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## Managing to clear the air: Stereotype threat, women, and leadership

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Managing to clear the air:

Stereotype threat, women, and leadership

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### Abstract

In this article, we explore the process and implications of stereotype threat for women in leadership, broadly construed. First, we provide a brief background on the phenomenon of stereotype threat generally. Next, we explore stereotype threat for women in leadership by reviewing a model of stereotype threat in leadership contexts that includes cues to stereotype threat, consequences of stereotype threat, and moderators of stereotype threat appraisals and responses. In this review, in addition to considering research focused squarely on leadership, we include the broader categories of research examining stereotype threat effects in the workplace and in tasks and domains relevant to leadership. Finally, we examine implications for future research and explore practices to reduce the potential for negative stereotype threat effects.

## **Managing to clear the air:**

### **Stereotype threat, women, and leadership**

#### **Introduction**

Today, women hold a greater percentage of leadership roles in political life and the workforce than ever before both in the United States (Pew Research Center, 2015) and around the world (World Economic Forum, 2014). Nonetheless, women remain woefully underrepresented in the upper echelons of corporations and political systems (Catalyst, 2015; Center for American Women & Politics, 2015; Lawless & Fox, 2012.). The importance of promoting more women into leadership roles is greater than just fulfilling the promise of equal opportunity and making businesses, institutions, and governments more representative. Evidence is clear that fostering full participation for women is important for promoting a prosperous and civil society. Research suggests that women tend to adopt leadership styles that are particularly well suited for the complexity of contemporary organizations and can translate into enhanced institutional effectiveness (Eagly & Carli, 2003; Eagly, Gartzia, & Carli, 2014). Furthermore, women can bring unique and important perspectives and priorities that serve promote positive social outcomes and greater ethical accountability (Eagly et al., 2014). However, the realization of these potential advantages can be hampered by the disadvantage female leaders experience as the target of negative stereotype-based expectations.

Many explanations have been offered for why women have difficulty in reaching top leadership positions and chief among them is the stereotype-based lack of fit between women's characteristics, skills, and aspirations and those deemed necessary for effective leadership. Gender stereotype-based expectations not only affect who people see as "fitting" the preconceived notion of a leader, but they also affect women themselves. In this article, we focus

on the impact that these gender-based expectations can have on women in leadership. Women are often acutely aware that their treatment in leadership situations may be contingent upon their gender. Female leaders often find themselves in a double bind: highly communal women are criticized for being deficient leaders, and highly agentic women experience backlash for not being female enough (Eagly et al., 2014; Heilman, 2001; Heilman & Okimoto, 2007; Heilman, Wallen, Fuchs, & Tamkins, 2004; Rudman & Glick, 1999, 2001). In other words, in leadership situations women often experience “social identity contingencies” which “are possible judgments, stereotypes, opportunities, restrictions, and treatments that are tied to one’s social identity in a given setting” (Purdie-Vaughns, Steele, Davies, Dittmann, & Crosby, 2008, p. 615). In these situations, women may experience *stereotype threat* defined as “the concrete, real-time threat of being judged and treated poorly in settings where a negative stereotype about one’s group applies” (Steele, Spencer, & Aronson, 2002, p. 385). In the domain of leadership, stereotype-based expectations of inferiority can be psychologically burdensome for women and can contribute to their underrepresentation (Eagly & Karau, 2002; Heilman, 1995).

#### *Gender, leadership, and women’s “lack of fit”*

People have intuitive and preconceived notions of what it means to be a leader, termed implicit leadership theories, and people evaluate their leaders and potential leaders in reference to them (Forsyth & Nye, 2008; Kenney, Schwartz-Kenney, & Blascovich, 1996; Lord & Maher, 1991). In addition to reflecting personality traits and behaviors, these implicit leadership theories often reflect social identities associated with traditional leaders (Hoyt & Chemers, 2008). Two social identities commonly associated with elite leadership include being White and being male. These White and masculine leadership standards can result in biased perceptions and evaluations of people who do not fit the image of a leader, such as women (Eagly & Carli, 2007; Johnson,

Murphy, Zewdie & Reichard, 2008; Koenig, Eagly, Mitchell, & Ristikari, 2011; Rosette, Leonardelli, & Phillips, 2008).

The notion that women do not fit the image of a leader has been articulated in both Heilman's (1983, 2001) lack of fit model and Eagly and Karau's (2002) role congruity theory of prejudice toward female leaders. The female gender stereotype is largely incongruent with the leadership role (Eagly, 2004; Eagly & Karau, 2002; Heilman, 2001). Gender stereotypes are generalizations about the attributes of men and women that are shared in a society and include both descriptive components (i.e., describing how women and men are) and prescriptive components (i.e., prescribing how women and men should or should not be; Burgess & Borgida, 1999; Eagly & Karau, 2002; Glick & Fiske, 1999; Heilman, 2012). The particular gender stereotypes most relevant to the domain of leadership are those maintaining that "women take care" and "men take charge" (Dodge, Gilroy & Fenzel, 1995; Heilman, 2001; Hoyt, 2010). Specifically, women are associated with communal characteristics that highlight a concern for others, whereas men are viewed as possessing rationality and agentic characteristics that emphasize confidence, self-reliance, and dominance (Deaux & Kite, 1993; Eagly, Wood, & Diekmann, 2000; Williams & Best, 1990). The qualities used to describe men are similar to those used to describe effective leaders resulting in men being viewed as a better "fit" with the leader role than women (Koenig et al., 2011).

These stereotype-based expectations of inferiority can be threatening to women and can contribute to the shortage of female leaders across diverse occupations (Block, Koch, Liberman, Merriweather, & Roberson, 2011) from the law (Vault/MCCA, 2013) to academic medicine (Burgess, Joseph, van Ryn, & Carnes, 2012). The pernicious effects of gender stereotype-based threat can result in performance decrements that can accumulate over time and result in

disengagement and decreased leadership aspirations. Chronically experiencing threat can result in women leaving professions early in their careers before they reach high-level leadership positions. Gender-based stereotype threat can be particularly malignant in science, technology, engineering, and math (STEM) fields (Good, Aronson, & Harder, 2008; Shapiro & Williams, 2012); it can cause women to disidentify with an entire profession and leave few women in the pipeline to assume leadership roles.

In this article, we explore the process and implications of stereotype threat for women in leadership, broadly construed. First, we provide a brief background on the phenomenon of stereotype threat generally. Second, we explore stereotype threat as it pertains to women in leadership by introducing a model of stereotype threat in leadership contexts that includes both cues to and consequences of stereotype threat as well as moderators of stereotype threat appraisals and responses. In this review, in addition to considering research focused squarely on leadership, we include the broader category of research examining stereotype threat effects in the workplace and in tasks and domains relevant to leadership. In other words, to understand the effects of stereotype threat on female leaders, it is important to consider how gender stereotypes can be threatening in the workplace (Kray & Shirako, 2011), in entrepreneurship (Baron, Markman, Hirska, 2001), in specific tasks critical to effective leadership such as negotiations and decision making (Kray & Haselhuhn, 2008), and within specific domains including STEM. Leadership excellence in each of these tasks and these domains is often associated with stereotypically masculine traits such as rationality and agency (Kalokerinos, von Hippel, & Zacher, 2014; Kray & Shirako, 2011). Finally, we examine implications for future research, and we explore practices to reduce the potential for negative stereotype threat effects.

### **Background on stereotype threat**



Members of marginalized social groups are often acutely aware of the stereotypes associated with their social group, and they are aware that others may respond to them based on these stereotypes. Starting with the seminal work by Steele and Aronson (1995), stereotype threat has been one of the most widely studied topics in the field of social psychology (Steele, 1997; Steele et al., 2002). Thinking that one is being evaluated through the lens of negative stereotypes can focus a person's attention on the negative aspects of a stereotype and serve to undermine achievement (e.g., Steele & Aronson, 1995). A robust body of research demonstrates the power of stereotypes in impairing the performance of stigmatized individuals, those individuals with devalued social identities in a particular context, on a wide variety of cognitive and social tasks.

In their influential work, Steele and Aronson (1995) showed that when the stereotype of African American intellectual inferiority was "in the air" and students were asked to take a test diagnostic of their abilities, Black students underperformed their White counterparts on a standardized test, controlling for initial differences in scores on the SAT. However, when they removed the relevancy of the stereotype by framing the same task as an exercise of problem solving, rather than an assessment of their intellect, there was no difference in the performance of Black and White students, again controlling for initial differences in skill level. The effects of stereotype threat on academic underperformance have been widely documented across various groups (Aronson, Quinn, & Spencer, 1998; Nguyen & Ryan, 2008; Spencer, Steele, & Quinn, 1999; Steele & Aronson, 1995). For example, researchers have shown stereotype threat effects on the academic underperformance of Latino/as and African Americans (Aronson, et al., 1998; Gonzales, Blanton, & Williams, 2002) and those with low socioeconomic status (Croizet & Claire, 1998). Moreover, stereotype threat compromises performance in domains beyond

academics; for example, threat effects have been shown for White men in athletics (Stone, Lynch, Sjomeling, & Darley, 1999), older adults in memory tasks (Hess, Auman, Colcombe, & Rahhal, 2003; Levy, 1996), and men in social sensitivity tasks (Koenig & Eagly, 2005).

One key facet of stereotype threat is that it is situationally induced. Thus, even members of traditionally advantaged groups can experience threat in certain situations. For example, White men have been shown to underperform on a math test when the stereotype of Asian superiority is made salient (Aronson et al., 1998). In one clever study designed to highlight the situational nature of stereotype threat, researchers examined the math performance of individuals who have two identities that are associated with conflicting stereotype-based expectations regarding math abilities: Asian women (Shih, Pittinsky, & Ambady, 1999). Asian women who were subtly reminded of their gender identity underperformed those in the control condition, whereas those reminded of their Asian identity performed better than the control.

