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Why We Should Stop Trying to Fix Women: How Context Shapes and Constrains Women's Career Trajectories

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Abstract

In this review we examine two classes of interventions designed to achieve workplace gender equality: (*a*) those designed to boost motivations and ambition, such as those that aim to attract more women into roles where they are underrepresented; and (*b*) those that try to provide women with needed abilities to achieve these positions. While such initiatives are generally well meaning, they tend to be based upon (and reinforce) stereotypes of what women lack. Such a deficit model leads to interventions that attempt to "fix" women rather than address the structural factors that are the root of gender inequalities. We provide a critical appraisal of the literature to establish an evidence base for why fixing women is unlikely to be successful. As an alternative, we focus on understanding how organizational context and culture maintain these inequalities by looking at how they shape and constrain (*a*) women's motivations and ambitions, and (*b*) the expression and interpretation of their skills and attributes. In doing so, we seek to shift the interventional focus from women themselves to the systems and structures in which they are embedded.

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INTRODUCTION

While there are many visible examples of individual women who have succeeded in the workplace—women at the helms of their own businesses, running corporations, even leading countries—there is no doubt that women as a group fare less well. The statistics demonstrate gender inequalities at all stages of career trajectories: For example, women are overrepresented in sectors and roles that are low in status and in value (UN Women 2022); they are paid consistently less than their male peers, even when enacting the same role (Int. Labour Organ. 2022); and they are visibly underrepresented in positions of leadership and influence (World Econ. Forum 2023). These inequalities are only exacerbated for those who face intersectional disadvantages, such as those based on race and ethnicity, sexuality and gender identity, and disability (e.g., Crenshaw 2017, Opara et al. 2020, Wong et al. 2022).

To address the persistence of gender inequalities, many workplace gender equality interventions have been designed and implemented by governments, gender equality practitioners, professional bodies, and organizations. In this review article we focus on two classes of initiatives that make up the majority of interventions: (*a*) those designed to boost motivations and ambition, such as those that aim to attract more women into those professions (such as STEM and politics) and roles (such as leadership) in which they are underrepresented; and (*b*) those that try to provide women with needed abilities to achieve these positions, such as confidence, assertiveness, and risk-taking, negotiation, and leadership skills.

While these types of initiatives are generally well meaning, they are nonetheless problematic in at least three interrelated ways: First, many of these interventions do not have a clear evidence base (Guthridge et al. 2022, Kossek & Buzzanell 2018, Lau et al. 2022, Schmader et al. 2022) but rather are based upon (and reinforce) stereotypes of what women lack (Ellemers 2018). Second, such a deficit model leads to interventions that attempt to "fix" women, and in doing so put the onus for change (and the blame for inequality) on women themselves (Fox 2017, Kim et al. 2018). Third, such women-focused approaches fail to address the systemic and structural factors that are the root of gender inequalities (Ryan 2022, 2023).

In this review article we provide a critical appraisal of the literature to establish an evidence base for why fixing women is unlikely to be a successful approach to achieving gender equality in career trajectories. As an alternative, we focus on understanding the ways in which organizational context and culture maintain these inequalities (Ellemers 2014, Kossek et al. 2017) by looking at how they shape and constrain (*a*) women's motivations and ambitions, and (*b*) the expression and interpretation of their skills and attributes. In doing so, we seek to shift the interventional focus from women themselves to the systems and structures in which they are embedded (for examples of more structural approaches to gender equality initiatives, see Alam 2022, Casad et al. 2018, Cheryan & Markus 2020, Schmader 2023).

THE PROBLEM WITH TRYING TO FIX WOMEN

The stubborn persistence of women's underrepresentation in many industries is clear. For example, women make up less than 30% of workers in research and development (UIS 2019), only 7% of the armed forces (NATO 2019), less than 20% of surgeons (Sund 2017), and less than 20% of senior officers in the financial services sector (Deloitte 2021). They are also underrepresented in positions of power and influence, including in corporate boardrooms (OECD 2020), in senior leadership positions (Catalyst 2022), and in representative political roles (UN Women 2022). This continued underrepresentation is problematic for individual women's career trajectories and for the cause of gender equality as a whole, but it is also problematic for society more generally. An absence of women in such roles has demonstrable implications for what is seen and prioritized and for how problems are addressed and solved (e.g., Little et al. 2001, Perez 2019)

The persistence of women's underrepresentation has led to many interventions, many of them aimed at women themselves (Lambert et al. 2022). Within these interventions, prescriptive advice abounds: Women are told to "lean in" (Sandberg 2013), "push back" (Rezvani 2012), "play big" (Mohr 2014), "dare to lead" (Brown 2018) and be a "GirlBoss" (Amoruso 2015). One feels exhausted just listening to all these directives. While this advice is designed to empower women's choices and raise their confidence and ambitions, this constant telling them what to do runs the risk of sending the message that women themselves are to be blamed for the inequalities they face (Kim et al. 2018), that there is something broken in them that must be fixed. Sometimes this blame is implicit, other times it is more explicit—such as in the subtitle of Frankel's (2014) book, *Unconscious Mistakes Women Make That Sabotage Their Careers*.

What Is It That Is Wrong with Women?

If women are considered broken, then we need to ask ourselves: broken relative to what? Women's deficits are seen in relation to societal and organizational ideals—ideal workers, ideal team members, and ideal leaders (and even ideal humans; Perez 2019). Classic work on gendered organizations (e.g., Acker 1990, Kanter 1975) demonstrates that these ideals are very much in line with masculine (white, able-bodied, straight) stereotypes, and these ideals persist today (e.g., Cheryan & Markus 2020, Ellemers 2018, Kossek et al. 2021). The ideal worker continues to be defined in terms of masculine traits and abilities (Acker 1990, Reid 2015, Williams 2000), including being expected to work long hours, to travel and relocate for work, and to prioritize work over family (Kelly et al. 2010). There is also a significant body of research demonstrating that the traits and abilities associated with successful leadership are more strongly associated with stereotypes of men than with stereotypes of women (e.g., Schein 1973; see also Heilman et al. 1995, Ryan et al. 2011). This manager = male association leads to gender biases in hiring practices, employee evaluations, and promotion processes that favor men over women (Eagly & Karau 2002, Heilman 1983). Over and above the specific ideals, organizational culture itself is often gendered, valuing competition, aggression, and contestation (e.g., Berdahl et al. 2018), even though there is evidence that such approaches are not necessarily associated with the best outcomes. For example, research suggests the benefits of (stereotypically feminine) transformational leadership styles over transactional ones (Eagly & Carli 2003), and case studies of the Lehman Brother collapse point to root problems in aggression and risk taking (see the testimony of L. Zingales in US House, Comm. Overs. Gov. Reform 2008, pp. 34–59).

Because of these masculine norms and cultures, women are frequently given advice to change to better meet these ideals: to be more confident and outspoken, to make more sacrifices, to take more risks, and to lead in particular ways. However, simply changing to fit masculine ideals is not so straightforward. There is a large body of evidence that demonstrates that when women act in more stereotypically masculine ways in the workplace—that is, when they do meet those ideals—they face penalties for this behavior (e.g., Cheryan & Markus 2020).

Work by Rudman and colleagues (e.g., Rudman & Phelan 2008, Rudman et al. 2012) describes the backlash that women face when they fail to behave in line with gender stereotypes. This backlash has consequences for all stages of the career trajectory, including negative economic outcomes for women relative to their male counterparts in hiring decisions (Rudman 1998, Rudman & Glick 2001, Williams & Tiedens 2016), salary negotiations (Janoff-Bulman & Wade 1996), and promotions (Fiske et al. 1991, Heilman et al. 2004) as well as negative social outcomes such as their evaluation as leaders (Badura et al. 2018, Eagly et al. 1992) and more general perceptions of likability (e.g., Williams & Tiedens 2016). Unsurprisingly, this backlash also has consequences for women's job satisfaction and turnover intentions (e.g., Lyness & Thompson 1997, Stroh et al. 1996). Thus, women face a double bind: When they don't meet traditionally masculine ideals, they are asked to change, and when they do meet ideals, they face sanctions and punishment (Eagly & Karau 2002).

