



## ORIGINAL ARTICLE

# Sounds like a fit! Wording in recruitment advertisements and recruiter gender affect women's pursuit of career development programs via anticipated belongingness

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**Abstract**

Following calls for research to increase gender equality, we investigated women's intentions to pursue career opportunities, in the form of career development programs. We built on lack of fit and signaling theory to argue that women's but not men's pursuit of career opportunities would be influenced by recruiter gender and gender-stereotypical wording in recruitment advertisements. We conducted two studies in Germany. In Study 1 (video-based experiment with 329 university students), we found that when a male recruiter used stereotypically masculine compared to feminine wording, female students anticipated lower belongingness, expected lower success of an application, and indicated lower application intentions for career opportunities. These differences in female students' evaluations disappeared when the recruiter was female. While Study 2 (experimental vignette study with 545 employees) replicates the negative effects of masculine wording for female employees; the buffering effect of female recruiters was only replicated for younger, but not for older female employees. Women's anticipated belongingness mediated the relationship between advertisement wording and application intentions when the recruiter was male. Recruiter gender and wording had no effects on men. Our work contributes to a better understanding of when and why contextual characteristics in the recruitment process influence women's pursuit of career opportunities.

**KEYWORDS**

advertisement, age, application, belongingness, career development, gender, recruiter, recruitment, stereotypes, wording

## 1 | INTRODUCTION

The lack of women in leadership is a major issue for organizations worldwide (Davidson & Burke, 2016), with a vast amount of ethical (Mayer & Cava, 1993), business<sup>1</sup> (Cook & Glass, 2011), talent based (Dychtwald, Erickson, & Morison, 2013), and reputational arguments (Bear, Rahman, & Post, 2010) for its relevance. Both researchers and

headhunters struggle with the challenge of effective recruitment for enhancing diversity (Ployhart, 2006). Organizations invest considerable resources to recruit women (Thaler-Carter, 2001), yet women's career advancement remains uneven in comparison to men's. Even well-intended interventions do not always work out, or have inverse consequences (Caleo & Heilman, 2019; Dobbin, Schrage, & Kalev, 2015; Leslie, 2019). Besides the external biases that women face

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(Eagly & Karau, 2002), it is also due to self-stereotyping processes (Hentschel, Heilman, & Peus, 2019) that women are less likely to pursue career opportunities, thereby limiting their career advancement (Heilman, 1983; Powell & Butterfield, 2003).

Facilitating women's participation in career opportunities is one way to enhance diversity in leadership (Brue & Brue, 2016; Ely, Ibarra, & Kolb, 2011; Madsen & Andrade, 2018). Career development programs<sup>2</sup> pave the way for future university graduates and employees to become leaders (Kraimer, Seibert, Wayne, Liden, & Bravo, 2011). Entering career development programs can provide women both with better qualifications for leadership positions and greater agency in their ongoing careers (e.g., network building; Linehan, 2001). We argue that one reason why women are hesitant to apply is that there is a perceived lack of fit between career development programs and women's personal characteristics (e.g., due to stereotype threat; Hoyt & Murphy, 2016). This is problematic because failing to enter career development programs may curb aspirations as well as later career chances and success (Ng, Eby, Sorensen, & Feldman, 2005; van Dijk, Kooij, Karanika-Murray, De Vos, & Meyer, 2020).<sup>3</sup>

Lack of fit theory (Heilman, 1983) suggests that when women compare their personal characteristics with the stereotypically masculine characteristics of career opportunities, the mismatch reduces their interest in pursuing such opportunities. Signaling theory (Connelly, Certo, Ireland, & Reutzel, 2011) suggests that virtually anything potential applicants observe during the recruitment process can serve as an indication of the characteristics required for the career opportunity. Integrating these two theories, we suggest that depending on which gender-stereotypical signals organizations send, women's perceptions of career opportunities will differ, subsequently influencing their application intentions. Two highly prevalent signals during the recruitment process are the wording in advertisements and the recruiters themselves. We argue that gender stereotypical wording and recruiter gender will serve as signals in the recruitment process—enhancing or limiting women's pursuit of career opportunities.

Past research has shown that gendered pronouns, position titles, pictures, and applicant requirements in recruitment advertisements can influence women's attraction to organizations and their interest in positions or career opportunities (Avery & McKay, 2006; Bem & Bem, 1973; Bosak & Sczesny, 2008; Hentschel, Horvath, Peus, & Sczesny, 2018; Horvath, 2015; Stout & Dasgupta, 2011; Taris & Bok, 1998). We also know that stereotypically masculine wording in advertisements can limit women's interest in certain types of occupations (e.g., plumber; Gaucher, Friesen, & Kay, 2011). We do not know, however, whether these negative effects translate to the context of career development. Deciding whether or not to apply for a career development program is different from making an occupational choice. Individuals have to invest time and resources over and above their day to day responsibilities when they seek to develop themselves. While job decisions are focused on the present, career development activities require a future orientation as they have potential career benefits mostly in the long run. In addition, while research on job applications addresses the societal challenge of horizontal gender segregation (concentration of men and women in different types of jobs), research

on career development programs addresses the societal challenge of vertical gender segregation (fewer women in higher organizational positions). Finally, career opportunities are relevant signposts in women's careers and can alleviate potential fears that they are not suitable for leadership (Hoyt & Murphy, 2016).

An important question in the context of advertising career development opportunities is whether the effects of gendered wording can be exacerbated (or attenuated) by recruiter characteristics. Because potential applicants are not confronted with only one distinct signal, we need to understand how different recruitment signals interact with one another to shape evaluations and application intentions. We argue that the gender of the recruiter is a salient cue in the recruitment process, which will affect the impact of advertisement wording on women's evaluations of career opportunities. However, previous research findings on recruiter gender in the context of job applications are inconsistent, with some studies showing that female recruiters help (Liden & Parsons, 1986) and other studies showing that they harm (Taylor & Bergmann, 1987) women's interests. In sum, we challenge the view that women make different career choices or plans than men do (Hite & McDonald, 2003) or are less motivated to lead (Elprana, Stiehl, Gatzka, & Felfe, 2012; Nauta, Epperson, & Kahn, 1998; Powell & Butterfield, 2003; Schuh et al., 2013). Instead, we argue that it is the very means by which organizations seek to recruit them (i.e., the advertisements and recruiters for career opportunities) that can hold women back from participating in career development programs, and thus progressing in their careers.

This research makes the following contributions. First, following calls for research on diversity recruitment in easy-to-implement and ethical ways (Ployhart, 2006; Walker & Hinojosa, 2013), we investigate the specific influence of signals organizations use during the recruitment process—namely, advertisement wording and recruiter gender—on application intentions of women. Second, we expand the theoretical lens of the human resource (HR) management literature by linking HR research on recruitment and recruiters (Breugh, 2012, 2013; Cable & Judge, 1996; Rynes, Bretz, & Gerhart, 1991; Taylor & Bergmann, 1987) with social-psychological research on gender stereotypes in wording (Bem & Bem, 1973; Gaucher et al., 2011; Stout & Dasgupta, 2011; Taris & Bok, 1998). Third, we extend on the lack of fit theory (Heilman, 1983) by investigating anticipated belongingness (i.e., the sense of secure, stable relatedness of being an accepted organizational in-group member; Baumeister & Leary, 1995) and expected application success (i.e., the sense of possessing the relevant capabilities for a successful application; Bandura, 1977; Riggs, Warka, Babasa, Betancourt, & Hooker, 1994) as mechanisms through which advertisement wording and recruiter gender influence intentions to apply. Our findings contribute to a better understanding of *why* women may refrain from, or choose to, apply to certain career opportunities. Finally, following calls for HR management research to foster meaningful change for women in the workplace (Kossek & Buzzanell, 2018), this work allows us to bridge the research-practice gap and to derive empirical knowledge to help HR managers and organizations in their pursuit of increasing gender diversity, especially in leadership.

## 1.1 | Gender self-stereotyping

Gender stereotypes are over-generalized perceptions of men and women. On average, people believe agentic characteristics are more pronounced in men than women (e.g., assertiveness, dominance, independence), while communal characteristics are more pronounced in women than men (e.g., concern for others, kindness, emotional sensitivity; Eagly, Nater, Miller, Kaufmann, & Sczesny, 2020; Fiske, Cuddy, Glick, & Xu, 2002; Haines, Deaux, & Lofaro, 2016; Hentschel et al., 2019; Manzi, 2019). Importantly, these gender stereotypes are not just held about other men and women; people also apply these stereotypes in relation to how they see themselves (Bem, 1974; Hentschel et al., 2019; Spence & Buckner, 2000).

Gender differences in self-characterizations develop largely due to gendered socialization experiences (Deaux & LaFrance, 1998; Fagot, Hagan, Leinbach, & Kronsberg, 1985; Martin & Ruble, 2004; Ruble & Martin, 1998; Wood & Eagly, 2002). Women perceive themselves to be higher on communal characteristics and lower on many agentic characteristics than men do (Bem, 1974; Hentschel et al., 2019; Spence & Buckner, 2000). Though some studies suggest that women's self-perceived agency is increasing (Twenge, Campbell, & Gentile, 2012), others show agency stability (Donnelly & Twenge, 2017). A recent study found that women (but not men) apply stereotypes more to themselves than to others in their gender group; for example, rating themselves as less assertive and less competent in leadership than other women (Hentschel et al., 2019).<sup>4</sup>

## 1.2 | Recruitment advertisement wording

Recruitment advertisements are an organization's main means of communicating with potential applicants and persuading them to apply (Allen, Van Scotter, & Otondo, 2004; Hentschel & Horvath, 2015). For candidates, they are an important signal from which to infer unknown organizational and position characteristics (Connelly et al., 2011). With information from advertisements, people assess how well they will fit into an organization and position, and decide whether or not to apply (Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005; Kristof, 1996).

Despite what one might think, recruitment advertisements for job positions are often not gender-neutral but contain wording through which one gender is targeted more than the other (Schneider & Bauhoff, 2013). Indeed, jobs that are typically performed by men are often advertised with more stereotypically masculine wording than jobs typically performed by women (Gaucher et al., 2011). Such stereotypical wording in recruitment advertisements for career development programs may be an important cue that could potentially influence women's evaluation of career opportunities.

Existing research supports this reasoning. The use of masculine generics—using the pronoun “he” in advertisements when referring to men and women rather than the more inclusive “he/she” or “she/he”—has been found to lead to lower career attractiveness and to fewer applications from women (Bem & Bem, 1973; Stout & Dasgupta, 2011). Further, in languages with few gender-neutral terms

(e.g., German), women indicate lower application intentions to career development programs which use the generic masculine title for entrepreneur, in comparison to those who use both masculine and feminine titles in combination (Hentschel, Horvath, et al., 2018). In addition, women have been found to be less attracted to male dominated occupations like plumbing or engineering if job advertisements use stereotypically masculine wording (Gaucher et al., 2011).

## 1.3 | Recruiter gender

Applicants have been shown to gather information from recruiters, who are viewed as representatives of the organization. In recruitment contexts, they communicate information about the position and the organization (Breugh & Starke, 2000); they are often deployed for job fairs, in recruitment video commercials, or during site visits. In a qualitative interview study, women stated that organizational representatives were cues for their interest in an organization, their fit assessments, and their decision to accept an offer from the organization (Rynes et al., 1991).

People are attracted by similarity (Byrne, 1971) and applicants may choose situations or careers in which they meet people who are similar to them (e.g., role models; Ely et al., 2011). When people believe that they possess the same characteristics as prototypical members of an occupation, they are more likely to identify with, be attracted to, and enter that career (Devendorf & Highhouse, 2008; Peters, Ryan, Haslam, & Fernandes, 2012). Also building on signaling theory, Rynes (1991) suggests that like advertisements, recruiters signal the organizational culture or the desired attributes of a successful candidate to potential applicants. Thus, female recruiters may signal similarity and inclusion, suggesting women are welcome in the organization and increasing women's desire to apply (see, Avery & McKay, 2006; Ellemers & Rink, 2016; Walton & Cohen, 2011).

To date, research findings on the effects of recruiter gender have been mixed. Some studies have found no effects of recruiter gender on the likelihood of applicants joining an organization (Barber & Roehling, 1993; Harris & Fink, 1987). Others have found female recruiters to have a negative (Taylor & Bergmann, 1987) or a positive effect on women (Liden & Parsons, 1986). Yet other research finds that recruiter behaviors do not have a direct effect on organizational attraction, but are used to infer unknown organizational attributes, which in turn predict attraction (Turban, Forret, & Hendrickson, 1998).

## 1.4 | Integrating lack of fit and signaling theories

Contrary to women's self-characterizations, leadership positions and career opportunities are often perceived as agentic or stereotypically masculine (Koenig, Mitchell, Eagly, & Ristikari, 2011; Kossek & Buzzanell, 2018; Schein, 2001). These perceptions can have detrimental consequences for women's career decision-making. Lack of fit theory (Heilman, 1983; 2001; 2012; Heilman, Manzi, & Braun, 2015) suggests that people make fit assessments by comparing their (stereotyped) self-characterizations with the characteristics they perceive to

be required for a certain position or career opportunity. As women perceive themselves to be highly communal (Hentschel et al., 2019), and believe leadership positions or career opportunities require highly agentic characteristics, they experience a lack of fit between their self-perception and the position.

Lack of fit theory (Heilman, 1983) further proposes that on the basis of these fit assessments, people form expectations about how they would perform in such a position. When women perceive a low fit between themselves and the position, women will expect to fail. A negative fit assessment and resulting expectation of failure can then lead to negative self-evaluations and eventually to self-limiting choices like refraining from pursuing such career opportunities. In line with these predictions, research has shown that women perceive themselves as less effective in leadership and in male-typed positions (Haynes & Heilman, 2013; Hentschel et al., 2019; Paustian-Underdahl, Walker, & Woehr, 2014; Powell & Butterfield, 2015). Further, it has been suggested that women show a lower motivation to lead and do not strive to achieve leadership positions to the same extent (or for the same reasons) as men do (Elprana et al., 2012; Powell & Butterfield, 2003; Schuh et al., 2013).