The processes through which stereotype threat can lead to performance decrements in those targeted by negative stereotypes are complicated (Schmader, Johns, & Forbes, 2008). In their review of the literature, Schmader and colleagues found that stereotypes can impair performance on social and cognitive tasks through three specific yet interrelated physiological and psychological processes including: physiological stress responses that impair working memory, enhanced monitoring of one's performance, and active suppression of negative thoughts and emotions. Furthermore, according to Shapiro and Neuberg (2007), stereotype threat is not a singular process, but rather, it is a term that has been used to describe distinct, yet related, processes. They contend that there are a number of qualitatively distinct *forms* of stereotype threats. In their multi-threat framework, they maintain that the type of threat an individual experiences depends on both the *target* of the threat (who one's actions reflect upon;

self or group) and the *source* of the threat (who judges these actions; self, outgroup others, ingroup others).

Finally, like the complex processes involved in the experience of stereotype threat, the consequences are similarly multidimensional. In addition to leading to decrements in performance, these mechanisms can lead “those who contend with negative stereotypes about their ability... to avoid situations where these aversive stimuli reside” (Schmader et al., 2008, p. 353). Indeed, experiencing threats to one’s identity can have wide-ranging and meaningful effects beyond the most studied outcome of academic underperformance. As Shapiro and Neuberg (2007) argue, “academic performance may be neither the most important consequence of stereotype threat nor the most effective measure for inferring its existence” (p. 111).

### **Stereotype threat and female leaders**

As it relates to women and leadership, the most deleterious consequences of stereotype threat are, arguably, the subsequent decreases in motivation and engagement. Understanding the impact of stereotype threat processes on women in leadership contexts begins by examining the situational cues that can signal threat, the consequences of stereotype threat, and the factors that can reduce the potential of making stereotype threat appraisals and buffer women from the deleterious effects of stereotype threat. In this section, we discuss our framework for understanding the impact of stereotype-based expectations on women in leadership-relevant contexts (see Figure 1.)

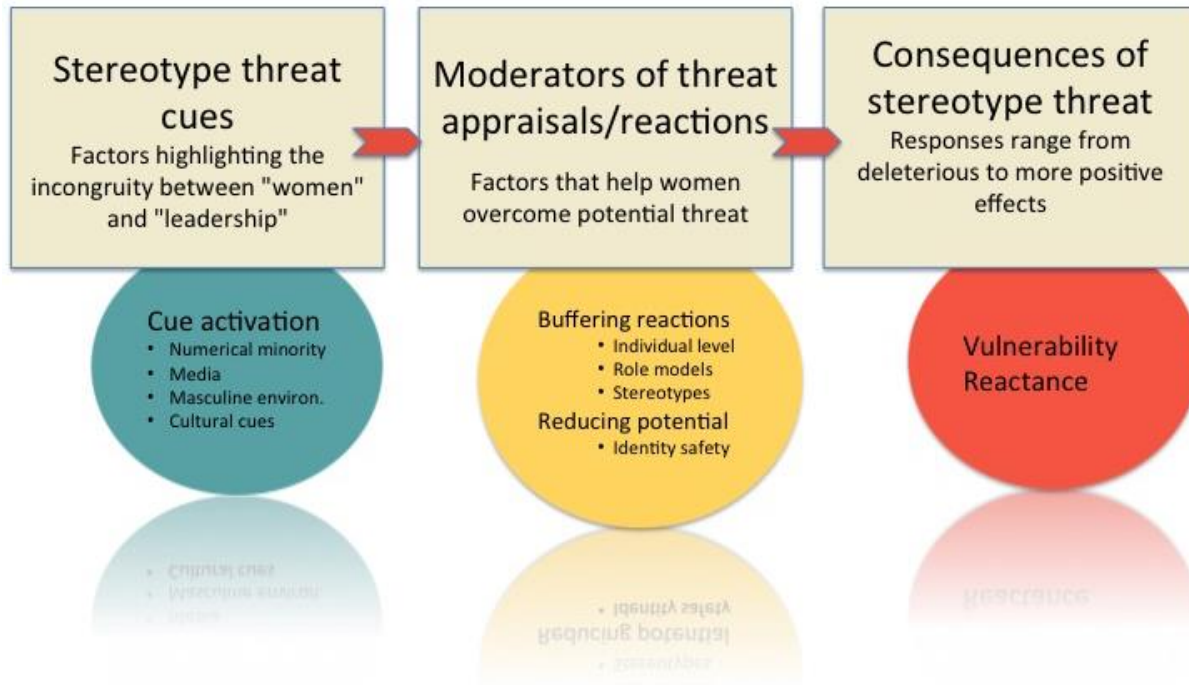


Figure 1. A model of stereotype threat in leadership contexts.

### *Stereotype threat cues for female leaders*

Stigmatized individuals are often acutely attuned to situational cues that signal social identity contingencies (Purdie-Vaughns, et al., 2008). Exposure to chronically threatening environments can lead to an enhanced vigilance to cues that signal threat (Kaiser, Vick, & Major, 2006; Purdie-Vaughns, et al., 2008). Cues to stereotype threat can come in many forms ranging from more blatant and explicit exposure to gender stereotypes, such as telling participants that their experimenter is sexist or having them interact with a sexist man (Adams et al., 2006; Logel et al., 2009), to more subtle activation, such as simply asking someone to perform in a domain where there is a well-known stereotype “in the air” (Spencer, Steele, & Quinn, 1999). Stereotypes can be subtly activated in a variety of ways including by being in the numerical minority, such as having token or solo status as a woman leading a group of men, or by being

reminded of the paucity of women within a firm (Hoyt, Johnson, Murphy, & Skinnell, 2010; Kanter, 1977; von Hippel, Walsh, & Zouroudis, 2011). Serving as the sole member of one's social group heightens the salience of social identities, and this low demographic diversity has been shown to result in stereotype threat effects for women (Inzlicht & Ben-Zeev, 2000; Sekaquaptewa & Thompson, 2003). For example, researchers have shown that exposure to a situational cue highlighting a gender imbalance at a STEM conference decreased female students' sense of belonging and desire to participate in the conference compared to those not exposed to this identity threat (Murphy, Steele, & Gross, 2007).

Beyond being in the numerical minority, many cues, such as those found in media and in masculine environments and cultures, can threaten women's identities. For example, Davies and colleagues demonstrated that exposing women to gender stereotypic commercials (e.g., a female college student dreaming of becoming the homecoming queen or a young woman demonstrating excitement over a new acne product) resulted in deleterious threat responses with respect to professional as well as leadership aspirations (Davies, Spencer, Quinn, & Gerhardstein, 2002; Davies, Spencer, & Steele, 2005). Exposure to masculine environments, including objects stereotypically associated with men, can have similarly threatening effects. For example, women who were exposed to stereotypically masculine items in their environment, including a Star Trek poster and video games, reported less interest in pursuing computer science than those not exposed to the gendered environment (Cheryan, Plaut, Davies, & Steele, 2009). Additionally, organizational cultures, particularly those permeated by a competitive ethos and the belief that success stems from innate brilliance, have the potential to be threatening (Kray & Shirako, 2011), especially as women move further up the hierarchy in leadership roles. Competitive environments that are associated with negative stereotypes implying women may not be able to

“hold their own,” have been shown to be particularly threatening to women (Gneezy, Niederle, & Rustichini, 2003; Niederle & Vesterlund, 2008). Beyond competition, cultures that equate success with inherent skill can be threatening for women. Recent research has shown that “across the academic spectrum, women are underrepresented in fields whose practitioners believe that raw, innate talent is the main requirement for success, because women are stereotyped as not possessing such talent” (Leslie, Cimpian, Meyer, & Freeland, 2015, p. 262).

In sum, female leaders can experience increased threat when attempting leadership in industries and organizations where women are scarce, in contexts where gender stereotypes are made salient through the media or physical environments, or in organizational cultures extolling the virtues of competition or innate brilliance for success. In the next section, we review the various consequences of stereotype threat.

*Consequences of stereotype threat: Vulnerability, reactance, or resilience*

Stereotype threat has been shown to have significant adverse consequences, what we term *vulnerability responses*, ranging from decreases in performance to disengagement and disidentification from the domain. Gender stereotype-based expectations of inferiority can lead to underperformance on important tasks (e.g., negotiation, decision making) across many domains (e.g., entrepreneurship, STEM fields) relevant to leadership in contemporary society. Substantial research has shown the role of stereotypes in impairing the performance of women on STEM tasks from engineering (Bell, Spencer, Iserman, & Logel, 2003; Logel, et al., 2009) to math (Inzlicht & Ben-Zeev, 2000; Schmader, 2002; Spencer, et al., 1999). Furthermore, the threat of confirming a negative stereotype has been shown to lead to women’s underperformance on negotiation tasks (Kray, Thompson, & Galinsky, 2001) as well as managerial and leadership tasks (Bergeron, Block, & Echtenkamp, 2006; Hoyt & Blascovich, 2010). Stereotype-based

concerns have also been shown to make women less fluent and use more tentative language (McGlone & Pfister, 2015) and to alter their decision making (Carr & Steele, 2009; 2010). For example, researchers have shown that stereotype threat increased women's inflexible perseverance, that is, women were less likely to abandon ineffective strategies and choose newer more efficient ones under threat relative to no threat conditions (Carr & Steele, 2009).

