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Covering in Cover Letters: Gender and Self-Presentation in Job Applications

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Covering in Cover Letters:
Gender and Self-Presentation in Job Applications

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COVERING IN COVER LETTERS:
GENDER AND SELF-PRESENTATION IN JOB APPLICATIONS

ABSTRACT

Despite decades of research and intervention efforts, gender-based occupational segregation remains a significant problem. An emerging body of research suggests that one way women overcome gender discrimination when applying for male-dominated jobs is by deliberately managing gender impressions. However, social role theory and research on prescriptive stereotypes suggests that these attempts to manage gender may backfire. In this research, we theorize that, while women actively respond to anticipated sexism using social-identity-based impression management (SIM) strategies (e.g., attempting to appear less feminine in cover letters), these actions can actually backfire because they clash with prescriptive gender stereotypes. Across three studies, we investigate the motivations, techniques, and outcomes of managing gender in job applications for different kinds of jobs. We find that women, but not men, manage gender when applying for gender-incongruent (i.e., male-dominated) jobs by using less feminine language, and that, paradoxically, they are less likely to be hired when they do so. The current research contributes to our understanding of the consequences of SIM strategies and shows that women's coping behavior in response to existing gender inequalities in the labor market is a novel and ironic mechanism through which occupational gender-segregation is perpetuated.

Despite decades of research and intervention efforts, occupational gender-segregation remains a significant problem for both men and women. For example, women represent almost half of the labor force but occupy only 25.6% of senior-level executive and managerial positions in the private sector (Catalyst, 2017) and 26% of positions in science-, technology-, engineering-, and math-based fields (STEM) (Landivar, 2013), while men tend to be underrepresented in the health care, elementary education, and domestic spheres (HEED) (Croft, Schmader, & Block, 2015). Given the prevalence of gender-segregation in the labor market, two questions emerge: how do job seekers deal with anticipated discrimination when applying for "other-sex-dominated" jobs (i.e., women applying for male-dominated jobs and vice versa), and how do

these strategies attenuate or reinforce occupational segregation[1] (Fernandez-Mateo & Fernandez, 2016; Goldsmith, Sedo, Darity, & Hamilton, 2004; Pager & Pedulla, 2015)?

Roberts' (2005) professional image construction model theorizes that individuals use impression-management tactics to emphasize or de-emphasize aspects of their social identities (e.g., race or gender) in order to positively influence how their colleagues perceive them. Thus, it is likely that job seekers perform gender (i.e., femininity or masculinity) in ways that will increase their chances of success in the labor market (Ridgeway & Correll, 2004; Roberts, 2005; West & Zimmerman, 1987). For example, a woman applying for a financial analyst position may attempt to increase her chances of being hired by portraying herself as assertive and competitive rather than cooperative and sympathetic. In addition, research and theory in this area suggest that social-identity impression-management (SIM) tactics can be effective in reducing discrimination (Roberts, 2005). For example, Asian and African American job seekers who "whiten" their résumés by changing their names are more likely to get a callback than those who use their ethnic names (Kang, DeCelles, Tilcsik, & Jun, 2016).

Although these findings suggest that gender-management strategies might be effective for overcoming anticipated discrimination, social-psychological theories and sociological perspectives related to gender stereotypes suggest that these strategies can actually backfire (Moss-Racusin & Rudman, 2010; Rudman & Glick, 1999, 2001; Rudman & Kilianski, 2000). According to these perspectives, people hold both descriptive (e.g., women *tend to be* relational) and prescriptive (e.g., women *should be* relational) gender expectations, with violators often

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[1] Here we make a distinction between occupational fields (e.g., law, healthcare) and specific occupations and jobs (e.g., law clerk, dentist). In this paper, we theorize and examine how job seekers respond to anticipated discrimination that are job/position specific, rather than responding to anticipated discrimination in an occupational field or sector.

being subject to social and economic penalty (Prentice & Carranza, 2002; Rudman, 1998; Rudman & Glick, 1999). As research has consistently shown, women who violate stereotypical expectations tend to experience this backlash, as they are often less likely to be hired or promoted (Heilman, Wallen, Fuchs, & Tamkins, 2004; Rudman & Glick, 2001).

In this paper, we build theory to explain how job seekers use SIM tactics in job applications to overcome anticipated gender discrimination, and how these tactics may potentially backfire due to the perceived violation of normative gender stereotypes. We test our theory across three studies, focussing on the behavior of both applicants and evaluators to provide a rich understanding of the phenomenon including motivations, techniques, and outcomes. Study 1 uses real cover letters and hiring outcomes to examine how applicants manage gender and how these strategies affect callback rates. Study 2 examines real admissions data for an elite, male-dominated graduate program to determine whether applicants will manage gender, and how this impacts their chances of getting an in-person interview. Finally, Studies 3A and 3B causally test our full theoretical model, including the psychological mechanisms for applicants and evaluators. Study 3A examines whether participants employ gender-management tactics to mitigate anticipated gender discrimination when applying for fictional jobs with different gender representations, while Study 3B explores the backlash effect's underlying mechanisms by presenting the cover letters from Study 3A to a sample of decision-makers.

The current research makes three key contributions to management theory. First, it expands the professional image construction model (Roberts, 2005). Whereas previous work suggests that SIM strategies can reduce bias from others (Kang et al., 2016; Little, Major, Hinojosa, & Nelson, 2015; Roberts, 2005), we show that the use of gender-management strategies may actually lead to *more* bias against women who apply for male-dominated jobs due

to gender's central role in interpersonal perception and strong prescriptive attitudes vis-à-vis

gender roles. Second, this work offers a novel explanation for gender-based occupational

segregation by showing how the strategies that women employ in response to anticipated

discrimination play a key role in sustaining and perpetuating these gender inequalities. Finally,

our work also contributes to social role theory. Our research sheds light on how women manage

the "double bind" in that their gender precludes them from being seen as ideal workers for male-

dominated contexts (e.g., leadership), yet those who change their behavior to fit within this

context are likely to experience backlash for violating gendered expectations.

THEORY AND HYPOTHESIS DEVELOPLEMT

Applicant Responses to Anticipated Discrimination

Roberts' (2005) professional image construction model posits that social identities are

critical in shaping one's professional identity, and that people commonly employ social-identity-

based impression-management (SIM) tactics to align how their social identities are perceived

with how they wish them to be perceived. According to Roberts (2005), individuals typically

employ SIM strategies that emphasize similarity and assimilation to the valued group (passing

and assimilation) and/or downplay cues signalling membership to a devalued group (covering

and decategorization). For instance, working-class individuals may signal their similarity to

higher socio-economic groups by engaging in conspicuous consumption (Tedeschi & Melburg,

1984), while gay men may engage in covering or decategorization by providing vague answers

to questions about their personal lives or avoiding such questions all together (Woods & Lucas,

1993; Yoshino, 2007). Older adults also engage in SIM strategies, for instance by using make up

to cover up age spots or selecting clothing to convey youth and competence to avoid ageism in

employment (Clarke & Griffin, 2008; Clarke, Griffin, & Maliha, 2009). Recent work has

examined how women manage pregnancy at work, finding that women engage in image

maintenance strategies (e.g., shortening their leaves and maintaining their pace at work) to avoid

negative career consequences (Little et al., 2015). Related, in a job application context, Kang and

colleagues have found that Asian and African American job applicants often "whiten" their

résumés by adopting anglicized first names and removing racial cues from their resumes in order

to increase their chances of securing an interview (Kang et al., 2016).

However, there is a need for research that examines precisely how and why applicants

utilize gender-management strategies, and the consequences of doing so. Given the prevalence of

gender-based occupational segregation, it is likely that jobseekers employ gender-based SIM

strategies to counter these market inequalities, particularly when applying for jobs that are

"other-gender-dominated" (i.e., women applying for male-dominated jobs and vice versa).

The SIM literature may help us understand why and how job seekers manage gender

when applying for gender-incongruent jobs. Negative image discrepancies result from social-

identity threats, which take two forms: devaluation threats and legitimacy threats (Roberts,

2005). Devaluation threats arise when aspects of one's social identity group are denigrated

within a particular context (Ely & Roberts, 2008; Roberts, 2005)—for instance, when one's

gender identity (e.g., as a woman) is deemed inherently unsuitable or undesirable for a particular

line of work (e.g., a male-dominated job). Conversely, legitimacy threats arise when one's

membership in their *positively-regarded* social identity group is called into question (e.g., when a

man's masculinity is questioned; Breakwell, 1986; Ellemers, Spears, & Doosje, 2002). Feeling as

though one's social identity group and associated attributes are devalued in a given context

constitute devaluation threats (e.g., a woman feeling that she might be passed over for a

promotion because only men tend to get promoted at her company), whereas feeling as though

one's membership in a valued social group is being called into question or that one is not living

up to the ideals set out for that group constitute legitimacy threats (e.g., a man being embarrassed

to take paternity leave because others might perceive him as less masculine and less

professional).

Although incongruence may occur when women and men apply for other-gender-

dominated jobs, we argue that *negative* image discrepancies are particularly salient when *women*

apply for *male-dominated jobs*. Gender is a status characteristic, and, in most societies, women

have lower status and occupy fewer high-power positions than men (Ridgeway & Correll, 2004).

Due to this disparity in status, women applying for male-dominated jobs may experience a

negative discrepancy between their gender and the occupation gender-type, while men applying

for female-dominated jobs (e.g., elementary school teacher) may experience a positive

discrepancy. Indeed, research on token men and the glass elevator has found that, contrary to the

barriers women face in male-dominated fields, men in female-dominated fields actually accrue

advantages that benefit their career progression (Cohen & Swim, 1995; Floge & Merrill, 1986;

Williams, 1992). As such, women's low societal status will intensify concerns about gender

incongruity when applying for male-dominated occupations and invoke social identity threat and

subsequent SIM behavior, whereas men applying to female-dominated occupations will not

experience the negative image discrepancy and its associated threat and response.

In the current context of interest, women applying for gender-incongruent (male-

dominated) jobs, we argue that women are most likely to experience devaluation threats because

their gender and associated stereotypical attributes (i.e., being a woman; being communal) are

devalued in the gender-incongruent context (i.e., a male-dominated profession). Female

applicants are less likely to experience legitimacy threats when applying to a male-dominated

profession because they do not belong to the contextually valued gender group (i.e., male) and

thus their legitimacy as members of that group would not be called into question. In other words,

a woman applying to a male-dominated job might be worried about not getting hired because she

is a woman or because she will be perceived as too communal (devaluation threat), but not

because people will question her identity as man per se (legitimacy threat).[2] Thus, we argue that

devaluation threats are more relevant in the context of gender-incongruent jobs, whereas

legitimacy threats may be more relevant in the context of gender-congruent jobs. Within the

context of selection decisions, devaluation threats commonly manifest as anticipated gender

discrimination, which we define as the perceived likelihood of being judged negatively based on

one's gender (Kang & Chasteen, 2009; Ragins, Singh, & Cornwell, 2007). Thus, we expect that

female (but not male) job seekers applying to a gender-incongruent job will anticipate gender

discrimination.

To the extent that female job seekers experience devaluation threats in the form of

anticipating gender discrimination, they are likely to engage in SIM strategies to manage their

gender. In theorizing how job applicants employ gender-management tactics in response to

devaluation threats, we follow prior gender stereotype literature that conceptualizes gender

impressions as consisting of orthogonal masculine and feminine qualities. Past researchers have

attempted to demonstrate the orthogonality of these two dimensions by measuring

communality/warmth (i.e., stereotypically feminine characteristics) separately from

agency/competence (i.e., stereotypically masculine characteristics), with such investigations

typically revealing weak but positive correlations between the two constructs (Abele, 2003;

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[2] Here we discuss gender as though it were a binary categorization, but recognize that gender identity is non-binary and fluid. We discuss our theory and findings in light of the non-binary nature of gender in the discussion section of this paper.

Abele, Cuddy, Judd, & Yzerbyt, 2008; Eagly & Steffen, 1984; Judd, James-Hawkins, Yzerbyt, &

Kashima, 2005).

