 1, along with the inter-item correlations and Cronbach's alphas for main study variables. All scales were moderately correlated with each other and within acceptable ranges (below .7) to continue with regression analyses. The moderate-high correlation (r = .69) between the satisfaction with life and the affect scales was expected, as both scales measured hedonic well-being, however, it was decided that only satisfaction with life scale would be reported as an indicator of hedonic well-being in the subsequent analyses because affect scale did not provide any substantial new information. Additionally, given that age and occupational tenure were correlated with a number of variables, they were included in subsequent analyses as control variables in addition to subtle sexism, which was chosen a priori as a control variable.

Data cleaning. The data were examined for assumptions of normality, outliers, and missing data through visual (e.g., histogram, box plots) and statistical tests (e.g., *Z* scores, influence). A number of demographic items (e.g., age, length in position, length with current supervisor) were positively skewed, as expected given the target population. Scales measuring the variables of interest were all normally distributed. A number of potential outliers were visually identified, however statistical tests did not reveal any univariate outliers (i.e., *Z* scores $\geq$ +/- 3.29 *SD*) nor did the potential outliers appeared to skew the regression results (e.g., influence, leverage). Thus, all data were retained in subsequent analyses.

Table 1

Correlation Matrix for Key Variables

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Transformational leadership	(.96)									
2. Work engagement	.57***	(.93)								
3. Satisfaction with life	.41***	.59***	(.91)							
4. Affect[a]	.43***	.56***	.69***	- -						
5. Eudaimonic well-being	.21**	.43***	.43***	.45***	(.85)					
6. Subtle sexism	.07	-.02	-.03	-.19*	-.41***	(.88)				
7. Employee gender	-.07	.08	-.02	.01	.14	-.37***	- -			
8. Supervisor gender	-.10	-.03	-.13	-.11	-.03	-.13	.49***	- -		
9. Age	-.17*	-.12	-.20*	-.03	.06	-.11	.14	.17*	- -	
10. Occupational tenure	-.17*	-.07	-.12	-.10	.10	-.06	.08	.12	.56***	- -
Mean	3.22	4.80	4.52	1.24	3.69	3.17	.48	.41	23.68	11.73
Standard deviation	.94	1.20	1.47	1.39	.47	1.26	.50	.49	12.78	8.87
Range	1.15-4.9	1.11-7.00	1-7	-2.83-+4.00	2.29-4.9	1-7	0-1	0-1	20-69	1-30

Notes. Cronbach's alphas are listed on the diagonal.
$N = 169$; Male coded as 0; Female coded as 1.
[a] Positive scores indicate predominately positive affect; negative scores indicate predominately negative affect.
* $p < .05$. ** $p < .01$. *** $p < .001$.

There were very few missing responses (≤3.0%) for each item and most items did not have any missing values. Furthermore, Little's MCAR revealed that all values were missing completely at random ($\chi^2 = 65.19$, $df = 77$, $p = .83$). Since there were few missing values, all cases were retained and listwise deletion was used in subsequent analyses.

Assumption testing was conducted for regression, analysis of variance (ANOVA), and analysis of covariance (ANCOVA) based on plots and analysis-specific tests. Assumptions of linearity, homoscedasticty, normality, and multicollinearity were met for regression. All assumptions for ANOVA were met (i.e., independence of scores, normality) and tests for homogeneity of variance were not significant for any of the analyzed relationships. Additionally, homogeneity of regression was met and no significant interaction between variables was found for ANCOVA.

Gender composition of employees and supervisors. A chi-square test was performed to examine gender differences between participants for the gender of their current supervisors, in which it was revealed that the majority of participants had same-gender supervisors, χ^2 (1, 169) = 40.86, $p < .001$ (Table 2). Specifically, most male employees reported to male supervisors (81.8%), whereas most female employees reported to female supervisors (66.7%).

Table 2

Distribution of Male and Female Employees Reporting to Male and Female Supervisors

	Male supervisor	Female supervisor	Total
Male employee	72 (81.8%)	16 (18.2%)	88 (52.1%)
Female employee	27 (33.3%)	54 (66.7%)	81 (47.9%)
Total	99 (58.6%)	70 (41.4%)	$N = 169$

In addition to gender differences in supervisors, the means for subtle sexism were compared between male and female employees working for male and female supervisors, using a two-way ANOVA (Table 3). It was found that male participants (M = 3.61, SD = 1.14) endorsed greater levels of subtle sexist attitudes compared to female participants (M = 2.69, SD = 1.21), F (1, 163) = 22.38, p <.001, regardless of supervisors' gender.

Table 3

Gender Differences in Subtle Sexism by Gender of Supervisor

Source	*F*	*df*	*p*	Partial η^2
Supervisor gender	.66	1	.42	.00
Employee gender	22.38	1	<.001	.12
Supervisor gender x Employee gender	.06	1	.80	.00
Error	(1.39)	163		

Note. Values reported in parentheses are mean-square error values.

Indirect Effect of Leadership on Well-Being through Work Engagement

Hayes' (2013) process macro on SPSS version 22 was used to test the direct and indirect effect of transformational leadership (X) on hedonic (Y_1) and eudaimonic (Y_2) well-being through work engagement (M), after accounting for control variables (Figure 2). In order to calculate the direct and indirect effects, Hayes (2013) suggests using bootstrap confidence intervals, as they are more precise, however for consistency with the rest of the results, I reported both Sobel test results (p values) in text and confidence intervals (CIs) in the tables. Confidence intervals at 95% for indirect effects were calculated using bias-corrected bootstrapping with 10, 000 resamples. Both methods resulted in the same conclusions.

Transformational leadership style was positively associated with both hedonic (c = .64, p < .001) and eudaimonic well-being (c = .13, p < .001) when work engagement was not included in the model. Transformational leadership style was also positively

associated with work engagement ($a = .73$, $p < .001$) and work engagement was positively associated with hedonic ($b = .62$, $p < .001$) and eudaimonic well-being ($b = .16$, $p < .001$). Additionally, an indirect effect was found such that transformational leadership style was associated with higher work engagement, which in turn, was predictive of higher hedonic ($ab = .46$, $p < .001$) and eudaimonic well-being ($ab = .12$, $p < .001$). When holding work engagement constant, transformational leadership style was not significantly associated with hedonic ($c' = .18$, $p = .13$) nor with eudaimonic well-being ($c' = .01$, $p = .83$). Unexpectedly, subtle sexism explained an additional 16% of variance in eudaimonic well-being after accounting for everything else, however it did not account for any significant variance in subjective well-being. The total (c) model accounted for 21% of variance in hedonic well-being, $R^2 = .21$, $F(4, 159) = 10.38$, $p < .001$, and 25% of variance in eudaimonic well-being, $R^2 = .25$, $F(4, 159) = 13.17$, $p < .001$. All effects for hedonic well-being are provided in Table 4 (Figure 3) and in Table 5 (Figure 4) for eudaimonic well-being. Altogether, these findings provide support for Hypotheses 1a and 1b indicating that transformational leadership style is positively associated with employee well-being, however that effect is mediated by work engagement. That is, employees who report to transformational leaders are more likely to experience greater work engagement and this sense of engagement is related to greater hedonic and eudaimonic well-being.

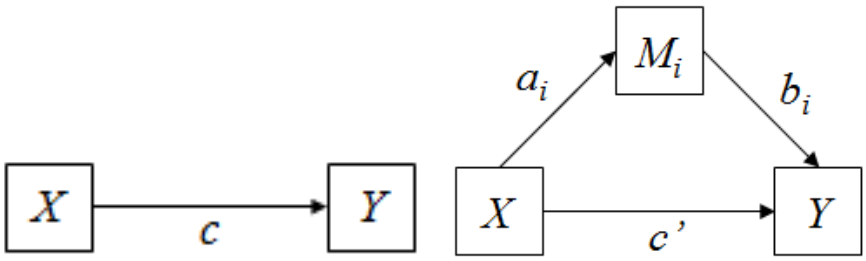

Figure 2. Statistical mediation model for the total (c) and direct effect (c') of transformational leadership on employee well-being through work engagement.

Table 4

Indirect Effect of Leadership on Hedonic Well-being through Work Engagement

	Consequent							
	Work engagement (M)				Hedonic well-being (Y_1)			
Antecedent	Path	*Coeff.*[a]	*SE*	95% CI LL, UL[c]	Path	*Coeff.*[a]	*SE*	95% CI LL, UL[c]
Transformational leadership (X)	a	.73***	.08	.57, .90	c'	.18	.12	-.05, .42
Work engagement (M)	- -	- -	- -	- -	b	.62***	.09	.44, .81
Constant	i_1	2.63***	.39	1.85, 3.41	i_2	1.48**	.52	.45, 2.51
Indirect effect	- -	- -	- -	- -	ab	.46***	.09	.28, .68[b]
Total effect	- -	- -	- -	- -	c	.64***	.11	.42, .86
Model summary	$R^2 = .33$ $F(4, 159) = 19.81$, $p < .001$.				$R^2 = .38$ $F(5, 158) = 19.58$, $p < .001$.			

Notes. $N = 164$. Control variables include age, occupational tenure, and subtle sexism.
[a] Unstandardized b coefficients.
[b] Bias-corrected bootstrap CI using 10, 000 resamples.
[c] LL = Lower limit; UL = Upper limit.
* $p < .05$. ** $p < .01$. *** $p < .001$.

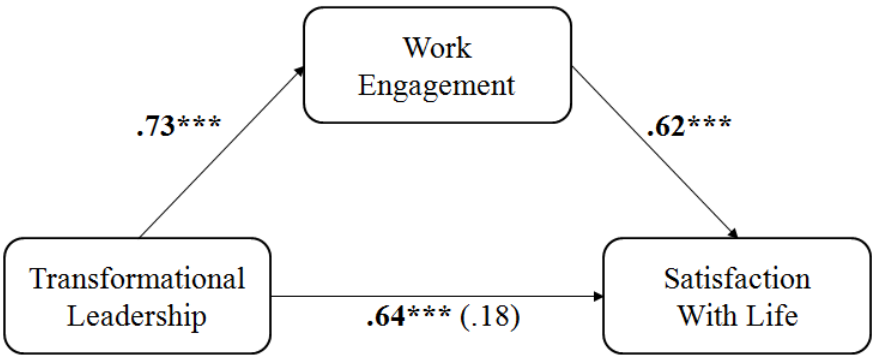

Figure 3. Mediation model for hedonic well-being with coefficients. The total (c) effect coefficient is highlighted in the path between transformational leadership and hedonic well-being, whereas the direct effect (c') coefficient is contained within the parenthesis.

Table 5

Indirect Effect of Leadership on Eudaimonic Well-Being through Work Engagement

	Consequent							
	Work engagement (M)				Eudaimonic well-being (Y_2)			
Antecedent	Path	*Coeff.* [a]	*SE*	95% CI LL, UL [c]	Path	*Coeff.* [a]	*SE*	95% CI LL, UL [c]
Transformational leadership (X)	a	.73***	.08	.57, .90	c'	.01	.04	-.07, .08
Work engagement (M)	- -	- -	- -	- -	b	.16***	.03	.11, .22
Constant	i_1	2.63***	.39	1.85, 3.41	i_2	3.27***	.17	2.94, 3.60
Indirect effect	- -	- -	- -	- -	ab	.12***	.03	.07, .19[b]
Total effect	- -	- -	- -	- -	c	.13***	.03	.06, .20
Model summary	$R^2 = .33$ $F(4, 159) = 19.81$, $p < .001$.				$R^2 = .37$ $F(5, 158) = 18.49$, $p < .001$.			

Notes. $N = 164$. Control variables include age, occupational tenure, and subtle sexism.
[a] Unstandardized b coefficient.
[b] Bias-corrected bootstrap CI using 10, 000 resamples.
[c] LL = Lower limit; UL = Upper limit.
* $p < .05$. ** $p < .01$. *** $p < .001$.

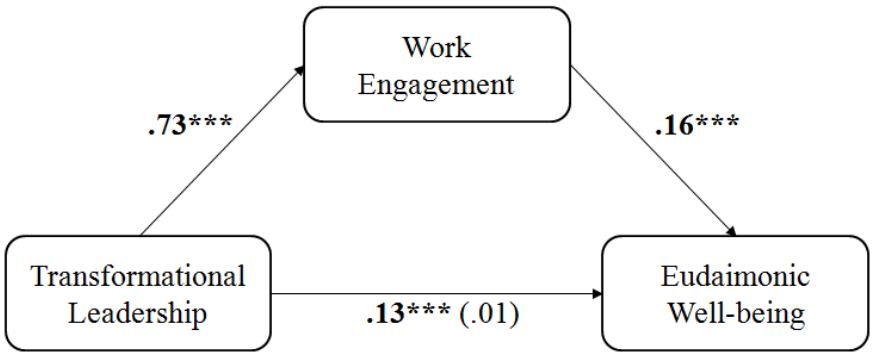

Figure 4. Mediation model for eudaimonic well-being with coefficients. The total (c) effect coefficient is highlighted in the path between transformational leadership and eudaimonic well-being, whereas the direct effect (c') coefficient is contained within the parenthesis.

Gender Differences in Perceptions of Transformational Leadership Style

A two-way ANOVA (supervisor gender by employee gender) was performed to examine male and female employees' perceptions of transformational leadership style for male and female supervisors (Table 6; Figure 5). No gender differences were found in perceptions of transformational leadership style between male (M = 3.29, SD = .95) and female (M = 3.11, SD = .92) supervisors when controlling for employees' gender. Male (M = 3.27, SD = .93) and female (M = 3.15, SD = .96) employees did not provide significantly different ratings on transformational leadership style when controlling for supervisors' gender. When both supervisors' and employees' gender were considered, female employees did not rate male (M = 3.09, SD = .98) and female (M = 3.18, SD = .95) supervisors significantly differently on transformational leadership style. Male employees also did not rate male (M = 3.36, SD = .94) and female (M = 2.87, SD = .80) supervisors significantly different on transformational leadership style, however this difference approached significance, F (1, 165) = 2.90, p =.09. Nonetheless, all gender differences in ratings of transformational leadership style were reduced after controlling for subtle sexism, F (1, 162) = 2.68, p =.10 (Table 7). Given female leaders were expected to be perceived as using more transformational leadership style compared to male leaders, Hypothesis 2 was not supported. Furthermore, Hypothesis 3a was not supported, in which male employees were expected to rate transformational leadership style lower in female supervisors compared to male supervisors, however Hypothesis 3b was supported as female employees were expected to rate transformational leadership style similarly in female and male supervisors.

Table 6

Gender Differences in Perceptions of Transformational Leadership Ratings

Source	*F*	*df*	*p*	Partial η^2
Supervisor gender	1.42	1	.24	.01
Employee gender	.01	1	.91	.00
Supervisor gender x Employee gender	2.90	1	.09	.02
Error	(.88)	165		

Note. Values reported in parentheses are mean-square error values.

Figure 5. Gender differences in transformational leadership ratings.

Table 7

Gender Differences in Leadership Ratings, Controlling for Subtle Sexism

Source	*F*	*df*	*p*	Partial η^2
Subtle sexism	.48	1	.49	.00
Supervisor gender	1.51	1	.22	.01
Employee gender	.16	1	.69	.00
Supervisor gender x Employee gender	2.68	1	.10	.02
Error	(.89)	162		

Note. Values reported in parentheses are mean-square error values.

Additional analyses were performed through a series of two-way ANOVAs (supervisor gender by employee gender) to examine gender differences in the perceptions of transformational leadership style facets. No significant main effects of employee or

supervisor gender were found, however a significant interaction between supervisors' and employees' gender was found for the intellectual stimulation and idealized influence (behaviour) facets of transformational leadership style, while differences for idealized influence (attributes) were only approaching significance (Table 8). The differences between scores for the other two facets (i.e., inspirational motivation, individualized consideration) were not significant. The pattern of results was visually similar for all facets, regardless of significance (see Figure 6). In particular, male employees reported significantly higher intellectual stimulation for male supervisors (M = 3.35, SD = 1.01) compared to female supervisors (M = 2.81, SD = .97), F (1, 165) = 4.22, p =.04. Conversely, female employees did not rate female supervisors (M = 3.04, SD = 1.00) significantly differently on intellectual stimulation compared to male supervisors (M = 2.83, SD = .97). The gender differences in intellectual stimulation facet and idealized influence (attribute) facet were diminished after the ratings were adjusted for subtle sexism, however the ratings of idealized influence (behaviour) facet did not change after the scores were adjusted for subtle sexism (Table 9).

Table 8

Gender Differences in Perceptions of Transformational Leadership Facets

Outcome	*F*	*df*	*p*	Partial η^2
Idealized influence (attributes)	3.01	1, 165	.08	.02
Idealized influence (behaviour)	3.98	1, 165	.05	.02
Intellectual stimulation	4.22	1, 165	.04	.03
Inspirational motivation	1.81	1, 165	.18	.01
Individualized consideration	.48	1, 165	.49	.00

Notes. *F* values for supervisor gender by employee gender interaction term only. Main effects of supervisor and employee gender were not significant for any of the facets.

