The Asian-White Leadership Gap:
Interpersonal and Intrapersonal Explanations Based on Leader and Follower Stereotypes

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Abstract

Despite demonstrating high levels of academic and professional competence, Asians are underrepresented in North American organizational leadership roles. The limited research on this issue has found that Asian Americans are perceived by others, and by themselves, as poorer leaders than White Americans; however, the reasons underlying these perceptions are poorly understood. As a result, in my research, I examine the mechanisms that may contribute to this Asian-White leadership gap, both from an interpersonal (Essay 1) and intrapersonal (Essay 2) perspective. Namely, I argue that both other- and self-perceptions that Asians are less suited for leadership roles than Whites may be due to a perceived mismatch between traits underlying Asian stereotypes (e.g., compliant) and traits commonly associated with leaders (e.g., assertive), *as well as* a perceived match between stereotypes surrounding Asians' industry and the traits of an ideal follower (e.g., hardworking). In Essay 1, across four experiments, I find some unexpected evidence for an Asian leadership advantage, rather than a disadvantage, that is driven by perceptions by others that Asian Americans are more industrious and dutiful than White Americans (i.e., the traits of an ideal *follower*). At the same time, two field studies in Essay 2 revealed a weaker desire among Asians for leadership roles than Whites, which was driven by Asians perceiving themselves as more conforming, in line with Asian stereotypes, and *less* intelligent and *more* incompetent, counter to Asian stereotypes, than Whites. Overall, this research further substantiates the paradox behind the underrepresentation of Asians in North American organizational leadership roles and uncovers additional complexities to this issue that warrants greater future examination.

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CHAPTER 1: INTRODUCTION

Despite the North American workplace growing increasingly racially diverse (Catalyst, 2019; Wilson, 2016), racial minorities continue to be under-represented in organizational leadership roles (Catalyst, 2019; DiversityInc Staff, 2012). Among under-represented groups are Asian Americans,[1] who despite being perceived as a "model minority"—a hardworking and dutiful group demonstrating high-levels of academic and professional success (Chao, Chiu, Chan, Mendoza-Denton, & Kwok, 2013)—also face significant barriers in advancing to leadership or managerial roles (Hyun, 2005). Indeed, Asian Americans are the most educated racial group in North America (Pew Research Center, 2013; Statistics Canada, 2016) and are over-represented in well-paying industries, such as the technology sector (Bureau of Labor Statistics, 2019). However, despite these achievements, Asian Americans only represent 3% of Fortune 500 corporate officers, compared to 13% of the professional workforce, and 16% of managers in the technology sector, compared to 23% of professionals in that industry (Bureau of Labor Statistics, 2019; McGirt, 2019).

To understand the under-representation of Asian Americans in leadership roles, emerging evidence has begun pointing to the interpersonal and intrapersonal factors that may contribute to this problem. With regards to interpersonal factors, past research found that others perceive Asian Americans as poorer leaders than White Americans due to stereotypes that Asian Americans lack the agentic qualities considered essential for leadership in a North American context (e.g., Festekjian, Tram, Murray, Sy, & Huynh, 2014; Lai & Babcock, 2013; Landau, 1995; Sy et al., 2010). With regards to intrapersonal factors, initial evidence suggests that Asian Americans themselves may be less interested and confident in becoming leaders compared to

[1] Note that I use "Asian Americans" in this dissertation to refer to East and Southeast Asian Americans (e.g., Chinese, Korean, Filipino, and Vietnamese) in both Canada and the U.S. (i.e., North America).

White Americans (Bhagat, 2015; Festekjian et al., 2014; Kuo, 2008; Rosch, Collier, & Thompson, 2015). In the present work, I aim to advance these budding avenues interrogating the Asian-White leadership gap by unpacking *mechanisms* that may contribute to these poorer interpersonal and intrapersonal leadership perceptions of Asian Americans relative to the majority group. Namely, I present my investigation across two essays, with Essay 1 examining additional mechanisms underlying *other*-perceptions of Asian Americans' poorer suitability for leadership roles compared to White Americans and Essay 2 uncovering potential mechanisms underlying Asians' poorer *self*-perceptions of suitability for leadership roles relative to Whites.

In both Essay 1 and Essay 2, I use two complementary theories to elucidate these potential mechanisms: Implicit Leadership Theories (Epitropaki & Martin, 2004) and Implicit Followership Theories (Sy, 2010). Specifically, I argue that commonly held stereotypes about Asian Americans, e.g., competent and compliant (Berdahl & Min, 2012), create perceptions that Asian Americans are a poorer fit with the traits of an ideal leader (e.g., agentic and dynamic; Eagly & Karau, 2002), but a better fit with the traits of an ideal follower (i.e., hardworking and dutiful; Agho, 2009; Junker, Stegmann, Braun, & van Dick, 2016) than White Americans. In other words, being perceived as a better fit with an ideal follower prototype may pigeonhole Asians as followers because others may perceive them as excelling in such roles. As a result, overall, the poorer perception of Asians as leaders in North America, both by others and by Asians themselves, may be driven by stereotypes that Asians lack the agentic qualities of an ideal leader *and* posses the hardworking and dutiful traits of an ideal follower relative to White Americans.

Together, Essay 1 and 2 reveal that the barriers to leadership for Asians are complex and not straightforward. Foreshadowing some of my unexpected results, I found that Asians do not

always appear to be disadvantaged when seeking leadership roles and that their views of their own strengths and weaknesses on leader- and follower-related traits do not necessarily conform to common stereotypes about their racial group. Thus, although this work sheds additional light on Asians' path when navigating one's career or climbing the corporate ladder, it also raises many additional questions to be pursued in future research.

CHAPTER 2: GRANTING LEADERSHIP TO ASIAN AMERICANS: THE EFFECT OF FIT WITH LEADER AND FOLLOWER TRAITS ON LEADERSHIP PERCEPTIONS (ESSAY 1)

As the modern North American workforce becomes more diverse (Catalyst, 2019; Wilson, 2016), there is a growing call for correspondingly greater racial diversity at the upper echelons of organizations (Alliance for Board Diversity & Deloitte, 2019). In fact, research has found that organizations whose leadership team's ethnic composition mirrors that of its employees tend to perform better and have reduced interpersonal mistreatment among workers (Erhardt, Werbel, & Shrader, 2003; Lindsey, Avery, Dawson, & King, 2017; Miller & Triana, 2009). However, in trying to improve racial representation in these critical leadership roles, one racial minority group remains curiously under-examined relative to others: Asians or Asian Americans. Both in research and practice, important advances have been made toward understanding the leadership challenges faced by other racial minority groups, such as African Americans (e.g., Carton & Rosette, 2011; Linshi, 2014), but relatively little is known about the barriers faced by Asian Americans in their advancement to organizational leadership roles.

The emerging, but limited, research on this topic has found that Asian Americans are perceived by others as poorer leaders than White Americans (e.g., Festekjian et al., 2014; Lai & Babcock, 2013; Landau, 1995; Rosette, Leonardelli, & Phillips, 2008; Sy et al., 2010). Sy et al. (2010) found that weaker perceptions of Asian Americans as leaders may be due to stereotypes that, despite appearing highly competent, Asian Americans lack the assertiveness and extraversion valued for leadership in the West (Eagly & Karau, 2002; Kono, Ehrhart, Ehrhart, & Schultze, 2012). In addition to perceptions of Asian Americans' poorer fit with the traits of an ideal leader, I argue that stereotypes of Asian Americans' hardworking nature and dutifulness

(Berdahl & Min, 2012; Ho & Jackson, 2001) may also create perceptions that they are a good fit with the traits of an ideal *follower*. As leadership and followership are traditionally, albeit perhaps inaccurately, viewed as mutually exclusive roles (Kelley, 1988; Shamir, 2007),[2] Asian Americans being perceived as fitting the traits of an ideal follower may lead them to be categorized as followers to the exclusion of being seen as leaders.

Therefore, in the present paper, I examine whether the poorer fit with the traits of an ideal leader and the better fit with the traits of an ideal follower will *each* explain the Asian-White leadership gap. I test my predictions by first examining whether Asian Americans are perceived as a poorer fit with the ideal leader prototype and better fit with the ideal follower prototype compared to White Americans (Study 1). I then examine whether perceptions of better and poorer fit with the characteristics of an ideal follower and ideal leader, respectively, each contribute to the poorer leadership perceptions of Asian Americans (Studies 2 & 3). For exploratory purposes, I also examine whether Asian Americans who appear native to North America (i.e., "Asian Americans") and Asian Americans who appear native to Asia (i.e., "Foreign Asians") are perceived differently on leadership and followership characteristics. Finally, I test the robustness of my findings by having participants explicitly choose between an Asian and White employee to promote to a leadership role (Study 4).

The current research makes several contributions to the literature. First, this research helps advance our understanding of the barriers Asian Americans may face in their advancement

[2] In fact, research shows that followership and leadership are not mutually exclusive roles. Traits that are typically associated with leaders and followers include several overlapping characteristics, such as hardworking, educated, and energetic/excited (see Implicit Leadership Theories and Implicit Followership Theories described further below). Additionally, team performance may be optimal when both leaders and followers enact leadership and followership behaviours (e.g., Agho, 2009; Baker, Mathis, & Stites-Doe, 2011; Taggar, Hackew, & Saha, 1999; Uhl-Bien, Riggio, Lowe, & Carsten, 2014). However, my research focuses on *stereotypical* views of leadership and followership, which typically entails a perception that the two roles are mutually exclusive, and even antagonistic to one another, as evident from mainstream culture's glamorization of leaders and deprecation of followers (e.g., Hoption, Christie, & Barling, 2012; Kelley, 1988; Meindl, Ehrlich, & Dukerich, 1985).

toward leadership roles, an under-examined issue in the research literature. In recent years, scholars have highlighted the need to better understand the leadership experiences of Asian Americans as they face a paradox in their career advancement, where despite being highly qualified, they have low managerial success (Hewlett, Rashid, Forster, & Ho, 2011). In fact, the term "bamboo ceiling" was coined to highlight the uniqueness of the invisible barriers that Asian Americans face in moving upward in organizations (Hyun, 2005).

Second, I investigate the impact of matching perceived follower traits on leadership processes. There have been increasing calls to examine the role of followership in leadership outcomes, especially given the inherent need for leaders to have followers in order to lead (Uhl-Bien, Riggio, Lowe, & Carsten, 2014). Despite recognition that followership and leadership play complementary roles, little is known empirically about how followership and leadership concepts work together to influence leadership perceptions.

Finally, I examine potential differences in others' perceptions of Asian Americans and Foreign Asians in the leadership context, a comparison which warrants greater attention given the increasing number of Asians immigrating to North America (López, Ruiz, & Patten, 2017). Prior research often cued that a worker was Asian by using either Asian or American first names (e.g., Ming or Alex, respectively) and traditionally East Asian last names (e.g., Chen). However, research suggests that these different types of names are likely to generate different reactions and biases, as the American(-ized) first name may signal greater acculturation to American culture than the Asian first name (Kang, DeCelles, Tilcsik, & Jun, 2016).

The Asian-White Leadership Gap

Asian Americans' standing as the most educated racial group in North America (even eclipsing White Americans; Pew Research Center, 2013; Statistics Canada, 2016) may signal

that they should face no challenge in attaining career success. Indeed, Asian Americans have a longstanding reputation as a "model minority" (Chao et al., 2013; Pattersen, 1966), a group who, despite their racial minority status, have shown impressive levels of competence and success in academic and professional settings (Ho & Jackson, 2001). As a result, Asian Americans are generally assumed to be well-equipped to achieve successful careers in lucrative, prestigious occupations (e.g., doctors and engineers; Chao et al., 2013).

However, when examining Asian Americans' career *advancement* to leadership roles, there is reason to believe they may be facing barriers, in line with other racial minority groups. For instance, although constituting approximately 13% of the U.S. professional workforce, Asian Americans only represent 3% of Fortune 500 corporate officers in 2019 (McGirt, 2019). Even in industries where Asian Americans are over-represented, such as technology, their representation declines from 23% to 16% from the professional to the managerial level (Bureau of Labor Statistics, 2019). With East Asians being among the fastest growing racial group in the U.S. (López et al., 2017), a better understanding of the leadership obstacles they may face is becoming increasingly crucial.

In fact, the limited, existing research investigating the lack of Asian representation in organizational leadership roles demonstrates an Asian-White leadership gap. Specifically, compared to White Americans, Asian Americans are perceived as less effective leaders, as having less leadership potential, and are less likely to be selected for leadership roles (e.g., Festekjian et al., 2014; Galinsky, Hall, & Cuddy, 2013; Lai & Babcock, 2013; Landau, 1995; Sy et al., 2010). White Americans are typically the comparison group used as they are viewed as the leadership "standard" (Rosette et al., 2008). Therefore, I make the following prediction:

Hypothesis 1: Asian Americans will be perceived as poorer leaders than White Americans.

Leader Stereotypes of Asian Americans

Research has found that individuals have cognitive representations of the traits and behaviors they typically associated with leaders (Lord, Foti, & Phillips, 1982). Although individuals vary in the extent to which they endorse certain traits as leader-like, the traits most commonly associated with leaders are: sensitivity, intelligence, dedication, dynamism, tyranny, and masculinity, i.e., Implicit Leadership Theories (Epitropaki & Martin, 2004; Offermann & Coats, 2018). According to leadership categorization theory, the more an individual matches the traits viewed as prototypical of a leader in an observer's mind, the more likely they will be categorized as a leader than a non-leader and be perceived as an effective leader (e.g., Lord, Foti, & de Vader, 1984; Lord et al., 1982; Lord & Maher, 1991).

Different types of leader prototypes may become activated depending on the race of the target (Lord, Brown, Harvey, & Hall, 2001; Sy et al., 2010). Indeed, Sy et al. (2010) found that race can activate different leader prototypes due to stereotypes associated with the race in question. Specifically, Sy and colleagues found that Asian Americans, who are stereotyped as highly competent but unassertive (Berdahl & Min, 2012; Fiske, Cuddy, Glick, & Xu, 2002; Lai & Babcock, 2013), are more likely to activate the traits of intelligence and dedication, forming a "competent leader" prototype, than White Americans. They are also less likely to activate the traits of dynamism, tyranny, and masculinity, forming an "agentic leader" prototype, than White Americans. Indeed, these leader prototypes are commonly found in Western mainstream culture. For example, Bill Gates, founder of Microsoft, fits the competent leader prototype, and John F. Kennedy, 35th president of the United States of America, fits the agentic leader prototype.

Although past research examining agency typically conflates or includes both dominance- and competence-related traits (e.g., assertiveness and intelligence, respectively), there is some evidence suggesting that dominance and competence may be *distinct* dimensions of agency (see Rosette, Koval, Ma, & Livingston, 2016). Indeed, different trends may emerge when examining these two traits separately. For example, Eagly et al. (2019) found that stereotypes about women's lower competence than men have decreased over time whereas stereotypes about women's lower agency (i.e., dominance) than men have not. As Asians are stereotyped differently on competence and dominance (i.e., highly competent yet non-dominant), I argue that a differentiation between these two content areas, in the forms of a competent and an agentic leader prototype, may also be valuable in the context of my study. Thus, I predict the following:

> *Hypothesis 2a*: Asian Americans will be perceived as more poorly fitting the traits of an agentic leader prototype (i.e., dynamism, tyranny, and masculinity) than White Americans.
>
> *Hypothesis 2b*: Asian Americans will be perceived as better fitting the traits of a competent leader prototype (i.e., intelligence and dedication) than White Americans.

Follower Stereotypes of Asian Americans

In addition to leader stereotypes of Asian Americans, I argue that *follower stereotypes* of Asian Americans will exert independent effects on the Asian-White leadership gap. Prior research has found that the traits most commonly associated with followers are industry, good citizen, enthusiasm, conformity, insubordination, and incompetence, i.e., Implicit Followership Theories (Sy, 2010). In the same vein as leader prototypes, I postulate that a person's race may activate specific follower traits or prototypes. Specifically, I theorize that two follower prototypes may be most relevant for Asian Americans compared to White Americans. First, as

Asian Americans are typically stereotyped as diligent, hardworking, and quiet (Chao et al., 2013), Asian Americans may more strongly activate among observers the follower traits of industry and good citizenship, together forming a "dutiful follower" prototype, than White Americans. Second, because Asian Americans are also often stereotyped as cold and antisocial, but highly competent (Lin, Kwan, Cheung, & Fiske, 2005), they may be less likely to activate the traits of enthusiasm and incompetence, or a "cheerleader follower" prototype, compared to White Americans.

These prototypes are also commonly observed in Western mainstream culture. For example, Smithers from the television show, The Simpsons, depicts a prototypical dutiful follower as he goes above and beyond for his boss, Mr. Burns, whom he is deeply committed to. In contrast, Erin from the television show, The Office, depicts a prototypical cheerleader follower, as she is a goofy and enthusiastic, but not a particularly effective secretary for her boss Michael Scott. I therefore hypothesize the following:

Hypothesis 3a: Asian Americans will be perceived as better fitting the traits of a dutiful follower prototype (i.e., industry and good citizen) than White Americans.

Hypothesis 3b: Asian Americans will be perceived as more poorly fitting the traits of a cheerleader follower prototype (i.e., enthusiasm and incompetence) than White Americans.

Impact of Leader and Follower Stereotypes of Asian Americans on Leadership Perceptions

The agentic and competent leader prototypes are both important for effective leadership (Festekjian et al., 2014; Sy et al., 2010). Indeed, meta-analyses show that competence-related traits, such as intelligence, and agency-related traits, such as extraversion, predict leadership effectiveness and emergence (e.g., Judge, Bono, Ilies, & Gerhardt, 2002; Lord, de Vader, &

Alliger, 1986). However, relatively speaking, agency appears to be *viewed* as, or believed to be, more critical for leadership perceptions than competence in North America based on people's lay conceptions of leadership (e.g., Kono et al., 2012). As a result, Asian Americans, compared to White Americans, may be perceived as less effective or promising leaders due to their generally poorer fit with the agentic leader prototype, despite demonstrating a strong fit with an alternative, competent leader prototype. I therefore hypothesize the following:

Hypothesis 4a: The traits of the agentic leader prototype (i.e., dynamism, tyranny, and masculinity) will be positively related to leadership perceptions.

Hypothesis 4b: The traits of the competent leader prototype (i.e., intelligence and dedication) will be positively related to leadership perceptions.

*Hypothesis 4*c: The traits of the agentic leader prototype will be more strongly related to leadership perceptions than the traits of the competent leader prototype.

As previously mentioned, I theorize that fit with follower prototypes may also exert their own distinct impact on Asian Americans' leadership outcomes. Effective followers are described as loyal team-players who follow through on tasks (e.g., Agho, 2009; Junker et al., 2016); in other words, the dutiful follower prototype may represent the ideal follower. However, despite being a desirable follower prototype, being perceived as a dutiful follower may have negative implications on perceptions of one's suitability for *leadership* roles. First, individuals who activate the dutiful follower prototype, such as Asian Americans, may be pigeonholed in subordinate or non-managerial roles. For example, people may prefer to manage or supervise Asian Americans if, as a group, they are viewed to be hardworking and dependable. In other words, there may be little need to consider other higher-level roles for Asian Americans if they appear to be thriving in the lower-level roles they currently occupy.

Second, studies show that majority group members, i.e., White Americans, may envy Asian Americans due to perceptions that Asians are *too* competent (Ho & Jackson, 2001; Lin et al., 2005). Therefore, majority group members, who benefit from the current social hierarchy, may be motivated to keep Asian Americans from positions of power (Sidanius & Pratto, 2001; Sy, Tram-Quon, & Leung, 2017). Accordingly, claiming that Asian Americans are excellent or ideal, dutiful followers that are needed in their current subordinate roles may provide a covert means of keeping Asian Americans from higher, leadership positions (e.g., claims that Asians are "great workers, but not leaders"; Sy et al., 2017). As a result, being perceived as a fit with the traits of the ideal follower prototype (i.e., industrious and a good citizen) may decrease perceptions held by others about Asian Americans' effectiveness as a leader. Thus, I hypothesize the following:

Hypothesis 5a: The traits of the dutiful follower prototype (i.e., industry and good citizen) will be negatively related to leadership perceptions.

In contrast, a cheerleader follower prototype may tend to be activated by new, or less experienced, workers eager to grow and establish themselves in their organizations. Superiors may therefore view such followers as easier to groom toward leadership roles within the organization than established workers (Chauhan, 2014; Krumrie, 2016; Rynes, Orlitzky, & Bretz, 1997). Because Asian Americans may be viewed as more "experienced" than White Americans due to their high educational credentials and perceptions of their (overly high) competence, Asian Americans may be perceived as a poorer fit with the cheerleader follower prototype than White Americans, thereby potentially leading to Asians receiving less mentoring from superiors. Additionally, the cheerleader follower prototype has elements that overlap with the agentic traits valued in leadership (e.g., similarities between enthusiasm and dynamism, traits that Asian

Americans are perceived as lacking). As a result, Asian Americans may be perceived as having less leadership "potential" than White Americans, which is a subjective evaluation that can be influenced by stereotypes (Finkelstein, Costanza, & Goodwin, 2018). I therefore hypothesize the following:

> *Hypothesis 5b*: The traits of the cheerleader follower prototype (i.e., enthusiasm and incompetence) will be positively related to leadership perceptions.

Altogether, compared to White Americans, Asian Americans may be perceived as less effective or promising leaders due to each of the following: Asian Americans' poorer fit with the agentic leader prototype, better fit with the competent leader prototype, better fit with the dutiful follower prototype, and poorer fit with the cheerleader follower prototype. I therefore hypothesize the following:

> *Hypothesis 6:* The relationship between race and leadership perceptions will be simultaneously mediated by prototypical leader and follower traits. In other words, compared to White Americans, Asian Americans will be perceived as poorer leaders because they will be rated (a) lower on dynamism, tyranny, and masculinity (i.e., agentic leader prototype), (b) higher on intelligence and dedication (i.e., the competent leader prototype), (c) higher on industry and good citizen (i.e., dutiful follower prototype), and/or (d) lower on enthusiasm and incompetence (i.e., cheerleader follower prototype).

Study 1: Leader and Follower Stereotypes

As a first step, I aimed to find initial support for my predicted leader stereotypes (*Hypothesis 2a & 2b)* and follower stereotypes *(Hypothesis 3a* & *3b*) about Asian Americans. Additionally, given that stereotypes of Asian Americans differ from those of other racial minority groups (e.g., Blacks and Hispanics), as well as the racial majority group (i.e., White

Americans), I sought to examine whether these leader and follower stereotypes are unique to Asian Americans.

Method

Participants. Participants living in the United States were recruited from Amazon's Mechanical Turk (MTurk), a crowdsourcing web service (Buhrmester, Kwang, & Gosling, 2011). My sample consisted of 222 participants, with 103 (46%) females, 117 (53%) males, and 2 unspecified (1%). Among my participants, 177 (75%) self-identified as White, 21 (9%) as Black, 16 (7%) as Hispanic or Latino, 15 (7%) as East Asian, and 3 (2%) as another or more than one ethnicity. The mean age of participants was 37 years (*SD* = 11). On average, participants had 16.18 years (*SD* = 10.41) of work experience, and 62% of participants had managerial experience.

Procedure. A between-participant design was used where each participant was randomly assigned to rate one of four target racial groups: White Americans (*n* = 51), Asian Americans (*n* = 54), Black Americans (*n* = 59), or Hispanic Americans (*n* = 58). Participants rated members of their assigned target racial group on measures of leader traits and follower traits, then completed demographic questions. The order of the leader and follower traits measures were randomized to reduce potential order effects.

Measures.

Leader traits. Epitropaki and Martin's (2004) Implicit Leadership Theories (ILT) scale was used to assess traits commonly associated with leaders. Participants rated how characteristic each trait was of their randomly assigned racial group on a nine-point Likert scale (1 = *not at all characteristic*; 9 = *extremely characteristic*). The 21-item scale assessed six different dimensions: sensitivity (*a* = .94; *understanding*, *sincere*, *helpful*), intelligence (*a* = .94;

intelligent, knowledgeable, educated, clever), dedication (*a* = .95; *dedicated, motivated, hard-working*), dynamism (*a* = .91; *energetic, strong, dynamic*), tyranny (*a* = .91; *domineering, pushy, manipulative, loud, selfish, conceited*), and masculinity (*a* = .87; *masculine, male*). See Appendix A for ILT measure and instructions.

Follower traits. Sy's (2010) Implicit Followership Theories (IFT) scale was used to assess traits commonly associated with followers. Participants rated how characteristic each trait was of their randomly assigned racial group on a nine-point Likert scale (1 = *not at all characteristic*; 9 = *extremely characteristic*). The 18-item scale assessed six different dimensions: industry (*a* = .95; *hardworking, productive, goes above and beyond*), enthusiasm (*a* = .91; *excited, outgoing, happy*), good citizen (*a* = .86; *loyal, reliable, team player*), conformity (*a* = .43; *easily influenced, follows trends, soft spoken*), insubordination (*a* = .91; *arrogant, rude, bad tempered*), and incompetence (*a* = .90; *uneducated, slow, inexperienced*). See Appendix A for IFT measure and instructions.

Covariates. All analyses controlled for participant race (1 = majority group, 0 = minority group), as stereotype-based perceptions of Asian Americans may be more pronounced among majority (vs. minority) group members as way to maintain social hierarchy (Sidanius & Pratto, 2001). Majority or White (minority; e.g., Black, Hispanic, Asian and others) racial group members consists of individuals whose race represents the majority (minority) of the population's racial demographic composition (U.S. Census Bureau, 2018b).[3]

[3] Removing participant race as a covariate did not change the overall pattern of results. Participant race also did not interact with race of target racial group to predict ILT and IFT ratings. Participant sex and age also generally did not interact with race of target racial group, except to predict the follower trait of incompetence and the leader trait of tyranny, respectively. Specifically, only male participants viewed Blacks as more incompetent than Whites and only female participants viewed Whites are more incompetent than Asians. Additionally, the effect of target racial group on tyranny, as described in the results below, was specific to older participants, i.e., those at the mean age of the sample (37 years old) and one standard deviation above the mean (49 years old). Thus, results generally indicate that participant demographic characteristics did not affect perceptions of fit with leader and follower prototypes for different target racial groups.

Results

Factor structure of prototypes. Before testing my hypotheses regarding the effect of race, I first examined whether Sy et al.'s (2010) leader prototypes and my proposed follower prototypes were activated in the context of my study using confirmatory factor analysis. Specifically, I tested a second-order two-factor model for leader prototypes, where ILT items loaded onto their respective leader traits (e.g., the items "intelligent", "knowledgeable", and "clever" loaded onto the leader trait of intelligence), and leader traits loaded onto their respective leader prototypes (e.g., intelligence and dedication loaded onto the competent leader prototype). Similarly, I also tested a second-order two-factor model for follower prototypes, where IFT items loaded onto their respective follower traits, and follower traits loaded onto their respective follower prototypes.

Unfortunately, my results did not provide strong support for the activation of the theorized prototypes (leader prototypes: $\chi^2(129) = 273.63$, $p < .001$; $\chi^2/df = 2.12$; CFI = .93; RMSEA = .103, 90% CI [.086, .120]; follower prototypes: $\chi^2(49) = 142.44$, $p < .001$; $\chi^2/df = 2.91$; CFI = .93; RMSEA = .135, 90% CI [.109, .161]). The RMSEA values were above the recommended cut-off values for acceptable model fit (i.e., 0.1; Browne & Cudeck, 1992), and the form of the prototypes was not supported. Specifically, for the agentic leader prototype, I expected dynamism, tyranny, and masculinity to load *positively* onto a higher-order "agentic leader prototype" factor, but dynamism loaded negatively onto this factor (*beta* = -.76). Similarly, for the cheerleader follower prototype, I predicted that enthusiasm and incompetence would load positively onto a higher-order factor. I instead found that enthusiasm had a negative loading (*beta* = -.67) and incompetence had a positive loading (*beta* = .50), forming a possible "slacker follower" prototype (i.e., a detached and ineffectual follower).

Given problems with both leader and follower prototypes, suggesting that the various traits did not cluster into my theorized "images" in the minds of participants, I decided to examine the ILT and IFT traits individually rather than as prototypes in my analyses. Prior to Sy and colleagues' more recent research, this has been the dominant approach used in the literature (e.g., House, Hanges, Javidan, Dorfman, & Gupta, 2004; Johnson, Murphy, Zewdie, & Reichard, 2008). Further, to be comprehensive, I opted to include *all* ILT and IFT traits in my analyses, rather than only the traits related to my original proposed leader and follower prototypes.[4]

Racial group differences in leader stereotypes. Means and correlations of leader and follower traits are presented in Table 1. ANCOVA omnibus *F*-tests were significant for all leader traits except dynamism, $F(3, 217) = 1.59$, $p = .192$ (see Table 2). *Hypothesis 2a* predicted that Asian Americans would be viewed as less dynamic, tyrannical, and masculine than White Americans. Results from Bonferroni-adjusted post-hoc analyses provided partial support for this hypothesis. Specifically, compared to White Americans, Asian Americans were rated lower on tyranny (Asian: $M = 3.89$, $SE = 0.22$; White: $M = 5.06$, $SE = 0.23$), $t(217) = -3.66$, $p = .002$, and masculinity (Asian: $M = 4.19$, $SE = 0.21$; White: $M = 5.43$, $SE = 0.22$), $t(217) = -4.09$, $p < .001$, but similarly on dynamism (Asian: $M = 6.62$, $SE = 0.22$, White: $M = 5.96$, $SE = 0.23$), $t(217) = 2.09$, $p = 0.23$. *Hypothesis 2b*, which predicted that Asian Americans would be viewed as more intelligent and dedicated than White Americans, was fully supported. That is, compared to White

[4] Due to the conceptual similarities and strong correlations between certain ILT and IFT traits (e.g., dedication and industry, $r = .85$), I conducted confirmatory factor analyses to verify whether the six ILT and six IFT traits were distinct. Specifically, I tested a first-order 12 factor model, where ILT and IFT items loaded onto their respective leader and follower trait dimensions. Results showed an acceptable model fit ($\chi^2(636) = 1771.93$, $p < .001$; $\chi^2/df = 2.79$; CFI = .88; RMSEA = .090, 90% CI [.085, .095]). A note that given the large number of parameters to be estimated in this model, and to increase power, I included data from all four racial group conditions (i.e., White, Asian, Black, and Hispanic Americans) in this analysis, rather than just the White and Asian American conditions, which were the focus of Study 1. However, testing the same factor model in Study 2 also showed acceptable model fit ($\chi^2(636) = 1894.22$, $p < .001$; $\chi^2/df = 2.98$; CFI = .91; RMSEA = .081, 90% CI [.077, .085]). Therefore, the six ILT and six IFT traits seem to be perceived as distinct in the minds of respondents despite some dimensions with strong conceptual overlap.

Americans, Asian Americans were rated higher on intelligence (Asian: $M = 7.44$, $SE = 0.22$; White: $M = 6.22$, $SE = 0.23$), $t(217) = 3.85$, $p < .001$, and dedication (Asian: $M = 7.34$, $SE = 0.24$; White: $M = 6.15$, $SE = 0.24$), $t(217) = 3.50$, $p = .003$.

Racial group differences in follower stereotypes. ANCOVA omnibus *F*-tests were significant for all follower traits, except enthusiasm, $F(3, 217) = 0.07$; $p = .978$ (see Table 2). *Hypothesis 3a* predicted that Asian Americans would be viewed as more industrious and a better citizen than White Americans. Results from Bonferroni-adjusted post-hoc analyses provided support for this hypothesis. Namely, compared to White Americans, Asian Americans were rated higher on industry (Asian: $M = 7.34$, $SE = 0.22$, White: $M = 6.17$, $SE = 0.23$), $t(217) = 3.62$, $p = .002$, and good citizen (Asian: $M = 7.13$, $SE = 0.23$, White: $M = 6.22$, $SE = 0.23$), $t(217) = 2.82$, $p = .032$. *Hypothesis 3b* predicted that Asian Americans would be viewed as less enthusiastic and incompetent than White Americans. This prediction was partially supported, whereby Asian Americans were rated lower on incompetence (Asian: $M = 2.77$, $SE = 0.22$, White: $M = 3.85$, $SE = 0.23$), $t(217) = -3.38$, $p = .005$, but similar on enthusiasm (Asian: $M = 6.09$, $SE = 0.22$, White: $M = 6.15$, $SE = 0.23$), $t(217) = -0.17$, $p = 1.00$, compared to White Americans. Although not predicted, I also found that Asian Americans ($M = 3.39$, $SE = 0.24$) were rated as less insubordinate than White Americans ($M = 4.91$, $SE = 0.25$), $t(217) = -4.37$, $p < .001$, which aligns with stereotypes about Asians lacking dominance (Berdahl & Min, 2012). To aid the reader in keeping track of the hypotheses tested in this and upcoming studies, a summary table of hypotheses and whether or not they were supported is presented in Table 11.