Given the dichotomous nature of gender stereotypes (i.e., masculine/feminine), female

job applicants can engage in two possible gender-management strategies when applying for

gender-incongruent jobs: downplaying incongruence by covering cues to their devalued gender

(covering) or demonstrating congruence with the valued gender group (passing). In line with

other scholars, we argue that individuals who are confronted with a devaluation threat tend to use

decategorization or covering tactics to distance themselves from a denigrated identity and to

avoid negative judgement (Roberts, 2005; Little et al., 2015). Devaluation threats evoke

avoidance-related strategies to minimize the salience of the denigrated identity, which is the

source of the negative image discrepancy. For example, a woman who anticipates gender

discrimination when applying to a male-dominated job is likely to downplay cues to her identity

as a woman because that is the source of the negative image discrepancy. Although anticipating

gender discrimination may also lead applicants to emphasize congruence with the valued gender

to some extent, the most immediate method for targeting the source of the image discrepancy is

to downplay cues associated with the denigrated identity. Indeed, past research on identity

management in labor market contexts has found that minorities are more likely to use strategies

that downplay their identity rather than adopting identity features of the majority group (Kang et

al., 2016; Phillips, Rothbard, & Dumas, 2009). This approach is likely more common due to the

perception that it is easier and more honest than trying to signal belonging to an entirely different

social group, especially because the truth about one's group membership would become evident

at the interview stage (Kang et al., 2016). Moreover, given research showing that women

anticipate backlash for proactively adopting gender-incongruent (masculine) behaviors, desire to

avoid this backlash may lead them to engage more in covering than in passing (Moss-Racusin &

Rudman, 2010). Thus, we theorize that to the extent that women anticipate more gender

discrimination when applying to male-dominated jobs, they will in turn cover by downplaying

feminine cues in their job applications. We expect that anticipated gender discrimination will

lead to covering in the form of reducing feminine cues for women, but not men (who would

cover gender when applying for gender-incongruent jobs by downplaying *masculinity* instead, if

any covering were to take place at all).

Therefore, we hypothesize the following:

H1: Gender moderates the effect of job context on covering; when applying for gender-incongruent jobs, women (but not men) will engage in covering (i.e., they will reduce feminine cues in their applications).

H2: The interaction between job context and gender has an indirect effect on covering through anticipated gender discrimination. When applying for gender-incongruent jobs, women (but not men) will anticipate more gender discrimination; consequently, women (but not men) will cover (by reducing feminine cues in their applications).

Outcomes of Identity Management: Evaluator Reactions

Research and theory on outcomes of impression management suggests that impression

management, more generally or social-identity specific, results in positive outcomes, but that this

depends on the type of strategy used, and its authenticity (Bolino, Kacmar, Turnley, & Gilstrap,

2008; Roberts, 2005). For instance, individuals who are better at managing impressions (high

self-monitors) tend to reap more benefits because they are able to manage impressions more

credibly and authentically (Turnley & Bolino, 2001).The same moderators extend to social-

identity management. For example, Asian and African American job seekers who "whiten" their

résumés by anglicizing their names and omitting racial affiliations are more likely to get a

callback than those who use their ethnic names because this approach credibly signals

assimilation (Kang et al., 2016). Engaging in image maintenance, but not decategorization, leads

pregnant women to experience less burnout and less perceived discrimination, and they are also

more likely to return to work (Little et al., 2015).

In contrast to these prior findings, there is reason to believe that women's attempts to

cover by downplaying femininity may backfire for reasons other than the type of strategy or

credibility and authenticity of the strategies. Strong prescriptive behavioral norms make gender a

unique social identity (Eagly & Karau, 2002; Prentice & Carranza, 2002), and these norms have

been theorized and shown to extend across contexts and age-groups (Koenig, 2018; Prentice &

Carranza, 2002; Ridgeway & Correll, 2004). Although emerging evidence suggests that

prescriptive stereotypes also exist for age and racial groups, they pale in comparison to the

strength of gender prescriptions (Berdahl & Min, 2012; North & Fiske, 2013). In the next

section, we draw on social role theory to detail how gender-management strategies may backfire

due to the presence of these strong prescriptive norms.

A core tenet of social role theory is that gender stereotypes are both descriptive and

prescriptive; that is, they describe how men and women *tend* to behave, and they also prescribe

how men and women *should* behave. Prescriptive stereotypes can be broken down into positive

prescriptive stereotypes and negative proscriptive stereotypes (Koenig, 2018; Rudman, Moss-

Racusin, Phelan, & Nauts, 2012). Positive prescriptive stereotypes map the desirable behaviors

that each gender is expected to display, while negative proscriptive stereotypes map the

undesirable behaviors that each is expected to avoid. For instance, women are expected to be

more communal and passive, while men are expected to be agentic and to avoid showing

weakness (Rudman et al., 2012).

When people behave in counter-stereotypical ways, they risk "backlash", often in the

form of social and economic penalties (Prentice & Carranza, 2002; Rudman, 1998; Rudman &

Glick, 1999). An abundance of research has shown that women who act counter-stereotypically (e.g., by behaving agentically or not communally) are perceived as being less warm and likable, which in turn leads to consequences such as lower salaries and lower likelihood of being hired or promoted (Heilman et al., 2004; Rudman & Glick, 1999, 2001). Whereas past research shows that perceived competence may attenuate some of these negative backlash effects because self-presenting as agentic can help a woman enhance or maintain her perceived competence (for reviews see Eagly & Karau, 2002, Rudman & Phelan, 2008), this is unlikely to be true when women are not self-presenting as agentic but rather only downplaying femininity. Therefore, women who attempt to manage gender when applying for male-dominated jobs may actually harm their chances of success instead of improving them, as attempts to downplay femininity violate positive prescriptive stereotypes and incur lower liking (Koenig, 2018; Rudman et al., 2012). In turn, being seen as less likeable will lead women to experience less favorable hiring outcomes.

One might argue that women who downplay femininity or act counter-stereotypically in a male-dominated context may circumvent these backlash effects because incumbents are expected to behave in male-typical ways. However, we argue that prescriptive gender norms remain robust even for women in male-dominated contexts (Prentice, 2007; Prentice & Carranza, 2002). This influence is rooted in the fact that it is very difficult to change or suppress prescriptive stereotypes (Diekman & Eagly, 2000; Rudman & Phelan, 2008; Spence & Buckner, 2000). Thus, we expect that evaluators' prescriptive gender expectations will remain constant, and that women who do not self-present as feminine, even in male-dominated domains, will be penalized for not conforming to these norms.

While we expect men to cover less than women in this context, it is possible that some

covering may be observed among men. However, even when we do observe covering among

men, we predict that it will not lead to lower liking and less favorable hiring outcomes to the

extent that it does for women. This is because men occupy a higher status in society (Ridgeway

& Correll, 2004), and have traditionally been given more leeway about how they are expected to

behave compared to women. Indeed, although some research documents a penalty when men

behave counter-stereotypically (Moss-Racusin, Phelan, & Rudman, 2010), a different body of

research shows the opposite: that men are seen in a more *positive* light and experience favorable

outcomes for behaving counter-stereotypically (Allen, 2006; Allen & Rush, 2001; Eagly,

Makhijani, & Klonsky, 1992; Kidder & Parks, 2001). Thus, whereas women's counter-

stereotypical behavior is consistently penalized, men's counter-stereotypical behavior does not

always incite backlash.

To summarize, we hypothesize:

H3: Applicant gender moderates the effect of covering on job outcomes; female (but not male) applicants who cover (by downplaying femininity) will experience less favorable hiring outcomes for a job (of any type).

H4: The interaction between covering and applicant gender has an indirect effect on job outcomes via likeability. Female (but not male) applicants who cover (by downplaying femininity) will be viewed as less likeable; in turn, all applicants who are viewed as less likeable will experience less favorable hiring outcomes for a job (of any type).

Asymmetry between Applicant Behaviors and Evaluator Expectations

Overall, our theorizing suggests an asymmetry between applicant behaviors and evaluator

reactions to these behaviors: the SIM strategies that women use when applying to male-

dominated jobs in order to improve their hiring outcomes will ironically have a *negative* effect

on those same hiring outcomes. This asymmetry arises because while female applicants prioritize

signalling a good fit with characteristics valued by the job (e.g., masculinity) by downplaying

incongruent gender stereotypes (e.g., femininity) (Hall, Schmader, Aday, & Croft, 2019; Hall, Schmader, & Croft, 2015), decision-makers remain prone to prescriptive biases, especially those related to gender (Blair & Banaji, 1996; Brewer & Lui, 1989; Stangor, Lynch, Duan, & Glas, 1992)

Taken together, we predict a novel mechanism by which occupational segregation is reified: women who apply for male-dominated jobs anticipate gender discrimination and engage in covering by downplaying feminine cues in their applications. However, this strategy backfires because women who self-present as less feminine are perceived as less likable, which reduces the chances of positive job outcomes. To summarize, we predict the following mediated chain hypothesis:

H5: The interaction between job context and gender has an indirect effect on hiring outcomes through covering. When applying for gender-incongruent jobs, women (but not men) cover, which leads to less favorable hiring outcomes.

Figure 1 shows the full hypothesized model for women and men, which we test through three studies. We hypothesize that women will reduce their use of feminine language when they apply to male-dominated jobs (H1) because they anticipate discrimination (H2). However, women will be less likely to be hired when they use less feminine language (H3) because they will be seen as less likeable (H4). Overall, this means that women who reduce feminine language when applying to male-dominated jobs will be less likely to be hired (H5). We hypothesize that men will not anticipate discrimination when applying to female-dominated jobs and will therefore not attempt to manage gender impressions by reducing their use of masculine language. As a result, men will not experience any negative downstream consequences in terms of likeability or hireability. In Study 1, we conduct a basic correlational test of our main effect hypotheses by examining how the use of gendered language varies in real applications across job

contexts, and how this affects hiring outcomes. Study 2 takes a different approach by examining gender-management strategies and outcomes within the context of a selection process for a competitive, male-dominated graduate program. Finally, Studies 3A and 3B form a yoked experimental study that explores the full model, including the job applicant-side and employer-side mechanisms.

INSERT FIGURE 1 AROUND HERE

STUDY 1: GENDERED LANGUAGE IN EXISTING JOB APPLICATIONS

Study 1 was designed to provide a correlational test of our full model's main effects (H1, H3, and H5). To this end, we investigated how real job seekers used gender-management strategies, and how this affected their hiring outcomes. Prior to Study 1, we conducted a qualitative and inductive pilot test to examine the specific gender-management strategies that job seekers use in their job applications, and their motivations for doing so (Hsieh & Shannon, 2005). The results of our pilot study can be found in the online supplement[3].

The results of our pilot study suggested that both male and female job seekers used various gender-management strategies in response to anticipated discrimination (e.g., by altering hobbies and self-descriptive language), but that women were more likely to do so when applying for male-dominated jobs compared to female-dominated jobs. Women mainly downplayed femininity in their cover letters (rather than signaling masculinity), predominantly by minimizing their use of feminine language when self-describing. Many participants also reported omitting certain extra-curriculars and hobbies from their résumés; however, since this type of information

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[3] 5 Online supplement can be accessed at:
https://osf.io/xzgt6/?view_only=666f7ce931514c3c8af149cb8a0248da

would be irrelevant or inappropriate for the types of positions examined in this research, the

remaining studies will only focus on the use of gendered language in cover letters.

Method

   Participants and procedure. We recruited 306 participants using Amazon's Mechanical

Turk (MTurk), as MTurk users were likely to have experience applying for a variety of jobs.

Participants were excluded if they provided incomplete data (e.g., did not submit their cover

letter or résumé), did not finish the entire study, or did not report their gender. The final sample

consisted of 257 participants. In terms of demographics, 54% of the participants were women (n

= 139), and the average age of the sample was 34 years old (SD = 9). No participants identified

as gender non-binary.

   Participants were asked to copy and paste a résumé and cover letter they had used in the

past year into a survey entry box, and to remove any identifying information such as their name,

contact information, and address. To assist them in this task, the participants were shown

examples of de-identified résumés and cover letters. Next, they were asked to identify the job

title of the position these materials had been used to apply for, and to indicate the position's

expected yearly salary and educational requirements. Finally, the participants were asked to

indicate whether they obtained the job (successful), or if they did not hear back or were rejected

(unsuccessful). Demographic data was collected at the end of the survey.

   The data for this study and following studies were collected specifically and exclusively

for this paper, and have no overlap with other manuscripts.

   Analytical approach. We used Linguistic Inquiry Word Count (LIWC; Pennebaker,

Booth, & Francis, 2007) to measure the gendered language in each cover letter. Although

LIWC's original dictionaries do not feature a measure of gendered language, users can upload a

custom dictionary and instruct the program to count the dictionary-specified words within a

document. The program then generates output in percentages representing the proportion of the

text containing dictionary-specified words. For this study, we uploaded a dictionary comprised of

published lists of agentic and communal words (e.g., individualistic, competitive, committed,

supportive) (Bartz & Lydon, 2004; Rudman & Kilianski, 2000), and masculine and feminine trait

words (e.g., ambitious, assertive, compassionate, understanding) (Bem, 1974; Hoffman & Hurst,

1990; Schullo & Alperson, 1984) used in past literature (Gaucher, Friesen, & Kay, 2011).

Job positions were coded based on female representation (expressed as a percentage),

which was determined via data from the Bureau of Labor Statistics (U. S. Bureau of Labor

Statistics, 2017). For ease of interpretation and for consistency with our theory, we subtracted the

values from 100 to obtain *male representation* in each position. The resultant percentages served

as a continuous measure of job type (i.e., female-dominated, gender neutral, male-dominated),

with higher values indicating higher male representation. Finally, the job attainment outcomes

were coded as $0 =$ unsuccessful and $1 =$ successful; these would serve as outcome variables for

our binary logistic regressions.