The costs of stereotype threat extend beyond decreased performance. Stereotype threat can also undermine women's sense of belonging in a field and their motivation and desire to pursue success within the field (Cheryan, Plaut, Davies, & Steele, 2009). Perceiving a sense of social belonging and connectedness is crucial for motivation and achievement within any domain. In traditionally masculine fields, women often face *belonging uncertainty*. Stereotype threat can increase women's certainty that they do not belong and undermine their interest in the field (Cohen & Garcia, 2008; Walton & Cohen, 2007). For example, women subtly primed with the female identity expressed a greater interest in arts-oriented domains over mathematics, a preference not demonstrated in the control condition (Steele & Ambady, 2006). Similarly, stereotypic gender commercials have been shown to lead women to emphasize homemaking, rather than achievement, themes when describing their future lives (Geis, Brown, Jennings, & Porter, 1984). Davies and colleagues (2002, 2005) found that gender stereotypic commercials undermined women's leadership aspirations (Davies et al., 2005) as well as their interest in quantitative, relative to verbal, majors and career paths (Davies et al., 2002). Related research demonstrated that threatening women with the gender stereotype that associates men with entrepreneurship diminished female business students' entrepreneurial intentions (Gupta & Bhawe, 2007). Many of these belongingness and motivational costs are undergirded, in part, by the adverse effects of stereotype threat on self-confidence (Stangor, Carr, & Kiang, 1998) and

job attitudes (von Hippel, Kalokerinos, & Henry, 2013). For example, researchers have shown that women who experienced chronic stereotype threat in the legal profession had less confidence that they would reach their career goals, less positive attitudes toward their job, and more intention to quit (von Hippel, Issa, Ma, & Stokes, 2011).

Other potential consequences of stereotype threat revolve around making the stereotype less self-relevant. In the face of stereotype threat women frequently try to separate their sense of self-worth from their performance in that domain oftentimes by distancing themselves from the domain or from the devalued group. Disengagement from a domain that is threatening to one's self-worth can be ego protective and can facilitate persistence and motivation in the short term (Nussbaum & Steele, 2007); however, it can also lead to reduced performance, motivation, and ultimately, disidentification from the domain altogether (Crocker, Major, & Steele, 1998; Major & Schmader, 1998).

When distancing oneself from the stereotyped *group*, women can either disavow the entire "female" identity, or they can selectively disidentify with aspects of the group's identity that are linked to negative expectations in the domain, termed identity bifurcation (Pronin, Steele, & Ross, 2004). In the face of both chronic and acute stereotype threat, women have been shown to alter their professional identities (Kalokerinos, von Hippel, & Zacher, 2014). For example, when female professionals, from lawyers to accountants, experienced stereotype threat in their workplace environments, they responded by separating their work identity from their gender identity (von Hippel, Issa, et al., 2011; von Hippel, Walsh, et al., 2011). Although differentiating between "feminine" and "work" selves can be viewed as a type of ego-protection, it can come with costs; disengagement is associated with a lack of belonging at work and a host of negative job-related attitudes. In a recent study of women in finance, researchers showed that



greater feelings of stereotype threat were associated with diminished well-being and a lower likelihood of recommending a career in finance to other women, and these relationships were mediated by identity separation (von Hippel, Sekaquaptewa, & McFarlane, 2015).

Another way people work to make stereotypes less self-relevant is by actively engaging in counter-stereotypical behavior; that is, they engage in *reactance responses*. However, these reactance responses have the potential to produce unintended costs. For example, when women were threatened by the stereotype that men are better leaders, they adopted a more masculine communication style compared to those who were not threatened (von Hippel, Wiryakusuma, Bowden, & Shochet, 2011). However, this strategy came with social costs: others responded negatively to this new communication style by being less likely to comply with their requests and viewing them as less likeable and warm. In related research, explicitly activating the negative stereotype associating women with inferior negotiation ability provoked women to engage in strong and effective negotiation behavior (Kray, Thompson, Galinsky, 2001). However, research shows that this too might come with unexpected disadvantages. That is, women face greater social costs when negotiating than men do; thus, women's greater reluctance to negotiate may represent an adaptive response to social disincentives (Bowles, Babcock, & Lai, 2007).

Although reacting against the stereotype can be costly, these responses can also result in favorable outcomes. In an early demonstration of stereotype reactance, Kray and colleagues showed that whereas women underperformed men at the bargaining table when the stereotype of women being less adept at bargaining was implicitly activated, when the stereotype was blatantly presented women reacted against it and they outperformed men (Kray et al., 2001; Kray, Reb, Galinsky, & Thompson, 2004). This performance boosting response to explicit activation of

negative stereotypes has also been shown by women in entrepreneurship (Gupta, Turban, & Bhawe, 2008) and in leadership contexts (Hoyt & Blascovich, 2007, 2010).

Whether women respond to threats to their identity with vulnerability responses, reactance responses, or an impervious resiliency depends on a number of factors. In the next section, we review factors that enable women to be impervious to or, better yet, react adaptively to negative stereotype-based expectations.

#### *Overcoming potential threats: Moderators of stereotype threat reactions and appraisals*

Much of the current research on stereotype threat attempts to identify factors that help reduce either negative threat reactions or the potential for making stereotype threat appraisals in the first place. Accordingly, in this section we will review factors that help buffer women against negative stereotype threat effects as well as factors that reduce the potential that women will evaluate the situation as one in which they will be judged and treated poorly based on a negative stereotype. These factors reside at various levels from the individual, to the interpersonal, to organizational/situational levels.

#### *Buffering against stereotype threat effects*

*Individual-level factors.* Whether women meet potential threats to their identity with vulnerability or reactance responses is dependent, in part, upon a host of individual differences factors that are related to the extent to which they see themselves as having, or being able to develop, leadership abilities. For example, researchers have shown that only women who rated themselves low, as opposed to high, on traits stereotypically associated with the leader role (such as ambition, self reliance, independence, and assertiveness) demonstrated decreased performance in the face of stereotype threat (Bergeron, Block, & Echtenkamp, 2006). In general, research shows that individual differences that serve to bolster women's belief that they have the ability to

be a successful leader, including leadership self-efficacy, power, and mindsets about the nature of leadership, can help buffer women from deleterious threat effects.

In both the leadership and negotiation domains, women have been shown to respond to explicit gender stereotype activation with positive, *I'll Show You* responses when they have sufficient power and self-efficacy. For example, Kray and colleagues demonstrated that women successfully reacted against the gender bargaining stereotype when they were in put in a high power bargaining condition where they had leverage from a favorable alternative offer (Kray, et al., 2004). Related, researchers have shown that women's aversion to initiating negotiations was diminished when they were primed with power (Small, Gelfand, Babcock, & Gettman, 2007). In the domain of leadership, Hoyt and colleagues have shown that women who were highly confident in their leadership ability, as indicated by high levels of leadership self-efficacy (Murphy, 1992), responded positively when put in a position to disconfirm the gender-leadership stereotype on a task requiring women to advise and motivate employees on a simulated hiring committee (Hoyt & Blascovich, 2007, 2010). Specifically, women with high levels of leadership self-efficacy performed better, identified more with the domain of leadership, and reported greater levels of psychological well being.

How people respond to threats to their identity is also determined in part by their mindsets; that is, the lay theories they hold regarding the extent to which various human characteristics can be conceptualized as malleable (growth mindset) versus stable (fixed mindset; Dweck, 1999). Both high levels of leadership self-efficacy and a growth mindset of leadership, that is, the belief that leadership abilities can be cultivated, have been shown to play an important role in buffering against deleterious stereotype threat effects in a leadership context (Burnette, Pollack, & Hoyt, 2010). Similarly, mindsets have also been shown to be important for women

facing gender stereotypes in negotiation contexts. For example, experimentally manipulating beliefs that entrepreneurial ability can be increased led women to show greater resilience, in the form of self-efficacy for future entrepreneurial endeavors, in the face of stereotype threat relative to those induced to believe in the fixed nature of entrepreneurial ability (Pollack, Burnette, & Hoyt, 2012). Finally, Kray and colleagues demonstrated that only women who were led to believe that negotiating skills can be developed, versus cannot be developed, were able to successfully react against the blatant stereotype that women are inferior negotiators as demonstrated through increased negotiation performance (Kray, Locke, & Haselhuhn, 2010).

*Role models.* Beyond individual level factors unique to each woman, whether a woman meets threats to her identity with vulnerability or reactance responses or whether she is impervious to the threat depends upon important interpersonal factors. In particular, female role models can play an important role in protecting women from threats to their identity in leadership roles. The effectiveness of these women comes, in part, because they demonstrate that success in the stereotyped domain is attainable, and the models can both increase a sense of social belonging and inoculate people's sense of self against identity threats (Dasgupta, 2011; Marx, Ko, & Friedman, 2009; Marx & Roman, 2002; McGlone, Aronson, & Kobrynowicz, 2006).

The influence of female role models in increasing women's aspirations has been demonstrated in a randomized natural experiment in India. Exploiting a gender quota law that reserved leadership positions for women, and did so in randomly selected villages, researchers found that the increased representation of women on Indian village councils resulted in greater career and educational aspirations for local girls and eliminated the gender gap in educational attainment (Beaman, Duflo, Pande, & Topalova, 2012). Arguably, concerns about being

evaluated through the lens of negative stereotypes played a meaningful role in these girls' career aspirations, and the role models helped inoculate the girls from this threat. Indeed, stereotype threat dwells "in the air" in stereotype-relevant domains; thus, even when threat is not directly and explicitly examined in research, stereotype threat processes are still at work when people find themselves in contexts where self-relevant negative stereotypes abound (Schmader, et al., 2008; Steele, 1997).

Role models, however, can have contradictory effects. Although comparing oneself to a successful other can potentially be inspiring and offer one hope, it also has the potential of being self-deflating by highlighting how deficient one is in comparison (Collins, 1996, 2000; Lockwood & Kunda, 1999; Suls, Martin, & Wheeler, 2002; Wood, 1989). For example, exposure to highly successful female business leaders has been shown to decrease women's self-ratings of competence (Parks-Stamm, Heilman, & Hearn, 2008). Similarly, learning about counter-stereotypical role models (e.g., a female surgeon or a female business executive) reduced women's leadership self-concept and diminished their interest in traditionally masculine occupations relative to those not exposed to these role models (Rudman & Phelan, 2010).