Supplemental analyses. Two other racial minority groups, Black Americans and Hispanic Americans, were included in this study for exploratory comparison purposes. Bonferroni-adjusted post-hoc comparisons revealed that, Asian Americans were rated

significantly *higher* on intelligence and good citizen and *lower* on incompetence and masculinity than Black Americans, Hispanic Americans, and White Americans (see Table 2 for means and mean differences). Asian Americans were also rated as more dedicated, less tyrannical, more industrious, and less insubordinate than White Americans and Black Americans. Asian Americans are therefore stereotyped on leader and follower traits in ways that differ from other racial minority, and racial majority, groups.

Discussion

Study 1 shows some evidence for my predicted leader and follower stereotypes of Asian Americans. Specifically, as hypothesized for leader traits, Asian Americans are perceived as highly intelligent and dedicated, and less tyrannical and masculine relative to White Americans, mostly replicating Sy et al.'s (2010) findings. Additionally, as expected for follower traits, Asian Americans are perceived as highly industrious and good citizens and less incompetent than White Americans, as well as less insubordinate. Overall, in line with Asian stereotypes, I find that Asian Americans are perceived as a good fit with achievement- and competence-related traits and a poor fit with agency-related traits in both leader and follower contexts. Surprisingly, no group differences were found for extraversion-related traits in leadership and followership, namely, dynamism and enthusiasm, respectively. This is despite past research showing that Asians are perceived as more interpersonally cold than White Americans (Lin et al., 2005).

Finally, the leader and follower stereotypes I found for Asian Americans appear to be unique to this group, which supports preliminary findings that Asian Americans are perceived differently from other minority groups (e.g., Butz & Yogeeswaran, 2011; Chao et al., 2013). I therefore found further justification for the need to examine the potentially unique leadership

challenges of Asian Americans on their own rather than more generally as a part of "racial minorities."

Study 2: Effect of Leader and Follower Stereotypes on Leadership Effectiveness

In Study 2, I examined the impact of Asian-White differences in leader and follower stereotypes on leadership effectiveness. Specifically, I first aimed to replicate Sy et al.'s (2010) findings that Asian American managers are perceived as less effective leaders than White American managers due to views that Asian Americans poorly fit the agentic traits of an ideal leader, i.e., dynamism, tyranny, and masculinity, despite fitting the traits of a competent leader, i.e., intelligence and dedication. Second, I sought to test my predictions that perceptions of Asian Americans' better fit with the dutiful traits of an ideal follower, i.e., industry and good citizen, and poorer fit with the traits of a cheerleader follower, i.e., enthusiasm and incompetence, than White Americans, would also exert their own distinct effects on the Asian-White leadership gap. Third, in addition to Asian American and White American conditions, I included a third group in this study, i.e., "Foreign Asians." Past research comparing perceptions of Asian Americans and White Americans have manipulated race by pairing Asian-sounding last names with, either, Asian-sounding first names, e.g., Tung-Sheng Wong (Galinsky et al., 2013; King, Mendoza, Madera, Hebl, & Knight, 2006; Sy et al., 2010), or American(-ized) first names, e.g., Alex Wong (Gündemir, Carton, & Homan, 2018; Lai & Babcock, 2013).

Using both types of first names to cue that the individual is Asian may falsely assume that "Tung-Sheng Wong" and "Alex Wong" are perceived similarly. On the one hand, all Asian Americans, no matter the type of first name, may be viewed by others as one, homogenous outgroup (Jones, Wood, & Quattrone, 1981), as evident from mainstream phrases such as "All Asians look the same" (Ong, Burrow, Fuller-Rowell, Ja, & Sue, 2013). On the other hand, a

recent study by Kang et al. (2016) suggests that Asians with "whitened" first names, such as "Luke Zhang" are judged differently from Asians with Asian first names, such as "Lei Zhang." Specifically, the authors found that "Luke Zhang" may be more likely to receive call-backs for a job interview than "Lei Zhang". This is presumably due to Americanized names signaling a greater assimilation to the mainstream majority group than more "foreign" sounding names, thereby reducing the activation of outgroup stereotypes associated with Asian Americans. As such I investigate the following research question:

Research Question 1: Do leader and follower stereotypes and perceptions of leadership ability differ between Asian Americans and Foreign Asians?

Method

Participants. Participants living in the United States were recruited from MTurk. Note that participants in each of my studies are distinct and non-overlapping. After removing those who failed the attention and manipulation checks (described further below), the final sample size was 304, with 126 (41%) females, 172 (57%) males, and 6 (2%) unspecified. Among my participants, 238 (79%) self-identified as White, 26 (9%) as Black, 13 (4%) as Hispanic or Latino, 19 (6%) as East Asian, and 5 (2%) as another or more than one ethnicity. The mean age of participants was 37 years (SD = 12). On average, participants had 17.82 years (SD = 12.12) of work experience, and 53% had managerial experience.

Procedure. A between-participant vignette design was used whereby each participant was randomly assigned to one of three conditions: White American (n = 109), Asian American (n = 85), or Foreign Asian (n = 110). Vignette designs are appropriate to examine my research questions as they provide mundane realism by describing a real-world scenario, but also allow researchers to manipulate the variables of interest (Aguinis & Bradley, 2014).

My study procedures draw on Sy et al.'s (2010) as I aimed to replicate their leadership-related findings. In each condition, participants read a vignette about a fictional manager from a U.S.-based organization (see vignette in Appendix B-Study 2). The manager was described in broad and neutral terms. Race was manipulated both by the manager's name (i.e., John Davis, David Wong, or Tung-Sheng Wong) and the description of his race (i.e., White American or Asian American). All managers depicted were male to hold constant any gender effects. Participants then rated the manager on leadership effectiveness as well as perceived standing on leader and follower traits. Measures of leader and follower traits were randomized to reduce potential order effects.

Measures. To ensure my measures accurately captured judgments of different groups, I used a "common rule" framing, as recommended by Biernat and Manis (1994). When making judgments about members of a group using subjective response scales, such as Likert scales, evaluators may shift their standards. For example, when asked how masculine David Wong is, evaluators may compare him to other Asian Americans rather than the average American, masking the impact of stereotypes. However, this shift in standards is less likely when using objective response formats, such as percentiles, which inherently involve judging a target relative to the population. Thus, in the current study, participants were specifically instructed to compare the target manager to a specific population (i.e., all U.S.-based managers) on a percentile scale (0-100%).

Leadership effectiveness. Like Sy et al. (2010), I used the Global Leadership Impression (GLI) scale (five items; a = .94; Cronshaw & Lord, 1987; Lord, 1977). Sample items include: "How typical is David Wong (Tung-Sheng Wong/John Davis) of a leader?" and "How well does

David Wong (Tung-Sheng Wong/John Davis) engage in leader behavior?" See Appendix C for the complete scale and instructions.

Leader and follower traits. The ILT scale (Epitropaki & Martin, 2004) was used to assess the target manager's standing on leader traits: sensitivity (a = .94), intelligence (a = .95), dedication (a = .96), dynamism (a = .93), tyranny (a = .93), and masculinity (a = .61). The IFT scale (Sy, 2010) was used to measure the target manager's standing on follower traits: industry (a = .92), good citizen (a = .93), enthusiasm (a = .91), conformity (a = .65), insubordination (a = .93), and incompetence (a = .90). See Appendix A for ILT and IFT scales and instructions.

Covariates. All analyses controlled for participant race (1 = majority, 0 = minority).[5]

Results

Means and correlations between perceived leadership effectiveness and standings on leader and follower traits are presented in Table 3.

Manipulation and attention checks. My manipulation checks were questions asking participants to recall the race and gender of the manager they evaluated. The use of manipulation checks are recommended as they provide greater confidence that the effects observed are due to the manipulation of the independent variables (Podsakoff & Podsakoff, 2019). I also included three attention check questions (e.g., "Please select 50%"), in line with best practice recommendations (Meade & Craig, 2012). Out of an initial sample of 489 participants, 51 (10%) failed to pass all three attention checks, 66 (13%) failed the gender manipulation check, and 142

[5] Removing participant race as a covariate did not change the overall pattern of results. Generally, participant race did not interact with target race to influence ratings, except for insubordination, whereby only racial minority participants viewed the Foreign Asian manager as more insubordinate than the Asian American manager. Participant age did not interact with the target's race. Sex generally did not interact with race of the target manager, except to predict the leader trait of masculinity. Specifically, only male participants viewed the White manager as more masculine than the Foreign Asian manager. Thus, my results generally indicate that participant demographic characteristics did not affect perceptions of fit with leader and follower traits and perceptions of leader effectiveness for different target racial groups.

(29%) failed the race manipulation check, leading to 182 (37%) participants who failed to pass all attention and manipulation checks. This led to a final sample of 304 participants.[6]

Effect of target race on leadership effectiveness. I predicted that Asian Americans would be perceived as less effective leaders than White Americans (*Hypothesis 1*). However, as shown in Table 4, the ANCOVA omnibus *F*-test for GLI was not significant, $F(2, 297) = 1.01$, $p = .367$, meaning leadership effectiveness ratings of the Asian American, White American, and Foreign Asian manager did not significantly differ. *Hypothesis 1* was therefore not supported.

Effect of target race on leader and follower traits. ANCOVA omnibus *F*-tests were only significant for the leader trait of intelligence, $F(2, 297) = 4.81$, $p = .009$ (see Table 4). Most hypotheses on the effect of race on leader and follower traits were therefore not supported, i.e., *Hypotheses 2a* (agentic leader traits), *3a* (dutiful follower traits), and *3b* (cheerleader follower traits). Partial support was found for *Hypothesis 2a* (competent leader traits), which predicted that Asian Americans would be viewed as more intelligent and dedicated than White Americans. Specifically, Bonferroni-adjusted post-hoc analyses indicated that the Asian American manager ($M = 74.25$, $SE = 1.83$) was rated as more intelligent than the White American manager ($M = 67.29$, $SE = 1.62$), $t(297) = 2.84$, $p = .014$. I also found that the Foreign Asian manager ($M = 72.85$, $SE = 1.60$) was rated as more intelligent than the White American manager ($M = 67.29$, $SE = 1.62$), $t(297) = 2.44$, $p = .045$, and was rated similarly to the Asian American manager ($M = 74.25$, $SE = 1.83$), $t(297) = -0.58$, $p = 1.00$, on this trait.

[6] The proportion of participants who failed to pass all attention and manipulation checks were unfortunately unequal across conditions. Specifically, the Asian American condition (47%) had significantly more check failures than the White American (33%) and Foreign Asian conditions (33%), $\chi^2(2) = 9.05$, $p = .011$. Nevertheless, including in my analyses participants who failed attention and manipulation checks did not change the pattern of results when comparing the Asian American with the White American conditions. Results did, however, change when comparing the Foreign Asian with the White American conditions, whereby both groups no longer significantly differed on intelligence.

Effect of leader and follower traits on leadership effectiveness. As a part of *Hypothesis 4b*, I predicted that intelligence would be positively related to leadership perceptions. As shown in Figure 1a-b, the prediction for intelligence was supported as intelligence positively predicted perceived leadership effectiveness, $b = 0.70$, $SE = 0.05$, $p < .001$.

Mediation by leader and follower traits. I predicted that Asian Americans would be rated as poorer leaders than White Americans due to the distinct effects of Asian-White differences in leader and follower stereotypes (*Hypothesis 6*). As there were no significant differences between the Asian and White manager on leadership effectiveness, *Hypothesis 6* was not supported. However, a lack of a total effect in a mediation model, i.e., the effect of race on leadership effectiveness, does not preclude one from examining indirect effects, i.e., indirect effects of race on leadership effectiveness via leader and follower traits (Hayes, 2018).

As such, I examined the indirect effect of race on leadership effectiveness via intelligence, as intelligence was the only trait exhibiting significant Asian-White differences. I used bias-corrected confidence intervals derived from bootstrapping 5,000 samples (Hayes, 2018; Rosseel, 2012) and dummy-coded race with the White American manager as the reference group (i.e., D1: White American = 0, Asian American = 1; D2: White American = 0, Foreign Asian = 1). As shown in Table 5, when comparing the Asian American and White American manager, I found a significant indirect effect via intelligence = 4.84, 95% CI [1.80, 8.23]. There was also a significant indirect effect via intelligence when comparing the Foreign Asian and White American manager, indirect effect = 3.87, 95% CI [0.63, 7.03]. Note that these indirect effects were opposite in sign with their corresponding direct effects (i.e., D1 direct effect: $b = -3.44$, $SE = 1.85$; D2 direct effect: $b = -5.97$, $SE = 1.68$; see Figure 1a and 1b, respectively), thereby explaining the lack of a significant total effect of race on leader effectiveness.

Discussion

The first purpose of this study was to replicate Sy et al.'s (2010) findings. Despite using a similar paradigm, my results were quite different. I did not replicate any of Sy and colleagues' leadership perception and leader stereotype findings, except for intelligence, where, as predicted, the Asian American manager was rated higher than the White American manager. Additionally, post-hoc analysis showed that this difference in intelligence was positively associated with leadership effectiveness, suggesting an Asian leadership advantage.

One difference between my and Sy et al.'s (2010) studies was that I modified my measures to a common-rule framing. However, conceptually, this should have *enhanced* my ability to detect stereotype-based judgements. I speculate one reason that my study and Sy and colleagues' study may have differed was due to context. Their participants were recruited from the Los Angeles area of California, which has a much higher concentration of Asians (15%) compared to the national prevalence (6%; U.S. Census Bureau, 2018a). In contrast, my sample was unlikely to have been localized to one region in the U.S. Thus, perhaps stereotypes about Asians were more salient among the Californian sample given the greater number of Asians in that area.

The second purpose of this study was to examine whether fit with certain follower prototypes contributes to the poorer perceptions of Asians as leaders than Whites. However, in the current study, Asian and White managers were not rated differently on follower-related traits. This may have occurred because the target being evaluated was already in a managerial or leadership position, thereby making follower traits less salient. I further examine this possibility in Study 3.

Finally, I sought to examine whether Asian managers with "American" or "foreign" first names may be evaluated differently. Generally, results showed that the Foreign Asian and Asian American managers were perceived similarly. Interestingly, I did not find that observers viewed the Foreign Asian manager as less American (M = 5.36, SE = 0.13) than the Asian American manager (M = 5.64, SE = 0.14), $t(297) = 1.45$, $p = .445$, although both were perceived as less American than the White American manager (M = 6.56, SE = 0.13), $t(297) = -6.76$, $p < .001$ and $t(297) = -4.84$, $p < .001$, respectively. This suggests that, from an observer's perspective, Asians, regardless of origins (or name), may be viewed as a relatively homogenous group.

Study 3: Effect of Leader and Follower Stereotypes on Leadership Potential

In Study 3, I attempt to ascertain whether I did not observe the predicted Asian-White leadership gap because the individual in the vignette already held a managerial role. In other words, participants may have assumed that the Asian manager possessed the traits and abilities of a leader that are necessary for this position, thereby leading to highly similar perceptions of the Asian American and White American managers. Additionally, I may not have observed group differences on follower traits because followership may have been less salient in a scenario where the target individual is already a manager. To test these possibilities, in Study 3, I move to a scenario where the individual being evaluated is in a subordinate or non-managerial role and is being considered for a promotion to a managerial or leadership role. Again, I include a Foreign Asian employee condition in this study to investigate whether the two Asian applicants are evaluated similarly or differently.

Method

Participants. Participants living in the United States were recruited from MTurk. After removing those who failed the attention and manipulation checks (described further below), the

final sample size was 292, with 150 (52%) females, 138 (47%) males, and 4 (1%) unspecified. Among participants, 206 (71%) self-identified as White, 31 (11%) as Black, 19 (7%) as Hispanic or Latino, 24 (8%) as East Asian, and 10 (3%) as another or more than one ethnicity. The mean age of participants was 36 years (*SD* = 11 years). On average, participants had 16.31 years (*SD* = 12.41 years) of work experience, and 55% had managerial experience.

Procedure. A between-participant experimental design was used whereby participants were randomly assigned to one of three conditions: White American (*n* = 103), Asian American (*n* = 100), or Foreign Asian (*n* = 89). Participants read a vignette about a fictional male employee and rated the employee on measures of leadership emergence and standing on leader and follower traits, the latter of which were randomized to reduce potential order effects. The vignette was adapted from Study 2 such that the employee's responsibilities were modified to describe a non-managerial role (e.g., preparing proposals and reports; see Appendix B-Study 3).

Measures. All measures used a common-rule framing (Biernat & Manis, 1994), and participants were asked to respond using a percentile scale (0-100%). In this study, I changed the referent group to other U.S.-based *employees* with the same level of work experience.

Leadership emergence. I used Mueller, Goncalo, and Kamdar's (2011) leadership potential measure (four items; *a* = .96). Sample items include: "has the potential to become an effective leader" and "has the potential to advance to a leadership position." See Appendix D for the complete scale and instructions.

Leader and follower traits. The ILT (Epitropaki & Martin, 2004) and IFT (Sy, 2010) scales were again used to assess standing on leader and follower traits, respectively. ILT dimensions were sensitivity (*a* = .93), intelligence (*a* = .93), dedication (*a* = .95), dynamism (*a* = .91), tyranny (*a* = .94), and masculinity (*a* = .53). IFT dimensions were industry (*a* = .94), good

citizen (a = .90), enthusiasm (a = .91), conformity (a = .67), insubordination (a = .93), and incompetence (a = .93). See Appendix A for the complete ILT and IFT scales and instructions.

Covariates. All analyses controlled for participant race (1 = majority, 0 = minority).[7]

Results

Means and correlations between leadership emergence and leader and follower traits are presented in Table 6.

Manipulation and attention checks. Again, race and gender manipulation checks and three attention checks were included, in line with best practice recommendations (Meade & Craig, 2012; Podsakoff & Podsakoff, 2019). Out of an initial sample of 415 participants, 64 (14%) failed to pass all three attention checks, 39 (9%) failed the gender manipulation check, and 77 (17%) failed the race manipulation check, leading to 121 participants (30%) who failed to pass all attention and manipulation checks. Their exclusion led to a final sample of 292 participants.[8]

Effect of target race on leadership emergence. *Hypothesis 1* predicted that Asian Americans will be perceived as poorer leaders than White Americans. ANCOVA omnibus F-tests showed that target employee race had a significant main effect on leadership potential, $F(2, 286) = 8.28$, $p < .001$ (see Table 7). However, Bonferroni-adjusted post-hoc comparisons showed that the Asian American employee (M = 70.53, SE = 1.83) was perceived as having *stronger* leadership potential than the White American employee (M = 60.98, SE = 1.79), $t(286) = 3.73$, p

[7] Removing participant race as a covariate did not change the overall pattern of results. Participant race, sex, and age also did not interact with target race to influence ratings. Thus, results indicate that participant demographic characteristics did not affect perceptions of fit with leader and follower prototypes, and perceptions of leader emergence, for different target racial groups.

[8] The proportion of participants who failed to pass all attention and manipulation checks were similar across conditions ($\chi^2(2) = 3.48$, $p = .175$). Furthermore, the inclusion of these participants in my analyses did not change the overall pattern of results, except for the addition of intelligence as another significant mediator in the indirect effect of race on leadership emergence.

< .001, failing to support *Hypothesis 1*. The Foreign Asian (*M* = 69.44, *SE* = 1.96) employee was also rated as having greater leadership potential than the White American employee (*M* = 60.98, *SE* = 1.79), *t*(286) = 8.47, *p* = .005, but was rated similarly (*M* = 69.44, *SE* = 1.96) to the Asian American employee (*M* = 70.53, *SE* = 1.83) on leadership potential, *t*(286) = 0.40, *p* = 1.00.

Effect of target race on leader and follower traits. For leader traits, race had a significant effect on all leader traits except dynamism, *F*(2, 285) = 2.21, *p* = .112 (see Table 7). Partially supporting *Hypothesis 2a* that Asian Americans will be perceived as less agentic leaders than White Americans, Bonferroni-corrected post-hoc results showed that the Asian American employee was rated as less tyrannical (Asian: *M* = 31.26, *SE* = 2.19; White: *M* = 47.20, *SE* = 2.16), *t*(285) = -5.18, *p* < .001, and less masculine (Asian: *M* = 71.59, *SE* = 1.70; White: *M* = 77.67, *SE* = 1.68), *t*(285) = -2.55, *p* = .034, than the White American employee. In full support of *Hypothesis 2b* that Asian Americans will be viewed as more competent leaders than White Americans, the Asian American employee was rated as more intelligent (Asian: *M* = 76.55, *SE* = 1.49; White: *M* = 69.21, *SE* = 1.47), *t*(285) = 3.51, *p* = .002, and more dedicated (Asian: *M* = 77.88, *SE* = 1.59; White: *M* = 69.27, *SE* = 1.57), *t*(285) = 3.86, *p* < .001, than the White American employee. Additionally, although not hypothesized, the Asian American employee (*M* = 68.03, *SE* = 1.80) was rated as more sensitive than the White American employee (*M* = 57.95, *SE* = 1.78), *t*(285) = 3.98, *p* < .001.

For follower traits, race had a significant effect on all traits except enthusiasm, *F*(2, 286) = 0.40, *p* = .671, and conformity, *F*(2, 286) = 0.89, *p* = .412 (see Table 7). In full support of *Hypothesis 3a* that Asians will be viewed as highly dutiful followers, Bonferroni-corrected post-hoc results showed that the Asian American employee was rated as more industrious (Asian: *M* = 76.10, *SE* = 1.63; White: *M* = 68.03, *SE* = 1.60), *t*(286) = 3.54, *p* = .001, and a better citizen

(Asian: M = 73.85, SE = 1.70; White: M = 65.94, SE = 1.67), $t(286) = 3.31$, $p = .003$, than the White American employee. Partially supporting *Hypothesis 3b* that Asians will be viewed as less cheerleader-like, the Asian American employee was rated as less incompetent (Asian: M = 14.61, SE = 2.02; White: M = 22.41, SE = 1.98), $t(286) = -2.76$, $p = .018$, than the White American employee. Although not hypothesized, I also found that the Asian American employee (M = 27.48, SE = 2.34) was seen as less insubordinate than the White American employee (M = 42.33, SE = 2.30), $t(286) = -4.54$, $p < .001$, which matches stereotypes about Asian Americans being less dominant than White Americans (Berdahl & Min, 2012).

Finally, my findings generally indicate that the Asian American and Foreign Asian employees were rated very similarly (i.e., the two did not differ significantly on most leader and follower traits; see Table 7 for means and mean differences). Additionally, most of the leader and follower stereotypes associated with the Asian American employee held for the Foreign Asian employee. Specifically, the Foreign Asian employee was also viewed as more intelligent, dedicated, sensitive, industrious, a better citizen, as well as less insubordinate than the White American employee.

Effect of leader and follower traits on leadership emergence. As predicted in *Hypothesis 4a*, the leader trait of tyranny was positively related to leadership potential, b = 0.14, SE = 0.06, $p = .016$ (see Figure 2a-b). Contrary to *Hypothesis 5a* that dutiful follower traits would pigeonhole Asian workers, industry, b = 0.26, SE = 0.10, $p = .015$, and good citizen, b = 0.33, SE = 0.10, $p < .001$, were *positively* related to leadership potential. Additionally, although not hypothesized, sensitivity, a leader trait, was also positively related to leadership potential, b = 0.25, SE = 0.07, $p < .001$.

Mediation by leader and follower traits. *Hypothesis 6* predicted that Asian Americans would be perceived as *poorer* leaders than White Americans due to Asian-White differences in leader and follower stereotypes. As my results showed that the Asian American employee was rated *higher* on leadership potential than the White American employee, *Hypothesis 6* is not supported. I therefore examined which Asian-White differences in leader and follower stereotypes may have *increased*, rather than decreased, Asian Americans' perceived suitability for leadership. Specifically, I tested the indirect effect of target race on leadership potential via leader and follower traits (in parallel) that showed significant group differences, using the same process and dummy-coding as in Study 2.

As shown in Table 8, when comparing the Asian American and White American employee, I found that the effect of race on leadership potential was significantly mediated by two leader traits, i.e., sensitivity, indirect effect = 2.48, 95% CI [0.86, 5.15], and tyranny, indirect effect = -2.26, 95% CI [-4.68, -0.44], and two follower traits, i.e., industry, indirect effect = 2.07, 95% CI [0.50, 4.73], and good citizen, indirect effect = 2.61, 95% CI [0.75, 5.51]. Specifically, as shown in Figure 2a, the Asian American employee was seen as more sensitive, industrious, and a better citizen than the White American employee, and each of these characteristics was positively related to leadership potential. However, it should be noted that the Asian American employee was rated as *less* tyrannical than the White American employee, and tyranny was positively related to leadership potential. Thus, although the Asian American employee was ultimately rated higher in leadership potential due to his higher perceived standing on sensitive and dutiful traits, a lower perceived standing on an agency-related trait was harmful to his leadership outcomes. Finally, when comparing the Foreign Asian employee with the White

American employee, I found the same four significant indirect effects, and in the same direction, as when comparing the Asian American with the White American employee (see Figure 2b).

Discussion

In Study 3, I found evidence of Asian-White differences in perceptions of non-managerial *employees*. However, contrary to my predictions, the differences uncovered indicated a potential Asian leadership *advantage* relative to majority group employees. In other words, the Asian employee (i.e., both Asian American and Foreign Asian) was perceived as *more* suitable for promotion to a leadership role than the White American employee, in contrast to prior research that has generally found evidence that Asians are disadvantaged in leadership processes.

Further, post-hoc analyses showed that the favourable perceptions of the Asian employees were in part due to a higher perceived standing on ideal follower traits, i.e. industry and good citizen. This lends additional credence to my arguments that follower characteristics have important implications for leadership outcomes. However, I originally predicted that perceptions of good fit with "dutiful" follower traits would *harm* Asian Americans with regards to leadership by pigeonholing them in subordinate roles. Rather, my results point to the reverse; these characteristics may actually help Asian workers to be viewed as high-potential employees who are likely to succeed in managerial roles (Dries, Vantilborgh, & Pepermans, 2012).

Additionally, exploratory analyses showed that both Asian employees were perceived to be more sensitive than the White American employee, which also conferred leadership advantages. This finding is interesting because, on the one hand, it is congruent with perceptions that Asian Americans are sensitive to the needs of the group (Gündemir et al., 2018), and consideration behaviours are often viewed to be a central component of leadership (Judge,

Piccolo, & Ilies, 2004). On the other hand, this finding is incongruent with common stereotypes that Asian Americans are cold and unsympathetic (Berdahl & Min, 2012; Ho & Jackson, 2001).

Finally, I note that tyranny was also a significant mediator, and as predicted, perceptions that the Asian employee was a poorer fit with this agentic leader trait than the White American employee *decreased* perceptions of the Asian employee's leadership potential. However, this negative effect, which is in line with prior findings and explanations regarding the Asian-White leadership gap, was ultimately not strong enough to overshadow the other mechanisms contributing to an Asian leadership *advantage*.

Study 4: Effect of Leader and Follower Stereotypes on Choice of Who to Promote

Generally, Study 2 and 3 either found little evidence of differences between Asian and White American workers or generally uncovered evidence that Asians may be advantaged in leadership processes. However, one major limitation of the prior studies was that targets were evaluated in isolation, whereas in most organizational settings they would be directly compared against others. Additionally, these ratings were not explicitly tied to any decision or outcome. To address these issues, in Study 4, I used a paradigm where participants were presented with two equivalent employees who only differed in race (i.e., Asian American or White American) and were asked which individual they would promote to a leadership role. Note that since Foreign Asians were generally viewed as similar to Asian Americans in the prior two studies, for ease of presentation, I did not include a Foreign Asian employee in Study 4.

Method

Participants. Participants living in the U.S. were recruited from MTurk. After removing those who failed the attention and manipulation checks (described further below), the final sample size was 275, with 100 (36%) females, 171 (62%) males, and 4 (2%) undisclosed.

Among participants, 204 (74%) self-identified as White, 22 (8%) as Black, 17 (6%) as Hispanic or Latino, 15 (6%) as East Asian, and 17 (6%) as another or more than one ethnicity. The mean age of participants was 33 years (*SD* = 9 years). On average, participants had 14.01 years (*SD* = 11.61 years) of work experience, and 58% of participants had managerial experience.

Procedure. A within-participant design was used. Specifically, participants were asked to imagine they were the leader of a team of associates. Due to recently receiving a promotion, they now had to select one of their current direct reports to take their place as team leader. Each participant was then presented with one of two versions of a vignette describing two direct reports in random order: Peter Wong and John Davis (see Appendix B-Study 4 for vignette versions). Each direct report's job performance was described in terms of their task performance, organizational citizenship behaviour, and counterproductive workplace behaviour, thereby capturing the three broad components of job performance (Rotundo & Sackett, 2002). Note that the specific behaviors used to describe Peter and John's performance in each version of the vignette were different but had been equated in a prior pilot study (see Appendix E for details). Participants were then asked to choose who they would promote and evaluate each employee's standing on leader and follower traits, which were randomized in order. Measures on choice of who to promote and leader and follower traits were also randomized in order.

Measures.

Choice of who to promote. Participants were asked, "Which employee would you promote to the leadership position?" The response options were Peter Wong and John Davis, and the order of the two options were randomized to rule out potential order effects.

Leader and follower traits. I retained the common-rule framing for the ILT (Epitropaki & Martin, 2004) and IFT (Sy, 2010) scales to assess leader and follower traits. The ILT traits

included sensitivity (a = .88), intelligence (a = .91), dedication (a = .92), dynamism (a = .86), tyranny (a = .92), and masculinity (a = .40).[9] The IFT traits included industry (a = .91), enthusiasm (a = .83), good citizen (a = .83), conformity (a = .77), insubordination (a = .91), and incompetence (a = .90). See Appendix A for the complete ILT and IFT scales and instructions.

Covariates. Analyses controlled for participant race (0 = minority, 1 = majority),[10] except when testing target race differences on leader and follower traits using paired-sample *t*-tests. This was because, in a within-participant design, a participant's rating of one employee is compared to their own rating of the other employee, thereby holding constant participant race.

Results

Manipulation and attention checks. Race and gender manipulation checks and three attention checks were, again, included in this study. Out of an initial sample of 350 participants, 32 (9%) failed to pass all three attention checks, 8 (2%) failed the gender manipulation check (i.e., did not identify both candidates as men), and 59 (17%) failed the race manipulation check (i.e., did not correctly identify the race of both candidates), leading to 75 (21%) participants failing to pass all attention and manipulation checks. Their exclusion led to a final sample of 275 participants.[11]

Effect of target race on choice of who to promote. I predicted that Asian Americans would be perceived as poorer leaders than White Americans (*Hypothesis 1*). My prediction was

[9] The "masculinity" dimension includes two items: male and masculine. I suspected that the low reliability of this dimension was due to the item "male", as the employees described in the vignettes were male across conditions. Indeed, the mean ratings for "male" did not significantly differ by race, with both the Asian American (M = 89.66, SD = 19.30) and White American (M = 89.24, SD = 19.13) employee being rated highly on this item, $t(271) = 0.53$, p = .598. Because the mean ratings for the item "masculine" *did* significantly differ by race (Asian: M = 59.56, SD = 23.64; White: M = 67.02, SD = 24.29), $t(271) = -5.02$, SE = 1.49, $p < .001$, I opted to only use the "masculinity" item to represent the masculinity dimension.

[10] Removing participant race as a covariate did not change the overall pattern of results.

[11] The overall pattern of results did not change when using the full sample (i.e., including those who failed the attention and manipulation checks), except for the addition of group differences on intelligence as a significant predictor of choice, in favour of the Asian American employee.

not supported as Peter Wong was chosen for the promotion more frequently than John Davis. Specifically, 60% of participants (N = 164) chose Peter Wong while 40% (N = 111) chose John Davis, which was significantly different from equal probabilities of choosing Peter and John, $\chi^2(1)= 10.22$, $p = .001$.