Controls. We controlled for participant demographics and qualifications, including age

and education level. We also controlled for self-reported gender identity, as measured with a

four-item scale (Schmader, 2002), in order to rule out the possibility that women who identify

less strongly with their gender self-select into male-dominated jobs and use less feminine

language in their cover letters. To control for variance in salary and job prestige, we further

controlled for job characteristics, such as expected salary and educational requirements. This is

important because it is possible that men and women use gendered language differently

depending on whether a job is high/low salary or prestige, and not because of gender

representation in those jobs. Furthermore, it is important to control for these factors when

predicting job attainment because men and women may differ in the types of job (status and salary) they are more likely to apply for and obtain. Finally, word count (WC) and words per sentence (WPS) were included as controls in all analyses. The results reported below control for all these variables, but all results remained significant without the controls (results without controls are available in the online supplement). All predictor variables were centered prior to analyses to avoid multicollinearity.

INSERT TABLE 1 AROUND HERE

Results

  Managing gender in cover letters. Table 1 displays the means, standard deviations, and zero-order correlations of our variables, and Table 2 displays the regression results. Men were coded as 0 and women were coded as 1. Hierarchical moderated regression analyses were conducted to examine whether the interaction between gender and job type (percentage of women represented in the position) predicted gendered language usage in cover letters. The interaction between gender and job type was not significant for masculine language (b = .007, *SE* =.004, p = .147)[4], but it was significant for feminine language (b = -.015, *SE* =.006, p = .008; see Figure 2 Panel A). Further analysis of this interaction revealed that the simple slope was negative and significant for women (b = -.009, *SE* =.004, p = .027), but not significant for men (b = .006, *SE* =.004, p = .129). This suggests that women tend to use less feminine language in their cover letters when applying for male-dominated positions than when applying for female-dominated positions. This finding supports Hypothesis 1.

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[4] Detailed analyses for masculine language for Study 1 can be found in the online supplement.

*** Outcomes of managing gender.*** We examined the outcomes of these strategies by

estimating a binary logit model with the same control variables, and with job attainment (0 =

unsuccessful, 1 = successful) as the outcome variable.

If women who use less feminine language in their cover letters are penalized regardless

of job context, we would only expect the interaction between gender and feminine language to be

significant for job attainment. However, if women who use less feminine language when

applying for male-dominated jobs are successful, and the backlash effect depends on job context,

we would expect the interaction between gender, feminine language, and job type to be

significant for job attainment. The results showed that this three-way interaction was not

significant for job attainment (b = -.01, SE =.01, p = .31, Exp(B) = .99). Rather, we found that

the interaction between gender and feminine language was significant for job attainment (b = .69,

SE =.27, p = .012, Exp(B) = 2.0, see Panel B of Figure 2). Simple slopes revealed that there was

a significant positive relationship between feminine language and job attainment for women (b

= .38, SE =.17, p = .030, Exp(B) = 1.45), but a negative and non-significant relationship for men

(b = -.32, SE =.21, p = .13, Exp(B) = .73). Thus, minimizing feminine language results in

backlash for women (but not men), regardless of the job context. These findings support

Hypothesis 3.

INSERT TABLE 2 AND FIGURE 2 AROUND HERE

*** Full mediated chain.*** Next, we examined whether the interaction between job context

and gender indirectly affects job attainment via covering (H5). We used the same control

variables, but all results held without controls (results without controls can be found in the online

supplement). We ran a bootstrapped moderated mediation analysis with 5000 bootstraps (Model

58) in PROCESS v3.1 (Hayes, 2018) to examine our model. Model 58 includes the moderator (gender) for both the relationship between our independent variable (job context) and mediator (covering), and the relationship between our mediator and outcome (job success).

There was a significant interaction between gender and job context on covering ($b =$ -.015, $SE =$.006, $p = .009$). There was also an interaction between gender and covering on job attainment ($b = .69$, $SE =$.27, $p = .01$). Importantly, the indirect effect of job context on job attainment via covering was significant and negative for women (indirect effect = - .0035, Bootstrapped $SE =$.0027, Bootstrapped 95% CI = [-.01, -.0001]), but non-significant for men (indirect effect = -.0018, Bootstrapped $SE =$.0018, 95% CI [-.0059, .0013]).[5] These results suggest that women cover by using less feminine language when applying for male-dominated jobs than for female-dominated jobs, which leads to less favorable hiring outcomes. This result supports Hypothesis 5.

Discussion

In Study 1, we found that women use less feminine language when applying for male-dominated jobs than when applying for female-dominated jobs. Conversely, men's use of masculine and feminine language did not differ across job contexts. These results are consistent with our hypothesis that women are likely to decrease their use of feminine language when applying for gender-incongruent jobs, but that men are less likely to cover (H1). Further, we find that female applicants who used less feminine language were less likely to be hired across all job

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[5] The overall index of moderated mediation was not significant (index of moderated mediation = -.0017, SE = .0032, 95% CI [-.0092, .0034]). The index of moderated mediation is calculated as the difference between indirect effects for different values of the moderator. In our case, the indirect effect for women is negative and significant because path a is negative and path b is positive, whereas the indirect effect for men is also negative but non-significant because path a is positive and path b is negative. Because the indirect effects are the same sign (negative), the difference is not significantly different, but the indirect effect for women itself supports our hypothesis.

contexts (H3). Overall, the results support our hypothesis that covering mediates the relationship between gender and feminine language usage on job attainment for women, as female job seekers are less likely to attain male-dominated jobs compared to female-dominated jobs, partly due to covering (H5). Interestingly, we do see some trends for men's use of feminine language across job contexts—men seemed to use less feminine language for female-dominated jobs than for male-dominated jobs. Although this trend does not meet standard thresholds for significance, it remains an interesting pattern which we will discuss further in our general discussion.

Although we were able to examine gendered language across job contexts for female and male applicants, one limitation of Study 1 is that its cross-sectional and correlational design makes it difficult to rule out alternative explanations such as selection and sorting. For instance, women who are less feminine might be drawn to male-dominated jobs, and may naturally use less feminine language in their cover letters.

Another limitation is the lack of control over the types of jobs for which the participants had previously applied, as well as the self-reported nature of our outcome variable. Although we tried to control for "job quality," there are likely other variables that correlate with the use of gendered language in job applications. Further, different jobs may have completely different selection processes, and the backlash effects may be driven by variability in selection processes for male-dominated and female-dominated jobs. This is further complicated by the fact that our outcome variable, job attainment, was self-reported. Although participants had little incentive to lie about their hiring outcomes, it is possible that their self-reported outcomes did not align with their actual job attainment outcomes. We address these limitations in Study 2.

STUDY 2: GENDERED LANGUAGE AND ADMISSION OUTCOMES

In Study 2, we examined how job applicants manage gender within a context that has a known outcome: admission into an elite Master of Business Administration (MBA) program.

Although most business schools have made efforts to balance the gender ratio, the number of

women in elite MBA programs remains at around 30% in the United States and under 40% in

Canada (Ibeh, Carter, Poff, & Hamill, 2008; Lewington, 2018). Further, business schools are

well-known for their masculine and competitive culture (Kelan & Jones, 2010), as typified by the

"Think Manager, Think Male" phenomenon (Schein, 2001; Schein & Davidson, 1993).

We obtained admissions data from an MBA program at a large public university, wherein

applicants are required to submit their grades, GMAT scores, and 3-5 words to describe

themselves. Admissions officers then collect 3-5 descriptive words about each applicant from the

single referee that each applicant nominates, and all of this information is then used to decide

whether the applicant will receive an in-person interview. Significantly, reviewers know the

applicants' gender because it is included in their demographic information.

We compared the applicants' self-descriptions to those provided by their references and

analyzed how their use of gendered language impacted whether they moved on to the interview

stage. These data allowed us to test Hypotheses 1 and 3 within a context where we have data on

admissions outcomes.

Method

We obtained admissions data from an MBA program at a large public university in

Canada. In total, the sample contained 1,215 applications,[6] 30% of whom were female. No other

demographic data were available.

Gender. Applicant gender was captured using a dummy variable (0 = male, 1 = female).

Gendered language in self-description. As in Study 1, we used LIWC to measure

feminine and masculine language in each self-description. A count of feminine and masculine

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[6] Of these 1,213 applicants, 1,173 applicants had both self-description words and description words from their referees. For all analyses with referee description words, n = 1,173.

words for each application was generated using a function that marks a word as either belonging

or not belonging to a category (masculine/feminine) within a specified dictionary. These word

counts were then used as predictors while controlling for the total number of words used in all of

our analyses.

Gendered language in referee descriptions. The above-described method was also used

to generate a count of feminine and masculine words used by each applicant's referee. The total

number of words used by referee in all analyses was controlled for, with masculine and feminine

word counts serving as predictor variables.

Control variables. Other parts of the applications, including GPA scores and

GMAT/GRE scores, were also controlled for. However, some applicants' GPA and GMAT/GRE

data were missing, as they were submitted late through a transcription office or exam centre. We

report our analysis with these complete cases with control variables, and then ran a robustness

check with the full sample without controls. Since the majority of applicants reported their

GMAT score (96%), we converted all GRE scores to their equivalent GMAT scores on the ETS

website. Applicants were also required to submit a brief two minute introduction video and a

short essay, but privacy issues precluded the use of these components.

Callback. Our callback measure indicated whether applicants were invited back for an in-

person interview. This variable was dummy coded as 0 = no callback, 1 = callback.

Analysis. All predictor variables were centered prior to analysis in order to avoid

multicollinearity (Aiken & West, 1991). For analyses with callback as the outcome variable, we

conducted binary logistic regression with callback as our binary dependent variable. Below, we

report all analyses with controls, but all results remained robust without controls.

INSERT TABLE 3 AROUND HERE

Results

  Managing gender in self-presentation. Table 3 shows the descriptive statistics and

correlations between our variables and Table 4 shows the regression results. First, we examined

the congruence between the applicants' and referees' use of gendered language in their

respective descriptions. Notably, the admissions officers reported that referee descriptions were

viewed as a more objective assessment of the applicant, as other-ratings tend to have much better

predictive validity for academic achievement and job performance (Connelly & Ones, 2010).

Thus, a high degree of overlap in an applicant's and referee's descriptors can be considered a

"true" impression of the applicant's gender, while a lower degree of overlap can be interpreted as

the use of gender-management tactics.

  Following this logic, we examined whether the interaction between applicant gender and

referee use of masculine language predicted the applicant's use of masculine language. The

results showed that the use of masculine language by both applicants and referees did not

significantly differ by applicant gender (b = -.08, SE. = .05, p = .10), and that referee use of

masculine language was significantly associated with applicant use of masculine language (b

= .09, SE =.03, p = .001). These results suggest that both female and male applicants were not

managing their self-presentation of masculinity, and that they were presenting masculinity in a

way that aligned with the more objective third-party descriptions.

  Next, we examined whether the interaction between applicant gender and referee use of

feminine language predicted applicants' use of feminine language. Our results showed that

applicant gender significantly moderated the relationship between referee and applicant use of

feminine language (b = -.11, SE. = .05, p = .03; see Figure 2 Panel C). Simple slope analysis

revealed a significant positive relationship between the use of feminine language by male

applicants and their referees ($b = .11$, $SE = .03$, $p < .001$). However, this relationship was not

significant for female applicants and their referees ($b = .001$, $SE = .04$, $p = .99$). These results

suggest that as "true" femininity (as rated by referees) increases, so does self-reported femininity

among male applicants, but not among female applicants.

Next, we aimed to disentangle whether women are managing gender by *downplaying* or

highlighting femininity. To do so, we probed the interaction between applicant gender and

referee use of gender on applicants' use of feminine language at different levels of "true"

femininity (as rated by the referee). At lower levels of "true" femininity, or when applicants were

described by referees as less feminine (e.g., referees used no feminine language), female

applicants used more feminine language in their self-descriptions compared to male applicants,

($b = .13$, $SE = .05$, $p = .02$). However, at higher levels of "true" femininity, or when applicants

were described by referees as more feminine (e.g., referees used two feminine words), this

pattern reversed: women used fewer feminine self-descriptors compared to men only if the

traditional significance level is relaxed to .10, $b = .29$, $SE = .16$, $p = .06$. This overall pattern of

results is consistent with Hypothesis 1; it suggests that women rated high in femininity by

referees cover by reporting lower femininity, relative to men rated equally high in femininity by

referees. We also provide an alternative test of Hypothesis 1 in our online supplement.

Outcomes of managing gender. Next, we tested our backlash hypothesis (H3) by

examining how the interaction between gender and feminine language predicted callbacks. The

results revealed a significant interaction between applicant gender and feminine words used in

self-description ($b = .92$, $SE = .32$, $p = .004$, Exp(B) = 2.52; see Figure 2 Panel D). A simple

slopes test for women revealed that feminine word use had a significant positive effect on

callback likelihood (b = .54, SE =.25, p = .034, Exp(B) = 1.69); in contrast, there was a negative

relationship for men (b = -.39, SE =.19, p = .040, Exp(B) = .67). Thus, women who used fewer

feminine words were less likely to get a callback than women who used more feminine words,

which supports Hypothesis 3. Finally, we found no significant interaction between masculine

words and gender (b = .30, SE =.24, p = .24, Exp(B) = .74) on callback. The details of analyses

without controls as well as analyses with masculine language can be found in the online

supplement.