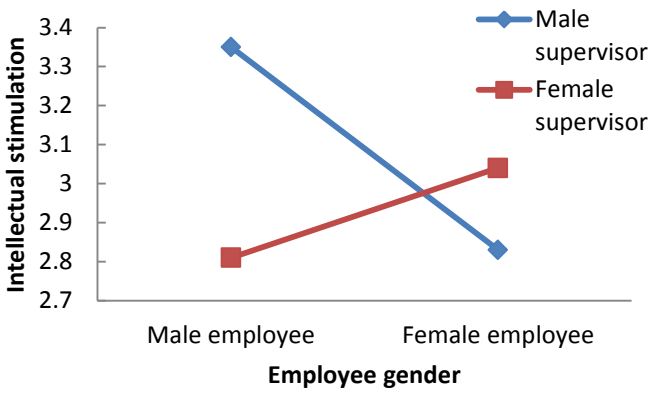

Figure 6. Gender differences in ratings of intellectual stimulation facet.

Table 9

Gender Differences in Leadership Facets, Controlling for Subtle Sexism

Outcome	*F*	*df*	*p*	Partial η^2
Idealized influence (attributes)	2.63	1, 162	.11	.02
Idealized influence (behaviour)	4.09	1, 162	.05	.03
Intellectual stimulation	3.77	1, 162	.05	.02
Inspirational motivation	2.05	1, 162	.15	.01
Individualized consideration	0.30	1, 162	.59	.00

Notes. F values for supervisor gender by employee gender interaction term only. Main effects of supervisor and employee gender were not significant for any of the facets.

Impact of Gender Differences in Leadership on Employee Outcomes

Even though no significant gender differences were found between ratings of male and female supervisors for transformational leadership style, employees with female supervisors could have experienced greater work engagement and higher employee well-being, regardless of perceived transformational leadership style. Through a series of two-way ANOVAs, differences between male and female employees who reported to male and female supervisors were examined in terms of work engagement and employee well-being, however no significant gender differences were found in employees' work engagement or well-being regardless of the supervisors' gender, thus the Hypotheses 4a, 4b, and 4c were not supported (Table 10 for means; Table 11 for ANOVA results).

Overall, female employees (M = 3.75, SD = .47) were more likely to report greater eudaimonic well-being compared to male employees (M = 3.62, SD = .46), F (1, 165) = 5.59, p = .02. Furthermore, the difference in eudaimonic well-being between male (M = 3.65) and female (M = 3.69) employees was no longer significant after controlling for subtle sexism, F (1, 162) = .24, p = .63 (Table 12). The significance levels for work engagement and hedonic well-being were only slightly reduced after accounting for subtle sexism.

Table 10

Means and Standard Deviations for Employee Outcomes

	Male supervisor		Female supervisor	
	Male employee	Female employee	Male employee	Female employee
Variable	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*
Work engagement	4.81 (1.20)	4.87 (1.14)	4.26 (1.24)	4.91 (1.21)
Hedonic well-being	4.64 (1.41)	4.77 (1.44)	4.10 (.94)	4.35 (1.67)
Eudaimonic well-being	3.65 (.47)	3.82 (.46)	3.49 (.38)	3.72 (.48)

Table 11

Gender Differences in Work Engagement and Employee Well-Being

	Work engagement	Hedonic well-being	Eudaimonic well-being	
Source	*F*	*F*	*F*	*df*
Supervisor gender	1.42	3.23ł	2.34	1
Employee gender	2.69ł	.49	5.59*	1
Supervisor gender x Employee gender	1.83	.05	.16	1
Error	(1.44)	(2.16)	(.22)	165

Notes. F values are reported for each dependent variable. Values reported in parentheses are mean-square error values.
ł $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 12

Gender Differences in Work Engagement and Well-Being, Controlling for Subtle Sexism

	Work engagement	Hedonic well-being	Eudaimonic well-being	
Source	*F*	*F*	*F*	*df*
Subtle sexism	.06	.14	28.42***	1
Supervisor gender	1.13	2.76ł	1.70	1
Employee gender	2.33	.19	.24	1
Supervisor gender x Employee gender	2.05	.09	.12	1
Error	(1.45)	(2.19)	(.19)	162

Note. *F* values are reported for each dependent variable after adjusting for subtle sexism. Values reported in parentheses are mean-square error values.
ł $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Effect of Gender on Leadership, Work Engagement, and Well-Being

As there were no significant gender differences in transformational leadership style or employee outcomes, it was not expected that the predicted moderated mediation model (conceptual model; Figure 7) would be significant. Nonetheless, Hayes' (2013) process macro was used to examine a moderated mediation, such that supervisors' gender (*X*) was expected to be associated with transformational leadership style (*M*), which in turn, would be independently associated with work engagement (Y_1), hedonic (Y_2), and eudaimonic (Y_3) well-being. Furthermore, the relationship between supervisors' gender and transformational leadership style was expected to be moderated by employees' gender (*W*) after controlling for age, occupational tenure, and subtle sexism (statistical model; Figure 8).

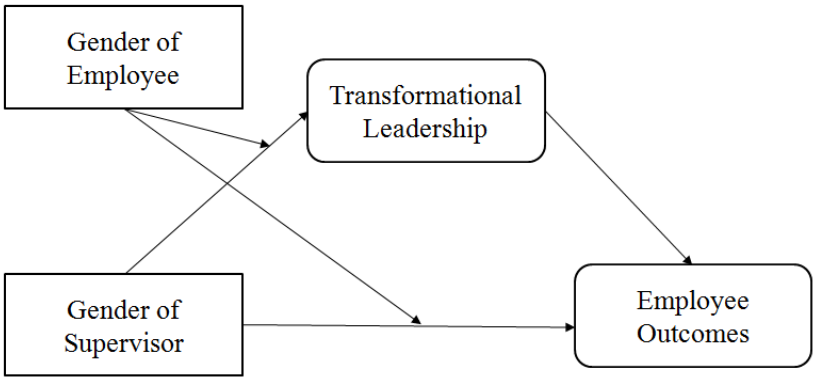

Figure 7. Conceptual model for the moderated mediation.

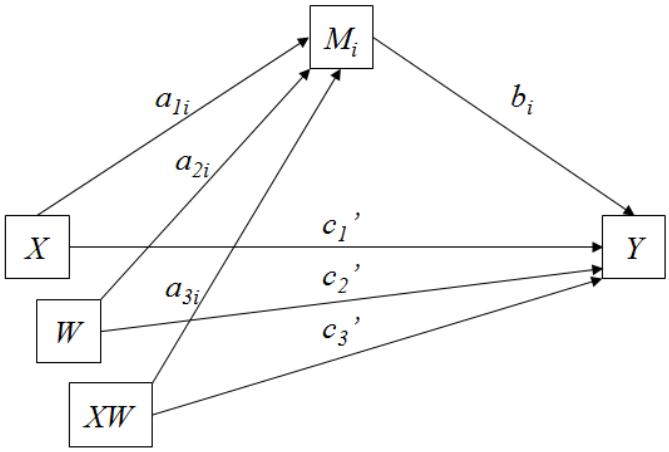

Figure 8. Statistical model for the moderated mediation.

Overall, it was found that supervisors' gender did not significantly predict any of the hypothesized relationships. Specifically, employees reporting to female supervisors did not experience greater work engagement (Table 13), hedonic (Table 14), or eudaimonic well-being (Table 15) through transformational leadership style, contrary to Hypothesis 4d. The direct and indirect effect of supervisors' gender on employee outcomes through transformational leadership were also not moderated by employees' gender, thus Hypothesis 4e was not supported. A summary of all supported and unsupported hypotheses are provided in Table 16.

Table 13

Indirect Effect of Supervisors' Gender on Work engagement through Transformational Leadership as Moderated by Employees' Gender

	Consequent							
	Transformational leadership (M)				Work engagement (Y_1)			
Antecedent	Path	*Coeff.*[a]	*SE*	95% CI LL, UL[c]	Path	*Coeff.*[a]	*SE*	95% CI LL, UL[c]
Supervisor gender (X)	a_1	-.43	.26	-.95, .09	c'_1	-.03	.18	-.40, .33
Transformational leadership (M)	- -	- -	- -	- -	b	.82***	.12	.58, 1.06
Employee gender (W)	a_2	-.18	.23	-.63, .26	c'_2	.82	.56	-.29, 1.94
$X \times W$	a_3	.53	.35	-.15, 1.21	c'_3	-.17	.17	-.51, .16
Indirect effect (a_1b) for male employee	- -	- -	- -	- -	a_1b	-.35	.19	-.79, -.03[b]
Indirect effect (a_2b) for female employee	- -	- -	- -	- -	a_2b	.07	.16	-.24, .38[b]
Constant	i_1	3.48***	.29	2.91, 4.05	i_2	2.11***	.51	1.10, 3.12
Model summary	$R^2 = .06$ F (6, 157) = 1.55, $p = .17$.				$R^2 = .35$ F (7, 156) = 11.86, $p < .001$.			

Notes. $N = 164$. The model includes age, occupational tenure, and subtle sexism as control variables.

[a] Unstandardized b coefficient.

[b] Bias-corrected bootstrap CI using 10, 000 resamples.

[c] LL = Lower limit; UL = Upper limit.

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

Table 14

The Indirect Effect of Supervisors' Gender on Hedonic Well-being through Transformational Leadership as Moderated by Employees' Gender

	Consequent							
	Transformational leadership (M)				Hedonic well-being (Y_2)			
Antecedent	Path	*Coeff.* [a]	*SE*	95% CI LL, UL [c]	Path	*Coeff.* [a]	*SE*	95% CI LL, UL [c]
Supervisor gender (X)	a_1	-.43	.26	-.95, .09	c'_1	-.26	.25	-.74, .23
Transformational leadership (M)	- -	- -	- -	- -	b	.59***	.16	.27, .91
Employee gender (W)	a_2	-.18	.23	-.63, .26	c'_2	-.16	.75	-1.65, 1.33
$X \times W$	a_3	.53	.35	-.15, 1.21	c'_3	.09	.23	-.36, .54
Indirect effect (a_1b) for male employee	- -	- -	- -	- -	a_1b	-.25	.15	-.66, -.03 [b]
Indirect effect (a_2b) for female employee	- -	- -	- -	- -	a_2b	.07	.17	-.21, .46 [b]
Constant	i_1	3.48***	.29	2.91, 4.05	i_2	3.30***	.68	1.95, 4.65
Model summary	$R^2 = .06$ F (6, 157) = 1.55, $p = .17$.				$R^2 = .21$ F (7, 156) = 6.03, $p < .001$.			

Notes. $N = 164$. The model includes age, occupational tenure, and subtle sexism as control variables.

[a] Unstandardized b coefficient.

[b] Bias-corrected bootstrap CI using 10, 000 resamples.

[c] LL = Lower limit; UL = Upper limit.

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

Table 15

The Indirect Effect of Supervisors' Gender on Eudaimonic Well-being through Transformational Leadership as Moderated by Employees' Gender

	Consequent							
	Transformational leadership (M)				Eudaimonic well-being (Y_3)			
Antecedent	Path	*Coeff.*[a]	*SE*	95% CI LL, UL[c]	Path	*Coeff.*[a]	*SE*	95% CI LL, UL[c]
Supervisor gender (X)	a_1	-.43	.26	-.95, .09	c'_1	-.09	.08	-.24, .06
Transformational leadership (M)	- -	- -	- -	- -	b	.14***	.05	.04, .24
Employee gender (W)	a_2	-.18	.23	-.63, .26	c'_2	.09	.23	-.37, .55
$X \times W$	a_3	.53	.35	-.15, 1.21	c'_3	-.02	.07	-.16, .12
Indirect effect (ab_1) for male employee	- -	- -	- -	- -	ab_1	-.05	.04	-.15, -.01[b]
Indirect effect (ab_2) for female employee	- -	- -	- -	- -	ab_2	.01	.03	-.04, .09[b]
Constant	i_1	3.48***	.29	2.91, 4.05	i_2	3.69***	.21	3.27, 4.11
Model summary	$R^2 = .06$ $F(6, 157) = 1.55, p = .17.$				$R^2 = .26$ $F(7, 156) = 7.68, p < .001.$			

Notes. $N = 164$. The model includes age, occupational tenure, and subtle sexism as control variables.

[a] Unstandardized b coefficient.

[b] Bias-corrected bootstrap CI using 10, 000 resamples.

[c] LL = Lower limit; UL = Upper limit.

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

Table 16

Summary of Study 1 Hypotheses and Results

Hypothesis	Hypothesis description	Obtained support
1a	Work engagement would mediate the relationship between transformational leadership style and employees' hedonic well-being.	Supported
1b	Work engagement would mediate the relationship between transformational leadership style and employees' eudaimonic well-being.	Supported
2	Female supervisors would be perceived to use transformational leadership style more frequently compared to male leaders.	Not supported
3a	Male employees would rate transformational leadership style lower in female supervisors compared to male supervisors.	Not supported
3b	Female employees would perceive transformational leadership style similarly in both female and male supervisors.	Supported
4a	Employees with female supervisors, compared to employees with male supervisors, would experience higher levels of work engagement.	Not supported
4b	Employees with female supervisors, compared to employees with male supervisors, would experience higher levels of hedonic well-being.	Not supported
4c	Employees with female supervisors, compared to employees with male supervisors, would experience higher levels of eudaimonic well-being.	Not supported
4d	Employees reporting to female supervisors, compared to employees reporting to male supervisors, would experience higher levels of work engagement, hedonic and eudaimonic well-being through transformational leadership style.	Not supported
4e	The effect of female supervisors' transformational leadership style on employee outcomes (i.e., work engagement, hedonic well-being, eudaimonic well-being) would be greater for female employees, compared to male employees.	Not supported

Study 1 Discussion

Role of Work Engagement in Leadership and Employee Well-Being

The purpose of the current study was to examine the relationship between transformational leadership and employee well-being through work engagement, while taking supervisors' and employees' gender into consideration in a sample of front-line employees. As expected based on previous research (e.g., Arnold et al., 2007; Hakanen & Schaufeli, 2012, Hayati et al., 2014; Nielsen et al., 2008), the results of the current study provide evidence that work engagement is an important mechanism through which transformational leadership positively influences both hedonic and eudaimonic well-being. Transformational leaders can influence employees' perceptions of work characteristics (Arnold et al., 2007; Nielsen et al., 2008) and create work conditions in which employees can become fully engaged in their work (Bakker et al., 2009; Breevaart et al., 2014; Hayati et al., 2014; Ghadi, Fernando, & Caputi, 2013), which in turn, can spillover and positively affect employees' hedonic and eudaimonic well-being (Fredrickson, 2001; Hakanen & Schaufeli, 2012; Soane et al., 2013).

The current findings suggest that companies should adopt diverse tools for increasing both transformational leadership style in supervisors (e.g., training; Barling, Weber, & Kelloway, 1996) and encouraging all employees to become engaged in their work (e.g., job crafting; Bakker, Tims, & Derks, 2012) in order to maximize employees' potential for living satisfying and fulfilling lives. Altogether, the current study contributes to the literature by providing a better understanding of the connection between transformational leadership style and work engagement in the improvement of employee well-being.

Role of Gender in Perceptions of Transformational Leadership

The current study also examined the perceptions and the influence of transformational leadership style on employee well-being, while taking supervisor and employee gender into consideration. Perceptions of transformational leadership style overall were not different for male and female supervisors, as both male and female supervisors in the current sample received average ratings on transformational leadership style, as per normative rates (M = 2.75 to M = 3.25) established by Avolio and Bass (2004). Given the importance of employees' gender in perceived effectiveness of transformational leadership style for male and female supervisors found in previous research (e.g., Ayman et al., 2009), the current results were somewhat anticipated, despite being contrary to previous meta-analysis results (Eagly et al., 2003).

The gender differences in perceived transformational leadership style were approaching significance in the present research when employee gender was examined in combination with the supervisor gender. Furthermore, when facets of transformational leadership style were examined individually, gender differences in leadership were statistically significant, such that male employees rated female supervisors lower on the intellectual stimulation and idealized influence (behaviour) facets of transformational leadership style. Different perceptions of transformational leadership style for male and female leaders are consistent with previous research (e.g., Ayman et al., 2009), in which male employees devalued female leaders' performance, especially when they used intellectual stimulation facet of transformational leadership style. For instance, Ayman and colleagues (2009) suggest that male employees may view intellectual stimulation as stereotypically masculine, thus when female supervisors use this type of transformational

leadership behaviour, male employees may question their legitimacy and disregard their attempts to challenge and stimulate innovation (Ayman et al., 2009).

Despite these significant differences in facets of transformational leadership style, these results should be interpreted with caution. A pattern of gender division was observed in the current study, which is apparent in previous research (e.g., Elsesser & Lever, 2011; Moore et al., 2005) and reflected in statistics (e.g., Catalyst, 2015), such that male employees were more likely to report to male supervisors and female employees were more likely to report to female supervisors. Although the cross-sectional study design allowed the observation of employees from diverse industries simultaneously, it did not capture a large number of cross-gender supervisor-employee pairings, especially for female supervisors with male employees. The small number of male employees with female supervisors (n = 16) in the current study makes it difficult to detect significant gender differences and limits the generalizability of the current results. Altogether, these findings suggest that further research is required to examine gender differences in transformational leadership style in a variety of industries, while taking both supervisor and employee gender into consideration.