The Element of Choice

Another underlying factor to the fix-the-women approach is the assumption that the persistence of gender inequalities comes down to women's own career choices (e.g., Stephens & Levine 2011). There is a perception that, given that many countries have legislation in place to address issues of gender discrimination, any existing differences between outcomes for men and women must be due, in large part, to the career decisions that women make (e.g., Damore 2017). For example, it is argued that because many countries now mandate equal pay for equal work, any residual gender pay gap must come down to women choosing to go into low-paying jobs (Thomson 2006), choosing to work fewer hours, and choosing not to negotiate for higher salaries or put themselves forward for promotions (e.g., Blau & Kahn 2017). Key within these arguments is the claim that women choose to prioritize work-life balance over career ambition, and they choose not to make the sacrifices needed for success.

While of course women have agency, and individual women make choices everyday, these choices do not occur within a social vacuum, and a focus on women's choices may have many unintended consequences for women (e.g., Savani et al. 2011, Schieder & Gould 2016). In this review we aim to make two key points: (*a*) that women's career choices are shaped and constrained by the social context in which they are embedded, and (*b*) that women's choices are often reasonable responses to their experiences in the workplace. In this way, women's career choices may be seen as a coping strategy to the cultural and social context of the workplace (Fox 2017). To illustrate these points, we provide critical examples from two families of interventions: those designed to boost women's motivations and ambition, and those designed to provide women with the needed abilities to achieve these positions.

HOW CONTEXT SHAPES AND CONSTRAINS WOMEN'S MOTIVATIONS

There is a myriad of interventions that are designed to boost women's workplace motivation, particularly in areas in which they are underrepresented, such as in STEM (Schmader 2023) and in leadership (Mousa et al. 2021). One particularly visible example of motivational interventions is the bestselling book by former Facebook COO Sheryl Sandberg (2013), titled *Lean In: Women, Work, and the Will to Lead*. The central "lean in" message focuses on empowering women's motivation and increasing their ambitions. This approach is illustrated by quotes from the book that have been turned into inspirational Internet memes, such as "If you're offered a seat on a rocket ship, don't ask what seat. Just get on."

The assumption underlying these approaches is that women are lacking the drive and motivation that are necessary to enter or succeed in these areas. In this section we examine three ways in which this motivational focus plays itself out: (*a*) assumptions that women are not ambitious enough; (*b*) assumptions that they are motivated by factors other than career success, such as work-life balance; and, relatedly, (*c*) assumptions about women's unwillingness to make sacrifices for their careers. We consider each of these in turn.

WOMEN'S AMBITION

The persistence of gender inequalities, especially in areas of prestige and influence, is often explained by the fact that women and girls do not set their ambitions as high as men and boys do (Fels 2005, Paton 2006), and, as a corollary, that they opt out of the workplace at higher rates than their male colleagues (Belkin 2003), with opting out seen as a reflection of a lack of ambition. Such explanations are evident both in those who are trying to explain away gender inequalities, such as James Damore's Google memo in which he claims that men have a higher drive for status than women (Damore 2017), and in those who are trying the reduce inequalities, such as Sandberg's famous statement that "until women are as ambitious as men they're not going to achieve as much as men."[1]

There is evidence to suggest that women, on average, do report lower levels of ambition than men (e.g., Van Vianen & Fischer 2002) and that they opt out of the workforce at higher rates (Antecol 2011). However, there are a number of reasons these differences may not reflect innate gender differences but instead reflect organization structures and culture (Kossek et al. 2017, Stone 2007, Zimmerman & Clark 2016). First, when women do opt out, they rarely leave the workplace altogether. Instead, they tend to continue their careers within other organizations (e.g., Boushey 2005) or start their own businesses (McDowell 2006). This redeployment suggests that women's lower ambition is associated with particular contexts and particular experiences rather than reflecting more generalized attitudes. Consistent with this, research suggests that many women report leaving work not only for family reasons (see the discussion on work-life balance below) but also because they lack the appropriate opportunities to progress, because their jobs are not meaningful or satisfying, or because they feel undervalued and lacking in opportunity (Hewlett & Luce 2005, Stone & Lovejoy 2004, Stroh et al. 1996).

Second, notions of ambition and success are bound up with gendered stereotypes and expectations. As we have seen above, both our prescriptive and descriptive stereotypes suggest that men are, and indeed should be, agentic, competitive, competent, and ambitious, while women are, and should be, warm and communal (e.g., Eagly & Steffen 1984, Heilman 2001, Schein 1973).

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[1] This statement was made on November 7, 2011 during an interview on PBS with Charlie Rose; the video and transcript are available at **https://charlierose.com/videos/16176**.

Moreover, there is a clear backlash against those women who do express ambition and seek power, with both social repercussions and career-limiting effects (e.g., Hall & Donaghue 2013, Okimoto & Brescoll 2010, Rudman & Glick 2001).

Exploring these explanations, Peters et al. (2012) conducted a series of studies with women in the surgical profession to examine the gendered rates of opting out within surgery and whether these may be explained by women's experiences within the workplace. These studies demonstrated that the intentions of female surgical trainees to opt out of the profession were due, at least in part, to their perceptions of a lack of fit between how they saw themselves and their perceptions of the ideal surgeon as being stereotypically masculine. Moreover, the fact that female surgeons perceived a greater lack of fit than their male colleagues had downstream consequences and helped explain women's lower levels of engagement and identification with surgery as a profession and their greater intentions to opt out.

Similarly, work by Begeny et al. (2018) looks at the motivation and engagement of veterinary professionals. This is an interesting sector, as it is a traditionally masculine field that women are now entering in large numbers. This research demonstrated that while female vets experienced lower motivation and ambition than their male colleagues, this was explained in large part by their experiences in the workplace, including not feeling like they fit in within the workplace, perceiving a lack of role models, and not feeling valued and admired by colleagues.

WORK-LIFE BALANCE AND SACRIFICE

Women's workplace choices related to issues of work-life balance are often used to explain continued workplace gender inequalities. In support of this, research demonstrates that concerns about work-life balance do indeed discourage women from seeking promotion and leadership roles and encourage part-time work (Lyonette 2015). However, the gendered natured of perceptions of work-life balance is not clear cut. While there is some evidence that women report lower levels of work-life balance (e.g., Crompton & Lyonette 2006), other studies demonstrate more similarity in men's and women's reported work-life balance (e.g., Bari & Robert 2016).

Where gender differences do occur, they are often discussed in relation to the domestic division of labor, such as household tasks and caring responsibilities, and women's choice to prioritize family duties over their careers. While there is no doubt that gender inequalities persist in the allocation and expectation of unpaid work outside of the workplace (Craig & Mullan 2010, Park et al. 2008), the focus on women's choices and on factors outside of the workplace in explaining the gendered nature of work-life balance is problematic (e.g., Sørensen 2017). We argue that the work side of the work-life equation also needs to be examined.

For example, Morgenroth et al. (2021) demonstrate, across three studies, that perceptions of work-life balance are not only a matter of balancing time but also a matter of balancing identity at home and at work. Importantly, issues about the availability of role models are a key determinant of perceptions of work-life balance. Across both survey and experimental studies, we demonstrated that gender differences in perceptions of work-life balance, are, at least in part, determined by women's perceptions of a lack of fit between themselves and the leaders within their organizations. In turn, this lack of fit leads to women perceiving an incompatibility between who they are at home and who they are at work.

These findings in relation to work-life incompatibility have important implications for how issues of work-life balance are addressed. Traditionally, work-life balance interventions are designed to address issues of time—primarily by giving women more time to undertake their domestic labor. However, Morgenroth et al. (2021) demonstrated that gendered differences in perceptions of work-life balance can be ameliorated by priming women with appropriate role models, such as attainable female leaders.