Effect of target race on leader and follower traits. I conducted paired-sample *t*-tests to test my hypotheses on the effect of employee race on leader and follower traits. For leader traits, I found partial support for *Hypothesis 2a* that Asian Americans would be seen as less agentic leaders than White Americans. Specifically, as shown in Table 9, Peter Wong was rated as less tyrannical (M = 33.49, SD = 21.51 vs. M = 39.94, SD = 22.14), $t(273) = -5.65$, $p < .001$, $d = -0.34$, and less masculine (M = 59.56, SD = 23.64 vs. M = 67.02, SD = 24.29), $t(271) = -5.02$, $p < .001$, $d = -0.30$, although similarly dynamic (M = 64.58, SD = 18.22 vs. M = 65.18, SD = 17.39), $t(273) = -0.56$, $p = .575$, $d = -0.03$, compared to John Davis. I found full support for *Hypothesis 2b* that Asian Americans would be viewed as more competent leaders than White Americans. That is, Peter Wong was rated as more intelligent (M = 74.68, SD = 15.44 vs. M = 71.30, SD = 14.89), $t(273) = 4.12$, $p < .001$, $d = 0.25$, and more dedicated (M = 74.68, SD = 18.12 vs. M = 71.15, SD = 17.15), $t(273) = 2.73$, $p = .007$, $d = 0.16$, than John Davis. Additionally, although not hypothesized, Peter Wong was perceived as marginally more sensitive than John Davis (M = 70.92, SD = 17.47 vs. M = 68.31, SD = 17.94), $t(273) = 1.19$, $p = .057$, $d = 0.15$.

For follower traits, I mostly found support for *Hypothesis 3a* that Asian Americans would be perceived as more dutiful followers than White Americans. Specifically, Peter Wong was rated as more industrious (M = 75.47, SD = 16.18 vs. M = 71.96, SD = 16.49), $t(274) = 3.27$, $p = .001$, $d = 0.20$, and a marginally better citizen (M = 70.49, SD = 16.24 vs. M = 68.06, SD = 17.47), $t(274) = 1.93$, $p = .054$, $d = 0.12$, than John Davis. *Hypothesis 3b*, which predicted that

Asian Americans would be perceived as less cheerleader-like than White Americans, was fully supported. Peter Wong was rated as less enthusiastic (M = 62.16, SD = 16.69 vs. M = 65.14, SD = 16.23), $t(274) = -2.93$, $p = .004$, $d = -0.18$, and less incompetent (M = 18.72, SD = 20.19 vs. M = 21.42, SD = 20.15), $t(274) = -3.27$, $p = .001$, $d = -0.13$, than John Davis. Further, although not hypothesized, Peter Wong was rated as more conforming (M = 50.99, SD = 18.56 vs. M = 47.58, SD = 20.45), $t(274) = 3.21$, $p = .001$, $d = 0.17$, and less insubordinate (M = 29.39, SD = 23.10 vs. M = 33.36, SD = 23.16), $t(274) = -3.00$, $p = .003$, $d = -0.17$, than John Davis, which also generally aligns with stereotypes about Asians lacking dominance (Berdahl & Min, 2012).

Effect of Asian-White differences in leader and follower traits on choice. *Hypothesis 6* predicted that a poorer perception of Asian Americans as leaders, relative to White Americans, would be due to Asian-White differences in leader and follower stereotypes. As my results indicated that the Asian American employee was more favoured for a promotion to a leadership role than the White American employee, *Hypothesis 6* was not supported. Therefore, as in Study 3, I take an exploratory lens on how perceived differences between the two applicants on leader and follower stereotypes may explain Asian Americans' *greater* perceived suitability for leadership roles than White Americans. Specifically, I conducted a binary logistic regression where the outcome variable was choice of who to promote and the predictor variables were the difference scores between ratings of the Asian and White employee on each leader and follower trait (except dynamism, due to the lack of difference between ratings of target employees, d = -.03).[12] In other words, I examined the effect of the difference score of each trait on promotion

[12] Edwards (1993) points to polynomial regression as a more accurate method to assess congruence than difference scores. However, conceptually, I am not examining degree of congruence or fit between ratings of the Asian and White American targets on leader and follower traits and its impact on leadership outcomes. Rather, I am predicting that the more (less) Asian Americans are rated higher (lower) on different leader and follower traits, relative to White Americans, the worse their leadership outcomes. Additionally, running a polynomial regression on my data

choice. For example, I tested whether an increase in the difference between perceptions of Peter Wong and John Davis' intelligence led to the greater odds of choosing Peter over John for the promotion. My model therefore included 11 predictors, and one covariate (i.e., participant race), and explained 54% of the variation in the outcome (Nagelkerke R^2 = .54). This model provided a significantly better fit than an intercept-only model, $\chi^2(11, N = 272) = 138.28$, $p < .001$.

As shown in Table 10, I found three significant predictors of choice: the follower traits of industry (Wald χ^2 (1, N = 272) = 13.00, $p < .001$, 95% CI [1.03, 1.10]), good citizen (Wald χ^2 (1, N = 272) = 5.73, p = .017, 95% CI [1.01, 1.06]), and insubordination (Wald χ^2 (1, N = 272) = 12.66, $p < .001$, 95% CI [0.93, 0.98]). In other words, the more an evaluator perceived Peter Wong as more industrious, more of a good citizen, and less insubordinate than John Davis, the greater the odds they would choose Peter Wong for the promotion over John Davis.

Supplementary analyses: suspicion check. Because participants were asked to directly compare an Asian American and White American employee, the purpose of the study may have been relatively clear to participants. However, an awareness that the study examined race-related biases could lead to socially desirable responses (e.g., favouring Peter Wong over John Davis for a promotion to appear unbiased against racial minorities). To allow an examination of this possibility, I added an open-ended suspicion check at the end of the survey, asking participants to describe or speculate on the purpose of the study.[13] Responses were coded as 1 ("aware of

would not be feasible as this method requires the inclusion of four polynomial terms for each predictor; with 11 predictors, such an analysis would include 44 independent variables. Nonetheless, some of the issues with difference scores are ruled out in this study. Specifically, among traits whose difference scores significantly predicted choice (i.e., industry, good citizen, and insubordination), the difference scores showed good reliability (Cronbach α's > .78). Also, each component of the difference score (i.e., ratings of the Asian target and ratings of the White target) significantly predicted choice, meaning perceptions of *both* the Asian and White employee on leader and follower traits affected choice, rather than perceptions of only the Asian or White employee.

[13] A possible limitation with the suspicion checks is that they were placed *after* the manipulation checks; therefore, participants who were previously unaware of the study's purpose may have become aware after completing the manipulation checks. As a result, my results for the participants coded as "aware" may include participants who

study purpose") if there was any mention of race or race-related concepts (i.e., discrimination, bias, racial bias, name bias, foreignness) and 0 ("unaware of study purpose") if there was no mention of these concepts.[14] Ninety-seven (35%) participants were coded as aware and 177 (65%) as unaware.

Level of awareness did not have a significant effect on choice of who to promote, $\chi^2(1) = .11$, $p = .739$. In other words, among both participants who were aware and unaware, the majority (approximately 60%) chose Peter Wong over John Davis. This suggests that even participants who may not have been motivated to respond in socially desirable ways preferred Peter Wong to John Davis, highlighting the robustness of the Asian leadership advantage.

Level of awareness also did not moderate the effect of Asian-White differences in leader and follower traits on promotion choice. The exception was the effect of Asian-White differences in *good citizenship* on choice, $b = 0.08$, $SE = 0.04$, Wald $\chi^2(1, N = 271) = 4.45$, $p = .035$, whereby this effect was only found among participants who were aware of the study's purpose (Wald $\chi^2(1, N = 97) = 6.13$, $p = .013$, $Exp(B) = 1.09$). In other words, it was only among these participants that the more Peter Wong was perceived as a better citizen than John Davis, the greater the odds of choosing Peter Wong over John Davis. As a result, with the exception of good citizenship, both participants who were aware and unaware of the study's purpose were similar in their reasons for choosing to promote the Asian American candidate over the White American candidate.

were originally unaware of the study's purpose when evaluating the two employees. However, despite this limitation, most participants still appeared to be unaware ($n = 177$) rather than aware ($n = 97$) of the study's purpose.

[14] Broadly, participants who were coded as unaware were those who thought the study was about personnel decision making or reported that they did not know what the study's purpose was.

Discussion

Instead of observing an Asian-White leadership gap, I again found evidence in Study 4 for an Asian leadership advantage. Even when directly comparing two equivalently performing direct reports, who only differed on race, the Asian American candidate was preferred for promotion to the leadership role. Additionally, this did not appear to be driven only by those who may be most prone to engage in socially desirable responding. Furthermore, in line with Study 3 results, I found that, as predicted, the Asian American employee better fit the traits of the ideal follower, i.e. industry and good citizen, which post-hoc results found explained his greater odds of being chosen for the leadership promotion.

Interestingly, however, exploratory analyses showed that the more the Asian employee appeared to possess an agency-related trait, i.e., insubordination, the *lower* his odds of being chosen for the promotion. This finding contradicts past research showing that agency is highly valued in leadership (Eagly & Karau, 2002), but aligns with research suggesting that individuals who violate expectations about their group may be penalized for doing so (Berdahl & Min, 2012; Heilman & Wallen, 2010; Heilman, Wallen, Fuchs, & Tamkins, 2004). Specifically, Asian Americans are stereotyped as non-dominant, so an Asian American who appears dominant, or insubordinate, would violate expectations about his group, which may lead to his experiencing backlash from others (e.g., harassment; Berdahl & Min, 2012). As a result, in the leadership context, a dominant Asian American employee may be penalized for violating expectations about his group by being less favoured for a promotion. However, I acknowledge that although I view insubordination as an agentic trait, it generally involves characteristics that may be deemed as broadly undesirable in the workplace (e.g., rude) in contrast to other agentic characteristics that are typically discussed in the leadership literature (e.g., assertive, confident).

General Discussion

The guiding purpose behind my research was to advance our understanding of the lack of Asian representation in North American workplace leadership roles. The existing research on the topic has found that Asians are perceived by others as poorer leaders than Whites, and that stereotyped views of Asians as lacking the agentic traits central to leadership help explain this phenomenon. Building on these findings, I argued that stereotypical views that Asian Americans are an especially good fit with the follower role may also contribute to or explain the poorer perceptions of Asian Americans as leaders.

However, rather than an Asian-White leadership gap, my studies generally—and unexpectedly—revealed an Asian leadership *advantage,* and this was true for both Asian Americans and Foreign Asians. Additionally, post-hoc analyses revealed that it was often Asians' greater perceived match with dutiful and hardworking *follower* traits that appeared to enhance perceptions of their leadership potential. Indeed, I found inconsistent evidence on the importance of agentic traits (i.e., tyranny and insubordination) in predicting leadership outcomes, suggesting that stereotypes that Asians lack agency may not *always* harm others' perceptions of their leadership ability.

Advantaged Yet Under-Represented

My results identify a paradox, whereby despite being recognized as hard-working, productive, and dutiful—qualities that enhanced perceptions of their leadership potential—in reality, relatively few Asian Americans are advancing to organizational leadership roles (Hyun, 2005). As remarked, tongue-in-cheek, by Asian American comedian Ronny Chieng (2019):

> *We need an Asian president. Get that Asian president in the White House; we will fix this place in a week!* […] *Government shutdown? There's no government shutdown if Asian*

people are in charge. We don't shut down for anything. We don't shut down for Christmas! […] *I'd rather fix healthcare than eat turkey; is that who you want in charge? Please, vote for the Asians!*

My results show that others do, in fact, see this connection between the productive and dutiful stereotype of Asian Americans and their potential to be effective leaders. In fact, work reported in another dissertation also found evidence for a potential Asian leadership advantage, whereby the Asian candidate was more likely to be promoted for the role of director than the White manager (Williams, 2008). This is further corroborated in interviews conducted with Asian American leaders, whose strong work ethic and conscientiousness appear to have led others to perceive them as having leadership potential (Kawahara, Pal, & Chin, 2013).

The existence of an Asian leadership advantage is theoretically feasible as the traits of industry and good citizen are congruent with the task and relationship behaviours important for effective leadership, e.g., meeting team or organizational performance goals and being considerate to subordinates (Judge et al., 2004). In addition, the fact that industry and good citizenship are, in fact, typically *follower*-related traits that appear to predict leadership potential mirrors the idea of "high-potential employees," i.e., employees perceived as being on track to advance the organizational hierarchy (Derr, Jones, & Toomey, 1988). These are employees who have demonstrated excellent work, effectively learned new skills, and showed high degrees of dedication and loyalty to the organization (Derr et al., 1988; Dries et al., 2012). The traits of industry and good citizen capture many of the traits of a high-potential employee, so it makes sense, conceptually, that observers may perceive Asians as having more leadership potential than White Americans, who are often not stereotyped in such ways.

However, despite being conceptually sound, the evidence I found for an Asian leadership advantage is not reflected in the numbers currently observed in organizations. Despite Asians representing 13% of professionals in the American workforce, Asians only occupy 8% junior/mid-level manager roles and 6% of senior/executive leadership roles. This is in stark contrast to White Americans, who represent 69% of professional workforce, yet occupy 84% of senior/executive leadership roles (U.S. Equal Employment Opportunity Commission, 2018). These data reveal that Asian Americans are under-represented, whereas White Americans are over-represented, despite my studies showing that Asian Americans are perceived as potentially *better* leaders than White Americans (due to general perceptions of Asians' industry and dutifulness). Furthermore, Asians' underrepresentation appears to occur at all levels of leadership, and not solely in higher leadership positions or upper echelons of organizations.

Some research suggests that perceptions of Asian Americans' leadership ability may depend on the degree of perceived fit between Asian Americans and the occupational field in question, such that a greater (poorer) perceived fit may increase (decrease) perceptions of leadership suitability (e.g., Lai & Babcock, 2013; Leong & Hayes, 1990; Sy et al., 2010). Specifically, compared to Whites, Asians are seen as a good fit with occupations in engineering and computer science, which require the technical skills believed to be Asians' strength, but seen as a poor fit with occupations in sales, which require interpersonal skills that Asians are perceived as lacking (Sy et al., 2010). As I wished to observe *general* perceptions of leadership ability, the vignettes in my studies did *not* specify the occupational field in which the target individual worked. In fact, in Study 3 and 4, the candidates were described as holding analyst or associate roles, which are typical junior-level positions found across industries (e.g., engineering and sales). Also, the description of target employees' major job responsibilities highlighted both

technical (e.g., preparing reports) and relational tasks (e.g., responding to client complaints). As a result, my study suggests that an Asian leadership advantage may occur primarily or more strongly in occupations or jobs that are more balanced when it comes to technical versus social requirements. I encourage future research that better elucidates the boundary conditions of the phenomenon observed.

Perceived Threat of Asian Americans

It is interesting to consider what may be driving the robust under-representation of Asian Americans, given some evidence for an Asian leadership advantage. One possibility may be feelings of threat. Specifically, prior studies have found that bias against Asian Americans may occur due to observers, particularly majority group members, feeling threatened by the high-achieving qualities of the Asian American minority group (e.g., Butz & Yogeeswaran, 2011; Ho & Jackson, 2001; Lin et al., 2005; Maddux, Galinsky, Cuddy, & Polifroni, 2008). In other words, although majority group members admire the high achievements and strong work ethic of this "model minority", they have also been found to feel envious and threatened by Asian Americans' high degree of competence (Ho & Jackson, 2001). This is because Asian Americans may pose a threat for finite resources, such as employment opportunities. As a result, feelings of threat may motivate observers to discriminate against this minority group, and in turn, justify this behaviour using negative stereotypes about Asian Americans (e.g., Asian Americans are cold and antisocial so rejecting this group is warranted, Lin et al., 2005).

As the workplace is performance-driven, perceptions of Asian Americans' high competence can easily be perceived as a threat to one's career advancement, especially given perceptions of limited spots available for leadership roles. As a result, the rejection of Asian Americans as leaders may be more likely to emerge under these conditions of personal threat,

which may activate negative leader stereotypes about Asian Americans (i.e., lack of agency) to justify the dismissal of their leadership potential. Because my paradigms did not potentially "cost" participants anything in their selection ratings or decisions (e.g., in Study 2 and 3, they were asked to rate an employee in a fictional organization, and in Study 4 participants were told they had already received a promotion themselves), I may not have elicited the feeling of threat of a highly qualified minority group member attaining a position higher than one's own. Therefore, participants may not have felt motivated to reject this racial group for leadership roles and rely on stereotypes of Asians' lack of agency as an argument for doing so. I encourage future research to examine these possibilities; for example, by examining how (majority) employees with Asian American co-workers and managers actually rate and perceive these individuals' leadership potential and effectiveness.

Lack of Evidence for a Quiet and Reserved Asian Stereotype

Contrary to commonly held Asian stereotypes, and my predictions, my studies generally did not show evidence that Asian Americans are perceived as lacking dynamism or enthusiasm. This is surprising as there is consistent evidence supporting the stereotype of Asian Americans as quiet and reserved (e.g., Berdahl & Min, 2012; Chao et al., 2013; Fiske et al., 2002; Lai & Babcock, 2013; Lin et al., 2005). However, this may be because past studies often used undergraduate students as their sample, whereas my studies employed working adults.

Compared to the workplace, the university context may make the "quiet and reserved" stereotype of Asian Americans more salient to observers. Asian Americans have been found to endorse academic success as an important value (Kim, Li, & Ng, 2005), so they may be more involved in their studies than in social events, which could give others the impression that Asian Americans are not especially outgoing or enthusiastic. Additionally, in many large universities,

the Asian student body includes many Asians native to Asia (i.e., international students). Due to language and cultural differences, Asian international students may have more difficulty communicating and socializing effectively with majority group students in North American universities, thereby potentially giving off the impression that Asians are reticent or antisocial.

In contrast, the workplace does not entail having to study to achieve high academic grades, so observations of the "studious, quiet Asian" may be less present. Furthermore, the current North American workplace may include more native Asians than non-native Asians (or non-native Asians who have now spent more time in their country of immigration), thereby reducing the language and cultural barriers that would prevent them from interacting and engaging with their co-workers. Therefore, perhaps the stereotype about Asian Americans being quiet and reserved, or lacking dynamism and enthusiasm, may be less present in the workplace.

Leadership and Followership as Complementary Roles

Although my confirmatory factor analysis results showed that that the six leader and six follower traits were distinct in respondents' minds (see footnote 4), many leader and follower traits were highly correlated with one another (e.g., dedication and industry, across studies r = .74-.85). The overlap between purported leader and follower traits suggests that leadership and followership, despite being traditionally viewed as separate and opposing roles in people's lay conceptions, may in fact be perceived as requiring similar traits and behaviours; for example, demonstrating ability (e.g., intelligence and (in)competence), being engaged with one's work (e.g., dedication and industry), and being considerate to others (e.g., sensitivity and good citizen). It therefore makes sense that, in my findings, good followership predicted perceptions of leadership potential, as both roles may require similar characteristics for success.

However, despite the conceptual similarities between ILT and IFT traits, they may not necessarily be identical. Rather, I argue that they may often be *complementary* to one another. For example, although both leaders and followers are expected to demonstrate work engagement, they may be expected to do so in different ways (e.g., leaders must foster an environment that inspires engagement for their employees, while followers must take the initiative to be productive and engaged with their work; Hurwitz & Hurwitz, 2015). Indeed, the dedication dimension of ILTs captures a broader sense of one's drive and ambition, such as being motivated and dedicated, whereas the industry dimension from IFTs more specifically captures an output-driven type of engagement, such as being productive and going above and beyond. As such, the strong association between good followership and good leadership found in my research may reflect the *complementarity*, rather than the identical nature, of the skills expected in these two roles. Indeed, results from confirmatory factor analyses showed that these leader and follower traits were viewed as distinct in the minds of participants.

Theoretical Contributions

First, although my studies did not uncover new explanations for the Asian-White leadership gap, they did highlight a paradox by showing that positive stereotypes about Asians' industry and dutifulness can make them appear more suitable for leadership roles than White Americans. Therefore, my findings point to the possibility of boundary conditions around circumstances where observers devalue Asians for leadership roles and raises the possibility of some situations where Asians may be advantaged for leadership roles.

Second, my research highlights the importance of including followership theories and concepts in the examination of leadership processes. Many of the mechanisms explaining the Asian leadership advantage centred around *follower* traits, i.e., industry and good citizen.

Although prior research has highlighted the importance of leader traits in explaining an Asian-White leadership gap (Sy et al., 2010), my findings indicate that Asian Americans fitting the traits of an ideal follower plays a critical, and possibly more important, role in the leadership perceptions of Asian Americans (particularly in terms of their leadership potential).

Finally, my research demonstrates that being perceived as possessing the traits of an ideal follower may *enhance* perceptions of leadership suitability. This finding aligns with past research showing that leadership and followership are intertwined processes, where both are required to achieve team and organizational goals (Uhl-Bien et al., 2014). In fact, some ILT and IFT traits appear to overlap, such as being hardworking and dedicated. My research therefore provides additional evidence contradicting views that followers are passive and deferring entities. Rather, good followership may be critical in predicting good leadership.

Limitations and Future Research Directions

One limitation of this research is that the gender of the target evaluated in my studies were either unspecified (i.e., group as a whole) or men. Although this choice was made to isolate the effect of race, I cannot speak to possible intersectional effects between race and gender on leader and follower stereotypes and leadership perceptions. Prior research suggests that race and gender may interact to influence leadership outcomes differently than when examining race or gender separately (Rosette et al., 2016). In particular, women of colour may be judged differently from men of colour due to having double subordinate identities, i.e., a woman and a person of colour. For example, Black female leaders may be subject to more negative evaluations than White female leaders and Black male leaders, as their double identity as "woman" and "Black" make them especially un-prototypical of leaders, who are typically male and White (Rosette & Livingston, 2012). In a similar vein, Asian American women may also experience poorer

evaluations than Asian men and White women because of their double identity with groups that are stereotyped as non-dominant, Asians and women (Rosette et al., 2016). As such, perceptions that Asian women may be especially unassertive may further harm others' views of their leadership ability compared to both Asian men (or White women). I encourage future research that examines these potential intersectional effects for Asian women in leadership outcomes.

A second limitation is the way I manipulated the "foreignness" of the Asian candidate. Specifically, I chose to manipulate first names as I wished to observe whether an Asian worker with a "whitened" versus non-whitened first name may be evaluated differently on leadership perceptions, based on prior research indicating that this is a salient cue (Kang et al., 2016). However, although these two groups were rated similarly on leadership and followership traits in my studies, this does not mean that "foreign" and "native" Asians will always be rated similarly.

In fact, there is growing evidence that an important contributor to immigrants' experience of workplace bias and discrimination may be due to audible cues, such as accents (Bradley-Geist & Schmidtke, 2018). As Asian Americans who lived in an American context from birth or a young age are more likely to have an "American" accent, the non-native English accent of Foreign Asians may lead to their lower perceived suitability for leadership roles compared to Asian Americans. Indeed, compared to individuals with a Standard American accent, those with an Asian accent are perceived as poorer communicators and less agentic (Hosoda, Stone-Romero, & Walter, 2016)—traits that are important in the Western leader prototype (Epitropaki & Martin, 2004). As such, although my research suggests that a foreign-sounding first name may not trigger negative biases against Asians as leaders, it does not preclude that a foreign-sounding accent might. Overall, I call for additional research that examines the potentially unique barriers that foreign or non-native Asian workers may face in attaining leadership roles.

Third, my research examines perceptions of Asian American leaders in a "neutral" workplace context. Past research that found an Asian-White leadership gap typically examined a specific context where negative stereotypes about Asians lacking agency would likely be more salient, such as manager position in sales (versus in engineering), with which Asians were seen as a poorer fit than White Americans due to stereotypes about Asians lacking assertiveness (Sy et al., 2010). I opted for a neutral context (i.e., one that balanced technical and social requirements) as I wished to examine general perceptions of Asians, holding constant the influence of perceived race-occupation fit. My results revealed that Asian Americans may not always be disadvantaged in leadership contexts and that stereotypes about their lack of agency may not uniformly hold them back. Specifically, in a leadership role requiring both technical and interpersonal skills, Asians may, in fact, be perceived as *highly* qualified. However, to better understand mechanisms explaining Asian-White leadership *gap*, future research may wish to manipulate context and examine which mechanisms may be operating in that context.

Finally, my research examines the *separate* effects of fit with leader and follower traits on leadership perceptions, rather than the *interaction* between fit with leader and follower prototypes on leadership perceptions. The initial motivation for this research was to replicate Sy et al.'s (2010) findings that agentic leader traits and competent leader traits independently predict leadership perceptions. Building upon this established effect, I then also predicted that prototypical follower traits would explain additional variance in leadership perceptions. I therefore focused on the independent effects of fit with leader and follower prototypes. Furthermore, logistically, testing interactions is not feasible in my research because each prototype was represented by multiple variables, or traits, e.g., the agentic leader prototype included dynamism, tyranny, and masculinity and the dutiful follower prototype included

industry and good citizen. As a result, creating interaction terms with only one leader trait and only one follower trait would not have appropriately captured the interaction between each leader and follower *prototype*. For example, an interaction between dynamism and industry would have only captured parts of the agentic leader and dutiful follower prototypes, respectively. Future research may therefore wish to consider ways to test whether an interaction between fit with leader *and* follower prototypes may explain the Asian-White leadership gap.

Conclusion

The more favourable perceptions of Asian Americans as (future) leaders than White Americans uncovered in the current set of studies makes the observed under-representation of Asian Americans in leadership roles baffling. Generally, this research begins to shed light on the many complexities underlying the leadership challenges faced by Asian Americans; Asian stereotypes can either make Asians appear highly suitable for leadership roles, as my research that incorporates followership concepts suggests, or unsuitable for leadership roles, as suggested by other research that focuses on leadership concepts, such as agency. Thus, there appear to be important nuances and moderators of the impact of stereotypes on the leadership perceptions of Asian Americans that need to be further unpacked by diversity scholars and practitioners. I hope that this work spurs additional research that may help us to better understand the career advancement challenges of this under-examined, but uniquely stereotyped, minority group.

Table 1
Study 1: Descriptive Statistics and Bivariate Correlations for Leader and Follower Traits

			Descriptives		Bivariate Correlations											
		Variables	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12
ILT	1	Sensitivity	6.10	1.77	(.94)											
	2	Intelligence	6.28	1.75	.77	(.94)										
	3	Dedication	6.44	1.86	.75	.82	(.95)									
	4	Dynamism	6.38	1.63	.72	.75	.75	(.91)								
	5	Tyranny	4.65	1.73	-.38	-.31	-.37	-.14	(.91)							
	6	Masculinity	5.16	1.64	-.16	-.22	-.17	-.05	.45	(.87)						
IFT	7	Industry	6.37	1.78	.72	.78	.85	.70	-.36	-.20	(.95)					
	8	Enthusiasm	6.24	1.75	.78	.73	.76	.69	-.39	-.16	.80	(.91)				
	9	Good citizen	6.07	1.63	.75	.63	.57	.77	-.17	-.07	.62	.73	(.86)			
	10	Conformity	5.24	1.34	.25	.17	.21	.17	.13	.05	.22	.28	.32	(.43)		
	11	Insubordination	4.39	1.93	-.42	-.32	-.40	-.19	.78	.39	-.44	-.53	-.25	.10	(.91)	
	12	Incompetence	3.91	1.78	-.48	-.64	-.58	-.40	.53	.34	-.59	-.57	-.33	.06	.68	(.90)

Note. $n = 222$. ILT = Implicit Leadership Theories, IFT = Implicit Followership Theories. Values in the diagonal are Cronbach alpha reliabilities. All correlations above absolute value .14 are significant by at least $p < .05$.

Table 2

Study 1: Estimated Means and Racial Group Comparisons for Leader and Follower Traits

				White		Asian		Black		Hispanic	
	Trait	*F*	*p*	*Mean*	*SE*	*Mean*	*SE*	*Mean*	*SE*	*Mean*	*SE*
ILT	Sensitivity	2.93	.034	$6.08^{a,b}$	0.25	6.58^{a}	0.24	5.61^{b}	0.23	$6.15^{a,b}$	0.23
	Intelligence	13.34	.000	6.22^{a}	0.23	7.44^{b}	0.22	5.62^{a}	0.21	5.91^{a}	0.21
	Dedication	11.52	.000	$6.15^{b,d}$	0.24	7.34^{a}	0.24	$5.53^{c,d}$	0.23	$6.80^{a,b}$	0.23
	Dynamism	1.59	.192	5.96^{a}	0.23	6.62^{a}	0.22	6.47^{a}	0.21	6.41^{a}	0.21
	Tyranny	9.31	.000	$5.06^{b,d}$	0.23	3.89^{a}	0.22	$5.34^{c,d}$	0.21	$4.31^{a,b}$	0.22
	Masculinity	9.87	.000	5.43^{a}	0.22	4.19^{b}	0.21	5.67^{a}	0.20	5.32^{a}	0.20
IFT	Industry	13.40	.000	$6.17^{b,d}$	0.23	7.34^{a}	0.22	$5.42^{c,d}$	0.21	$6.61^{a,b}$	0.22
	Enthusiasm	0.07	.978	6.15^{a}	0.23	6.09^{a}	0.22	6.02^{a}	0.22	6.04^{a}	0.22
	Good Citizen	9.32	.000	6.22^{a}	0.23	7.13^{b}	0.23	5.48^{a}	0.22	6.20^{a}	0.22
	Conformity	2.89	.036	5.53^{a}	0.19	5.49^{a}	0.18	5.04^{a}	0.17	4.94^{a}	0.17
	Insubordination	12.34	.000	$4.91^{b,d}$	0.25	3.39^{a}	0.24	$5.23^{c,d}$	0.23	$4.00^{a,b}$	0.23
	Incompetence	14.16	.000	3.85^{a}	0.23	2.77^{b}	0.22	4.72^{c}	0.21	$4.20^{a,c}$	0.22

Note. ILT = Implicit Leadership Theories, IFT = Implicit Followership Theories. All *F* tests have $df_{race} = 3$ and $df_{error} = 217$. For each row, means with different superscripts are significantly different from each other by at least $p < .05$. Means estimated at covariate mean, i.e., participant race = 0.75. $n_{White} = 51$, $n_{\text{Asian}} = 54$, $n_{Black} = 59$, $n_{Hispanic} = 58$.

Table 3

Study 2: Descriptive Statistics and Bivariate Correlations for Leadership Effectiveness and Leader and Follower Traits

			Descriptives		Bivariate Correlations												
		Variables	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13
	1	Leadership effectiveness	64.26	17.30	(.94)												
ILT	2	Sensitivity	65.76	18.15	.72	(.94)											
	3	Intelligence	71.31	16.94	.66	.76	(.95)										
	4	Dedication	72.37	16.94	.69	.79	.89	(.96)									
	5	Dynamism	64.19	17.99	.68	.78	.78	.80	(.93)								
	6	Tyranny	37.72	20.41	-.21	-.35	-.14	-.18	-.08	(.93)							
	7	Masculinity	75.14	18.58	.36	.37	.46	.46	.45	.10	(.61)						
IFT	8	Industry	71.39	16.54	.68	.72	.82	.85	.77	-.18	.41	(.92)					
	9	Good citizen	70.78	17.56	.71	.80	.78	.82	.75	-.28	.38	.82	(.93)				
	10	Enthusiasm	61.32	17.51	.66	.75	.67	.70	.81	-.17	.41	.74	.76	(.91)			
	11	Conformity	44.03	15.74	.03	.10	-.02	-.02	.05	.15	-.10	-.03	.04	.08	(.65)		
	12	Insubordination	31.39	21.88	-.32	-.49	-.25	-.31	-.25	.76	-.04	-.30	-.40	-.28	.12	(.93)	
	13	Incompetence	17.06	17.18	-.35	-.41	-.53	-.50	-.38	.37	-.35	-.48	-.44	-.31	.34	.53	(.90)

Note. n = 304. ILT = Implicit Leadership Theories, IFT = Implicit Followership Theories. Values in the diagonal are Cronbach alpha reliabilities. All correlations above absolute value .10 are significant by at least $p < .05$.