INSERT TABLE 4 AROUND HERE

Discussion and Limitations

The results of Study 2 show that women (but not men) manage gender presentation

within male-dominated contexts by downplaying their femininity; specifically, women who are

described as more feminine use fewer feminine descriptors compared to men who are described

as equally feminine. This supports Hypothesis 1. Our results also revealed that women who used

fewer feminine words in their descriptions faced a prescriptive penalty, as they were less likely

to move on to the next stage of the application process compared to women who used more

feminine words. Furthermore, in situating this study within the context of an admissions process

for a male-dominated field, we support our hypothesis regarding the salience of gender and

prescriptive gender norms (H3). Further, our results revealed a negative relationship between

feminine language and callback for men, suggesting that men who used more feminine words

were also less likely to get a callback compared to men who use less feminine words, which is

likely due to prescriptive stereotypes for men (Koenig, 2018; Rudman et al., 2012). Thus,

although we do not find that men manage gender, we do find evidence that they may face

backlash if they do.

While the results of Study 2 support our hypotheses, we present our findings with two caveats: the data are correlational, and the referees may be managing gender on behalf of the applicants (Madera, Hebl, & Martin, 2009). Indeed, one plausible alternative interpretation of these findings is that referees may be exaggerating female applicants' femininity. As such, the data are convincing, but they cannot provide definite causal proof that women are consciously managing gender to avoid discrimination when applying to male-dominated jobs.

Furthermore, we lack demographic information about the referees, which could be important for identifying homophily effects between the two parties. For instance, female applicants may be more likely to ask female referees to write their references, and referees may describe applicants depending on whether there is a gender match. Beyond homophily effects, there may be other interactions between referee and applicant gender that influence how referees describe applicants (Madera et al., 2009). Because we do not have these data, we cannot rule out these alternative explanations. Further, although we had some applicants' GMAT scores and GPAs, we did not have access to their past work experience, which may have also played an important role in their gender-management tactics, and, ultimately, their selection outcome. Another limitation of both Studies 1 and 2 is that neither study examines the psychological mechanisms that drive applicant or employer behavior. We address these limitations in Study 3.

STUDY 3A: ALTERING COVER LETTERS

Study 3 employed a yoked design to test the full model, including the main effects (H1 and H3) and the hypothesized mechanisms (H2 and H4), in a more controlled setting. In Study 3A, job postings were manipulated in order to examine and measure how job seekers alter their use of gendered language in their cover letters. This design was selected because it offers a more accurate reflection of job seekers' tendencies to revise existing materials when applying for different jobs, and it allows us to disentangle applicants' use of feminine and masculine language

to manage specific aspects of their gender. In Study 3B, a new sample consisting of managers

with hiring experience reviewed the cover letters prepared by participants in Study 3A.

This yoked design offers three key advantages. First, it enables us to test our full

theoretical model (both applicant and evaluator-side) with a single overarching experimental

design. Second, the use of real cover letters makes the study more externally valid than one that

uses fictional cover letters. Finally, this design further enhances external validity, as the cover

letters were reviewed by real hiring managers.

We first conducted a pilot study for Study 3A with an online sample (MTurk) wherein we

only measured the main effects of gender and job condition on the use of gendered language.

This pilot study was conducted to validate our manipulation materials, and to examine whether

we could capture the behavioral change. The pilot study and Study 3A (described below) used

virtually identical methods, with the exception that the mediator was not measured in the pilot

study. The pilot study results indicated that our manipulation checks were successful in

manipulating the perceived gender representation of jobs, with changes in gendered language

being identical to the results obtained in our main study. This supported Hypothesis 1.

Method

Participants and procedure. We recruited 463[7] undergraduate students from a large

Canadian university to participate in a study titled, "Job Application Workshop." The

participants received a course credit for completing the survey. Participants who had never

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[7] Because we hypothesized an interaction between gender and job type on gendered language,
we based our power analysis on the power to detect the interaction term. We used an alpha value
of .05. Based on our previous data, we conservatively assumed a small effect size ($f^2 = .02$). An a
priori power analysis indicated that a sample size of 395 would provide 80% power to test the
incremental prediction of an interaction term over and above the linear terms of the regression
model.

applied for a job using a formal application were screened out using the same questions as in

Study 1. Our hypotheses were contingent on participants tailoring a cover letter in response to

our job manipulations, so a research assistant coded all responses for whether the participants

had completed the task properly (i.e., had not simply copy and pasted the original cover letter).

Participants who did not submit a cover letter or résumé or did not perform the central task were

excluded from our sample (n = 61). This resulted in our final sample of 402. Fifty-two percent of

the participants were women (n = 208; none identified as gender non-binary), and the sample

was comprised mainly of students who identified as East and South East Asian (40.6%), South

Asian (17%), and Caucasian (16%). On average, participants were 20 years old (SD = 1.96).

Participants were asked to copy and paste their current résumé and cover letter into an

open field in the questionnaire, and to remove any identifying information such as their name,

contact information, and address (examples of de-identified résumés and cover letters were

provided). The participants were then presented with a job posting and instructed to apply for it

using their résumé and cover letter.

Participants were randomly shown one of three job postings: an administrative assistant

position (female-dominated condition), an information technology assistant position (male-

dominated condition), and a sales assistant position (gender-neutral condition). These positions

were selected based on representation statistics obtained from the Bureau of Labour Statistics

(BLS; U. S. Bureau of Labor Statistics, 2018). BLS statistics for 2017 show that 95% of

administrative assistants were women, which strongly establishes this position as a female-

dominated job; in contrast, 22% of technology support assistants (under the category "computer

occupations, all other") were women, thus representing a male-dominated job. The position of

sales assistant was selected as the gender-neutral condition because 49% of such positions were

held by women, which represents a relatively even gender composition. These positions were selected because they are common entry-level jobs that our participants would likely be qualified for and have experience applying for.

After viewing the job posting, the participants spent 20 minutes revising their original résumé and cover letter in response. Next, they completed a brief questionnaire that included a manipulation check, questions about their perceptions of the job, and questions regarding their demographic information.

Materials. We used examples from career sites to create a base job posting to use across conditions. The general responsibilities and qualifications were kept constant across conditions, but specific responsibilities were changed to pertain directly to administrative support, technology support, or sales support.

Manipulation check measures. After viewing the job posting, participants were asked to estimate the proportion of men and women who would apply for that job on a scale from 1 (all women) to 7 (all men). The manipulation check did not indicate a significant interaction between gender and condition, which suggests that men and women did not differ in their perceptions of the gender representation for each job ($F(2, 396) = 1.75$, $p = .176$, $\eta p^2 = .009$). As such, the results are collapsed across participant gender. Participants viewed the masculine job ($M = 5.13$, $SD = .83$) as likely to have significantly more male applicants than the neutral ($M = 3.72$, $SD = 1.03$) and feminine jobs ($M = 3.89$, $SD = 1.27$) ($t(399) = 10.77$, $p < .001$ and $t(399) = 9.38$, $p < .001$). The neutral job was viewed as unlikely to have a significantly different proportion of male and female applicants compared to the feminine job ($t(399) = 1.27$, $p = .205$). These results indicate that our manipulations for the female-dominated and male-dominated conditions worked well, but that the sales assistant position was viewed as female-dominated. In our pilot data,

these jobs were viewed as significantly different from one another, with the gender-neutral job falling between the male-dominated and female-dominated jobs. This disparity may be due to participants interpreting the sales assistant position as a customer service job. Regardless, we were able to proceed with our analysis because our primary interest was the contrast between the male-dominated and female-dominated jobs.

Mediation measures. We developed and validated a measure of anticipated gender discrimination, as no such measure had previously been documented. Our online supplement details our validation procedures. Our measure consisted of five items expressing negative outcomes that may occur if the hiring manager knew of the participant's gender: "I would be overlooked for the job"; "I would be seen as unqualified for the job"; "I would be seen as a poor fit for the job"; "I would be viewed negatively for the job"; "I would not receive the job." The participants indicated the likelihood of these five outcomes using a scale from 1 (*Very Unlikely*) to 7 (*Very Likely*).

Analytical approach. LIWC was used to obtain a measure of masculine and feminine language in the participants' original cover letters (Time 1) and the ones they created for our experimental job postings (Time 2). Changes were analyzed by running an ANOVA with our independent variables of interest on gendered language at T2 (post-manipulation), while controlling for gendered language at T1 (pre-manipulation).[8]

INSERT TABLE 5 AROUND HERE

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[8] Because these difference scores were not normally distributed, we ran robustness checks on the results by analyzing our data using a binary outcome (coding each pre and post pair for decreases or increases in gendered language). This yielded similar results to the original analysis. The results also hold when we run the same analysis with a continuous outcome with regression, but we chose to use ANOVA because of our multi-categorical independent variable.

Results

      Table 5 Panel A displays the means, standard deviations, and zero-order correlations of our variables. Gender is coded as 0 = male and 1 = female. Job condition was dummy coded for whether it was gender-congruent (0), gender-incongruent (1), or gender-neutral (2) for the participant, with the gender-congruent job as the referent condition.[9] The following results control for age, ethnicity, gender identity, and interest in the job. Gender identity was controlled for in order to rule out the possibility that women with decreased levels of feminine language in their job applications simply identified less strongly with their gender and were more willing to dispense with feminine language. Job interest was controlled for in order to rule out the possibility that participants who are more interested in a job may make a greater effort to tailor their applications. The results were consistent with and without the controls, and results without controls can be found in the online supplement.

      Gendered language in cover letters. We conducted an ANCOVA to test whether the interaction between gender and job condition (gender-congruent, gender-incongruent, or gender-neutral) predicted change in feminine and masculine language usage in the T2 cover letter.

      There was no main effect of gender ($F(1, 391) = .20$, $p = .66$, $\eta p^2 = .001$) nor job condition ($F(2, 391) = 1.90$, $p = .15$, $\eta p^2 = .01$) on feminine language. The interaction between gender and the gender-incongruent job condition was significant for feminine language only if the traditional significance level is relaxed to .10, ($F(2, 391) = 2.84$, $p = .06$, $\eta p^2 = .014$). Further analysis revealed a significant effect of job condition on feminine language for women ($F(2,$

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[9] Women assigned to the male-dominated job condition were coded as 2 (gender-incongruent), whereas women assigned to the female-dominated condition were coded as 1 (gender-congruent). Men assigned to the male-dominated job condition were coded as 1 (gender-congruent), whereas men assigned to the female-dominated condition were coded as 2 (gender-incongruent). This allowed us to test our hypotheses for how job seekers apply to gender-incongruent jobs.

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391) = 4.63, p = .010, ηp^2 = .023) but not men, ($F(2, 391)$ = .048, p = .95, ηp^2 = .000; see Figure

3 Panel A). Pairwise comparisons indicated that women in the gender-incongruent job condition

used less feminine language (M = 1.31, SE =.073) than the women in the gender-congruent (M =

1.56, SE =.078, p = .017) and gender-neutral condition (M = 1.58, SE =.066, p = .005), which

supports Hypothesis 3. On the other hand, men in the gender-incongruent job condition did not

differ in their use of feminine language (M = 1.47, SE =.068) from men in the gender-congruent

job condition (M = 1.45, SE =.08, p = .86) or gender-neutral job condition (M = 1.44, SE =.076,

p = .76).

For masculine language, there were no main effects of gender ($F(1, 391)$ = 1.38, p = .24,

ηp^2 = .004), job condition ($F(2, 391)$ = 1.31, p = .27, ηp^2 = .007), nor their interaction on

masculine language in the T2 cover letter, $F(2, 391)$ = .51, p = .60, ηp^2 = .003. This supports our

hypothesis that men do not cover by decreasing masculine language.

Anticipated Gender Discrimination. We conducted an ANCOVA to test whether the

interaction between gender and job condition (gender-congruent, gender-incongruent, or gender-

neutral) predicted anticipated gender discrimination.

There was a main effect of gender ($F(1, 391)$ = 10.52, p = .001, ηp^2 = .026) on

anticipated gender discrimination, such that women (M = 3.61, SE = .09) reported higher rates of

anticipated gender discrimination than men (M = 3.18, SE = 0.92). Further, there was also a main

effect of job condition ($F(2, 391)$ = 6.15, p = .002, ηp^2 = .030) on anticipated gender

discrimination, such that participants assigned to the gender-incongruent condition (M = 3.69, SE

= .10) reported anticipating more gender discrimination compared to participants in the gender-

congruent condition (M = 3.29, SE = .12; p = .01) and the gender-neutral condition (M = 3.20, i

= .11; p = .001), with the difference between the latter two being non-significant (p = .56).