This type of analysis can be broadened from perceptions of work-life balance to analyses of women's willingness to make sacrifices for their careers. Many argue that women do not make the necessary sacrifices to climb the organizational ladder (Damore 2017), and this is borne out by data that show that men are more likely than women to work full-time, work longer hours, and do more overtime (OECD 2023). Women are less likely than men to travel for work and more likely to take flexible or less demanding work options (Dahm et al. 2019, Keene & Reynolds 2005). However, it is important to ask why these choices are made.

Research by Meeussen et al. (2022) examines why women report lower willingness to sacrifice for their careers compared to their male colleagues. Focusing on women in male-dominated careers, they demonstrated that women's unwillingness to make sacrifices was related to their experiences of workplace barriers—specifically, their direct experiences of gender discrimination and a lack of role models. These barriers were associated with women having lower expectations of succeeding in their careers and, critical to our argument, lower expectations that their sacrifices would lead them to success. It is perhaps no surprise, then, that these barriers and reduced expectations help explain women's lower willingness to make sacrifices for their careers.

Taken together, the studies outlined here provide evidence that women's motivations and ambitions are very much dependent on the contexts in which they are embedded: Treatment by colleagues, the availability of role models, perceptions of fit, and expectations of success all influence women's level of engagement, their willingness to sacrifice, and their perceptions of work-life balance. As a whole, they suggest that interventions designed to target women's motivations and ambitions through empowerment are unlikely to be fully successful. Moreover, a focus on the social mobility of individual women leaves the status quo untouched, which is problematic in a number of ways. For example, if we motivate individual women to leave the roles they currently occupy to take on more highly valued roles in science, technology, or leadership, we are left with the following problems: (*a*) We have done nothing to change the system that devalued women's roles in the first place; (*b*) those women who do not have the privilege to benefit from such interventions (such as those who face intersectional disadvantage) are left to undertake roles that remain devalued; and (*c*) where women do move into new roles, it is possible that these roles too will become devalued, as we have seen, for example, with education, general practice medicine, and veterinary practice (e.g., Smith 2006).

HOW CONTEXT SHAPES AND CONSTRAINS THE EXPRESSION OF WOMEN'S SKILLS AND ATTRIBUTES

In addition to interventions that target women's motivation and ambition, there are also workplace gender equality interventions that target women's skills and attributes. Many of these focus on skills that are seen to be critical for successful leadership, such as the ability to take risks and having an air of confidence. There are two potential issues here. The first is the unwarranted assumption that stereotypically masculine traits such as risk taking and confidence are inherently a part of good leadership, rather than just traits that reflect those who are already in leadership positions (Ryan et al. 2011, Schein 1973). The second is that these interventions are predicated on a deficit model of women's skills—one that assumes that women are fundamentally lacking in these traits and attributes, and they just need to be taught them. In what follows we examine an alternative explanation, that the expression of women's traits and abilities is very much shaped and constrained by the organizational context in which they are embedded.

RISK TAKING

One of the behavioral skills that is often seen as important for career success is risk taking. We define risk taking as the undertaking of actions that have the potential for positive outcomes (such as reaching a goal or gaining benefits) but also for negative outcomes (such as failure or incurring costs). Within the workplace, risk-taking behaviors may include personal career decisions, such as aggressive pay negotiations, taking on a new role, or putting oneself forward for promotion, or taking risks on behalf of the organization, such as a leader advocating for a radical change agenda or corporate strategy.

Not only is risk taking seen as career enhancing, but it is also a stereotypically gendered trait, one that continues to be seen as a core aspect of the masculine stereotype and as being incompatible with the feminine stereotype (Bem 1974, Ellemers 2018). Indeed, women's (purported) risk aversion has been used to explain many gender inequalities in career outcomes (Arch 1993, Croson & Gneezy 2009), including the gender pay gap (e.g., Carter et al. 2017) and women's underrepresentation in leadership roles (Ertac & Gurdal 2012).

These risk-based explanations for gender inequalities have translated into risk-focused interventions and initiatives designed to increase women's skills and abilities in this area. Indeed, Sandberg's (2013) lean-in message extends from ambition and motivation to the advice that women should address their fear of failure and take more risks (Warrell 2013), with quotes such as "Fortune does favor the bold and you'll never know what you're capable of if you don't try" or "What would you do if you weren't afraid?" (see Sandberg 2013). Similar interventional tactics have been used to reduce risk aversion in female entrepreneurs (Nyanga & Chindanya 2021) and to increase risk taking in women in leadership positions (KPMG 2019).

There are two things that we can take issue with in this approach: (*a*) Are women risk averse? (*b*) Is risk-taking really a valuable trait in the workplace? We consider each of these in turn.

Historically, the finding that women are, on average, less risk taking than men has been well established. This argument tends to be focused on lab-based economic games or on a limited scope of workplace behaviors, such as investment decision making or leaders taking risks on behalf of their team or organization (Croson & Gneezy 2009, Eckel & Grossman 2008, Ertac & Gurdal 2012, Faccio et al. 2016, Meyers-Levy & Loken 2015).

More recently, however, these claims have been called into question on the basis of methodological issues and publication bias (e.g., Holzmeister & Stefan 2021, Nelson 2014, Pedroni et al. 2017) as well as questions as to whether gender differences generalize across different risk-taking domains (Hanoch et al. 2006). Indeed, research demonstrates that gender differences in risk taking tend to be minimal or nonexistent on certain behaviors, such as drinking and smoking (Byrnes et al. 1999), and in some domains, such as social risk taking (Weber et al. 2002).

Thus, if we are to understand gender differences in risk-taking behavior, it is crucial to examine the ways in which risk taking is operationalized. Research by Morgenroth and colleagues (2018) demonstrates that classic measures of risk propensity tend to focus on stereotypically masculine risks, such as betting on a sporting event or riding a motorbike without a helmet [e.g., the domain-specific risk-taking (DOSPERT) scale; Weber et al. 2002]. However, risky behaviors that are more normative for women, such as horseback riding or going on an extreme diet, not only are not recognized as risky but also reveal that women are more risk taking or equally risk taking compared to men. These findings suggest that gendered roles and stereotypes have an impact upon the risks that women and men are likely to take (e.g., Harris & Jenkins 2006) and even what we recognize to be a risk.

In addition, gender roles and stereotypes may affect the exposure women and men have to risk (see, for example, work on the glass cliff showing that women are more likely to be appointed to leadership positions in times of crisis; Ryan & Haslam 2005, 2007) as well as the costs and benefits that women and men experience when taking risks. Given that risk taking is a core part of masculinity, we may expect that women, compared to men, incur greater penalties and fewer rewards for taking career or workplace risks. Indeed, research demonstrates that women experience backlash when they are confident or self-promoting (Rudman 1998, Rudman & Glick 2001), when they undertake pay or other economic negotiations (Bowles et al. 2007, Mazei et al. 2015), and when their risk taking leads to unsuccessful outcomes (Brescoll et al. 2010). Given these gendered outcomes, it is perhaps unsurprising if women are less likely to take certain risks.

To examine the gendered consequences (both anticipated and experienced) of risk taking at work, and their impact on future risk taking, Morgenroth et al. (2022) designed a series of survey and experimental studies. The authors asked women and men about their experiences of workplace risk taking—including asking for a pay rise, being vocal about one's career goals, and putting oneself forward for a promotion. When the participants were asked to anticipate the consequences for risks with which they had no prior experience, no gender differences were apparent. However, gender differences were evident when participants were asked about the actual consequences of workplace risk taking. Here, women reported fewer positive consequences of risk taking compared to men, including fewer instances of obtaining the desired outcome, positive economic and professional outcomes, and positive social outcomes. Importantly, these less positive consequences translated into women reporting that they would be less likely to engage in risk taking in the future. Overall, these studies suggest that while the process of evaluating the costs and benefits of risk is similar for women and men, the actual costs and benefits of risk differ. Thus, rather than simply being risk averse, women avoid risks because of a lack of rewards for their past risk taking: Why would one continue to take risks if one isn't rewarded for them?