Extending Lack of fit theory (1983), we propose that fit assessments do not only influence women's performance expectations but also (a) the level of anticipated belongingness to the organization and its members, and (b) expected success of an application (i.e., performance expectations to get a position). Striving for belonging is grounded in essential human motives (i.e., collaboration, social validation, and collective identity; Brewer & Gardner, 1996). Individuals develop a sense of who they are (i.e., their social identities) through the organizations they belong to (Ashforth & Schinoff, 2016). As women are stereotypically perceived as outsiders in leadership and find it difficult to achieve relational authenticity in such positions (Eagly, 2005), we expect that they will experience lower belongingness to advertised career development programs. With regard to the expected success of an application, the key question is whether women are able to trust their abilities to achieve a certain goal (i.e., build a sense of self-efficacy in relation to the targeted position or program). On the basis of such judgments, they will make assessments about their chances of getting the position if they were to apply (Saks, Leck, & Saunders, 1995). If women perceive a lack of fit between themselves and a male-typed career development program, they may assume that they do not have the required competencies, thus reducing their estimated chances of a successful application.

Depending on the information available, the perception of the career opportunity can change, and subsequently alter women's fit assessments. Signaling theory (Connelly et al., 2011) explains the underlying process, suggesting that when individuals have limited information available, they will make inferences to "fill the gaps" for the purpose of decision-making. A signaler (e.g., an organization) sends a signal (e.g., elements of a career development program) to the receiver (e.g., a potential applicant who lacks information), who interprets the signal and decides the best course of action (e.g., applying to the program; Connelly et al., 2011). Thus, women considering a career development program will interpret elements in the recruitment

process as informational cues about unknown characteristics of the program (Rynes, 1991). Importantly, people make instrumental inferences about positions (e.g., thinking "*Taking part in this career development program could strengthen my application portfolio*"), but they also make symbolic inferences (e.g., thinking "*In this career development program characteristics like dominance and assertiveness are valued*"; Highhouse, Thornbury, & Little, 2007). If the inferred information results in negative (i.e., greater lack of fit) perceptions, the person is unlikely to pursue that career opportunity (Heilman, 1983; Ryan, Sacco, McFarland, & Kriska, 2000). Different signals (e.g., advertisement wording and recruiter gender) can be processed at the same time and will interact with each other to inform fit assessments (cf., Heilman & Caleo, 2018).

### 1.5 | Effects of recruitment advertisement wording and recruiter gender on women

We propose that women's perceived lack of fit with career development programs will be attenuated if organizations employ advertisement wording that aligns with women's self-characterizations (i.e., stereotypically feminine rather than masculine wording). Stereotypically feminine wording in turn should increase women's perceived fit and therefore anticipated belongingness to the program as well as expected success of an application and, consequently, increase application intentions. However, if stereotypically masculine characteristics of the career development program are made salient through advertisement wording, women will likely perceive a greater lack of fit, anticipate lower belongingness, expect lower application success, and have lower application intentions—ultimately deterring them from a promising career opportunity.

We argue that interaction with other recruitment signals, in this case recruiter gender, is crucial for predicting when or how recruitment wording influences women's interest in career opportunities. Specifically, a gender-inclusive signal—such as a female recruiter—will reduce potential negative effects of a gender-biased signal—such as stereotypically masculine advertisement wording. A recent study on gendered cues in recruitment advertisements supports this rationale and found that women were only hesitant to apply for career development programs in entrepreneurship if they perceived solely masculine recruitment signals (Hentschel, Horvath, et al., 2018). As soon as one gender-inclusive cue was present (either in the form of a gender-fair linguistic title or a female-typed or neutral picture in the advertisement), women perceived greater fit and were more likely to apply.

### 1.6 | Effects of recruitment advertisement wording and recruiter gender on men

While wording and recruiter gender will affect women's responses to recruitment advertisements, we do not believe these factors will influence male applicants. Earlier research investigating wording in recruitment advertisements (Gaucher et al., 2011; Taris & Bok, 1998) and recruiter gender (Taylor & Bergmann, 1987) found no effects on male

applicants. In addition, though one might argue that stereotypically masculine wording is more in line with men's self-characterizations than stereotypically feminine wording, communal wording is generally more inclusive (Abele & Bruckmüller, 2011). In addition, female recruiters can be perceived as more personable than male recruiters (Liden & Parsons, 1986). Thus, we do not expect recruitment wording or recruiter gender to affect men's evaluations of career development programs.

In sum, we argue that gender cues in recruitment advertisement affect women's expectations of belongingness and application success, as well as application intentions to career development programs. When only masculine gender cues are present—a male recruiter and stereotypically masculine wording—we expect negative effects on women's evaluations of career development programs. When the recruiter is female—and thus a gender-inclusive cue is present—we expect no such negative effects of stereotypically masculine wording.

**Hypothesis 1** *If the recruiter is male and the career development program is advertised with stereotypically masculine (rather than feminine) wording, women will report lower belongingness (H1a), application success (H1b), and intentions to apply to the program (H1c).*

*If the recruiter is female, women will respond similarly to career development programs advertised with stereotypically masculine and feminine wording.*

Hypothesis 1 is summarized in Table 1.

## 1.7 | Anticipated belongingness and expected application success as mediators

In addition to the direct effects of advertisement wording and recruiter gender, we expect that women's sense of belongingness and their expected application success function as mediators for subsequent application intentions. We argued earlier that women's fit assessments are likely to not only influence success and failure expectations, but also expectations of belongingness to the organization and its members. Belonging is a fundamental human need (Baumeister & Leary, 1995) and people are unlikely to seek out contexts to which they believe they would not belong (Tellhed, Bäckström, & Björklund, 2017). We, thus, expect that women will be less likely to apply for career opportunities where they anticipate low levels of belongingness. In line with this reasoning, research shows

that women's anticipation of belongingness is positively related to job appeal (Gaucher et al., 2011) and application intentions (Hentschel et al., 2019). Therefore, when only masculine gender cues are present—a male recruiter and stereotypically masculine wording—we expect that women will have lower intentions to apply to the career development program because they do not feel that they belong to the program. When the recruiter is female, however, we do not expect negative effects of stereotypically masculine wording on belongingness and therefore also not on women's intentions to apply for the career development program.

Similarly, when women compare their characteristics to the characteristics required for a position or career opportunity, they form expectations about how successful they would be in said position (i.e., success if fit is high and failure if fit is low). According to the Lack of Fit theory (Heilman, 1983), expectations of success are likely to result in career pursuit, while expectations of failure are likely to result in self-limiting of career options and advancement. Building on this theoretical rationale, we argued that women's perceived lack of fit with a career opportunity diminishes expectations of application success—and expectations of application success are likely to influence application intentions. If perceived application success is low, women will be less likely to apply for two reasons: first, they may not want to waste time by applying for positions or opportunities they are unlikely to receive (see also expectancy theory, Vroom, 1964) and second, they may want to prevent negative feelings associated with rejection (Barber & Roehling, 1993). Therefore, when only masculine gender cues are present—a male recruiter and stereotypically masculine wording—we expect that women have lower expectations of success and subsequently lower intentions to apply to the career development program because they do not feel that their application would be successful. When the recruiter is female, however, we do not expect negative effects of stereotypically masculine wording on expectations of success and therefore not on women's intentions to apply for the career development program.

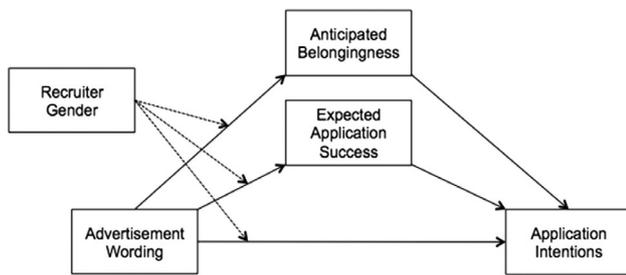
In sum, we expect that anticipated belongingness and expected application success mediate the interaction effect of advertisement wording and recruiter gender on women's intention to apply for career development programs.

**Hypothesis 2** *The effect of advertisement wording and recruiter gender on women's intentions to apply will be mediated by anticipated belongingness (H2a) and expected application success (H2b).*

Our research model is visualized in Figure 1.

**TABLE 1** Summary of Hypothesis 1

	Stereotypically masculine wording	Stereotypically feminine wording	Hypothesis section
Male recruiter	Low belongingness	High belongingness	H1a
	Low expected success	High expected success	H1b
	Low intention to apply	High intention to apply	H1c
Female recruiter	No differences		



**FIGURE 1** Proposed mediation model

## 2 | STUDY 1

We conducted a video-based experiment to test whether advertisement wording and recruiter gender have an impact on young women's evaluations of early career development programs.

### 2.1 | Method

#### 2.1.1 | Design and participants

We conducted an experiment with a  $2 \times 2$  between-subjects design, with advertisement wording (stereotypically masculine, stereotypically feminine) and recruiter gender (male, female) as independent variables. Our sample<sup>5</sup> included 163 female (and for the exploratory analyses 166 male) university students. This population enabled us to study young professional women's pursuit of career development programs. Students studied different majors at a German university (majors: 40.5% business, 37.2% STEM, 10.2% social sciences, 8.7% sports, 2.7% humanities). Students were predominantly white and their age ranged from 18 to 43 years ( $M = 21.99$ ,  $SD = 2.79$ ). The semester of study ranged from 1 to 15 ( $M = 4.42$ ,  $SD = 2.84$ ).

#### 2.1.2 | Procedure

Students were recruited via email and on campus, and invited to a research lab. Though our hypotheses focus on women, we recruited both female and male students to account for possible gender differences. Participants were told that this study was designed to investigate how students evaluate different career development programs and that they would be asked to review one randomly selected advertisement for a career development program. To improve experimental realism (Aguinis & Bradley, 2014), students received a list with the names of six programs offered by different organizations (three well-known, existing organizations that students were likely to recognize, and three fictitious organizations) and were told that they would be evaluating one randomly assigned program from this list. However, they were always assigned to review the same fictitious program. Participants were then asked to watch a short video in which the career development program was advertised. In the video, a recruiter

presented general information about the career development program (i.e., workshops for individual development, networking opportunities), and explained that the main aim of the program was to qualify participants for future leadership positions.

In line with the experimental design, students watched a male or a female recruiter describing the career development program with either stereotypically masculine or feminine wording. After watching the video, students completed the questionnaire measuring the study variables, and received 5 Euros for participation.

#### 2.1.3 | Experimental manipulations

Advertisement wording and recruiter gender were manipulated in the video. We manipulated advertisement wording by systematically substituting stereotypically masculine and stereotypically feminine words taken from the literature (e.g., Bem, 1974; Gaucher et al., 2011). The stereotypically masculine words included: *determined, autonomous, outstanding, competences, leadership position, direct, active, analytical, rational, push, outspoken, corporate influence, and assert*. The stereotypically feminine words included: *committed, responsible, talents, responsibility for employees, sociable, conscientious, sensible, sincere, support, cooperate, social responsibility, honest, and communicate*. The manipulation is detailed in Table 2.

All study materials were presented in German. Words were translated and back translated from English to German by independent bilinguals (Brislin, 1980). We conducted a pretest, to ensure that the stereotypically masculine words we chose were indeed perceived as masculine and the stereotypically feminine words we chose were indeed perceived as feminine. Eighteen female student participants rated each of the words from the video script on a 7-point scale ranging from  $-3$  "masculine" to  $3$  "feminine". Participants indicated that they perceived the stereotypically feminine words ( $M = 0.86$ ;  $SD = 0.15$ ) to be significantly more feminine than the stereotypically masculine words ( $M = -0.30$ ;  $SD = 0.10$ ),  $t(17) = 6.05$ ,  $p < .001$ ,  $d = 2.18$ .<sup>6</sup>

In the feminine wording condition, the organization offering the career development program had a female name (Andrea Reichle foundation) and recruiters were asked to present the program in a stereotypically feminine communication style (i.e., a higher and slightly softer voice); in the masculine wording condition the organization had a male name (Andreas Reichle foundation) and recruiters were asked to present the program in a stereotypically masculine communication style (i.e., a deeper and slightly tougher voice). This setup allowed for a more conservative test of our hypothesis (i.e., that female recruiters can mitigate the effects of masculinity in advertisements).

Professional actors and actresses portrayed the recruiters. For reasons of external and internal validity, we employed stimulus sampling (Wells & Windschitl, 1999): We recorded two female and two male recruiters to present each advertisement. Recruiters were white and a pretest with 16 participants rating pictures of the four actors indicated that they were perceived to be between 35 and 42 years old. The actors wore grey business suits and were filmed from the waist up in front of a white wall. No

**TABLE 2** Advertisement content and manipulations in Study 1**Advertisement with stereotypically masculine (stereotypically feminine) wording**

- The organization has sponsored *determined (committed)* and *autonomous (responsible)* students to take part in the program over the last 50 years
- Opportunity to acquire *outstanding competencies (helpful talents)* for students through different workshops
- To qualify for a *leadership position (a position with responsibility for employees)*
- Program fosters *active (sociable)* behavior and an *analytical (conscientious)* work style
- Among program students a *rational (sensible)* and *direct (sincere)* exchange is valued
- The exchange should be characterized by *pushing (supporting)* one another to solve problems, interacting in an *outspoken manner (cooperating)*, and *jointly asserting (honestly communicating)*
- Students can form a network with personalities from business – persons with *corporate influence (social responsibility)*

Note: Translations from the original German version.

significantly different results were found between the two male or the two female actors within each wording condition. Data were therefore combined for the two male and the two female actors per condition.

### 2.1.4 | Measures

We measured anticipated belongingness, application success, and intention to apply. If not otherwise stated, ratings for all measures were conducted on 7-point Likert scales ranging from 1 “totally disagree” to 7 “totally agree”. *Anticipated belongingness* (based on Gaucher et al., 2011) was measured with the three items “I would fit well into this organization”, “the type of students who apply for this program is very different from me” (reverse scored) and “I am similar to most of the students in the program” ( $\alpha_{\text{Women}} = 0.84$ ;  $\alpha_{\text{Men}} = 0.81$ ). *Expected application success* was measured with the three items “If I applied for it, I would get into this program”, “I think, I would only have limited chances of entering the program” (reverse coded), and “I

believe, if I applied I would be accepted for this program”, ( $\alpha_{\text{Women}} = 0.91$ ;  $\alpha_{\text{Men}} = 0.91$ ). *Application intentions* (based on Hentschel, Horvath, et al., 2018) were measured with the two items “I would apply for this program” and “How likely would it be that you apply for this program?” (the second item was measured on a scale ranging from 1 “very unlikely” to 7 “very likely”;  $\alpha_{\text{Women}} = 0.89$ ;  $\alpha_{\text{Men}} = 0.85$ ).