Although role models have the potential to result in self-deflation, they also hold great potential to be inspiring and help buffer women from stereotype threat effects. For example, reading about successful female mathematicians and viewing images of female scientists has proven effective in thwarting negative stereotype threat effects in science and math (Good, Woodzicka, & Wingfield, 2010; McIntyre, et al., 2005; McIntyre, Paulson, & Lord, 2003). Role models can be particularly effective at hindering deleterious stereotype threat effects in the domain of leadership. In recent research, subtle and implicit exposure to a picture of elite female role models positively influenced women's self-appraisals and behavior during stressful

leadership tasks (Latu, Schmid Mast, Lammers, & Bombari, 2013). Other research has shown that exposure to counter-stereotypical portrayals of women in the media was effective in buffering women from stereotype threat effects in the leadership domain (Simon & Hoyt, 2012). Specifically, they found that women exposed to media images depicting women in counter-stereotypical roles reported stronger nontraditional gender role beliefs, less negative self-perceptions, and greater leadership aspirations than women exposed to images of women in stereotypical roles. These lines of research point to the great potential that both role models and positive media images have to inspire female leaders and counter the effects of negative stereotype-based expectations.

Researchers have begun to delineate when leader role models will be injurious and when they will be inspiring to women. One important moderator of the impact of leader role models on women is the extent to which they are able to identify with the role models and deem their success attainable. For example, examining women's performance in the stereotype-threatening domain of leadership, Hoyt and Simon (2011) found that whereas exposure to elite female leaders had self-deflating effects on women's leadership aspirations and self-perceptions following a leadership task, similar exposure to less elite female role models with whom the women could identify, did not have this negative impact. In related research, female accountants who read about a successful female partner experienced significantly lower levels of stereotype threat than those who read about a successful male accountant (von Hippel et al., 2011b). Follow-up research demonstrated that the female role model was effective in that she evidenced that the organization is supportive of women. Finally, individual-level factors are also important in determining people's responses to role models. For example, women with high, versus low, levels of leadership efficacy were more inspired by elite role models, when put into a potential

threat-inducing leadership situation; that is, they showed heightened levels of leadership aspiration, leader self-identification, and performance (Hoyt, 2013). Additionally, the more that people endorse the idea that leadership abilities are malleable and can be cultivated, as opposed to believing they are fixed, the more positively they respond to leader role models (Hoyt, Burnette, & Innella, 2012).

*Number and explicitness of stereotype cues.* Other moderators of stereotype threat reside in the nature of the cues themselves. Responses to stereotype threat depend, in part, upon the explicitness of the activation of the stereotype. As Kray and colleagues have shown in the negotiation context, implicit stereotype activation results in women fulfilling the negative stereotype regarding their underperformance relative to men, whereas explicit activation prompts reactance responses (Kray et al., 2001; Kray et al., 2004). In addition to the manner in which stereotypes are activated, the number of sources of identity threat is also important. For example, researchers have shown that when women experienced individual stereotype threats in the leadership domain they demonstrated reactance responses; however, when the threats were combined they resulted in negative vulnerability responses (Hoyt, et al., 2010). This research highlights the slippery slope female leaders can face; women often find themselves exposed to multiple sources of threat including being a solo woman in a group, and facing biased perceptions and expectations.

*Reducing the potential for threat appraisals*

In this section, we hone in on those factors that can help reduce the potential that women will make threat appraisals in the first place. Many of the factors examined, often in the context of threat reduction interventions, reside at the situational level. At the individual level, there is an unfortunate irony associated with the stereotype threat phenomenon: stereotype threat tends to

have the most deleterious effects on those for whom the stereotype is the most self-relevant and on those who are most motivated to perform well. For example, researchers have shown that the more women identified with their gender, the threatened identity, the more vulnerable they were to stereotype threat (Schmader, 2002). Related, women who were highly conscious of the stigma associated with the category “woman” were more prone to stereotype threat effects than those lower in stigma consciousness (Brown & Pinel, 2003). Other research shows that stereotype threat effects are most pronounced in those for whom performance in the domain is highly important and self-relevant (Aronson, et al., 1998; Cadinu, Maass, Frigerio, Impagliazzo, & Latinotti, 2003; Cadinu, Maass, Lombardo, & Frigerio 2006). For example, in the domain of entrepreneurship, where those with proactive personalities (having the tendency to take action to change one’s circumstances) are more likely to become entrepreneurs, research showed that women with higher levels of proactive personality were more likely to show deleterious threat responses than women with less proactive personalities (Gupta & Bhawe, 2007). For those higher in proactivity, being an entrepreneur was very important to them; therefore, they were more vulnerable to the effects of stereotype threat.

Fortunately, there are situational and contextual factors that can help reduce the potential that even very motivated and invested women will make stereotype threat appraisals. Many workplaces are replete with cues to negative gender stereotypes, such as low numbers of women in the upper echelons of the organization, and these cues evoke the potential for stereotype threat effects. One potent approach to reducing the potential for threat is by creating identity safe environments. These environments “challenge the validity, relevance, or acceptance of negative stereotypes linked to stigmatized social identities” (Davies et al., 2005, p. 278). In a vivid example of this, after removing the emphasis on risk-taking from the selection criteria for the



prestigious National Institutes of Health Director's Pioneer Award, there was a marked increase in the number of female scientists who applied for and won the award (Burgess et al., 2012; Carnes, Geller, Fine, Sheridan, & Handelsman, 2005). A reduction in stereotype threat has been credited as one contributor to this increase (Burgess et al., 2012).

Empirical research signifies the power of identity safe tasks in reducing threat effects. For example, whereas exposure to stereotypic commercials undermined women's leadership aspirations, presenting the leadership task as identity safe, that is, telling participants that there are no gender differences on the leadership task, eliminated this vulnerability (Davies et al., 2005). In another study, women showed deleterious threat effects by underperforming men on a managerial task when the predecessor was described as a man with stereotypically masculine traits, but they did not show these performance decrements when the previous manager was described as a woman with female characteristics (Bergeron, Block, & Echtenkamp, 2006). The task of negotiation can be made identity-safe by framing the situation as an opportunity of asking rather than an opportunity for negotiation (Small, Gelfand, Babcock, & Gettman, 2007). Although women were less likely to initiate negotiations than men, when framed as an opportunity to ask, women were equally likely to initiate at the bargaining table (Small et al., 2007). Other aspects of the negotiation context can exacerbate or attenuate the potential for stereotype threat effects in women. For example, research has shown that the gender stereotypic effects on negotiation were decreased when the context was less ambiguous such that both parties had a clear understanding of what is meant by a good outcome and what is expected of them, as well as when the negotiations occurred virtually as opposed to face-to-face (Bowles & Kray, 2013). Finally, emphasizing positive stereotypes and de-emphasizing negative stereotypes can be effective. For example, explicitly valuing feminine traits or highlighting the power of

education, career aspirations, and work experience in the negotiation context buffered women from stereotype threat effects (Kray et al., 2001; Kray, Galinsky & Thompson, 2002).

Moreover, identity safe environments and organizational cultures go far in minimizing threat effects. In the field of medical leadership, a message designed to encourage medical students without leadership experience to volunteer to lead their workgroup by stating that the small group provided a “safe” environment to practice leadership significantly increased the number of groups choosing female leaders (Wayne, Vermillion, & Uijtdehaage, 2010). Similarly, presenting entrepreneurship as a gender-neutral domain reduced the potential for stereotype threat and eliminated the gender gap in entrepreneurial intentions (Gupta, et al., 2008). Organizational cultures can also promote identity safety. For example, organizations that endorse growth, as opposed to fixed, beliefs by advocating the belief that everyone can expand their intelligence and abilities can foster identity safety and combat stereotype threat. Specifically, women demonstrated greater trust in and less disengagement from a consulting company when it espoused a growth, rather than a fixed, mindset (Emerson & Murphy, 2015).

### **Implications for future research and practice**

In this section we examine questions for future research, and we explore practices to reduce the potential for negative stereotype threat effects. There is great potential for researchers examining the role of stereotype threat in the leadership process to focus on changing stereotypes, the changing nature of gender bias, and identities beyond the female social identity. Additionally, in this section we briefly explore the potential of organizational actions and development initiatives in helping ameliorate negative threat-based outcomes.

*Implications of changing stereotypes and changing bias on stereotype threat effects*

As the incongruity between the female gender role and the leader role decreases, so does the potential for stereotype threat. There is some evidence that gendered stereotypes of leaders are changing (Koenig, et al., 2011). A meta-analysis of nearly 70 studies across three research paradigms that examined the masculinity of leader stereotypes showed that there is a strong and robust masculine construal of leadership. However, this research also showed that it has decreased over time. There has been a cultural change such that leadership is increasingly being thought of as an androgynous endeavor requiring both agency as well as communal relational skills (Koenig et al., 2011). A more androgynous conception of leadership can whittle away the stereotype-based expectations of inferiority placed on female leaders and in turn reduce the potential for stereotype threat effects.

Other research has noted that the potential for stereotype threat remains relatively unchanged as the overt sexism and exclusion of women in first generation discrimination has mostly been replaced with second-generation forms of bias and discrimination (Sturm, 2001). This second generation discrimination is described as:

“[F]requently involve[ing] patterns of interaction among groups within the workplace that, over time, exclude non-dominant groups. This exclusion is difficult to trace directly to intentional, discrete actions of particular actors.... This form of harassment may consist of undermining women's perceived competence, freezing them out of crucial social interactions, or sanctioning behavior that departs from stereotypes about gender or sexual orientation. It is particularly intractable, because the participants in the conduct may perceive the same conduct quite differently. Moreover, behavior that appears gender neutral, when considered in isolation, may actually produce gender bias when connected to broader exclusionary patterns.” (Sturm, 2001, p. 489-490)

Sturm (2001) suggests that second generation discrimination flourishes in organizations that require adaptability, flexibility, and technical innovation. These workplaces often adopt decentralized governance structures that can foster patterns of interactions, decision making, and relationships that exclude women. These subtle gender-based forms of discrimination can result in stereotype threat effects for women in leadership roles. Therefore, while stereotype incongruity might be lessening somewhat, there remain ample possibilities for stereotype threat to occur.