CONFIDENCE AND THE IMPOSTOR SYNDROME

Closely linked to the initiatives directed toward women's risk taking in the workplace are those related to issues of confidence. Such approaches often provide remedial advice to address women's (purported) risk aversion and their underrepresentation in leadership roles by boosting women's confidence, as proposed for example in the New York Times Best Seller *The Confidence Code* (Kay & Shipman 2014). These interventions often start with a recognition that the key to success is confidence—what Gill & Orgad (2017) describe as confidence culture—as evidenced by all those confident, successful men at the top. They then provide tips to help women elevate their self-assurance and banish their impostor syndrome. This focus on women's confidence is also evident in the academic literature, with research examining women's underconfidence (e.g., Carlin et al. 2018) and their underestimation of their own leadership ability (e.g., Herbst 2020) and their skills and abilities (e.g., Vajapey et al. 2020).

Amid a lot of work in this space, the work on impostor syndrome is notable. Work on impostor syndrome focuses on a type of personality trait whereby individuals experience worries and self-doubts about their own abilities and worth (e.g., Clance & Imes 1978). Those with impostor syndrome may feel that their accomplishments are undeserved, or they may make attributions about their successes that rely on good fortune or on circumstances outside of their control. Key here is that these worries lead to concerns that others may expose them to be a fake or a fraud.

The tendency to make causal attributions about one's success can be a gendered phenomenon, with some evidence that women are more likely to attribute their successes to luck or other external forces (e.g., Beyer 1998, Hyde et al. 1990). In a similar vein, while impostor syndrome was first identified in women (Clance & Imes 1978), the evidence for gender differences in impostor syndrome is mixed (e.g., Bravata et al. 2020). Despite this, the impostor syndrome is frequently linked to women (and other minoritized groups; Tulshyan & Burey 2021), often in the context of the workplace (e.g., Cokley et al. 2015). Indeed, within the gender diversity literature there are frequent testimonials of women who have struggled with impostor feelings (e.g., Michelle Obama, Sheryl Sandberg, Charlize Theron) alongside inspiring stories of those who have triumphed over them.

It is important to note the use of the term "syndrome" in this context. Syndrome is suggestive of a medical or psychological condition, one that requires diagnosis and treatment. In this way, impostor syndrome is conceptualized as an individual-level problem that needs fixing—just as we have seen with other barriers that women face. In response to this framing, there are a myriad of initiatives designed to help individual women overcome their impostor syndrome (e.g., Chandra et al. 2019). Some are targeted at increasing women's confidence, others address problematic personality traits such as perfectionism and neuroticism, and yet others focus on self-compassion or on changing mindsets.

However, if we are to look at impostor syndrome in the context of a gender equality discourse, we must go beyond seeing it as a dysfunctional individual problem that holds back individual women (Mullangi & Jagsi 2019). Instead, we must recognize that impostor feelings can be a result of social and organizational cultures, such as masculine workplace cultures (e.g., Feenstra et al. 2020, Tulshyan & Burey 2021). Within leadership roles, impostor feelings may be associated with the elevated expectations and high visibility associated with leadership roles (Kark et al. 2022). In this way, if women are embedded in masculine workplace cultures and surrounded by masculine ideals of leadership and success, it is perhaps no wonder that they question their abilities and accomplishments and worry about being seen as an impostor.

It is also the case that one's experiences and treatment within the workplace will affect one's feelings about one's abilities and accomplishments. C.T. Begeny, S. Feenstra & M.K. Ryan (manuscript in preparation) demonstrate in both longitudinal and experimental studies that impostor feelings are elicited (and stymied) by treatment by others. For example, their research demonstrated that, over time, impostor feelings increase when others fail to treat someone with admiration or make them feel devalued, for example by not coming to them for advice or asking for their opinion (also called distinctive treatment; Begeny et al. 2021). Moreover, experimental studies demonstrated that impostor feelings can be ameliorated when individuals experience positive distinctive treatment from work colleagues (Begeny et al. 2021).

Taken as a whole, this line of research suggests that seeing impostor syndrome as an individual dysfunction that needs fixing with individual-level interventions, such as confidence training, is unlikely to be effective. In doing so we may pathologize feelings that are real and rational responses to workplace experiences. Instead, conceptualizing impostor feelings as being symptomatic of dysfunctional organizational cultures and structures, as well as of treatment from coworkers, squarely places the onus of change on the shoulders of the organization rather than on the women themselves. Thus, it is systemic, cultural change that is needed in order for expectations and norms to be inclusive and for coworkers to be valued and respected.

IS AUTHENTICITY A VIABLE ALTERNATIVE TO FIXING WOMEN?

While interventions and initiatives that attempt to fix women have been extremely popular responses to workplace gender inequality, they have come under fire. One criticism is that, alongside the previously discussed issues with a stagnating status quo and a reification of masculine norms and ideals in the workplace, the attempts to make women fit with masculine ideals does not allow women to be authentic in the workplace (e.g., Dormanen et al. 2020). Such criticism has led some organizations to shift from focusing on leaning in to focusing on encouraging employees to be authentic at work (e.g., Goff & Jones 2005, Rosh & Offerman 2013).

Indeed, authenticity has become quite the buzzword in workplace contexts, with claims that authentic workers can lead to increases in productivity and improve employees job satisfaction and well-being (Faison Hewlin 2020, Henley 2019). One popular example of authenticity rhetoric is Brené Brown's women's empowerment approach, which has its own series of memes and inspirational quotes, including "Authenticity is a collection of choices that we have to make every day. It's about the choice to show up and be real. The choice to be honest. The choice to let our true selves be seen" (Brown 2010, p. 67). While few can disagree that authenticity is, on the face of it, a good thing, we have yet again a focus on women's own choices—this time their choice to be authentic.

Indeed, an authenticity approach has its own set of problems. One is that as long as there are masculine ideals in place within organizations, it will be easier for some people to be authentic than for others (Aday & Schmader 2019, Schmader & Sedikides 2018). For those who sit outside of these ideals, and for those who are historically marginalized or excluded, there may be backlash for authentic behavior, what Hewlett (2014) calls the authenticity trap. Furthermore, approaches to workplace authenticity tend to frame authenticity as an individual phenomenon, again placing the onus on the shoulders of the individual (Schmader & Sedikides 2018). Such conceptualizations overlook the responsibility that organizations must take in facilitating an individual's ability to be their authentic selves at work as well as the power they have to constrain that authenticity.

One demonstration of the importance of organizational context on workplace authenticity is research by A.N. Fisher, M.K. Ryan & T. Schmader (manuscript in preparation) which shifts the focus from how individual employees can be authentic to how the organizational context shapes and constrains authenticity. Across a series of studies, this research demonstrates that authenticity is a better predictor of employee job satisfaction and commitment when it is characterized as a feature of the context that organizations can facilitate or constrain, rather than simply as an individual difference variable. Moreover, in the context of workplace gender inequalities, in a sample of female employees, this research finds that authenticity at the organizational level affects workplace attitudes and behaviors, in part, because it influences the degree to which women perceive their fit within the organization.

As a whole, the studies described in this section demonstrate that addressing workplace gender inequalities through a model that sees a deficit in women's skills and abilities is unlikely to be successful. We have seen how individuals' expression of traits such as risk taking and confidence (as well as feelings of impostorism) is determined by the organizational structures and cultures in which they find themselves. Just as with motivation and ambition, how people are treated by their colleagues, perceptions of fitting in, and the presence of inspiring and attainable role models impact on their willingness and ability to express particular traits and abilities in the workplace.

CONCLUSIONS

The explosion of interventions designed to address workplace gender inequalities is a positive step that will hopefully get us closer to gender parity; but to avoid wasting the time and resources (and goodwill) invested, we must ensure that these interventions are targeted at the root cause of gender inequalities, that is, social and organizational structures and culture (see **Figure 1**). We have seen how workplace contexts (and social contexts more broadly, including the domestic sphere) have very real consequences for women's career opportunities, shaping and constraining their motivations, their career choices, and the expression of their traits and abilities.