### Control variables

Because more advanced students might evaluate career development programs differently than students early in their studies (e.g., due to clearer career goals or perceived proximity of entering the job market), we controlled for students' current study semester in all analyses. In addition, we controlled for whether or not participants had been taking part in a similar program (currently or ever), because prior experience may influence their attention to specific aspects of the advertised program.

Table 3 summarizes means, standard deviations, and correlations between the dependent variables for female (and male) participants.

## 2.2 | Results

We first describe the analyses conducted to test the hypotheses about women. We then describe exploratory analyses for men.

### 2.2.1 | Hypotheses tests

We conducted 2 (advertisement wording: stereotypically masculine, stereotypically feminine)  $\times$  2 (recruiter gender: male, female) analyses of variance for female participants.

Hypothesis 1 stated that women would have more negative reactions to advertisements that contain stereotypically masculine compared to feminine wording in terms of their belongingness (H1a), expected application success (H1b), and intentions to apply to the program (H1c) if the recruiter was male, but not if the recruiter was female. To test this, we conducted pairwise comparisons (Fisher's LSD) of the means in each condition. ANCOVA results of the

**TABLE 3** Means, standard deviations, and correlations for female (male) students in Study 1

Variable	M	SD	1	2	3	4	5	6	7	8
1. Recruiter gender	0.51 (0.50)	0.50 (0.50)	–	(–0.01)	(0.09)	(0.01)	(–0.02)	(–0.03)	(–0.03)	(0.02)
2. Wording	0.48 (0.51)	0.50 (0.50)	–0.02	–	(–0.02)	(0.07)	(–0.01)	(0.03)	(–0.09)	(–0.05)
3. Belongingness	3.96 (3.98)	1.39 (1.24)	–0.05	0.08	–	(0.44***)	(0.55***)	(0.03)	(0.12)	(–0.14)
4. Expected success	3.55 (3.76)	1.50 (1.38)	–0.05	0.09	0.57***	–	(0.34***)	(0.09)	(0.17*)	(–0.23**)
5. Application intentions	2.95 (3.06)	1.51 (1.36)	–0.03	0.08	0.69***	0.56***	–	(0.04)	(0.09)	(–0.16*)
6. Semester (covariate)	4.58 (4.27)	3.00 (2.67)	–0.02	0.21	–0.12	–0.10	–0.07	–	(0.16*)	(–0.41***)
7. Program Status I (covariate)	0.06 (0.05)	0.23 (0.22)	0.02	0.04	0.07	0.20***	–0.03	0.13	–	(–0.71***)
8. Program Status II (covariate)	0.89 (0.90)	0.31 (0.30)	–0.11	0.06	0.04	–0.16***	0.09	–0.16*	–0.69***	–

Note: Recruiter gender was coded as 0 “male” and 1 “female”; Wording was coded as 0 “stereotypically masculine” and 1 “stereotypically feminine”; Program status was measured with the categories “no, never”, “yes, currently”, and “yes, in the past” and was dummy coded into two separate variables for covariate use: Program Status I (0 “no current or past program”, 1 “current program”) and Program Status II (0 “current or past program”, 1 “never a program”); \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

**TABLE 4** 2 (recruiter gender) × 2 (wording) ANCOVA main and interaction effects in Study 1

	Main effect of recruiter gender	Main effect of wording	Interaction effect
<i>Effects for women</i>			
Belongingness	$F(1, 154) = 0.30, p = .586, \eta_p^2 = 0.00$	$F(1, 154) = 0.934, p = .335, \eta_p^2 = 0.01$	$F(1, 154) = 4.01, p = .047, \eta_p^2 = 0.03$
Expected success	$F(1, 154) = 0.85, p = .359, \eta_p^2 = 0.00$	$F(1, 154) = 1.95, p = .165, \eta_p^2 = 0.01$	$F(1, 154) = 2.78, p = .098, \eta_p^2 = 0.02$
Application intentions	$F(1, 153) = 0.06, p = .803, \eta_p^2 = 0.00$	$F(1, 153) = 0.97, p = .325, \eta_p^2 = 0.01$	$F(1, 153) = 4.83, p = .029, \eta_p^2 = 0.03$
<i>Effects for men</i>			
Belongingness	$F(1, 159) = 1.21, p = .273, \eta_p^2 = 0.01$	$F(1, 159) = 0.15, p = .699, \eta_p^2 = 0.00$	$F(1, 159) = 0.94, p = .335, \eta_p^2 = 0.01$
Expected success	$F(1, 159) = 0.02, p = .880, \eta_p^2 = 0.00$	$F(1, 159) = 0.79, p = .37, \eta_p^2 = 0.01$	$F(1, 159) = 0.019, p = .891, \eta_p^2 = 0.00$
Application intentions	$F(1, 159) = 0.03, p = .859, \eta_p^2 = 0.00$	$F(1, 159) = 0.03, p = .860, \eta_p^2 = 0.00$	$F(1, 159) = 0.99, p = .321, \eta_p^2 = 0.01$

individual scales are presented in Table 4.<sup>7</sup> Means, standard deviations, and LSD comparisons for all conditions are presented in Table 5.

#### Anticipated belongingness

Results of LSD comparisons were in line with Hypothesis 1a: with a male recruiter, women anticipated significantly less belongingness in response to the career development program advertised with masculine compared to feminine wording ( $p = .039$ ). However, with a female recruiter, they anticipated similar levels of belongingness to the development program, regardless of wording ( $p = .465$ ).

#### Expected application success

In line with Hypothesis 1b, LSD comparisons indicated that with a male recruiter, women were less likely to expect success of an application for the career development program described with masculine wording than to the one described with feminine wording ( $p = .033$ ). With a female recruiter, they indicated similar levels of fit to the career development program, regardless of wording ( $p = .853$ ).

#### Application intentions

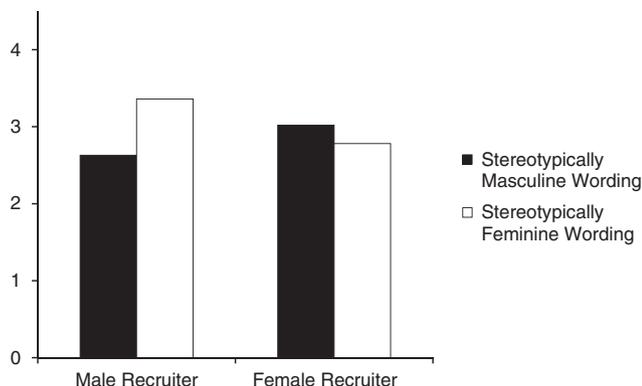
LSD comparisons showed in line with Hypothesis 1c that with a male recruiter, women were less likely to want to apply to the career

development program advertised with masculine wording than to the one advertised with feminine wording ( $p = .028$ ). With a female recruiter, women indicated similar levels of application intentions, regardless of wording ( $p = .391$ ; see Figure 2).

#### Model test

Hypothesis 2 stated that the effect of advertisement wording and recruiter gender on women's intentions to apply will be mediated by anticipated belongingness (H2a) and expected application success (H2b). We used the Process macro in SPSS (Hayes, 2013, 2017) to conduct mediation analyses. The independent variable was advertisement wording (coded as 0 = masculine, 1 = feminine) and the moderator variable was recruiter gender (coded as 0 = male recruiter, 1 = female recruiter), the dependent variable was application intention, and the mediators were anticipated belongingness and expected application success. We used Model 8 with 5,000 bootstrap samples. Effects were interpreted as statistically significant when the 95% confidence intervals (CI) did not include 0. As in the ANCOVA analyses, participants' semesters of study and program status were kept as covariates.

Results showed that the interaction of advertisement wording and recruiter gender significantly predicted anticipated belongingness ( $b = -0.92, SE = 0.44, 95\% CI [-1.79, -0.05]$ ) but not expected application success ( $b = -0.80, SE = 0.47, 95\% CI [-1.72, 0.13]$ ). Conditional effects following up the significant interaction showed that only with a male recruiter, but not with a female recruiter, did wording significantly predict belongingness (male recruiter:  $Effect = 0.69, SE = 0.31, 95\% CI [0.07, 1.32]$ ; female recruiter:  $Effect = -0.23, SE = 0.31, 95\% CI [-0.83, 0.38]$ ). Both belongingness ( $b = 0.57, SE = 0.08, 95\% CI [0.43, 0.72]$ ) and expected application success ( $b = 0.28, SE = 0.07, 95\% CI [0.15, 0.42]$ ) predicted application intentions. Only with a male recruiter, not with a female recruiter, were the indirect effects of advertisement wording on application intentions significant for anticipated belongingness (male recruiter =  $0.40, SE = 0.18, 95\% CI [0.03, 0.75]$ ; female recruiter =  $-0.13, SE = 0.09, 95\% CI [-0.48, 0.21]$ ). Hypothesis 2a, which stated that women's anticipated belongingness would mediate the effect of advertisement wording on intentions to apply, was therefore supported for male but not female recruiters. However, Hypothesis 2b, which stated that expected application success would also



**FIGURE 2** Women's ratings of application intentions for the career development program when advertised by a male or female recruiter with stereotypically masculine versus stereotypically feminine wording (Study 1)

**TABLE 5** Means (and standard deviations) for each condition in Study 1

	Male recruiter		Female recruiter	
	Stereotypically masculine wording	Stereotypically feminine wording	Stereotypically masculine wording	Stereotypically feminine wording
<i>Women</i>				
Belongingness	3.73 (1.57) <sub>a</sub>	4.33 (1.31) <sub>b</sub>	3.97 (1.30) <sub>a,b</sub>	3.81 (1.38) <sub>a,b</sub>
Expected success	3.29 (1.53) <sub>a</sub>	3.98 (1.39) <sub>b</sub>	3.52 (1.48) <sub>a,b</sub>	3.44 (1.44) <sub>a,b</sub>
Intention to apply	2.63 (1.52) <sub>a</sub>	3.36 (1.59) <sub>b</sub>	3.02 (1.49) <sub>a,b</sub>	2.78 (1.45) <sub>a,b</sub>
<i>Men</i>				
Belongingness	3.99 (1.26) <sub>a</sub>	3.74 (1.31) <sub>a</sub>	4.01 (1.26) <sub>a</sub>	4.13 (1.15) <sub>a</sub>
Expected success	3.64 (1.43) <sub>a</sub>	3.82 (1.46) <sub>a</sub>	3.63 (1.36) <sub>a</sub>	3.88 (1.30) <sub>a</sub>
Intention to apply	2.98 (1.15) <sub>a</sub>	3.19 (1.54) <sub>a</sub>	3.14 (1.39) <sub>a</sub>	2.94 (1.38) <sub>a</sub>

Note: Ratings were given on a 7-point scale in which higher scores indicate more positive ratings (higher belongingness, higher expected success, higher intention to apply). Means in a row that do not share subscripts differ significantly at  $p < .05$  as indicated by LSD comparisons.

mediate the effect of advertisement wording on intentions to apply, was not supported.

## 2.2.2 | Exploratory analyses for men

For exploratory purposes, we also conducted analyses with male participants. As can be seen in Table 4, no main effects of advertisement wording or recruiter gender nor any interactions emerged in the ANCOVAs for anticipated belongingness, expected application success, and application intentions (see Table 5 for means and standard deviations for all conditions).

We also calculated the same mediation analyses of wording and recruiter gender on the parallel mediators of belongingness and expected application success. The only significant relationship we found was that men's anticipated belongingness predicted their application intentions ( $b = 0.60$ ,  $SE = 0.08$ , 95% CI [0.44, 0.75]). Men's anticipated belongingness, however, was not predicted by advertisement wording nor recruiter gender.

## 2.3 | Summary

In Study 1, we found advertisement wording and recruiter gender to influence female university students' evaluations and pursuit of career opportunities. Stereotypically masculine wording lowered women's anticipated belongingness, expected success, and intention to apply for a career development program, if recruited by a man, but not if recruited by a woman. Interestingly, belongingness, but not expected application success mediated this relationship. These preliminary findings lead to a more nuanced understanding of lack of fit in the context of career development programs. It is, however, important to replicate these findings in the field with people already working, since we do not know whether these initial findings are specific to university students, who are about to start their

careers, or if they are equally applicable to younger and older female employees with professional experience.

## 3 | STUDY 2

We conducted a second study to replicate and extend our initial findings. In particular, with an employee sample, we were able to investigate whether the findings of Study 1 were generalizable only to younger women early in their careers, or also to older women, who are likely to have more professional experience.

### 3.1 | Method

#### 3.1.1 | Design and participants

As in Study 1, we conducted an experiment with a  $2 \times 2$  between-subjects design, with advertisement wording (stereotypically masculine, stereotypically feminine) and recruiter gender (male, female) as independent variables. Our sample<sup>8</sup> included 261 female (and 284 male) employees of German nationality (99%)<sup>9</sup>. Employees had an average age of 44.7 years ( $SD = 11.4$  years) and 23.3 years of work experience ( $SD = 12.5$  years). The majority of participants worked full-time (81.7%). Further, 25.5% were currently in a leadership role (with an average experience of 11.5 years). The majority of participants were white (98.2%) and heterosexual (90.3%). Employees worked in different sectors (1.1% raw materials, e.g. agriculture; 18.5% production, e.g. industry and manufacture; 64.9% services, e.g. commerce, insurance, or health; 15.5% information, e.g. communication or high tech), and represented a variety of education levels (9-year Highschool diploma: 6.4%, 10-year Highschool diploma: 37.4%, 12- or 13-year Highschool diploma: 23.9%, undergraduate degree or similar: 11.4%, postgraduate degree or similar: 19.8%; PhD: 1.1%). The majority of participants had not

participated in a career development program (80.7%) prior to taking part in the study.