### *Intersecting identities and stereotype threat*

The experience of stereotype threat processes in leadership contexts extends beyond women. Although the focus of this article is on gender, there are other social identities that can be devalued in leadership contexts (Sanchez-Hucles & Davis, 2010; Walton, Murphy, & Ryan, 2015). For example, in addition to having a masculinity standard, leadership also has a White standard. Namely, being White has been shown to be a central component of the leader prototype in America (Rosette, Leonardelli, & Phillips, 2008). However, unlike the research examining gender and leadership, research into minority leaders is scant although it is increasing (Carton & Rosette, 2011). Although many of the stereotype threat processes associated with minorities in leadership may bear similarities to those experienced by women, the underlying dynamics and mechanisms may be somewhat distinct.

Moreover, in reality we all have many various identities that interrelate and our experiences are shaped by the simultaneous influences of these identities. Traditionally, social scientists have examined people's many social identities in isolation, rarely taking intersectionality perspectives that consider and account for the intersection of multiple categories of social group membership (Cole, 2009). Research at the intersection of racial and gender

identities is in its infancy (Livingston, Rosette, & Washington, 2012; Rosette & Livingston, 2012), and more work, focusing on a broader array of identities, is warranted. For example, older workers have been shown to experience stereotype threat resulting in increased turnover intentions, lowered job satisfaction, and lowered well being (von Hippel, Kalokerinos, & Henry, 2013); however, no studies to date have looked at older women, or older women of color. Leadership researchers should put a greater emphasis on understanding the role of race, ethnicity, sexual orientation, age, and other types of diversity, as well as important interactive effects between these identities, in leadership processes.

*Actions to reduce/nullify the potential for and the effects of stereotype threat*

Changes focused on both reducing the effects of stereotypes and increasing identity safe contexts are essential for reducing stereotype threat effects. Programs for reducing stereotype threat typically focus on modifying the context and/or lessening individual reactions (Block et al., 2011; Burgess et al., 2012; Kray & Shirako, 2011; Roberson & Kulik, 2007). Many organizations are proactively developing ways to reduce second-generation discrimination and stereotype threat (Ely, Ibarra, & Kolb, 2011). Williams (2014) recommends a three step approach: undertake organizational audits to examine gendered practices, identify methods of tracking the efficacy of interventions, and implement interventions to curb the bias, what she terms “bias interrupters.” The research literature offers a number of fruitful approaches to reducing the potential for and the negative effects of stereotype threat that include, but are certainly not limited to: (a) making employees, and senior leaders in particular, aware of unconscious biases and unwarranted stereotypes that affect their evaluations of others; (b) examining the “gendered” aspects of their organizations or jobs that disadvantage individuals who do not adapt a male style of leadership within the organization (Acker, 1990); (c) increasing

minority representation at all organizational levels; (d) presenting stereotype inconsistent information in order to help reduce stereotyped thinking (Fiske & Neuberg, 1990); (e) capitalizing on the stereotype threat-reducing effects of successful ingroup role models (Dasgupta & Asgari, 2004); and (f) making explicit the characteristics of good leadership that avoid stereotyped descriptions (Burgess, et al., 2012; Leicht, de Moura, & Crisp, 2014). These interventions will go far to bring about equitable organizations that enable everyone to flourish.

As we have shown, the effects of stereotype threat depend in part on the extent to which women see themselves as having, or being able to develop, leadership abilities. This suggests that programs focused on increasing both leadership abilities and leader identity hold great potential in helping inoculate women from stereotype threat. In terms of developing leadership abilities, we can look to the research literature focused on women and leadership for guidance. For example, Eagly and Carli (2007) recommend that women develop the ability to lead using both agentic and communal qualities to satisfy today's leadership requirements, and they also suggest that women develop their social capital to increase connections and support in their profession. In addition to developing existing skills or acquiring new competencies, it is also important to cultivate women's leader identity (Day et al., 2014; Day, Harrison, & Halpin, 2009). Finally, interventions designed to increase women's belief that leadership abilities can be cultivated, or growth mindsets of leadership, are promising for buffering women from stereotype threat effects (Burnette et al., 2010; Ely, Ibarra, & Kolb, 2011; Pollack et al., 2012).

## **Summary**

In this article, we explored the ways in which stereotype threat can undermine women in leadership. We identified cues that serve to activate stereotype-based concerns, we examined the multifaceted consequences of stereotype threat, and we discussed factors that can help buffer

women from potential deleterious effects of stereotype threat. A greater understanding of how social identities can be threatening in the domain of leadership can help encourage and enable women and other underrepresented individuals to participate fully in and contribute to the prosperity of the political, civil, social, economic, and cultural lives of society.

### References

- Acker, J. (1990). Hierarchies, jobs, bodies: A theory of gendered organizations. *Gender & Society, 4*(2), 139-158. doi:10.1177/089124390004002002
- Adams, G., Garcia, D. M., Purdie-Vaughns, V., & Steele, C. M. (2006). The detrimental effects of a suggestion of sexism in an instruction situation. *Journal of Experimental Social Psychology, 42*(5), 602-615. doi:10.1016/j.jesp.2005.10.004
- Aronson, J., Quinn, D. M., & Spencer, S. J. (1998). Stereotype threat and the academic underperformance of minorities and women. In J. K. Swim & C. Stangor (Eds.) *Prejudice: The target's perspective* (pp. 83-103). San Diego, CA: Academic Press, Inc.
- Baron, R. A., Markman, G. D., & Hirska, A. (2001). Perceptions of women and men as entrepreneurs: evidence for differential effects of attributional augmenting. *Journal of Applied Psychology, 86*(5), 923-929. doi:10.1037//0021-9010.86.5.923
- Beaman, L., Duflo, E., Pande, R., & Topalova, P. (2012). Female leadership raises aspirations and educational attainment for girls: A policy experiment in India. *Science, 335*(6068), 582-586. doi:10.1126/science.1212382
- Bell, A. E., Spencer, S. J., Iserman, E., & Logel, C. E. R. (2003). Stereotype threat and women's performance in engineering. *Journal of Engineering Education, 92*(4), 307-312. doi:10.1177/089124390004002002
- Bergeron, D. M., Block, C. J., & Echtenkamp, A. (2006). Disabling the able: Stereotype threat and women's work performance. *Human Performance, 19*(2), 133-158. doi:10.1207/s15327043hup1902\_3



- Block, C., Koch, S., Liberman, B., Merriweather, T., & Roberson, L. (2011). Contending with stereotype threat at work: A model of long-term responses. *The Counseling Psychologist, 39*, 570-600. doi:10.1177/0011000010382459
- Bowles, H. R., Babcock, L., & Lai, L. (2007). Social incentives for gender differences in the propensity to initiate negotiations: Sometimes it does hurt to ask. *Organizational Behavior and Human Decision Processes, 103*(1), 84-103.  
doi:10.1016/j.obhdp.2006.09.001
- Bowles, H. R., & Kray, L. J. (2013). Negotiation is a man's game: Ultimate truth or enduring myth? *Gender & Work: Challenging Conventional Wisdom. Research Symposium in honor of 50 years of women MBA*. Harvard Business School Press.
- Brown, R. P., & Pinel, E. C. (2003). Stigma on my mind: Individual differences in the experience of stereotype threat. *Journal of Experimental Social Psychology, 39*(6), 626-633. doi:10.1016/S0022-1031(03)00039-8
- Burgess, D., & Borgida, E. (1999). Who women are, who women should be: Descriptive and prescriptive gender stereotyping in sex discrimination. *Psychology, Public Policy, & Law, 5*(3), 665-692. doi:[10.1037/1076-8971.5.3.665](https://doi.org/10.1037/1076-8971.5.3.665)
- Burgess, D., Joseph, A., van Ryn, M., & Carnes, M.. (2012). Does stereotype threat affect women in academic medicine? *Academic Medicine, 87*(4), 506-512. doi:  
0.1097/ACM.0b013e318248f718
- Burnette, J. L., Pollack, J. M., & Hoyt, C. L. (2010). Individual differences in implicit theories of leadership ability and self-efficacy: Predicting responses to stereotype threat. *Journal of Leadership Studies, 3*(4), 46-56. doi:10.1002/jls.20138
- Cadinu, M., Maass, A., Frigerio, S., Impagliazzo, L., & Latinotti, S. (2003). Stereotype threat:

- the effect of expectancy on performance. *European Journal of Social Psychology*, 33(2), 267-285. doi:10.1002/ejsp.145
- Cadinu, M., Maass, A., Lombardo, M., & Frigerio, S. (2006). Stereotype threat: the moderating role of Locus of Control beliefs. *European Journal of Social Psychology*, 36(2), 183-197. doi:10.1002/ejsp.303
- Carnes, M., Geller, S., Fine, E. Sheridan, J., & Handelsman, J. (2005). NIH Director's Pioneer Awards: Could the selection process be biased against women? *Journal of Women's Health*, 14(8), 684-691. doi:10.1089/jwh.2005.14.684
- Carr, P. B., & Steele, C. M. (2009). Stereotype threat and inflexible perseverance in problem solving. *Journal of Experimental Social Psychology*, 45(4), 853-859. doi:http://dx.doi.org/10.1016/j.jesp.2009.03.003
- Carr, P. B., & Steele, C. M. (2010). Stereotype threat affects financial decision making. *Psychological Science*, 21(10), 1411-1416. doi:10.1177/0956797610384146
- Carton, A. M., & Rosette, A. S. (2011). Explaining bias against Black leaders: Integrating theory on information processing and goal-based stereotyping. *Academy of Management Journal*, 54, 1141-1158 doi:10.5465/amj.2009.0745.
- Catalyst (2015) *Women in S&P 500 Companies by Race/Ethnicity*. New York: Catalyst. Retrieved from <http://catalyst.org/knowledge/women-sp-500-companies-raceethnicity>.
- Center for American Women and Politics (2015). *Current numbers*. Retrieved from: <http://www.cawp.rutgers.edu/current-numbers>
- Cheryan, S., Plaut, V. C., Davies, P. G., & Steele, C. M. (2009). Ambient belonging: How stereotypical cues impact gender participation in computer science. *Journal of Personality and Social Psychology*, 97(6), 1045. doi:10.1037/a0016239