Gender of the Leader and Employee Well-Being

Employees working for female supervisors, compared to employees working for male supervisors, did not experience higher work engagement or enhanced employee well-being, which is contrary to the study by Moore and colleagues (2005), in which the authors found that employees with female supervisors experienced higher employee well-being. Perhaps the results were not replicated in the current study because of the considerable differences in the sample and data collection methods. In particular, Moore

and colleagues (2005) recruited only managers from a single organization in a male-dominated industry, where a large portion of managers reported to male supervisors and only a small fraction (17.6%) of all managers reported to female supervisors. The current sample contained diverse, front-line employees from various industries across two countries. It is possible that female supervisors within male-dominated industries, compared to female-dominated and diverse industries, have a more positive influence on employee well-being for various reasons. For example, female supervisors, compared to male supervisors, may need to possess better leadership qualities and display above-average transformational leadership style overall in order to rise to higher levels of management in male-dominated industries (i.e., self-selection bias; Eagly et al., 2003). Conversely, female supervisors in female-dominated and diverse industries may not be held to the same elevated leadership standards as the female supervisors in male-dominated industries and may display average levels of transformational leadership style. Unfortunately, the current data collection method did not allow for comparisons between transformational leadership scores for male and female supervisors across industries. Thus, future research should take context into account when examining gender differences in leadership and employee outcomes (e.g., Eagly et al., 1995).

Subtle Sexist Attitudes and Perceptions of Transformational Leadership Style

Given some authors (e.g., Ayman et al., 2009; Elsesser & Lever, 2011) have suggested that subtle sexist attitudes may play a role in perceptions of transformational leadership style in female leaders, a subtle sexism was measured in the current study as a control variable. The inclusion of this measure highlighted that gender differences in perceived transformational leadership style were greatly reduced after the ratings were

adjusted for subtle sexism. This finding suggests that subtle sexist attitudes play an important role in perceptions of transformational leadership style, such that subtle sexist attitudes appeared to explain gender differences in perceived transformational leadership ratings far more compared to employees' gender. This finding suggests that employees' gender, which has been measured in previous research, serves merely as an indicator of subtle sexist attitudes, because male employees are more likely to endorse subtle sexist attitudes compared to female employees. In reality, it is high endorsement of subtle sexist attitudes that explains the devaluation of female leadership, even when female leaders use transformational leadership style, however further research is required to explore this idea in more detail.

Study 1 Summary

Altogether, the first study provided evidence for the indirect effect of transformational leadership on employee well-being through work engagement. Although no gender differences were found in the overall perceived transformational leadership style or employee outcomes, significant gender differences were found in perceptions of individual transformational leadership style facets. Furthermore, subtle sexist attitudes appeared to play a greater role in perceptions of transformational leadership style compared to employee gender.

The findings of the first study regarding the effect of gender on transformational leadership perceptions and employee outcomes make it difficult to provide concrete conclusions for several reasons. First, most employees reported to same-gender supervisors and only a small number of male employees reported to female supervisors, however the significant gender differences in transformational leadership style ratings

occurred primarily amongst male employees. Second, only employees' perceptions of their supervisors' transformational leadership behaviours were recorded, thus it was not possible to assess differences between actual transformational leadership style and perceptions of transformational leadership style. Finally, subtle sexist attitudes appeared to explain more variance in transformational leadership style ratings compared to employees' gender, however it was unclear how much variance subtle sexism explained in perceptions of transformational leadership style beyond employees' gender, as it was included as a control variable in the first study. Consequently, these limitations diminish the interpretation and generalizability of current results and require further examination.

Purpose of Study 2

The second study was designed to address the limitations and expand on the results found in the first study regarding gender and transformational leadership style perceptions (Figure 9). In Study 2, actual transformational leadership behaviours were compared with perceptions of transformational leadership style using an experimental study design with an undergraduate student population. Specifically, participants in the second study were asked to rate a sender of an email on transformational leadership style behaviours, who was either male or female (i.e., gender manipulation) and who was specified to be either a supervisor (high status condition) or a coworker (low status position) in a vignette. Participants' gender and subtle sexist attitudes were obtained to better understand the role of subtle sexism in perceptions of transformational leadership style Furthermore, the impact of transformational leadership style on work engagement was examined to further provide evidence of the effect of transformational leadership on employee outcomes in an experimental setting.

Moreover, the vignette was designed to reflect the current economic trends (e.g., globalization; Mills & Blossfeld, 2005) and technological advances, where leaders and employees mostly rely on email to communicate across physical and geographical boundaries (Kelloway, Barling, Kelley, Comtois, & Gatien, 2003; MacKenzie, 2010). Given email communications can serve as a supplement for face-to-face communication between employees and supervisors, email can signal crucial information to employees regarding their supervisors' leadership style. In fact, using an experimental research design with a sample of undergraduate students, Kelloway et al. (2003) found that participants were able to correctly identify transformational leadership style, compared to transactional leadership style, based on a single email communication. Yet, few studies have examined gender differences in leadership style using an email format. Thus, the current study examined gender differences in perceptions and impact of transformational leadership style on work engagement using an email format, while taking gender-related attitudes into consideration.

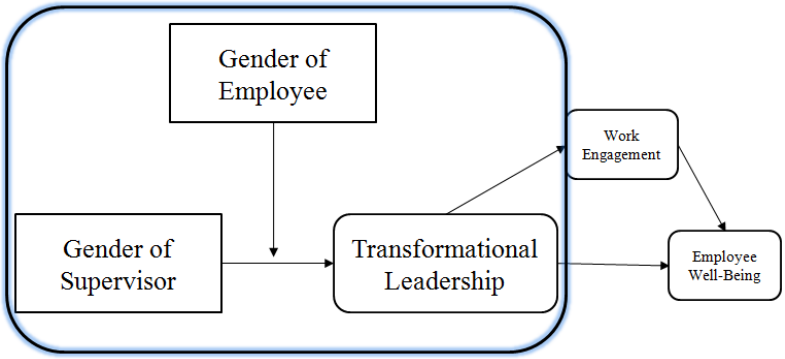

Figure 9. Conceptual model of Study 1, highlighting the focus of Study 2.

Study 2 Introduction

Organizations are not gender-neutral institutions and the underlying gendered assumptions in organizations can affect how female leaders and their behaviours are judged in the workplace (Acker, 1990; Ridgeway, 2014). The notion of gendered organizations is evident in gender-segregated industries, wage, and status disparities, where women are more likely to be employed in 'feminized' industries (e.g., caretakers, educators), which are often lower paying, and women are more likely to work for a male supervisor than to supervise a male employee (Acker, 1990; Budig, 2002; Ridgeway, 2001; Ridgeway, 2014). Unfortunately, the gendered nature of organizations makes it difficult for researchers to disentangle the impact of gender from status dynamics when examining leadership in traditional organizations (Acker, 1990; Ridgeway, 2001; Ridgeway, 2014). This is evident in the equivocal findings of the effect of gender on transformational leadership style and employee outcomes in different industries and organizational contexts (e.g., Ayman et al., 2009; Eagly et al., 1995; Elsesser & Lever, 2011). Correspondingly, researchers examining gender differences in transformational leadership style need to consider the gendered assumptions evident in organizations by accounting for both gender and status variability in a more controlled setting. To help account for this, the current study examined gender differences in perceptions of transformational leadership style through an email vignette, while taking subtle sexist attitudes and status dynamics into consideration.

Examination of Gender and Status in the Workplace

Individuals hold beliefs about the status of certain groups based on particular indicators such as age, gender, religion, and race (Ridgeway, 2001). Within those status

beliefs, assumptions are made about those group members based on stereotypes that prescribe their behaviours. These prescriptive stereotypes can then be used to maintain the status quo by the dominant group (Jost, Banaji, & Nosek, 2004; Ridgeway, 2014; Rudman & Glick, 2001). For instance, in line with gender stereotypes, women are expected to perform better in domestic labour, whereas men are expected to perform better in the public sphere, especially management (Ridgeway, 2001). Yet, work in the public sphere, especially management positions, are valued more and are afforded higher status within Western societies compared to work in the private sphere. Thus, when women entered the public sphere, they were perceived as disrupting the status quo, especially when they became managers (high status position) in charge of supervising employees (low status position) in the workplace (Ridgeway, 2001).

As the number of women in management has been increasing (Catalyst, 2015), there is an increasing threat to the status quo and men's dominating status in management. Subsequently, employees, especially male employees, respond to this threat by relying more on gender stereotypes and endorsing greater sexist attitudes when making judgments regarding the group (i.e., female supervisors) that is threatening the status quo (e.g., Beaton, Tougas, & Joly, 1996; Cameron, 2001; Jost et al., 2004; Ridgeway, 2001). Furthermore, at times, employees dismiss any evidence that does not support the prescribed gender stereotypes when making judgments about female leaders (Jost et al., 2004; Rigdeway, 2001). For example, when female supervisors perform well, their actions and the achieved result can be dismissed as luck, whereas male supervisors' strong performance is attributed to their skills (Ridgeway, 2001). Consequently, the

dismissal or failure to recognize contradictory evidence may subsequently lead to the devaluation of female leaders' performance (Jost et al., 2004; Rigdeway, 2001).

Arguably, exposure to more female leaders may have reduced the employees' reliance on gender stereotypes when employees evaluate female supervisors (e.g., Elsesser & Lever, 2011), however previous research (e.g., Ayman et al., 2009; Loughlin et al., 2012) suggests otherwise. Still, only female leaders' actions, and not male leaders, are devalued when perceivers are confronted with gender role incongruence when both male and female leaders use transformational leadership style (Eagly & Karau, 2002). Specifically, male leaders actually benefit from using feminine transformational leadership behaviours (e.g., individualized consideration), whereas female leaders are penalized for using masculine transformational leadership behaviours (e.g., intellectual stimulation) even in contemporary organizations (Ayman et al., 2009; Loughlin et al., 2012). The unfavourable effect of role incongruence for only the female leaders may stem from perceivers' desires to maintain and reinforce the status quo, in which male leaders continue to dominate the public sphere (Eagly & Karau, 2002; Ridgeway, 2001).

In the current study, the influence of gender and status were explored in the perceptions of transformational leadership ratings. Given that the perceptions of threat were anticipated to occur only when the status quo is challenged, such as when females are in management and males are subordinates (Beaton et al., 1996; Cameron, 2001; Jost et al., 2004), it was expected that participants would perceive different levels of the transformational leadership style in leaders (high status condition) and coworkers (low status condition). Consequently, male participants were expected to dismiss transformational leadership behaviours in female leaders, however the same devaluation

was not expected for female or male coworkers. Furthermore, male participants were also expected to perceive more transformational leadership behaviours in male leaders compared to female leaders, female coworkers, and male coworkers. Conversely, female participants were expected to perceive transformational leadership behaviours equally across all conditions.

Hypothesis 1a: Female participants would perceive transformational leadership behaviours similarly in male and female supervisors, as well as male and female coworkers.

Hypothesis 1b: Male participants would perceive fewer transformational leadership behaviours in female supervisors compared to male leaders.

Hypothesis 2a: Male participants would perceive fewer transformational leadership behaviours in female supervisors compared to female coworkers and male coworkers.

Hypothesis 2b: Male participants would perceive more transformational leadership behaviours in male supervisors compared to female and male coworkers.

Examination of Gender and Subtle Sexist Attitudes in the Workplace

Researchers suggest that women are more likely to face greater hostility and discrimination in the workplace, as it also serves to reinforce the status quo (Glick, Diebold, Bailey-Werner, & Zhu, 1997; Rudman & Glick, 2001). Accordingly, male supervisors are preferred more compared to female supervisors (Elsesser & Lever, 2011). This preference for male leaders mostly stems from negative stereotypical beliefs (e.g., female leaders being "catty" and "too emotional") and potential benevolent sexism held by the employees about female leadership (Elsesser & Lever, 2011, p. 1570). Obviously, organizational norms have evolved where overt sexism is usually no longer accepted.

Further, as exposure to female leadership increases (Bhatnagar & Swamy, 1995; Catalyst, 2015), more employees indicate not having a gender preference for their supervisors (Elsesser & Lever, 2011). Nonetheless, research suggests that there is an emergence of more subtle and ambiguous types of sexism in the workplace, such as microaggressions and subtle sexism (Basford, Offermann, & Behrend, 2014; Tougas et al., 1995). For instance, subtle sexist attitudes, as measured through neosexism scale, capture 'residual negative attitudes toward women' in the form of opposition to affirmative action policies (Tougas et al., 1995, p. 843). Subtle sexist attitudes arise as a result of beliefs that affirmative action policies reduce the balance between men and women in the workplace. These beliefs emerge when men perceive that women's participation in the workforce and management can diminish their own collective interests (e.g., jobs, promotions). Consequently, subtle sexism is highly correlated with overt sexism, men's collective interests, and negative attitudes towards women (Tougas et al., 1995). The measure of subtle sexism was included in the current study in order to better understand how gender and gender-related work attitudes impact perceptions of transformational leadership style behaviours. It was expected that participants who score high on endorsement of subtle sexist attitudes would perceive email senders who were female to display less transformational leadership style behaviours compared to email senders who were male.

Although men are more likely to feel a threat from women's management participation, both men and women can have a vested interest in maintaining the status quo, however women's endorsement of subtle sexist attitudes and reliance on gender stereotypes can greatly depend on their gender identity (Becker & Wagner, 2009; Cameron, 2001; Jost et al., 2004). Thus, gender identity was included in the current study

as a control variable to examine the impact of subtle sexist attitudes on transformational leadership perceptions beyond gender identification. Although female participants were expected to perceive transformational leadership style equally across all conditions, it was expected that subtle sexist attitudes would moderate the relationship between gender and transformational leadership perceptions. Whereby, female participants, who score highly on subtle sexism, would display similar pattern of results as male participants (i.e., low scores for female leaders; high scores for male leader) compared to female participants with low endorsement of subtle sexism. Table 17 provides a summary of expected transformational leadership style scores by gender of participant and condition.

Hypothesis 3: Higher subtle sexist attitudes would predict lower ratings of transformational leadership behaviours in female email senders compared to male email senders.

Hypothesis 4a: Female participants who score highly on subtle sexist attitudes would perceive lower transformational leadership behaviours in female supervisors compared to female participants who obtain low scores on subtle sexist attitudes.

Hypothesis 4b: Female participants who score highly on subtle sexist attitudes would perceive high transformational leadership behaviours in male supervisors compared to female participants who obtain low scores on subtle sexist attitudes.

Table 17

Summary of Hypothesized Ratings for Transformational Leadership Behaviours

		Target gender and status			
		Male leader	Male coworker	Female leader	Female coworker
Participant gender	Male participant	High	Moderate	Low	Moderate
	Female participant	High*/ Moderate	Moderate	Low*/ Moderate	Moderate

Note. *This score would be moderated by subtle sexist attitudes.

Impact of Transformational Leadership Style on Work Engagement

In addition to examining the effect of gender on perceptions of transformational leadership behaviours, the effect of transformational leadership on work engagement found in Study 1 was expected to be replicated, such that it was expected that perceived transformational leadership style would be positively associated with hypothetical work engagement among the participants in Study 2.

Hypothesis 5: Perceived transformational leadership would be associated with higher hypothetical work engagement.

In summary, the purpose of the second study was to expand on the results of the first study by examining participants' perceptions of transformational leadership behaviours and work engagement through an experimental vignette study. The vignette was designed to isolate the impact of participants' gender, email sender's gender, and the status of the email sender (i.e., supervisor, coworker) on perceptions of transformational leadership behaviours in a sample of undergraduate students. Subtle sexist attitudes were measured in Study 2, in order to replicate and expand on Study 1 results by examining the impact of gender and subtle sexist attitudes on perceptions of transformational leadership style after controlling for participants' gender identity (Figure 10).

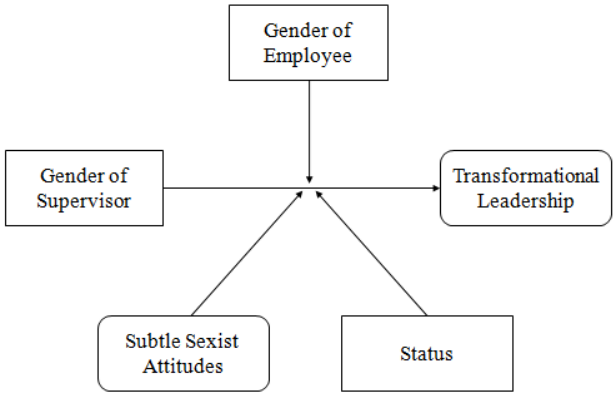

Figure 10. Conceptual model for Study 2.

Study 2 Method

Participants

Undergraduate students were recruited to participate in Study 2 from the Psychology undergraduate research participant pool. Initially, 394 university students responded, however a number of cases were removed due to a high number of missing values (n = 41), unspecified gender (n = 8), and identification of outliers in preliminary analyses (n = 3).

The final sample size was 342 participants – the average age of the participants was 21.94 (SD = 3.30) with range 17 – 46. The majority of participants (72.8%) were between 18 – 20 years old and were female (59.1%). The sample was relatively diverse in terms of ethnicity – 56.4% of participants identified as White/Caucasian, 23.1% identified as Asian/Middle Eastern, 11.4% identified as Black/African American, and the rest identified as First Nations (1.5%), Hispanic (2.3%), or other (5.3%).

Almost half of the participants (47.7%) reported currently working part-time (less than 30 hours a week) and an almost equal number of participants (45.3%) reported being unemployed. Of those who indicated being currently unemployed, a large portion (69.0%) had been employed within the past year. The employed participants reported working in a variety of industries: a quarter of participants (25.5%) reported being employed in retail, another quarter (23.4%) in accommodation and food services, 15.8% indicated working in other services, and the rest of the employed sample worked in a variety of other industries (e.g., entertainment, educational services). No gender differences were apparent in industry participation.