Attempts to motivate and upskill women are, for the most part, well meaning, and there is no doubt that such approaches have benefited many women individually—indeed, everyone can benefit from a bit of encouragement and training. However, such an individual-level approach is not a sustainable nor an effective solution against persistent systemic inequalities. Indeed, we run the risk of empowering and motivating women and then sending them straight back into systems

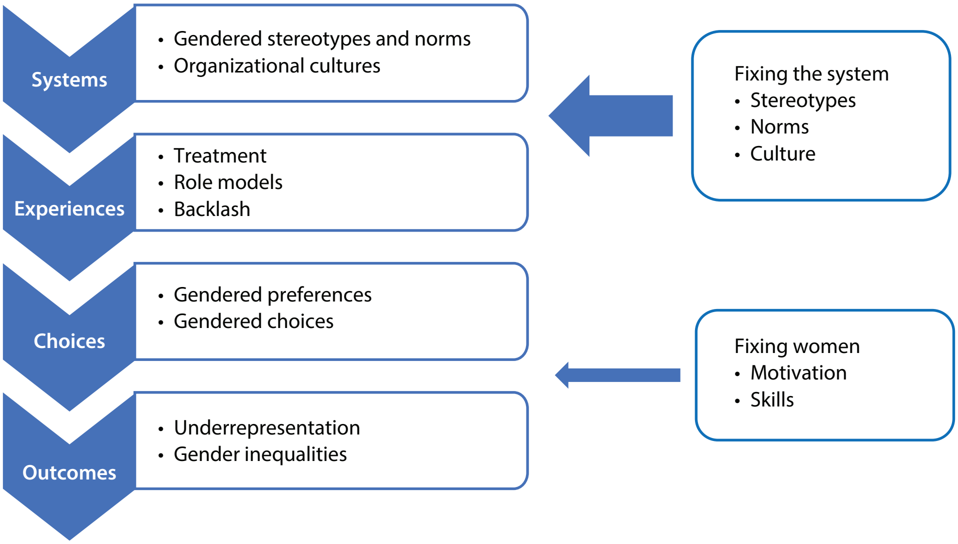
Systems
• Gendered stereotypes and norms
• Organizational cultures
Experiences
• Treatment
• Role models
• Backlash
Choices
• Gendered preferences
• Gendered choices
Outcomes
• Underrepresentation
• Gender inequalities
Fixing the system
• Stereotypes
• Norms
• Culture
Fixing women
• Motivation
• Skills

Figure 1

Interventions designed to fix women focus on the symptoms and outcomes of structural and systemic gender inequalities rather than on their root causes.

where they will continue to face barriers, experience discrimination, and encounter backlash leveled at their newly confident selves. It is also important to note that the women most likely to benefit from individual-level interventions are those women who enjoy the most privilege within organizations—white professional middle- and upper-class women (Opara et al. 2020, Ryan 2022, Wong et al. 2022).

To conclude, fixing women is at best misguided and at worst is likely to exacerbate the discrimination women face in the workplace (Kim et al. 2018). We end with an evidence-based call for systemic change. Our interventional attention should shift from the women who face inequalities to the embedded systems that perpetuate gender inequality (e.g., Ellemers 2014, Lau et al. 2022). Such interventions include, but are not limited to, shifting societal norms and stereotypes about gender (including binary views of gender; Morgenroth & Ryan 2018, 2021), about ideal workers, and about what leadership and success look like; more equal division of labor in the home; the valuing of care work (both within and outside of the domestic sphere); the provision of parental leave and affordable childcare; and debunking the myth of meritocracy. In this vein, there are a wealth of evidence-based interventions that seek to address structural and cultural barriers to workplace gender equality. For example, there are interventions that seek to dismantle gender roles and stereotypes (e.g., Cheryan & Markus 2020, Croft et al. 2021); others seek to educate about gender bias (e.g., Moss-Racusin et al. 2018, Zawadzki et al. 2014); still others work on the provision of role models (e.g., Gartzia et al. 2021, Herrmann et al. 2016, Shin et al. 2016).

Finally, it is important to note that gender discrimination cannot be addressed in isolation but rather needs to be fought alongside other forms of oppression and discrimination (Crenshaw 2017, McCormick-Huhn et al. 2019), including those based on race and ethnicity, sexuality and gender identity, disability, age, and socioeconomic status. Instead of telling women to lean in, a more successful strategy would be to encourage organizations to give all women something more to lean toward.

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LITERATURE CITED

Acker J. 1990. Hierarchies, jobs, bodies: a theory of gendered organizations. *Gend. Soc.* 4:139–58

Aday A, Schmader T. 2019. Seeking authenticity in diverse contexts: how identities and environments constrain "free" choice. *Soc. Pers. Psychol. Compass* 13:e12450

Alam A. 2022. Psychological, sociocultural, and biological elucidations for gender gap in STEM education: a call for translation of research into evidence-based interventions. In *Proceedings of the 2nd International Conference on Sustainability and Equity (ICSE-2021)*, pp. 95–107. Dordrecht, Neth.: Atlantis Press

Amoruso S. 2015. *#GIRLBOSS*. New York: Portfolio

Antecol H. 2011. The opt-out revolution: recent trends in female labor supply. *Res. Labor Econ.* 33:45–83

Arch EC. 1993. Risk-taking: a motivational basis for sex differences. *Psychol. Rep.* 73:3–11

Badura KL, Grijalva E, Newman DA, Yan TT, Jeon G. 2018. Gender and leadership emergence: a meta-analysis and explanatory model. *Pers. Psychol.* 71:335–67

Bari D, Robert P. 2016. Who benefits more from a balanced life? Gender differences in work-life balance and satisfaction with life in eight post-communist countries. *Intersections East Eur. J. Soc. Politics* 2:21–41

Begeny CT, Huo YJ, Smith HJ, Ryan MK. 2021. Being treated fairly in groups is important, but not sufficient: the role of distinctive treatment in groups, and its implications for mental health. *PLOS ONE* 16(5):e0251871

Begeny CT, Ryan MK, Bongiorno R. 2018. *Motivation, Satisfaction, and Retention: Understanding the Importance of Vets' Day-to-Day Work Experience*. London: Br. Vet. Assoc.

Belkin L. 2003. The opt-out revolution. *New York Times*, Oct. 26

Bem SL. 1974. The measurement of psychological androgyny. *J. Consult. Clin. Psychol.* 42:155–62

Berdahl JL, Cooper M, Glick P, Livingston RW, Williams JC. 2018. Work as a masculinity contest. *J. Soc. Issues* 74:422–48

Beyer S. 1998. Gender differences in causal attributions by college students of performance on course examinations. *Curr. Psychol.* 17:346–58

Blau FD, Kahn LM. 2017. The gender wage gap: extent, trends, and explanations. *J. Econ. Lit.* 55:789–865

Boushey H. 2005. *Are women opting out? Debunking the myth*. Brief. Pap., Cent. Econ. Policy Res., Washington, DC

Bowles HR, Babcock L, Lei L. 2007. Social incentives for gender differences in the propensity to initiate negotiations: Sometimes it does hurt to ask. *Organ. Behav. Hum. Decis. Process.* 103:84–103

Bravata DM, Watts SA, Keefer AL, Madhusudhan DK, Taylor KT, et al. 2020. Prevalence, predictors, and treatment of impostor syndrome: a systematic review. *J. Gen. Intern. Med.* 35:1252–75

Brescoll VL, Dawson E, Uhlmann EL. 2010. Hard won and easily lost: the fragile status of leaders in gender-stereotype-incongruent occupations. *Psychol. Sci.* 21(11):1640–42

Brown B. 2010. *The Gifts of Imperfection: Let Go of Who You Think You're Supposed to Be and Embrace Who You Are*. New York: Simon & Schuster

Brown B. 2018. *Dare to Lead: Brave Work. Tough Conversations. Whole Hearts*. New York: Random House

Byrnes JP, Miller DC, Schafer WD. 1999. Gender differences in risk taking: a meta-analysis. *Psychol. Bull.* 125:367–83