### 3.1.2 | Procedure

We collected data online using the large German panel provider respondi. Respondi is a certified panel provider, achieving high data quality through fair incentivization, transparent communication, and high data management standards. Participants were told that we were interested in how people evaluate different career development programs. We asked participants to imagine that they had researched different career development programs, and were now in the process of gathering additional information about the programs by getting in touch with the recruiters for these programs directly. We then told them that they would review the information about one randomly selected career development program. Participants then saw a picture of either a male or female recruiter (screenshots from the videos in Study 1) with a speech bubble containing the career development program description. The description directly addressed them as a potential candidate for the program (e.g., "In the program you will develop..."), adapted from the video script used in Study 1. Participants saw the recruiter three times with three different pictures (i.e., picture from hip height, picture of the face, again the picture from hip height) with the program description broken down into three parts, presented in one speech bubble each. This was done to ensure participants would read all parts of the program description carefully. Recruiters introduced themselves by name (Christiane or Thomas Meier) and stated that they had been in the role as a recruiter for the career development program over the past five years. They further explained that they were part of the selection committee for the program. They mentioned that the task of selecting candidates for the program was of personal importance to them, because they had previously taken part in and benefitted from the program. This was done to ensure that participants perceived the recruiter as representing the program. Following this information, participants were asked to fill in the questionnaire.

### 3.1.3 | Experimental manipulations

Advertisement wording (stereotypically masculine, stereotypically feminine) was manipulated in the program description and recruiter gender (male, female) was manipulated via the recruiter pictures and names. In the program descriptions, parallel to Study 1, we systematically substituted stereotypically masculine and stereotypically feminine words taken from the literature (Bem, 1974; Gaucher et al., 2011). The stereotypically masculine words were: *determined, outstanding, leadership position, analytical, determined manner, influential, challenge, strategic planning, task-oriented, ambitious, goal-oriented, challenging, assertive, management functions, career aspirations, entrepreneurial thinking, influence, self-assured, assertiveness*. The stereotypically feminine words were: *committed, conscientious, positions with employee*

*responsibility, interpersonal, communication talent, supportive, encourage, intuitive, people-oriented, social, trusting, supporting, cooperative, employee responsibility, commitment to goals, sustainability orientation, responsibility, sociable, team spirit*. The manipulation is detailed in Table 6.

### 3.1.4 | Measures

Anticipated belongingness ( $\alpha_{\text{Women}} = 0.88$ ;  $\alpha_{\text{Men}} = 0.83$ ) and intention to apply ( $\alpha_{\text{Women}} = 0.95$ ;  $\alpha_{\text{Men}} = 0.95$ ) were measured with the same items as in Study 1. We slightly changed the measurement of expected application success from Study 1 to align it with the established measure of Saks et al. (1995) and used the two items: "I think the program committee would be interested in selecting someone like me for the program" and "If I were to apply for this program, I think there is a good chance that I would be accepted for the program" ( $\alpha_{\text{Women}} = 0.93$ ;  $\alpha_{\text{Men}} = 0.93$ ). Ratings were conducted on 7-point Likert scales ranging from 1 "totally disagree" to 7 "totally agree".

#### Control variables

Because people with prior experience in a leadership position might evaluate career development programs differently, whether or not participants were in a leadership position was controlled for. We also controlled for whether people had participated in a career development program in the past, because such an experience might influence whether or not they would be willing to apply for another career

**TABLE 6** Advertisement content and manipulations in Study 2

#### Advertisement with stereotypically masculine (stereotypically feminine) wording

- Career development program "Managers of the Future"
- Promotion of *outstanding (conscientious)* and *determined (committed)* employees through various workshops
- Aim of the program is to qualify participants for future *leadership positions (positions with employee responsibility)* and to develop current leaders
- Development of *analytical (interpersonal)* skills and a *determined manner (communication talent)*
- An *influential (supportive)* mentor will continuously *challenge (encourage)* on the way through the career development program, for example in building an extensive network
- Learning of *strategic (intuitive) planning, task-oriented (people-oriented)* leadership, as well as *ambitious (social)* behavior
- In the group of program participants, a great value is placed on *goal-oriented (trusting)* interactions
- Exchange should be characterized by participants *challenging (supporting)* one another and being *assertive (cooperative)*
- Looking for people with the motivation to take on *management functions (employee responsibility)*
- Participants should have high *career aspirations (commitment to goals)*, *entrepreneurial thinking (sustainability orientation)* and the desire to fill positions with *influence (responsibility)*
- Participants should be *self-assured (sociable)* and have very *high assertiveness (team spirit)*

Note: Translations from the original German version.

development program. We further controlled for participants' age, sexual orientation (as this may be related to their gender-related self-views and perceptions of the advertisement), and ethnicity (as this may be related to people's perceptions of the white recruiters; although it is important to note that the fictional recruiters and 98% of our participants were white).

Table 7 summarizes means, standard deviations, and correlations between all study variables for female (and male) participants.

### 3.2 | Results

We first describe the analyses conducted to test our hypotheses about women. We then describe exploratory results including employee age and male participants.

#### 3.2.1 | Hypotheses tests

We again conducted 2 (advertisement wording: stereotypically masculine, stereotypically feminine) × 2 (recruiter gender: male, female) analyses of covariance for female participants. As described earlier, age, leadership position, past career development program participation, sexual orientation, and ethnicity were entered as covariates in the analyses. ANCOVA results are presented in Table 8.<sup>10</sup> There were no significant effects of recruiter gender and no significant interactions between wording and gender for the dependent measures of belongingness (H1a), expected success (H1b), and application intentions (H1c). The effect of advertisement wording was significant; when feminine wording was used, women's belongingness ( $M = 4.33, SD = 1.46$ ), expected success ( $M = 4.50, SD = 1.59$ ) and application intentions ( $M = 4.00, SD = 2.05$ ) to the career development program were higher than were their belongingness ( $M = 3.81, SD = 1.61$ ), expected success ( $M = 4.08, SD = 1.62$ ) and application intentions ( $M = 3.48, SD = 1.95$ ) when masculine wording was used.

#### Model test

To test the full model in line with Hypotheses 2a and 2b, we used the Process SPSS macro (Hayes, 2013, 2017) and Model 8 with 5,000 bootstrap samples and the same covariates as in the ANCOVA analyses. We entered wording (0 = stereotypically masculine, 1 = stereotypically feminine) as the independent variable, recruiter gender (0 = male recruiter, 1 = female recruiter) as the moderator, belongingness and expected success as parallel mediators, and application intentions as the dependent variable. Results show that wording only significantly predicted belongingness ( $b = 0.57, SE = 0.26, 95\% CI [0.07, 1.08]$ ) but not expected success ( $b = 0.39, SE = 0.26, 95\% CI [-0.14, 0.92]$ ), but that both belongingness ( $b = 0.77, SE = 0.07, 95\% CI [0.64, 0.90]$ ) and expected success ( $b = 0.35, SE = 0.06, 95\% CI [0.23, 0.48]$ ) predicted application intentions. In line with Hypothesis 2a, the indirect effect of wording on application intentions via anticipated belongingness was found to be significant only with a male—but not female—recruiter (male

**TABLE 7** Means, standard deviations, and correlations for women (men) in Study 2

Variable	M	SD	1	2	3	4	5	6	7	8	9	10
1. Recruiter gender	0.52 (0.50)	0.50 (0.50)	-	(0.00)	(-0.04)	(-0.03)	(-0.07)	(0.07)	(0.07)	(0.01)	(0.03)	(-0.02)
2. Wording	0.49 (0.50)	0.50 (0.50)	0.03	-	(-0.01)	(-0.01)	(-0.01)	(0.03)	(0.03)	(0.04)	(-0.08)	(-0.03)
3. Belongingness	4.06 (3.98)	1.56 (1.48)	0.03	0.17*	-	(0.74***)	(0.82***)	(-0.08)	(0.27***)	(0.29***)	(.00)	(-0.04)
4. Expected success	4.28 (4.33)	1.62 (1.62)	0.03	0.13*	0.69***	-	(0.76***)	(-0.13*)	(0.29***)	(0.33***)	(-0.05)	(-0.04)
5. Application intentions	3.74 (3.83)	2.02 (1.94)	0.03	0.13*	0.79***	0.69***	-	(-0.13*)	(0.21***)	(0.25***)	(0.01)	(-0.04)
6. Participant age	45.15 (44.24)	11.26 (11.27)	-0.00	-0.08	-0.19**	-0.19**	-0.19**	-	(0.14*)	(0.07)	(-0.10)	(-0.01)
7. Leadership position (covariate)	0.21 (0.29)	0.41 (0.45)	0.12*	0.01	0.33***	0.36***	0.30***	-0.05	-	(0.48***)	(-0.09)	(0.00)
8. Past career development program (covariate)	0.17 (0.21)	0.38 (0.41)	0.06	0.03	0.23***	0.14*	0.15*	0.10	0.29***	-	(-0.01)	(0.02)
9. Ethnicity (covariate)	0.02 (0.02)	0.14 (0.13)	0.02	-0.03	0.10	0.08	0.12	0.03	0.13*	-0.06	-	(0.12)
10. Sexual orientation (covariate)	0.07 (0.12)	0.26 (.33)	0.03	0.11	-0.01	-0.08	-0.00	-0.11	-0.03	-0.05	-0.04	-

Note: Recruiter gender was coded as 0 "male" and 1 "female"; Wording was coded as 0 "stereotypically masculine" and 1 "stereotypically feminine"; Leadership position was coded with 0 "no leadership position" and 1 "leadership position"; Past career development program was with 0 "no past career development program participation" and 1 "past career development program participation"; due to low diversity in ethnicity and sexual orientation, ethnicity was coded with 0 "heterosexual" and 1 "other"; \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

**TABLE 8** 2 (recruiter gender) × 2 (wording) ANCOVA main and interaction effects in Study 2

	Main effect of recruiter gender	Main effect of wording	Interaction effect
<i>Effects for women</i>			
Belongingness	$F(1, 252) = 0.11, p = .736, \eta_p^2 = 0.00$	$F(1, 252) = 7.04, p = .008, \eta_p^2 = 0.03$	$F(1, 252) = 0.33, p = .566, \eta_p^2 = 0.00$
Expected success	$F(1, 252) = 0.11, p = .739, \eta_p^2 = 0.00$	$F(1, 252) = 4.61, p = .033, \eta_p^2 = 0.02$	$F(1, 252) = 0.00, p = .976, \eta_p^2 = 0.00$
Application intentions	$F(1, 252) = 0.02, p = .898, \eta_p^2 = 0.00$	$F(1, 252) = 3.91, p = .049, \eta_p^2 = 0.02$	$F(1, 252) = 0.07, p = .794, \eta_p^2 = 0.00$
<i>Effects for men</i>			
Belongingness	$F(1, 275) = 0.77, p = .381, \eta_p^2 = 0.00$	$F(1, 275) = 0.13, p = .721, \eta_p^2 = 0.00$	$F(1, 275) = 0.30, p = .583, \eta_p^2 = 0.00$
Expected success	$F(1, 275) = 0.34, p = .560, \eta_p^2 = 0.00$	$F(1, 275) = 0.73, p = .393, \eta_p^2 = 0.00$	$F(1, 275) = 3.27, p = .072, \eta_p^2 = 0.01$
Application intentions	$F(1, 275) = 1.46, p = .227, \eta_p^2 = 0.01$	$F(1, 275) = 0.06, p = .802, \eta_p^2 = 0.00$	$F(1, 275) = 1.84, p = .177, \eta_p^2 = 0.01$

recruiter = 0.44, SE = 0.20, 95% CI [0.05, 0.82]; female recruiter = 0.28, SE = 0.19, 95%CI [-0.09, 0.66]). Contrary to Hypothesis 2b, and in line with the results from Study 1, the indirect effect of wording on application intentions via expected success was not significant independent of recruiter gender (male recruiter = 0.14, SE = 0.10, 95% CI [-0.04, 0.34]; female recruiter = 0.14, SE = 0.09, 95%CI [-0.04, 0.34]). In sum, supporting Hypothesis 2a, but not 2b, these results suggest that women were more likely to apply to career development programs with a male recruiter, when advertisement wording was stereotypically feminine rather than masculine, because they felt a greater sense of belonging.

### 3.2.2 | Exploratory analyses for women's age

We investigated if results would be different for younger versus older women, who are likely to find themselves in different career stages and with different levels of professional experience. Following Ng and Feldman (2008) we choose the cutoff age of 40 years to divide our sample of women into two age groups: Younger women (who are under 40 years,  $N = 90$ ) and older women (who are 40 years and older,  $N = 171$ )<sup>11</sup>. We conducted a 2 (advertisement wording: stereotypically masculine, stereotypically feminine) × 2 (recruiter gender: male, female) × 2 (women's age group: younger, older) ANCOVA, while still controlling for leadership position, past career

development program participation, sexual orientation, and ethnicity. In Table 9, the main effects and interactions for belongingness, expected success, and application intentions are displayed: Again, we found the main effects of wording on the three dependent variables, indicating more positive evaluations of women when feminine wording was used. We also found main effects for age, indicating that older women are less likely to anticipate belongingness, expect success, or intend to apply, than younger women. Finally, we found a significant three-way interaction of age, wording, and recruiter gender on application intentions and three-way interactions on belongingness and expected success that approached significance. Following Rosnow and Rosenthal (1991), we followed up these results with LSD comparisons to test our hypotheses for younger and older women separately (Table 10).

For younger women, we replicated the findings of Study 1. When the recruiter was male, stereotypically masculine wording led women to anticipate lower belongingness ( $H1a; p = .014$ ), to expect lower application success ( $H1b; p = .013$ ), and to indicate lower application intentions ( $H1c; p = .011$ ) compared to feminine wording. When the recruiter was female, younger women indicated similar levels of belongingness ( $p = .876$ ), expected success ( $p = .731$ ), and application intentions ( $p = .790$ ) for feminine and masculine wording. Older women, however, did not evaluate career development programs differently depending on recruiter gender and wording used. Results for belongingness are illustrated in Figure 3.