Employed participants indicated reporting in approximately equal numbers to female supervisors (50.3%) and male supervisors (42.7%), while a few participants indicated reporting to both male and female supervisors during different shifts (5.9%). When participants' and supervisors' genders were examined together, a pattern of gender division was apparent similar to the first study, in which male participants were more likely to report to male (65.0%) compared to female supervisors (28.3%) and female participants were more likely to report to female (60.8%) compared to male (32.0%) supervisors, χ^2 (3, 185) = 19.26, $p < .001$. Of the participants who reported not currently working for a female supervisor, which included both employed and unemployed participants, the majority of participants indicated that they had experience working for a female supervisor in the past (85.0%).

Materials and Procedures

Recruitment. A recruiting notice was posted through SONA, an online recruiting tool for the undergraduate Psychology participant pool at Carleton University (Appendix F). Any student who was registered in Introductory Psychology or second year Psychology research methods or statistics courses could access and participate in the current study. In exchange for their participation, participants received 0.25% credit towards their course grade. All data were collected online using the Qualtrics survey tool. Once participants read and provided informed consent (Appendix G), the participants were automatically and randomly assigned through the Qualtrics system to one of four conditions, in which the email sender in the vignette was either a female leader, a female coworker, a male leader, or a male coworker.

Email vignette. In each condition, participants were asked to read a brief vignette (Appendix H), which instructed participants to imagine that they had just received an email from either their supervisor or coworker, after they were selected to begin a new high profile project at a recent work meeting. This email was designed to showcase different transformational leadership style behaviours. The email was developed for the current study based on a number of other vignettes used in previous research. First, Kelloway and colleagues (2003) email was used, however because it did not sufficiently highlight all of the facets of transformational leadership style in order to measure the facets separately, additional excerpts were taken from Felfe and Schyns (2006) and Kirkpatrick and Locke (1996). Given the length and the tone of the email, the scenario was further modified to reflect a positive introduction to a team. The final copy was pilot tested and modified based on feedback from a small group of subject matter experts.

The email senders' gender and status were signaled to the participants within the email domain and the email signature blocks. To demonstrate, the email domain at the top of the email was created to highlight the gender of the email sender by using a stereotypically woman's (Nancy) or man's name (Robert) and the email senders' position by using their status as their last name (e.g., nancy.supervisor@carleton.ca, robert.coworker@carleton.ca). The signature block at the bottom of the email contained an identical name for the email sender to the email domain at the top of the email (see Figure 11 for sample of email). Altogether, male and female participants were asked to evaluate one of the following email senders: a female supervisor (female-high status), male supervisor (male-high status), female coworker (female-low status), or male coworker (male-low status).

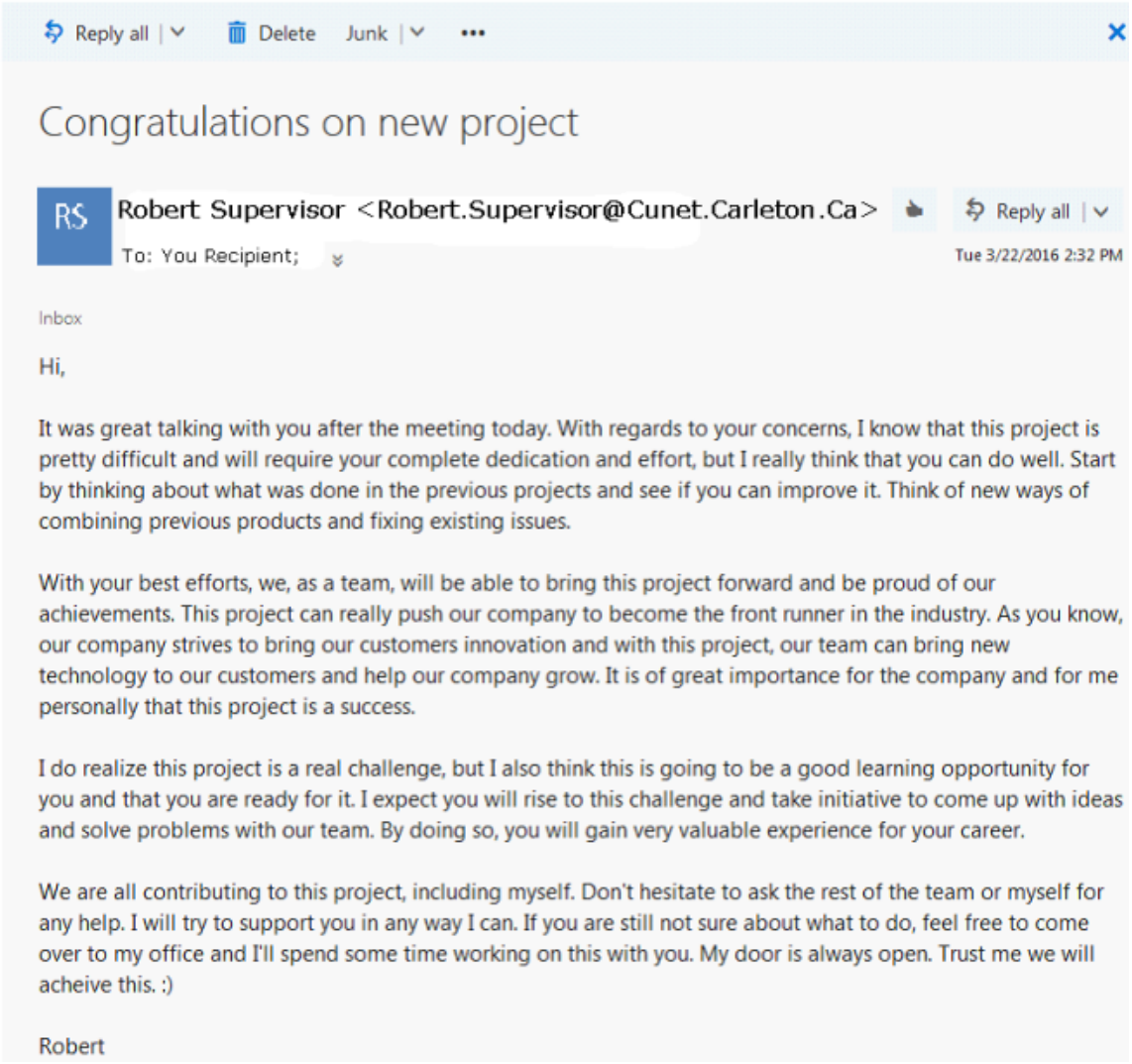

Figure 11. Sample email for male supervisor.

The full completion of the experiment, which included reading the vignette and answering the questionnaire, took approximately 10-15 minutes. Following submission of their responses, participants were provided with debriefing information and thanked for their participation (Appendix I). The course credit was administered to the participants through SONA by the researcher.

Measures. In the questionnaire (Appendix J), the participants were asked to provide their perceptions of the sender of the email through manipulation checks and vignette-specific questions. Subsequently, participants were asked to complete a number of validated scales regarding their perceptions of transformational leadership behaviours, their hypothetical work engagement, and gender-related attitudes, such as their gender identity and subtle sexist attitudes. Additionally, all participants were asked to provide basic demographic and employment information. Most of validated scales were adapted to the current vignette scenario as applicable. All of the validated scales are available in the public domain. The descriptive statistics, correlations, and Cronbach's alphas for the scales can be found in Table 18.

Manipulation check. Two manipulation check questions were used to confirm that the participants observed the expected differences between conditions. The gender manipulation for sender of the email was checked with a question "did you think the email came from a..." with provided options of male, female, or not sure. The status manipulation was checked with a question "did you think the email came from a..." with options of supervisor, coworker, subordinate, or not sure.

Vignette-specific questions. Six items were adapted from Kirkpatrick and Locke's (1996) experiment to assess the extent to which participants believed, which was reverse coded as per Kirkpatrick and Locke's (1996) study, and trusted the sender of the email, their outlook on the project (effort, motivation, optimism), and their intention to complete the task after reading the email. The items were rated on a 5-point Likert type scale (*1 = strongly disagree; 5 = strongly agree*) with sample item such as "I do not believe what [my supervisor/coworker] says." One additional item was developed for this

study to assess the participants' perceived satisfaction with the sender of the email, which was rated on a 5-point Likert type scale (*1 = completely unsatisfied; 5 = completely satisfied*).

Transformational leadership style. The transformational leadership style for the sender of the email was measured using the 22-item *Transformational Leadership Behavior Inventory* (TLI; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). The *Transformational Leadership Behavior Inventory* was chosen to measure transformational leadership style in the second study, because it was available in the public domain and it allowed for differentiation between different facets of transformational leadership style. The scale comprises six subscales: vision, model, goals, expectations, support, and intellectual stimulation. Podsakoff and colleagues (1990) argued that vision, model, goals, and expectations facets are representative of the 'core' transformational leadership behaviours, which can be roughly translated into idealized influence and inspirational motivation from Avolio and Bass' (2004) *Multifactor Leadership Questionnaire*. The support dimension represents behaviours similar to individualized consideration (Podsakoff et al., 1990). The items were rated on a 7-point Likert scale (*1 = strongly disagree; 7 = strongly agree*) with a sample item such as "Seeks new opportunities for the group." In the current study, the internal consistency for the full scale was .94 and the Cronbach's alphas for each of the subscales ranged between .75 and .91. The intercorrelations for the subscales ranged between r (342) = .16 to r (342) = .80 at p <.001.

Work engagement. The short version of the *Utrecht Work Engagement Scale* (UWES-9; Schaufeli et al., 2006) consists of three subscales measuring vigour,

dedication, and absorption with three items each. The items were adapted to be rated on a 7-point Likert type scale (*1 = strongly disagree; 7 = strongly agree*) with questions and response options that were more applicable to the vignette, such as "I would feel bursting with energy." In the current study, the Cronbach's alpha for the full scale was .93.

Subtle sexist attitudes. The *Neosexism Scale* (Tougas et al., 1995) is an 11-item scale measuring contemporary forms of sexism with an example item, such as "It is difficult to work for a female boss." The items were rated on a 7-point Likert type scale (*1 = strongly disagree; 7 = strongly agree*), with higher scores indicating higher levels of subtle sexist attitudes. The scale had strong internal consistency with Cronbach's alpha of .86 in the current study.

Gender identity. The *three-factor model of social identity* (Cameron, 2004) is comprised of three subscales with four items each, measuring gender group identification (e.g., women, men), which was used as a control variable in the current study. The items were rated on a 7-point Likert type scale (*1 = strongly disagree; 7 = strongly agree*) with a sample item, such as "Being a woman is an important part of my self-image." The Cronbach's alpha of .80 was found for the full scale in the current study.

Demographic characteristics. Participants were asked to provide basic demographic information, which included gender, age, and ethnicity, and employment-related information, which included their current employment status, employing industry, and the gender of their current supervisor. Unemployed participants were asked about their past employment. All participants were asked to indicate whether they worked for a female supervisor in the past.

Table 18

Correlation Matrix for Key Variables

Variable	1.	2.	3.	4.	5.	6.
1. Transformational leadership	(.94)					
2. Work engagement	.72***	(.93)				
3. Subtle sexism	-.29***	-.07	(.86)			
4. Gender identity	.43***	.30***	-.33***	(.80)		
5. Participant gender	.20***	.10	-.32***	.20***	- -	
6. Age	-.08	-.04	-.03	-.07	-.04	- -
Mean	5.07	5.03	2.93	5.01	.59	21.94
Standard deviation	.83	1.03	1.01	.81	.49	3.30
Range	3 - 7	2 - 7	1 - 5.82	2.33 - 7.00	0 - 1	17 - 46

Notes. Cronbach's alphas are listed on the diagonal.
$N = 342$; Male coded as 0; Female coded as 1.
* $p < .05$. ** $p < .01$. *** $p < .00$

Study 2 Results

Preliminary Analyses

Data cleaning. The data were examined for assumptions of normality, outliers, and missing data through visual (e.g., histogram, box plots) and statistical tests (e.g., *Z* scores, influence). All validated scales were normally distributed. Most demographic variables (e.g., age, length with current supervisor) were positively skewed, as expected given the current sample. A number of potential outliers were visually identified, however only three cases were confirmed to be univariate outliers (i.e., *Z* scores ≥ +/- 3.29 *SD*) and to skew the vignette-specific outcomes, thus they were excluded from all of the analyses, including descriptive analyses.

Although there were some missing responses (≤2.0%), Little's MCAR revealed that values were not missing completely at random ($\chi^2 = 2129.82$, $df = 1978$, $p = .01$). When examined by condition, Little's MCAR test was no longer significant for any of the conditions (Appendix K), indicating it is possible that values were missing at random depending on the condition. Since there were few missing values overall, all cases were retained and listwise deletion was used in subsequent analyses.

All assumptions were met for regression and ANCOVA based on plots and analysis-specific tests. Although assumptions of normality and independence were met, a number of homogeneity of variance tests were violated when conducting ANOVAs. In each case in which the homogeneity of variance assumption was violated, Brown-Forsythe was used to adjust the *F* statistic and indicated in the text.

Manipulation check. A series of chi-square analyses was conducted to examine differences in manipulation check answers between conditions (Appendix L). Significant differences between conditions were found in responses for the gender of the email sender, χ^2 (6, 340) = 182.71, $p < .001$. That is, participants correctly identified that the senders of the emails were either male or female depending on the condition. There were also significant differences between conditions in responses to the question regarding the email senders' status, χ^2 (9, 342) = 34.66, $p < .001$, however most participants believed that email senders were supervisors. When the groups who answered all of manipulation questions correctly and those who did not answer the questions correctly were compared (see Appendix M), there were no differences found in patterns of responding, therefore, all participants were retained regardless of their responses on the manipulation checks.

Vignette-specific analyses. As expected, most participants indicated they would trust (78.9%), believe (68.5%), and be satisfied with the sender of the email (79.2%), as indicated by somewhat agreeing to strongly agreeing with each of the vignette-specific statements. Moreover, most participants indicated they would increase their efforts (76.3%), become more motivated (75.4%), and optimistic about the task (75.1%), and would be more likely to want to achieve the task to the best of their ability after reading that email (82.8%). All items were significantly correlated with each other from r (340) = -.34 to r (341) = .73 at $p < .001$. All items were also significantly associated with transformational leadership in the expected directions ranging from r (340) = -.46 to r (341) = .69 at $p < .001$. These findings suggest that participants across all conditions were able to recognize transformational leadership style and appear to benefit from this type of leadership style. A series of three-way ANOVAs (target gender by status by participant

gender) was conducted to examine differences in vignette-specific outcomes (e.g., trust, belief, motivation), however only main effects of participant gender were found for each of the outcomes, such that female participants were more likely to report higher vignette-related outcomes (e.g., increased effort) compared to male participants across all conditions (see Appendix N).

Gender and gender-related attitudes. Overall, there were more female participants in every condition, however that difference was only marginally significant, χ^2 (3, 342) = 7.55, p = .06. The breakdown of participants' gender in each condition is available in Table 19. Two independent samples t-tests were performed to examine differences between male and female participants in subtle sexism and gender identity. Male participants (M = 3.32, SD = .93) were significantly more likely to endorse subtle sexist attitudes compared to female participants (M = 2.67, SD = .99), t (340) = 6.12, p < .001. Conversely, female participants (M = 5.14, SD = .84) were more likely to identify with their gender group (i.e., women) compared to male participants (M = 4.82, SD = .73) after the scores were adjusted for unequal variances, t (323.68) = -3.77, p < .001.

Table 19

Gender of Participants in Each Condition

	Male sender		Female sender		Total	
	Male participant	Female participant	Male participant	Female participant	Male participant	Female participant
Supervisor	27	53	38	57	65	110
Coworker	41	35	34	57	75	92
Total	68	88	72	114	140	202
	156		186		342	

Effect of Participants' Gender on Perceptions of Leadership Style

A three-way ANOVA (target gender by status by participant gender) was performed to examine gender differences in perceptions of transformational leadership behaviours for each condition (Table 20; Figure 12 for male participants and Figure 13 for female participants). A significant difference was found in transformational leadership ratings only between male and female participants (see Table 21 for means), such that female participants (M = 5.21, SD = .84) consistently perceived more transformational leadership behaviours in the sender of the email compared to male participants (M = 4.87, SD = .78) across all conditions, F (1, 334) = 13.53, p < .001. However, the significant gender difference in perceptions of transformational leadership style was reduced between male and female participants (i.e., main effect of participant gender), although still significant, after the scores were adjusted for subtle sexism, F (1, 333) = 4.25, p = .04 (Table 22). No significant differences were found in transformational leadership ratings for male and female email senders, F (1, 334) = .42, p = .52, nor for supervisor and coworker email senders, F (1, 334) = .77, p = .38.

Table 20

Gender Differences in Transformational Leadership between Conditions

Source	*F*	*df*	*p*	Partial η^2
Target gender	.42	1	.52	.00
Status	.77	1	.38	.00
Participant gender	13.53	1	<.001	.04
Target gender x Status	.17	1	.68	.00
Target gender x Participant gender	.13	1	.72	.00
Status x Participant gender	.04	1	.84	.00
Target gender x Status x Participant gender	1.66	1	.20	.01
Error	(.67)	334		

Note. Values reported in parentheses are mean-square error values.