Table 4

Study 2: Estimated Means and Racial Group Comparisons for Leadership Effectiveness and Leader and Follower Traits

				Asian American		White American		Foreign Asian	
	Variable	*F*	*p*	*Mean*	*SE*	*Mean*	*SE*	*Mean*	*SE*
	Leadership effectiveness	1.01	.367	65.96[a]	1.90	64.56[a]	1.68	62.45[a]	1.66
ILT	Sensitivity	0.76	.471	67.44[a]	1.99	64.17[a]	1.76	65.75[a]	1.74
	Intelligence	4.81	.009	74.25[a]	1.83	67.29[b]	1.62	72.85[a]	1.60
	Dedication	1.43	.240	74.35[a]	1.86	70.24[a]	1.65	72.80[a]	1.62
	Dynamism	0.07	.936	63.48[a]	1.98	64.39[a]	1.75	64.25[a]	1.73
	Tyranny	1.63	.197	36.00[a]	2.22	40.51[a]	1.96	36.15[a]	1.93
	Masculinity	3.23	.041	73.55[a]	2.01	78.76[a]	1.78	72.82[a]	1.76
IFT	Industry	1.85	.159	71.77[a]	1.83	69.01[a]	1.60	73.30[a]	1.58
	Enthusiasm	0.41	.667	71.62[a]	1.95	69.49[a]	1.71	71.21[a]	1.68
	Good citizen	0.21	.808	60.39[a]	1.94	61.97[a]	1.70	60.82[a]	1.67
	Conformity	0.17	.841	42.95[a]	1.73	44.12[a]	1.51	44.16[a]	1.49
	Insubordination	2.23	.109	26.91[a]	2.39	32.95[a]	2.09	32.75[a]	2.06
	Incompetence	2.28	.104	13.48[a]	1.82	18.47[a]	1.60	17.43[a]	1.57

Note. ILT = Implicit Leadership Theories, IFT = Implicit Followership Theories. *F* tests for leadership effectiveness and ILT traits have $df_{race} = 2$ and $df_{error} = 297$ and *F* tests for IFT traits have $df_{race} = 2$ and $df_{error} = 295$. For each row, means with different superscripts are significantly different from each other by at least $p < .05$. Means estimated at covariate mean, i.e., participant race = 0.79. $n_{\text{Asian American}} = 85$, $n_{\text{White American}} = 109$, $n_{\text{Foreign Asian}} = 110$.

Table 5
Study 2 Indirect Effect: Intelligence Mediating the Effect of Race on Leadership Effectiveness

		Asian American vs. White American				Foreign Asian vs. White American			
		Indirect effect		95% CI		Indirect effect		95% CI	
	Trait	Coefficient	*SE*	Lower	Upper	Coefficient	*SE*	Lower	Upper
ILT	Intelligence	**4.84**	1.65	1.80	8.23	**3.87**	1.65	0.63	7.03

Note. ILT = Implicit Leadership Theories. Race was dummy coded with White Americans as the reference group, i.e., D1: Asian American = 1, White American = 0; D2: Foreign Asian = 1, White American = 0. Bootstrap sample size = 5,000. Coefficients in boldface indicate significant mediation.

Table 6

Study 3: Descriptive Statistics and Bivariate Correlations for Leadership Potential and Leader and Follower Traits

			Descriptives		Bivariate Correlations												
		Variables	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13
	1	Leadership potential	66.87	18.65	(.96)												
ILT	2	Sensitivity	63.94	18.56	.68	(.93)											
	3	Intelligence	73.67	15.52	.67	.67	(.93)										
	4	Dedication	74.33	16.52	.68	.70	.89	(.95)									
	5	Dynamism	65.52	17.40	.60	.70	.69	.69	(.91)								
	6	Tyranny	39.55	22.84	-.20	-.37	-.19	-.24	-.07	(.94)							
	7	Masculinity	75.02	17.09	.24	.14	.32	.27	.34	.14	(.53)						
IFT	8	Industry	72.85	16.68	.72	.69	.80	.85	.67	-.28	.25	(.94)					
	9	Good citizen	70.61	17.36	.72	.77	.70	.75	.64	-.42	.20	.79	(.90)				
	10	Enthusiasm	61.47	18.45	.65	.70	.60	.62	.80	-.13	.29	.68	.75	(.91)			
	11	Conformity	44.22	17.16	.05	.16	-.02	-.01	.11	.20	-.06	-.02	.05	.18	(.67)		
	12	Insubordination	34.57	24.10	-.30	-.44	-.23	-.29	-.17	.82	.08	-.34	-.51	-.24	.25	(.93)	
	13	Incompetence	18.02	20.59	-.23	-.14	-.34	-.32	-.14	.51	-.14	-.34	-.28	-.07	.50	.53	(.93)

Note. n = 292. ILT = Implicit Leadership Theories, IFT = Implicit Followership Theories. Values in the diagonal are Cronbach alpha reliabilities. All correlations above absolute value .11 are significant by at least p = .05.

Table 7

Study 3: Estimated Means and Racial Group Comparisons for Leadership Potential and Leader and Follower Traits

				Asian American		White American		Foreign Asian	
	Variable	*F*	*p*	*Mean*	*SE*	*Mean*	*SE*	*Mean*	*SE*
	Leadership potential	8.28	< .001	70.53^{a}	1.83	60.98^{b}	1.79	69.44^{a}	1.96
ILT	Sensitivity	8.88	< .001	68.03^{a}	1.80	57.95^{b}	1.78	66.09^{a}	1.94
	Intelligence	7.21	< .001	76.55^{a}	1.49	69.21^{b}	1.47	75.58^{a}	1.60
	Dedication	8.25	< .001	77.88^{a}	1.59	69.27^{b}	1.57	76.08^{a}	1.71
	Dynamism	2.21	.112	67.00^{a}	1.73	62.59^{a}	1.71	67.11^{a}	1.86
	Tyranny	13.43	< .001	31.26^{a}	2.19	47.20^{b}	2.16	39.82^{b}	2.36
	Masculinity	3.34	.037	71.59^{a}	1.70	77.67^{b}	1.68	$75.57^{a,b}$	1.83
IFT	Industry	7.11	< .001	76.10^{a}	1.63	68.03^{b}	1.60	74.69^{a}	1.75
	Good citizen	6.12	.003	73.85^{a}	1.70	65.94^{b}	1.67	72.25^{a}	1.83
	Enthusiasm	0.40	.671	62.08^{a}	1.86	60.09^{a}	1.82	62.15^{a}	2.00
	Conformity	0.89	.412	45.47^{a}	1.71	42.34^{a}	1.68	44.50^{a}	1.84
	Insubordination	10.49	< .001	27.48^{a}	2.34	42.33^{b}	2.30	33.21^{a}	2.51
	Incompetence	4.33	.014	14.61^{a}	2.02	22.41^{b}	1.98	$15.97^{a,b}$	2.17

Note. ILT = Implicit Leadership Theories, IFT = Implicit Followership Theories. *F* tests for leadership potential and IFT traits have $df_{race} = 2$ and $df_{error} = 286$ and *F* tests for ILT traits have $df_{race} = 2$ and $df_{error} = 285$. For each row, means with different superscripts are significantly different from each other by at least $p < .05$. Means estimated at covariate mean, i.e., participant race = 0.71. $n_{\text{Asian American}} = 100$, $n_{\text{White American}} = 103$, $n_{\text{Foreign Asian}} = 89$.

Table 8

Study 3: Parallel Mediation: Leader and Follower Traits Mediating the Effect of Race on Leadership Potential

		Asian American vs. White American				Foreign Asian vs. White American			
		Indirect effect		95% CI		Indirect effect		95% CI	
	Trait	Coefficient	*SE*	Lower	Upper	Coefficient	*SE*	Lower	Upper
ILT	Sensitivity	**2.48**	1.04	0.86	5.15	**2.00**	0.90	0.62	4.31
	Intelligence	1.54	1.14	-0.27	4.22	1.33	1.08	-0.19	4.15
	Dedication	-0.76	0.98	-2.94	0.94	-0.60	0.83	-2.72	0.71
	Tyranny	**-2.26**	1.06	-4.68	-0.44	**-1.04**	0.65	-2.82	-0.13
	Masculinity	-0.22	0.31	-1.04	0.25	-0.08	0.17	-0.70	0.09
IFT	Industry	**2.07**	1.05	0.50	4.73	**1.71**	0.92	0.37	4.21
	Good citizen	**2.61**	1.23	0.75	5.51	**2.08**	1.14	0.38	4.82
	Insubordination	0.44	0.83	-1.09	2.31	0.27	0.53	-0.60	1.61
	Incompetence	0.34	0.41	-0.29	1.37	0.28	0.36	-0.24	1.25

Note. ILT = Implicit Leadership Theories, IFT = Implicit Followership Theories. Race was dummy coded with White Americans as the reference group, i.e., D1: Asian American = 1, White American = 0; D2: Foreign Asian = 1, White American = 0. Bootstrap sample size = 5,000. Coefficients in boldface indicate significant mediation.

Table 9

Study 4: Means and Standard Deviations for Leader and Follower Traits by Employee Race

		Asian American Employee		White American Employee		
		Mean	*SD*	*Mean*	*SD*	*d*
ILT	Sensitivity	70.92[a*]	17.47	68.31[b*]	17.94	0.15
	Intelligence	74.68[a]	15.44	71.30[b]	14.89	0.25
	Dedication	74.68[a]	18.12	71.15[b]	17.15	0.16
	Dynamism	64.58[a]	18.22	65.18[a]	17.39	-0.03
	Tyranny	33.49[a]	21.51	39.94[b]	22.14	-0.34
	Masculinity	59.56[a]	23.64	67.02[b]	24.29	-0.30
IFT	Industry	75.47[a]	16.18	71.96[b]	16.49	0.20
	Good citizen	70.49[a*]	16.24	68.06[b*]	17.47	0.12
	Enthusiasm	62.16[a]	16.69	65.14[b]	16.23	-0.18
	Conformity	50.99[a]	18.56	47.58[b]	20.45	0.17
	Insubordination	29.39[a]	23.10	33.36[b]	23.16	-0.17
	Incompetence	18.72[a]	20.19	21.42[b]	20.15	-0.13

Note. ILT = Implicit Leadership Theories, IFT = Implicit Followership Theories. For each row, means with different superscripts are significantly different from each other by at least $p < .05$. $n_{Asian} = 274$, $n_{White} = 274$. *Mean difference is marginally significant by $p = .057$ for sensitivity and $p = .054$ for good citizen. A negative *d* indicates a lower score for the Asian American candidate and a positive *d* indicates a higher score for the Asian American candidate.

Table 10

Study 4: Logistic Regression of Choice on Asian-White Differences in Leader and Follower Stereotypes

	Variable	Wald χ^2	Odds Ratio	95% CI	*p*
	Constant	0.75	0.64	n/a	.388
	Participant Race	1.97	1.72	[0.81, 3.67]	.161
ILT	Sensitivity (Asian-White)	1.49	1.02	[0.99, 1.04]	.223
	Intelligence (Asian-White)	2.74	1.03	[0.99, 1.08]	.098
	Dedication (Asian-White)	0.83	1.01	[0.98, 1.05]	.362
	Tyranny (Asian-White)	0.93	1.01	[0.99, 1.04]	.335
	Masculinity (Asian-White)	0.93	0.99	[0.98, 1.01]	.335
IFT	Industry (Asian-White)	13.00	1.06	[1.03, 1.10]	< .001
	Good citizen (Asian-White)	5.73	1.03	[1.01, 1.06]	.017
	Enthusiasm (Asian-White)	0.06	1.00	[0.98, 1.03]	.810
	Conformity (Asian-White)	2.11	0.98	[0.96, 1.01]	.146
	Insubordination (Asian-White)	12.66	0.96	[0.93, 0.98]	< .001
	Incompetence (Asian-White)	0.03	1.00	[0.97, 1.03]	.873

Note. ILT = Implicit Leadership Theories, IFT = Implicit Followership Theories. (Asian-White) = difference score for each trait was calculated by subtracting the mean rating of John Davis from the mean rating of Peter Wong. The outcome, choice, was coded as 0 = White employee (John Davis) and 1 = Asian employee (Peter Wong). n = 272.

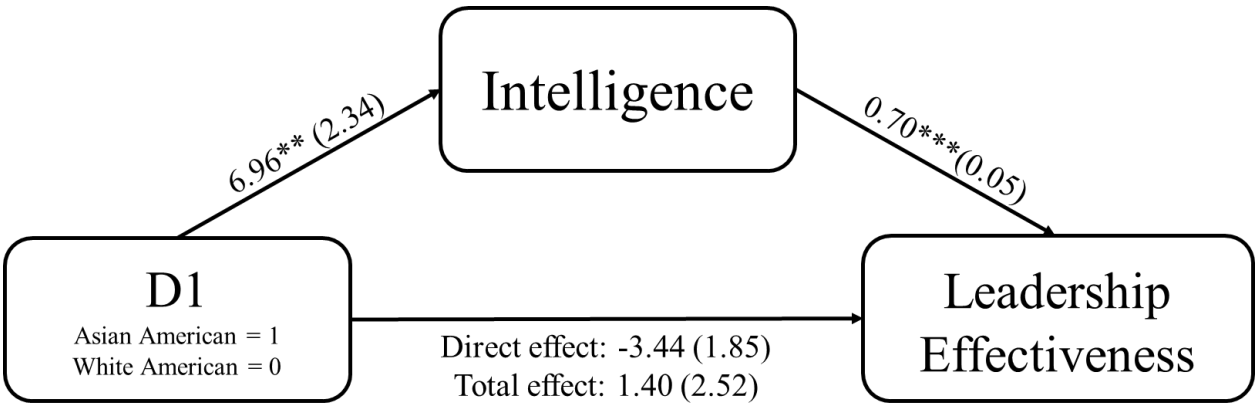
Table 11
Summary of Hypothesis Support Across Studies (Essay 1)

Pathway	Hypothesis		Study 1 (group)	Study 2 (manager)	Study 3 (employee)	Study 4 (employee)
Race → Leadership perceptions	1	Asian Americans will be perceived as poorer leaders than White Americans.		Not supported	Not supported	Not supported
Race → Leader traits	2a	Asian Americans will be perceived as more poorly fitting the traits of an agentic leader prototype (i.e., dynamism, tyranny, and masculinity) than White Americans.	Partially supported (i.e., tyranny & masculinity)	Not supported	Partially supported (i.e., tyranny & masculinity)	Partially supported (i.e., tyranny & masculinity)
	2b	Asian Americans will be perceived as better fitting the traits of a competent leader prototype (i.e., intelligence and dedication) than White Americans.	Supported	Partially supported (i.e., intelligence)	Supported	Supported
Race → Follower traits	3a	Asian Americans will be perceived as better fitting the traits of the dutiful follower prototype (i.e., industry and good citizen) than White Americans.	Supported	Not supported	Supported	Supported[†]
	3b	Asian Americans will be perceived as more poorly fitting the traits of the cheerleader follower prototype (i.e., enthusiasm and incompetence) than White Americans.	Partially supported (i.e., incompetence)	Not supported	Partially supported (i.e., incompetence)	Supported
Leader traits → Leadership perceptions	4a	The traits of the agentic leader prototype (i.e., dynamism, tyranny, and masculinity) will be positively related to leadership perceptions.		*	Partially supported (i.e., tyranny)	
	4b	The traits of the competent leader prototype (i.e., intelligence and		Supported for intelligence	**	

		dedication) will be positively related to leadership perceptions.				
	4c	The traits of the agentic leader prototype will be more strongly related to leadership perceptions than the traits of the competent leader prototype.		*	**	
Follower traits → Leadership perceptions	5a	The traits of the dutiful follower prototype (i.e., industry and good citizen) will be negatively related to leadership perceptions.		*	Not supported	
	5b	The traits of the cheerleader follower prototype (i.e., enthusiasm and incompetence) will be positively related to leadership perceptions.		*	**	
Race → Leader and follower traits → Leadership perceptions	6	Compared to White Americans, Asian Americans will be perceived as poorer leaders because of they will be rated (a) lower on dynamism, tyranny, and masculinity (i.e., agentic leader prototype), (b) higher on intelligence and dedication (i.e., the competent leader prototype), (c) higher on industry and good citizen (i.e., dutiful follower prototype), and (d) lower on enthusiasm and incompetence (i.e., cheerleader follower prototype).		Not supported	Not supported	Not supported

Note. Grey-shaded cells: hypothesis not tested. *This hypothesis was not tested as the leader or follower traits in question did not show significant group differences. **This hypothesis was not tested as the leader or follower traits in question were not significant mediators. [†]Effect of race on good citizen was marginally significant at $p = .054$.

a)



b)

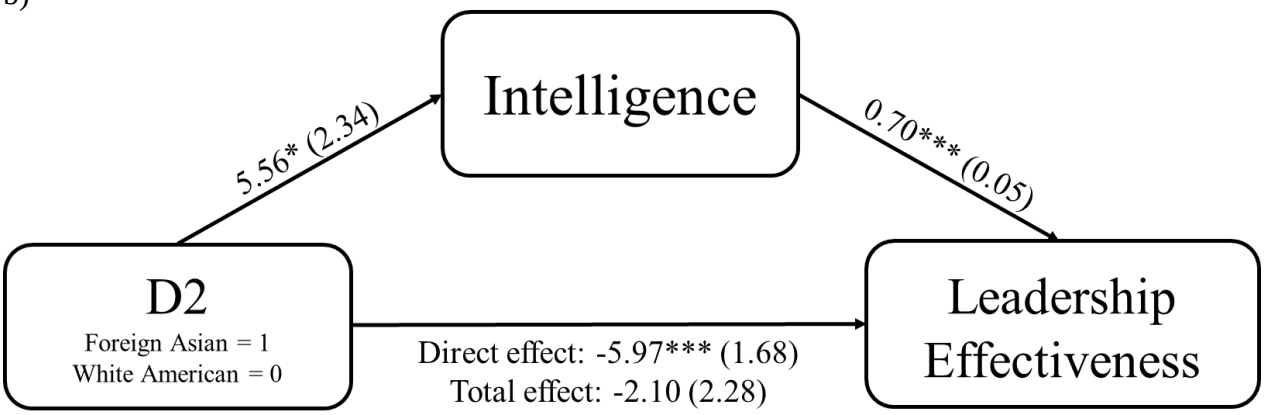
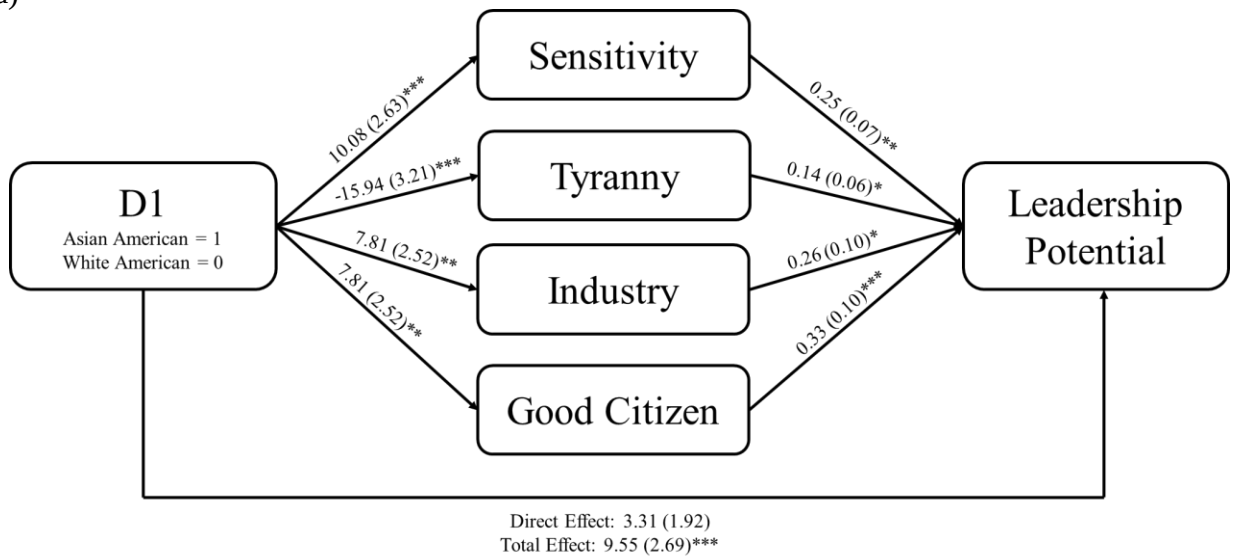


Figure 1. Study 2 mediations: race was dummy coded as D1 and D2 with White American as the reference group. Indirect effects were tested in the same model but are presented separately here for readability. Numbers before parentheses are unstandardized *b* weights derived from bootstrap procedures. Numbers in parentheses are standard errors. All analyses control for participant race (majority = 1, minority = 0).
* $p < .05$. ** $p < .01$. *** $p < .001$.

.

a)



b)

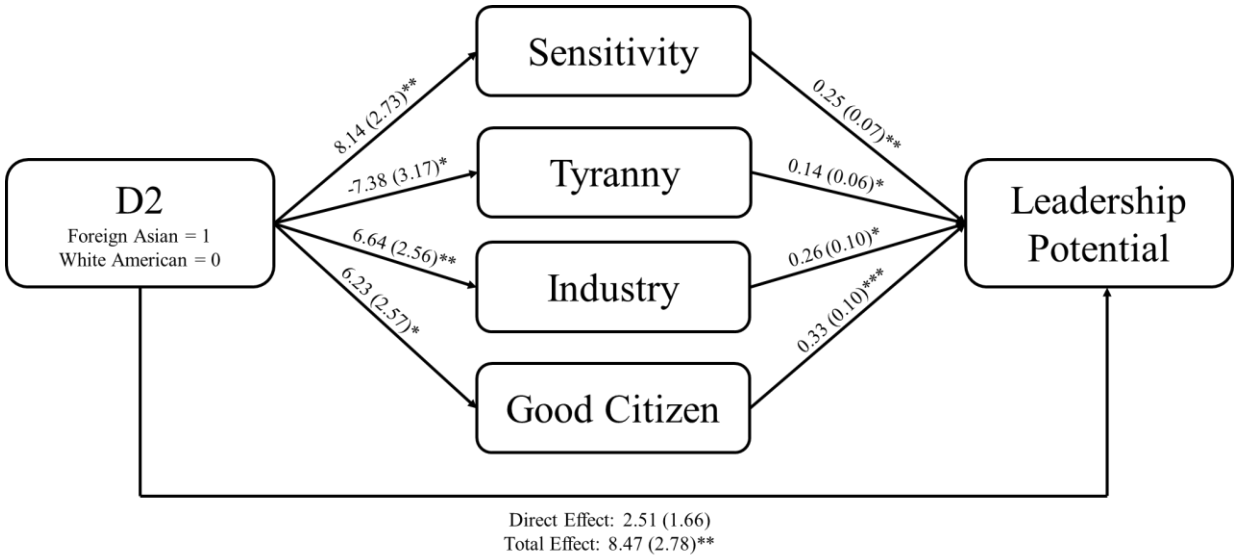


Figure 2. Study 3 mediations: race was dummy coded as D1 and D2 with White American as the reference group. Indirect effects were tested in the same model but are presented separately here for readability. Only significant indirect effects are presented. Numbers before parentheses are unstandardized *b* weights derived from bootstrap procedures. Numbers in parentheses are standard errors. All analyses control for participant race (majority = 1, minority = 0).
* $p < .05$. ** $p < .01$. *** $p < .001$.

CHAPTER 3: WHY DON'T YOU WANT TO LEAD? THE ROLE OF META-STEREOTYPES AND SELF-PERCEPTIONS OF LEADER AND FOLLOWER TRAITS IN EXPLAINING THE ASIAN-WHITE LEADERSHIP GAP (ESSAY 2)

When thinking of groups in North America facing barriers to career success, Asians may be one of the last groups that comes to mind (Chao et al., 2013; Zou & Cheryan, 2017). Since the mid-1960s, Asians in North America have been touted as the "model minority"— a dutiful and highly competent racial minority group that has achieved great academic and professional success (Chao et al., 2013; Hurh & Kim, 1989; Pattersen, 1966). Indeed, Asians are over-represented in higher education and high-income careers, such as medicine and technology (Gee & Peck, 2018; National Center for Education Statistics, 2018; Zhang et al., 2019). However, a closer examination of Asians' career advancement reveals that their success is disproportionately limited to *non-managerial* roles. For example, in the San Francisco Bay Area, a hub of major technology firms, Asians represent 50% of the workforce, but only 32% of managers and 25% of executives (Gee, Peck, & Wong, 2015).

The existing, but limited, research investigating the lack of Asian representation in North American workplace leadership roles has primarily pointed to *external* barriers that may be caused by others' stereotyping, prejudice, and discrimination (e.g., Festekjian et al., 2014; Lai & Babcock, 2013; Landau, 1995; Sy et al., 2010). However, *internal* barriers may also keep Asians from attaining leadership roles. In other words, Asians, themselves, may feel less inclined to become leaders given they may be targets of racial discrimination, notice a lack of Asian leader role models, or perceive an incompatibility between workplace behaviours endorsed by Asian and White American cultures (e.g., Fouad et al., 2008; Kawahara et al., 2013; Sy et al., 2017). Accordingly, some research has found that Asian Americans reported lower motivation to lead

and self-efficacy than White Americans, factors crucial for leadership effectiveness and emergence (Festekjian et al., 2014; Kuo, 2008; Rosch et al., 2015). However, evidence on the mechanisms explaining this internally-driven Asian-White leadership gap is scant. As a result, in the current paper, I examine the intrapersonal processes contributing to the underrepresentation of Asian leaders by investigating the mechanisms that may underlie Asians' greater tendencies to opt out of leadership roles compared to Whites.

Specifically, I propose that stereotypes and self-perceptions that Asians are a poor fit with the ideal leader prototype and a good fit with the ideal follower prototype may play an important role in this Asian-White leadership gap. Past research found that, because Asians are stereotyped as submissive and conforming (Berdahl & Min, 2012), Asians are perceived by others as a poor fit with the traits of the ideal Western leader prototype, e.g., dominant, dynamic, and masculine (Epitropaki & Martin, 2004). Others therefore see Asians as ill-suited for leadership roles relative to Whites. I argue that Asians may be aware that others view them in these stereotypical ways (i.e., *meta-stereotypes*), which may create beliefs that others may not support Asians' desires to lead. Furthermore, Asians may perceive *themselves* as lacking the prototypical traits of leaders (i.e., *self-perceptions*), thereby potentially reducing their desires to lead (e.g., McPherson, Park, & Ito, 2018). These self-perceptions could be the result of many factors, including, potentially, an internalization of stereotypes or of Asian cultural values that are antithetical to Western leader prototypes (e.g., modesty; Kim et al., 2005; Shen, Wang, & Swanson, 2011).

In addition to a poor fit with the ideal leader prototype, Asians may be stereotyped by others as a good fit with the ideal follower prototype, e.g., hardworking and dutiful (Junker et al., 2016; Sy, 2010). Being perceived as a good fit with the ideal follower prototype may pigeonhole Asians as followers due to perceptions that Asians are highly effective in such roles. Moreover,

because Asians are an envied racial minority group in Western societies, due to their high competence (Lin et al., 2005), evaluators may be especially motivated to keep Asians from attaining positions of power to maintain the status quo or current social hierarchy (Sidanius & Pratto, 2004). Asians may therefore be aware that others might view them as a good fit with the follower role (i.e., meta-stereotypes). They may also view *themselves* in this manner (i.e., self-perceptions), thereby increasing their preference for followership roles to match their self-views (Swann, 2011). In summary, in comparison to majority group members, Asians' *own* leadership aspirations may be negatively impacted by leader and follower stereotypes about their group through two distinct mechanisms: (1) meta-stereotypes, i.e., Asians may be aware that others hold these leader and follower stereotypes about their group (Vorauer, Main, & O'Connell, 1998) and (2) self-perceptions, i.e., Asians may potentially internalize these stereotypical perceptions held by others or simply perceive themselves as lacking leader traits for other reasons (Shen et al., 2011).

My research contributes to the literature in two major ways. First, I advance our understanding of an under-examined racial group in the leadership and diversity literatures and the internal factors that may be hindering their upward mobility. As Asians are uniquely stereotyped as one of the *most* competent, yet *least* agentic racial groups (Berdahl & Min, 2012; Fiske et al., 2002), their perspectives and experiences surrounding leadership (and followership) are likely unique relative to other more commonly studied racial minority groups. Additionally, my focus on *internal* barriers to leadership among Asians would complement the extant research that has primarily centred on external barriers and may suggest novel points of intervention to reduce the Asian-White leadership gap.

Second, in examining mechanisms that may explain this gap, I include theories and research on followership. This is an approach that has been lacking in leadership research to date, despite widespread recognition of the important complementary role that followership plays in leadership processes (Uhl-Bien et al., 2014). By including prototypes about followers alongside prototypes about leaders, I identify additional mechanisms that may underlie the impact of race on one's desire to lead. I also supplement emerging research on the integration of followership theories by examining how stereotypes associated with followers affect leadership processes; in other words, certain groups may be stereotyped in ways that align with traditional perceptions of followership thereby contributing to leadership gaps (e.g., communal stereotypes about women lead to perceptions that they are a better fit with the ideal follower role than men; Braun, Stegmann, Hernandez Bark, Junker, & van Dick, 2017).

The Asian-White Leadership Gap

There is emerging evidence of an Asian-White leadership gap in terms of attraction to leadership roles. Specifically, some studies have found that Asians in North America report a lower motivation to lead, lower leadership self-efficacy, lower leadership aspirations, and a lower leadership self-concept than Whites (Bhagat, 2015; Festekjian et al., 2014; Kuo, 2008; Rosch et al., 2015). This is problematic because intrapersonal views of leadership are critical predictors of leadership emergence and effectiveness (e.g., Badura, Grijalva, Galvin, Owens, & Joseph, 2019; Chan & Drasgow, 2001; Peters & Haslam, 2018; Schoon & Polek, 2011; Tharenou, 2001). Large group differences on these key predictors may, therefore, be related to Asians engaging in fewer leadership behaviours, being less likely to emerge as leaders, and being less successful as leaders than their White counterparts, thereby potentially contributing to the under-representation of Asians in leadership roles.

In addition to an Asian-White gap in these established predictors of leadership behaviors, follower identity may be a key construct to consider and Asians and Whites may differ on this variable. Role identity theory (Burke, 1991; Stryker, 1980, 1987) argues that individuals tend to behave in ways congruent with the role(s) with which they identify (Swann, 2011). As leadership and followership are traditionally viewed as distinct roles (Kelley, 1988; Shamir, 2007), those who identify with being a follower may feel more drawn to subordinate roles than leadership roles in organizations.[15] Thus, if Asians identify more with being a follower than Whites, this could help to explain why they are less attracted to leadership roles. As such, I hypothesize the following:

> *Hypothesis 1*: Asians will score lower on leadership outcomes (i.e., lower motivation to lead, lower leadership aspirations, lower leadership self-efficacy, lower leader identity, and greater follower identity) than Whites.

Leader and Follower Stereotypes of Asians

Individuals are perceived as leaders and followers to the extent that evaluators perceive a match between the traits of the target individual and the traits believed to be typical of leaders and followers, respectively. Research has found that the traits most commonly associated with leaders include sensitivity, intelligence, dedication, dynamism, tyranny, and masculinity, i.e., Implicit Leadership Theories (ILT; Epitropaki & Martin, 2004; Offermann & Coats, 2018) and

[15] Note that I am not arguing that followership and leadership are mutually exclusive processes. That line of reasoning would go against emerging research showing that achieving team and organizational performance goals requires both leaders and subordinates to enact leader-like and follower-like behaviours (Agho, 2009; Baker et al., 2011; Taggar et al., 1999; Uhl-Bien et al., 2014). However, I am examining leadership and followership through a stereotypical lens whereby followers and leaders are traditionally perceived as distinct and opposing roles (Kelley, 1988; Shamir, 2007). Indeed, North American culture tends to emphasize the importance of leadership, equating it to desirable outcomes such as achievement and heroism (Meindl et al., 1985), while de-emphasizing the importance of followers, equating them instead to undesirable traits such "yes people" and "sheep-like" (Hoption et al., 2012; Kelley, 1988). Data from both studies in this paper provides additional support for the lay perception that followership and leadership are mutually exclusive, i.e., the correlation between leader identity and follower identity was found to be negative and significant ($r_{Study\ 1}$ = -.57, $r_{Study\ 2}$ = -.55; ps < .001).

traits most commonly associated with followers include industry, enthusiasm, good citizen, conformity, insubordination, and incompetence, i.e., Implicit Follower Theories (IFT; Sy, 2010). Accordingly, the more a target individual appears to possess these prototypical leader (follower) traits, the more that individual may be perceived as leader-like (follower-like; Eagly & Karau, 2002; Lord et al., 1984, 1982; Sy, 2010).