**TABLE 9** Results of 2 (wording) × 2 (recruiter gender) × 2 (age group) ANCOVA for women

	Belongingness	Expected Success	Application Intentions
Recruiter gender main effect	$F(1, 249) = 0.00, p = .993, \eta_p^2 = 0.00$	$F(1, 249) = 0.03, p = .870, \eta_p^2 = 0.00$	$F(1, 249) = 0.15, p = .700, \eta_p^2 = 0.00$
Wording main effect	$F(1, 249) = 6.42, p = .012, \eta_p^2 = 0.03$	$F(1, 249) = 5.37, p = .021, \eta_p^2 = 0.02$	$F(1, 249) = 5.21, p = .023, \eta_p^2 = 0.02$
Age main effect	$F(1, 249) = 5.85, p = .016, \eta_p^2 = 0.02$	$F(1, 249) = 7.42, p = .007, \eta_p^2 = 0.03$	$F(1, 249) = 4.20, p = .041, \eta_p^2 = 0.02$
Recruiter gender × wording	$F(1, 249) = 1.52, p = .219, \eta_p^2 = 0.01$	$F(1, 249) = 0.45, p = .506, \eta_p^2 = 0.00$	$F(1, 249) = 0.18, p = .671, \eta_p^2 = 0.00$
Age × recruiter gender	$F(1, 249) = 0.46, p = .496, \eta_p^2 = 0.00$	$F(1, 249) = 0.15, p = .699, \eta_p^2 = 0.00$	$F(1, 249) = 0.87, p = .353, \eta_p^2 = 0.00$
Age × wording	$F(1, 249) = 0.03, p = .871, \eta_p^2 = 0.00$	$F(1, 249) = 0.91, p = .340, \eta_p^2 = 0.00$	$F(1, 249) = 1.00, p = .319, \eta_p^2 = 0.00$
Age × recruiter gender × wording	$F(1, 249) = 3.26, p = .072, \eta_p^2 = 0.01$	$F(1, 249) = 3.25, p = .073, \eta_p^2 = 0.01$	$F(1, 249) = 4.94, p = .027, \eta_p^2 = 0.02$

**TABLE 10** Means (and standard deviations) for each condition in Study 2

	Male recruiter		Female recruiter	
	Stereotypically masculine wording	Stereotypically feminine wording	Stereotypically masculine wording	Stereotypically feminine wording
<i>Younger women</i>				
Belongingness	3.78 (1.34) <sub>a</sub>	4.68 (1.33) <sub>b</sub>	4.43 (1.01) <sub>a,b</sub>	4.51 (1.57) <sub>a,b</sub>
Expected success	4.11 (1.69) <sub>a</sub>	5.03 (1.31) <sub>b</sub>	4.56 (1.12) <sub>a,b</sub>	4.81 (1.60) <sub>a,b</sub>
Intention to apply	3.50 (1.97) <sub>a</sub>	4.80 (1.76) <sub>b</sub>	3.81 (1.42) <sub>a,b</sub>	4.17 (2.02) <sub>a,b</sub>
<i>Older women</i>				
Belongingness	3.66 (1.73) <sub>a</sub>	4.19 (1.28) <sub>a</sub>	3.73 (1.73) <sub>a</sub>	4.19 (1.28) <sub>a</sub>
Expected success	3.99 (1.61) <sub>a</sub>	4.18 (1.39) <sub>a</sub>	3.97 (1.76) <sub>a</sub>	4.31 (1.82) <sub>a</sub>
Intention to apply	3.40 (2.06) <sub>a</sub>	3.46 (1.96) <sub>a</sub>	3.41 (2.06) <sub>a</sub>	4.01 (2.21) <sub>a</sub>
<i>Men</i>				
Belongingness	4.11 (1.41) <sub>a</sub>	3.96 (1.48) <sub>a</sub>	3.87 (1.61) <sub>a</sub>	3.96 (1.42) <sub>a</sub>
Expected success	4.62 (1.58) <sub>a</sub>	4.14 (1.48) <sub>b</sub>	4.15 (1.72) <sub>a,b</sub>	4.42 (1.67) <sub>a,b</sub>
Intention to apply	4.14 (1.94) <sub>a</sub>	3.78 (1.79) <sub>a</sub>	3.55 (2.07) <sub>a</sub>	3.85 (1.95) <sub>a</sub>

Note: Ratings were given on a 7-point scale in which higher scores indicate more positive ratings (higher belongingness, higher expected success, higher intention to apply). Means in a row that do not share subscripts differ significantly at  $p < .05$  as indicated by LSD comparisons.

### 3.2.3 | Exploratory analyses for men

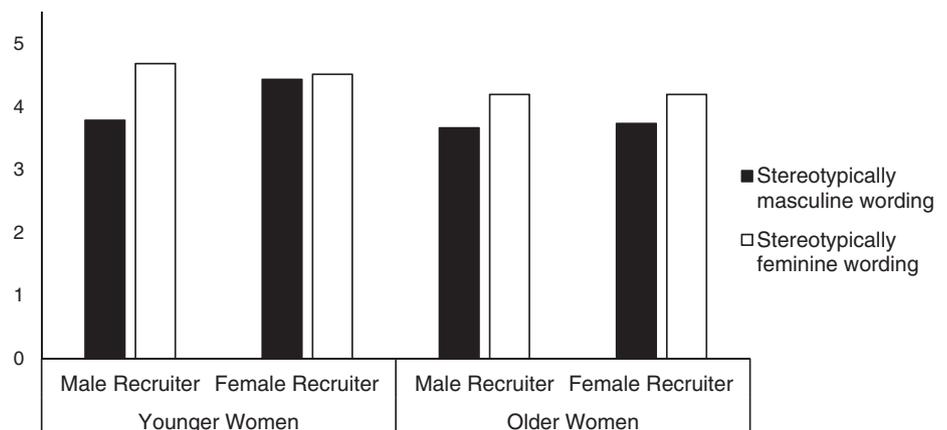
For male participants, ANCOVA results indicated no main effects of advertisement wording or recruiter gender on anticipated belongingness, expected application success, and application intentions (see Table 9 for ANCOVA results and Table 10 for means and standard deviations) nor were there any significant interactions when men's age (older, younger) was added as a separate predictor in the ANCOVAs (significance levels of three-way interactions between wording, recruiter gender, and age:  $p$ 's = .734–.923). Thus, as in Study 1, wording and recruiter gender did not affect men's evaluations of career development programs. We also found no mediation of wording and recruiter gender on men's

application intentions via belongingness, expected application success. The only significant relationships were belongingness ( $b = 0.78$ ,  $SE = 0.06$ , 95%CI [0.65, 0.90]) and expected success ( $b = 0.39$ ,  $SE = 0.06$ , 95%CI [0.27, 0.50]) predicting application intentions.

### 3.3 | Summary

The results of Study 2 replicated the findings of Study 1 in that women's anticipated belongingness, but not expected application success, mediated the relationship between wording and application intentions: masculine wording affected women's evaluations of the

**FIGURE 3** Younger and older women's ratings of belongingness if the career development program is advertised by a male or female recruiter with stereotypically masculine versus stereotypically feminine wording (Study 2)



career development program only if used by a male recruiter, but not if used by a female recruiter. However, the buffering effects of female recruiters we found in the sample of university students in Study 1 were only replicated for younger women, but not older women in the employee sample of Study 2. We again found no effects of recruiter gender or advertisement wording on men.

## 4 | DISCUSSION

We set out to apply and extend lack of fit theory (Heilman, 1983) and integrate it with signaling theory (Connelly et al., 2011), in the context of career opportunities. Another important purpose of our research was to test ethical and easy-to-implement interventions with the potential to increase gender equality in leadership and facilitate women and men's career progression. For this purpose, we focused on predictors of women's intentions to apply to career development programs, which enables them to enhance their leadership potential (Day & Dragoni, 2015; Phillips & Imhoff, 1997; Vinnicombe & Singh, 2002). We reasoned that gender self-stereotyping may inhibit women's career aspirations including the pursuit of advantageous career development programs (Heilman, 1983). Specifically, we expected that signals sent through advertisements and recruiters for career development programs may affect women's intentions to apply to such programs, reducing their expected application success and anticipated belongingness to the programs.

Results of two experimental studies showed that stereotypically masculine wording negatively influences women's evaluations of career development programs. Stereotypically masculine wording in recruitment advertisements resulted in women, but not men, indicating lower anticipated belongingness, lower expected success of an application, and, ultimately, lower application intentions. These negative effects of wording could only be mitigated by a female recruiter for younger women—both during women's time at university in Study 1, or as employees in Study 2. We further found anticipated belongingness, but not expected application success, mediated the relationship of male recruiters' wording use on application intentions. Type of wording and recruiter gender had no influence on men's evaluations of career opportunities.

Our findings complement past research on the negative influence of masculine pronouns, position titles, language, pictures, or applicant requirements in job advertisements on women's attraction to organizations and interest in positions (Avery & McKay, 2006; Bem & Bem, 1973; Bosak & Sczesny, 2008; Gaucher et al., 2011; Hentschel, Horvath, et al., 2018; Hentschel & Horvath, 2015; Horvath, 2015; Stout & Dasgupta, 2011; Taris & Bok, 1998). Our work extends on the existing literature by shedding light on a potentially overlooked barrier for women's career advancement: uncovering the negative influence of stereotypically masculine wording on women's evaluations in the context of career development programs and the role it can play in spoken in addition to written form. It further highlights the role of stereotypically feminine wording as a potential starting point for increasing women's perceived fit with career opportunities,

potentially enhancing the likelihood that they advance to higher-level organizational positions.

Importantly, only with a male recruiter, did stereotypically masculine wording negatively influence younger women's fit perceptions and consequently their application intentions. Only when both male-typed advertisement signals were combined—masculine wording *and* a male recruiter—was younger women's pursuit of career development programs diminished. With a female recruiter, the type of wording seemed inconsequential for their anticipated belongingness, expected application success, and subsequent application intentions. This finding is in line with other research, which suggests that female students are only hesitant to apply to career opportunities when all characteristics in the recruitment process are male-typed (Hentschel, Horvath, et al., 2018).

While advertisement wording affected women across age groups, a female recruiter mitigated the negative effects of male-typed wording only for younger women but not older women. The finding that female recruiters were less relevant for older women aligns with previous arguments that inexperienced individuals may be more influenced by surface characteristics such as recruiter gender (Larsen & Phillips, 2002). There are several possible reasons for this finding, which warrant further research and replication. Older women are likely to have developed solid professional (or leadership) identities over time (Gibson, 2003), and might therefore be less susceptible to the influence of similarity to others involved in the program. To them, the contents of the program (i.e., wording signals) may matter more than peripheral signals (i.e., recruiter gender). In addition, older women may be used to being in male-dominated business settings; they may be used to men being visible in different organizational positions. Thus, a male recruiter may be less of an informative signal for them. However, our finding that recruiter gender impacts career decision-making for young women has important implications seeing that vital career decisions are likely to be made just before or after graduation (London, 1983; Morgan, Isaac, & Sansone, 2001).

Across both studies, only anticipated belongingness (but not expected success) mediated the effect of advertisement wording on application intentions, and only when the recruiter was male but not when the recruiter was female. This mediating role of anticipated belongingness is in line with other research that found belongingness to mediate the relationship between job advertisement characteristics and job appeal (Gaucher et al., 2011) or application intentions (Hentschel, Horvath, et al., 2018). However, in our research expected application success did not mediate the effect of male recruiters and wording on application intentions as lack of fit theory would suggest (Heilman, 1983). Although women's expected application success is affected by the interaction of stereotypical wording and recruiter gender, the effect is weaker than the effect on belongingness (as indicated in Table 4). A potential explanation is that belongingness may predominantly depend on contextual factors (in this case, recruitment advertisement wording and recruiter gender), while expected success of an application will likely depend on both contextual factors and personal factors such as general self-confidence.

Finally, the minimal effects of advertisement wording and recruiter gender on men are notable. Apart from the fact that men's

belongingness and expected application success were related to application intentions, we did not find any direct effects of advertisement wording and recruiter gender on any of the three dependent variables for men. This lack of effects is in line with earlier research (Gaucher et al., 2011; Taris & Bok, 1998), suggesting that men may have a lower threshold for making fit assessments. Indeed, men tend to experience more self-confidence than women (Lenney, 1977), and may therefore view themselves as more fitting to any career opportunity. In addition, stereotypically feminine (communal) characteristics are generally inclusive and often perceived as very positive (Eagly & Mladinic, 1989). We know that both men and women infer more positive organizational characteristics and are more attracted to employment opportunities when recruiters are friendly rather than unfriendly (the study only investigated male recruiters; Goltz & Giannantonio, 1995), which may support our interpretation of communal wording attracting men as well as women. This interpretation seemingly contradicts the finding that female participation can devalue career options in men's eyes (Ellemers, Rink, Derks, & Ryan, 2012). However, other findings suggest that while men perceive themselves as less communal than women, they perceive themselves as more communal than other men (Hentschel et al., 2019). Thus, they may still anticipate that they fit into a career development program described in stereotypically feminine communal terms.

#### 4.1 | Theoretical and research contributions

Lack of fit theory (Heilman, 1983) discusses the cognitive process of women's lack of fit perceptions with male-typed career positions and paths, and women's negative performance expectations and subsequent self-limiting career choices. Our work contributes to a more nuanced understanding of lack of fit theory in the context of career development. Specifically, the findings suggest that traditionally male-typed positions or domains—like career opportunities in the form of career development programs—do not have to be perceived as male-typed per se. We found that if female-typed aspects of a career development program are made salient during the recruitment process (through wording and recruiter), women do not necessarily perceive a lack of fit. Our results also support signaling theory (Connelly et al., 2011) and suggest that with even small changes in the signals that organizations send, women's interest in career opportunities can be increased. Thus, signaling theory and lack of fit theory can be integrated to explain how organizational signals during recruitment influence women's perceptions of traditionally male-typed career opportunities, and consequently their fit assessments and evaluations of such opportunities. In line with this theoretical idea, research on targeted recruitment has also shown that organizations can facilitate certain applicant groups' interests by influencing the information presented in the recruitment process (Bretz & Judge, 1994; Casper, Wayne, & Manegold, 2013). Our findings contribute to this body of research by revealing that to be more aligned with women's self-perceptions, career opportunities should be advertised with more communal and less stereotypically masculine signals that make it clear that career

opportunities are gender inclusive. Specifically, stereotypically feminine wording in advertisements is one such signal of gender inclusivity organizations can send to increase women's anticipated belongingness (see also Gaucher et al., 2011).