Table 21

Means and Standard Deviations for Transformational Leadership by Condition

	Male participant			Female participant		
Condition	*M*	*SD*	*n*	*M*	*SD*	*n*
Female supervisor	4.95	0.70	38	5.18	0.78	57
Male supervisor	4.89	0.75	27	5.29	0.79	53
Female coworker	4.70	0.81	34	5.20	0.89	57
Male coworker	4.94	0.84	41	5.15	0.94	35

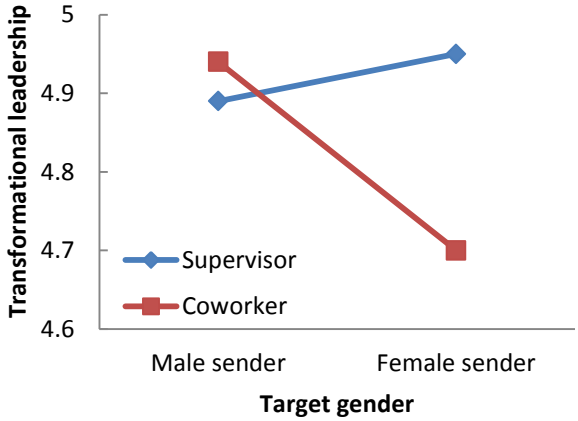

Figure 12. Senders' transformational leadership ratings from male participants.

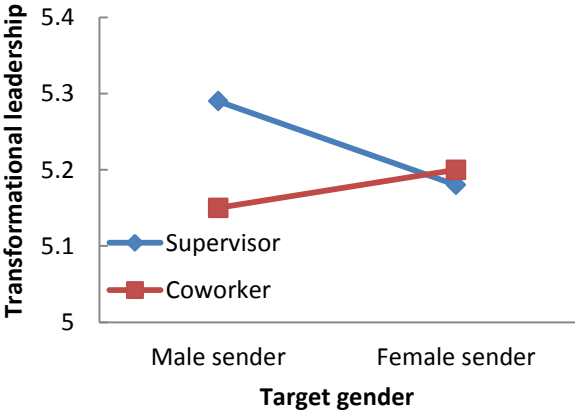

Figure 13. Senders' transformational leadership ratings from female participants.

Table 22

Gender Differences in Leadership between Conditions, Adjusting for Subtle Sexism

Source	*F*	*df*	*p*	Partial η^2
Subtle sexism	21.48	1	<.001	.06
Target gender	.15	1	.70	.00
Status	1.24	1	.27	.00
Participant gender	4.25	1	.04	.01
Target gender x Status	.13	1	.72	.00
Target gender x Participant gender	.59	1	.44	.00
Status x Participant gender	.19	1	.66	.00
Target gender x Status x Participant gender	.95	1	.33	.00
Error	(.63)	333		

Note. Values reported in parentheses are mean-square error values.

Given no significant differences were found between participants in gender and status manipulated conditions, differences between male and female participants were examined across all four conditions (i.e., female supervisor, male supervisor, female coworker, male coworker) combined using a 2 x 4 ANOVA (participant gender by conditions), instead of examining gender conditions (i.e., male and female) separately from status conditions (i.e., supervisor and coworker). Subsequently, gender differences in perceptions of transformational leadership style were examined for each condition through custom comparisons in order to test the specific study hypotheses. Simple comparisons were conducted between female participants and male participants separately using a 2 x 4 ANOVA. Female participants did not rate male and female supervisors and coworkers significantly differently on transformational leadership behaviours, F (3, 334) = .26, p = .86, providing partial support for Hypothesis 1a. Male participants did not rate male and female supervisors significantly differently on transformational leadership style, F (1,334) = .09, p = .76, thus Hypothesis 1b was not supported. Furthermore, male participants did not rate female supervisors, F (1, 334) = .64, p = .42, nor male supervisors, F (1, 334) = .13, p = .71, differently on

transformational leadership style compared to female and male coworkers, thus Hypotheses 2a and 2b were not supported.

Additional analyses were performed to examine the main effects of participant gender on perceptions of transformational leadership facets with (using ANCOVA) and without (using ANOVA) subtle sexism as a covariate, regardless of condition. For most facets, significant differences were found in ratings between male and female participants (Table 23; Figure 14), however those relationships were no longer significant when the scores were adjusted for subtle sexism (Table 24). For instance, male and female participants rated the goals facet (i.e., idealized influence/ inspirational motivation) significantly differently, F (1, 334) = 6.66, p = .01, however that relationship was no longer significant after controlling for subtle sexism, F (1, 333) = .73, p = .39 (Figure 15). A similar pattern of results was found for vision, model, and expectations facets of transformational leadership (i.e., idealized influence/ inspirational motivation). Conversely, a significant difference was found, though reduced, for the support facet (i.e., individualized consideration) between male and female participants even after controlling for subtle sexism, F (1, 333) = 4.65, p = .03. No significant gender differences were found in perceptions of intellectual stimulation regardless of subtle sexist attitudes.

Table 23

Main Effect of Participant Gender on Facets of Transformational Leadership

Outcome	*F*	*df*	*p*	Partial η^2
Vision	11.33	1, 334	.001	.03
Goals	6.66	1, 334	.01	.02
Model	5.46	1, 334	.02	.02
Expectations	6.41	1, 334	.01	.02
Support	17.55	1, 334	<.001	.05
Intellectual Stimulation	2.15	1, 334	.14	.01

Notes. F values for main effect of participant gender. None of the other main effects or interactions were significant for any of the facets.

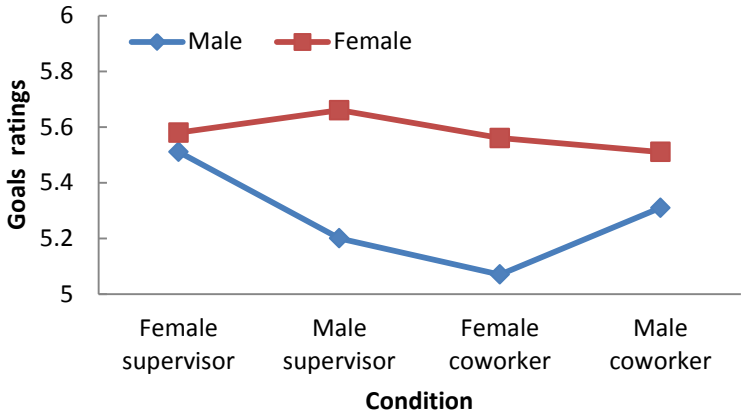

Figure 14. Gender differences in perceptions of goals by condition.

Table 24

Main Effect of Participant Gender on Leadership Facets, Controlling for Subtle Sexism

Outcome	*F*	*df*	*p*	Partial η^2
Vision	2.98	1, 333	.09	.01
Goals	.73	1, 333	.39	.01
Model	1.65	1, 333	.20	.01
Expectations	3.41	1, 333	.07	.01
Support	4.65	1, 333	.03	.01
Intellectual support	2.35	1, 333	.13	.01

Notes. F values for main effect of participant gender. None of the other main effects or interactions were significant for any of the facets.

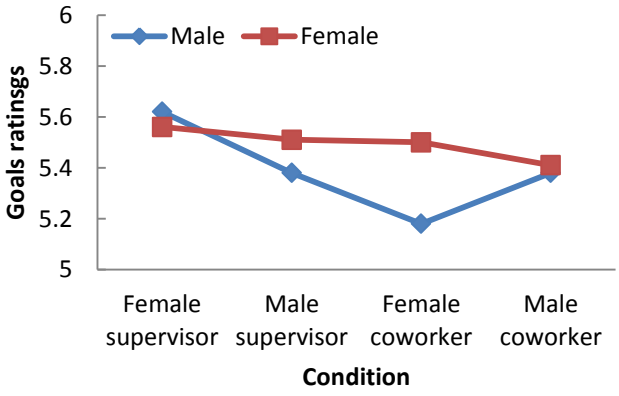

Figure 15. Gender differences in goals ratings by condition, controlling for subtle sexism.

Role of Subtle Sexist Attitudes in Transformational Leadership Perceptions

The role of subtle sexist attitudes on transformational leadership perceptions was examined using hierarchical multiple regression, in which perceptions of transformational leadership were regressed on the four conditions (i.e., female supervisor, male supervisor, female coworker, male coworker) in the first block, participants' gender in the second block, and subtle sexism in the third block (Table 25). The conditions variable was dummy coded so that three of the conditions were compared to female supervisor condition as the referent.

Although participants' gender was significant in Step 2, the proportion of variance in transformational leadership ratings accounted by participants' gender was significantly reduced once subtle sexism was entered into the model, which accounted for 6% of the unique variance in transformational leadership perceptions. The overall model explained 10% of variance in transformational leadership ratings, $R^2 = .10$, $F\ (5, 336) = 7.55$, $p < .001$. This finding supports the notion that higher endorsement of subtle sexist attitudes is associated with lower ratings on transformational leadership behaviours across all conditions, however it was expected in Hypothesis 3 that subtle sexist attitudes would only influence the ratings of transformational leadership style for email senders who were female only, thus Hypothesis 3 was only partially supported.

Table 25

Effect of Gender and Subtle Sexism on Transformational Leadership Ratings

	ΔR^2	*b*	*SE*	β	sr^2
Step 1	.00				
Condition					
Female supervisor (ref.)					
Male supervisor		.06	.13	.03	.00
Female coworker		-.08	.12	-.04	.00
Male coworker		-.05	.13	-.03	.00
Step 2	.04***				
Condition					
Female supervisor (ref.)					
Male supervisor		.04	.12	.02	.00
Female coworker		-.09	.12	-.05	.00
Male coworker		-.01	.13	-.00	.00
Participant gender		.33***	.09	.20	.04
Step 3	.06***				
Condition					
Female supervisor (ref.)					
Male supervisor		.01	.12	.00	.00
Female coworker		-.10	.12	-.05	.00
Male coworker		-.05	.12	-.03	.00
Participant gender		.20*	.09	.12	.01
Subtle sexism		-.21***	.05	-.26	.06

Note. Male coded as 0; female coded as 1.
*$p < .05$. ** $p < .01$. *** $p < .001$.

An additional hierarchical multiple regression was performed to examine the effect of subtle sexism on transformational leadership ratings after accounting for age, gender, and gender identity (Table 26). Before conducting the analyses, subtle sexism scores were mean centered and an interaction term was computed between participant gender and subtle sexism variables. Subsequently, the perceptions of transformational leadership style were regressed on age and gender identity in the first block, participant gender in the second block, followed by subtle sexism in the third block, and finally an interaction term between participant gender and subtle sexism in the fourth block.

Overall, subtle sexism accounted for only 2% of variance in perceptions of transformational leadership after accounting for everything else, however the full model

accounted for 22% of variance in transformational leadership ratings, $R^2 = .22$, F (5, 336) = 19.16, $p < .001$. Gender identity accounted for 12% of variance in transformational leadership after accounting for everything else. Again, after subtle sexism was taken into account, participant gender no longer explained a significant portion of variance in transformational leadership style. The relationship between participants' gender and transformational leadership was not significantly moderated by subtle sexist attitudes. Thus, female participants with high and low endorsement of subtle sexism did not rate senders of the email significantly differently on transformational leadership style, contrary to expectations in Hypotheses 4a and 4b. Altogether, these findings indicate that participants who endorsed high levels of subtle sexism rated the email senders in the vignette lower on transformational leadership style regardless of their gender.

Table 26

Effect of Gender and Gender-Related Attitudes on Transformational Leadership Ratings

	ΔR^2	*b*	*SE*	β	sr^2
Step 1	.18***				
Age		-.01	.01	-.05	.00
Gender identity		.43***	.05	.42	.18
Step 2	.01*				
Age		-.01	.01	-.05	.00
Gender identity		.41***	.05	.40	.15
Participant gender		.20*	.08	.12	.01
Step 3	.02**				
Age		-.02	.01	-.06	.00
Gender identity		.36***	.05	.36	.11
Participant gender		.13	.09	.08	.01
Subtle sexism		-.13**	.04	-.15	.02
Step 3	.01				
Age		-.01	.01	-.05	.00
Gender identity		.38***	.05	.37	.12
Participant gender		-.29	.28	-.17	.00
Subtle sexism [a]		-.21**	.07	-.25	.02
Participant gender x Subtle sexism[a]		.14	.09	.25	.01

Notes. [a] Mean centered. Male coded as 0; female coded as 1.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Effect of Transformational Leadership on Work Engagement

The impact of transformational leadership on work engagement was examined through a hierarchical multiple regression, in which transformational leadership was regressed on work engagement after controlling for age and subtle sexism, however participant gender was not included as a control variable in the current model in order to replicate the results found in Study 1. As expected, transformational leadership was significantly associated with work engagement, explaining 53% of variance after accounting for age and subtle sexist attitudes, $R^2 = .54$, $F\ (3, 338) = 132.25$, $p < .001$ (Table 27), thus supporting Hypothesis 5. Altogether, these findings indicate that transformational leadership style positively influenced hypothetical work engagement even in a controlled setting. A summary of all supported and unsupported hypotheses are provided in Table 28.

Table 27

Effect of Transformational Leadership Ratings on Work Engagement

	ΔR^2	*b*	*SE*	β	sr^2
Step 1	.01				
Age		-.01	.02	-.04	.00
Subtle sexism		-.07	.06	-.07	.00
Step 2	.53***				
Age		.01	.01	.03	.00
Subtle sexism		.16***	.04	.16	.02
Transformational leadership		.96***	.05	.77	.53

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

Table 28

Summary of Study 2 Hypotheses and Results

Hypothesis	Hypothesis description	Obtained support
1a	Female participants would perceive transformational leadership behaviours similarly in male and female supervisors, as well as male and female coworkers.	Partially supported
1b	Male participants would perceive female supervisors, compared to male supervisors, to display fewer transformational leadership behaviours.	Not supported
2a	Male participants would perceive fewer transformational leadership behaviours in female supervisors compared to female coworkers and male coworkers.	Not supported
2b	Male participants would perceive more transformational leadership behaviours in male supervisors compared to female and male coworkers.	Not supported
3	Higher subtle sexist attitudes would predict lower ratings of transformational leadership behaviours in female email senders compared to male email senders.	Partially supported
4a	Female participants who score highly on subtle sexist attitudes would perceive lower transformational leadership behaviours in female supervisors compared to female participants who provide low endorsement of subtle sexist attitudes.	Not supported
4b	Female participants who score highly on subtle sexist attitudes would perceive high transformational leadership behaviours in male supervisors compared to female participants who provide low endorsement of subtle sexist attitudes.	Not supported
5	Perceived transformational leadership would be associated with higher hypothetical work engagement.	Supported

Study 2 Discussion

The purpose of the second study was to replicate and expand the results of the first study using an experimental design. Specifically, the effects of participants' gender and subtle sexist attitudes were examined on perceptions of transformational leadership style, while taking gender and status of an email sender into consideration. Overall, only a significant difference between male and female participants was found in perceptions of transformational leadership style regardless of the email senders' gender or status. Specifically, female participants perceived more transformational leadership behaviours compared to male participants. Felfe and Schyns (2006) found similar gender differences in their study on the impact of personality on perceptions of transformational leadership behaviours. They suggested that since transformational leadership style corresponds more with feminine stereotypes, women were more likely to notice transformational leadership style as compared to men, thus supporting the idea that similarity is associated with higher perceptions of transformational leadership behaviours.

Although similarity between leaders' and followers' characteristics may play a role in transformational leadership perceptions, the results of the second study suggest that perceivers' subtle sexist attitudes may reveal a more nuanced relationship between gender and transformational leadership. Previous researchers suggested that subtle sexist attitudes may affect the perceptions of female leaders and impact the effect transformational leadership style can have on employee outcomes (e.g., Ayman et al., 2009; Eagly et al., 1995; Elsesser & Lever, 2011), however few studies actually measured subtle sexist attitudes while examining the perceptions of transformational leadership behaviours. In the current study, both gender and gender-related attitudes were

examined together and the current results revealed that subtle sexist attitudes explained more variance in transformational leadership style compared to simply participants' gender.

The purpose of the second study was also to replicate the results of the first study in a controlled environment. Similar to the results of the first study, it was found that transformational leadership style was positively associated with greater expectations of hypothetical work engagement. These results suggest that transformational leadership style is an important predictor of work engagement in hypothetical scenarios and in real life. The current results also replicate and augment the findings of previous research by Kovjanic, Schuh, and Jonas (2013), in which the authors found that transformational leadership style, compared to a more transactional leadership style, was associated with greater work engagement and performance in a sample of predominately German employees using an experimental vignette study.

General Discussion

Supervisors who use transformational leadership style can shape employees' perceptions at work (Nielsen et al., 2008), which in turn, can improve employees' work engagement (Hayati et al., 2014) and well-being (Arnold et al., 2007). Yet, the perceptions and the impact of transformational leadership style on employee outcomes may depend on the supervisors' and employees' gender (Ayman et al., 2009; Felfe & Schyns, 2006). The aim of the current research was to examine the mediating role of work engagement between transformational leadership and employee well-being, while taking gender and gender-related attitudes into consideration through cross-sectional (Study 1) and experimental vignette (Study 2) study designs.

The current results indicate that work engagement is an important mechanism through which transformational leaders influence employees' hedonic and eudaimonic well-being. Equally important, transformational leadership was strongly and positively associated with work engagement in cross-sectional and experimental study designs, thus the current research replicated and augmented previous research findings (e.g., Hayati et al., 2014). Furthermore, the positive impact of transformational leadership style on employee outcomes (i.e., work engagement, well-being) was prominent in all employees, regardless of supervisors' gender.