However, these main effects were qualified by an interaction between gender and job condition, $(F(2, 391) = 3.87, p = .02, \eta p^2 = .019)$. Probing this interaction revealed a significant effect of job condition on anticipated gender discrimination for women $(F(2, 391) = 9.93, p < .001, \eta p^2 = .048)$ but not men, $(F(2, 391) = .25, p = .78, \eta p^2 = .001)$. Pairwise comparisons indicated that women in the gender-incongruent job condition anticipated more gender discrimination $(M = 4.13, SE = .15)$ than the women in the gender-congruent $(M = 3.47, SE = .16; p = .003)$ and gender-neutral condition $(M = 3.22, SE = .14, p < .001)$. On the other hand, men in the gender-incongruent job condition did not differ reported anticipated gender discrimination $(M = 3.26, SE = .14)$ from men in the gender-congruent job condition $(M = 3.10, SE = .17, p = .49)$ or gender-neutral job condition $(M = 3.17, SE = .16, p = .68)$.

Mediation. Next, we tested whether anticipated gender discrimination explained why women in the male-dominated job condition decreased their use of feminine language. We ran a bootstrapped moderated mediation analysis with 5000 bootstraps (Model 58) and multi-categorical predictors in PROCESS v3.1 (Hayes, 2018) to examine our moderated mediation model. PROCESS v3.1 automatically applied indicator codes to multi-categorical variables, with gender-congruent jobs as the referent group. Figure 4 shows the full moderated mediation model, broken down further to indirect paths for men and women separately.

The gender-incongruent job condition manipulation had a significant and negative indirect effect on women's use of feminine language via anticipated gender discrimination (indirect effect = -.050, Bootstrapped $SE = .028$, 95% CI [-.11, -.01]; see Figure 4 Panel A). Thus, in support of Hypothesis 2, women in the male-dominated job condition anticipated higher levels of gender discrimination, and in turn they were more likely to minimize feminine language in their cover letters. For men, this indirect effect was non-significant (indirect effect = .002,

Bootstrapped $SE = .01$, 95% CI [-.02, .03]). The overall moderated mediation index was

significant ($b = -.052$, $SE = .03$, 95% CI [-.12, -.003]).

Discussion

The results of Study 3A support our hypothesis that women decrease their use of

feminine language when applying for male-dominated jobs compared to female-dominated jobs

(H1), and they also provide evidence that this effect holds for both experienced (workers on

MTurk) and relatively new job seekers (undergraduate students). In particular, the results show

that women applying for male-dominated jobs deliberately manage their use of gendered

language in order to align their gender representation with that of the occupation, partly because

they anticipate negative consequences for failing to do so. This supports Hypothesis 2.

Although we were able to examine women's covering strategies in a controlled

experimental setting and test our hypothesized mechanism through anticipated gender

discrimination, this study is not without limitations. First, the original cover letters had likely

been tailored for a previous job, which may have affected the extent to which participants were

able to cover (more) for this experiment. For example, a female participant who had previously

tailored her cover letter in order to apply for a male-dominated job may not have been able to

cover much further during this experiment. Nonetheless, such effects should have been mitigated

by the experiment's random assignment of conditions, and by controlling for the original cover

letter's level of gendered language in our analyses. Another limitation was the job postings

themselves, which were tightly controlled and identical aside from the job title and other minor

changes. While using job postings with uniform content allowed us to isolate the effect of job

context on covering, real-world job postings for male- and female-dominated jobs often contain

gendered language and have different requirements. Study 1 mitigates some of these concerns, as

participants were asked to submit cover letters they had used to apply for real job postings, which likely varied in their levels of gendered language.

INSERT FIGURE 3 AND 4 AROUND HERE

STUDY 3B: EXPERIMENTAL OUTCOMES AND MECHANISMS

Study 3B aimed to experimentally replicate the hypothesized backlash effect while controlling for alternative explanations, such as selection effects. Study 3B also aimed to test the hypothesized mechanism of the backlash effect via likeability (Hypothesis 4) but not competence, as we argue that downplaying femininity is unlikely to result in the same boost of competence that previous research finds on women's agentic behavior and backlash effects. In Study 3B, the cover letters prepared by the participants in Study 3A were presented to a new sample consisting of managers with hiring experience. For the remainder of this discussion, the participants from Study 3A will be referred to as "applicants," and the participants in Study 3B will be referred to as "participants" or "evaluators."

Method

Participants and procedures. We recruited 427 participants using Prolific, an online survey panel located in the UK. Participants with hiring experience were selected to increase external validity, as research has shown that the biases and behaviors of actual hiring decision-makers differ from those of students in the lab (Koch, D'Mello, & Sackett, 2015; Marlowe, Schneider, & Nelson, 1996). Of our 427 participants, 64 had no hiring experience, two did not complete any measures, and one did not finish the survey. These 67 participants were excluded, resulting in a final sample of 360. In terms of demographics, the sample was 51% male (n = 184), 48% female (n = 174), and 1% other (n = 2), predominantly Caucasian (85%), and had an

average age of 40 years old (SD = 12). On average, the participants had seven years of

experience making hiring decisions (range: 6 months to 40 years).

The participants were asked to imagine that they were the hiring manager for a fictional

corporation, and that they were evaluating applicants for a position in their department. They

were then randomly shown one of three job postings and their corresponding applications: an

administrative assistant position (female-dominated condition), an information technology

assistant position (male-dominated condition), and a sales assistant position (gender-neutral

condition). After the participants had viewed the job posting, they were shown four real cover

letters. Here, we manipulated the applicant's gender (male vs. female), as well as the amount of

feminine language in the cover letter (more vs. less feminine language) for a fully crossed 2 x 2

within-subject design. The four cover letters were presented randomly one by one. The evaluator

was given at least two minutes with each cover letter before being presented with a battery of

measures about the applicant. Finally, the evaluators were asked to complete our manipulation

check about the job posting, and to fill out a brief demographic survey.

Materials. The cover letters created by the applicants in Study 3A were used as

manipulation materials. In order to manipulate feminine language for each gender and job

condition, we selected cover letters that were one standard deviation above and below the

average for feminine language usage. We did this for male and female applicants in the three job

conditions, which yielded a total of four cover letter manipulations for each job condition (a total

of 12 cover letter manipulations), with multiple cover letters per manipulation.

Applicants were re-contacted for consent to use their cover letters as experimental

materials. The cover letters that received consent were then proofread by a research assistant for

grammatical and spelling errors, and all identifiable information was removed. Finally, we

selected cover letters with word counts that were within one standard deviation above or below the average to keep the length and style of the manipulations consistent.

Our final materials consisted of two to five cover letters for each of the twelve manipulations. The survey was programmed to randomly select one of the cover letters for each manipulation and to randomly assign it a gendered name ("Emily," "Jessica," "Christopher," or "Michael"). We used these names because they were the most popular baby names in the UK (where our participants were from) in 1989, thus making our applicants roughly 25 years old.

Manipulation check measures. We asked the evaluators to estimate the distribution of male and female applicants for each job posting on a scale from 1 (all women) to 7 (all men). The manipulation check revealed no significant interaction between gender and condition, which suggests that male and female evaluators did not differ in their perceptions of the gender representation for each job ($F(2, 353) = 1.94$, $p = .146$, $\eta p^2 = .011$). As such, we report the results collapsed across participant gender. Participants viewed the masculine job ($M = 4.88$, SD $= .83$) as having significantly more male applicants than the neutral ($M = 4.29$, SD $= .81$) and feminine jobs ($M = 3.57$, SD $= 1.05$), both contrasts ($p < .001$). The neutral job was also viewed as having significantly more men than the feminine job ($p < .001$). These results indicate that our job condition manipulations worked well.

Measures. We used mediator and outcome measures that have been well-established in the backlash literature (Rudman et al., 2012). The participants assessed likeability by using a 7-point Likert scale (1= extremely disagree; 7 = extremely agree) to indicate their agreement with three items: "How much did you like the applicant?"; "Is this person someone you want to get to know better?"; and "Would the applicant be popular with colleagues?". Competence was assessed using the same 7-point scale and two items: "Did the applicant strike you as

competent?", and "How likely is it that the applicant has the necessary skills for this job?"

Finally, three items rated on the same 7-point Likert scale were averaged to form the hireability

measure: "Would you choose to hire the candidate?"; "Would you personally choose to hire the

candidate?"; and "How likely is it that the candidate will be hired for the job?"[10]

Results

Table 5 Panel B displays the means, standard deviations, zero-order correlations, and

internal consistency of our variables. Gender is coded as 0 = male and 1 = female.

Hireability. We conducted a 2 (applicant gender: female or male) x 2 (covering: high or

low feminine language) within-person ANOVA with hireability ratings as our outcome variable,

and gender and feminine language as our within-subject factors. There was a main effect of

covering such that cover letters with more feminine language ($M = 4.49$, $SE = .067$) were

perceived as more hireable than cover letters with less feminine language ($M = 4.19$, $SE = .075$)

($F(1, 359) = 12.81$, $p = < .001$, $\eta p^2 = .034$), but no effect for gender ($F(1, 359) = 1.48$, $p = .22$,

$\eta p^2 = .004$). This was qualified by a significant two-way interaction between applicant gender

and feminine language ($F(1, 359) = 4.63$, $p = .032$, $\eta p^2 = .013$; see Figure 3 Panel B). Probing

the interaction by gender revealed that evaluators rated women with less feminine language in

their cover letters ($M = 4.15$, $SE = .09$) as significantly less hireable than those with more

feminine language ($M = 4.63$, $SE = .09$) ($F(1, 359) = 17.24$, $p < .001$, $\eta p^2 = .046$). There was no

difference between male applicants with more or less feminine language ($F(1, 359) = 1.03$, p

$= .31$, $\eta p^2 = .003$).

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[10] We measured perceptions of communality and agency as checks for our manipulation of feminine language. The results showed the cover letter manipulations were successful in changing perceptions of communality, but not agency.

If female applicants who use less feminine language when applying for male-dominated jobs are successful, and the backlash effect depends on job context, we would expect the interaction between applicant gender, feminine language, and job type to be significant for hireability. However, if women who use less feminine language in their cover letters are penalized regardless of job context, we would only expect the interaction between gender and feminine language to be significant for hireability. Results showed that the two-way interaction between applicant gender and feminine language was not qualified by a further three-way interaction with job condition as a between-subject factor ($F(2, 357) = 2.09$, $p = .125$, $\eta p^2 = .012$). Furthermore, the two-way interaction between applicant gender and covering remained significant controlling for the three-way interaction ($F(1, 357) = 5.00$, $p = .026$, $\eta p^2 = .014$). These results provide support for Hypothesis 5 regarding the persistence of prescriptive gender norms across job contexts.

Likeability. There was a main effect of gender such that female applicants ($M = 4.72$, $SE = .056$) were perceived as more likable than men ($M = 4.29$, $SE = .064$) ($F(1, 359) = 41.40$, $p < .001$, $\eta p^2 = .103$), as well as a main effect of covering such that cover letters with more feminine language ($M = 4.70$, $SE = .058$) were perceived as more likable than those with less feminine language ($M = 4.31$, SE $= .061$) ($F(1, 359) = 36.0$, $p < .001$, $\eta p^2 = .091$). This was qualified by a two-way interaction between applicant gender and covering ($F(1, 359) = 6.41$, $p = .012$, $\eta p^2 = .018$). Probing the interaction by gender revealed that evaluators rated female applicants with less feminine language in their cover letters ($M = 4.45$, $SE = .07$) as significantly less likable than those who used more feminine language ($M = 5.0$, $SE = .07$) ($F(1, 359) = 41.15$, $p < .001$, $\eta p^2 = .10$), supporting H3. Similarly, evaluators rated male applicants with less feminine language in their cover letters ($M = 4.18$, $SE = .08$) as significantly less likable than

those who used more feminine language (M = 4.41, SE =.08) ($F(1, 359)$ = 5.45, p = .02, ηp^2 = .015).

Competence. There was a main effect of covering such that cover letters with more feminine language (M = 4.80, SE =.061) were perceived as more competent than cover letters with less feminine language (M = 4.64, SE =.065) ($F(1, 359)$ = 4.66, p = .032, ηp^2 = .013), but no main effect of gender ($F(1, 359)$ = .091, p = .763, ηp^2 = .00). There was also a two-way interaction between applicant gender and covering ($F(1, 359)$ = 9.49, p = .002, ηp^2 = .026) such that evaluators rated female applicants who used less feminine language in their cover letters (M = 4.52, SE =.08) as less competent than those who used more (M = 4.90. SE =.08) ($F(1, 359)$ = 13.53, p < .001, ηp^2 = .036). Conversely, there was no difference between male applicants with more or less feminine language ($F(1, 359)$ = .34, p = .56, ηp^2 = .001).These findings contradict the alternative hypothesis that women who cover are perceived as being more competent and subsequently more hireable.