Sy et al. (2010) found that a person's race may activate specific leader traits that, together, may form a certain leader prototype in the minds of observers. For example, the authors found that, compared to White Americans, Asian Americans more strongly activated the traits of intelligence and dedication among evaluators, thereby forming a "competent leader" prototype, and more weakly activated the traits of dynamism, tyranny, and masculinity, which together form an "agentic leader" prototype. This pattern of leader prototype activation is congruent with stereotypes about Asians' high competence and low assertiveness (Berdahl & Min, 2012; Fiske et al., 2002). Since an *agentic* leader is widely held as ideal in North America (e.g., Eagly & Karau, 2002; Kono et al., 2012), White Americans were, as a result, seen as more effective leaders than Asian Americans.

Along with leader prototypes, follower prototypes may also play an explanatory role in the underrepresentation of Asian American leaders. Specifically, compared to Whites, and in line with stereotypes that Asians are hardworking, dutiful, yet reserved (Chao et al., 2013), Asians may more strongly activate among observers the traits of industry and good citizen, thereby forming a "dutiful follower" prototype, and more weakly activate the traits of enthusiasm and incompetence, which together may form a "cheerleader follower" prototype. The dutiful follower prototype may be considered the *ideal* follower prototype given that it captures traits that are typically desired in followers (e.g., competence, intelligence, and reliability; Agho, 2009; Junker

et al., 2016; Sy, 2010). However, fitting with this prototype may ironically prevent such individuals from being considered for leadership roles as leaders may favour managing and retaining a productive and reliable employee and think there is little need to re-assess a role they are excelling in. In contrast, the cheerleader follower prototype may include assumptions that these individuals are capable of further growth and development (including to other roles) because their current lack of experience paired with their enthusiastic attitude may be viewed by employers as reflecting a strong willingness to learn (Rynes et al., 1997). Additionally, compared to more experienced workers, these individuals may be viewed by employers as an easier target to train in terms of adopting the organization's goals and values as they advance in the organization (e.g., Chauhan, 2014; Krumrie, 2016).

Being pigeonholed as a dutiful subordinate may be especially likely for Asians in North America. First, Asians are uniquely stereotyped as hardworking and conforming relative to other racial minority groups, such as Blacks and Hispanics, who are stereotyped differently (e.g., "aggressive" and "lazy", respectively; Carton & Rosette, 2011). Asians may therefore be uniquely typecast as ideal followers compared to other racial minority groups. Second, research has found that Asians are an envied racial group, as the public perceives them as *overly* competent (Lin et al., 2005). Majority group members (i.e., Whites) may therefore feel motivated to hold Asians back from positions of power, such as leadership roles, to maintain majority group members' higher social status (Sidanius & Pratto, 2004). Indeed, there is evidence that racial minority group members are perceived more favourably by Whites when they are in subordinate rather than leadership roles (Knight, Hebl, Foster, & Mannix, 2003). This may also be captured in the "model minority" label whereby Asians are viewed as excelling, but while staying within their minority group status.

The trend observed in the technology sector highlighted at the beginning of this paper points to this effect. Asians are perceived as well-suited for technical jobs (Sy et al., 2010), thereby potentially explaining their high representation in the technology sector. However, their representation is concentrated in non-managerial roles, where technical skills may be more central than in managerial roles and where they may be viewed as excelling, thereby creating justification for keeping Asians at bay from leadership roles (Jost, Banaji, & Nosek, 2004).

In summary, both leader and follower stereotypes about Asians may play a role in dampening their interest or aspirations in pursuing leadership roles in North America. Further, as will be elaborated on below, I argue that these stereotypes may contribute to the Asian-White leadership gap through two distinct mechanisms: meta-stereotypes and self-perceptions.

Unique Impacts of Meta-Stereotypes and Self-Perceptions on the Asian-White Leadership Gap

Past research has found that low-status group members may feel less inclined to become leaders than high-status group members due to an awareness of (negative) stereotypes about their group (i.e., meta-stereotypes; Vorauer et al., 1998) and a perceived mismatch between their self-views and prototypical leader traits (i.e., self-perceptions). For example, women may be less motivated to seek leadership roles than men because they are aware that others may view women as lacking the agentic traits prototypical of leaders and/or because women *themselves* feel they lack these expected leader traits compared to men (see Kossek, Su, & Wu, 2017).

First, negative meta-stereotypes may harm targets of stereotypes in many ways, such as lowering their self-esteem, dampening their work attitudes and expectations of performing well on tasks, and increasing their avoidance of roles where they expect to be stereotyped (e.g., Owuamalam & Zagefka, 2011; Owuamalam & Zagefka, 2014; Pinel, 1999; Wout, Shih, Jackson,

& Sellers, 2009). As such, individuals whose group who may be negatively stereotyped in a leadership context may, as a result, feel less confident and inclined to pursue leadership roles. As Asians may generally be perceived by others as less-suited for leadership (and perhaps better suited for followership), an awareness that others may hold these leader and follower stereotypes may dampen Asians' attraction to leadership roles. This may be especially true in the context of leadership because meta-stereotypes become particularly activated when individuals expect out-group members to be evaluating them, which is inherent in most leadership roles (Vorauer, Hunter, Main, & Roy, 2000; Vorauer & Kumhyr, 2001).

From interviews with Asian American leaders, Kawahara, Pal, and Chin (2013) found that Asians were indeed aware of the stereotypes and expectations others had about them due to their race, including assumptions that they are submissive or do not have leadership ability. Additionally, Asians are aware that they are perceived by the American population as "diligent and hardworking" and "quiet" (Chao et al., 2013). Because others may stereotype Asians as a poorer fit with the prototypical traits of the ideal leader and a better fit with the prototypical traits of an ideal follower, relative to Whites, Asians may be aware that others perceive them in ways that make it more difficult for them to attain and succeed in leadership roles. I therefore hypothesize the following for Asians' meta-stereotypes:

> *Hypothesis 2*: Compared to Whites, Asians will believe North Americans perceive them as (a) more intelligent and dedicated (i.e., competent leader prototype) and (b) less dynamic, tyrannical, and masculine (i.e., agentic leader prototype).
>
> *Hypothesis 3*: Compared to Whites, Asians will believe North Americans perceive them (a) more industrious and better citizens (i.e., dutiful follower prototype) and (b) less enthusiastic and incompetent (i.e., cheerleader follower prototype).

Second, stereotypes held by others about one's group may become internalized into one's own identity, or self-perceptions (Shen et al., 2011). For example, women may see themselves as more nurturing and empathetic than men do as they may, over time, adopt stereotypes that women are, and should be, more communal than men (Wood & Eagly, 2009). Among other possible factors, self-perceptions may be the product of internalized cultural values as well (e.g., Coon & Kemmelmeier, 2001; Kim et al., 2005). For example, because Asians endorse collectivist values more than Whites (Coon & Kemmelmeier, 2001), Asians may prefer to "fit in" rather than "stand out" in a group. As a result, Asians may feel more inclined than Whites to "follow" than to "lead" a group of individuals.

A perceived mismatch between perceptions of one's own traits and the prototypical traits associated with a role can dampen one's interest in that role. For example, women may be less interested in becoming scientists due to perceiving a mismatch between their self-perceptions and the prototype of a scientist (e.g., McPherson et al., 2018). Along this vein, if Asians tend to perceive themselves as lacking the dynamism and agency prototypical of leaders, then they may feel less interested in pursuing these roles than people who perceive themselves as possessing such desired leader traits (e.g., Whites). Furthermore, if Asians perceive themselves as possessing the hardworking and reliable qualities of a prototypical, effective follower, they may instead be more drawn to follower roles and behave in ways that confirm this self-perception (Swann, 2011).

Some studies have found that, compared to White American students, Asian American students perceive themselves as more competent and hardworking but less sociable and extraverted, which matches North American perceptions of Asians (Chu & Kwan, 2007; Wong, Lai, Nagasawa, & Lin, 1998). Qualitative research also shows that Asians may perceive

themselves as quiet and unassertive, e.g., “I have always been more reserved in the work place and kept to myself,” “My co-workers […] are far more social,” “I don’t frequently ask for promotions like some of my other non-Asian coworkers” (Thatchenkery & Sugiyama, 2011, pp. 16–17). As such, compared to the self-perceptions of Whites, Asians may perceive themselves as better fitting the hardworking traits of the dutiful follower prototype and more poorly fitting the agentic and dynamic traits of the ideal leader prototype. I therefore predict the following:

> *Hypothesis 4:* Compared to Whites, Asians will perceive themselves as (a) more intelligent and dedicated (i.e., competent leader prototype) and (b) less dynamic, tyrannical, and masculine (i.e., agentic leader prototype).
>
> *Hypothesis 5:* Compared to Whites, Asians will perceive themselves as (a) more industrious and better citizens (i.e., dutiful follower prototype) and (b) less enthusiastic and incompetent (i.e., cheerleader follower prototype).

As the agentic leader prototype is considered more ideal than the competent leader prototype, Whites’ higher standing on agentic traits than Asians, despite Asians’ higher standing on competent traits than Whites, may contribute to the Asian-White leadership gap, whether as meta-stereotypes or self-perceptions. Additionally, as the cheerleader prototype may be viewed as more “on track” for leadership than the dutiful follower prototype, Asians’ lower standing on cheerleader traits and higher standing on dutiful traits than Whites, whether as meta-stereotypes or self-perceptions, may help further explain the Asian-White leadership gap. I therefore predict the following:

> *Hypothesis 6*: The relationship between race and leadership outcomes will be simultaneously mediated by meta-stereotypes on prototypical leader and follower traits and self-perceptions on prototypical leader and follower traits. In other words, Asians will

score lower on leadership outcomes than Whites because, compared to Whites' meta-stereotypes, Asians' meta-stereotypes will be (a) higher for intelligence and dedication (i.e., competent leader prototype), (b) lower for dynamism, tyranny, and masculinity (i.e., agentic leader prototype), (c) higher for industry and good citizen (i.e., dutiful follower prototype), and (d) lower for enthusiasm and incompetence (i.e., cheerleader follower prototype), and, compared to Whites' self-perceptions, Asians' self-perceptions will be (e) higher for intelligence and dedication (i.e., competent leader prototype), (f) lower for dynamism, tyranny, and masculinity (i.e., agentic leader prototype), (g) higher for industry and good citizen (i.e., dutiful follower prototype), and (h) lower for enthusiasm and incompetence (i.e., cheerleader follower prototype).

Study 1

Method

Participants and procedures. Participants were 271 undergraduate students recruited from a Canadian university. Participants completed an online survey advertised as a study on students' plans and beliefs around workplace leadership and advancement. I removed 52 participants who did not correctly answer three attention check questions (e.g., "Please select 'Somewhat agree'"), in line with best practice recommendations (Meade & Craig, 2012), for a final sample of 126 White (74% female; age: M = 19 years, SD = 3.46) and 93 Asian participants (65% female; age: M = 19 years, SD = 1.63). Among Asian participants, 60 (74%) were Chinese, 9 (10%) were Korean, 12 (13%) were Southeast Asian, and 3 (3%) were mixed. I recruited Asian students who have been living in the U.S. or Canada for an extended period of time (i.e., ≥ 10 years) to limit the potential effects of culture and focus on group/race differences among individuals familiar with the same context. Based on the average age of my sample, this cut-off

indicates that the majority of my participants have spent approximately half of their lives or more in North America. Furthermore, my hypotheses should be applicable to a Canadian context, as well as an American one, as findings from past research on Asian Canadians' and Asian Americans' views of Asian traits and values converge (e.g., Kim et al., 2005; Stroink & Lalonde, 2009).

My sample is an appropriate one in which to examine my hypotheses because these individuals will be soon be entering the workforce and starting their potential ascent to leadership roles. Furthermore, this population provides some insight as to whether the Asian-White leadership gap may already be apparent upon labour market entry or whether the gap emerges later. Identifying a gap among young adults before labour market entry would suggest that the gap may first be shaped by factors outside of the workplace, such as prevalent cultural stereotypes or earlier socialization experiences. Recent research has found that an orientation in college to achieve leadership roles is predictive of occupying leadership roles later in one's career, including for group members who are viewed as non-prototypical of leaders (e.g., women; Offermann, Thomas, Lanzo, & Smith, 2019). Future research can then examine whether workplace experiences exacerbate or mitigate any initial Asian-White leadership gap.

Measures.

Leadership outcomes. Participants reported their affective motivation to lead (e.g., "I am the type of person who likes to be in charge of others"; Chan & Drasgow, 2001; α = .89), their leadership self-efficacy (e.g., "I am confident of my ability to influence a group I lead"; Murphy, 1992; α = .88), and their leadership aspirations (e.g., "I hope to become a leader in my career field"; Fritz & Knippenberg, 2017; Gray & O'Brien, 2007; α = .83) on a seven-point Likert scale (1 = *strongly disagree*; 7 = *strongly agree*). They also reported their leader identity (e.g., "I see

myself as a leader"; Hiller, 2005; α = .92) and follower identity (e.g., "I am a follower"; adapted from Hiller, 2005; α = .90) on a seven-point Likert scale (1 = *not at all descriptive*; 7 = *extremely descriptive*).

Chan and Drasgow's (2001) motivation to lead measure also includes two other dimensions: social normative and noncalculative. In contrast to the affective identity dimension, social normative and noncalculative capture an other-oriented motivation to lead, i.e., leading as one's responsibility to others and without expectation of personal gains, respectively. Because Asian Americans endorse collectivist values more than White Americans (Park & Kim, 2008), thereby endorsing actions that benefit the group rather than oneself, I expected that Asians may score *higher* on social normative and noncalculative motivation to lead than Whites, which is in the opposite direction of the Asian-White leadership gap I am trying to explain (i.e., Asians are disadvantaged). In fact, a meta-analysis by Badura et al. (2020) found that the three dimensions of motivation to lead are distinct constructs and that the social normative and noncalculative dimensions are both more strongly related to collectivism than the affective identity dimension. However, for exploratory purposes, I still asked participants to report their noncalculative (e.g., "I never expect to get more privileges if I agree to lead a group"; α = .84) and social normative (e.g., "I feel that I have a duty to lead others if I am asked"; α = .76) motivation to lead (Chan & Drasgow, 2001), and I examined these Asian-White group differences on variables in supplemental analyses below. See Appendix F for leadership outcome measures.

Leader and follower traits. Epitropaki and Martin's (2004) Implicit Leadership Theories (ILT) scale was used to assess traits associated with leadership: sensitivity (i.e., *understanding, helpful, sincere)*, intelligence (i.e., *intelligent, knowledgeable, clever, educated*), dedication (i.e., *dedicated, motivated, hard-working*), dynamism (i.e., *energetic, strong, dynamic*), tyranny (i.e.,

domineering, pushy, manipulative, loud, selfish, conceited), and masculinity (i.e., *masculine, male*). Sy's (2010) Implicit Followership Theories (IFT) scale was used to assess traits associated with followership: industry (i.e., *hardworking, productive, goes above and beyond*), good citizen (i.e., *loyal, reliable, team player*), enthusiasm (i.e., *excited, outgoing, happy*), conformity (i.e., *easily influenced, follows trends, soft spoken*), insubordination (i.e., *arrogant, rude, bad tempered*), and incompetence (i.e., *uneducated, slow, inexperienced*).

Participants completed the ILT and IFT measures twice: once under a meta-stereotype framing (e.g., "How characteristic would people in North America think each of these traits are of members of your racial group?"; α = .74-.94[16]) and once under a self-perception framing (e.g., "How characteristic do you think each of the following traits are of you?"; α = .68-.89). The ILT and IFT measures were always counterbalanced to reduce potential order effects. However, the measures framed as self-perceptions always appeared before the measures framed as meta-stereotypes to reduce potential demand characteristics or priming effects surrounding race and stereotypes. All responses on were on a nine-point Likert scale (1 = *not at all characteristic*; 9 = e*xtremely characteristic*). See Appendix A for the complete ILT and IFT scales and instructions.

Past leadership experience. To rule out the possibility that an Asian-White leadership gap may exist due to differences in past leadership experience, I asked participants: "Over the past 5 years, how often have you taken on a role where you had to lead a group of individuals, whether at school or outside of school?" Responses were on a five-point Likert scale (1 = *never*; 5 = *almost always*).

Data analysis. To test my hypotheses, I conducted multiple regression and parallel mediation analyses (Hayes, 2018). To determine the significance of indirect effects, I used bias-

[16] Unfortunately, the Cronbach alpha for Conformity was .35, indicating poor reliability (Cortina, 1993). This dimension was therefore excluded in the analyses of meta-stereotypes in Study 1.

corrected confidence intervals derived from bootstrapping 5,000 samples (Hayes, 2018; Rosseel, 2012). All analyses controlled for participant sex (male = 0, female = 1)[17] to isolate the effect of participant race (White Canadian = 0, Asian Canadian = 1).

Results and Discussion

Leader and follower prototypes. Before testing my hypotheses, I first tested via confirmatory factor analyses (CFAs) the factor structure of my predicted leader and follower prototypes. Specifically, I tested a second-order two-factor model for leader prototypes and for follower prototypes. In other words, ILT (IFT) items loaded onto their respective leader (follower) traits (e.g., the items intelligent, knowledgeable, and clever loaded onto the leader trait of intelligence), and leader (follower) traits loaded onto their respective leader (follower) prototypes (e.g., the leader traits of intelligence and dedication loaded onto the competent leader prototype).

Regrettably, I did not find strong support for the predicted leader and follower prototypes (leader prototypes: (a) meta-stereotypes: $\chi^2(129) = 363.13$, $p < .001$; $\chi^2/df = 2.81$; *CFI* = .92; *RMSEA* = .091, 90% CI [.080, .102] and (b) self-perceptions: $\chi^2(129) = 397.54$, $p < .001$; $\chi^2/df = 3.08$; *CFI* = .87; *RMSEA* = .098, 90% CI [.087, .109]; follower prototypes:[18] self-perceptions: $\chi^2(49) = 111.75$, $p < .001$; $\chi^2/df = 2.28$; *CFI* = .95; *RMSEA* = .077, 90% CI [.058, .095]. Despite the RMSEA values falling within the range of passable fit (Browne & Cudeck, 1992), the *structure* of the proposed prototypes was not supported. Namely, contrary to my expectations,

[17] Removing participant sex as a covariate did not change my pattern of results. Also, participant sex only interacted with participant race to predict one outcome (i.e., tyranny meta-stereotypes), indicating a general lack of intersectional effects. Specifically, Asian Canadian males think others view them as less tyrannical compared to the tyranny meta-stereotypes of White Canadian males ($d = -0.52$; $t(212) = -3.81$, $p < .001$), whereas for Asian and White Canadian females, this difference was attenuated ($d = -0.27$; $t(212) = -1.80$, $p = .049$).

[18] In the model for meta-stereotypes of follower prototypes, parameter estimates could not be calculated, likely due to the model fitting the data very poorly. Fundamentally, however, my overall point stands in that I found little support for my theorized leader and follower prototypes, whether examining them as meta-stereotypes or as self-perceptions.

dynamism, tyranny, and masculinity did not significantly load onto a higher order factor, suggesting that these three leader traits did not cluster together to form an agentic leader prototype. Additionally, whereas I predicted that incompetence and enthusiasm would *both* positively load onto a higher order factor to form a cheerleader prototype, the directionality did not fit my expectations (incompetence: *beta* = .47, $p < .001$; enthusiasm: *beta* = -.62, $p < .001$).

In sum, the CFA results suggest that participants may not conceptualize the ILT and IFT traits as components of my theorized leader and follower prototypes, respectively. I therefore examine ILT and IFT traits individually in my analyses, as per prior ILT and IFT research (e.g., Braun et al., 2017; House et al., 2004; Johnson et al., 2008). Additionally, I examine all ILT and IFT traits rather than only those included in my predicted leader and follower prototypes.

Effect of race on ILT and IFT traits and leadership outcomes. Below, I examine (1) whether there is an Asian-White leadership gap (*Hypothesis 1*), (2) whether Asian Canadians are aware that *others* may perceive them in stereotypical ways in terms of leader traits (*Hypothesis 2a & 2b*) and follower traits (*Hypothesis 3a* & *3b*), and (3) whether Asian Canadians may perceive *themselves* in stereotypical ways on the same leader traits (*Hypothesis 4a & 4b*) and follower traits (*Hypothesis 5a* & *5b*). Table 12 shows the bivariate correlations between leader traits, follower traits, and leadership outcomes.

Leadership outcomes. Overall, I generally found support for the Asian-White leadership gap (*Hypothesis 1*). Compared to White Canadians, Asian Canadians reported lower affective motivation to lead ($b = -0.40$, $p = .007$; $d = -0.38$), lower leadership self-efficacy ($b = -0.42$, $p < .001$; $d = -0.47$), lower leader identity ($b = -0.44$, $p = .034$; $d = -0.30$), and a stronger follower identity ($b = 0.79$, $p < .001$; $d = 0.59$) than White Canadians (see Table 13 for means). However, no significant group differences were found for leadership aspirations. Furthermore, group

differences in past leadership experience cannot explain these findings as Asian Canadians (M = 3.29, SE = 0.10) and White Canadians (M = 3.48, SE = 0.08) did not significantly differ on this variable, $t(211) = -1.50$, $p = .135$. To help the reader keep track of the hypotheses tested in this essay, and whether they were supported, a summary is provided in Table 18.

Meta-stereotypes for ILT and IFT traits. Asian Canadians appear to be aware of others' stereotypical expectations about their group in terms of leader traits (*Hypothesis 2a & 2b)* and follower traits (*Hypothesis 3a* & *3b*). For leader traits, in line with Asian stereotypes, Asian Canadians view others as seeing Asians as highly intelligent and dedicated (supporting *Hypothesis 2a*), but less dynamic, tyrannical, and masculine (supporting *Hypothesis 2b*), compared to White Canadians' meta-stereotypes on these traits (see Table 13 for means and mean differences). For follower traits, in line with Asian stereotypes, Asian Canadians view others as seeing Asians as highly industrious and good citizens (supporting *Hypothesis 3a*), but less enthusiastic and incompetent (supporting *Hypothesis 3b*) relative to White Canadians' meta-stereotypes. Additionally, although not hypothesized, Asian Canadians think others view them as less insubordinate relative to White Canadians' meta-stereotypes on this trait. This aligns with stereotypes about Asians lacking assertiveness (Berdahl & Min, 2012).

Self-perceptions on ILT and IFT traits. Asian Canadians appear to see themselves in ways that are both congruent *and* incongruent with stereotypes about their group, for both leader traits (*Hypothesis 4a & 4b*) and follower traits (*Hypothesis 5a & 5b*). For leader traits, congruent with Asian stereotypes, Asian Canadians' self-perceptions on dynamism were lower than White Canadians' self-perceptions; however, self-ratings were similar between groups on tyranny and masculinity, thereby partially supporting *Hypothesis 4b* (see Table 13 for means and mean differences). Although not hypothesized, Asian Canadians also perceived themselves as less

sensitive compared to White Canadians' self-perceptions, aligning with stereotypes that Asians lack warmth (Berdahl & Min, 2012; Ho & Jackson, 2001). However, contrary to commonly held Asian stereotypes and *Hypothesis 4a,* Asian Canadians perceived themselves as *less* intelligent and *less* dedicated compared to the self-perceptions of White Canadians, an especially surprising finding given these traits are central to stereotypes of Asian Canadians (Lin et al., 2005).

For follower traits, contrary to commonly held Asian stereotypes, Asian Canadians' self-perceptions were lower on industry than White Canadians' self-perceptions, and similar on good citizen, thereby failing to support *Hypothesis 5a*. Asian Canadians also rated themselves as *more* incompetent, and similarly enthusiastic, compared to White Canadians' self-ratings, failing to support *Hypothesis 5b*. Although not predicted, a stereotype-consistent pattern was found for self-perceptions on conformity, where Asian Canadians rated themselves as more conforming than White Canadians rated themselves.

In summary, it appears that, on the one hand, Asian Canadians perceive themselves in stereotypical ways on traits they are commonly stereotyped as lacking (i.e., dynamism, sensitivity, and outspokenness); yet, on the other hand, they perceive themselves counter-stereotypically on traits they are expected to possess (i.e., intelligence, dedication, industry, and competence). Ironically, Asian Canadians reported poorer self-views than White Canadians on the very traits that have established Asians as the model minority (Chao et al., 2013; Lin et al., 2005), namely, *achievement-related* traits.

Mediating effect of ILT and IFT meta-stereotypes and self-perceptions. Now, I turn to examine which meta-stereotypes and self-perceptions of leader and follower traits that demonstrated significant group differences may help explain the Asian-White leadership gap (*Hypothesis 6*). Note, again, that leader and follower meta-stereotypes and self-perceptions were

analyzed as parallel, or simultaneous, mediators. As most of my previous predictions leading up to *Hypothesis 6* were not supported, I examine the indirect effects through an exploratory lens.

Unique impact of ILT and IFT meta-stereotypes. As shown in Figure 3a-d, group differences in meta-stereotypes surrounding masculinity and insubordination most frequently explained the Asian-White leadership gap. Specifically, masculinity meta-stereotypes served as a significant mediator for group differences in affective motivation to lead (estimate = 0.16, 95% CI [0.04, 0.31]) and follower identity (estimate = -0.18, 95% CI [-0.35, -0.04]), and insubordination meta-stereotypes served as a significant mediator for group differences in affective motivation to lead (estimate = -0.09, 95% CI [-0.25, -0.01]) and leadership self-efficacy (estimate = -0.09, 95% CI [-0.24, -0.01]; see Table 14 for estimates of all indirect effects).

Interestingly, masculinity meta-stereotypes *negatively* predicted leadership outcomes (i.e., affective motivation to lead: b = -0.11, SE = 0.04, p = .009) and *positively* predicted follower identity (b = 0.12, SE = 0.05, p = .025); that is, the more one perceived others as viewing their group as masculine, the less drawn they were to leadership and the more drawn they were to followership. As a result, Asian Canadians' belief that others viewed their group as less masculine compared to White Canadians' meta-stereotypes actually *enhanced* Asian Canadians' motivation to lead and decreased their follower identity. This pattern is unexpected as masculinity is traditionally seen as prototypical of leaders (Eagly & Karau, 2002); however, it may also reflect a changing viewpoint of prototypical leader traits. Specifically, a meta-analysis (Koenig, Eagly, Mitchell, & Ristikari, 2011) found that perceptions of leadership as "masculine" has decreased over time. Also, the most commonly used measure of ILT (Epitropaki & Martin, 2004) categorizes "masculinity" as anti-prototypical, meaning that this trait may not necessarily always be desirable in leaders. It is unclear, however, why masculinity may be considered

necessary for followership. Nonetheless, despite this finding on masculinity, this indirect effect was not strong enough to overshadow the overall Asian-White leadership gap.

Despite being part of follower prototypes, insubordination meta-stereotypes *positively* predicted leadership outcomes (i.e., affective motivation to lead: $b = 0.11$, $SE = 0.06$, $p = .054$; and leadership self-efficacy: $b = 0.11$, $SE = 0.05$, $p = .033$), such that a greater perception that others view one's group as higher on insubordination increases one's motivation and self-efficacy for leadership. Although an IFT trait, insubordination may be considered necessary for leadership because it may exemplify dominance or agency, traits that are captured by tyranny within ILTs, and that are viewed as central to leadership. Indeed, meta-stereotypes of insubordination and tyranny are highly correlated ($r = .79$, $p < .001$). As a result, Asian Canadians' lower meta-stereotypes on insubordination contributed to their weaker attraction to and self-efficacy for leadership roles compared to White Canadians.

Unique impact of ILT and IFT self-perceptions. As shown in Figure 3a-d, in conjunction with masculinity and insubordination meta-stereotypes, group differences in self-perceptions of dynamism, conformity, and incompetence consistently served as mediators of the Asian-White leadership gap. Specifically, self-perceptions on dynamism served as a significant mediator for Asian-White differences in affective motivation to lead (estimate = -0.11, 95% CI [-0.26, -0.02]), leadership self-efficacy (-0.10, 95% CI [-0.22, -0.02]), leader identity (estimate = -0.20, 95% CI [-0.44, -0.04]), and follower identity (estimate = 0.09, 95% CI [0.005, 0.25]; see Table 14 for estimates of all indirect effects). Self-perceptions on conformity was a significant mediator for Asian-White differences in affective motivation to lead (estimate = -0.06, 95% CI [-0.16, -0.01]), leadership self-efficacy (estimate = -0.04, 95% CI [-0.11, -0.002]), leader identity (estimate = -0.07, 95% CI [-0.18, -0.01]), and follower identity (estimate = 0.13, 95% CI [0.02,

0.29]). Finally, incompetence was a significant mediator for Asian-White differences in affective motivation to lead (estimate = -0.11, 95% CI [-0.24, -0.02]), leadership self-efficacy (estimate = -0.10, 95% CI [-0.22, -0.03]) and follower identity (estimate = 0.17, 95% CI [0.05, 0.37]).

Dynamism is central to leadership whereas conformity is stereotyped as follower-like. Therefore, Asian Canadians seeing themselves as less dynamic and more conforming, i.e., agency-related traits, relative to White Canadians' self-views partially explained Asian Canadians' lower attraction to leadership. Incompetence, which is associated with (poor) followership, is likely not desirable in leadership, as leaders are prototypically viewed as intelligent. Indeed, incompetence is negatively correlated with intelligence (r = -.38, p < .001). As a result, Asian Canadians viewing themselves as higher on incompetence relative to White Canadians' self-views also helped explain Asian Canadians' weaker motivation and self-efficacy for leadership and their greater identification with followership.

Supplemental analyses: noncalculative and social normative motivation to lead. Surprisingly, Asian Canadians reported lower noncalculative motivation to lead (M = 4.55, SE = 0.10) than White Canadians (M = 4.91, SE = 0.09), t(213) = -2.80, p = .006, whereas no group differences were found in social normative motivation to lead (Asian: M = 4.58, SE = 0.08; White: M = 4.76, SE = 0.07), t(213) = -1.64, p = 0.102. Analysis of indirect effects showed that Asian-White differences on noncalculative motivation to lead was significantly mediated by meta-stereotypes on dynamism (estimate = 0.11, 95% CI [0.002, 0.27]), self-perceptions on dynamism (estimate = -0.10, 95% CI [-0.25, -0.02]), and self-perceptions on industry (estimate = -0.11, 95% CI [-0.28, -0.01]). In other words, compared to White Canadians, Asian Canadians were more discouraged by the cost or lack of rewards associated with leading, and this was due to Asian Canadians' awareness that others may perceive them as less dynamic and self-views as

less dynamic and less industrious. As dynamism and industry are agency- and competence-related traits, respectively, these results corroborate my findings on Asian Canadians' weaker affective motivation to lead than White Canadians, which was also due to Asian Canadians' lower self-views on agency- and competence-related traits.

In summary, Study 1 provides empirical support for an Asian-White leadership gap amongst young adults approaching workforce entry. Group differences in both meta-stereotypes and self-perceptions on ILT and IFT traits helped explain this gap. Overall, it appears that Asian Canadians were less drawn to leadership roles because, compared to the self-perceptions and meta-stereotypes of White Canadians, Asian Canadians viewed themselves, and believed that others view them, as lacking traits necessary for leadership (i.e., insubordination and dynamism) and possessing traits antithetical to leadership (i.e., incompetence and conformity). Although the majority of the group differences in meta-stereotypes and self-perceptions acting as mediators match common stereotypes of Asians (e.g., Asian Canadians perceived themselves as more conforming than White Canadians did), paradoxically, the pattern for self-perceptions on incompetence contradicts typical stereotypes of Asians (i.e., Asian Canadians perceived themselves as *more* incompetent than White Canadians did). This is especially surprising because Asians are particularly known for their high degree of competence and, as assessed via meta-stereotypes, Asian Canadians were aware their group is perceived as such.

I speculate that this unexpected finding for group differences in incompetence self-perceptions could be explained via two factors: cultural differences in humility and use of different standards among Asian participants compared to White participants. Humility, the tendency to be humble, is highly valued in East Asian cultures and studies have found that Asians tend to value humility more than Whites (e.g., Kim, Li, & Ng, 2005). Thus, Asian

Canadians may have rated themselves as higher on incompetence relative to White Canadians because they were being more modest, as opposed to truly seeing themselves differently on this characteristic. Alternatively, Asians may use different standards of comparison relative to Whites (Biernat & Manis, 1994). In other words, Asian Canadian participants may have compared themselves to other Asian undergraduate students rather than North American undergraduate students overall. Indeed, from interviews, Lee and Zhou (2014) identified a tendency among Asian American students to compare their level of academic success to their high-achieving Asian peers rather than American students overall. I therefore explore these possibilities in greater detail in Study 2.