Although perceptions of transformational leadership style did not differ for male and female supervisors in general, employees' gender and gender-related attitudes were associated with varying perceptions of transformational leadership style. In particular, male participants were more likely to rate female supervisors lower on facets of transformational leadership style and to perceive fewer transformational leadership facets in an email vignette. The endorsement of subtle sexist attitudes appeared to provide a far more sophisticated explanation for the differences in perceptions of transformational leadership style in contrast to exclusively employees' gender. Altogether, these current findings suggest that perceptions of transformational leadership style in male and female supervisors are contingent on the employees' gender-related attitudes.

Effect of Gender and Subtle Sexist Attitudes on Leadership Perceptions

In the cross-sectional study, perceptions of transformational leadership style in supervisors, especially female supervisors, depended on employees' gender, such that male employees perceived fewer transformational leadership behaviours in female supervisors compared to male supervisors. In the experimental study, perceptions of

transformational leadership style depended only on the perceivers' gender, such that female participants were more likely to perceive greater transformational leadership style compared to male participants. However, the results of the current research suggest that subtle sexist attitudes play an important role in perceptions of transformational leadership style. Specifically, endorsement of subtle sexist attitudes predicted lower ratings of transformational leadership behaviours, especially for female supervisors, beyond the variance explained by employees' gender. Consistently, the relationship between gender and transformational leadership ratings was diminished or eliminated after controlling for subtle sexist attitudes. These findings suggest that the attitudes employees hold towards women in the workplace play a greater role in explaining different perceptions of transformational leadership style compared to employees' gender.

It is possible that when participants are confronted with transformational leadership style in a hypothetical scenario, they may perceive it as a threat to the status quo and potentially to the traditional masculinity (i.e., male dominance in society) in the case of male participants (Jost et al., 2004; Weaver & Vescio, 2015). Specifically, when men dominated management and the public sphere (Rigdeway, 2001), it was expected that managers would use transactional/traditional style of leadership, which is considered to be more masculine (Eagly & Johnson, 1990). With global changes, higher female participation in the workplace, and increasing pressures to use transformational leadership style (e.g., Loughlin et al., 2012), which is considered more feminine, there is a growing threat to the status quo (Jost et al., 2004). Male participants may expect traditional/transactional leadership style from leaders, so when they are confronted with transformational leadership style, they may perceive it as a threat to their collective

interests – they may believe all supervisors may be expected to use transformational leadership style (e.g., Loughlin et al., 2012). Male participants may believe that it may become more difficult for them to gain esteemed positions (i.e., leadership) in organizations unless they also use that style of leadership, whereas they may believe female employees may be more likely to gain those esteemed positions because transformational leadership style is more feminine in nature (Cameron, 2001; Jost et al., 2004; Tougas et al., 1995; Weaver & Vescio, 2015). Thus, individuals, especially males, may endorse greater subtle sexist attitudes, and subsequently, downplay transformational leadership style behaviours, especially in female supervisors, in order to preserve the traditional masculine dominance within the workplace (Jost et al., 2004; Weaver & Vescio, 2015).

As facets of transformational leadership style may be gendered (Loughlin et al., 2012), the perception of threat and subsequent endorsement of subtle sexism may influence employees' perceptions of transformational leadership style facets in actual supervisors as well. It is possible that when female leaders use transformational leadership style, certain behaviours are dismissed because female leaders are challenging the status quo, especially when they are using gender incongruent and non-traditional methods to motivate employees (e.g., intellectual stimulation), thus employees react by questioning female leaders' legitimacy (Ayman et al., 2009). When male leaders use transformational leadership behaviours, they are not challenging the status quo and are perceived to be legitimate leaders. Furthermore, male supervisors who use transformational leadership style are perceived to be going above and beyond their duties, especially when they use behaviours associated with feminine stereotypes (e.g.,

individualized consideration), thus employees are more likely to notice and benefit from transformational leadership behaviours displayed by male leaders compared to female leaders (Loughlin et al., 2012).

The significant gender differences found in perceptions of transformational leadership style appeared to be quite small in the current research, however even small differences and effect sizes can have a big impact on organizations over time (Eagly et al., 2003). Given that successful leaders use transformational leadership behaviours only at opportune moments (Barling, 2014), if followers and superiors perceive fewer transformational leadership behaviours in female, then some insight can be gained into the disparity in numbers of female supervisors at senior leadership. That is, if superiors only perceive what they expect according to gender stereotypes, then it is easier to reinforce the new status quo where female leaders are situated in lower levels of management. To illustrate, Vinkenburg and colleagues (2011) found that participants, who were predominantly business professionals with some management experience, indicated that inspirational motivation was important for promotion to senior and executive levels of leadership, whereas individualized consideration was considered important for middle or senior management. At the same time, participants thought that inspirational motivation was more important for males' to achieve promotion, whereas individualized consideration was more important for females' route to promotion (Vinkenburg et al., 2011). Consequently, when superiors only notice individualized consideration and dismiss inspirational motivation in female supervisors, they may promote female leaders to middle management only. At the same time, male leaders could be promoted to senior and executive levels of leadership faster and in greater

numbers because their superiors may notice male leaders' individualized consideration and inspirational motivation more frequently and ultimately reward their behaviours more often (Loughlin et al., 2012; Vinkenburg et al., 2011).

Previous research (e.g., Loughlin et al., 2012) and the results of the current research suggest that gender stereotypes and other gender-related attitudes subtly reinforce the current gender gap in leadership directly (e.g., sexism; gender discrimination) and indirectly (e.g., perceptions, evaluations), even with the recent evolution in the accepted leadership styles. In the current research, the measurement of subtle sexism merely served as an indicator of the extent to which participants view the world through the lens of gender stereotypes. Furthermore, although used as a control variable in the second study, gender identity also appeared to play an important role in transformational leadership perceptions, however more research is required to discern the impact of gender identity on transformational leadership ratings.

Limitations and Future Directions

Sample characteristics. Although the current research provides a number of important contributions to the existing literature, several limitations should be acknowledged. In terms of sampling, both samples in the current research were not ideal. The reliability of the data in the first sample may have been initially compromised as a result of poor quality of responses obtained through Crowdflower platform, however this problem was later rectified by using Qualtrics panels to recruit the majority of the sample. Despite the limitations of the current online sample, recent research suggests that in general online samples are more diverse and perform as well as traditional university student participant pools (Behrend, Sharek, Meade, & Wiebe, 2011).

In the second study, responses from a sample of undergraduate students were analyzed for which almost half of the participants were not employed at the time of the study. These sample characteristics may limit the generalizability of the results beyond the population of undergraduate students. Similar research should be conducted to strengthen the validity of current findings by analyzing responses from multiple organizations in a variety of industries that employ large numbers of front-line, entry-level employees.

Although the diversity is one of the strengths of the current samples, previous research suggests that followers' culture and leaders' ethnicity could influence followers' perceptions of leadership, especially transformational leadership (Ayman & Korabik, 2010; Eagly & Chin, 2010). For instance, Ayman and Korabik (2010) note that individuals from different cultures can perceive the same behaviours in various ways; to use an example from Bass (1997), leaders from Indonesia are expected to continuously reaffirm their abilities to their followers, however followers from Japan would be dismayed if their leaders were to display the same behaviours. Conversely, leaders' ethnicity can influence followers' perceptions of leaders' legitimacy or authenticity (Ayman & Korabik, 2010). Specifically, members of minority groups are expected to act according to stereotypes associated with their membership, however they are penalized if they do not conform to those stereotypes, similar to gender role expectations (Ayman & Korabik, 2010; Eagly & Chin, 2010). Consequently, Black and Hispanic leaders in the US are often viewed less positively and are perceived to be less effective, however Asian leaders does not appear to experience similar devaluation (Ospina & Foldy, 2009). Female leaders, who are also visible minorities, face additional barriers in the workplace,

as they are expected to conform to both gender and ethnic stereotypes (Ospina & Foldy, 2009). Overall, future research should consider both followers' and leaders' culture and ethnic background when examining perceptions and the effect of transformational leadership style on employee outcomes.

Research design. Despite careful planning and thoughtful consideration, several research design flaws need to be acknowledged in terms of questionnaire development and experimental manipulation. To begin, the ordering of the questions in both studies could have affected the responses to subsequent questions through priming (Strack, 1992). For instance, in Study 1, participants were asked about the gender of the supervisor at the beginning of the survey due to screening criteria and in Study 2, participants were informed about the purpose of the study (i.e., gender differences in leadership). In both studies, the questions and instructions regarding gender may have primed the participants to evaluate leadership styles in gender congruent ways. The potential priming effects could not have been avoided due to the recruiting tool and ethical requirements, respectively. Nonetheless, the order for the rest of the questionnaire was carefully designed to avoid any other potential ordering biases by inserting several filler questions between gender-related questions and the rest of the variables. Future researchers should attempt to measure demographic variables (e.g., gender of supervisor) through other sources (e.g., human resources system) within organizations.

The possibility of common method variance was high in the current research since both transformational leadership ratings and employee outcomes were assessed from a single source (Podsakoff & Organ, 1986). Future research should replicate the current findings in an organization where transformational leadership ratings can be obtained

from both the supervisors and their employees independently. The discrepancy between self-report and employee ratings in transformational leadership style could provide important information regarding the relationships of interest. For instance, it is possible that supervisors' transformational leadership style ratings may be more predictive of employee outcomes compared to employees' ratings of their supervisors' transformational leadership style or vice versa. Additionally, future researchers should examine the impact of discrepancy between self-reported and employee reported transformational leadership ratings on supervisors' well-being. It is possible that failure to correctly perceive supervisors' transformational leadership style by employees may be associated with greater burnout and diminished well-being in supervisors as they struggle to motivate their employees, especially female supervisors with male employees. Hence, future studies should explore both supervisors' and employees' transformational leadership ratings and how they affect both supervisors' and employees' well-being.

Experimental design. Despite the random assignment function being built into the survey and multiple attempts at corrections in the Qualtrics system for the Study 2, the number of participants differed between conditions, such that more participants were assigned to the female supervisor condition, regardless of participants' gender. It is possible that a malfunction in the randomization option occurred within the system or it is possible that more participants dropped out of the experiment if they were assigned to the other three conditions, however the reason for the discrepancy is difficult to discern at this point. Ideally, the dropout rates should have been monitored and the final sample should have contained equal number of male and female participants in each of the conditions.

Additionally, the experimental manipulation in the vignette study may not have been sufficient to elicit different ratings in transformational leadership style between conditions. It is possible that the prompts at the beginning of the vignette did not provide enough information to evoke robust differences between participants in each condition. When confronted with a sender of an email who displayed transformational leadership style in each vignette, participants may have perceived the email senders' leadership abilities and associated them with a leadership position (i.e., supervisor), regardless of the specified position.

Additionally, previous research suggests that men and women sometimes communicate in line with gender stereotypes when interacting face-to-face and online (e.g., Canary & Hause, 1993; Colley & Todd, 2002). For instance, men are more likely to be direct and assertive, whereas women are more likely to be supportive and reassuring in their communications (e.g., Colley & Todd, 2002). Although it is possible that these gender differences in communication style could have affected the perceptions of transformational leadership style in the second study, a large number of meta-analyses (see Canary & Hause, 1993 for review) suggest that these gender differences in communication are very minimal and should not translate into any meaningful differences in perceptions. Nonetheless, future research should examine how gender differences in communication style could impact perceptions of transformational leadership style, especially in experimental vignette research.

Conversely, the questions in manipulation checks may have been misleading and unclear, as indicated by a large percentage of participants who failed the manipulation checks in each condition. The participants were asked who they 'think' the sender was,

which meant they could provide their subjective view of the email sender. Even though they saw the instructions said a coworker, as a new employee on the team, the participants might have anticipated that the sender of the email would be their informal supervisor. Nevertheless, a replication of the current experiment should be conducted, in which explicit prompts, clear instructions, and more direct questions regarding the sender of the email (e.g., is the sender...) are provided to the participants.

Alternatively, the current experiment could be replicated as a laboratory experiment, similar to experiments used to examine power (e.g., Lammers, Galinsky, Gordijn, & Otten, 2012), in which participants who are assigned to either a supervisor or employee condition can work on a task together. For example, female and male confederates could deliver a transformational leadership style speech to participants who either believe the person is another participant or a researcher (e.g., Kirkpatrick & Locke, 1996). The participants could then be asked to rate the confederate on a number of transformational leadership style measures and report on their own gender-related attitudes. Conducting this type of experiment can provide further understanding into how gender, status, and gender-related attitudes intersect to produce differential perceptions of transformational leadership style.

Implications

The current research contributes to previous research in a number of ways by examining mostly front-line employees, providing new evidence regarding gender differences in transformational leadership, and incorporating multiple fields of research. To start with, the average age of the online sample and undergraduate sample was 24 and 22 years old, respectively, which is relatively young in comparison to the median age of

employees in the labour force in Canada (39 years old) and the USA (36 years old; Beach, 2008). Both samples provide important information about young employees and their work experiences, especially regarding their relationships with their supervisors. At this career stage, supervisors may be particularly important for supporting and guiding young employees, but also for shaping their future work beliefs (Loughlin & Barling, 2001). Subsequently, supervisors' use of transformational leadership style can provide the necessary support and instill optimistic work beliefs in front-line, especially entry-level employees (Breevaart et al., 2014; Loughlin & Barling, 2001).

Unfortunately, most front-line supervisors, who are expected to provide support to front-line employees, are often offered the least amount of leadership training compared to other levels of management (e.g., de Smet, McGurk, & Vinson, 2009; Harvard Business Review, 2014). When front-line managers are offered training, it often does not provide the necessary training in complex interpersonal skills needed to meet supervisors' daily job demands while motivating their employees (de Smet et al., 2009). Fortunately, transformational leadership style training has been found to benefit leaders at all levels and can be taught in a relatively short period of time (e.g., Avolio, Reichard, Hannah, Walumbwa, & Chan, 2009; Barling et al., 1996). Given the importance of transformational leadership style in work-related outcomes and employee outcomes, organizations should prioritize and provide the required resources to successfully train front-line supervisors to adopt transformational leadership style.

The perceptions and the impact of transformational leadership style on employee outcomes were assessed in a cross-sectional study design and subsequently, replicated in an experimental vignette study. The current research replicated previous findings in

which participants were able to recognize transformational leadership style (e.g., Kelloway et al., 2012) and extended those finding by providing evidence for the positive effect of transformational leadership style on employees' work engagement, even in a controlled setting. Furthermore, the current research highlights the importance of subtle sexist attitudes in the perceptions of transformational leadership style beyond leaders' and employees' gender. Greater emphasis should be placed on examining the effect of subtle sexist attitudes and gender identity on transformational leadership perceptions through diverse research methods, in order to better understand how gender, status, and gender-related attitudes intersect to influence leadership perceptions.

The current research suggests that even though hostile sexism and obvious gender discrimination has been decreasing in the workplace (Basford et al., 2014; Tougas et al., 1995), subtle sexist attitudes still hinder the full participation of female leaders, even with the emergence and acceptance of transformational leadership style. The current research suggests that it is possible that employees and hiring managers may perceive only certain transformational leadership behaviours in female leaders, which are deemed to be important for promotion to middle management only, thus justifying the current gender gap in senior leadership. Organizations should provide more information regarding these types of subtle prejudices that female leaders face in the workplace through diversity training, especially to human resources management and hiring managers.

In summary, the current research contributed to organizational discourse by examining the impact of gender and gender-related attitudes on transformational leadership style, which in turn, influences employees' work engagement and hedonic and eudaimonic well-being, thus integrating several vast fields of organizational research. As

more employees are striving to find more meaning in their careers and lives, the findings in the current research suggest that male and female employees can find their jobs engaging if they work for a transformational leader, regardless of their supervisors' gender. Transformational leaders can influence employees' perceptions of work conditions (Nielsen et al., 2008) in a way that allows their employees to become engaged in their work (Hayati et al.,2014), which in turn, can spillover and enhance employees' life satisfaction and fulfillment in life (Arnold et al., 2007; Hakanen & Schaufeli, 2012).

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Appendix A

Study 1 Differences between Recruiting Groups

Table A1

Differences in Demographic Variables between Recruiting Groups

Measure	*t*	*df*	*p*
Age	-3.21	71.35*	<.001
Occupational tenure	-4.35	90.95*	<.001
Positional tenure	-2.38	79.91*	.02
Company tenure	-3.00	86.04*	.004

Note. *Levene's test for equality of variance was significant, *t* statistic for equal variances not assumed were provided.

Table A2

Differences in Demographic Variables between Recruiting Groups

Measure	χ^2	*df*	*p*
Gender	.97	1, 169	.33
Typical work hours	158.28	1, 169	<.001
Industry	39.33	13, 169	<.001
Gender of supervisor	5.20	1, 169	.02
Country	116.00	1, 169	<.001
Ethnicity	10.70	7, 166	.15
Education	7.69	7, 166	.36

Table A3

Differences in Main Variables between Recruiting Groups

Measure	*t*	*df*	*p*
Transformational Leadership	.91	89.05*	.37
Work engagement	-.75	90.31*	.46
Satisfaction with life	-.04	167	.97
Affect	1.35	83.05*	.18
Eudaimonic well-being	-1.92	167	.06
Neosexism	.43	165	.67

Note. *Levene's test for equality of variance was significant, *t* statistic for equal variances not assumed were provided.