Mediation. A within-person multilevel moderated mediation (1-1-1 mediation) was conducted using MLMed (Hayes & Rockwood, 2019; Rockwood & Hayes, 2019) with 10000 bootstraps. For this analysis, all variables were measured within person and standard errors were clustered at the person-level. Because there were no between-subject differences in the experimental conditions, we specified a model wherein the mediator (likeability) had a random intercept. The program group-centered the lower-level variables by default.

The results showed support for a moderated mediation model (moderated mediation index = -.294, 95% CI [-.53, -.06]; see Figure 4 Panel B). For female applicants, likeability significantly mediated the relationship between feminine language use and hireability (indirect effect = -.535, SE =.085, p < .001, [-.70, -.37]), which supports Hypothesis 4. Likeability also

significantly mediated the relationship between feminine language use and hireability for men, but to a lesser extent (indirect effect = -.24, *SE* =.084, *p* = .0039, [-.41, -.08]). These results hold controlling for competence, which can be found in the online supplement.

Discussion

The results of Study 3B support Hypotheses 3 and 4 by showing that, across all job contexts, women who cover are perceived as less likeable, and consequently less hireable compared to women who do not cover. As a whole, Study 3 provides experimental evidence for our full theoretical model using a behavioral measure of covering while maintaining external validity.

Interestingly, our results revealed an overall significant preference for applications with more feminine language, which we did not hypothesize a priori. One explanation for this finding may be that the job postings emphasized their assistive nature, and that individuals high on warmth are generally preferred for these relatively front-line positions (He, Kang, Tse, & Toh, 2019; Li, Chan, & Kim, 2019). Indeed, past research shows that occupations that are stereotyped as warm (e.g., individuals in child-care and customer-facing positions) tend to be highly represented by social groups characterized by high warmth, for instance women (He et al., 2019) Nonetheless, we still find that this preference for applications with more feminine language depends on the applicant's gender, with a stronger preference for more feminine language (and thus stronger penalty for less feminine language) for women compared to men.

Although we find evidence that likability mediates the relationship between covering and hireability for women, the correlation between likability and hireability is very high in our sample (*r* = .85). However, we do find similar results when controlling for competence (which is also highly correlated with likability and hireability). The high correlation between all of our perceptual variables in the study (likability, competence, and hireability) point to potential halo

effects in evaluation, which is consistent with past research on person perception (Cooper, 1981;

Nisbett & Wilson, 1977). Although we do find backlash effects for all three variables, it is

notable that we observe the strongest backlash effects for likability and hireability when women

cover, with the backlash effect being slightly smaller for ratings competence. Overall, the results

for likability, competence, and hireability still suggest that women who cover face an overall

penalty in favorable ratings (whether it be likability or hireability or competence or a

combination) compared to women who do not cover, which is consistent with past research on

backlash as a form of social rejection (Rudman & Glick, 2001).

An additional concern relates to the yoked nature of this study. The yoked design

provides less control over the content of the cover letters, as applicants likely vary in terms of

their qualifications and cover letter content. These differences may be a confounding factor for

the observed backlash effect. Despite this loss of control, we believe the yoked design's benefits

outweigh its drawbacks. All research designs involve trade-offs between internal and external

validity, and our yoked design allowed us to employ an experimental methodology while

preserving external validity and psychological realism, which is important for experiments in

management domains.

GENERAL DISCUSSION

Across three studies, we comprehensively examined job seekers' use of gender-

management strategies in their applications, their motivations for employing these tactics, and

the resultant hiring outcomes. We found that gender-management strategies were predominantly

employed by women applying for male-dominated jobs, and that these women most commonly

chose to minimize feminine language in their cover letters (Studies 1, 2, and 3) in response to

anticipated gender discrimination (Study 3A). Significantly, our findings revealed that women

who used such tactics were ultimately less likely to be hired (Studies 1, 2, and 3). This backlash

effect was driven by perceptions of likeability, as women who used less feminine language were

generally seen as less likeable and, consequently, less hireable (Study 3B).

This research has implications for both theory and practice. Theoretically, our research

contributes directly to the professional image construction model by showing that the

consequences of negotiating certain social identities may be influenced by their associated

stereotypes (Roberts, 2005). Whereas previous research suggests that SIM strategies can reduce

bias from others and minimize discrepancies between perceived and desired professional images

(Kang et al., 2016; Little et al., 2015), our findings show that female job seekers who downplay

their femininity to signal their fit for male-dominated jobs are often penalized for violating

normative gender expectations. Evaluator judgments are influenced first and foremost by gender,

which colors all subsequent judgments about the job applicant, such as whether certain behaviors

conform to gender prescriptions. Thus, we show that gender-based SIM strategies can

paradoxically incur *more* bias due to the primacy of strong prescriptive gender stereotypes. This

finding adds to a growing body of literature showing that attempts to manage gender in order to

subvert stereotypes may have particularly negative consequences (Ballakrishnen, Fielding-Singh,

& Magliozzi, 2018; Guadagno & Cialdini, 2007).

Our findings may also be extendable to other social identities with strong prescriptive

stereotypes. There is emerging evidence that suggests that people hold prescriptive stereotypes

about race, for instance, the notion that Asians are relatively submissive (Berdahl & Min, 2012).

Thus, it is possible that an Asian applicant who self-presents as more dominant when applying

for a typically dominant position (e.g., a leadership position) will be less likely to get the job due

to violating prescriptive stereotypes. Our findings can open up discussion and future research

into the contexts wherein SIM strategies may be more or less effective, which is an area that has

remained relatively unexplored in the literature. As well, the intersection between identities with various associated prescriptive stereotypes is a particularly ripe area for future research.

More broadly, our findings contribute to the conversation on occupational gender segregation by showing how women's use of gender-management tactics in response to anticipated discrimination actually reinforces female underrepresentation in male-dominated jobs. Prior work examining sources of occupational segregation has primarily focused on demand-side explanations, such as employer discrimination, or on supply-side explanations, such as women's self-selection out of male-dominated jobs, without considering how these factors may interact. In contrast, our work shows that the interaction between supply-side behaviors and demand-side perceptions may be a novel mechanism by which occupational segregation is perpetuated. More importantly, we show that existing gender segregation in the labor market forces women to cope by downplaying femininity in their cover letters, which ironically incurs backlash. In other words, women are forced by the system to cope in ineffective ways. These findings answer prior calls for more research into the relationship between supply-side and demand-side factors in sustaining gender segregation in the labor market (Bangerter, Roulin, & König, 2012).

The present studies also have implications for social role theory and the prescriptive stereotype literature. The "double bind" for women has been well-documented in the literature, but it remains unclear how they manage the conflict between competing demands (Rudman & Phelan, 2008). There is evidence that women are aware that they risk backlash when they engage in counter-stereotypic behavior, which leads them to avoid certain counter-stereotypic behaviors (Akinola, Martin, & Phillips, 2018; Moss-Racusin & Rudman, 2010). At the same time, the situations in which women will choose to adopt counter-stereotypic behaviors also remain

unclear. Our findings show that women tend to engage in counter-stereotypic behaviors when signalling fit with the job identity is particularly salient, and that they prioritize emphasizing their fit over self-presenting as a "good" woman. Indeed, since the main purpose of selection decisions is to determine whether a candidate is a good fit for a job, applicants are incentivized to emphasize this in their application materials. Thus, this research elucidates the contexts in which women may engage in counter-stereotypic behaviors, and shows that, even in contexts that incentivize these behaviors, women are penalized for violating gender prescriptions.

Finally, the present research has practical implications, as it highlights the need for policy-level interventions and changes to structural procedures, such as organizational hiring processes. Although one implication of this work is that women may benefit by *highlighting* their femininity in their cover letters, ultimately we contend that it is not, and should not be, women's responsibility to navigate biases against them in the labor market. Our research, along with past theory and research on female leadership, show that women are often in a precarious position: if they downplay their femininity, they may be penalized for violating gender stereotypes; if they emphasize their femininity, they may be viewed as less competent and fit for the job. In both cases, they may be less likely to get the job. Some examples of such policy interventions and structural changes include the use of anonymized recruitment (Goldin & Rouse, 2000), changing the way and order in which applicants are presented to the hiring manager (Bohnet, van Geen, & Bazerman, 2016), or hiring in groups to increase the salience of diversity in the hiring process (Chang, Kirgios, Rai, & Milkman, in press). Other pointed strategies for organizations and employers include signalling the valuation of historically devalued identities – for instance, removing masculine language or using more feminine language in job postings in male-dominated jobs (Gaucher et al., 2011). Of course, companies

need to follow through on these recruitment signals and value candidates who possess more feminine traits than masculine traits in their selection process, rather than simply paying lip service to them (Kang et al., 2016). Initiatives such as these will be instrumental in changing the state of segregation in the labor market, as they address this bias-plagued process at a structural level.

Limitations and Future Directions

One primary limitation is that we were unable to determine whether the observed gender-management strategies applied to different levels of jobs, or whether they primarily applied to relatively entry-level jobs. Specifically, we used entry-level positions in Study 3A because we wanted to design postings for which undergraduate students would be qualified. Although our results supported our hypothesis that women downplay femininity in a variety of different jobs (Study 1) and within the context of a prestigious, post-secondary business program (Study 2), future research might examine whether women employ such strategies when applying for more senior-level jobs, and whether the same backlash effect persists.

Another limitation is that we did not explore how gendered language in job postings impacts how job seekers manage gender. There is evidence to suggest that job postings for male-dominated positions tend to have more masculine language and postings for female-dominated positions tend to have more feminine language (Gaucher et al., 2011). It is possible that male-dominated jobs simply require more masculine traits and less feminine traits, and, in response, women employ self-presentations that align with the requirements of the job. Using the same language in all of the job postings ensured experimental control and allowed us to conduct a conservative test of our hypotheses in a context wherein the only job-gender cue was the proportion of men and women in each position. Future research can examine how variations in

gendered language in job advertisements affect how job seekers use gendered language in their

application materials, and whether this differs by gender.

Despite arguing that devaluation threat is a primary driver of covering behaviors, we also

acknowledge that legitimacy threat may still play a role in how job seekers respond to

anticipated discrimination. Indeed, past work on how women manage pregnancy at work found

that pregnant women experience both legitimacy threat and devaluation threat, and that these

threats predicted different SIM strategies and resulted in different outcomes (Little et al., 2015).

Similarly, applicants for gender-incongruent jobs may experience both devaluation and

legitimacy threats, which may result in covering behavior. Because we only measured

devaluation threat through anticipated gender discrimination, we were unable to run competing

tests against legitimacy threat as an alternative mechanism. Future work can examine the

differential roles of devaluation and legitimacy threat when applicants apply for gender-

incongruent and gender-congruent jobs, for instance, the relative prominence of one mechanism

over another, and how this predicts covering or passing behavior.

Although our results generally support the notion that men do not manage gender in job

applications, there are instances where we do see interesting trends for men's use of gendered

language and the outcomes of gendered language for men. In Study 1, for instance, the trend for

men shows that men use less feminine language for female-dominated jobs. This corroborates

some qualitative evidence we found in our pilot study that men think that their gender gives them

an *advantage* for female-dominated jobs, and so they may be highlighting their gender by self-

presenting as less feminine to get that competitive advantage. Further, we also find interesting

trends for men's use of feminine language and job outcomes in Studies 1 and 2: consistent with a

prescriptive stereotype for masculinity, men who use more feminine language are also less likely

to obtain favorable job outcomes. Thus, although this current paper focuses on women, interesting patterns and trends emerge in our data for men. Future research can take a closer look at men's strategies for and outcomes of managing gender, as men may manage gender under different job contexts with different strategies, and the backlash they experience for violating prescriptive norms deserves further attention.

Our focus on the application process allowed us to examine applicants' self-presentation strategies, and how these strategies affect evaluators' perceptions. This approach also allowed us to examine applicant-evaluator interactions and how they contribute to occupational segregation. Future work might investigate whether female job seekers use the same or different gender-management strategies at different stages of the hiring process. For instance, while some women in Study 1 reported altering their names to hide their gender, they acknowledged that this strategy was only useful for the initial screening stage. Thus, future research could examine the strategies that women use when *interviewing* for male-dominated jobs, as these strategies likely involve managing gendered language, physical appearance (e.g., clothing and make up), and body language (e.g., adopting a more dominant posture).

While none of the participants in our samples identified as gender non-binary or gender fluid, it is important for future research to consider how non-cis-gendered individuals attempt to navigate and manage their gender identity in the labor market, and whether the strategies uncovered in this research adequately capture their experiences. Furthermore, future research should investigate how applicants manage intersections of gender and other social identities (e.g., age, social class, race), and whether they emphasize aspects of certain social identities to fit with the requirements of the job.

CONCLUSION

Although existing research and theory posit that female job seekers can overcome gender discrimination in male-dominated jobs by managing gender impressions, our findings show that such attempts may actually backfire. Across three studies, we found that women proactively manage their gender when applying for male-dominated jobs, as they view this as a way of increasing their chances of getting "a foot in the door." Unfortunately, these gender self-presentation strategies often backfire, and actually decrease their chances of getting the job. Our research elucidates the nuances and complexities of how women respond to anticipated discrimination by managing their self-presentation, and how perceived biases and existing biases in the system continue to keep women out of male-dominated jobs.