Our research is pioneering in regard to the differential insights into mediating mechanisms. We were able to uncover that it is not expected application success or failure, but the anticipation of belongingness which mediates the effect of advertisement wording and recruiter gender on women's choices to engage in career development; low anticipated belongingness can translate into career-limiting behavior in the form of reduced intentions to apply. Thus, our results show that the social need for belonging (Baumeister & Leary, 1995) is a key mechanism via which women make career decisions. From the signals communicated with a male-typed advertisement, women are likely to infer that people taking part in the career development program have predominantly stereotypically masculine characteristics while many women may perceive themselves to have predominantly stereotypically feminine characteristics—and, thus, perceiving themselves to be incongruent with the position. Perceiving dissimilarity with others is likely to result in low anticipated belongingness (Good & Good, 1974; Montoya & Horton, 2012). Further, research on relational demography suggests that if people perceive themselves to be different from others in a certain group or setting, this perception will negatively impact their experiences, for example, lead to lower levels of psychological attachment to the group (Tsui, Egan, & O'Reilly, 1992). In line with this, tokenism (i.e., being the only or one of very few women in a setting dominated by men; Kanter, 1977) can negatively influence women's cognitions, feelings, and behaviors. Women in token positions often intend to leave, because they feel that they do not belong there (King, Hebl, George, & Matusik, 2010). As our findings for career development programs illustrate, women may already anticipate such negative effects even before entering the actual position.

#### 4.2 | Practical implications for HR management

Our findings facilitate evidence-based recommendations for how organizations can recruit more women and, thereby, increase gender equality (Ely et al., 2011; Gipson, Pfaff, Mendelsohn, Catenacci, & Burke, 2017; Heilman & Caleo, 2018; Shore, Cleveland, & Sanchez, 2018). While much has been written about the subject of achieving gender equality in leadership, not all recommendations are equally evidence-based, and some guidance can even harm progress (Caleo & Heilman, 2019; Chrobot-Mason, Hoobler, & Burno, 2018; Dobbin et al., 2015; Dobbin & Kalev, 2016). Our work offers recommendations for organizations to adapt their communication rather than working toward "fixing women" (Gloor, Morf, Paustian-Underdahl, & Backes-Gellner, 2020).

A key problem that we address with this research is the so-called leaky pipeline; that women drop out even before they reach critical career stages. Career development programs familiarize participants with leadership roles and teach them the skills to both advance their

career and be a good leader (Day & Dragoni, 2015; Knipfer, Shaughnessy, Hentschel, & Schmid, 2017). We strongly suggest that HR managers reflect the set-up and advertising of career development programs from a gender perspective. Specifically, our research shows that to motivate more women to apply for career development programs, organizations should take the opportunity to adapt their recruitment tools. Indeed, organizations may need to realize that they will lose qualified talent if they do not pay attention to their recruitment tools and post unwelcoming recruitment advertisements (Ryan, 2013).

Our results suggest that organizations need to send gender-inclusive signals when they advertise career development programs, because women seem to be especially hesitant to apply if they receive solely male-typed signals like stereotypically masculine wording and a male recruiter. Ashforth and Mael (1989, p. 25) argued that "individuals tend to choose activities congruent with salient aspects of their identities, and they support the institutions embodying those identities." We recommend that organizations seize the opportunity to include (additional) stereotypically feminine wording in both internal and external job advertisements and on websites and that they include female representatives in different stages of the recruitment process (e.g., in recruitment videos, at employment fairs, during graduate on-site visits and as part of graduate schemes). Indeed, some organizations already strategically show women in recruitment videos (Crush, 2015). Our results suggest that suitable (female) role models should advertise career development programs (like programs to develop future leaders). From a leader identity perspective, self-to-leader comparisons strengthen people's motivation to lead (Guillén, Mayo, & Korotov, 2015). Integrating these findings with our results, recruiters can likely be role models for young women strengthening their sense of being part of the program and subsequently fostering their careers. In addition, the wording may be rarely reflected upon when advertisements are written, and researchers and practitioners alike need to raise awareness for the relevance of stereotypically masculine and feminine wording. Because men are just as likely to apply, independent of gendered recruitment signals, using stereotypically feminine wording and female recruiters seems generally beneficial and ethical.

Our findings support low-cost changes with potentially a large impact on organizational diversity and gender equality (see also Linos, 2018). Indeed, with more women in the talent pool, organizations may also be more likely to select women, increasing gender equality in leadership. We recommend embedding these changes into a strong HRM system (Bowen & Ostroff, 2004) for diversity. That is, an HRM system that does not only send signals to welcome women during the recruitment process, but one that emphasizes gender inclusiveness across organizational contexts and situations, creating a strong climate for diversity and inclusion (Scott, Heathcote, & Gruman, 2011). In addition, with more women taking part in opportunities for career development (Knipfer et al., 2017), individuals, as well as businesses, are likely to benefit from greater diversity in leadership positions (Ely et al., 2011), and an increased sense of inclusion and belongingness (Bilimoria, Joy, & Liang, 2008; Shore et al., 2018).

### 4.3 | Limitations and future research

It is important to address some limitations to our findings. First, our data were collected in Germany and results may differ in countries with different languages and cultural influences, especially for countries with different degrees of gender role segregation. Traditionally, Germany has been characterized as a masculine culture: a society with a strong division between social gender roles, and permeated by traditionally male social values such as performance and status orientation (Hofstede, 1983). Gender egalitarianism is comparatively low (i.e., lower 25% of 61 GLOBE countries) and effective leaders in Germany are characterized predominantly by stereotypically male characteristics (e.g., high-performance orientation; Brodbeck, Frese, & Javidan, 2002). While some research suggests that findings could be similar in Anglo-American cultures like the United States and more gender-egalitarian cultures like the Netherlands (Gaucher et al., 2011; Taris & Bok, 1998), we recommend for future studies to replicate our findings in different cultural contexts. In addition, our findings are specific to career opportunities in the form of career development programs and future research should replicate them to see if they are generalizable to other career paths or occupations. Second, our studies only looked at either stereotypically masculine or feminine wording in advertisements. Future research should focus on the combined effects of stereotypically masculine and feminine wording in advertisements. Possibly a small number of feminine words in addition to masculine words are sufficient to buffer negative effects on women's evaluations and application intentions. Third, we solely focused on wording and recruiter gender as recruitment signals. Male and female applicants may also evaluate other aspects of advertisements differently, which may interact with wording or recruiter gender. For instance, future research could address the effects of pictures (Bosak & Sczesny, 2008), affirmative action statements (Heilman, Battle, Keller, & Lee, 1998), quotas (Shaughnessy, Braun, Hentschel, & Peus, 2016), corporate social responsibility and performance (Albinger & Freeman, 2000), or information regarding diversity management practices (Rabl & Triana, 2014) or the organizational culture on work-life balance, childcare opportunities, and the like (Casper & Buffardi, 2004). Future research could also focus on the influence of advertisement wording and other characteristics on leader selection, evaluation, and explanatory processes (Hentschel, Braun, Peus, & Frey, 2018; Horvath & Sczesny, 2016; van Esch, Hopkins, O'Neil, & Bilimoria, 2018). Fourth, we employed the traditional binary gender system for this research, but we are aware that there are other genders that were not included (Morgenroth & Ryan, 2018). Future research on advertisements could investigate how other genders are affected by gendered advertisement characteristics. Studies could also focus on how advertisements influence other applicant groups such as people of different ethnicities (Avery, 2003) and their intersections with gender. Finally, it is important to stress the point that, with the use of an experimental approach, we detected mean differences, which are not generalizable to every single woman or every single man.

## 5 | CONCLUSION

We investigated how organizations can address the ethical challenge of gender equality through recruitment efforts directed at women. There is limited research focusing on different recruitment characteristics combined, although such integrative perspectives are of particular value in recruitment research. Investigating stereotypically masculine and stereotypically feminine wording jointly with recruiter gender shows that especially younger women do not only take linguistic but also visual signals into account when making career-related evaluations. This research advances conceptual theory (Steinert & Lipski, 2018) and demonstrates the strategic HR actions organizations can take to increase and enable women's pursuit of career opportunities, by increasing their sense of belonging in a historically male domain.

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### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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### ENDNOTES

- <sup>1</sup> Although many organizations use business case arguments as a reason to increase gender diversity, the scientific evidence for a causal link between women in leadership and company performance is not fully conclusive (Adams, 2016). The strength (and direction) of this link varies between studies (e.g., Campbell & Mínguez-Vera, 2008; Miller & Triana, 2009; Shrader, Blackburn, & Iles, 1997) and seems to depend on contextual factors (Schwab, Werbel, Hofmann, & Henriques, 2015; Triana, Miller, & Trzebiatowski, 2014; Yang & Triana, 2017).
- <sup>2</sup> The purpose of many career development programs is to qualify students or employees for future leadership careers through extracurricular development activities like leadership skills workshops and networking events. Participation appears to enhance career success: 50% of alumni of a big German career development program organization versus 29% of other university graduates in Germany hold leadership positions a few years after graduation (Frey, Gietl, Fischer, & Köppl, 2010; Grotheer, Isleib, Netz, & Briedis, 2011).
- <sup>3</sup> Towards the end of Study 2, we added three questions to investigate whether career development programs are perceived as traditionally male or female. Specifically, participants were asked if they would generally perceive career development programs as more of a male or more of a female domain with three specific bipolar items ( $\alpha = .84$ ): "1 = In general, career development programs are more of a male domain" to "7 = In general, career development programs are more of a female domain"; "1 = In general, more men participate in career development programs" to "7 = In general, more women participate in career development programs"; "1 = In general, career development programs are more likely to be designed for men" to "7 = In general, career development programs

are more likely to be designed for women". Results of a one sample t-test with a test value of 4 (scale midpoint indicating no gender traditionality) showed that career development programs ( $M = 3.14$ ,  $SD = 1.01$ ) were perceived as traditionally male,  $t(544) = -19.93$ ,  $p < .001$ .

- <sup>4</sup> Note that all of these findings are differences between the groups of men and women in general and inferences about individual men and women are not valid.
- <sup>5</sup> A power analysis using  $g^*$ power (Faul, Erdfelder, Buchner, & Lang, 2009) estimated a total sample size of 128 women for a medium effect size ( $f = .25$ ) and 80% power.
- <sup>6</sup> We also pre-tested valence perceptions of stereotypically feminine and stereotypically masculine advertisements because career development programs advertised in stereotypically feminine compared to stereotypically masculine wording might be perceived as more positive: We collected data from 20 male and 20 female students ( $M_{Age} = 22.32$ ;  $SD_{Age} = 3.25$ ). Video scripts were transformed into written advertisements and students rated either a stereotypically feminine or stereotypically masculine version. Specifically, students were asked to indicate their evaluation of (1) the advertisement, (2) the program, and (3) the program organization on a scale from -3 "very negative" to 3 "very positive". Both female and male students evaluated the program organization that advertised in stereotypically masculine ( $M = 1.35$ ,  $SD = 1.04$ ) as compared to stereotypically feminine ( $M = 1.65$ ,  $SD = 1.09$ ) wording not significantly different with regard to valence,  $t(38) = -.891$ ,  $p = .379$ . However, results differed by student gender for evaluations of the advertisement and the program. Female students did not significantly differ in their perception of valence of the stereotypically masculine ( $M = 1.50$ ,  $SD = .97$ ) versus stereotypically feminine ( $M = 2.00$ ,  $SD = .94$ ) advertisement,  $t(18) = -1.17$ ,  $p = .258$ , nor of the program advertised in stereotypically masculine ( $M = 2.00$ ,  $SD = .67$ ) versus stereotypically feminine ( $M = 2.30$ ,  $SD = .82$ ) wording,  $t(18) = -.896$ ,  $p = .382$ . However, unexpectedly, male students evaluated the stereotypically feminine advertisement ( $M = 2.10$ ,  $SD = .74$ ) significantly more positive than the stereotypically masculine advertisement ( $M = .70$ ,  $SD = 1.34$ ),  $t(18) = -2.90$ ,  $p = .010$ ; and they evaluated the program advertised in stereotypically feminine ( $M = 2.40$ ,  $SD = .52$ ) versus stereotypically masculine ( $M = 1.50$ ,  $SD = 1.08$ ) wording more positively,  $t(18) = -2.38$ ,  $p = .029$ .
- <sup>7</sup> In the very end of the survey, we also measured gender identity using the German version (Troche & Rammsayer, 2011) of the Bem Sex Role Inventory (BSRI; Bem, 1974) and asked participants to describe themselves on a list of 30 gender-stereotyped characteristics. Sample items of the masculine scale are "dominant" and "willing to take risks" ( $\alpha_{Women} = .86$ ); sample items of the feminine scale are "affectionate" and "sensitive" ( $\alpha_{Women} = .81$ ). If masculine and feminine gender identity scales are added as additional covariates to the ANCOVAs, the interaction effects of wording and recruiter gender for belongingness,  $F(1, 152) = 2.46$ ,  $p = .119$ ,  $\eta_p^2 = .02$ , expected success,  $F(1, 152) = .94$ ,  $p = .335$ ,  $\eta_p^2 = .01$ , and application intentions,  $F(1, 151) = 2.69$ ,  $p = .103$ ,  $\eta_p^2 = .02$ , do not reach significance.
- <sup>8</sup> A power analysis using  $g^*$ power (Faul et al., 2009) estimated a total sample size of 259 women for an effect size of  $f = .175$  (calculated from the interaction effect in Study 1,  $\eta_p^2 = .03$ ) and 80% power.
- <sup>9</sup> One participant indicated "other" gender and on a question about whether they filled out the questionnaire honestly three participants did not indicate honesty and were not included in the analyses.
- <sup>10</sup> If masculine ( $\alpha_{Women} = .93$ ) and feminine ( $\alpha_{Women} = .88$ ) gender identity (BSRI, Bem 1974; Troche & Rammsayer, 2011) are included as additional covariates, the significance levels of the main and interaction effects do not change.
- <sup>11</sup> Note that this cutoff does not only denominate a lifespan difference but also a generational difference between Millennials (born after 1980) and older generations. Thus, results may be due to either lifespan development or generational differences (for a discussion see: Rudolph, Rauvola, & Zacher, 2018).