- Cohen, G. L., & Garcia, J. (2008). Identity, belonging, and achievement: A model, interventions, implications. *Current Directions in Psychological Science*, *17*(6), 365-369.  
doi:10.1111/j.1467-8721.2008.00607.x
- Cole, B. A. (2009). Gender, narratives and intersectionality: Can personal experience approaches to research contribute to “undoing gender”? *International Review of Education / Internationale Zeitschrift für Erziehungswissenschaft*, *55*(5/6), 561-578.  
doi:10.1007/s11159-009-9140-5
- Collins, N. (1996). Working models of attachment: Implications for explanation, emotion, and behavior. *Journal of Personality and Social Psychology*, *71*(4), 810-832.  
doi:10.1037/0022-3514.71.4.810
- Collins, R. L. (2000). Among the better ones: Upward assimilation in social comparison. In J. Suls & L. Wheeler (Eds.), *Handbook of social comparison: Theory and research* (pp. 159–172). New York: Kluwer Academic/Plenum.
- Crocker, J., Major, B., & Steele, C. (1998). Social stigma. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (Vol. 2, pp. 554-594). Boston, MA: McGraw-Hill.
- Croizet, J. C., & Claire, T. (1998). Extending the concept of stereotype threat to social class: The intellectual underperformance of students from low socioeconomic backgrounds. *Personality and Social Psychology Bulletin*, *24*(6), 588-594.  
doi:10.1177/0146167298246003
- Dasgupta, N. (2011). Ingroup experts and peers as social vaccines who inoculate the self-concept: The stereotype inoculation model. *Psychological Inquiry*, *22*(4), 231-246.  
doi:10.1080/1047840X.2011.607313

- Dasgupta, N., & Asgari, S. (2004). Seeing is believing: Exposure to counterstereotypic women leaders and its effect on the malleability of automatic gender stereotyping. *Journal of Experimental Social Psychology*, (40), 642-658. doi: [10.1016/j.jesp.2004.02.003](https://doi.org/10.1016/j.jesp.2004.02.003)
- Davies, P., Spencer, S., & Steele, C. (2005). Clearing the air: Identity safety moderates the effects of stereotype threat on women's leadership aspirations. *Journal of Personality and Social Psychology*, 88(2), 276-287. doi: 10.1037/0022-3514.88.2.276
- Davies, P. G., Spencer, S. J., Quinn, D. M., & Gerhardstein, R. (2002). Consuming images: How television commercials that elicit stereotype threat can restrain women academically and professionally. *Personality and Social Psychology Bulletin*, 28(12), 1615-1628.  
doi:10.1177/014616702237644
- Day, D. V., Fleenor, J. W., Atwater, L. E., Sturm, R. E, McKee, R. A. (2014). Advances in leader and leadership development: A review of 25 years of research and theory. *The Leadership Quarterly*, 25(1), 63-82. doi:10.1016/j.leaqua.2013.11.004
- Day, D. V., Harrison, M. M., & Halpin, S. M. (2009). *An integrative theory of leadership development: Connecting adult development, identity, and expertise*. New York: Psychology Press.
- Deaux, K., & Kite, M. (1993). Gender stereotypes. In F. Denmark & M. Paludi (Eds.), *Psychology of women: A handbook of issues and theories* (pp. 107-139). Westport, CT, US: Greenwood Press/Greenwood Publishing Group.
- Dodge, K. A., Gilroy, F. D., & Fenzel, L. M. (1995). Requisite management characteristics revisited: Two decades later. *Journal of Social Behavior & Personality*, 10(6), 253-264.
- Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality and development*. Philadelphia, PA: Psychology Press.

- Eagly, A. H. (2004). Few women at the top: How role incongruity produces prejudice and the glass ceiling. In D. van Knippenberg & M. A. Hogg (Eds.), *Leadership and power: Identity processes in groups and organizations* (pp. 79-93). London: Sage Publications
- Eagly, A.H., & Carli, L.L. (2003). The female leadership advantage: An evaluation of the evidence. *The Leadership Quarterly*, *14*, 807-834. [doi:10.1016/j.leaqua.2003.09.004](https://doi.org/10.1016/j.leaqua.2003.09.004)
- Eagly, A. H., & Carli, L. L. (2007). *Through the Labyrinth*. Cambridge, MA: Harvard Business School Press.
- Eagly, A. H., Gartzia, L., & Carli, L. L. (2014). Female advantage: Revisited. In S. Kumra, R. Simpson, & R. Burke (Eds.), *The Oxford handbook of gender in organizations*. New York, NY: Oxford University Press.
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, *109*(3), 573-598. doi:10.1037/0033-295X.109.3.573
- Eagly, A. H., Wood, W., & Diekmann, A. B. (2000). Social role theory of sex differences and similarities: A current appraisal. In T. Eckes & H. M. Trautner (Eds.), *The Developmental Social Psychology of Gender* (pp. 123-174). Mahwah, NJ: Erlbaum.
- Ely, R. J., Ibarra, H., & Kolb, D. M. (2011). Taking gender into account: Theory and design for women's leadership development programs. *Academy of Management Learning & Education*, *10*(3), 474-493. doi:10.5465/amle.2010.0046
- Emerson, K. T. U., & Murphy, M. C. (2015). A company I can trust? Lay theories moderate stereotype threat for women. *Personality and Social Psychology Bulletin*, *41*(2), 295-307. doi:10.1177/0146167214564969
- Fiske, S. T., & Neuberg, S. L. (1990). A continuum of impression formation, from category-based to individuating processes: Influences of information and motivation on attention

- and interpretation. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 23, pp. 1–74). New York: Academic Press.
- Forsyth, D. R., & Nye, J. L. (2008). Seeing and being a leader: The perceptual, cognitive, and interpersonal roots of conferred influence. In C. L. Hoyt, G. R. Goethals, and D. R. Forsyth (Eds.), *Leadership at the crossroads: Leadership and Psychology* (Vol. 1, pp. 116-131). Westport, CT: Praeger.
- Geis, F. L., Brown, V., Jennings, J., & Porter, N. (1984). TV commercials as achievement scripts for women. *Sex Roles, 10*(7), 513. doi:10.1007/BF00287260
- Glick, P., & Fiske, S. T. (1999). The ambivalence toward men inventory. *Psychology of Women Quarterly, 23*(3), 519. doi:10.1111/j.1471-6402.1999.tb00379.x
- Gneezy, U., Niederle, M., & Rustichini, A. (2003). Performance in competitive environments: Gender differences. *Quarterly Journal of Economics, 118*(3), 1049-1074. doi:10.1162/00335530360698496
- Gonzales, P. M., Blanton, H., & Williams, K. J. (2002). The effects of stereotype threat and double-minority status on the test performance of Latino women. *Personality and Social Psychology Bulletin, 28*(5), 659-670. doi:10.1177/0146167202288010
- Good, C., Aronson, J., & Harder, J. A. (2008). Problems in the pipeline: Stereotype threat and women's achievement in high-level math courses. *Journal of Applied Developmental Psychology, 29*(1), 17–28. doi:10.1016/j.appdev.2007.10.004.
- Good, J. J., Woodzicka, J. A., & Wingfield, L. C. (2010). The effects of gender stereotypic and counter-stereotypic textbook images on science performance. *Journal of Social Psychology, 150*(2), 132-147. doi: 10.1080/00224540903366552.

- Gupta, V. K., & Bhawe, N. M. (2007). The influence of proactive personality and stereotype threat on women's entrepreneurial intentions. *Journal of Leadership & Organizational Studies, 13*(4), 73-85. doi:10.1177/10717919070130040901
- Gupta, V. K., Turban, D., & Bhawe, N. (2008). The effect of gender stereotype activation on entrepreneurial intentions. *Journal of Applied Psychology, 93*(5), 1053-1061. doi:10.1037/0021-9010.93.5.1053.
- Heilman, M., & Okimoto, T. (2007). Why are women penalized for success at male tasks?: The implied communality deficit. *Journal of Applied Psychology, 92*(1), 81-92. doi:10.1037/0021-9010.92.1.81
- Heilman, M., Wallen, A., Fuchs, D., & Tamkins, M. (2004). Penalties for success: Reactions to women who succeed at male gender-typed tasks. *Journal of Applied Psychology, 89*(3), 416-427. doi:10.1037/0021-9010.89.3.416
- Heilman, M. E. (1983). Sex bias in work settings: The Lack of Fit model. *Research in Organizational Behavior, 5*, 269-298.
- Heilman, M. E. (1995). Sex stereotypes and their effects in the workplace: What we know and what we don't know. *Journal of Social Behavior & Personality, 10*(6), 3-26.
- Heilman, M. E. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues, 57*(4), 657-674. doi:10.1111/0022-4537.00234
- Heilman, M. E. (2012). Gender stereotypes and workplace bias. *Research in Organizational Behavior, 32*, 113-135. doi: 10.1016/j.riob.2012.11.003
- Hess, T. M., Auman, C., Colcombe, S. J., & Rahhal, T. A. (2003). The impact of stereotype threat on age differences in memory performance. *The Journals of Gerontology Series B:*