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Table 1. Descriptive statistics and zero-order correlations for Study 1.

	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Gender	0.54	0.50											
2. Age	33.7	9.40	-.07										
3. Education	3.68	1.13	-.01	.02									
4. Percentage men in position	45%	26.9%	.45***	-.09	.01								
5. Expected salary	44k	28k	-.25***	.25***	.36***	-.29***							
6. Required education	3.19	1.11	-.10	.08	.71***	-.10	.46**						
7. Gender identity	5.69	1.22	.18**	.06	-.05	-.10	-.03	.02	$a = .95$				
8. Job Attainment	0.46	0.49	.02	-.07	-.08	-.06	-.13*	-.05	.05				
9. Cover letter WC	203	114	.03	-.16**	.34***	.04	.02	.24***	-.07	-.02			
10. Cover letter WPS	19.8	7.44	-.13*	-.13*	.09	-.10	-.003	.13*	.07	.04	.23***		
11. Masc. language in cover letter	0.74%	0.83%	-.07	-.03	.14*	-.09	.18**	.16**	.02	.08	.08	.05	
12. Fem. language in cover letter	1.32%	1.06%	.09	-.10	.07	.09	-.10	-.07	-.02	.07	.09	.008	.04

Note. * = $p < .05$, ** = p < .01, *** = $p < .001$. All n = 257, except percentage of men in positions (n = 250) and education (n = 255). Gender is coded as 0 = male, 1 = female. Education and required education are coded as 1 = no education required, 2 = high school diploma required, 3 = college degree required, 4 = bachelor's degree required, 5 = master's degree required, 6 = PhD required. Job attainment is coded as 0 = unsuccessful, 1 = successful.

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Table 2. Hierarchical regressions predicting a) feminine language in cover letters, and b) job attainment in Study 1.

	DV: Feminine language in cover letters				DV: Job attainment		
Variable	**Step 1**	**Step 2**	**Step 3**	**Variable**	**Step 1**	**Step 2**	**Step 3**
Gender	.16 (.15)	.13 (.16)	.14 (.16)	Gender	-.08 (.28)	.10 (.30)	.17 (.31)
Age	-.01 (.01)	-.01 (.01)	-.01 (.01)	Age	-.01 (.02)	-.01 (.02)	-.01 (.02)
Education	-.13 (.09)	-.13 (.09)	-.14 (.09)	Education	-.17 (.17)	-.13 (.18)	-.10 (.18)
Expected salary of job	-.00 (.00)	-.00 (.00)	-.00 (.00)	Expected salary of job	-.00 (.00)	-.00 (.00)†	-.00 (.00)†
Required education of job	.02 (.09)	.02 (.09)	.06 (.10)	Required education of job	.11 (.18)	.10 (.18)	.04 (.18)
Cover letter WC	.001 (.001)	.001 (.001)	.001 (.001)	Cover letter WC	.00 (.001)	.00 (.001)	.00 (.001)
Cover letter WPS	.00 (.01)	.00 (.01)	.00 (.01)	Cover letter WPS	-.01 (.02)	-.02 (.02)	-.01 (.02)
Gender Identity	-.02 (.06)	-.02 (.06)	-.02 (.06)	Gender Identity	.07 (.11)	.09 (.11)	.11 (.11)
Percentage of men in job		-.001 (.003)	.006 (.004)	Percentage of men in job		.01 (.006)†	.01 (.006)*
Gender x percentage of men in job			-.015 (.006)**	Feminine language in cover letter		.10 (.12)	-.32 (.21)
				Gender x feminine language			.69 (.27)*
Constant	1.24 (.10)***	1.26 (.1)***	1.16 (.11)***	Constant	-.08 (.20)	-.18 (.21)	-.16 (.13)
R^2	.038	.039	.067	Pseudo R^2 (Cox & Snell)	.030	.045	.071
Adjusted R^2	.005	.002	.027	Chi-square test	$\chi2(8) = 7.52$	$\chi2(2) = 3.93$	$\chi2(1) = 6.66*$
ΔR^2	.038	.001	.028**				

Note. n = 250, with 7 missing cases . † = $p < .10$, * = $p < .05$, ** = $p < .01$. Values presented are unstandardized regression coefficients with standard errors in parentheses. Gender is coded as 1 = woman, 0 = man. Education and required education are coded as 1 = no education required, 2 = high school diploma required, 3 = college degree required, 4 = bachelor's degree required, 5 = master's degree required, 6 = PhD required. Analyses without controls and for masculine language can be found in the online supplement.

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Table 3. Descriptive statistics and zero-order correlations for Study 2.

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Gender	0.30	0.46									
2. Feminine words	0.34	0.56	.05								
3. Masculine words	0.53	0.67	-.04	-.08**							
4. GPA	3.42	0.50	.07	.05	-.01						
5. GMAT/GRE Score	657.33	85.45	-.19**	-.04	.03	.08*					
6. Word count	4.70	0.84	-.06*	-.05	-.00	-.02	.03				
7. Feminine words (referee)	0.36	0.68	.03	.09**	.02	.01	-.02	-.05			
8. Masculine words (referee)	0.75	0.96	-.03	-.03	.09**	.05	.04	.02	-.04		
9. Word count (referee)	5.64	0.95	-.00	.02	.01	.04	.02	.07*	.07*	.08**	
10. Callback	0.50	0.50	-.01	-.01	.00	.03	-.06	-.02	.03	-.01	.01

Note. * indicates $p < .05$; ** indicates $p < .01$. M and SD are used to represent mean and standard deviation, respectively. D.f. for gender, feminine words, masculine words, and word count are 1213. Because of missing data, d.f. = 677 for GPA scores, d.f. = 636 for GMAT/GRE scores, d.f. = 1171, and d.f. = 1211 for callback. Gender is coded as 0 = male, 1 = female, and callback is coded as 0 = not received invitation, 1 = received invitation.

Table 4. Hierarchical regressions predicting a) feminine words in applications, and b) callback in Study 2.

	DV: feminine words in applications			
Variable	**Step 1**	**Step 2**	**Step 3**	**Step 4**
Gender	.06 (.04)	.06 (.04)†	.07 (.05)	.07 (.05)
Feminine words (referee)	.07 (.02)**	.11 (.03)***	.08 (.03)*	.13 (.05)**
Word count (referee)	.01 (.02)	.01 (.02)	.01 (.02)	.01 (.02)
Word count (self)	-.03 (.02)	-.03 (.02)	.00 (.03)	.00 (.03)
GPA			.07 (.04)	.07 (.04)
GMAT			-.00 (.00)	-.00 (.00)
Gender*feminine words (referee)		-.11 (.05)*		-.17 (.07)*
Constant	.44 (.13)***	.42 (.13)**	.11 (.28)	.11 (.27)
n	1173	1173	607	607
R^2	.014	.018	.019	.028
Adjusted R^2	.010	.013	.009	.017
ΔR^2	.014	.004*	.001	.009*

	DV: Callback			
Variable	**Step 1**	**Step 2**	**Step 3**	**Step 4**
Gender	-.03 (.12)	-.05 (.13)	-.26 (.17)	-.26 (.17)
Feminine words (self)	-.03 (.10)**	-.21 (.12)†	-.04 (.15)	-.39 (.19)*
Word count (self)	-.04 (.07)	-.05 (.07)	-.03 (.10)	-.04 (.10)
GPA			.18 (.16)	.20 (.16)
GMAT			-.002 (.001)	-.27 (.17)
Gender*feminine words (self)		.62 (.23)*		.92 (.32)**
Constant	.22 (.33)	.23 (.34)	.16 (.10)	.14 (.10)
n	1213	1213	621	621
Pseudo R^2 (Cox & Snell)	.0004	.007	.74	.74
Chi-square test	$\chi^2(3) = .50$	$\chi^2(1) = 7.61$**	$\chi^2(5) = 5.68$	$\chi^2(1) = 8.65$**

Note. $^\dagger = p < .10$, $* = p < .05$, $** = p < .01$, $*** = p < .001$. Values presented are unstandardized regression coefficients with standard errors in parentheses. Gender is coded as 1 = woman, 0 = man. Education and required education are coded as 1 = no education required, 2 = high school diploma required, 3 = college degree required, 4 = bachelor's degree required, 5 = master's degree required, 6 = PhD required. Analyses for masculine language can be found in the online supplement.

Table 5. Descriptive statistics and zero-order correlations for Study 3A and Study 3B.

Panel A

Variable	*M*	*SD*	1	2	3	4	5	6	7	8
1. Gender	0.52	0.50								
2. Age	20.00	1.96	-.14**							
3. Ethnicity	0.16	0.37	-.01	.02						
4. Gender identity	5.48	1.19	.28**	-.06	.06					
5. Anticipated gender discrimination	3.40	1.28	.15**	-.03	-.05	-.02	$a = .95$			
6. Fem. language in T1 cover letter	1.44	0.99	.19**	-.15**	-.09	.03	.03			
7. Fem. language in T2 cover letter	1.47	0.91	.16**	-.10*	-.11*	.02	-.02	.77**		
8. Masc. language in T1 cover letter	1.09	0.83	-.05	.17**	.02	-.04	-.03	-.01	-.05	
9. Masc. language in T2 cover letter	1.47	0.86	.01	.10	-.04	-.01	-.04	-.10*	-.05	.65**

Panel B

Variable	*M*	*SD*	1	2	3	4	5	6	7	8
1. Gender	0.50	0.53								
2. Age	40.42	11.65	.09							
3. Ethnicity	0.85	0.35	.14**	.22**						
4. Years of HR Experience	7.28	7.17	-.00	.60**	.15**					
5. Communal	4.54	0.79	-.05	-.08	.05	-.05	$(a = .89-92)$			
6. Agentic	5.03	0.75	.02	.02	.00	.01	.66**	$(a = .90-95)$		
7. Likeability	4.51	0.95	-.10*	-.17**	-.03	-.10*	.76**	.67**	$(a = .86-94)$	
8. Competence	4.72	0.96	-.06	-.12*	-.05	-.10	.60**	.72**	.78**	$(a = .90-95)$
9. Hire	4.34	1.08	-.03	-.19**	-.07	-.10*	.60**	.63**	.81**	.85**	$(a = .96-98)$

Note. * indicates $p < .05$; ** indicates $p < .01$, *** = $p < .001$. All df = 400 for Panel A, and all df = 360 for Panel B. Gender is coded as 0 = male, 1 = female. Ethnicity is coded as 0 = non-Caucasian, 1 = Caucasian. Cronbach's alphas in Panel B are given in ranges because the scales were completed multiple times (for different applicants) by the same evaluator.

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Figure 1. Figure 1 displays the full theoretical model of hypothesized effects. Panel A displays the hypothesized relationships for female applicants: women who apply to gender-incongruent (male-dominated) jobs cover by reducing feminine language because they anticipate discrimination, which causes them subsequently to be less liked and less hireable. Panel B displays the hypothesized relationships for male applicants: men who apply to gender-incongruent (female-dominated) jobs do not anticipate discrimination and subsequently do not cover by reducing masculine language, and this subsequently has no effect on job outcomes. Dashed lines indicate null relationships.