Appendix B

Study 1 Recruiting Notices

B1. Crowdflower recruiting notice

Your supervisor and you:
Your thoughts and feelings about your supervisor and your life in general

Description: We want to find out whether your thoughts and feelings about your supervisor and your workplace have any effect on your overall life satisfaction. This study welcomes you to fill out a questionnaire to assess your thoughts and feelings about your current supervisor, your work attitudes, and your overall life satisfaction. There are no right or wrong answers – simply respond to the survey based on your own experiences.

Duration: 15-20 minutes

Eligibility Requirements: Although we welcome everyone's participation, we are specifically looking for English speaking participants who meet the following criteria:

- Currently employed on full time basis (35+ hours a week)
- Employed in an entry level position (i.e., requires limited experience in the field; not self-employed; not in management)
- Support staff occupations (e.g., administrative assistants, IT staff, tellers, customer service representatives, etc.)

We appreciate the time you take to complete this survey. Your insight and information is very valuable to know more about people's work experiences for future academic research and to understand more about potential ways to improve work conditions through organizational policies.

This study has received clearance by the Carleton University Research Ethics Board (Reference #15-092).

If you would like to participate, click [here] to begin.

Important! Please make sure to record the completion code at the end of the survey in the box below to receive the compensation for your participation.

B2. Qualtrics recruiting notice

Dear [name of member],

Please tell us what you think!

Click here to participate in a new [name of the recruiting website] survey opportunity.

Appendix C

Study 1 Consent Form

Your supervisor and you:
Your thoughts and feelings about your supervisor and your life in general

Thank you for taking the time to complete this survey! Please read the following information that describes the study and your rights as a participant. The purpose of an informed consent is to ensure that you understand the purpose of the study and the nature of your involvement. Sufficient information is provided below in order for you to determine whether you wish to participate in the study and provide informed consent.

Purpose: This study aims to understand the attitudes people hold about their immediate supervisors and how those attitudes are related to people's assessment of their well-being at work and overall life satisfaction.

Task requirements: We are asking you to fill out a number of online questionnaires regarding your background (i.e., demographics), attitudes towards your work (i.e., supervisor) and how you feel about yourself (i.e., well-being). The survey will take about 20 minutes to complete.

Compensation: You will be compensated for your participation according to your preferences. The compensation will be administered through Qualtrics' partner website and is not directly linked to your answers on this survey.

Potential risks/discomfort: There are no known risks associated with completing this survey. If you feel any discomfort or distress at any point, you may choose not to answer specific questions, and you will not be penalized in any way for doing so. The information at the end of the study provides contact information for support services that you may contact if you feel any discomfort and would like to talk with someone.

Right to withdraw: Your participation is voluntary and you have the right to end your participation in the survey at any time for any reason. If you choose to withdraw at any time, please simply skip all the questions up until the last page of questions. After the last question, please select "quit" if you want all your answers destroyed. Even if you choose to withdraw, you will still be compensated for your participation, as long as you record the completion code provided to you after you select the "quit" button. As the survey responses are anonymous, it is not possible to withdraw after the survey has been submitted.

Anonymity/Confidentiality: The survey is anonymous; you will not be identified in any way. Your participation information and your responses will be kept on Qualtrics website. No names or IP addresses will be linked to any of the data provided. All research data will be encrypted. The survey (Qualtrics) company is based out of United States. Qualtrics will keep all of the survey responses on its servers in United States. Thus the data will be subject to the governing laws of the US, including but not limited to the USA Patriot Act (for more information, visit http://en.wikipedia.org/wiki/Patriot_Act).
All research data will be accessible by the researcher, the research supervisor, and the survey company. Once the survey is complete, the data will be encrypted, transferred, and deleted from the Qualtrics website. Once the project is completed, all research data will be kept in storage for ten years and potentially used for other research projects on this same topic. At the end of ten years, all research data will be destroyed.

If you would like a copy of the finished research project or have any questions/ concerns related to the research, please contact:

Researcher contact information:
Name: Ekaterina Martynova
Position: Master's Student
Department: Psychology
Carleton University
Email: ekaterina.martynova@carleton.ca

Supervisor contact information:
Name: Dr. Janet Mantler
Position: Associate Professor
Department: Psychology
Carleton University
Email: janet.mantler@carleton.ca

This study has received clearance by the Carleton University Research Ethics Board (Reference #15-092). Should you have any ethical concerns related to your involvement in this research, please contact:

Carleton University Research Ethics Board
Name: Dr. Shelley Brown
Position: Chair
Email: shelley_brown@carleton.ca

The responses you give in this survey will be used for academic purposes only. Your honest input is very valuable and appreciated in order to understand more about workplace experiences and their impact on people's overall life satisfaction. We appreciate your time and any insight you can provide by completing this survey!

By selecting "Save and continue", you consent to participate in the research study as described above.

Appendix D

Study 1 Debriefing Form

Your supervisor and you:
Your thoughts and feelings about your supervisor and your life in general

Thank you for your time!
Please find more information and resources about the current study below.

What are we trying to learn in this research?
This research examines the impact leadership abilities have on employee's work engagement and overall well-being. The questionnaire you completed provided your assessment of your supervisor's leadership abilities and your work related attitudes. We also asked you to provide information on how happy and fulfilled you feel about your life in general. Overall, we wanted to see if there's a link between leadership abilities, work engagement, and overall well-being. We also wanted to see if the gender of the supervisor and attitudes towards gender policies have any impact on that link. Thank you for sharing your experiences and helping us gain more understanding about this relationship.

Why is this important to scientists or the general public?
Previous research has shown that leadership abilities can have an impact on employee's happiness through communicating how important and meaningful the employee's job is to the organizational goals. However, more information is needed to understand whether other factors, such as work engagement, can be influenced by leadership abilities and how work engagement relates to overall well-being. As most people spend a majority of their waking hours at work, it is important to understand the effect supervisors can have on their employees, not only at work, but also in their personal lives. By understanding more about leadership abilities and their influences, Human Resources departments can implement better strategies for leadership development.

Where can I learn more?
To learn more about *leadership styles* studied in the current questionnaire, please see http://www.ianrpubs.unl.edu/pages/publicationD.jsp?publicationId=198

To learn more about *work engagement*, please see http://www.arnoldbakker.com/workengagement.php

To learn more about *well-being*, please see http://www.counsellingconnection.com/index.php/2010/08/30/happiness-and-positive-psychology/

Is there anything I can do if I found filling out this survey to be emotionally upsetting?
Yes. If you feel any distress or anxiety after participating in this study, please feel free to contact a local crisis/distress centre or call a distress helpline:
Canada: 866-531-2600
U.S.A.: 800-273-8255

What if I have questions later?
If you have any concerns, questions, or comments about the survey, please feel free to contact:

Researcher contact information:
Name: Ekaterina Martynova
Position: Master's Student
Department: Psychology
Carleton University
Email: ekaterina.martynova@carleton.ca

Supervisor contact information:
Name: Dr. Janet Mantler
Position: Associate Professor
Department: Psychology
Carleton University
Email: janet.mantler@carleton.ca

This study has received clearance by the Carleton University Research Ethics Board (Reference #15-092).Should you have any ethical concerns related to your involvement in this research, please contact:

Carleton University Research Ethics Board:
Name: Dr. Shelley Brown
Position: Chair
Email: shelley_brown@carleton.ca

Again thank you very much for your participation!

To ensure maximum confidentiality, please click the icon below to close this window.

Appendix E

Study 1 Questionnaire

Multifactor Leadership Questionnaire© (Avolio & Bass, 2004)

Prompt for this section: For this section, we just want know more about your thoughts and attitudes towards your supervisor. Please think of your immediate supervisor with whom you work majority of the time when answering the following statements.

Please indicate the extent to which the following statements describe your supervisor.

0	1	2	3	4
Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always

1. Re-examines critical assumptions to question whether they are appropriate.
2. Talks about his/her most important values and beliefs
3. Seeks differing perspectives when solving problems
4. Talks optimistically about the future
5. Instills pride in me for being associated with him/her

Scale of Positive and Negative Experience (Diener et al., 2010)

Prompt for this section: Now we would like to know more about your thoughts and feelings about your life in general. Try to respond to each statement according to your own feelings about how things are actually going, rather than how you might wish them to be.

Please report how much you experienced each of the following feelings during the past four weeks.

1	2	3	4	5
Very Rarely or Never	Rarely	Sometimes	Often	Very Often or Always

1. Positive
2. Negative
3. Good
4. Bad
5. Pleasant
6. Unpleasant
7. Happy
8. Sad
9. Afraid
10. Joyful
11. Angry
12. Contented

Satisfaction With Life Scale (Diener et al., 1985)

Please indicate the extent to which you agree or disagree with the following statements.

1	2	3	4	5	6	7
Strongly Disagree	Somewhat Disagree	Slightly Disagree	Neither agree or disagree	Slightly Agree	Somewhat Agree	Strongly Agree

1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.

Questionnaire of Eudaimonic Well-Being (Waterman et al., 2010)

Please indicate the extent to which you agree or disagree with the following statements.

0	1	2	3	4
Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree

1. I find I get intensely involved in many of the things I do each day.
2. I believe I have discovered who I really am.
3. I think it would be ideal if things came easily to me in my life. (R)
4. My life is centered around a set of core beliefs that give meaning to my life.
5. It is more important that I really enjoy what I do than that other people are impressed by it.
6. I believe I know what my best potentials are and I try to develop them whenever possible.
7. Other people usually know better what would be good for me to do than I know myself. (R)
8. I feel best when I'm doing something worth investing a great deal of effort in.
9. I can say that I have found my purpose in life.
10. If I did not find what I was doing rewarding for me, I do not think I could continue doing it.
11. As yet, I've not figured out what to do with my life. (R)
12. I can't understand why some people want to work so hard on the things that they do. (R)
13. I believe it is important to know how what I'm doing fits with purposes worth pursuing.
14. I usually know what I should do because some actions just feel right to me.
15. When I engage in activities that involve my best potentials, I have this sense of really being alive.
16. I am confused about what my talents really are. (R)
17. I find a lot of the things I do are personally expressive for me.

18. It is important to me that I feel fulfilled by the activities that I engage in.
19. If something is really difficult, it probably isn't worth doing. (R)
20. I find it hard to get really invested in the things that I do. (R)
21. I believe I know what I was meant to do in life.

(R) – Reverse coded

Utrecht Work Engagement Scale (Schaufeli et al., 2006)

Prompt for this section: Now we would like to know more about your attitudes about your work and work policies in general.

Please read each statement and indicate how frequently you think and feel the described way at work.

0	1	2	3	4	5	6
Never	Almost never	Rarely	Sometimes	Often	Very often	Always

1. At my work, I feel bursting with energy.
2. At my job, I feel strong and vigorous.
3. I am enthusiastic about my job.
4. My job inspires me.
5. When I get up in the morning, I feel like going to work.
6. I feel happy when I am working intensely.
7. I am proud of the work that I do.
8. I am immersed in my work.
9. I get carried away when I'm working.

Neosexism Scale (Tougas et al., 1995)

Please indicate the extent to which you agree or disagree with the following statements.

1	2	3	4	5	6	7
Strongly Disagree	Somewhat Disagree	Slightly Disagree	Neither agree or disagree	Slightly Agree	Somewhat Agree	Strongly Agree

1. Discrimination against women in the labour force is no longer a problem in North America (Canada/U.S.A.).
2. I consider the present employment system to be unfair to women. (R)
3. Women shouldn't push themselves where they are not wanted.
4. Women will make more progress by being patient and not pushing too hard for change.
5. It is difficult to work for a female boss.
6. Women's requests in terms of equality between the sexes are simply exaggerated.
7. Over the past few years, women have gotten more from the government than they deserve.

8. Universities are wrong to admit women in costly programs such as medicine, when in fact a large number will leave their jobs after a few years to raise their children.
9. In order not to appear sexist, many men are inclined to overcompensate women.
10. Due to social pressures, firms frequently have to hire underqualified women.
11. In a fair employment system, men and women would be considered equal. (R)

(R) – Reverse coded

Demographics

Prompt for this section: Now we would like to more about you and your background. Please tell us a bit more about yourself.

1. What country do you reside in?
   - ☐ United States
   - ☐ Canada
   - ☐ Other [Text box provided]

2. What is your ethnic background?
   - ☐ White/Caucasian
   - ☐ Black/African American
   - ☐ First Nations/Aboriginal/Métis/Native American
   - ☐ Hispanic/ Latino
   - ☐ Asian
   - ☐ South East Asian
   - ☐ Middle Eastern
   - ☐ I prefer not to specify
   - ☐ Other

5. What is the highest level of education you have received?
   - ☐ Elementary/grade school or some high school without receiving diploma.
   - ☐ High school graduate or equivalent.
   - ☐ Some college, university, or post-secondary education, but without receiving a degree/certificate.
   - ☐ Completed technical/trade/vocational training.
   - ☐ University diploma, associate's degree, or other certification, not including Bachelor's degree.
   - ☐ Bachelor's degree.
   - ☐ Master's degree.
   - ☐ Doctorate (e.g., PhD), professional degree (e.g., LLB), post doctorate, and beyond.

3. What age are you?
   [Drop down box listing ages from 18 to 75 with an option of under 18 and "I prefer not specify"]

4. Are you...
   - ☐ Male
   - ☐ Female
   - ☐ Other [Text box provided]
   - ☐ I prefer not to specify

6. Which of the following best describes your employment status?
   - ☐ Employed for wages
   - ☐ Self-employed
   - ☐ Not employed, looking for work
   - ☐ Not employed, currently not looking for work
   - ☐ Homemaker
   - ☐ Student
   - ☐ Retired
   - ☐ Unable to work
   - ☐ Other [Text box provided]
   - ☐ I prefer not to specify

7. What is your current occupation?
   [Drop down box listing occupation classification from US Census data with an option of other]

8. How many years have you worked in your current occupation?
   [Drop down box listing options from less than 1 year to 15 or more years]

9. How many years have you worked in your current position?
   [Drop down box listing options from less than 1 year to 15 or more years]

10. How many years have you worked at your current company?
    [Drop down box listing options from less than 1 year to 15 or more years]

11. In a typical week, how many hours do you work?
    - ☐ 0-12 hours
    - ☐ 13-24 hours
    - ☐ 25 to 35 hours
    - ☐ 36 hours or more

12. How many years have you worked with your current supervisor?
    [Drop down box listing options from less than 1 year to 15 or more years]

13. What is the gender of your immediate supervisor?
    - ☐ Male
    - ☐ Female
    - ☐ Other [Text box provided]
    - ☐ I prefer not to specify

Appendix F

Study 2 Recruiting Notice

This study has received clearance by the Carleton University Research Ethics Board–B (Protocol #16–086).

Study Name: Gender differences in recognizing transformational leadership behaviours through an email vignette

Description: Sometimes we make quick judgments about what people are like based on their email communication. We can also judge a person's leadership abilities based on their emails. In the proposed study, we want to learn more about how gender of the followers influences recognition of transformational leadership style in male and female senders through an email format. This study will ask you to read a scenario where you received an email at work. Based on that email, you will be asked questions regarding the email and the sender. More specifically, you will be asked to provide your perceptions about the leadership style employed by the sender and make judgments about how you would feel if you actually worked with the sender (e.g., trust, satisfaction). You will also be asked to provide some information about yourself, such as your work-related attitudes, your work experiences, your social group identity, and some general demographic information such as your age, gender, and major.

Eligibility Requirements: Students currently registered in PSYC 1001, 1002, 2001, or 2002 are eligible to participate.

Duration and Locale: 10 minute questionnaire online

Compensation: You will receive 0.25% towards your course (PSYC 1001, 1002, 2001, 2002).

Researchers: Ekaterina Martynova (Student researcher); Dr. Janet Mantler (Faculty supervisor, Department of Psychology, Carleton University)

Email: ekaterina.martynova@carleton.ca

Appendix G

Study 2 Consent Form

Gender differences in recognizing transformational leadership behaviours through an email vignette

The purpose of this information is to ensure that you understand the purpose of this study and the nature of your involvement. Based on this information, you should be able to determine whether you wish to participate in this study.

This study has received clearance by the Carleton University Research Ethics Board–B (Protocol #16–086) and this clearance expires on August 31, 2016.

Purpose and Task Requirements: The purpose of this project is to explore how well recipients are able to recognize certain leadership behaviours based on an email communication. Furthermore, we also want to learn more about how gender of the followers influences the recognition of transformational leadership style in male and female senders through an email format. To do so, we will ask you to read a scenario where you received an email at work. Based on that email, you will be asked questions regarding the email and the sender. More specifically, you will be asked to provide your perceptions about the leadership style employed by the sender and make judgements about how you would feel if you actually worked with the sender (e.g., trust, satisfaction). You will also be asked to provide some information about yourself, such as your work-related attitudes, your work experiences, and some general demographic information such as your age, gender, and major.

The questionnaire should take about 10 minutes. You will receive 0.25% credit towards your course (PSYC 1001, 1002, 2001, 2002) for your participation.

Eligibility Requirements: Students registered in Psyc 1001, 1002, 2001, and 2002 are eligible.

Potential Risk or Discomfort: It is highly unlikely that participating in this research result in any discomfort. In the event that you experience any distress or anxiety while participating in this study, feel free to contact the Carleton University Health and Counselling Services at 613–520–6674 or the Distress Centre of Ottawa and Region at 613–238–3311 (http://www.dcottawa.on.ca).