## REFERENCES

- Abele, A. E., & Bruckmüller, S. (2011). The bigger one of the "Big Two"? Preferential processing of communal information. *Journal of Experimental Social Psychology*, 47(5), 935–948.
- Adams, R. B. (2016). Women on boards: The superheroes of tomorrow? *The Leadership Quarterly*, 27(3), 371–386.
- Aguinis, H., & Bradley, K. J. (2014). Best practice recommendations for designing and implementing experimental vignette methodology studies. *Organizational Research Methods*, 17(4), 351–371.
- Albinger, H. S., & Freeman, S. J. (2000). Corporate social performance and attractiveness as an employer to different job seeking populations. *Journal of Business Ethics*, 28(3), 243–253.
- Allen, D. G., Van Scotter, J. R., & Otondo, R. F. (2004). Recruitment communication media: Impact on pre-hire outcomes. *Personnel Psychology*, 57(1), 143–171.
- Ashforth, B. E., & Mael, F. (1989). Social identity theory and the organization. *Academy of Management Review*, 14(1), 20–39.
- Ashforth, B. E., & Schinoff, B. S. (2016). Identity under construction: How individuals come to define themselves in organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, 3(1), 111–137.
- Avery, D. R. (2003). Reactions to diversity in recruitment advertising—Are differences black and white? *Journal of Applied Psychology*, 88(4), 672–679.
- Avery, D. R., & McKay, P. F. (2006). Target Practice: An organizational impression management approach to attracting minority and female job applicants. *Personnel Psychology*, 59(1), 157–187.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215.
- Barber, A. E., & Roehling, M. V. (1993). Job postings and the decision to interview: A verbal protocol analysis. *Journal of Applied Psychology*, 78(5), 845–856.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497–529.
- Bear, S., Rahman, N., & Post, C. (2010). The impact of board diversity and gender composition on corporate social responsibility and firm reputation. *Journal of Business Ethics*, 97(2), 207–221.
- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42(2), 155–162.
- Bem, S. L., & Bem, D. J. (1973). Does sex-biased job advertising 'aid and abet' sex discrimination? *Journal of Applied Social Psychology*, 3(1), 6–18.
- Bilimoria, D., Joy, S., & Liang, X. (2008). Breaking barriers and creating inclusiveness: Lessons of organizational transformation to advance women faculty in academic science and engineering. *Human Resource Management*, 47(3), 423–441.
- Bosak, J., & Sczesny, S. (2008). Am I the right candidate? Self-ascribed fit of women and men to a leadership position. *Sex Roles*, 58(9–10), 682–688.
- Bowen, D. E., & Ostroff, C. (2004). Understanding HRM–firm performance linkages: The role of the "strength" of the HRM system. *Academy of Management Review*, 29(2), 203–221.
- Breaugh, J. A. (2012). Employee recruitment: Current knowledge and suggestions for future research. In N. Schmitt (Ed.), *The Oxford Handbook of Personnel Assessment and Selection* (pp. 68–87). New York: Oxford University Press.
- Breaugh, J. A. (2013). Employee recruitment. *Annual Review of Psychology*, 64(1), 389–416.
- Breaugh, J. A., & Starke, M. (2000). Research on employee recruitment: So many studies, so many remaining questions. *Journal of Management*, 26(3), 405–434.
- Bretz, R. D., & Judge, T. A. (1994). The role of human resource systems in job applicant decision processes. *Journal of Management*, 20(3), 531–551.
- Brewer, M. B., & Gardner, W. (1996). Who is this "We"? Levels of collective identity and self representations. *Journal of Personality and Social Psychology*, 71(1), 83–93.
- Brislin, R. W. (1980). Translation and content analysis of oral and written materials. In H. C. Triandis & J. W. Berry (Eds.), *Handbook of cross-cultural psychology: Vol. 2. Methodology* (pp. 137–164). Boston, MA: Allyn and Bacon.
- Brodbeck, F. C., Frese, M., & Javidan, M. (2002). Leadership made in Germany: Low on compassion, high on performance. *Academy of Management Perspectives*, 16(1), 16–29.
- Brue, K. L., & Brue, S. A. (2016). Experiences and outcomes of a women's leadership development program: A phenomenological investigation. *Journal of Leadership Education*, 15(3), 75–97.
- Byrne, D. (1971). *The attraction paradigm*. New York: Academic Press.
- Cable, D. M., & Judge, T. A. (1996). Person–organization fit, job choice decisions, and organizational entry. *Organizational Behavior and Human Decision Processes*, 67(3), 294–311.
- Caleo, S., & Heilman, M. E. (2019). What could go wrong? Some unintended consequences of gender bias interventions. *Archives of Scientific Psychology*, 7(1), 71–80.
- Campbell, K., & Mínguez-Vera, A. (2008). Gender diversity in the boardroom and firm financial performance. *Journal of Business Ethics*, 83(3), 435–451.
- Casper, W. J., & Buffardi, L. C. (2004). Work-life benefits and job pursuit intentions: The role of anticipated organizational support. *Journal of Vocational Behavior*, 65(3), 391–410.
- Casper, W. J., Wayne, J. H., & Manegold, J. G. (2013). Who will we recruit? Targeting deep- and surface-level diversity with human resource policy advertising. *Human Resource Management*, 52(3), 311–332.
- Chapman, D. S., Uggerslev, K. L., Carroll, S. A., Piasentin, K. A., & Jones, D. A. (2005). Applicant attraction to organizations and job choice: A meta-analytic review of the correlates of recruiting outcomes. *Journal of Applied Psychology*, 90(5), 928–944.
- Chrobot-Mason, D., Hoobler, J. M., & Burno, J. (2018). Lean In versus the literature: An evidence-based examination. *Academy of Management Perspectives*, 33(1), 110–130.
- Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management*, 37(1), 39–67.
- Cook, A., & Glass, C. (2011). Leadership change and shareholder value: How markets react to the appointments of women. *Human Resource Management*, 50(4), 501–519.
- Crush, P. (2015). Recruitment advertising: Making diversity your message. *Personnel Today*. Retrieved from <https://www.personneltoday.com/hr/recruitment-advertising-making-diversity-message>.
- Davidson, M. J., & Burke, R. J. (2016). *Women in management worldwide: Progress and prospects*. Farnham, UK: Gower Publishing.
- Day, D. V., & Dragoni, L. (2015). Leadership development: An outcome-oriented review based on time and levels of analyses. *Annual Review of Organizational Psychology and Organizational Behavior*, 2(1), 133–156.
- Deaux, K., & LaFrance, M. (1998). Gender. In D. T. Gilbert, S. T. Fiske, G. Lindzey, D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (pp. 788–827). New York, NY: McGraw-Hill.
- Devendorf, S. A., & Highhouse, S. (2008). Applicant-employee similarity and attraction to an employer. *Journal of Occupational and Organizational Psychology*, 81(4), 607–617.
- Dobbin, F., & Kalev, A. (2016). *Why diversity programs fail*. Cambridge, MA: Harvard Business Review Retrieved from: <https://hbr.org/2016/07/why-diversity-programs-fail>
- Dobbin, F., Schrage, D., & Kalev, A. (2015). Rage against the iron cage: The varied effects of bureaucratic personnel reforms on diversity. *American Sociological Review*, 80(5), 1014–1044.
- Donnelly, K., & Twenge, J. M. (2017). Masculine and feminine traits on the Bem Sex-Role Inventory, 1993–2012: a cross-temporal meta-analysis. *Sex Roles*, 76(9), 556–565.
- Dychtwald, K., Erickson, T. J., & Morison, R. (2013). *Workforce crisis: How to beat the coming shortage of skills and talent*. Boston, MA: Harvard Business Press.

- Eagly, A. H. (2005). Achieving relational authenticity in leadership: Does gender matter? *The Leadership Quarterly*, 16(3), 459–474.
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109(3), 573–598.
- Eagly, A. H., & Mladinic, A. (1989). Gender stereotypes and attitudes toward women and men. *Personality and Social Psychology Bulletin*, 15(4), 543–558.
- Eagly, A. H., Nater, C., Miller, D. I., Kaufmann, M., & Sczesny, S. (2020). Gender stereotypes have changed: A cross-temporal meta-analysis of U.S. public opinion polls from 1946 to 2018. *American Psychologist*, 75(3), 301–315.
- Ellemers, N., & Rink, F. (2016). Diversity in work groups. *Current Opinion in Psychology*, 11, 49–53.
- Ellemers, N., Rink, F., Derks, B., & Ryan, M. K. (2012). Women in high places: When and why promoting women into top positions can harm them individually or as a group (and how to prevent this). *Research in Organizational Behavior*, 32, 163–187.
- Elprana, G., Stiehl, S., Gatzka, M., & Felfe, J. (2012). Gender differences in motivation to lead in Germany. In C. Quaiser-Pohl & M. Endepohls-Ulpe (Eds.), *Women's choices in Europe—Influence of gender on education, occupational career and family development* (pp. 135–150). Münster, New York: Waxmann.
- 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.
- Fagot, B. I., Hagan, R., Leinbach, M. D., & Kronsberg, S. (1985). Differential reactions to assertive and communicative acts of toddler boys and girls. *Child Development*, 56(6), 1499–1505.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G\*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149–1160.
- Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82(6), 878–902.
- Frey, D., Gietl, R., Fischer, P., & Köppl, J. (2010). Statistische Auswertung der Alumni-Befragung anlässlich des 10-jährigen Bestehens der Bayerischen EliteAkademie [Statistical analysis of the Alumni survey on the occasion of the 10 year anniversary of the Bayerische EliteAkademie].
- Gaucher, D., Friesen, J., & Kay, A. C. (2011). Evidence that gendered wording in job advertisements exists and sustains gender inequality. *Journal of Personality and Social Psychology*, 101(1), 109–128.
- Gibson, D. E. (2003). Developing the professional self-concept: Role model construals in early, middle, and late career stages. *Organization Science*, 14(5), 591–610.
- Gipson, A. N., Pfaff, D. L., Mendelsohn, D. B., Catenacci, L. T., & Burke, W. W. (2017). Women and leadership: Selection, development, leadership style, and performance. *The Journal of Applied Behavioral Science*, 53(1), 32–65.
- Gloor, J. L., Morf, M., Paustian-Underdahl, S., & Backes-Gellner, U. (2020). Fix the game, not the dame: Restoring equity in leadership evaluations. *Journal of Business Ethics*, 164, 497–511.
- Goltz, S. M., & Giannantonio, C. M. (1995). Recruiter friendliness and attraction to the job: The mediating role of inferences about the organization. *Journal of Vocational Behavior*, 46(1), 109–118.
- Good, L. R., & Good, K. C. (1974). Similarity of attitudes and attraction to a social organization. *Psychological Reports*, 34(3\_suppl), 1071–1073.
- Grotheer, M., Isleib, S., Netz, N., & Briedis, K. (2011). Hochqualifiziert und gefragt. Ergebnisse der zweiten HIS-HF Absolventenbefragung des Jahrgangs 2005 [Highly qualified and in demand. Results of the second HIS-HF alumni survey of the class of 2005]. Retrieved from [http://www.dzhw.eu/pdf/pub\\_fh/fh-201214.pdf](http://www.dzhw.eu/pdf/pub_fh/fh-201214.pdf).
- Guillén, L., Mayo, M., & Korotov, K. (2015). Is leadership a part of me? A leader identity approach to understanding the motivation to lead. *The Leadership Quarterly*, 26(5), 802–820.
- Haines, E. L., Deaux, K., & Lofaro, N. (2016). The times they are a-changing... or are they not? A comparison of gender stereotypes, 1983–2014. *Psychology of Women Quarterly*, 40(3), 353–363.
- Harris, M. M., & Fink, L. S. (1987). A field study of applicant reactions to employment opportunities: Does the recruiter make a difference? *Personnel Psychology*, 40(4), 765–784.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis*. New York: Guilford Press.
- Hayes, A. F. (2017). The PROCESS macro for SPSS and SAS. Retrieved from [www.processmacro.org/download.html](http://www.processmacro.org/download.html).
- Haynes, A. F., & Heilman, M. E. (2013). It had to be you (not me)!: Women's attributional rationalization of their contribution to successful joint work outcomes. *Personality and Social Psychology Bulletin*, 39(7), 956–969.
- Heilman, M. E. (1983). Sex bias in work settings: The Lack of Fit model. *Research in Organizational Behavior*, 5, 269–298.
- 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.
- Heilman, M. E. (2012). Gender stereotypes and workplace bias. *Research in Organizational Behavior*, 32, 113–135.
- Heilman, M. E., Battle, W. S., Keller, C. E., & Lee, R. A. (1998). Type of affirmative action policy: A determinant of reactions to sex-based preferential selection? *Journal of Applied Psychology*, 83, 190–205.
- Heilman, M. E., & Caleo, S. (2018). Combatting gender discrimination: A lack of fit framework. *Group Processes & Intergroup Relations*, 21(5), 725–744.
- Heilman, M. E., Manzi, F., & Braun, S. (2015). Presumed incompetent: Perceived lack of fit and gender bias in recruitment and selection. In A. M. Broadbridge & S. L. Fielden (Eds.), *Handbook of gendered careers in management: Getting in, getting on, getting out* (pp. 90–104). Cheltenham: Edward Elgar.
- Hentschel, T., Braun, S., Peus, C., & Frey, D. (2018). The communality-bonus effect for male transformational leaders—Leadership style, gender, and promotability. *European Journal of Work and Organizational Psychology*, 27(1), 112–125.
- Hentschel, T., Heilman, M. E., & Peus, C. (2019). The multiple dimensions of gender stereotypes – A current look at men's and women's characterizations of others and themselves. *Frontiers in Psychology*, 10(11). <https://doi.org/10.3389/fpsyg.2019.00011>.
- Hentschel, T., & Horvath, L. K. (2015). Passende Talente ansprechen—Rekrutierung und Gestaltung von Stellenanzeigen [Reaching fitting candidates—Recruitment and design of job advertisements]. In C. Peus, S. Braun, T. Hentschel, & D. Frey (Eds.), *Personalauswahl in der Wissenschaft—Evidenzbasierte Methoden und Impulse für die Praxis* [Personnel selection in academia—evidence-based methods and impulses for practitioners (pp. 65–82). Heidelberg: Springer.
- Hentschel, T., Horvath, L. K., Peus, C., & Sczesny, S. (2018). Kick-starting female careers—Attracting women to entrepreneurship programs. *Journal of Personnel Psychology*, 17(4), 193–203.
- Highhouse, S., Thornbury, E. E., & Little, I. S. (2007). Social-identity functions of attraction to organizations. *Organizational Behavior and Human Decision Processes*, 103(1), 134–146.
- Hite, L. M., & McDonald, K. S. (2003). Career aspirations of non-managerial women: Adjustment and adaptation. *Journal of Career Development*, 29(4), 221–235.
- Hofstede, G. (1983). The cultural relativity of organizational practices and theories. *Journal of International Business Studies*, 14(2), 75–89.
- Horvath, L. K. (2015). Gender-fair language in the context of recruiting and evaluating leaders. In I. M. Welppe, P. Brosi, L. Ritzenhöfer, & T. Schwarz Müller (Eds.), *Auswahl und Beurteilung von Frauen und Männern als Führungskräfte in der Wirtschaft—Herausforderungen, Chancen und Lösungen* (pp. 263–272). Freiburg, Germany: Haufe.
- Horvath, L. K., & Sczesny, S. (2016). Reducing women's lack of fit with leadership positions? Effects of the wording of job advertisements. *European Journal of Work and Organizational Psychology*, 25(2), 316–328.