Carlin BA, Gelb BD, Belinne JK, Ramchand L. 2018. Bridging the gender gap in confidence. *Bus. Horiz.* 61:765–74

Carter ME, Franco F, Gine M. 2017. Executive gender pay gaps: the roles of female risk aversion and board representation. *Contemp. Account. Res.* 34:1232–64

Casad BJ, Oyler DL, Sullivan ET, McClellan EM, Tierney DN, et al. 2018. Wise psychological interventions to improve gender and racial equality in STEM. *Group Process. Intergroup Relat.* 21:767–87

Catalyst. 2022. Women in management(quick take). *Catalyst*, March 1. **https://www.catalyst.org/research/women-in-management**

Chandra S, Huebert CA, Crowley E, Das AM. 2019. Impostor syndrome: Could it be holding you or your mentees back? *CHEST* 156(1):26–32

Cheryan S, Markus HR. 2020. Masculine defaults: identifying and mitigating hidden cultural biases. *Psychol. Rev.* 127:1022–52

Clance PR, Imes SA. 1978. The imposter phenomenon in high achieving women: dynamics and therapeutic intervention. *Psychother. Theory Res. Practice* 15:241–47

Cokley K, Awad G, Smith L, Jackson S, Awosogba O, et al. 2015. The roles of gender stigma consciousness, impostor phenomenon and academic self-concept in the academic outcomes of women and men. *Sex Roles* 73:414–26

Craig L, Mullan K. 2010. Parenthood, gender and work-family time in the United States, Australia, Italy, France, and Denmark. *J. Marriage Fam.* 72:1344–61

Crenshaw KW. 2017. *On Intersectionality: Essential Writings*. New York: The New Press

Croft A, Atkinson C, Sandstrom G, Orbell S, Aknin L. 2021. Loosening the GRIP (gender roles inhibiting prosociality) to promote gender equality. *Pers. Soc. Psychol. Rev.* 25(1):66–92

Crompton R, Lyonette C. 2006. Work-life "balance" in Europe. *Acta Sociol.* 49:379–93

Croson R, Gneezy U. 2009. Gender differences in preferences. *J. Econ. Lit.* 47:448–74

Dahm PC, Kim Y, Glomb TM. 2019. Leaning in and out: work-life tradeoffs, self-conscious emotions, and life role satisfaction. *J. Psychol.* 153:478–506

Damore J. 2017. *Google's ideological echo chamber*. Intern. Memo., Google, Mountain View, CA. **https://www.documentcloud.org/documents/3914586-Googles-Ideological-Echo-Chamber**

Deloitte. 2021. Advancing more women leaders in financial services: a global report. *Deloitte Insights*, June 16. **https://www2.deloitte.com/xe/en/insights/industry/financial-services/gender-diversity-in-global-financial-services.html**

Dormanen R, Sanders CS, Maffly-Kipp J, Smith JL, Vess M. 2020. Assimilation undercuts authenticity: a consequence of women's masculine self-presentation in masculine contexts. *Psychol. Women Q.* 44:488–502

Eagly AH, Carli LL. 2003. The female leadership advantage: an evaluation of the evidence. *Leadersh. Q.* 14:807–34

Eagly AH, Karau SJ. 2002. Role congruity theory of prejudice toward female leaders. *Psychol. Rev.* 109:573–98

Eagly AH, Makhijani MG, Klonsky BG. 1992. Gender and the evaluation of leaders: a meta-analysis. *Psychol. Bull.* 111:3–22

Eagly AH, Steffen VJ. 1984. Gender stereotypes stem from the distribution of women and men into social roles. *J. Pers. Soc. Psychol.* 46:735–54

Ellemers N. 2014. Women at work: how organizational features impact career development. *Policy Insights Behav. Brain Sci.* 1:46–54

Ellemers N. 2018. Gender stereotypes. *Annu. Rev. Psychol.* 69:275–98

Eckel CC, Grossman PJ. 2008. Forecasting risk attitudes: an experimental study using actual and forecast gamble choices. *J. Econ. Behav. Organ.* 68:1–17

Ertac S, Gurdal MY. 2012. Deciding to decide: gender, leadership and risk-taking in groups. *J. Econ. Behav. Organ.* 83:24–30

Faccio M, Marchica MT, Mura R. 2016. CEO gender, corporate risk-taking, and the efficiency of capital allocation. *J. Corp. Finance* 39:193–209

Faison Hewlin P. 2020. How to be more authentic at work. *Greater Good Magazine*, Aug. 3. **https://greatergood.berkeley.edu/article/item/how_to_be_more_authentic_at_work**

Feenstra S, Begeny CT, Ryan MK, Rink FA, Stoker JI, Jordan J. 2020. Contextualizing the impostor "syndrome." *Front. Psychol.* 11:575024

Fels A. 2005. *Necessary Dreams: Ambition in Women's Changing Lives*. New York: Anchor

Fiske ST, Bersoff DN, Borgida E, Deaux K, Heilman ME. 1991. Social science research on trial: use of sex stereotyping research in *Price Waterhouse v. Hopkins*. *Am. Psychol.* 46(10):1049–60

Fox C. 2017. *Stop Fixing Women: Why Building Fairer Workplaces Is Everybody's Business*. Montgomery, AL: NewSouth

Frankel LP. 2014. *Nice Girls Don't Get the Corner Office: Unconscious Mistakes Women Make That Sabotage Their Careers*. New York: Balance

Gartzia L, Morgenroth T, Ryan MK, Peters. K. 2021. Testing the motivational effects of attainable role models: field and experimental evidence. *J. Theor. Soc. Psychol.* 5:591–602

Gill R, Orgad S. 2017. Confidence culture and the remaking of feminism. *New Form.* 91:16–34

Goff R, Jones G. 2005. Managing authenticity: the paradox of great leadership. *Harvard Business Review*, Dec. **https://hbr.org/2005/12/managing-authenticity-the-paradox-of-great-leadership**

Guthridge M, Kirkman M, Penovic T, Giummarra MJ. 2022. Promoting gender equality: a systematic review of interventions. *Soc. Justice Res.* 35:318–43

Hall L, Donaghue N. 2013. "Nice girls don't carry knives": constructions of ambition in media coverage of Australia's first female prime minister. *Br. J. Soc. Psychol.* 52:631–47

Hanoch Y, Johnson JG, Wilke A. 2006. Domain specificity in experimental measures and participant recruitment: an application to risk-taking behavior. *Psychol. Sci*. 17(4):300–4

Harris CR, Jenkins M. 2006. Gender differences in risk assessment: Why do women take fewer risks than men? *Judgm. Decis. Mak*. 1(1):48–63

Heilman ME. 1983. Sex bias in work settings: the lack of fit model. *Res. Organ. Behav.* 5:269–98

Heilman ME. 2001. Description and prescription: how gender stereotypes prevent women's ascent up the organizational ladder. *J. Soc. Issues* 57:657–74

Heilman ME, Block CJ, Martell RF. 1995. Sex stereotypes: Do they influence perceptions of managers? *J. Soc. Behav. Pers.* 10:237–52

Heilman ME, Wallen AS, Fuchs D, Tamkins MM. 2004. Penalties for success: reactions to women who succeed at male gender-typed tasks. *J. Appl. Psychol.* 89:416–27

Henley D. 2019. How to be your authentic self at work (and why it matters). *Forbes*, Dec. 14

Herbst TH. 2020. Gender differences in self-perception accuracy: the confidence gap and women leaders' underrepresentation in academia. *SA J. Ind. Psychol.* 46. **http://dx.doi.org/10.4102/sajip.v46i0.1704**

Herrmann SD, Adelman RM, Bodford JE, Graudejus O, Okun MA, Kwan VS. 2016. The effects of a female role model on academic performance and persistence of women in STEM courses. *Basic Appl. Soc. Psychol.* 38:258–68

Hewlett SA. 2014. The authenticity trap for workers who are not straight, white men. *Harvard Business Review*, July 17