Study 2

The purpose of Study 2 was to examine these two alternative explanations for Asians' counter-stereotypical self-perceptions on incompetence and, more generally, to replicate Study 1 findings on the Asian-White leadership gap. To address whether potential racial or cultural differences in humility between the groups could explain the results I observed, I added a measure of humility in Study 2. Additionally, I collected other-reports on participants' standing on these leader and follower traits, which is another way in which scholars have attempted to examine modesty effects more "objectively" (Davis, Worthington Jr, & Hook, 2010). In other words, the same motivation to be modest when rating oneself should be less present when rating others. This would reveal whether the unexpected group differences in incompetence traits are replicated with other-reports.

To address the possibility of shifting standards, I adapted ILT and IFT measures to reflect a common-rule framing (described in greater detail below). Biernat and Manis (1994) found that when examining stereotype-based judgments using subjective, Likert responses scales,

responders may differ on the reference point they use to make judgments about a particular trait. In other words, responders may shift their standards of comparison. For instance, for the trait of incompetence, Asians may rate themselves as "extremely characteristic" if they are comparing themselves to the average Asian student, whom they may perceive as especially competent, but may rate themselves lower (i.e., less incompetent) when comparing themselves to the overall population of North American students (Lee & Zhou, 2014). Biernat and Manis thereby recommend using objective response scale, such as percentiles, against a clearly defined referent group, as this ensures that all groups are using the same standard of comparison.

Method

Participants and procedures. Participants were 320 undergraduate students recruited from a Canadian university. Note that this sample is non-overlapping with the sample from Study 1. I removed 39 participants who did not correctly answer the three attention checks (e.g., "Please select '2'"),[19] in line with best practice recommendations (Meade & Craig, 2012), for a final sample of 176 White Canadian (84% female; age: M = 20 years, SD = 5.04) and 105 Asian Canadian participants (68% female; age: M = 20 years, SD = 2.38; 71% Chinese, 6% Korean, 21% Southeast Asian, 2% other). As with Study 1, I recruited Asian students who have been living in the U.S. or Canada for an extended period (i.e., > 10 years) to limit the effects of culture and focus on group/race differences.

The procedures and measures used in Study 2 are the same as Study 1 (see Appendix A and F for all measures) with three major exceptions.[20] First, I employed a common-rule framing

[19] The proportion of participants who passed and failed the attention checks in each racial group did not significantly differ, $\chi^2(1) = 0.00$, $p = 1.00$. Removing participants who failed the attention checks led to somewhat more conservative results in terms of the Asian-White leadership gap. Specifically, Asian-White differences in leader identity were not significant, but they become significant when using the entire sample. However, I continued to remove participants who failed the attention checks because I am not confident about the quality of their responses.
[20] An additional, but minor, change was made to one of the measures, i.e., leadership aspirations. As shown in Appendix F, I used the recently revised version of the scale in Study 2 (see Gregor & O'Brien, 2016).

(Biernat & Manis, 1994) to assess self-perceptions of leader and follower traits (α = .63 - 92). Specifically, participants were instructed to assign themselves a percentile score (0-100%) reflective of their standing compared to *other undergraduate students in North America*. This framing may prevent participants from shifting their standard of comparison to only members of their own racial group as participants were now explicitly asked to compare themselves to the *same* referent group. Note that I did not employ a common-rule framing for meta-stereotypes of leader and follower traits because the instruction for these measures already specifies to participants to consider the perspective of "people in North America". Second, I added a validated measure of humility (see Appendix G), where participants rated, on a seven-point Likert scale (1 = *strongly disagree*; 7 = s*trongly agree*), the degree to which they agreed with different statements (e.g., "One should not sing one's own praises"; Kim, Li, & Ng, 2005; α = .81). Third, participants were given the option to nominate 1-2 friends to complete a survey about them, which allowed us to assess the extent to which they agreed with the participants' assessment of their own characteristics.

Nominated friends were undergraduate students from the same university as the nominators. A total of 129 friends were nominated (64 by White Canadians, 65 by Asian Canadians), and 73 (56%) friends participated in the study (39 friends of White Canadians and 34 friends of Asian Canadians). Friends of White Canadians were 76% female and 70% White and friends of Asian Canadians were 55% female and 55% East or Southeast Asian. Nominators and non-nominators generally did not differ on demographic variables. Note that certain friend participants had the same nominator, as nominators had the option to nominate up to two friends. Specifically, 16 White Canadian and 12 Asian Canadian nominators had both of their nominees participate in the study.

Friend participants completed a 10-minute online survey and were remunerated $5 CAD, as well as entered in a draw for a cash prize of $50 CAD. The survey consisted of the same ILT and IFT measures used in the main study, asking participants to assign the percentile at which they think their friend stands on each leader and follower trait compared to other undergraduate students in North America. Friend participants then self-reported on their demographics.

Data analysis. To test my hypotheses, I conducted multiple regression and parallel mediation analyses (Hayes, 2018). To determine the significance of indirect effects, I used bias-corrected confidence intervals derived from bootstrapping 5,000 samples (Hayes, 2018; Rosseel, 2012). All analyses controlled for participant sex (male = 0, female = 1)[21] to isolate the effect of participant race (White Canadian = 0, Asian Canadian = 1).

In all analyses of the friend ratings, I controlled for whether friends and their nominators matched in race and gender to reduce potential similarity or in-group effects. For each friend pair with the same nominator, I randomly selected one of two friends in the pair to be included in the analyses. I then ran the analyses again using the other friend in the pair. Pattern of results generally did not differ between the two analyses. I chose not to aggregate data of friend pairs as it was hard to control for demographic similarities between nominators and *pairs* of friends, given friend pairs often consisted of individuals of different genders and races. I also opted not to conduct multi-level modeling due to the small sample size and given that the majority of participants only had one friend participate who participated in the study.

[21] Removing sex as a covariate changed the pattern of my results such that self-perceptions on intelligence no longer mediated the effect of race on leadership outcomes. However, I decided to retain sex as a covariate because sex significantly correlated with self-perceptions on intelligence, where the self-perceptions of female participants was lower than the self-perceptions of male participants, and there were more female participants in both racial groups. As for interaction effects, sex only interacted with race to predict meta-stereotypes of sensitivity, where Asian Canadian males reported significantly higher meta-stereotypes for sensitivity than did White Canadian males (d = 0.25; $t(272) = 2.09$, $p = .038$), while Asian Canadian females and White Canadian females did not significantly differ in their meta-stereotypes for sensitivity (d = -0.16; $t(212) = -1.29$, $p = .200$).

Results and Discussion

Effect of race on ILT and IFT traits and leadership outcomes. I first examined whether I would replicate Study 1's findings on Asian-White group differences ILT and IFT meta-stereotypes and self-perceptions and leadership outcomes. In particular, I wished to see whether I would still observe stereotype-inconsistent patterns found in Study 1 (e.g., Asian Canadians' lower self-perceptions on intelligence than White Canadians), *despite* using a common-rule framing. I also describe my findings regarding my proposed alternative explanations for the stereotype-inconsistent group differences. Table 15 shows the bivariate correlations between ILT traits, IFT traits, and leadership outcomes.

Leadership outcomes. Results replicated Study 1 regarding support for an Asian-White leadership gap (*Hypothesis 1*). In other words, consistent with Study 1, Asian Canadians reported lower affective motivation to lead (b = -0.52, $p < .001$; d = -0.43), lower leadership self-efficacy (b = -0.26, p = .023; d = -0.28), and a stronger follower identity (b = 0.73, $p < .001$; d = 0.55) than White Canadians (see Table 16 for means). The two groups did not differ on leadership aspirations and, in contrast to Study 1, on leader identity. Additionally, as in Study 1, Asian Canadians (M = 3.37, SE = 0.09) and White Canadians (M = 3.56, SE = 0.07) did not significantly differ in their past leadership experiences, $t(274)$ = -1.61, p = .109.

Meta-stereotypes for ILT and IFT traits. As with Study 1, Asian Canadians appear to be aware of the stereotyped perceptions others may hold about their group. For leader traits, in line with commonly held Asian stereotypes, Asian Canadians think others see their group as highly intelligent and dedicated (supporting *Hypothesis 2a*), but less dynamic, tyrannical, and masculine (supporting *Hypothesis 2b*), compared to the meta-stereotypes of White Canadians (see Table 16 for means and mean differences). For follower traits, in line with Asian stereotypes, Asian

Canadians viewed others as seeing their group as highly industrious (partially supporting *Hypothesis 3a*) and less enthusiastic (partially supporting *Hypothesis 3b*), as well as less insubordinate, relative to the meta-stereotypes held by White Canadians of their group.

Self-perceptions on ILT and IFT traits. None of the predictions for leader traits (*Hypothesis 4a & 4b*) and follower traits (*Hypothesis 5a & 5b*) were supported. More notably, however, nearly all group differences found in Study 1 became non-significant in Study 2 (see Table 16 for means and mean differences). This suggests that, unless otherwise prompted, Asian Canadians and White Canadians may tend to use different standards of comparison when evaluating themselves on leader and follower traits. The exceptions were conformity, intelligence, and incompetence, the results of which were either not hypothesized (i.e., conformity) or did not support a priori hypotheses (i.e., intelligence and incompetence) but aligned with results in Study 1. Specifically, Asian Canadians perceived themselves as more conforming compared to White Canadians' self-perceptions (d = 0.38). *Even when comparing themselves to the broader North American undergraduate population,* Asian Canadians saw themselves as less intelligent and more incompetent than how White Canadians perceived themselves to be (intelligence: d = -0.28, incompetence: d = 0.47). Overall, Study 2 reveals the robustness of Asians' stereotype-consistent self-perceptions on conformity and stereotype-inconsistent self-perceptions on achievement-related traits (i.e., intelligence and (in)competence).

Humility and friend ratings. In my examination of humility as an alternative explanation to my findings for achievement-related traits, I found that White Canadians and Asian Canadians did not significantly differ on self-reports of humility. This suggests that group differences in intelligence and incompetence self-perceptions are unlikely to be due to group differences in modesty. To further substantiate that modesty effects are unlikely to explain the observed

findings, I found the same paradoxical patterns when examining group differences in other-ratings by the friends of participants. Specifically, I found that, compared to ratings by friends of White Canadians, Asian Canadians were also rated by their friends as less intelligent (d = -0.16) and more incompetent (d = 0.56).

I note, however, that the sample of nominators whose friends participated in my research may not be representative of the larger sample of participants as a whole. When examining just the nominators, the effect size for Asian-White differences in intelligence self-perceptions becomes close to negligible (d = -0.03), whereas it was d = -0.29 when examining the entire sample of participants. Similarly, the effect size for group differences in incompetence self-perceptions is d = 0.10 among just the nominators, but d = 0.49 for the entire sample. Nonetheless, the effect sizes found among nominators on both traits still run contrary to stereotypes that Asians are perceived as *more* intelligent and *more* competent than Whites. Therefore, the friend ratings still corroborate paradoxical lower self-perceptions found among Asian Canadians relative to White Canadians on traits they are uniquely stereotyped to possess (i.e., intelligence and competence).

Mediating effect of ILT and IFT meta-stereotypes and self-perceptions. Next, I examined whether I would replicate Study 1 on the mechanisms contributing to the Asian-White leadership gap. Specifically, I observed whether meta-stereotypes and self-perceptions on leader and follower traits *each* contribute to the gap and, in particular, whether *incompetence* self-perceptions continue to serve as an unexpected mediator.

Unique impact of ILT and IFT meta-stereotypes. I again found evidence that meta-stereotypes contribute to the Asian-White leadership gap. However, they only served as significant mediators for follower identity (see Figure 4c), whereas Study 1 showed meta-

stereotypes serving as a mediator to most of the leadership outcomes examined. Specifically, I found that meta-stereotypes for enthusiasm (estimate = 0.20, 95% CI [0.04, 0.41]), dynamism (estimate = -0.11, 95% CI [-0.29, -0.003]), and intelligence (estimate = -0.12, 95% CI [-0.26, -0.03]) contributed to group differences in follower identity (see Table 17 for estimates of all indirect effects). However, only one of these mediators, i.e., enthusiasm, explained Asian Canadians' *greater* follower identity than White Canadians, such that Asian Canadians' awareness that others view them as less enthusiastic, compared to White Canadians' meta-stereotypes, increased their follower identity. On the other hand, intelligence and dynamism contributed to *decreasing* Asian Canadians' follower identity, such that Asian Canadians' awareness that others view them as more intelligent and less dynamic, relative to White Canadians' meta-stereotypes, *reduced* their standing on follower identity. The mediating effect of these variables on follower identity are conflicting as they support both a negative perception of followers as passive individuals (i.e., enthusiasm and intelligence negatively predicted follower identity; see Figure 4c) and a positive perception of followers as proactive individuals (i.e., dynamism positively predicted follower identity; Carsten, Uhl-Bien, West, Patera, & McGregor, 2010)

Unique impact of ILT and IFT self-perceptions. As in Study 1, self-perceptions on leader and follower traits contributed to the Asian-White leadership gap. First, I replicated Study 1 in that conformity self-perceptions served as a significant mediator, highlighting the robustness of conformity self-perceptions as a mechanism explaining the Asian-White leadership gap. Specifically, Asian Canadians perceiving themselves as more conforming than White Canadians perceived themselves helped explain Asian Canadians' weaker affective motivation to lead (estimate = -0.13, 95% CI [-0.26, -0.04]) and leadership self-efficacy (estimate = -0.07, 95% CI

[-0.16, -0.02]), and greater follower identity (estimate = 0.18, 95% CI [0.07, 0.34]) than White Canadians.

Second, I did not replicate Study 1's finding that incompetence self-perceptions act as a significant mediator in the Asian-White leadership gap. However, I did find that self-perceptions on *intelligence*, another achievement-related trait, contributed to Asian-White differences on leader outcomes in Study 2. Specifically, Asian Canadians perceiving themselves as *less* intelligent than White Canadians perceived themselves contributed to Asian Canadians' lower affective motivation to lead (estimate = -0.10, 95% CI [-0.21, -0.02]) and leadership self-efficacy (estimate = -0.09, 95% CI [-0.20, -0.02]) and greater follower identity (estimate = 0.10, 95% CI [0.02, 0.21]) than White Canadians. I therefore again find that Asian Canadians may have a weaker desire for leadership roles than their White Canadian counterparts because, contrary to Asian stereotypes, they see themselves weaker on achievement-related traits.

Exploratory analyses: noncalculative and social normative motivation to lead. In this sample, Asian Canadians and White Canadians did not significantly differ in terms of their noncalculative (Asian: $M = 3.75$, $SE = 0.08$; White: $M = 3.92$, $SE = 0.06$), $t(273) = -1.61$, $p = .108$, or social normative motivation to lead (Asian: $M = 4.73$, $SE = 0.07$; White: $M = 4.87$, $SE = 0.05$), $t(273) = -1.69$, $p = .091$. As I did not replicate Study 1 findings of an Asian-White gap for noncalculative motivation to lead, Asian Canadians' weaker motivation for leadership roles than White Canadians appears to be most consistently due to their weaker identification with or interest in leading, i.e., their affective motivation to lead.

General Discussion

The purpose of my research was to examine potential reasons behind the Asian-White leadership gap. Specifically, I investigated how self-perceptions and meta-stereotypes

surrounding prototypical leader and follower traits may contribute to Asian' lower inclination toward leadership roles than Whites. Overall, my findings suggest that self-perceptions on leader and follower traits are more consistent mediators than meta-stereotypes. Notably, post-hoc analyses revealed that, compared to White Canadians' self-perceptions, Asian Canadians' greater self-perceptions on conformity and lower self-perceptions on achievement-related traits (e.g., (in)competence and intelligence) consistently explained the Asian-White leadership gap. Interestingly, Asian Canadians' self-perceptions as more conforming, more incompetent, and less intelligent than White Canadians' self-perceptions remained, even when comparing themselves to the broader North American student population, suggesting a fundamental self-view on these traits, including in the eyes of close others.

Unique Influences of Meta-Stereotypes and Self-Perceptions

By examining self-perceptions and meta-perceptions on leader and follower traits as parallel mediators, I was able to identify the unique and independent effects of self-perceptions and meta-perceptions on leadership outcomes. In other words, I found that self-perceptions contributed to explaining the Asian-White leadership gap above and beyond meta-stereotypes, and vice versa. For example, Asian Canadians' self-perceptions as more conforming than White Canadians' self-perceptions explained their weaker inclination for leadership roles, beyond their awareness that others may corroborate these self-perceptions. Additionally, Asian Canadians' self-perceptions as more incompetent and less intelligent than White Canadians' self-perceptions explained the leadership gap despite their awareness that others may view Asians as a group in the opposite direction, i.e., as highly competent and intelligent. Therefore, these post-hoc findings suggest that the self-perceptions that are affecting Asians' (lack of) desire for leadership

roles may not necessarily be coming from their awareness of how others view or stereotype their group, a topic I discuss further below.

Conformity Self-Perceptions

Given that the effect of conformity self-perceptions on leadership outcomes was beyond the effect of conformity meta-stereotypes, factors other than an awareness that others view Asians as conforming may be contributing to Asians' own views as conforming (relative to Whites' self-views). This corroborates Shen et al.'s (2011) findings that, although Asians are stereotyped as highly conforming, their *self*-views as conforming may be the result of Asian cultural values rather than an internalization of Asian stereotypes held by others. Indeed, Asian values include adhering to social norms and not boasting about oneself (Kim et al., 2005).

When examining group differences on the specific items comprising the conformity dimension in the IFT measure, it was interesting to observe significant group differences on behaviours related to those values, namely, "follows trends" and "soft-spoken", but not "easily influenced"; and this was true across both studies. Finding Asian-White differences on conformity self-ratings may make one wonder why humility did not show any group differences. As the humility measure assessed reticence to *vocalize* about oneself, e.g., "boasting", "bragging", "singing one's own praises" (Kim et al., 2005), only the "soft-spoken" aspect of the conformity dimension was significantly related to humility ($r = .15$, $p = .015$).

In relation to leadership processes, past research suggests Asians in North America are aware that their soft-spoken and trend-following nature may hold them back from advancing to leadership roles. For example, interviews by Thatchenkery and Sugiyama (2011) showed participants expressed an awareness of the importance of speaking up in order to advance, a behaviour they feel goes against their nature: "[B]ecause I don't frequently ask for promotions

like some of my other non-Asian co-workers, I don't think I've progressed as far in the company" and "I have always been more reserved in the work place […] I didn't want to cause drama or conflict. But many times, I found it was those that 'brown nosed' and complained would always get their way despite their quality of work" (pg. 16-17). As a result, Asian Canadians may feel less motivated and confident in becoming leaders, and identify more with followership, due to a belief that their conforming nature, despite being generally valued in the Asian community, is not as highly valued in Western leadership contexts.

Achievement-Related Traits

My most surprising finding was how Asian Canadians' lower self-perceptions on achievement-related traits, compared to White Canadians' self-perceptions, contributed to the Asian-White leadership gap; and this was despite Asian Canadians' awareness that others may view their group as possessing these traits at high levels and despite comparing themselves to the wider North American student population. This not only contradicts stereotypes about Asians being highly competent and smart, but also contradicts Asians culturally valuing, and demonstrating, high academic and occupational achievement (Kim et al., 2005; Leong, 1991).

Upon examining group differences for the incompetence items within the IFT measure and the intelligence items within the ILT measure, I observed two trends. First, incompetence and intelligence both include (un)educated as an item, and Asian Canadians' self-perceptions on this item was not significantly different from White Canadians' self-perceptions. Second, Asian-White differences were instead found for the items "slow" and "inexperienced" from the incompetence dimension (Asian Canadians rated themselves higher on both than White Canadians did) and for the items "intelligent", "knowledgeable", and "clever" from the intelligence dimension (Asian Canadians rated themselves lower than White Canadians did on all

three traits). Thus, traits where group differences were found seemed to reflect innate qualities, or inherent ability, while "educated" reflects an external circumstance, such as having attended and graduated from educational institutions. Also, all participants in both Study 1 and Study 2 were undergraduate students, so they were all educated to similar degrees in actuality.

Some studies have found that, compared to White students, Asian students were less likely to attribute their success to ability and more likely to attribute their failures to lack of ability (Chen & Graham, 2018; Yan & Gaier, 1994). Furthermore, despite outperforming their school peers, Asians reported lower academic self-efficacy than their non-Asian classmates (Eaton & Dembo, 1997; Whang & Hancock, 1994). Scholars speculate that this self-critical tendency may be due to the heightened pressure Asians may feel to meet the high-standards of academic and professional success emphasized in both their Asian culture and their North American reputation as a "model minority" (Chen & Graham, 2018). These past findings therefore suggest that Asians rating themselves lower (higher) on potentially "innate" traits, such as "intelligent" and "slow", than Whites may reflect a deeper, negative attitude and belief about their ability that is impervious to objective indicators of achievement. These critical self-views among Asians may therefore bias judgments made by their friends about their innate ability to achieve and bias judgments made by Asians themselves on their inherent ability to lead.

Equal Desires for High Status Roles?

I predicted that an Asian-White leadership gap would emerge across all leadership outcomes. However, in both studies, I consistently found that Asian Canadians and White Canadians did not significantly differ in their leadership aspirations, despite Asian Canadians consistently reporting lower motivation to lead and leadership self-efficacy than White Canadians. Leadership aspirations may differ from the other leadership outcomes I assessed in

that leadership aspirations may capture a more extrinsic desire for attaining a leadership position, whereas motivation to lead and leadership self-efficacy may speak more to an intrinsic desire and confidence in enacting leadership behaviours. In other words, leadership aspirations specifically focuses on leadership in a career-status-context, with items highlighting promotion or becoming a leader in one's career or field (Gray & O'Brien, 2007; Gregor & O'Brien, 2016). As Asian culture values prestigious careers (i.e., careers with status and money; Kim et al., 2005; Leong, 1991; Shen et al., 2011), Asian participants may have aspired to occupy leadership roles just as much as White participants. However, Asians may feel less intentional and confident in acting as a leader than their White peers given their self-views of having traits that are not conducive to leadership.

Followership and Leadership as Mutually Exclusive Roles

The indirect effects found for follower identity provides further evidence that lay conceptions of followers in North America consist of the traditional and stereotypical view that they are passive and ineffectual (Carsten et al., 2010; Uhl-Bien et al., 2014). Specifically, across both studies, whether as self-perceptions or meta-stereotypes, greater conformity and incompetence and lower enthusiasm were associated with greater follower identity. In addition to these follower traits, intelligence, a leadership-related trait, negatively predicted follower identity. Additionally, in both studies, leader identity and follower identity were highly negatively correlated (Study 1: r = -.57; Study 2: r = -.55). As a result, leadership and followership may be perceived as mutually exclusive processes at a lay level of conception, despite growing evidence that, in practice, they are not (see Uhl-Bien et al., 2014).

Limitations and Future Directions

There are several limitations to the present research. First, I only included Asians who were either born in North America or have spent a substantial portion of their life here. However, there are also many Asians native to Asia who live and work in North America as more recent immigrants. Past research often conflates the two groups (e.g., Sy et al., 2010), assuming that they are homogenous both in others' perceptions and self-perceptions. However, both groups may differ in their perspectives and beliefs around leadership and followership given their differential socialization from two different cultural contexts. Future research may therefore want to compare Asians native to North America with Asians native to Asia to empirically determine whether these two groups, in fact, share perceptions surrounding leader and follower traits and their own desires for leadership roles.

Second, my sample consists of individuals who have not yet entered the workforce. Although this provides evidence that the Asian-White leadership gap appears even before workforce entry, I cannot generalize my findings to current working adults. As such, future research may wish to examine whether the gap remains, grows, or even shrinks, among working adults as they develop and have greater organizational experiences in followership and leadership processes and roles. Finally, my leadership outcomes were not leadership behaviours or actual leadership choices, so I cannot conclude that Asians will, in fact, be less likely to take on leadership roles than Whites. However, my chosen outcomes are established predictors of leadership emergence and effectiveness (e.g., Badura et al., 2019), so it seems likely that Asians may, in fact, opt out of leadership roles more than Whites.

Theoretical Implications

The inclusion of followership processes in my research helped expand our understanding of Asians in North America and leadership in critical ways. First, drawing from IFTs revealed key mediators contributing to the Asian-White leadership gap, i.e., self-perceptions on incompetence and conformity. Second, follower identity consistently emerged as an outcome showing large Asian-White group differences, with Asians identifying more as a follower than Whites. With follower identity being significantly negatively correlated with the other leadership outcomes (i.e., *r*'s = -.44 to -.69), I identified that Asians may be more apt to see themselves as a follower rather than a leader. Therefore, I provide further evidence that followership-related processes offer important insights to understanding leadership processes.

I also advance our collective understanding of an under-examined racial group by identifying how lay conceptions of leadership and followership may impact Asians' own propensity to attain leadership positions. Through an investigation of these mechanisms, I provide additional empirical evidence that Asians perceive *themselves* as more conforming and carry a paradoxical, negative self-view about their inherent ability to succeed. I then uncover that these potentially culturally-based self-views may, in turn, negatively impact Asians' desire for leadership roles.

Practical Implications

There are two sides of the coin in terms of the practical implications of my research. On the one hand, because promoting and asserting oneself are viewed as critical for advancement to leadership roles in Western workplaces (Sy et al., 2017; Thatchenkery & Sugiyama, 2011), my findings suggest that practitioners should coach Asians on speaking up and standing out more at work, despite Asians' preference or tendency, on average, to be more conforming and subdued.

Indeed, acting in line with Western ideals while identifying with Eastern values of modesty, is a skill that Asian leaders in North America consider to be critical to their success (Sy et al., 2017), and my results suggest that Asians may be aware of that, even before entering the workforce. However, developing this ability is viewed as challenging for many Asian workers, thereby pointing to the potential need for coaches to guide them (Akutagawa, 2014; Fouad et al., 2008; Sy et al., 2017).

On the other hand, because the American workforce is becoming increasingly diverse, with Asians being the fastest growing racial minority group (López et al., 2017), my results also suggest that decision-makers and leaders need to understand how an Asian cultural heritage may influence the attitudes and behaviours of their Asian employees, particularly in terms of career advancement. For instance, Asians may believe that hard work is the key to success, as this mentality is emphasized in Asian culture (Pew Research Center, 2013; Sy et al., 2017). As such, in conjunction with their soft-spoken nature, Asians may tend to "let their work speak for itself" rather than advertise their accomplishments. Leaders should therefore be conscious of this possible tendency among Asian employees and find ways to take stock of their accomplishments in promotion decisions. This way, leaders may be less likely to miss out on potentially highly-qualified individuals for leadership roles and Asians may have a fairer chance to rise up the corporate ladder. One possible intervention may be to make structural changes, such that the default is to consider everyone for managerial or leadership roles, rather than relying on Asians to opt in (He, Kang, & Lacetera, 2019).

Conclusion

Despite Asians in North America being perceived as a highly successful racial group, this success may not be translating to upward mobility and leadership roles in organizations. In

addition to past research suggesting that Asians may be pushed out of leadership roles (e.g., Festekjian et al., 2014; Lai & Babcock, 2013; Landau, 1995; Sy et al., 2010), I found evidence that Asians may also be *opting out* of leadership positions. My results on explanatory mechanisms point to additional barriers that may potentially be due to cultural differences between Whites and Asians in their self-perceptions rather than due to only leader and follower stereotypes held by others about Asians. I therefore shed light on the areas that may require greater attention in reducing the Asian-White leadership gap.

Table 12

Study 1: Bivariate Correlations between ILT Traits, IFT Traits, and Leadership Outcomes

		Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
	1	Sex	(-)												
Meta-stereotypes															
ILT	2	Sensitivity	.00	(.92)											
	3	Intelligence	-.07	.30	(.92)										
	4	Dedication	.01	.28	.70	(.91)									
	5	Dynamism	.01	.57	.19	.18	(.82)								
	6	Tyranny	-.05	-.36	-.14	-.21	.03	(.91)							
	7	Masculinity	-.30	-.10	-.14	-.20	.11	.44	(.74)						
IFT	8	Industry	-.05	.29	.71	.80	.13	-.21	-.21	(.94)					
	9	Enthusiasm	.02	.46	.09	.07	.64	.08	.17	.02	(.87)				
	10	Good citizen	-.03	.56	.41	.46	.43	-.29	-.09	.46	.45	(.84)			
	11	Conformity	.03	.24	.16	.14	.03	-.09	-.07	.16	.14	.22	(.35)		
	12	Insubordination	-.01	-.34	-.11	-.16	-.11	.79	.35	-.17	.07	-.26	.09	(.93)	
	13	Incompetence	.07	-.02	-.39	-.30	-.02	.32	.13	-.27	.12	-.12	.30	.44	(.83)
Self-perceptions															
ILT	14	Sensitivity	.04	.29	.26	.17	.34	.07	.10	.22	.31	.33	.21	.00	-.10
	15	Intelligence	-.12	.25	.09	-.06	.31	-.02	.07	-.03	.21	.10	.09	-.04	-.10
	16	Dedication	.23	.30	.08	.06	.32	-.08	-.05	.03	.25	.22	.11	-.09	-.04
	17	Dynamism	.15	.26	.04	.08	.39	.05	.00	.05	.23	.15	.08	-.02	.06
	18	Tyranny	-.17	-.05	.11	.03	.06	.29	.08	.08	-.01	-.08	.02	.23	.18
	19	Masculinity	-.93	-.05	.08	.01	-.04	.09	.31	.05	-.06	-.01	-.02	.05	-.03
IFT	20	Industry	.16	.31	.03	.00	.30	-.05	-.03	.00	.25	.20	.15	-.07	.03
	21	Enthusiasm	.10	.25	.12	.14	.33	-.06	-.03	.08	.18	.12	.18	-.06	.05
	22	Good citizen	.03	.23	.13	.16	.25	-.05	.00	.09	.25	.25	.21	-.05	-.09
	23	Conformity	-.03	.08	.20	.20	.09	.05	.04	.19	.12	.11	.21	.11	.10
	24	Insubordination	-.15	-.16	.00	-.08	-.10	.29	.02	-.01	-.06	-.13	.05	.29	.29
	25	Incompetence	-.14	-.23	.04	.10	-.15	.25	.09	.11	-.06	-.04	.00	.26	.29
Leadership Outcomes															
	26	MTL	-.02	.09	.01	-.06	.09	.03	-.06	.01	.00	.01	.05	.02	-.13
	27	LA	-.01	.04	.05	.07	.07	.07	-.04	.08	.00	.07	.03	.06	-.08
	28	LSE	.01	.19	.02	-.06	.19	.04	.05	.00	.13	.11	.06	.05	-.07
	29	LID	-.03	.17	.10	.04	.22	.04	.01	.08	.07	.13	.09	.00	-.06
	30	FID	.08	-.03	.09	.13	-.02	.04	.04	.12	.04	.06	-.05	.04	.09

Note. n = 219. Sex is coded as: 0 = male, 1 = female. Values in the diagonal are Cronbach alpha reliabilities. ILT = Implicit Leadership Theories, IFT = Implicit Followership Theories. MTL = motivation to lead (affective identity), LA = leadership aspirations, LSE = leadership self-efficacy, LID = leader identity, FID = follower identity.