- Psychological Sciences and Social Sciences*, 58(1), 3-11. doi:10.1093/geronb/58.1.P3
- Hoyt, C. L. (2010). Women, men, and leadership: Exploring the gender gap at the top. *Social and Personality Psychology Compass*, 4(7), 484-498. doi:10.1111/j.1751-9004.2010.00274.x
- Hoyt, C. L. (2013). Inspirational or self-deflating the role of self-efficacy in elite role model effectiveness. *Social Psychological and Personality Science*, 4(3), 290-298. doi:10.1177/1948550612455066
- Hoyt, C. L., & Blascovich, J. (2007). Leadership efficacy and women leaders' responses to stereotype activation. *Group Processes & Intergroup Relations*, 10(4), 595-616. doi:10.1177/1368430207084718
- Hoyt, C. L., & Blascovich, J. (2010). The role of leadership self-efficacy and stereotype activation on cardiovascular, behavioral and self-report responses in the leadership domain. *The Leadership Quarterly*, 21(1), 89-103. doi:10.1016/j.leaqua.2009.10.007
- Hoyt, C. L., Burnette, J. L., & Innella, A. N. (2012). I can do that. The impact of implicit theories on leadership role model effectiveness. *Personality and Social Psychology Bulletin*, 38(2), 257-268. doi:10.1177/0146167211427922.
- Hoyt, C. L., & Chemers, M. M. (2008). Social stigma and leadership: A long climb up a slippery ladder. In C. L. Hoyt, G. R. Goethals, & D.R. Forsyth (Eds.), *Leadership at the crossroads: Leadership and psychology* (Vol.1, pp. 165-180). Westport, CT: Praeger.
- Hoyt, C. L., Johnson, S. K., Murphy, S. E., & Skinnell, K. H. (2010). The impact of blatant stereotype activation and group sex-composition on female leaders. *The Leadership Quarterly*, 21(5), 716-732. doi:10.1016/j.leaqua.2010.07.003



- Hoyt, C. L., & Simon, S. (2011). Female Leaders Injurious or Inspiring Role Models for Women? *Psychology of Women Quarterly*, 35(1), 143-157.  
doi:10.1177/0361684310385216
- Inzlicht, M., & Ben-Zeev, T. (2000). A threatening intellectual environment: Why females are susceptible to experiencing problem-solving deficits in the presence of males. *Psychological Science*, 11(5), 365-371. doi:10.1111/1467-9280.00272
- Johnson, S. K., Murphy, S. E., Zewdie, S., & Reichard, R. J. (2008). The strong, sensitive type: Effects of gender stereotypes and leadership prototypes on the evaluation of male and female leaders. *Organizational Behavior and Human Decision Processes*, 106(1), 39-60.  
doi:10.1016/j.obhdp.2007.12.002
- Kaiser, C. R., Vick, S. B., & Major, B. (2006). Prejudice expectations moderate preconscious attention to cues that are threatening to social identity. *Psychological Science*, 17(4), 332-338. doi:10.1111/j.1467-9280.2006.01707.x
- Kalokerinos, E. K., von Hippel, C., & Zacher, H. (2014). Is stereotype threat a useful construct for organizational psychology research and practice? *Industrial and Organizational Psychology*, 7(3), 381-402. doi:10.1111/iops.12167
- Kanter, R. M. (1977). *Men and Women of the Corporation*. New York: Basic books.
- Kenney, R. A., Schwartz-Kenney, B. M., & Blascovich, J. (1996). Implicit leadership theories: Defining leaders described as worthy of influence. *Personality and Social Psychology Bulletin*, 22(11), 1128-1143. doi:10.1177/01461672962211004
- Koenig, A., Eagly, A., Mitchell, A., & Ristikari, T. (2011). Are leader stereotypes masculine? A meta-analysis of three research paradigms. *Psychological Bulletin*, 137(4), 616-642.  
doi:10.1037/a0023557.

- Koenig, A. M., & Eagly, A. H. (2005). Stereotype threat in men on a test of social sensitivity. *Sex Roles, 52*(7/8), 489-496. doi:10.1007/s11199-005-3714-x
- Koenig, L. J., & McCree, D. H. (2011). Gender-responsive programming and HIV prevention for women: Centers for disease control and prevention perspective. *Women's Health Issues, 21*(6, Supplement), S241-S242. doi:10.1016/j.whi.2011.04.015
- Kray, L., & Shirako, A. (2011). Stereotype threat in organizations: An examination of its scope, triggers, and possible interventions. In M. Inzlicht & T. Schmader (Eds.) *Stereotype threat: Theory, process, and application* (173-187). New York: Oxford University Press.
- Kray, L. J., Galinsky, A. D., & Thompson, L. (2002). Reversing the gender gap in negotiations: An exploration of stereotype regeneration. *Organizational Behavior and Human Decision Processes, 87*(2), 386-410. doi:10.1006/obhd.2001.2979
- Kray, L. J., & Haselhuhn, M. P. (2008). What it takes to succeed: An examination of the relationship between negotiators' implicit beliefs and performance. In C. L. Hoyt, G. R. Goethals, & D.R. Forsyth (Eds.), *Leadership at the crossroads: Leadership and psychology* (Vol.1, pp. 213-229). Westport, CT: Praeger.
- Kray, L. J., Locke, C. C., & Haselhuhn, M. P. (2010). In the Words of Larry Summers: Gender Stereotypes and Implicit Beliefs in Negotiations. In A.A. Stanton, M. Day & I.M. Welpel (Eds.), *Neuroeconomics and the Firm* (pp. 101-115). Cheltenham, UK: Edward Elgar Publishing.
- Kray, L. J., Reb, J., Galinsky, A. D., & Thompson, L. (2004). Stereotype reactance at the bargaining table: The effect of stereotype activation and power on claiming and creating value. *Personality and Social Psychology Bulletin, 30*(4), 399-411.  
doi:10.1177/0146167203261884

- Kray, L. J., Thompson, L., & Galinsky, A. (2001). Battle of the sexes: gender stereotype confirmation and reactance in negotiations. *Journal of Personality and Social Psychology, 80*(6), 942-958. doi:10.1037//0022-3514.80.6.942
- Latu, I. M., Mast, M. S., Lammers, J., & Bombari, D. (2013). Successful female leaders empower women's behavior in leadership tasks. *Journal of Experimental Social Psychology, 49*(3), 444-448. doi:10.1016/j.jesp.2013.01.003
- Lawless, J., & Fox, R. (2012). *Men rule: The continued under-representation of women in U.S. politics*. Washington, DC: Women & Politics Institute. Retrieved from: <https://www.american.edu/spa/wpi/upload/2012-Men-Rule-Report-web.pdf>
- Leicht, C., de Moura, G.R., & Crisp, R.J. (2014). Contesting gender stereotypes stimulates generalized fairness in the selection of leaders. *The Leadership Quarterly, 25*(5), 1025–1039. doi:10.1016/j.leaqua.2014.05.001
- Leslie, S. J., Cimpian, A., Meyer, M., & Freeland, E. (2015). Expectations of brilliance underlie gender distributions across academic disciplines. *Science, 347*(6219), 262-265. doi:10.1126/science.1261375
- Levy, B. (1996). Improving memory in old age through implicit self-stereotyping. *Journal of Personality and Social Psychology, 71*(6), 1092-1107. doi:10.1037/0022-3514.71.6.1092
- Livingston, R. W., Rosette, A. S., & Washington, E. F. (2012). Can an agentic Black woman get ahead? The impact of race and interpersonal dominance on perceptions of female leaders. *Psychological Science, 23*(4), 354–358. doi:10.1177/0956797611428079
- Lockwood, P., & Kunda, Z. (1999). Increasing the salience of one's best selves can undermine inspiration by outstanding role models. *Journal of Personality and Social Psychology, 76*(2), 214-228. doi:10.1037/0022-3514.76.2.214

- Logel, C., Walton, G. M., Spencer, S. J., Iserman, E. C., von Hippel, W., & Bell, A. E. (2009). Interacting with sexist men triggers social identity threat among female engineers. *Journal of Personality and Social Psychology, 96*(6), 1089-1103. doi:10.1037/a0015703
- Lord, R. G., & Maher, K. J. (1991). *Executive leadership and information processing: Linking perceptions and organizational performance*. Wellington, MA: Unwin Hyman.
- Major, B., & Schmader, T. (1998). Coping with stigma through psychological disengagement. In J. Swim & C. Stangor (Eds.), *Prejudice: The Target's Perspective*, The Academic Press, 219-241.
- Marx, D. M., Ko, S. J., & Friedman, R. A. (2009). The “Obama Effect”: How a salient role model reduces race-based performance differences. *Journal of Experimental Social Psychology, 45*(4), 953-956. doi:10.1016/j.jesp.2009.03.012
- Marx, D. M., & Roman, J. S. (2002). Female role models: protecting women’s math test performance. *Personality and Social Psychology Bulletin, 28*(9), 1183-1193. doi:10.1177/01461672022812004
- McGlone, M. S., Aronson, J., & Kobrynowicz, D. (2006). Stereotype threat and the gender gap in political knowledge. *Psychology of Women Quarterly, 30*(4), 392-398. doi:10.1111/j.1471-6402.2006.00314.x
- McGlone, M. S., & Pfeister, R. A., (2015). Stereotype threat and the evaluative context of communication. *Journal of Language and Social Psychology, 34*(2), 111-137. doi:10.1177/0261927X14562609
- McIntyre, R. B., Lord, C. G., Gresky, D. M., Ten Eyck, L. L., Frye, G. D. J., & Bond Jr, C. F. (2005). A social impact trend in the effects of role models on alleviating women’s mathematics stereotype threat. *Current Research in Social Psychology, 10*(9), 116-136.