Hewlett SA, Luce CB. 2005. Off-ramps and on-ramps: keeping talented women on the road to success. *Harv. Bus. Rev.* 83:43–54

Holzmeister F, Stefan M. 2021. The risk elicitation puzzle revisited: across-methods (in) consistency? *Exp. Econ.* 24:593–616

Hyde JS, Fennema E, Ryan M, Frost LA, Hopp C. 1990. Gender comparisons of mathematics attitudes and affect: a meta-analysis. *Psychol. Women Q.* 14:299–324

Int. Labour Organ. 2022. The gender pay gap. *International Labour Organization*, Dec. 20. **https://www.ilo.org/travail/areasofwork/wages-and-income/WCMS_867160/lang–en/index.htm**

Janoff-Bulman R, Wade MB. 1996. The dilemma of self-advocacy for women: another case of blaming the victim? *J. Soc. Clin. Psychol.* 15:445–46

Kanter RM. 1975. *Men and Women of the Corporation*. New York: Basic Books

Kark R, Meister A, Peters K. 2022. Now you see me, now you don't: a conceptual model of the antecedents and consequences of leader impostorism. *J. Manag.* 48:1948–79

Kay K, Shipman C. 2014. *The Confidence Code*. New York: Harper Bus.

Keene JR, Reynolds JR. 2005. The job costs of family demands: gender differences in negative family-to-work spillover. *J. Family Issues* 26:275–99

Kelly EL, Ammons SK, Chermack K, Moen P. 2010. Gendered challenge, gendered response: confronting the ideal worker norm in a white-collar organization. *Gend. Soc.* 24:281–303

Kim JY, Fitzsimons GM, Kay AC. 2018. Lean in messages increase attributions of women's responsibility for gender inequality. *J. Pers. Soc. Psychol.* 115:974–1001

Kossek EE, Buzzanell PM. 2018. Women's career equality and leadership in organizations: creating an evidence-based positive change. *Hum. Resour. Manag.* 57:813–22

Kossek EE, Perrigino M, Rock AG. 2021. From ideal workers to ideal work for all: a 50-year review integrating careers and work-family research with a future research agenda. *J. Vocat. Behav.* 126:103504

Kossek EE, Su R, Wu L. 2017. "Opting out" or "pushed out"? Integrating perspectives on women's career equality for gender inclusion and interventions. *J. Manag.* 43:228–54

KPMG. 2019. *Risk, resilience, reward. Mastering the three "R's": the key to women's success in the workplace*. Rep., KPMG, New York. **https://info.kpmg.us/content/dam/info/en/news-perspectives/pdf/2019/KPMG_Womens_Leadership_Study.pdf**

Lambert B, Caza BB, Trinh E, Ashford S. 2022. Individual-centered interventions: identifying what, how, and why interventions work in organizational contexts. *Acad. Manag. Ann.* 16:508–46

Lau VW, Scott VL, Warren MA, Bligh MC. 2022. Moving from problems to solutions: a review of gender equality interventions at work using an ecological systems approach. *J. Organ. Behav.* 44:399–419

Little TH, Dunn D, Deen RE. 2001. A view from the top: gender differences in legislative priorities among state legislative leaders. *Women Politics* 22:29–50

Lyness KS, Thompson DE. 1997. Above the glass ceiling? A comparison of matched samples of female and male executives. *J. Appl. Psychol.* 82:359–75

Lyonette C. 2015. Part-time work, work-life balance and gender equality. *J. Soc. Welf. Fam. Law* 37:321–33

Mazei J, Hüffmeier J, Freund PA, Stuhlmacher AF, Bilke L, Hertel G. 2015. A meta-analysis on gender differences in negotiation outcomes and their moderators. *Psychol. Bull.* 141:85–104

McCormick-Huhn K, Warner LR, Settles IH, Shields SA. 2019. What if psychology took intersectionality seriously? Changing how psychologists think about participants. *Psychol. Women Q.* 43:445–56

McDowell J. 2006. *Women-owned firms increase nearly 20 percent*. News Release, Off. Advocacy US Small Bus. Adm., Washington, DC, Aug. 17

Meeussen L, Begeny CT, Peters K, Ryan MK. 2022. In traditionally male-dominated fields, women are less willing to make sacrifices for their career because discrimination and lower fit with people up the ladder make sacrifices less worthwhile. *J. Appl. Soc. Psychol.* 52:588–601

Meyers-Levy J, Loken B. 2015. Revisiting gender differences: what we know and what lies ahead. *J. Consum. Psychol.* 25:129–49

Mohr T. 2014. *Playing Big: Find Your Voice, Your Vision and Make Things Happen*. New York: Random House

Morgenroth T, Fine C, Ryan MK, Genat AE. 2018. Sex, drugs, and reckless driving: Are measures biased toward identifying risk-taking in men? *Soc. Psychol. Pers. Sci.* 9:744–53

Morgenroth T, Ryan MK. 2018. Gender trouble in social psychology: How can Butler's work inform experimental social psychologists' conceptualization of gender? *Front. Psychol.* 9:1320

Morgenroth T, Ryan MK. 2021. The effects of gender trouble: an integrative theoretical framework of the perpetuation and disruption of the gender/sex binary. *Perspect. Psychol. Sci.* 16:1113–42

Morgenroth T, Ryan MK, Fine C. 2022. The gendered consequences of risk-taking at work: Are women averse to risk or to poor consequences? *Psychol. Women Q.* 46(3):257–77

Morgenroth T, Ryan MK, Rink FA, Begeny CT. 2021. The (in)compatibility of identities: understanding gender differences in work-life conflict through the fit with leaders. *Br. J. Soc. Psychol.* 2:448–69

Moss-Racusin CA, Pietri ES, Hennes EP, Dovidio JF, Brescoll VL, et al. 2018. Reducing STEM gender bias with VIDS (video interventions for diversity in STEM). *J. Exp. Psychol. Appl.* 24(2):236–60

Mousa M, Boyle J, Skouteris H, Mullins AK, Currie G, Riach K, Teede HJ. 2021. Advancing women in healthcare leadership: a systematic review and meta-synthesis of multi-sector evidence on organisational interventions. *EClinicalMedicine* 39:101084

Mullangi S, Jagsi R. 2019. Imposter syndrome: Treat the cause, not the symptom. *JAMA* 322:403–4

NATO. 2019. *Summary of the National Reports of NATO Member and Partner Nations to the NATO Committee on Gender Perspectives*. Brussels, Belg.: NATO. **https://www.nato.int/nato_static_fl2014/assets/pdf/2021/9/pdf/NCGP_Full_Report_2019.pdf**

Nelson JA. 2014. The power of stereotyping and confirmation bias to overwhelm accurate assessment: the case of economics, gender, and risk aversion. *J. Econ. Methodol.* 21:211–31

Nyanga T, Chindanya A. 2021. From risk aversion to risk loving: strategies to increase participation of female entrepreneurs in Masvingo Urban, Zimbabwe. *Ushus J. Bus. Manag.* 20:1–14

OECD (Organ. Econ. Coop. Dev.). 2020. *What big data can tell us about women on boards*. Rep., OECD, Paris. **https://www.oecd.org/gender/data/what-big-data-can-tell-us-about-women-on-boards.htm**

OECD (Organ. Econ. Coop. Dev.). 2023. *Share of employed in part-time employment, by sex and age group*. Data, OECD, Paris. **https://stats.oecd.org/index.aspx?queryid=54746**

Okimoto TG, Brescoll VL. 2010. The price of power: power seeking and backlash against female politicians. *Pers. Soc. Psychol. Bull.* 36:923–36

Opara V, Sealy R, Ryan MK. 2020. The workplace experiences of BAME professional women: understanding experiences at the intersection. *Gend. Work Organ.* 27:1192–213

Park B, Smith JA, Correll J. 2008. "Having it all" or "doing it all"? Perceived trait attributes and behavioral obligations as a function of workload, parenthood, and gender. *Eur. J. Soc. Psychol.* 38:1156–64