Table 12 (continued)
Study 1: Bivariate Correlations between ILT Traits, IFT Traits, and Leadership Outcomes

		Variable	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Self-perceptions																			
ILT	14	Sensitivity	(.75)																
	15	Intelligence	.47	(.89)															
	16	Dedication	.49	.51	(.89)														
	17	Dynamism	.55	.50	.54	(.80)													
	18	Tyranny	-.04	.09	-.13	.12	(.81)												
	19	Masculinity	-.01	.14	-.21	-.07	.26	(.84)											
IFT	20	Industry	.47	.54	.84	.54	-.07	-.14	(.86)										
	21	Enthusiasm	.42	.42	.52	.70	.06	-.06	.51	(.82)									
	22	Good citizen	.59	.39	.47	.45	-.11	-.04	.41	.45	(.78)								
	23	Conformity	.14	-.07	.05	.00	.02	.02	-.02	.11	.22	(.68)							
	24	Insubordination	-.29	-.14	-.31	-.21	.59	.21	-.26	-.21	-.26	.09	(.78)						
	25	Incompetence	-.24	-.38	-.39	-.26	.27	.21	-.43	-.28	-.26	.27	.48	(.75)					
Leadership Outcomes																			
	26	MTL	.26	.31	.27	.37	.13	.03	.34	.36	.19	-.26	-.05	-.38	(.89)				
	27	LA	.22	.28	.25	.37	.07	.07	.24	.33	.29	-.09	.04	-.21	.55	(.83)			
	28	LSE	.35	.42	.31	.46	.10	.02	.41	.40	.36	-.20	-.11	-.40	.72	.55	(.88)		
	29	LID	.36	.42	.33	.51	.21	.07	.38	.45	.28	-.17	-.02	-.30	.78	.54	.75	(.92)	
	30	FID	-.10	-.22	-.08	-.21	-.02	-.10	-.16	-.18	-.06	.42	.04	.39	-.69	-.45	-.51	-.57	(.90)

Note. n = 219. Sex is coded as: 0 = male, 1 = female. Values in the diagonal are Cronbach alpha reliabilities. ILT = Implicit Leadership Theories, IFT = Implicit Followership Theories. MTL = motivation to lead (affective identity), LA = leadership aspirations, LSE = leadership self-efficacy, LID = leader identity, FID = follower identity.

Table 13

Study 1: Estimated Means and Mean Differences by Race for ILT Traits, IFT Traits, and Leadership Outcomes

		Asian Canadians		White Canadians				
Prototype	Trait	*Mean*	*SE*	*Mean*	*SE*	*t*	*df*	*p*
Meta-stereotypes								
Leader	Sensitivity	5.95	0.19	6.15	0.16	-0.79	213	.432
	Intelligence	8.22	0.12	6.93	0.10	8.17	213	< .001
	Dedication	8.19	0.12	6.54	0.10	10.28	213	< .001
	Dynamism	5.46	0.16	6.36	0.14	-4.16	213	< .001
	Tyranny	4.93	0.20	5.90	0.17	-3.73	213	< .001
	Masculinity	3.66	0.18	5.19	0.15	-6.45	212	< .001
Follower	Industry	8.23	0.12	6.59	0.11	9.99	212	< .001
	Enthusiasm	5.45	0.16	6.71	0.14	-5.85	212	< .001
	Good citizen	6.60	0.16	6.15	0.13	2.19	212	.029
	Conformity	6.05	0.14	6.15	0.12	-0.53	212	.596
	Insubordination	4.71	0.22	5.47	0.19	-2.66	212	.008
	Incompetence	2.77	0.17	3.57	0.14	-3.64	212	< .001
Self-perceptions								
Leader	Sensitivity	7.35	0.10	7.67	0.08	-2.44	213	.015
	Intelligence	6.52	0.12	6.94	0.10	-2.71	213	.007
	Dedication	6.52	0.15	6.98	0.13	-2.34	213	.020
	Dynamism	5.88	0.16	6.40	0.13	-2.49	213	.014
	Tyranny	3.75	0.14	3.42	0.12	1.78	213	.076
	Masculinity	3.57	0.11	3.43	0.09	0.94	213	.348
Follower	Industry	6.26	0.14	6.91	0.12	-3.48	213	.001
	Enthusiasm	6.18	0.16	6.38	0.14	-0.96	213	.341
	Good citizen	7.47	0.11	7.65	0.09	-1.25	213	.212
	Conformity	5.57	0.17	5.04	0.15	2.34	213	.020
	Insubordination	2.98	0.14	2.72	0.12	1.42	213	.158
	Incompetence	3.32	0.13	2.56	0.12	4.25	213	< .001
Leadership Outcomes								
	MTL	4.07	0.11	4.47	0.10	-2.74	213	.007
	LA	5.19	0.11	5.12	0.09	0.52	212	.602
	LSE	4.70	0.09	5.12	0.08	-3.38	213	< .001
	LID	3.86	0.16	4.30	0.13	-2.13	213	.034
	FID	3.61	0.14	2.83	0.12	4.29	212	< .001

Note. Estimated means control for sex of participant (0 = male, 1 = female). MTL = motivation to lead (affective identity), LA = leadership aspirations, LSE = leadership self-efficacy, LID = leader identity, FID = follower identity.

Table 14

Study 1: ILT Traits and IFT Traits Simultaneously Mediating the Effect of Race on Leadership Outcomes (White Canadians vs. Asian Canadians)

		Affective Identity MTL				Leadership Self-Efficacy				Leader Identity			
		Product of coefficients		95% CI		Product of coefficients		95% CI		Product of coefficients		95% CI	
	Trait	Point estimate	*SE*	Lower limit	Upper limit	Point estimate	*SE*	Lower limit	Upper limit	Point estimate	*SE*	Lower limit	Upper limit
Meta-stereotypes													
Leader	Intelligence	-0.01	0.10	-0.23	0.18	0.01	0.09	-0.16	0.20	0.13	0.15	-0.18	0.42
	Dedication	-0.20	0.15	-0.48	0.14	**-0.22**	0.11	-0.43	-0.01	-0.11	0.19	-0.46	0.30
	Dynamism	0.00	0.06	-0.11	0.13	-0.01	0.05	-0.10	0.09	-0.05	0.09	-0.25	0.10
	Tyranny	0.01	0.06	-0.12	0.14	0.05	0.05	-0.04	0.18	-0.005	0.09	-0.17	0.18
	Masculinity	**0.16**	0.07	0.04	0.31	0.01	0.06	-0.09	0.13	0.09	0.09	-0.07	0.27
Follower	Industry	0.28	0.15	-0.02	0.58	0.19	0.11	-0.01	0.41	0.22	0.18	-0.11	0.60
	Good citizen	0.00	0.03	-0.07	0.07	0.02	0.03	-0.02	0.09	0.03	0.05	-0.04	0.15
	Enthusiasm	0.10	0.07	-0.05	0.26	0.03	0.06	-0.08	0.15	**0.20**	0.11	0.01	0.45
	Incompetence	**0.09**	0.06	0.001	0.23	0.05	0.04	-0.03	0.14	0.02	0.07	-0.11	0.17
	Insubordination	**-0.09**	0.06	-0.25	-0.01	**-0.09**	0.06	-0.24	-0.01	-0.06	0.07	-0.24	0.05
Self-perceptions													
Leader	Sensitivity	-0.02	0.03	-0.11	0.03	-0.02	0.03	-0.09	0.03	-0.02	0.05	-0.15	0.07
	Intelligence	0.01	0.04	-0.06	0.09	-0.03	0.04	-0.14	0.02	-0.06	0.06	-0.23	0.02
	Dedication	0.02	0.04	-0.05	0.13	0.05	0.05	-0.01	0.19	0.02	0.06	-0.09	0.17
	Dynamism	**-0.11**	0.06	-0.26	-0.02	**-0.10**	0.05	-0.22	-0.02	**-0.20**	0.10	-0.44	-0.04
Follower	Industry	-0.10	0.07	-0.27	0.00	**-0.10**	0.07	-0.28	-0.01	-0.09	0.09	-0.34	0.05
	Conformity	**-0.06**	0.04	-0.16	-0.01	**-0.04**	0.03	-0.11	-0.0002	**-0.07**	0.04	-0.18	-0.01
	Incompetence	**-0.11**	0.05	-0.24	-0.02	**-0.10**	0.05	-0.22	-0.03	-0.07	0.07	-0.23	0.06

Note. Race was coded as 0 = White Canadian, 1 = Asian Canadian. Mediators were run in parallel, i.e., simultaneously. Bootstrap sample size = 5,000. Coefficients in boldface indicate significant mediation. MTL = motivation to lead.

Table 14 (continued)

Study 1: ILT Traits and IFT Traits Simultaneously Mediating the Effect of Race on Leadership Outcomes (White Canadians vs. Asian Canadians)

		Follower Identity			
		Product of coefficients		95% CI	
	Trait	Point estimate	*SE*	Lower limit	Upper limit
Meta-stereotypes					
Leader	Intelligence	-0.08	0.13	-0.35	0.16
	Dedication	-0.07	0.17	-0.45	0.24
	Dynamism	-0.02	0.08	-0.20	0.14
	Tyranny	-0.05	0.09	-0.24	0.11
	Masculinity	**-0.18**	0.08	-0.35	-0.04
Follower	Industry	-0.03	0.18	-0.39	0.31
	Good citizen	0.004	0.04	-0.07	0.10
	Enthusiasm	-0.14	0.11	-0.38	0.05
	Incompetence	-0.01	0.06	-0.14	0.11
	Insubordination	0.06	0.07	-0.04	0.22
Self-perceptions					
Leader	Sensitivity	0.003	0.04	-0.09	0.09
	Intelligence	0.01	0.05	-0.07	0.13
	Dedication	-0.04	0.05	-0.19	0.04
	Dynamism	**0.09**	0.06	0.005	0.25
Follower	Industry	0.02	0.08	-0.12	0.22
	Conformity	**0.13**	0.07	0.02	0.29
	Incompetence	**0.17**	0.08	0.05	0.37

Note. Race was coded as 0 = White Canadian, 1 = Asian Canadian. Mediators were run in parallel, i.e., simultaneously. Bootstrap sample size = 5,000. Coefficients in boldface indicate significant mediation.

Table 15

Study 2: Bivariate Correlations between ILT Traits, IFT Traits, and Leadership Outcomes

		Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
	1	Sex	(-)												
Meta-stereotypes															
ILT	2	Sensitivity	-.02	(.90)											
	3	Intelligence	.03	.23	(.90)										
	4	Dedication	.07	.39	.67	(.90)									
	5	Dynamism	.01	.53	.22	.41	(.88)								
	6	Tyranny	-.01	-.49	-.07	-.21	.02	(.92)							
	7	Masculinity	-.31	-.22	-.07	-.23	.07	.52	(.81)						
IFT	8	Industry	.02	.35	.64	.74	.25	-.23	-.28	(.91)					
	9	Enthusiasm	.03	.42	.05	.09	.60	.10	.18	.08	(.84)				
	10	Good citizen	-.02	.59	.39	.44	.45	-.31	-.14	.49	.41	(.82)			
	11	Conformity	.01	-.03	.07	.01	-.02	.18	.19	-.01	.02	.06	(.61)		
	12	Insubordination	-.02	-.45	-.12	-.22	-.09	.67	.43	-.22	.01	-.41	.24	(.94)	
	13	Incompetence	-.11	-.24	-.41	-.31	-.11	.34	.27	-.27	-.05	-.25	.29	.46	(.84)
Self-perceptions															
ILT	14	Sensitivity	-.06	.26	.19	.14	.15	-.19	-.03	.18	.15	.30	-.02	-.17	-.09
	15	Intelligence	-.14	.31	.21	.21	.32	-.04	.04	.20	.23	.26	.00	-.10	-.09
	16	Dedication	.04	.32	.17	.24	.32	-.12	-.04	.20	.24	.25	-.05	-.19	-.18
	17	Dynamism	-.04	.29	.14	.19	.39	-.07	.01	.18	.33	.28	.01	-.12	-.10
	18	Tyranny	-.05	-.08	-.03	.02	.01	.27	.11	.03	.04	-.02	.03	.14	.10
	19	Masculinity	-.81	-.03	-.06	-.04	.04	.04	.30	-.02	-.04	.01	-.03	.01	.13
IFT	20	Industry	-.04	.24	.13	.20	.28	-.09	.02	.20	.23	.19	-.07	-.14	-.09
	21	Enthusiasm	-.02	.29	.10	.20	.44	-.04	.05	.15	.38	.30	-.01	-.15	-.09
	22	Good citizen	-.10	.31	.13	.19	.33	-.12	.03	.20	.31	.36	-.05	-.15	-.06
	23	Conformity	-.03	.15	.05	.08	.06	-.04	-.01	.15	.12	.20	.25	-.09	-.01
	24	Insubordination	-.15	-.13	-.09	-.04	-.08	.25	.10	.00	-.03	-.10	.09	.27	.10
	25	Incompetence	-.13	-.23	-.05	-.16	-.26	.11	.07	-.05	-.20	-.14	.13	.10	.23
Leadership Outcomes															
	26	MTL	.03	.13	.02	.02	.21	.07	.05	.02	.20	.07	-.05	.07	.00
	27	LA	.06	.16	.15	.17	.20	-.05	-.03	.18	.13	.14	.05	-.04	-.07
	28	LSE	.06	.22	.18	.16	.19	-.12	-.01	.13	.21	.20	-.04	-.11	-.08
	29	LID	-.02	.21	.09	.13	.26	-.05	.01	.13	.22	.16	-.05	-.04	-.11
	30	FID	.04	-.13	-.07	.01	-.06	.01	-.02	.03	-.15	-.03	.10	-.02	.10

Note. n = 281. Sex is coded as: 0 = male, 1 = female. Values in the diagonal are Cronbach alpha reliabilities. MTL = motivation to lead (affective identity), LA = leadership aspirations, LSE = leadership self-efficacy, LID = leader identity, FID = follower identity. ILT = Implicit Leadership Theories, IFT = Implicit Followership Theories.

Table 15 (continued)
Study 2: Bivariate Correlations between ILT Traits, IFT Traits, and Leadership Outcomes

		Variables	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Self-perceptions																			
ILT	14	Sensitivity	(.83)																
	15	Intelligence	.53	(.90)															
	16	Dedication	.48	.69	(.92)														
	17	Dynamism	.53	.60	.68	(.87)													
	18	Tyranny	-.12	.14	.06	.29	(.87)												
	19	Masculinity	.02	.16	.04	.18	.31	(.89)											
IFT	20	Industry	.42	.62	.81	.61	.06	.15	(.87)										
	21	Enthusiasm	.42	.45	.56	.74	.20	.13	.56	(.84)									
	22	Good citizen	.60	.50	.56	.62	.00	.18	.58	.57	(.83)								
	23	Conformity	.20	.17	.15	.19	.13	.07	.18	.26	.25	(.63)							
	24	Insubordination	-.23	.03	-.07	.06	.68	.29	-.04	-.03	-.21	.10	(.89)						
	25	Incompetence	-.01	-.23	-.25	-.05	.40	.25	-.23	-.10	-.14	.18	.40	(.76)					
Leadership Outcomes																			
	26	MTL	.11	.31	.32	.37	.25	.06	.33	.40	.24	-.22	.13	-.18	(.91)				
	27	LA	.18	.24	.33	.35	.19	.00	.30	.35	.28	-.02	.05	-.13	.61	(.92)			
	28	LSE	.28	.41	.39	.43	.13	.01	.38	.46	.35	-.15	-.01	-.21	.70	.60	(.87)		
	29	LID	.14	.31	.36	.41	.23	.11	.35	.44	.29	-.07	.10	-.19	.79	.66	.70	(.91)	
	30	FID	-.09	-.25	-.23	-.27	-.07	-.06	-.24	-.25	-.18	.33	-.02	.18	-.65	-.44	-.53	-.55	(.89)

Note. n = 281. Sex is coded as: 0 = male, 1 = female. Values in the diagonal are Cronbach alpha reliabilities. MTL = motivation to lead (affective identity), LA = leadership aspirations, LSE = leadership self-efficacy, LID = leader identity, FID = follower identity. ILT = Implicit Leadership Theories, IFT = Implicit Followership Theories.

Table 16

Study 2: Estimated Means and Mean Differences by Race for ILT Traits, IFT Traits, and Leadership Outcomes

		Asian Canadians		White Canadians			
Prototype	Trait	*Mean*	*SE*	*Mean*	*SE*	*t*	*p*
Meta-stereotypes							
Leader	Sensitivity	6.05	0.17	6.07	0.13	-0.10	.918
	Intelligence	7.58	0.13	6.96	0.10	3.71	< .001
	Dedication	7.67	0.14	6.62	0.11	5.85	< .001
	Dynamism	5.49	0.17	6.29	0.13	-3.76	< .001
	Tyranny	4.60	0.20	5.90	0.15	-5.16	< .001
	Masculinity	3.55	0.19	5.21	0.15	-6.71	< .001
Follower	Industry	7.79	0.14	6.53	0.11	7.07	< .001
	Enthusiasm	5.43	0.16	6.64	0.12	-6.00	< .001
	Good citizen	6.71	0.15	6.50	0.11	1.12	.264
	Conformity	5.74	0.16	5.81	0.12	-0.32	.751
	Insubordination	4.36	0.23	5.41	0.18	-3.57	< .001
	Incompetence	3.08	0.17	3.38	0.13	-1.45	.149
Self-perceptions							
Leader	Sensitivity	71.96	1.39	71.71	1.07	0.14	.887
	Intelligence	61.18	1.53	65.62	1.18	-2.28	.023
	Dedication	65.18	1.86	68.45	1.42	-1.39	.167
	Dynamism	56.81	2.06	58.89	1.58	-0.79	.428
	Tyranny	33.83	1.87	30.72	1.44	1.31	.193
	Masculinity	27.71	1.75	23.03	1.38	2.08	.038
Follower	Industry	61.43	1.71	65.68	1.31	-1.96	.051
	Enthusiasm	55.89	2.04	59.87	1.56	-1.54	.126
	Good citizen	74.15	1.52	75.88	1.16	-0.90	.370
	Conformity	50.80	1.82	43.47	1.39	3.17	.002
	Insubordination	22.70	1.80	22.08	1.37	0.27	.788
	Incompetence	29.54	1.76	20.89	1.35	3.88	< .001
Leadership Outcomes							
	MTL	4.11	0.12	4.63	0.09	-3.49	< .001
	LA	4.89	0.11	4.83	0.09	0.45	.651
	LSE	4.81	0.09	5.06	0.07	-2.29	.023
	LID	4.07	0.15	4.41	0.11	-1.87	.063
	FID	3.45	0.13	2.72	0.10	4.47	< .001

Note. Estimated means control for sex of participant (0 = male, 1 = female). MTL = motivation to lead (affective identity), LA = leadership aspirations, LSE = leadership self-efficacy, LID = leader identity, FID = follower identity.

Table 17

Study 2: ILT Traits and IFT Traits Simultaneously Mediating the Effect of Race on Leadership Outcomes (White Canadians vs. Asian Canadians)

		Affective Identity MTL				Leadership Self-Efficacy				Follower Identity			
		Product of coefficients		95% CI		Product of coefficients		95% CI		Product of coefficients		95% CI	
	Trait	Point estimate	*SE*	Lower limit	Upper limit	Point estimate	*SE*	Lower limit	Upper limit	Point estimate	*SE*	Lower limit	Upper limit
Meta-stereotypes													
Leader	Intelligence	0.002	0.05	-0.08	0.11	0.06	0.04	-0.002	0.17	**-0.12**	0.06	-0.26	-0.03
	Dedication	-0.09	0.09	-0.31	0.06	-0.02	0.07	-0.16	0.11	0.03	0.08	-0.14	0.19
	Dynamism	-0.04	0.06	-0.17	0.07	0.02	0.04	-0.05	0.11	**-0.11**	0.07	-0.29	-0.003
	Tyranny	-0.02	0.07	-0.17	0.11	0.08	0.05	0.00	0.18	-0.05	0.07	-0.21	0.09
	Masculinity	0.01	0.07	-0.13	0.16	-0.04	0.05	-0.15	0.05	-0.09	0.08	-0.27	0.07
Follower	Industry	0.12	0.10	-0.07	0.32	0.03	0.07	-0.10	0.18	0.02	0.11	-0.19	0.23
	Enthusiasm	-0.11	0.08	-0.28	0.02	-0.10	0.06	-0.23	0.006	**0.20**	0.09	0.04	0.41
	Insubordination	-0.05	0.05	-0.16	0.03	0.00	0.03	-0.05	0.07	0.05	0.05	-0.03	0.16
Self-perceptions													
Leader	Intelligence	**-0.10**	0.05	-0.21	-0.02	**-0.09**	0.04	-0.20	-0.02	**0.10**	0.05	0.02	0.21
	Masculinity	**0.04**	0.03	0.0003	0.13	0.03	0.02	-0.001	0.08	-0.03	0.03	-0.12	0.005
Follower	Conformity	**-0.13**	0.05	-0.26	-0.04	**-0.07**	0.03	-0.16	-0.02	**0.18**	0.07	0.07	0.34
	Incompetence	-0.06	0.04	-0.17	0.002	-0.04	0.03	-0.12	0.01	0.04	0.04	-0.02	0.16

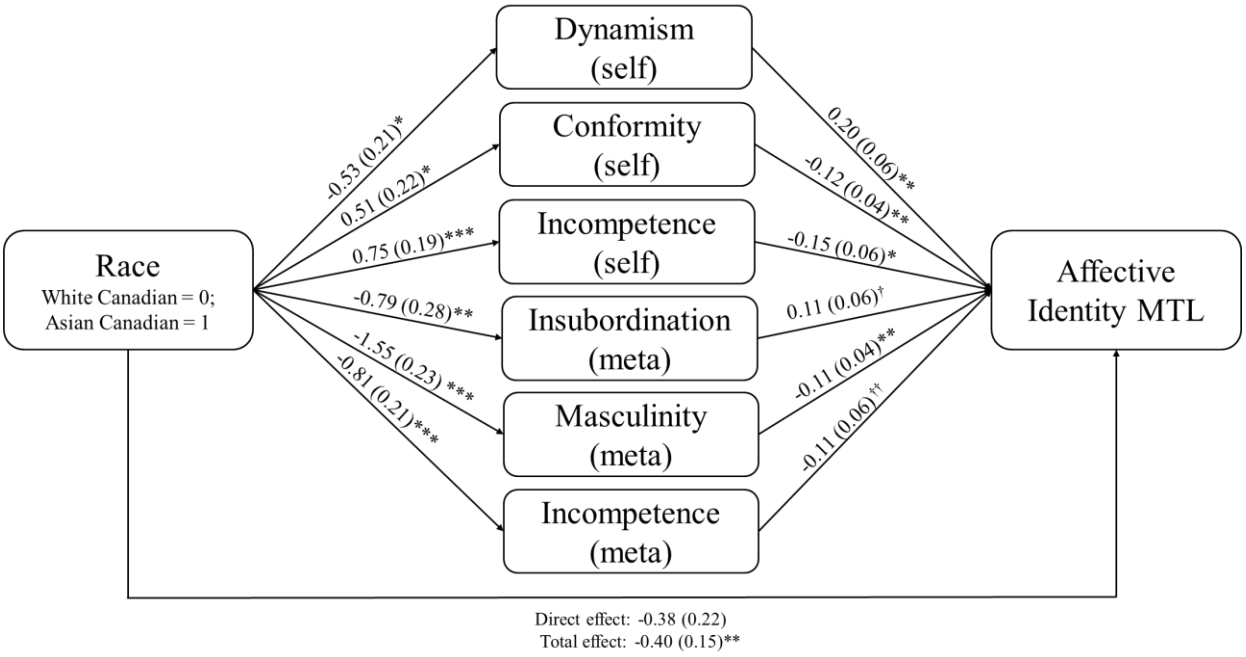
Note. Race was coded as 0 = White Canadian, 1 = Asian Canadian. Mediators were run in parallel, i.e., simultaneously. Bootstrap sample size = 5,000. Coefficients in boldface indicate significant mediation. MTL = motivation to lead.

Table 18
Summary of Hypothesis Support Across Studies (Essay 2)

Pathway	Hypothesis		Study 1	Study 2
Race → Leadership outcomes	1	Asians will score lower on leadership outcomes (i.e., lower motivation to lead, lower leadership self-efficacy, lower leadership aspirations, lower leader identity, and greater follower identity) than Whites.	Mostly supported (i.e., all outcomes except leadership aspirations)	Partially supported (i.e., all outcomes except leadership aspirations and leader identity)
Race → Meta-stereotypes	2	Compared to Whites, Asians will believe North Americans perceive them as (a) more intelligent and dedicated (i.e., competent leader prototype) and (b) less dynamic, tyrannical, and masculine (i.e., agentic leader prototype).	a) Supported b) Supported	a) Supported b) Supported
	3	Compared to Whites, Asians will believe North Americans perceive them (a) more industrious and better citizens (i.e., dutiful follower prototype) and (b) less enthusiastic and incompetent (i.e., cheerleader follower prototype).	a) Supported b) Supported	a) Partially supported (i.e., industry) b) Partially supported (i.e., enthusiasm)
Race → Self-perceptions	4	Compared to Whites, Asians will perceive themselves as (a) more intelligent and dedicated (i.e., competent leader prototype) and (b) less dynamic, tyrannical, and masculine (i.e., agentic leader prototype).	a) Not supported b) Partially supported (i.e., dynamism)	a) Not supported b) Not supported
	5	Compared to Whites, Asians will perceive themselves as (a) more industrious and better citizens (i.e., dutiful follower prototype) and (b) less enthusiastic and incompetent (i.e., cheerleader follower prototype).	a) Not supported b) Not supported	a) Not supported b) Not supported
Race → Meta-stereotypes & self-perceptions	6a	The relationship between race and leadership outcomes will be simultaneously mediated by meta-stereotypes on prototypical leader and follower traits and self-perceptions on prototypical leader	Partially supported (i.e., self-perceptions on dynamism consistently	Consistently not supported across leadership outcomes

→ Leadership outcomes		and follower traits. In other words, Asians will score lower on leadership outcomes than Whites because, compared to the meta-stereotypes of Whites, the meta-stereotypes of Asians will be (a) higher for intelligence and dedication (i.e., competent leader prototype), (b) lower for dynamism, tyranny, and masculinity (i.e., agentic leader prototype), (c) higher for industry and good citizen (i.e., dutiful follower prototype), and (d) lower for enthusiasm and incompetence (i.e., cheerleader follower prototype), and, compared to the self-perceptions of Whites, the self-perceptions of Asians will be (e) higher for intelligence and dedication (i.e., competent leader prototype), (f) lower for dynamism, tyranny, and masculinity (i.e., agentic leader prototype), (g) higher for industry and good citizen (i.e., dutiful follower prototype), and (h) lower for enthusiasm and incompetence (i.e., cheerleader follower prototype).	supported across leadership outcomes)	

a.



b.

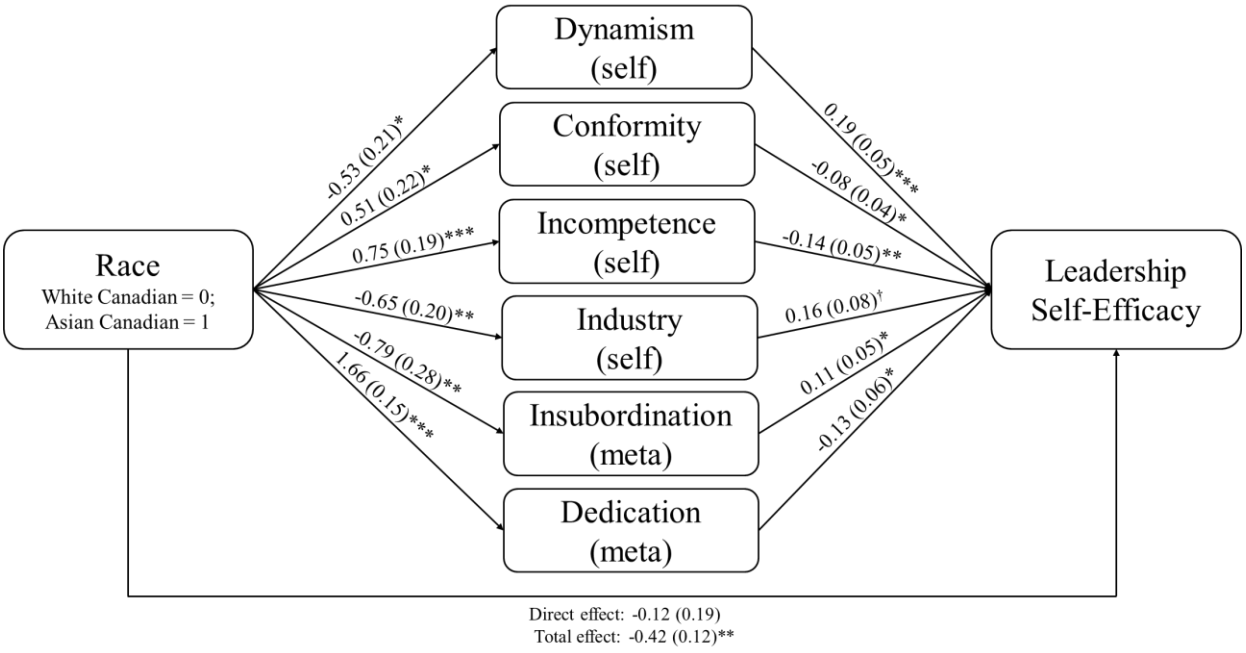
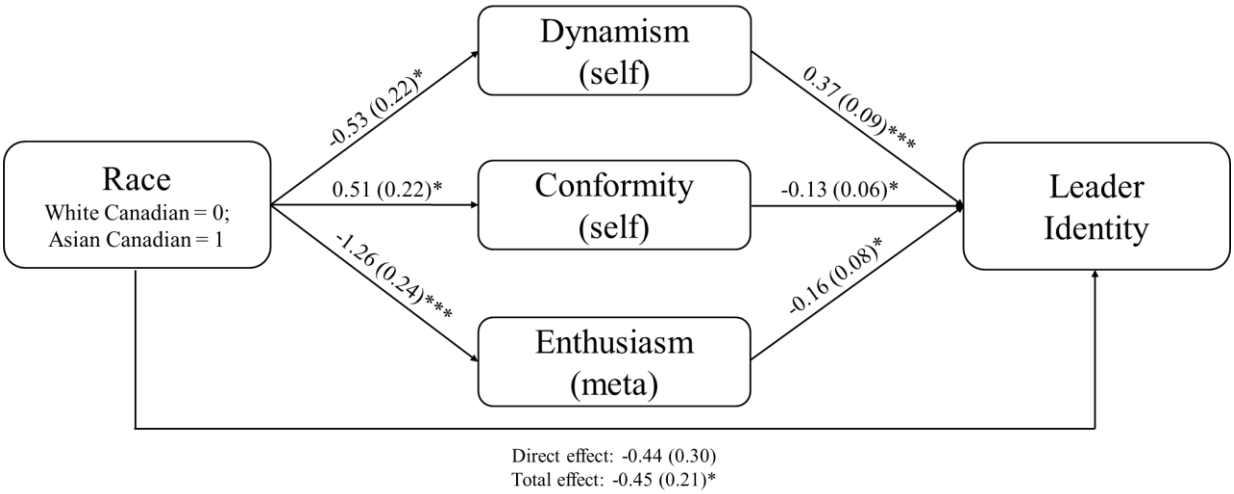


Figure 3. Study 1 mediations. Only significant indirect effects are shown for readability. Numbers before parentheses are unstandardized *b* weights derived from bootstrap procedures. Numbers in parentheses are standard errors. All pathways control for participant sex (male = 0, female =1).
† $p = .054$. †† $p = .068$. * $p < .05$. ** $p < .01$. *** $p < .001$.

c.



d.