- Hoyt, C. L., & Murphy, S. E. (2016). Managing to clear the air: Stereotype threat, women, and leadership. *The Leadership Quarterly*, 27(3), 387–399.
- Kanter, R. M. (1977). *Men and women of the corporation*. New York: Basic.
- King, E. B., Hebl, M. R., George, J. M., & Matusik, S. F. (2010). Understanding tokenism: Antecedents and consequences of a psychological climate of gender inequity. *Journal of Management*, 36(2), 482–510.
- Knipfer, K., Shaughnessy, B. A., Hentschel, T., & Schmid, E. (2017). Unlocking women's leadership potential: A curricular example for developing female leaders in academia. *Journal of Management Education*, 41(2), 272–302.
- Koenig, A. M., Mitchell, A. A., Eagly, A. H., & Ristikari, T. (2011). Are leader stereotypes masculine? A meta-analysis of three research paradigms. *Psychological Bulletin*, 137(4), 616–642.
- Kossek, E. E., & Buzzanell, P. M. (2018). Women's career equality and leadership in organizations: Creating an evidence-based positive change. *Human Resource Management*, 57(4), 813–822.
- Kraimer, M. L., Seibert, S. E., Wayne, S. J., Liden, R. C., & Bravo, J. (2011). Antecedents and outcomes of organizational support for development: The critical role of career opportunities. *Journal of Applied Psychology*, 96(3), 485–500.
- Kristof, A. L. (1996). Person-organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology*, 49(1), 1–49.
- Larsen, D. A., & Phillips, J. I. (2002). Effect of recruiter on attraction to the firm: Implications of the elaboration likelihood model. *Journal of Business and Psychology*, 16(3), 347–364.
- Lenney, E. (1977). Women's self-confidence in achievement settings. *Psychological Bulletin*, 84(1), 1–13.
- Leslie, L. M. (2019). Diversity initiative effectiveness: A typological theory of unintended consequences. *Academy of Management Review*, 44(3), 538–563.
- Liden, R. C., & Parsons, C. K. (1986). A field study of job applicant interview perceptions, alternative opportunities, and demographic characteristics. *Personnel Psychology*, 39(1), 109–122.
- Linehan, M. (2001). Networking for female managers' career development: Empirical evidence. *Journal of Management Development*, 20(10), 823–829.
- Linos, E. (2018). *Simple changes to job ads can help recruit more police officers of color*. Cambridge, MA: Harvard Business Review Retrieved from <https://hbr.org/2018/04/simple-changes-to-job-ads-can-help-recruit-more-police-officers-of-color>
- London, M. (1983). Toward a theory of career motivation. *Academy of Management Review*, 8(4), 620–630.
- Madsen, S. R., & Andrade, M. S. (2018). Unconscious gender bias: Implications for women's leadership development. *Journal of Leadership Studies*, 12(1), 62–67.
- Manzi, F. (2019). Are the processes underlying discrimination the same for women and men? A critical review of congruity models of gender discrimination. *Frontiers in Psychology*, 10(469). <https://doi.org/10.3389/fpsyg.2019.00469>.
- Martin, C. L., & Ruble, D. (2004). Children's search for gender cues: Cognitive perspectives on gender development. *Current Directions in Psychological Science*, 13(2), 67–70.
- Mayer, D., & Cava, A. (1993). Ethics and the gender equality dilemma for U.S. multinationals. *Journal of Business Ethics*, 12(9), 701–708.
- Miller, T., & Triana, M. d. C. (2009). Demographic diversity in the boardroom: Mediators of the board diversity–firm performance relationship. *Journal of Management Studies*, 46(5), 755–786.
- Montoya, R. M., & Horton, R. S. (2012). A meta-analytic investigation of the processes underlying the similarity-attraction effect. *Journal of Social and Personal Relationships*, 30(1), 64–94.
- Morgan, C., Isaac, J., & Sansone, C. (2001). The role of interest in understanding the career choices of female and male college students. *Sex Roles*, 44(5–6), 295–320.
- Morgenroth, T., & Ryan, M. K. (2018). Gender trouble in social psychology: How can Butler's work inform experimental social psychologists' conceptualization of gender? *Frontiers in Psychology*, 9(1320). <https://doi.org/10.3389/fpsyg.2018.01320>.
- Nauta, M. M., Epperson, D. L., & Kahn, J. H. (1998). A multiple-groups analysis of predictors of higher level career aspirations among women in mathematics, science, and engineering majors. *Journal of Counseling Psychology*, 45(4), 483–496.
- Ng, T. W. H., Eby, L. T., Sorensen, K. L., & Feldman, D. C. (2005). Predictors of objective and subjective career success. A meta-analysis. *Personnel Psychology*, 58(2), 367–408.
- Ng, T. W. H., & Feldman, D. C. (2008). The relationship of age to ten dimensions of job performance. *Journal of Applied Psychology*, 93(2), 392–423.
- Paustian-Underdahl, S. C., Walker, L. S., & Woehr, D. J. (2014). Gender and perceptions of leadership effectiveness: A meta-analysis of contextual moderators. *Journal of Applied Psychology*, 99(6), 1129–1145.
- Peters, K., Ryan, M., Haslam, S. A., & 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. *Journal of Personnel Psychology*, 11(3), 148–158.
- Phillips, S. D., & Imhoff, A. R. (1997). Women and career development: A decade of research. *Annual Review of Psychology*, 48, 31–59.
- Ployhart, R. E. (2006). Staffing in the 21st century: New challenges and strategic opportunities. *Journal of Management*, 32(6), 868–897.
- Powell, G. N., & Butterfield, D. A. (2003). Gender, gender identity, and aspirations to top management. *Women in Management Review*, 18(1/2), 88–96.
- Powell, G. N., & Butterfield, D. A. (2015). Correspondence between self- and good-manager descriptions: examining stability and change over four decades. *Journal of Management*, 41(6), 1745–1773.
- Rabl, T., & Triana, M. d. C. (2014). Organizational value for age diversity and potential applicants' organizational attraction: Individual attitudes matter. *Journal of Business Ethics*, 121(3), 403–417.
- Riggs, M. L., Warka, J., Babasa, B., Betancourt, R., & Hooker, S. (1994). Development and validation of self-efficacy and outcome expectancy scales for job-related applications. *Educational and Psychological Measurement*, 54(3), 793–802.
- Rosnow, R. L., & Rosenthal, R. (1991). If you're looking at the cell means, you're not looking at only the interaction (unless all main effects are zero). *Psychological Bulletin*, 110(03), 574–576.
- Ruble, D. N., & Martin, C. L. (1998). Gender development. In W. Damon & N. Eisenberg (Eds.), *Handbook of child psychology* (Vol. 3. Social, emotional, and personality development, 5th ed., pp. 933–1016). Hoboken, NJ: Wiley.
- Rudolph, C. W., Rauvola, R. S., & Zacher, H. (2018). Leadership and generations at work: A critical review. *The Leadership Quarterly*, 29(1), 44–57.
- Ryan, A. M., Sacco, J. M., McFarland, L. A., & Kriska, S. D. (2000). Applicant self-selection: Correlates of withdrawal from a multiple hurdle process. *Journal of Applied Psychology*, 85(2), 163–179.
- Ryan, L. (2013). *Your job ads are driving away talent*. Cambridge, MA: Harvard Business Review Retrieved from <https://hbr.org/2013/02/your-job-ads-are-driving-talen>
- Rynes, S. L. (1991). Recruitment, job choice, and post-hire consequences: A call for new research directions. In M. D. Dunnette (Ed.), *Handbook of Industrial and Organizational Psychology* (2nd ed., pp. 399–444). Palo Alto, CA: Consulting Psychologists Press.

- Rynes, S. L., Bretz, R. D., & Gerhart, B. (1991). The importance of recruitment in job choice: A different way of looking. *Personnel Psychology*, 44(3), 487–521.
- Saks, A. M., Leck, J. D., & Saunders, D. M. (1995). Effects of application blanks and employment equity on applicant reactions and job pursuit intentions. *Journal of Organizational Behavior*, 16(5), 415–430. <https://doi.org/10.1002/job.4030160504>
- Schein, V. E. (2001). A global look at psychological barriers to women's progress in management. *Journal of Social Issues*, 57(4), 675–688.
- Schneider, M. R., & Bauhoff, F. (2013). Stellenanzeigen und AGG: Von Geschlechtsneutralität noch weit entfernt [Job advertisements and the General Equal Treatment Act: Far away from gender neutrality]. *Personal Quarterly*, 3, 15–20.
- Schuh, S. C., Hernandez Bark, A. S., Van Quaquebeke, N., Hossiep, R., Frieg, P., & Dick, R. (2013). Gender differences in leadership role occupancy: The mediating role of power motivation. *Journal of Business Ethics*, 120(3), 1–17.
- Schwab, A., Werbel, J. D., Hofmann, H., & Henriques, P. L. (2015). Managerial gender diversity and firm performance: An integration of different theoretical perspectives. *Group & Organization Management*, 41(1), 5–31.
- Scott, K. A., Heathcote, J. M., & Gruman, J. A. (2011). The diverse organization: Finding gold at the end of the rainbow. *Human Resource Management*, 50(6), 735–755.
- Shaughnessy, B., Braun, S., Hentschel, T., & Peus, C. (2016). Diverse and just? The role of quota-based selection policies on organizational outcomes. *European Journal of Social Psychology*, 46(7), 880–890.
- Shore, L. M., Cleveland, J. N., & Sanchez, D. (2018). Inclusive workplaces: A review and model. *Human Resource Management Review*, 28(2), 176–189.
- Shrader, C. B., Blackburn, V. B., & Iles, P. (1997). Women in management and firm financial performance: an exploratory study. *Journal of Managerial Issues*, 9(3), 355–372.
- Spence, J. T., & Buckner, C. E. (2000). Instrumental and expressive traits, trait stereotypes, and sexist attitudes: What do they signify? *Psychology of Women Quarterly*, 24(1), 44–62.
- Steinert, S., & Lipski, J. (2018). Who is afraid of commitment? On the relation of scientific evidence and conceptual theory. *Erkenntnis*, 83(3), 477–500.
- Stout, J. G., & Dasgupta, N. (2011). When He doesn't mean You: Gender-exclusive language as ostracism. *Personality and Social Psychology Bulletin*, 37(6), 757–769.
- Taris, T. W., & Bok, I. A. (1998). On gender specificity of person characteristics in personnel advertisements: A study among future applicants. *Journal of Psychology: Interdisciplinary and Applied*, 132(6), 593–610.
- Taylor, M. S., & Bergmann, T. J. (1987). Organizational recruitment activities and applicants' reactions at different stages of the recruitment process. *Personnel Psychology*, 40(2), 261–285.
- Telhed, U., Bäckström, M., & Björklund, F. (2017). Will I fit in and do well? The importance of social belongingness and self-efficacy for explaining gender differences in interest in STEM and HEED majors. *Sex Roles*, 77(1), 86–96.
- Thaler-Carter, R. E. (2001). Diversify your recruitment advertising—More companies are adding a diversity element to their recruitment ads. *HR MAGAZINE*, 46(6), 92–101.
- Triana, M. d. C., Miller, T. L., & Trzebiatowski, T. M. (2014). The double-edged nature of board gender diversity: Diversity, firm performance, and the power of women directors as predictors of strategic change. *Organization Science*, 25(2), 609–632.
- Tsui, A. S., Egan, T. D., & O'Reilly, C. A. (1992). Being different: Relational demography and organizational attachment. *Administrative Science Quarterly*, 37(4), 549–579.
- Turban, D. B., Forret, M. L., & Hendrickson, C. L. (1998). Applicant attraction to firms: Influences of organization reputation, job and organizational attributes, and recruiter behaviors. *Journal of Vocational Behavior*, 52(1), 24–44.
- Twenge, J. M., Campbell, W. K., & Gentile, B. (2012). Generational increases in agentic self-evaluations among American college students, 1966–2009. *Self and Identity*, 11(4), 409–427.
- van Dijk, H., Kooij, D., Karanika-Murray, M., De Vos, A., & Meyer, B. (2020). Meritocracy a myth? A multilevel perspective of how social inequality accumulates through work. *Organizational Psychology Review*, 10(3–4), 240–269.
- van Esch, C., Hopkins, M. M., O'Neil, D. A., & Bilimoria, D. (2018). How perceived riskiness influences the selection of women and men as senior leaders. *Human Resource Management*, 57(4), 915–930.
- Vinnicombe, S., & Singh, V. (2002). Women-only management training: An essential part of women's leadership development. *Journal of Change Management*, 3(4), 294–306.
- Vroom, V. H. (1964). *Work and motivation*. Oxford, UK: Wiley.
- Walker, H. J., & Hinojosa, A. S. (2013). Recruitment: The role of job advertisements. In K. Y. T. Yu & D. M. Cable (Eds.), *The Oxford Handbook of Recruitment*. New York, NY: Oxford University Press.
- Walton, G. M., & Cohen, G. L. (2011). A brief social-belonging intervention improves academic and health outcomes of minority students. *Science*, 331(6023), 1447–1451.
- Wells, G. L., & Windschitl, P. D. (1999). Stimulus sampling and social psychological experimentation. *Personality and Social Psychology Bulletin*, 25(9), 1115–1125.
- Wood, W., & Eagly, A. H. (2002). A cross-cultural analysis of the behavior of women and men: Implications for the origins of sex differences. *Psychological Bulletin*, 128(5), 699–727.
- Yang, T., & Triana, M. d. C. (2017). Set up to fail: Explaining when women-led businesses are more likely to fail. *Journal of Management*, 45(3), 926–954.

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