Paton N. 2006. Women are less ambitious than men: and men are to blame. *Management-Issues.com*, Nov. 23. **http://www.management-issues.com/news/3790/women-are-less-ambitious—and-men-are-to-blame/**

Pedroni A, Frey R, Bruhin A, Dutilh G, Hertwig R, Rieskamp J. 2017. The risk elicitation puzzle. *Nat. Hum. Behav.* 1:803–9

Perez CC. 2019. *Invisible Women: Data Bias in a World Designed for Men*. New York: Abrams

Peters K, Ryan MK, Haslam SA, Fernandes H. 2012. To belong or not to belong: evidence that women's occupational disidentification is promoted by lack of fit with masculine occupational prototypes. *J. Pers. Psychol.* 3:148–58

Reid E. 2015. Embracing, passing, revealing, and the ideal worker image: how people navigate expected and experienced professional identities. *Organ. Sci.* 26:997–1017

Rezvani S. 2012. *Pushback: How Smart Women Ask—and Stand Up—for What They Want*. New York: Wiley

Rosh L, Offerman L. 2013. Be yourself, but carefully. *Harvard Business Review*, Oct. **https://hbr.org/2013/10/be-yourself-but-carefully**

Rudman LA. 1998. Self-promotion as a risk factor for women: the costs and benefits of counterstereotypical impression management. *J. Pers. Soc. Psychol.* 74:629–45

Rudman LA, Glick P. 2001. Prescriptive gender stereotypes and backlash toward agentic women. *J. Soc. Issues* 57:732–62

Rudman LA, Moss-Racusin CA, Glick P, Phelan JE. 2012. Reactions to vanguards: advances in backlash theory. *Adv. Exp. Soc. Psychol.* 45:167–227

Rudman LA, Phelan JE. 2008. Backlash effects for disconfirming gender stereotypes in organizations. *Res. Organ. Behav.* 28:61–79

Ryan MK. 2022. To advance equality for women, use the evidence. *Nature* 604(7906):403

Ryan MK. 2023. Addressing workplace gender inequality: using the evidence to avoid common pitfalls. *Br. J. Soc. Psychol.* 62:1–11

Ryan MK, Haslam SA. 2005. The glass cliff: evidence that women are over-represented in precarious leadership positions. *Br. J. Manag.* 16:81–90

Ryan MK, Haslam SA. 2007. The glass cliff: exploring the dynamics surrounding the appointment of women to precarious leadership positions. *Acad. Manag. Rev.* 32:549–72

Ryan MK, Haslam SA, Hersby MD, Bongiorno R. 2011. Think crisis-think female: glass cliffs and contextual variation in the think manager-think male stereotype. *J. Appl. Psychol.* 96:470–84

Sandberg S. 2013. *Lean In: Women, Work, and the Will to Lead*. New York: Alfred A. Knopf

Savani K, Stephens NM, Markus HR. 2011. The unanticipated interpersonal and societal consequences of choice: victim blaming and reduced support for the public good. *Psychol. Sci.* 22:795–802

Schein VE. 1973. The relationship between sex role stereotypes and requisite management characteristics. *J. Appl. Psychol.* 57:95–100

Schieder J, Gould E. 2016. *"Women's work" and the gender pay gap: how discrimination, societal norms, and other forces affect women's occupational choices—and their pay*. Rep., Econ. Policy Inst., Washington, DC

Schmader T. 2023. Gender inclusion and fit in STEM. *Annu. Rev. Psychol.* 74:219–43

Schmader T, Dennehy TC, Baron AS. 2022. Why antibias interventions (need not) fail. *Perspect. Psychol. Sci.* 17:1381–403

Schmader T, Sedikides C. 2018. State authenticity as fit to environment: the implications of social identity for fit, authenticity, and self-segregation. *Pers. Soc. Psychol. Rev.* 22:228–59

Shin JEL, Levy SR, London B. 2016. Effects of role model exposure on STEM and non-STEM student engagement. *J. Appl. Soc. Psychol.* 46:410–27

Smith CA. 2006. The gender shift in veterinary medicine: cause and effect. *Vet. Clin. Small Anim. Pract.* 36:329–39

Sørensen SØ. 2017. The performativity of choice: postfeminist perspectives on work-life balance. *Gend. Work Organ.* 24:297–13

Stephens NM, Levine CS. 2011. Opting out or denying discrimination? How the framework of free choice in American society influences perceptions of gender inequality. *Psychol. Sci.* 22:1231–36

Stone P. 2007. *Opting Out? Why Women Really Quit Careers and Head Home*. Berkeley: Univ. Calif. Press

Stone P, Lovejoy M. 2004. Fast-track women and the "choice" to stay home. *Ann. Am. Acad. Political Soc. Sci.* 596:62–83

Stroh LK, Brett JM, Reilly AH. 1996. Family structure, glass ceiling, and traditional explanations for the differential rate of turnover of female and male managers. *J. Vocat. Behav.* 49:99–118

Sund M. 2017. *UEMS: Survey on Women In Surgery Europe (WISE)*. PowerPoint Present., Copenhagen, Den., May 6. **https://www.uems.eu/__data/assets/pdf_file/0004/48712/Sund,-M.-WISE-survey-1.pdf**

Thomson V. 2006. How much of the remaining gender pay gap is the result of discrimination, and how much is due to individual choices? *Int. J. Urban Labour Leis.* 7(2):1–32

Tulshyan R, Burey JA. 2021. Stop telling women they have imposter syndrome. *Harvard Business Review*, Febr. 11. **https://hbr.org/2021/02/stop-telling-women-they-have-imposter-syndrome**

UIS (UNESCO Inst. Stat.). 2019. *Women in science*. Fact sheet 55, UNESCO Inst. Stat., Paris. **https://uis.unesco.org/sites/default/files/documents/fs55-women-in-science-2019-en.pdf**

UN Women. 2022. Facts and figures: women's leadership and political participation. *UN Women*. **https://www.unwomen.org/en/what-we-do/leadership-and-political-participation/facts-and-figures#_National_parliaments** (updated March 7)

US House, Comm. Overs. Gov. Reform. 2008. *Causes and Effects of the Lehman Brothers Bankruptcy*. Washington, DC: Gov. Print. Off.

Vajapey SP, Weber KL, Samora JB. 2020. Confidence gap between men and women in medicine: a systematic review. *Curr. Orthop. Pract.* 31:494–502

Van Vianen AEM, Fischer AH. 2002. Illuminating the glass ceiling: the role of organizational culture preferences. *J. Occup. Organ. Psychol.* 75:315–37

Warrell M. 2013. Sheryl Sandberg is right. Women must "lean in" to risk. *Forbes*, March 3. **https://www.forbes.com/sites/margiewarrell/2013/03/03/sheryl-sandberg-is-right-women-must-lean-into-risk/?sh=150a55093ff5**

Weber EU, Blais AR, Betz NE. 2002. A domain-specific risk-attitude scale: measuring risk perceptions and risk behaviors. *J. Behav. Decis. Mak.* 15:263–90

Williams JC. 2000. *Unbending Gender*. Oxford, UK: Oxford Univ. Press

Williams MJ, Tiedens LZ. 2016. The subtle suspension of backlash: a meta-analysis of penalties for women's implicit and explicit dominance behavior. *Psychol. Bull.* 142:165

Wong CYE, Kirby TA, Rink F, Ryan MK. 2022. Intersectional invisibility in women's diversity interventions. *Front. Psychol.* 13:791572

World Econ. Forum. 2023. *Global Gender Gap Report 2023*. Rep., World Econ. Forum, Geneva, Switz., June 20. **https://www.weforum.org/reports/global-gender-gap-report-2023/**

Zawadzki MJ, Shields SA, Danube CL, Swim JK. 2014. Reducing the endorsement of sexism using experiential learning: the Workshop Activity for Gender Equity Simulation (WAGES). *Psychol. Women Q.* 38:75–92

Zimmerman LM, Clark MA. 2016. Opting-out and opting-in: a review and agenda for future research. *Career Dev. Int.* 21:603–33

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