- McIntyre, R. B., Paulson, R. M., & Lord, C. G. (2003). Alleviating women's mathematics stereotype threat through salience of group achievements. *Journal of Experimental Social Psychology, 39*(1), 83-90. doi:10.1016/S0022-1031(02)00513-9
- Murphy, S. E. (1992). *The contribution of leadership experience and self-efficacy to group performance under evaluation apprehension* (Order No. 9230410). Available from ProQuest Dissertations & Theses Global. (304005264). Retrieved from <http://search.proquest.com/docview/304005264?accountid=10673>
- Murphy, M. C., Steele, C. M., & Gross, J. J. (2007). Signaling threat: How situational cues affect women in math, science, and engineering settings. *Psychological Science, 18*, 879-885. doi:10.1111/j.1467-9280.2007.01995.x
- Nguyen, H. H. D., & Ryan, A. M. (2008). Does stereotype threat affect test performance of minorities and women? A meta-analysis of experimental evidence. *Journal of Applied Psychology, 93*(6), 1314-1134. doi:10.1037/a0012702
- Niederle, M., & Vesterlund, L. (2008). Gender differences in competition. *Negotiation Journal, 24*(4), 447-463. doi:10.1111/j.1571-9979.2008.00197.x
- Nussbaum, A. D., & Steele, C. M. (2007). Situational disengagement and persistence in the face of adversity. *Journal of Experimental Social Psychology, 43*(1), 127-134. doi:10.1016/j.jesp.2005.12.007
- Parks-Stamm, E. J., Heilman, M. E., & Hearn, K. A. (2008). Motivated to penalize: Women's strategic rejection of successful women. *Personality and Social Psychology Bulletin, 34*(2), 237-247. doi:10.1177/0146167207310027
- Pew Research Center Social & Demographic Trends (2015). *Women and leadership*. Retrieved from <http://www.pewsocialtrends.org/2015/01/14/chapter-1-women-in-leadership/>

- Pollack, J. M., Burnette, J., & Hoyt, C. (2012). Self-efficacy in the face of threats to entrepreneurial success: mind-sets matter. *Basic and Applied Social Psychology, 34*(3), 287-294. doi:10.1080/01973533.2012.674452
- Pronin, E., Steele, C. M., & Ross, L. (2004). Identity bifurcation in response to stereotype threat: Women and mathematics. *Journal of Experimental Social Psychology, 40*(2), 152-168. doi:10.1016/S0022-1031(03)00088-X
- Purdie-Vaughns, V., Steele, C., Davies, P., Dittmann, R., & Crosby, J. (2008). Social identity contingencies: How diversity cues signal threat or safety for African Americans in mainstream institutions. *Journal of Personality and Social Psychology, 94*(4), 615-630. doi:10.1037/0022-3514.94.4.615
- Roberson, L., & Kulik, C. T. (2007). Stereotype threat at work. *Academy of Management Perspectives, 21*(2), 24-40. doi:10.5465/AMP.2007.25356510
- Rosette, A. S., Leonardelli, G. J., & Phillips, K. W. (2008). The White standard: racial bias in leader categorization. *Journal of Applied Psychology, 93*(4), 758-777. doi:10.1037/0021-9010.93.4.758
- Rosette, A. S., & Livingston, R. W. (2012). Failure is not an option for Black women: Effects of organizational performance on leaders with single versus dual-subordinate identities. *Journal of Experimental Social Psychology, 48*(5), 1162-1167. doi:10.1016/j.jesp.2012.05.002
- Rudman, L., & Glick, P. (1999). Feminized management and backlash toward agentic women: the hidden costs to women of a kinder, gentler image of middle managers. *Journal of Personality and Social Psychology, 77*(5), 1004-1010. doi:10.1037/0022-3514.77.5.1004
- Rudman, L. A., & Peter, G. (2001). Prescriptive gender stereotypes and backlash toward agentic

- women. *Journal of Social Issues*, 57(4), 743-762. doi:10.1111/0022-4537.00239
- Rudman, L. A., & Phelan, J. E. (2010). The effect of priming gender roles on women's implicit gender beliefs and career aspirations. *Social Psychology*, 41(3), 192-202. doi:10.1027/1864-9335/a000027
- Sanchez-Hucles, J. V., & Davis, D. D. (2010). Women and women of color in leadership: Complexity, identity, and intersectionality. *American Psychologist*, 65(3), 171-181. doi:10.1037/a0017459
- Schmader, T. (2002). Gender identification moderates stereotype threat effects on women's math performance. *Journal of Experimental Social Psychology*, 38(2), 194-201. doi:10.1006/jesp.2001.1500
- Schmader, T., Johns, M., & Forbes, C. (2008). An integrated process model of stereotype threat effects on performance. *Psychological Review*, 115(2), 336-356. doi: 10.1037/0033-295X.115.2.336
- Sekaquaptewa, D., & Thompson, M. (2003). Solo status, stereotype threat, and performance expectancies: Their effects on women's performance. *Journal of Experimental Social Psychology*, 39(1), 68-74. doi:10.1016/S0022-1031(02)00508-5
- Shapiro, J. R., & Neuberg, S. L. (2007). From stereotype threat to stereotype threats: Implications of a multi-threat framework for causes, moderators, mediators, consequences, and interventions. *Personality and Social Psychology Review*, 11(2), 107-130. doi: 10.1177/1088868306294790
- Shapiro, J. R., & Williams, A. M. (2012). The role of stereotype threats in undermining girls' and women's performance and interest in STEM fields. *Sex Roles: A Journal of Research*, 66(3), 175-183. doi:10.1007/s11199-011-0051-0

- Shih, M., Pittinsky, T. L., & Ambady, N. (1999). Stereotype susceptibility: Identity salience and shifts in quantitative performance. *Psychological Science, 10*(1), 81-84.  
doi: 10.1111/1467-9280.00111
- Simon, S., & Hoyt, C. L. (2012). Exploring the effect of media images on women's leadership self-perceptions and aspirations. *Group Processes & Intergroup Relations, 16*(2), 232-245. doi:10.1177/1368430212451176
- Small, D., Gelfand, M., Babcock, L., & Gettman, H. (2007). Who goes to the bargaining table? The influence of gender and framing on the initiation of negotiation. *Journal of Personality and Social Psychology, 93*(4), 600-613. doi:10.1037/0022-3514.93.4.600
- Spencer, S. J., Steele, C. M., & Quinn, D. M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology, 35*(1), 4-28.  
doi:10.1006/jesp.1998.1373
- Stangor, C., Carr, C., & Kiang, L. (1998). Activating stereotypes undermines task performance expectations. *Journal of Personality and Social Psychology, 75*(5), 1191-1197.  
doi:10.1037/0022-3514.75.5.1191
- Steele, C. M. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. *American Psychologist, 52*(6), 613-629. doi:10.1037/0003-066X.52.6.613
- Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology, 69*(5), 797-811.  
doi:10.1037/0022-3514.69.5.797
- Steele, C.M., Spencer, S.J., & Aronson, J. (2002). Contending with group image: The psychology of stereotype and social identity threat. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 34, pp. 379–440). New York: Academic Press.



- Steele, J. R., & Ambady, N. (2006). "Math is Hard!" The effect of gender priming on women's attitudes. *Journal of Experimental Social Psychology, 42*(4), 428-436.  
doi:10.1016/j.jesp.2005.06.003
- Stone, J., Lynch, C. I., Sjomeling, M., & Darley, J. M. (1999). Stereotype threat effects on black and white athletic performance. *Journal of Personality and Social Psychology, 77*(6), 1213-1227. doi:10.1037/0022-3514.77.6.1213
- Sturm, S. (2001). Second Generation Employment Discrimination: A Structural Approach. *Columbia Law Review, 101*(3), 458-568. doi:10.2307/1123737
- Suls, J., Martin, R., & Wheeler, L. (2002). Social comparison: Why, with whom, and with what effect? *Current Directions in Psychological Science, 11*(5), 159-163. doi:10.1111/1467-8721.00191
- Vault/MCCA (2013). *Annual Vault/MCAA Law firm diversity survey*. Press release. Retrieved from  
[http://www.vault.com/images/pdf/downloads/VaultMCCALawFirmDiversitySurvey\\_Sep2013\\_PR.pdf](http://www.vault.com/images/pdf/downloads/VaultMCCALawFirmDiversitySurvey_Sep2013_PR.pdf)
- von Hippel, C., Kalokerinos, E., & Henry, J. (2013). Stereotype threat among older employees: relationship with job attitudes and turnover intentions. *Psychology and Aging, 28*(1), 17-27. doi:10.1037/a0029825.
- von Hippel, C., Issa, M., Ma, R., & Stokes, A. (2011). Stereotype threat: Antecedents and consequences for working women. *European Journal of Social Psychology, 41*(2), 151-161. doi:10.1002/ejsp.749

- von Hippel, C., Sekaquaptewa, D., & McFarlane, M. (2015). Stereotype threat among women in finance: negative effects on identity, workplace well-being, and recruiting. *Psychology of Women Quarterly*, 39(3), 405-414. doi:10.1177/0361684315574501
- von Hippel, C., Walsh, A. M., & Zouroudis, A. (2011). Identity separation in response to stereotype threat. *Social Psychological and Personality Science*, 2(3), 317-324. doi:10.1177/1948550610390391
- von Hippel, C., Wiryakusuma, C., Bowden, J., & Shochet, M. (2011). Stereotype threat and female communication styles. *Personality and Social Psychology Bulletin*, 37(10), 1312-1324. doi:10.1177/0146167211410439
- Walton, G., & Cohen, G. (2007). A question of belonging: Race, social fit, and achievement. *Journal of Personality and Social Psychology*, 92(1), 82-96. doi:10.1037/0022-3514.92.1.82
- Walton, G. M., Murphy, M. C., & Ryan, A. M. (2015). Stereotype threat in organizations: Implications for equity and performance. *The Annual Review of Organizational Psychology and Organizational Behavior*, 2(1), 523-550. doi:10.1146/annurev-orgpsych-032414-111322
- Wayne, N., Vermillion, M., & Uijtdehaage, S. (2010). Gender differences in leadership amongst first-year medical students in the small-group setting. *Academic Medicine*, 85(8), 1276-1281. doi:10.1097/ACM.0b013e3181e5f2ce
- Williams, J., (2014, October). Hacking tech's diversity problem. *Harvard Business Review Magazine*. Retrieved from <https://hbr.org/2014/10/hacking-techs-diversity-problem/ar/1>
- Williams, J. E., & Best, D. L. (1990). *Sex and psyche: Gender and self viewed cross-culturally*. Thousand Oaks, CA: Sage Publications, Inc.

Wood, J. V. (1989). Theory and research concerning social comparisons of personal attributes.

*Psychological Bulletin*, 106(2), 231-248. doi:10.1037/0033-2909.106.2.231

World Economic Forum. (2014). The global gender gap report 2014. Retrieved from

<http://reports.weforum.org/global-gender-gap-report-2014/>