Research Personnel: The following people are involved in this study and may be contacted anytime if you have questions or concerns: Ekaterina Martynova (Student researcher, ekaterina.martynova@carleton.ca) or Dr. Janet Mantler (Faculty supervisor, Department of Psychology, Carleton University janet.mantler@.carleton.ca)

Contact in case of concerns: Should you have any ethical concerns about this research, please contact Dr. Shelley Brown (Chair, Carleton University Research Ethics Board – B at 613–520–2600 ext. 1505 or at shelley.brown@carleton.ca). For any other concerns please contact the Carleton University Research Office at ethics@carleton.ca.

Anonymity/Confidentiality: Your participation in this study is strictly confidential. Your IP address will not be recorded. The researchers will have access to an identifier so that course credit can be assigned to you. The data will be removed from the Qualtrics server by August 2016 and stored on a password-protected computer at Carleton University. The anonymized data will be kept for future reference and will be used in academic publications and presentations.

We are using Qualtrics as our survey platform. Because the server for this study may be located in a country other than Canada, we cannot absolutely guarantee the full confidentiality and anonymity of your data. With your consent to participate in this study, you acknowledge this.

Right to Withdraw: Your participation in this study is entirely voluntary. You have the right to not answer any questions or to withdraw at any time without explanation and without penalty. If you would like to withdraw once you have begun the survey, simply skip to the end to read the debriefing page. Your data will not be saved if you choose to leave the survey before your answers are submitted. Once you have submitted your responses, we won't be able to withdraw your responses because we will not include any personal identifiers with your data.

Agreement:

I have read the above form and understand the conditions of my participation.

Please select "agree" to continue with the study or "quit survey" to withdraw from the study.

Appendix H

Study 2 Vignette Scenario

Prompt: Please imagine yourself in the following situation:

You just came out of a meeting in which you were selected to begin a new high profile project at work. Shortly after the meeting, *[your supervisor/ one of your coworkers]* followed up by sending you the following email:

Hi,

It was great talking with you after the meeting today. With regards to your concerns, I know that this project is pretty difficult and will require your complete dedication and effort, but I really think that you can do well. Start by thinking about what was done in the previous projects and see if you can improve it. Think of new ways of combining previous products and fixing existing issues.

With your best efforts, we, as a team, will be able to bring this project forward and be proud of our achievements. This project can really push our company to become the front runner in the industry. As you know, our company strives to bring our customers innovation and with this project, our team can bring new technology to our customers and help our company grow. It is of great importance for the company and for me personally that this project is a success.

I do realize this project is a real challenge, but I also think this is going to be a good learning opportunity for you and that you are ready for it. I expect you will rise to this challenge and take initiative to come up with ideas and solve problems with our team. By doing so, you will gain very valuable experience for your career.

We are all contributing to this project, including myself. Don't hesitate to ask the rest of the team or myself for any help. I will try to support you in any way I can. If you are still not sure about what to do, feel free to come over to my office and I'll spend some time working on this with you. My door is always open. Trust me we will acheive this. :)

[Nancy/ Robert]

Appendix I

Study 2 Debriefing Form

Gender differences in recognizing transformational leadership behaviours through an email vignette

What are we trying to learn in this research?
In the past, research found that certain transformational leadership behaviours are not recognized equally in male and female leaders. We are interested in examining whether ratings of leadership behaviours in male and female leaders have changed over time. Yet, we know employees are increasingly using email to communicate within organizations. Communicating through email may facilitate or diminish the recognition of transformational leadership traits. The current study examined how men and women rate transformational leadership traits displayed in an email depending on whether the sender is a man or a woman. Furthermore, power status was manipulated and a measure of subtle sexist attitude was obtained to understand how hierarchy and attitudes may subtly influence the differential ratings of transformational leadership behaviours in men and women.

Why is this important to scientists or the general public?
In the past, aspects of transformational leadership style were judged differently depending on whether the leader was male and female. This study will examine the prevalence of these gender biases today and will explore the psychological mechanisms behind these biases. In particular, this study examined the role subtle sexist attitudes and power dynamics play in the judgements followers make about their leaders. By understanding more about gender biases in leadership, Human Resources departments can use that information to make better policies for promoting diversity and to develop strategies for promoting qualified candidates in spite of these inequalities.

Where can I learn more?

To learn more about *transformational leadership style*, please see https://en.wikipedia.org/wiki/Transformational_leadership

To learn more about *gender bias in leadership*, please see http://www.catalyst.org/media/damned-or-doomed-catalyst-study-gender-stereotyping-work-uncovers-double-bind-dilemmas-women

Is there anything I can do if I found this experiment to be emotionally upsetting?
Yes. If you feel any distress or anxiety after participating in this study, please feel free to contact the Carleton University Health and Counselling Services at: 613–520–6674 or the Distress Centre of Ottawa and Region at 613–238–3311 (http://www.dcottawa.on.ca).

What if I have questions later?
For any questions and concerns about this experiment, please contact Ekaterina Martynova (Student researcher) at ekaterina.martynova@carleton.ca or Dr. Janet Mantler (Faculty supervisor) Department of Psychology, Carleton University at janet_mantler@carleton.ca.

Should you have any ethical concerns about this research, please contact Dr. Shelley Brown (Chair, Carleton University Research Ethics Board–B at 613–520–2600 ext. 1505 or at shelley.brown@carleton.ca); you may also contact the Carleton University Research Office at ethics@carleton.ca. This study has received clearance by the Carleton University Research Ethics Board–B (Protocol #16–086).

Thank you for participating in this research!

Appendix J

Study 2 Questionnaire

Manipulation Check

Prompt: Please answer the following questions regarding the email.

1. Did you think the email came from a:
   - ☐ Male
   - ☐ Female
   - ☐ Not sure

2. Did you think the email came from a:
   - ☐ Supervisor
   - ☐ Coworker
   - ☐ Subordinate
   - ☐ Not sure

Vignette-Specific Questions

Prompt: Please answer the following questions regarding the email.

1. On a scale from 1-5, how satisfied do you think you would be with this person as a *[supervisor/coworker]*.

Assuming the person who sent you the email was your *[supervisor/coworker],* please indicate the extent to which you agree with the following statements based on the email.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neither agree or disagree	Somewhat Agree	Agree	Strongly Agree

1. I feel like I can trust [my supervisor/coworker].
2. I do not believe what [my supervisor/coworker] says.
3. Because of the email from my [supervisor/coworker], I would increase my effort to work better.
4. [My supervisor/coworker] heightened my motivation to succeed.
5. [My supervisor/coworker] increased my optimism for the future.
6. As a result of the email, I would want to complete the task to the best of my ability.

Measures

Transformational Leadership Behavior Inventory (TLI; Podsakoff et al., 1990)

Please indicate the extent to which you agree with the following statements about the person who sent you the email if you were working with that person. Based on the email, did you feel he/she...

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neither agree or disagree	Somewhat Agree	Agree	Strongly Agree

1. Seeks new opportunities for the group.
2. Paints an interesting picture of the future for the group.
3. Has a clear understanding of where the group is going.
4. Inspires others with his/her plans for the future.
5. Is able to get others committed to his/her dream of the future.
6. Leads by "doing" rather than simply "telling."
7. Provides a good model to follow.
8. Leads by example.
9. Fosters collaboration among work groups.
10. Encourages employees to be "team players."
11. Gets the group to work together for the same goal.
12. Develops a team attitude and spirit among employees.
13. Shows that he/she expects a lot from us.
14. Insists on only the best performance.
15. Will not settle for second best.
16. Acts without considering my feelings. (R)
17. Shows respect for my personal feelings.
18. Behaves in a manner that is thoughtful of my personal needs.
19. Treats me without considering my personal feelings. (R)
20. Has provided me with new ways of looking at things which used to puzzle me.
21. Has ideas that have forced me to rethink some of my own ideas that I have never been questioned before.
22. Has stimulated me to think about old problems in new ways.

(R) – Reverse coded

Utrecht Work Engagement Scale (Schaufeli et al., 2006)

After reading the email, please indicate the extent to which think you would agree with the following statements when working on this project.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neither agree or disagree	Somewhat Agree	Agree	Strongly Agree

1. I would feel bursting with energy.
2. I would feel strong and vigorous.
3. I would be enthusiastic about my job.
4. My job would inspire me.
5. When I get up in the morning, I would feel like going to work.
6. I would feel happy when I am working intensely.
7. I would be proud of the work that I do.
8. I would be immersed in my work.
9. I would get carried away when I'm working.

Three-Factor Model of Social Identity (Cameron, 2004)

Please indicate the extent to which you agree with the following statements.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neither agree or disagree	Somewhat Agree	Agree	Strongly Agree

1. I often think about being a man/woman (or my gender).
2. Being a man/woman (or my gender) has little to do with how I feel about myself in general. (R)
3. Being a man/woman (or my gender) is an important part of my self-image.
4. The fact I am a man/woman (or my gender) rarely enters my mind. (R)
5. In general I'm glad to be a man/woman (or the gender that I am).
6. I often regret being a man/woman (or my gender). (R)
7. Generally I feel good about myself when I think about being a man/woman (or my gender).
8. I don't feel good about being a man/woman (or my gender). (R)
9. I have a lot in common with other men/women (or others of my gender).
10. I feel strong ties to other men/women (others of my gender).
11. I find it difficult to form a bond with other men/women (or others of my gender). (R)
12. I don't feel a strong sense of being connected to other men/women (or others of my gender). (R)

(R) – Reverse coded

Neosexism Scale (Tougas et al., 1995)

Please indicate the extent to which you agree or disagree with the following statements.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neither agree or disagree	Somewhat Agree	Agree	Strongly Agree

1. Discrimination against women in the labour force is no longer a problem in Canada.
2. I consider the present employment system to be unfair to women. (R)
3. Women shouldn't push themselves where they are not wanted.
4. Women will make more progress by being patient and not pushing too hard for change.
5. It is difficult to work for a female boss.
6. Women's requests in terms of equality between the sexes are simply exaggerated.
7. Over the past few years, women have gotten more from the government than they deserve.
8. Universities are wrong to admit women in costly programs such as medicine, when in fact a large number will leave their jobs after a few years to raise their children.
9. In order not to appear sexist, many men are inclined to overcompensate women.
10. Due to social pressures, firms frequently have to hire underqualified women.
11. In a fair employment system, men and women would be considered equal. (R)

(R) – Reverse coded

Demographics

Prompt: Please tell us a bit more about yourself.

1. What is your ethnic background?
   - ☐ White/Caucasian
   - ☐ Black/African American
   - ☐ First Nations/Aboriginal/Métis/Native American
   - ☐ Hispanic/ Latino
   - ☐ Asian
   - ☐ South Asian
   - ☐ Middle Eastern
   - ☐ I prefer not to specify
   - ☐ Other

2. What age are you?
   [Drop down box listing ages from 18 to 75 with an option of under 18 and "I prefer not specify"]

3. Are you...
   - ☐ Male
   - ☐ Female
   - ☐ Other [Text box provided]
   - ☐ I prefer not to specify

Work Experiences

4. Which of the following best describes your current employment status?
   - ☐ Working part-time (less than 30 hours weekly)
   - ☐ Working full-time (more than 30 hours weekly)
   - ☐ Not currently employed

Questions for employed participants:

9. What is the gender of your immediate supervisor?
   - ☐ Male
   - ☐ Female
   - ☐ Other [Text box provided]
   - ☐ I prefer not to specify

10. What industry do you currently work for?
    [Drop down box listing industry classification from Statistics Canada with an option of other]

11. Have you ever worked (or volunteered) for a female supervisor?
    - ☐ Yes
    - ☐ No
    - ☐ Not sure

Questions for unemployed participants:

12. Have you been employed part-time or full-time in the past year (12 months)?
    - ☐ Yes
    - ☐ No
    - ☐ Not sure

13. Have you ever worked (or volunteered) for a female supervisor?
    - ☐ Yes
    - ☐ No
    - ☐ Not sure

Appendix K

Study 2 Missing Values Analyses

Table K1

Little's MCAR Analyses for Missing Values by Condition

Condition	χ^2	*df*	*p*
Female supervisor	683.28	660	.26
Male supervisor	906.41	858	.12
Female coworker	588.81	594	.55
Male coworker	709.25	724	.65

Appendix L

Study 2 Responses to Manipulation Questions

Table L1

Percentage of Incorrect Answers for Each of the Manipulation Questions by Condition

	Manipulation Question	
Condition	Gender	Status
Female supervisor	11 (11.6%)	16 (16.9%)
Male supervisor	12 (15.0%)	14 (17.6%)
Female coworker	1 (1.1%)	**62 (68.1%)**
Male coworker	14 (7.7%)	**50 (65.8%)**

Appendix M

Study 2 Additional Manipulation Check Analyses

Table M1

Gender Differences in Transformational Leadership Ratings for Subgroup 'A'

Source	*F*	*df*	*p*	Partial η^2
Condition	.96	3	.41	.02
Participant gender	1.40	1	.24	.01
Condition x Participant gender	.79	3	.50	.02
Error	(.58)	125		

Notes. N = 133. Subgroup A contained only the participants who answered all of the manipulation questions correctly. Values reported in parentheses are mean-square error values.

Table M2

Gender Differences in Transformational Leadership Ratings for Subgroup 'B'

Source	*F*	*df*	*p*	Partial η^2
Condition	.32	3	.81	.01
Participant gender	6.17	1	.01	.03
Condition x Participant gender	.15	3	.93	.00
Error	(.59)	209		

Notes. N = 218. Subgroup B contained only the participants who answered most of the manipulation questions correctly. Values reported in parentheses are mean-square error values.

Appendix N

Study 2 Vignette-Specific Responses

Table N1

Gender Differences in Satisfaction with Sender by Target Gender and Status

Sources	*F*	*df*	*p*	Partial η^2
Target gender	.95	1	.33	.00
Status	1.21	1	.27	.00
Participant gender	.05	1	.83	.00
Target gender x Status	.13	1	.72	.00
Target gender x Participant gender	.80	1	.37	.00
Status x Participant gender	2.07	1	.15	.01
Target gender x Status x Participant gender	.02	1	.90	.00
Error	(.68)	334		

Note. Values reported in parentheses are mean-square error values.

Table N2

Gender Differences in Trust by Target Gender and Status

Source	*F*	*df*	*p*	Partial η^2
Target gender	.70	1	.40	.00
Status	1.71	1	.19	.01
Participant gender	3.70	1	.06	.01
Target gender x Status	.12	1	.73	.00
Target gender x Participant gender	1.00	1	.32	.00
Status x Participant gender	.60	1	.44	.00
Target gender x Status x Participant gender	.06	1	.81	.00
Error	(.68)	334		

Note. Values reported in parentheses are mean-square error values.

Table N3

Gender Differences in Belief by Target Gender and Status

Source	*F*	*df*	*p*	Partial η^2
Target gender	1.01	1	.32	.00
Status	2.27	1	.13	.01
Participant gender	12.55	1	<.001	.04
Target gender x Status	1.15	1	.28	.00
Target gender x Participant gender	1.39	1	.24	.00
Status x Participant gender	.05	1	.82	.00
Target gender x Status x Participant gender	.37	1	.55	.00
Error	(1.87)	332		

Note. Values reported in parentheses are mean-square error values.

Table N4

Gender Differences in Effort by Target Gender and Status

Source	*F*	*df*	*p*	Partial η^2
Target gender	.82	1	.37	.00
Status	.84	1	.36	.00
Participant gender	10.57	1	.001	.03
Target gender x Status	.82	1	.37	.00
Target gender x Participant gender	.63	1	.43	.00
Status x Participant gender	.75	1	.39	.00
Target gender x Status x Participant gender	1.04	1	.31	.00
Error	(1.50)	334		

Note. Values reported in parentheses are mean-square error values.

Table N5

Gender Differences in Motivation by Target Gender and Status

Source	*F*	*df*	*p*	Partial η^2
Target gender	1.26	1	.26	.00
Status	.08	1	.78	.00
Participant gender	8.78	1	.003	.03
Target gender x Status	2.34	1	.13	.01
Target gender x Participant gender	.26	1	.61	.00
Status x Participant gender	.69	1	.41	.00
Target gender x Status x Participant gender	.00	1	.97	.00
Error	(1.51)	334		

Note. Values reported in parentheses are mean-square error values.

Table N6

Gender Differences in Optimism by Target Gender and Status

Source	*F*	*df*	*p*	Partial η^2
Target gender	.01	1	.94	.00
Status	1.49	1	.22	.00
Participant gender	5.65	1	.02	.02
Target gender x Status	.16	1	.69	.00
Target gender x Participant gender	.47	1	.49	.00
Status x Participant gender	.60	1	.44	.00
Target gender x Status x Participant gender	.72	1	.40	.00
Error	(1.48)	333		

Note. Values reported in parentheses are mean-square error values.

Table N7

Gender Differences in Expected Task Completion by Target Gender and Status

Sources	*F*	*df*	*p*	Partial η^2
Target gender	1.55	1	.22	.01
Status	.03	1	.86	.00
Participant gender	16.28	1	<.001	.05
Target gender x Status	1.30	1	.26	.00
Target gender x Participant gender	.24	1	.62	.00
Status x Participant gender	.32	1	.57	.00
Target gender x Status x Participant gender	.60	1	.44	.00
Error	(1.28)	334		

Note. Values reported in parentheses are mean-square error values.