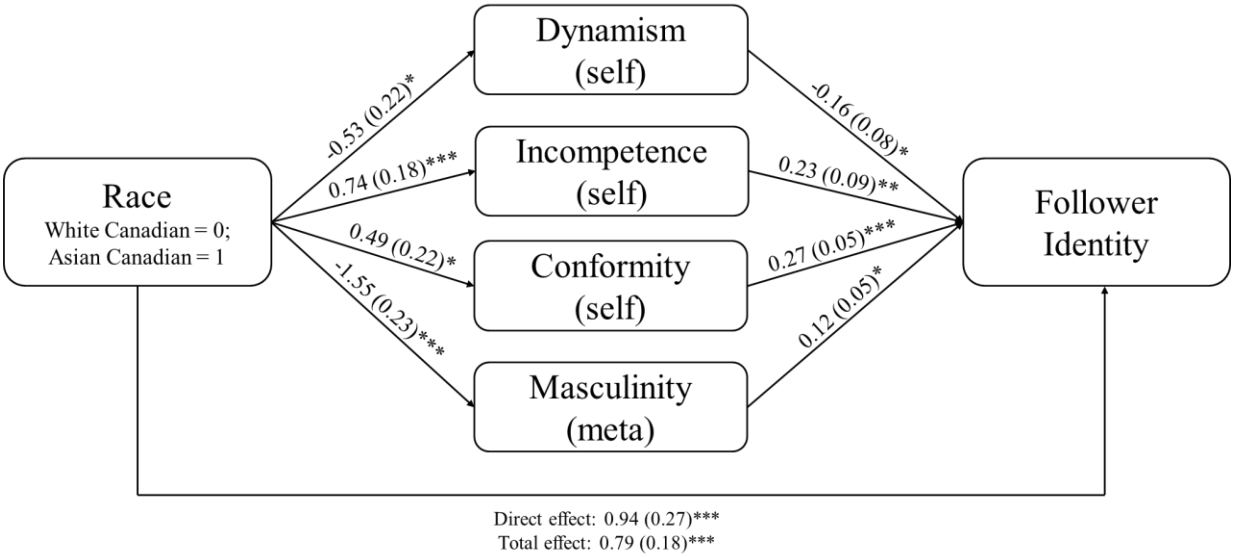
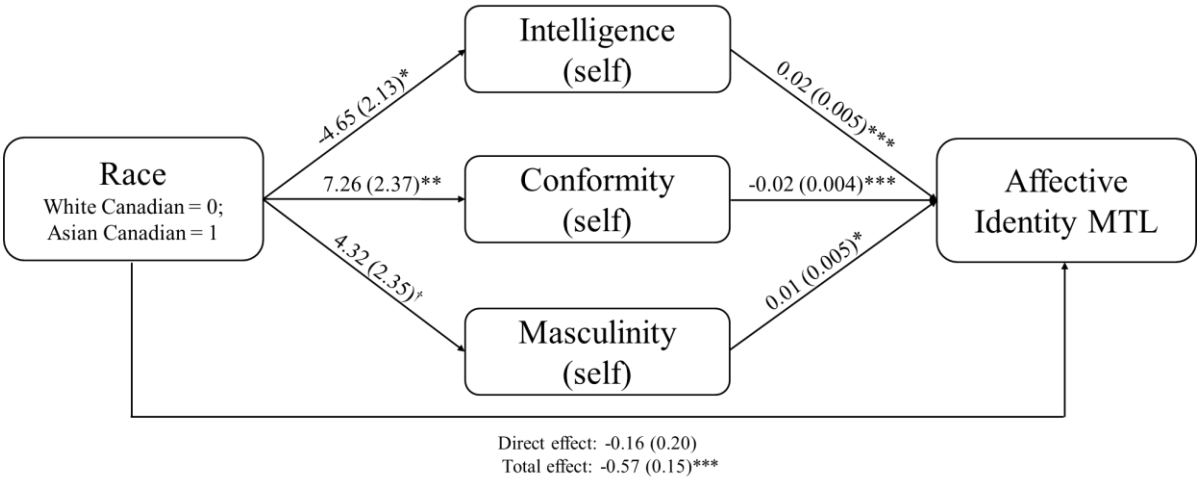
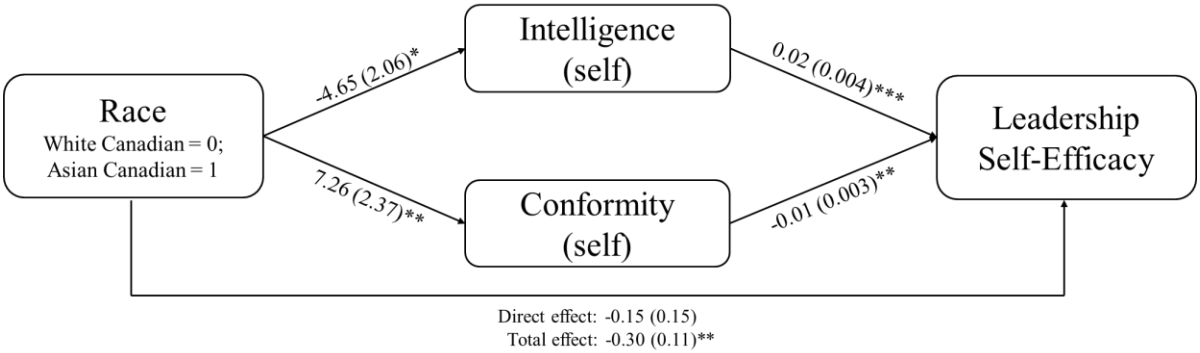


Figure 3 (continued). Study 1 mediations. Only significant indirect effects are shown for readability. Numbers before parentheses are unstandardized *b* weights derived from bootstrap procedures. Numbers in parentheses are standard errors. All pathways control for participant sex (male = 0, female = 1).
* $p < .05$. ** $p < .01$. *** $p < .001$.

a.



b.



c.

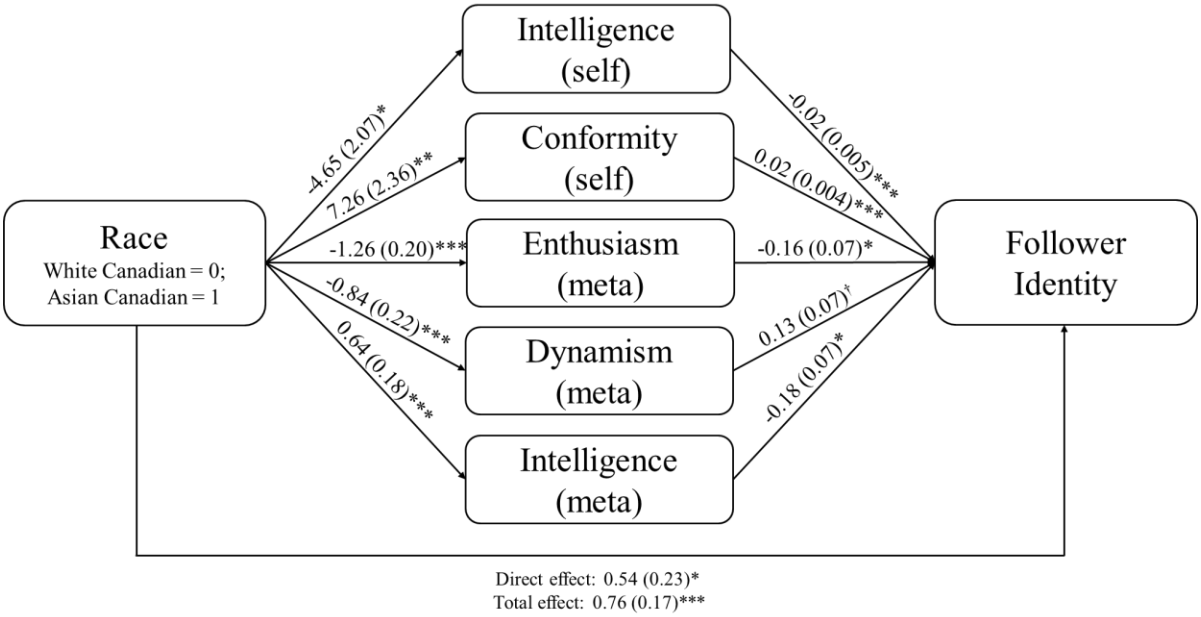


Figure 4. Study 2 mediations. Only significant indirect effects are shown for readability. Numbers before parentheses are unstandardized *b* weights derived from bootstrap procedures. Numbers in parentheses are standard errors. All analyses control for participant sex (male = 0, female = 1).
* $p < .05$. ** $p < .01$. *** $p < .001$.

CHAPTER 4: CONCLUDING REMARKS AND FUTURE DIRECTIONS

In the pursuit of a deeper understanding of the leadership advancement challenges of underrepresented racial minority groups, Asian Americans have been largely ignored. Across two essays, I sought to advance our understanding of the external barriers (Essay 1) and internal barriers (Essay 2) to the upward organizational mobility of this racial minority group. In both essays, I drew on perceptions of fit between traits associated with commonly held Asian stereotypes and traits associated with leaders and followers to uncover potential mechanisms contributing to the under-representation of Asian leaders in North America. Based on my findings, I found unexpected support for an Asian leadership *advantage* when it comes to others' perceptions and a surprising internal barrier—self-perceptions of incompetence—among Asians that may be holding them back from pursuing leadership roles.

Broadly, Essay 1 and 2 contribute to a growing area of research examining the unique leadership challenges of Asians. Essay 1, unexpectedly, reveals that Asians being viewed as fitting the traits of an ideal follower (i.e., industrious and dutiful) can *enhance* rather than harm others' views of Asians as (potential) leaders. Therefore, my work adds nuance to past research showing that Asians are perceived as poorer leaders than Whites, revealing the possibility of boundary conditions in others' negative perceptions of Asians as leaders compared to Whites. Essay 2 also provides valuable insights. Namely, cultural factors may be key in understanding Asians' reluctance to take on leadership roles. Asians seem to perceive themselves as inherently lacking the ability (e.g. intelligence and quick-thinking) and the personality (e.g., nonconforming and outspoken) to be an effective leader, both of which may be due to an Asian cultural emphasis on high achievement and humility. These findings therefore open new avenues for future

research to investigate in order to better understand this racial minority group in a leadership context.

Taken together, the findings of Essay 1 and Essay 2 reveal interesting trends. First, Essay 1 and Essay 2 show a disconnect between how others perceive Asians and how Asians perceive themselves in terms of leadership. In other words, others may perceive Asians as well-suited for leadership roles, due to their apparent hardworking and dutiful nature, whereas Asians may perceive themselves as ill-suited for such roles, due to self-views of their lack of intelligence/competence and their conforming nature (note also that these mechanisms are generally centred on *follower* traits). One wonders whether an awareness among Asians that others may, in fact, perceive them favourably as leaders (at least, under certain circumstances yet to be tested) may help enhance Asians' self-views as leaders, i.e., a stereotype boost or lift (Shih, Ambady, Richeson, Fujita, & Gray, 2002). For instance, when stereotypes about women's *lack* of math ability were made salient to Asian women, they performed worse on a math test, but when stereotypes about Asians' *strong* math ability were cued, they performed better, compared to a control group of Asian women who were not primed with gender or racial stereotypes (Shih, Pittinsky, & Ambady, 1999).

Second, in Essay 2, self-perceptions on conformity were consistently higher among Asians than Whites. However, in Essay 1, other-perceptions on conformity did not corroborate this pattern, instead showing that Asians and Whites were perceived as similarly conforming. Results regarding meta-stereotypes in Essay 2 also showed that Asians did not perceive others as viewing their group as more conforming than Whites' meta-stereotypes on this trait. As a result, Asians' self-perceptions as more conforming, which in turn harmed their attraction to leadership, is not reflected in other-perceptions (or meta-stereotypes) on this trait. This provides additional

evidence that self-perceptions among Asians as more conforming may, in fact, be due to internal (e.g., cultural) rather than external (e.g., stereotype-based) factors.

With these advances in understanding Asians' leadership challenges in North America come some limitations. First, although both Essay 1 and 2 provided evidence of mediation by ILT and IFT traits, I measured rather than manipulated these mediators, so I cannot definitively conclude that differing perceptions on leader and follower traits *caused* the leadership outcomes I observed (Spencer, Zanna, & Fong, 2005). However, note that this choice was made in part due to the difficulty of manipulating a large number of characteristics. Now that the key mechanisms have been identified, future research can more directly test the causal effect of perceived leader and follower traits on leadership outcomes; for example, by using research designs that would manipulate leader and follower traits (e.g., mediation-by-moderation).

Second, to test my hypotheses, I conducted a relatively large number of statistical tests in each study. In conjunction with the relatively modest sample sizes of my studies, there may be concerns regarding statistical power. However, in both essays, I sought to replicate significant effects across studies and focused on interpreting effects that were replicated. Although it is possible that I did not detect additional group differences or effects due to a lack of statistical power, my research has likely detected the largest and most consistent effects, which still provides valuable insight. Further, given that research on the leadership challenges of Asian Americans is still in its infancy, erring on the side of Type II errors rather than Type I errors seems appropriate to not overlook potential explanations worth pursuing in future research.

Third, both essays focus heavily on one Asian ethnic group, i.e., Chinese Americans and Canadians. Specifically, studies in Essay 1 use a stereotypically Chinese last name (i.e., Wong) to signal an Asian target and Essay 2 participants were mostly Chinese Canadian (approximately

70% in Study 1 and Study 2). My results therefore do not speak to possible variations within groups in the Asian community with regards to interpersonal and intrapersonal leadership (and followership) perceptions. In fact, scholars have advocated for the need to consider different ethnic groups within the Asian community, as a homogenous examination of Asians masks the varying North American experiences of different ethnic groups (Hurh & Kim, 1989). For example, in many Southeast Asian groups, such as Cambodians and Laotians, an overwhelming majority of adults do not have a bachelor's degree (approximately 80% in both groups). This is in stark contrast to East Asian adults, such as Chinese or Korean adults, half of whom have at least a bachelor's degree (López et al., 2017). As a result, other-perceptions of Southeast Asians on leader and follower traits, such as industry, may be lower than other-perceptions of East Asians. One may also wonder whether self-perceptions of Southeast Asian groups may also be lower on achievement-related traits (e.g., intelligence and competence) than East Asians given disparities between these groups.

Additionally, I did not include South Asians (e.g., Indians, Pakistanis) in my research as stereotypes about and leadership barriers facing South Asians may differ from East Asians. For example, Lu, Nisbett, and Morris (2020) found that although East Asians were under-represented in leadership positions in North America, South Asians were not and this was due to group differences in assertiveness. Future research should therefore consider different Asian ethnicities to better understand the likely nuances to the Asian-White leadership gap.

Finally, my research focuses heavily on socio-cognitive factors, namely, leadership (and followership) perceptions, as well as their connection with motivation, self-efficacy, and identity. There may, of course, be other factors that contribute to the under-representation of Asian leaders. Some evidence suggests that Asians, compared to Whites, are less likely to engage in

self-focused impression management tactics, such as highlighting one's accomplishments to supervisors (e.g., self-promotion), but more likely to focus on working hard to impress managers. As managers were more impressed with employees using self-focused tactics than work-focused ones, Asians' tendency to avoid self-promoting behaviours may be contributing to their lack of upward mobility in organizations (Xin, 2004).

Another possible factor influencing the Asian-White leadership gap is the lack of mentoring and sponsoring of Asian workers (Woo, 2000). Indeed, Asian leaders in North America have found that having a senior worker advocate for them and empower them in their careers was helpful for their advancement to leadership roles (Kawahara et al., 2013). In sum, future research should continue to examine additional factors that may contribute to the underrepresentation of Asian leaders to get a more comprehensive view of the problem.

Overall, the aim of this dissertation was to examine potential reasons behind the under-representation of Asians in North American workplace leadership roles. Essay 1 and Essay 2 contribute to this goal by showing that *follower* stereotypes about Asians and Asian cultural expectations of achievement and humility are important factors to consider in future examinations of the Asian-White leadership gap.

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Appendix A: Implicit Leadership Theories (ILT) and Implicit Followership Theories (IFT)

Measure Items, Instructions, and Response Scales (Essay 1 and 2)

a) Measure Items

Implicit Leadership Theories	Implicit Followership Theories
1. Understanding	1. Hardworking
2. Helpful	2. Productive
3. Sincere	3. Goes above and beyond
4. Intelligent	4. Excited
5. Knowledgeable	5. Outgoing
6. Clever	6. Happy
7. Educated	7. Loyal
8. Dedicated	8. Reliable
9. Motivated	9. Team player
10. Hard-working	10. Easily influenced
11. Energetic	11. Follows trends
12. Strong	12. Soft spoken
13. Dynamic	13. Arrogant
14. Domineering	14. Rude
15. Pushy	15. Bad tempered
16. Manipulative	16. Uneducated
17. Loud	17. Slow
18. Selfish	18. Inexperienced
19. Conceited	
20. Masculine	
21. Male	

Note. See measure instructions and response scales in table below.

b) Instructions and Response Scales by Essay and Study

	Essay 1	Essay 2
Study 1	Please rate how characteristic <u>you personally think</u> each of these traits is of **Asians or Asian Americans** [**White or Caucasian-Americans** /**Hispanic individuals or Latin Americans**/**Blacks or African-Americans**] Response scale: 1 = *not at all characteristic*; 9 = *extremely characteristic*	<u>Meta-stereotypes</u> How characteristic would people in North America (specifically, Canada/USA) think each of these traits are of members of your racial group? For example, if you are Asian, how characteristic would North Americans think "Intelligent" is of Asians? Response scale: 1 = *not at all characteristic*; 9 = *extremely characteristic* <u>Self-perceptions</u> How characteristic do you think each of the following traits are of you? Response scale: 1 = *not at all characteristic*; 9 = *extremely characteristic*
Study 2	**Compared to other U.S. managers with the same level of responsibilities**, from 0-100%, how characteristic do you think each of these traits is of David Wong [Tung-Sheng Wong/John Davis]? Response scale: *0-100%*	<u>Meta-stereotypes</u> How characteristic would people in North America (specifically, Canada/USA) think each of these traits are of members of your racial group? For example, how characteristic would North Americans think "understanding" is of members of your racial group (e.g., White, Asian, Black, Hispanic,…)? Response scale: 1 = *not at all characteristic*; 9 = *extremely characteristic*

		<u>Self-perceptions</u> How characteristic do you think each of the following traits are of you? For each item below, please assign yourself, to the best of your knowledge, a percentile score between 0-100% reflective of your standing **compared to other undergraduate students in North America.** Response scale: *0-100%*
Study 3	**Compared to other U.S.-based employees with the same level of work experience**, from 0-100%, how characteristic do you think each of these traits is of David Wong [Tung-Sheng Wong/John Davis]? Response scale: *0-100%*	
Study 4	**Compared to other U.S.-based employees with the same level of responsibilities**, from 0-100%, how characteristic do you think each of these traits is of Peter Wong [John Davis]? Response scale: *0-100%*	

Appendix B: Vignettes (Essay 1, Study 2-4)

Study 2

Please read the paragraph below that describes an employee in a U.S.-based organization:

David Wong [Tung-Sheng Wong/John Davis], a 31-year-old Asian [Asian/White] American male, graduated in 2008 from University of Arizona. He has been employed as a manager in the same U.S.-based organization for five years. His responsibilities include managing customer complaints, providing consultation regarding the company's services, and troubleshooting problems. Although he sometimes has problems with certain co-workers, he is generally good tempered.

Study 3

Please read the paragraph below that describes an employee in a U.S.-based organization.

David Wong [Tung-Sheng Wong/John Davis], a 31-year-old Asian [Asian/White] American male, graduated in 2010 from University of Arizona. He has been employed as an analyst in the same U.S.-based organization for four years. His responsibilities include preparing proposals and reports, providing consultation regarding the company's services, and responding to client complaints. Although he sometimes has problems with certain co-workers, he is generally good tempered.

Study 4

Imagine you are the leader of a team of associates in a U.S.-based organization. Your employees are responsible for preparing proposals and reports, providing consultation regarding the company's services, and responding to client complaints.

You have recently been promoted to a more senior role in your organization and, as a result, you were asked to select one of your current direct reports to take your place as the team leader.

You have narrowed down your decision to two individuals who have demonstrated strong performance over the past four years, neither of whom have had previous leadership experience. You would describe their performance in the following way:

[Version 1]

Peter Wong [John Davis], a 30-year-old Asian [White] American male, carries out core parts of the job well, works weekends or other days off to complete a project or task, but sometimes comes to work late without permission.

John Davis [Peter Wong], a 32-year old White [Asian] American male, ensures tasks are completed properly, volunteers to attend meetings or work on committees on own time, but sometimes wastes employer's materials/supplies.

[Version 2]

Peter Wong [John Davis], a 30-year-old Asian [White] American male, adequately completes assigned duties, lends a compassionate ear when someone has a work problem, but sometimes complains about insignificant things at work.

John Davis [Peter Wong], a 32-year old White [Asian] American male, engages in activities that will directly affect his performance evaluation, helps co-workers who have too much to do, but sometimes ignores others at work.

Appendix C: Leadership Effectiveness Measure (Essay 1, Study 2)

For all questions below, please assign David Wong [Tung-Sheng Wong/John Davis] a percentile score between 0-100% reflective of his standing **compared to all U.S.-based managers with the same level of responsibilities.**

For example:

For the question "How much potential do you think David Wong [Tung-Sheng Wong/John Davis] has to advance to a higher leadership position?", if you think he has about average potential or more potential than 50% of managers, you would give him a score of 50. Similarly, if you think he is amongst managers with the most potential or more potential than, say, 98% of managers, you would give him a score of 98; and if you think he is amongst managers with the least potential or only has greater potential than, say, 2% of managers, you would give him a score of 2.

From 0-100% ...

1. How typical is David Wong [Tung-Sheng Wong/John Davis] of a leader?
2. How well does David Wong [Tung-Sheng Wong/John Davis] fit my image of a leader?
3. How well does David Wong [Tung-Sheng Wong/John Davis] engage in leader behavior?
4. How well does David Wong [Tung-Sheng Wong/John Davis] exhibit leadership?
5. How willing would you be to choose David Wong [Tung-Sheng Wong/John Davis] as a formal leader?

Appendix D: Leadership Emergence Measure (Essay 1, Study 3)

For all questions below, please assign David Wong [Tung-Sheng Wong/John Davis] a percentile score between 0-100% reflective of his standing **compared to other U.S.-based employees with the same level of work experience**.

For example:

For the question "To what extent do you believe David Wong [Tung-Sheng Wong/John Davis] has the potential to advance to a leadership position?", if you think he has about average potential or more potential than 50% of employees, you would give him a score of 50. Similarly, if you think he is amongst employees with the most potential or more potential than, say, 98% of employees, you would give him a score of 98; and if you think he is amongst employees with the least potential or only more potential than, say, 2% of employees, you would give him a score of 2.

Compared to other U.S.-based employees with the same level of work experience, from 0-100%, to what extent do you believe David Wong [Tung-Sheng Wong/John Davis]) has the potential to...

1. ... become an effective leader?
2. ... learn leadership skills?
3. ... advance to a leadership position?
4. ... become a role-model for his current coworkers?

Appendix E: Pilot Study (Essay 1, Study 4)

The purpose of the pilot study was to create vignettes describing two high-performing employees with differing but equated job performance descriptions. Specifically, I aimed to find pairs of equated behaviours for each of the three broad dimensions of job performance: task performance, organizational citizenship behaviours (OCBs), and counterproductive work behaviours (CWBs). I created two different sets of vignettes (i.e., Version 1 and Version 2; see Appendix B) to reduce the possibility that differing perceptions of John Davis and Peter Wong's leadership potential may be due to their respective job performance descriptions rather than their race. Within each version, job performance descriptions were randomly assigned to either Peter Wong or John Davis to reduce order effects. Vignette versions and the order in which Peter Wong and John Davis were presented in the vignettes did not have a significant effect on choice ($\chi^2(1) = 0.83$, $p = .363$ and $\chi^2(1) = 1.71$, $p = .191$, respectively).

The pilot study was administered online to a sample of participants ($n = 100$) recruited from MTurk. Participants were non-overlapping with those in Study 4 but had similar demographic characteristics. Participants were asked to rate the desirability of different task performance behaviours, OCBs, and CWBs on a nine-point Likert scale (1 = *extremely undesirable*; 9 = *extremely desirable*). I compiled the list of performance behaviours from past research on task performance (Griffin, Neal, & Parker, 2007; Williams & Anderson, 1991), OCBs (Podsakoff, MacKenzie, Moorman, & Fetter, 1990; Spector, Bauer, & Fox, 2010), and CWBs (Bennett & Robinson, 2000; Rotundo & Sackett, 2002; Spector et al., 2010).

The results for my pilot study are shown in the table below. My criteria for selecting behaviour pairs to be included in my vignettes were the following: for task behaviours and OCBs, I selected pairs of behaviours whose mean ratings and standard deviations were the most

similar to one another and whose mean ratings were among the highest. For CWBs, I selected pairs of behaviours whose mean ratings and standard deviations were the most similar to one another and whose mean ratings were among the *lowest*, as I was aiming to create performance descriptions of two *high performing* employees. Additionally, to further ensure behaviour pairs were equated, I aimed to select pairs of behaviours that were of the same type within task performance behaviours (e.g., in-role), OCBs (e.g., organizational), and CWBs (e.g., organizational deviance). Results and selected behaviour pairs are presented in the table below.

Means and Standard Deviations for Task Performance Behaviours, OCBs, and CWBs

	Behaviour	Type	*Mean*	*SD*	*N*
	Task Performance				
1	Making changes to the way core tasks are done	Individual proactivity	7.08	1.58	100
2	Suggesting ways to make his/her work unit more effective	Team member proactivity	7.42	1.69	99
3	Developing new and improved methods to help his/her work unit perform better	Team member proactivity	7.61	1.53	100
4	Involving him/herself in changes that are helping to improve the overall effectiveness of the organization	Organization member proactivity	7.65	1.50	99
5	Coping with changes in the way the organisation operates	Organization member adaptivity	7.69	1.61	100
6	Coming up with ways of increasing efficiency within the organization	Organization member proactivity	7.71	1.55	98
7	Dealing effectively with changes that affects his/her work unit (e.g., addition of new members)	Team member adaptivity	7.75	1.39	100
8	Initiating better ways of doing core tasks	Individual proactivity	7.78	1.44	100
9	Coping with changes to the way core tasks have to be done	Individual adaptivity	7.80	1.46	99
10	Coordinating his/her work with coworkers	Team member proficiency	7.81	1.30	99
11	Fulfilling responsibilities specified in job description	In-role behavior	7.88	1.71	100
12	Learning new skills to help adapt to changes in core tasks	Individual adaptivity	7.91	1.48	99
13	Adapting well to changes in core tasks	Individual adaptivity	7.94	1.45	100
14	**Engaging in activities that will directly affect his/her performance evaluation****	In-role behavior	7.94	1.21	100
15	**Adequately completing assigned duties****	In-role behavior	7.95	1.47	100
16	**Ensuring tasks are completed properly***	In-role behavior	8.05	1.61	100
17	**Carrying out core parts of the job well***	In-role behavior	8.05	1.44	100
18	Communicating effectively with his/her coworkers	Team member proficiency	8.06	1.39	100
	OCB				
1	Giving up meal and other breaks to complete work	OCB-O	6.06	2.41	99
2	**Working weekends or other days off to complete a project or task***	OCB-O	6.83	2.22	100
3	**Volunteering to attend meetings or work on committees on own time***	OCB-O	6.87	1.91	99
4	Attending functions that are not required, but help the company image	OCB-O	7.25	1.81	100
5	Volunteering for extra work assignments	OCB-O	7.37	1.71	99
6	Offering suggestions to improve how work is done	OCB-O	7.50	1.39	100
7	**Helping a co-worker who had too much to do****	OCB-I	7.61	1.58	100

8	**Lending a compassionate ear when someone has a work problem****	OCB-I	7.61	1.52	100
9	Helping a co-worker who has been absent	OCB-I	7.65	1.52	100
10	Helping a co-worker learn new skills or sharing job knowledge	OCB-I	7.74	1.64	100
11	Helping new employees get oriented to the job	OCB-I	7.78	1.30	100
12	Taking time to advise, coach, or mentor a co-worker	OCB-I	7.82	1.36	99
	CWB				
1	Spreading false rumors about coworkers	Interpersonal deviance	2.60	2.32	99
2	Insulting or making fun of someone at work	Interpersonal deviance	2.61	2.39	100
3	Making fun of someone's personal life	Interpersonal deviance	2.61	2.27	100
4	Insulting someone about their job performance	Interpersonal deviance	2.65	2.24	99
5	Blaming other coworkers for his/her own mistakes	Interpersonal deviance	2.66	2.22	100
6	Starting an argument with someone at work	Interpersonal deviance	2.73	2.37	99
7	**Coming to work late without permission***	Organizational deviance	2.74	2.30	100
8	**Purposely wasting employer's materials/supplies***	Organizational deviance	2.76	2.21	100
9	Taking property from work without permission	Organizational deviance	2.87	2.45	100
10	Littering the work environment	Organizational deviance	3.01	2.29	100
11	Telling people outside the job what a lousy place he/she works for	Organizational deviance	3.10	2.38	100
12	Staying home from work and claiming to be ill when he/she wasn't	Organizational deviance	3.12	2.37	100
13	**Ignoring someone at work****	Interpersonal deviance	3.16	2.31	100
14	**Complaining about insignificant things at work****	Organizational deviance	3.18	2.18	100
15	Taking extra breaks	Organizational deviance	3.34	2.43	100

Note. OCB = Organizational citizenship behaviour. CWB = Counterproductive work behaviour. OCB-O = OCB directed toward the organization. OCB-I = OCB directed toward the individual. * Included in Version 1 of vignette. ** Included in Version 2 of vignette.

Appendix F: Leadership Outcome Measures (Essay 2, Study 1 & 2)

Motivation to Lead

To what extent do you agree or disagree with each of the following statements?
(1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, 7 = strongly agree)

[Affective identity]

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

[Noncalculative]

1. I am only interested to lead a group if there are clear advantages for me. *(reverse)*
2. I will never agree to lead if I cannot see any benefits from accepting that role. *(reverse)*
3. I would only agree to be a group leader if I know I can benefit from that role. *(reverse)*
4. I would agree to lead others even if there are no special rewards or benefits with that role.
5. I would want to know "what's in it for me" if I am going to agree to lead a group. *(reverse)*
6. I never expect to get more privileges if I agree to lead a group.
7. If I agree to lead a group, I would never expect any advantages or special benefits.
8. I have more of my own problems to worry about than to be concerned about the rest of the group. *(reverse)*
9. Leading others is really more of a dirty job rather than an honorable one. *(reverse)*

[Social normative]

1. I feel that I have a duty to lead others if I am asked.
2. I agree to lead whenever I am asked or nominated by the other members.
3. I was taught to believe in the value of leading others.
4. It is appropriate for people to accept leadership roles or positions when they are asked.
5. I have been taught that I should always volunteer to lead others if I can.
6. It is not right to decline leadership roles.
7. It is an honor and privilege to be asked to lead.
8. People should volunteer to lead rather than wait for others to ask or vote for them.
9. I would never agree to lead just because others voted for me. *(reverse)*

Leadership Aspirations

To what extent do you agree or disagree with each of the following statements?
(1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, 7 = strongly agree)

[Study 1]

1. I hope to become a leader in my career field.
2. When I am established in my career, I would like to manage other employees.
3. I do not plan on devoting energy to getting promoted in the organization or business I am working in. *(reverse)*
4. When I am established in my career, I would like to train others.
5. I hope to move up through any organization or business I work in.
6. Attaining leadership status in my career is not that important to me. *(reverse)*

[Study 2]

1. I would like to obtain a (higher) student leadership position during my time in university.
2. I would like to be in a position of greater responsibility and influence during my time as a university student.
3. My aspirations are very high in regard to recognition and achievement during my time in university.
4. I hope to become a leader in my upcoming career field.
5. I do not plan to devote energy to getting promoted to a leadership position in the organization or business in which I would be working. *(reverse)*
6. Becoming a leader in my future job is not at all important to me. *(reverse)*
7. When I am established in my career, I would like to manage other employees.
8. In my career, I would want to have responsibility for the future direction of my organization or business.
9. Attaining leadership status in my career is not that important to me. *(reverse)*
10. I hope to move up to a leadership position in the organization or business where I would work.
11. I plan to rise to the top leadership position of my organization or business where I would work.

Leadership Self-Efficacy

To what extent do you agree or disagree with each of the following statements?
(1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, 7 = strongly agree)

1. I know a lot more than most students about what it takes to be a good leader.

2. I know what it takes to make a group accomplish its task.
3. In general, I'm not very good at leading a group of my peers. *(reverse)*
4. I am confident of my ability to influence a group I lead.
5. I have no idea what it takes to keep a work group running smoothly. *(reverse)*
6. I know how to encourage good group performance.
7. I am able to allow most groups members to contribute to the task when leading a group.
8. Overall, I doubt that I could lead a group successfully. *(reverse)*

Leader Identity

Please rate the extent to which the following statements describe you.
(1 = not at all descriptive; 7 = extremely descriptive)

1. I am a leader.
2. I see myself as a leader.
3. If I had to described myself to others, I would include the word "leader".
4. I prefer being seen by others as a leader.

Follower Identity

Please rate the extent to which the following statements describe you.
(1 = not at all descriptive; 7 = extremely descriptive)

1. I am a follower.
2. I see myself as a follower.
3. If I had to described myself to others, I would include the word "follower".
4. I prefer being seen by others as a follower.

Appendix G: Humility Measure (Essay 2, Study 2)

Please indicate the extent to which you agree or disagree with the following statements:
(1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, 7 = strongly agree)

1. One should be able to brag about one's achievements. *(reverse)*
2. One should be able to boast about one's achievement. *(reverse)*
3. One should not sing one's own praises.
4. One should not openly talk about one's accomplishments.
5. One should be able to draw attention to one's accomplishments. *(reverse)*
6. Being boastful should not be a sign of one's weakness and insecurity. *(reverse)*