A) Women applying to male-dominated jobs
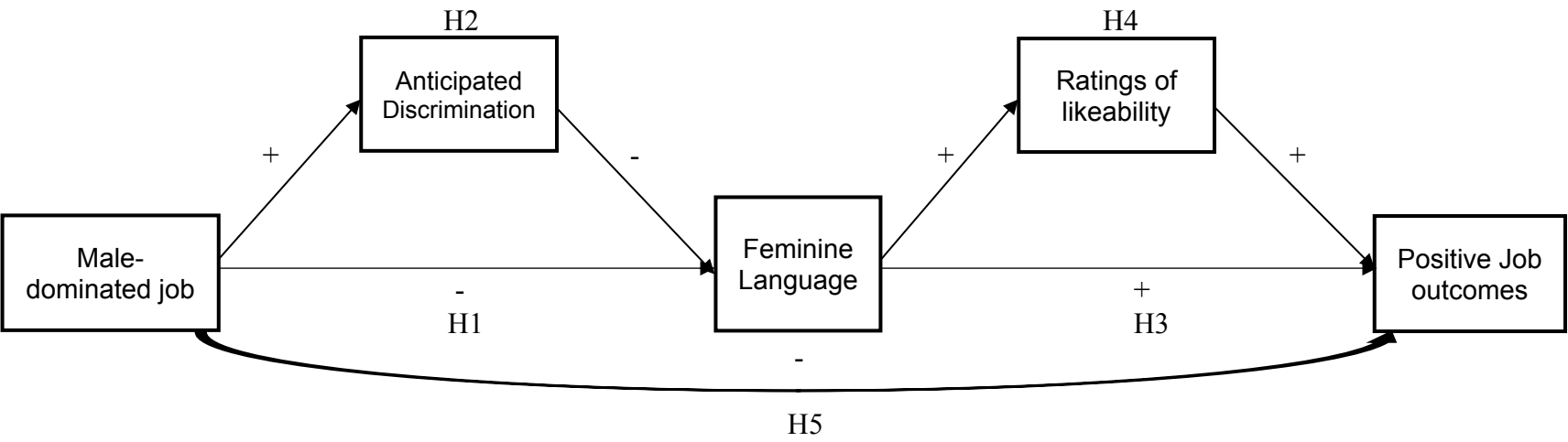
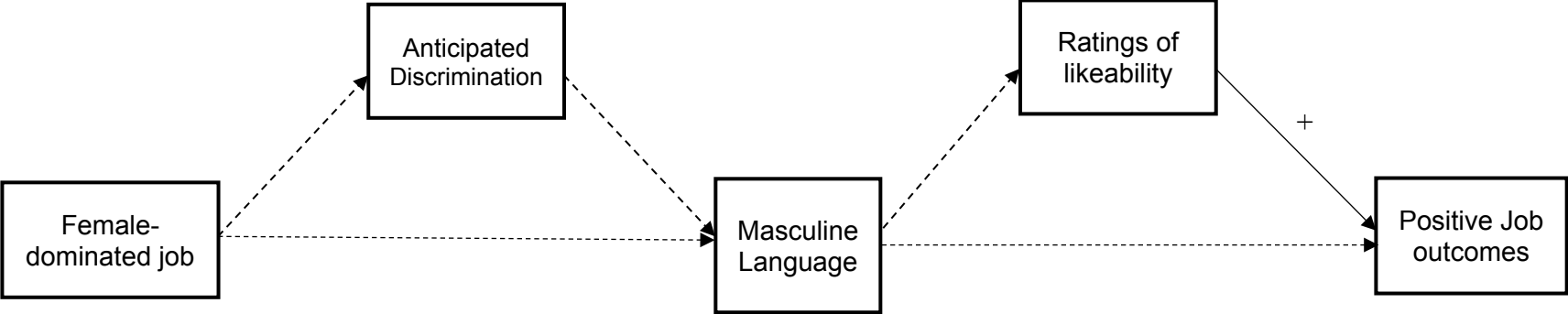B) Men applying to female-dominated jobs

Figure 2. Study 1 & 2 regression interaction results. Panel A indicates that women who applied for occupations with lower proportions of women (male-dominated jobs) used less feminine language in their cover letters. Panel B shows that women who used less feminine language in their cover letters were less likely to be hired. Panel C indicates that women who were described as more feminine by their referees did not describe themselves as more feminine. Panel D shows that women who used fewer feminine words in their application were less likely to receive a callback. For dependent variables in Panels B and D, 0 = rejected, 1 = obtained job/obtained callback.
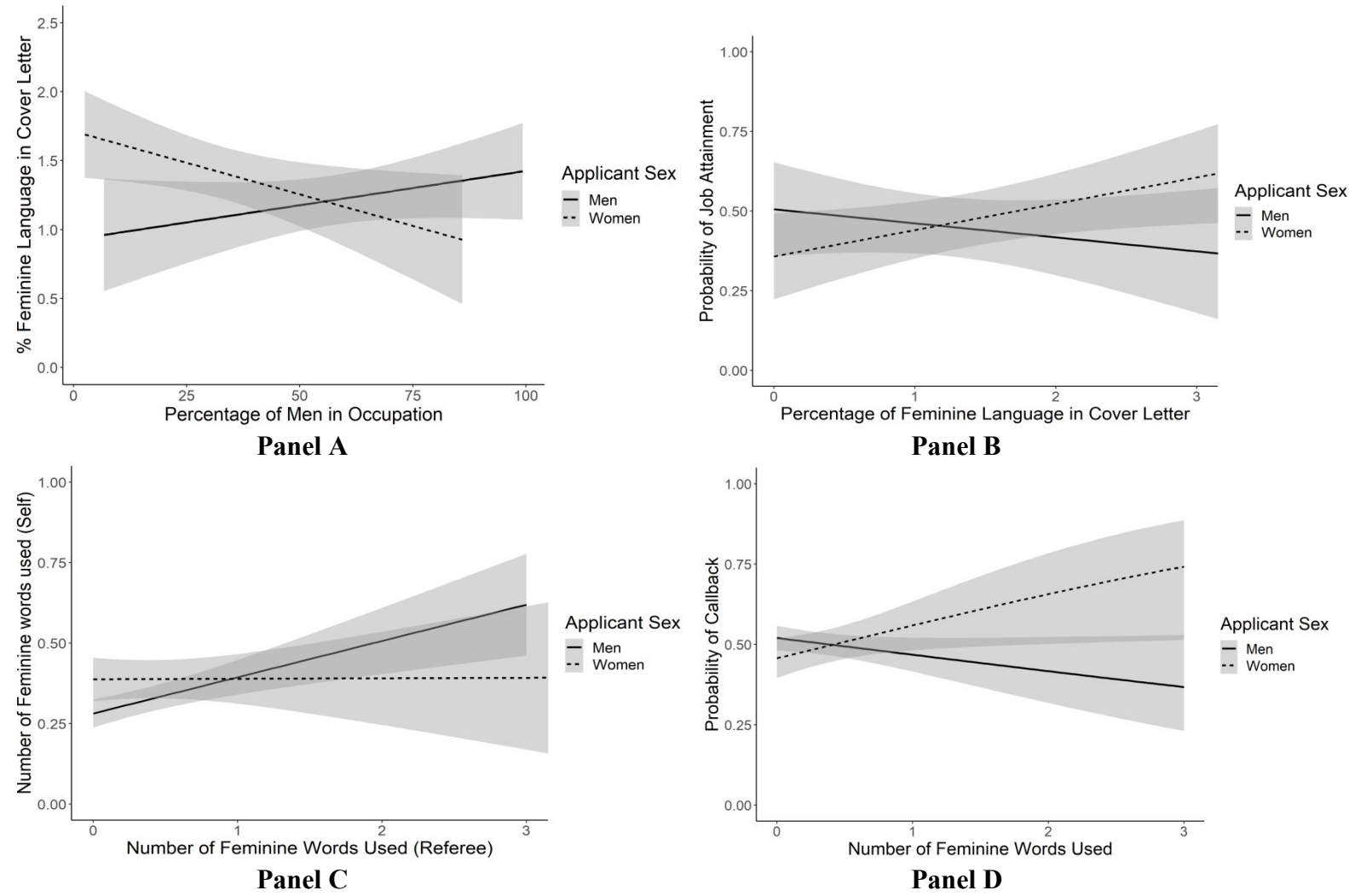

Panel A

Panel B

Panel C
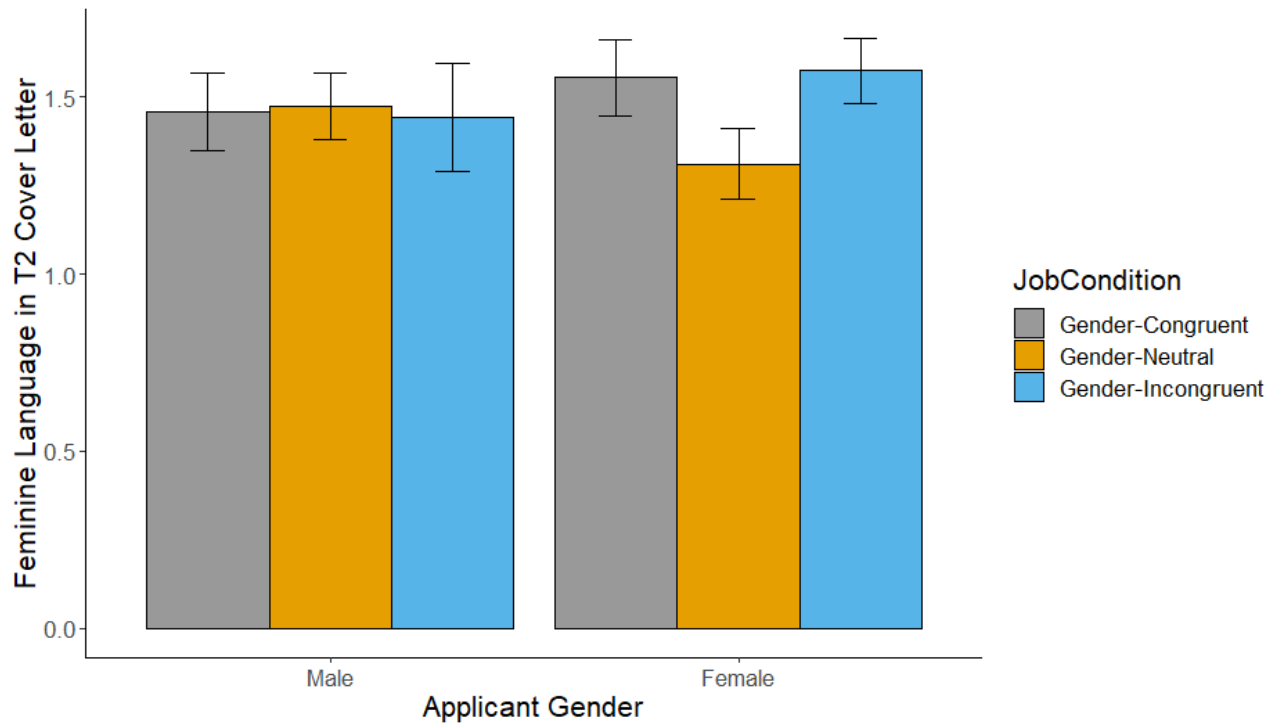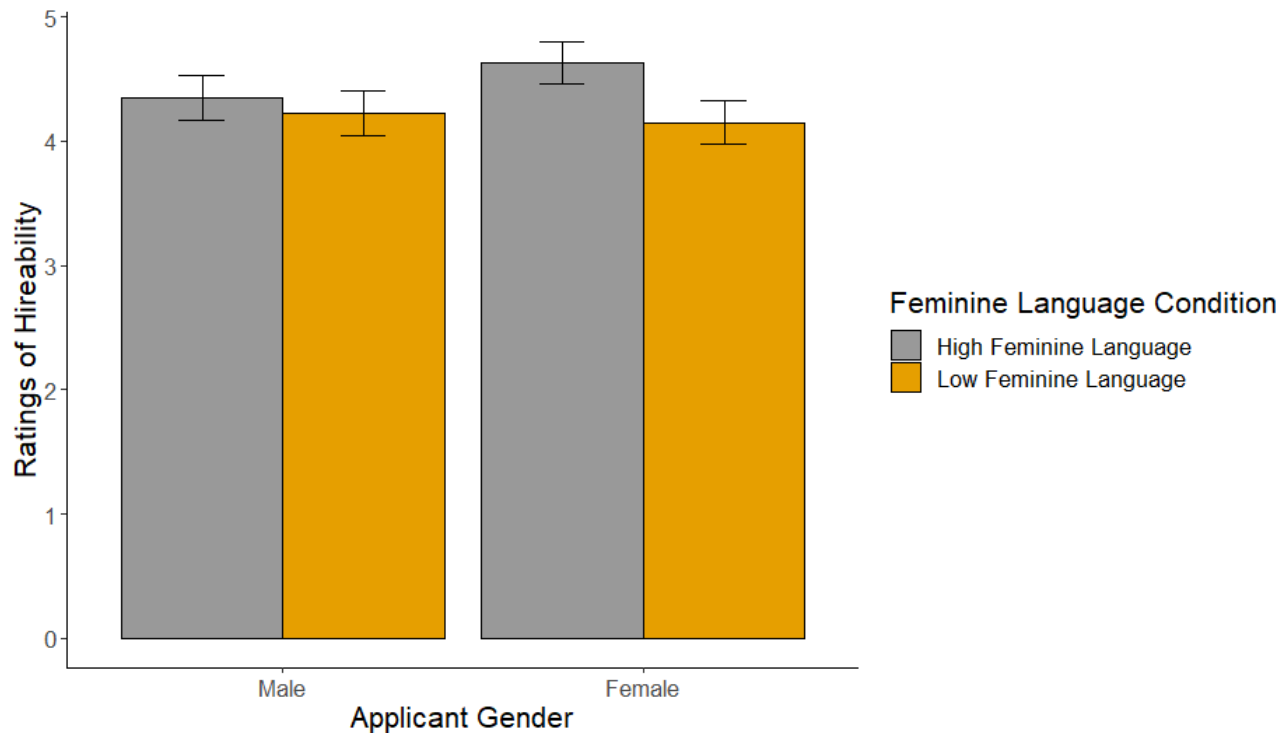
Panel D

Figure 3. Panel A shows the ANOVA results for applicant gender and job condition on feminine language in T2 cover letters in Study 3A. Panel B shows the mixed ANOVA results for applicant gender by feminine language usage on ratings of hireability in Study 3B. Women who used less feminine language in their cover letters were less likely to obtain the job.
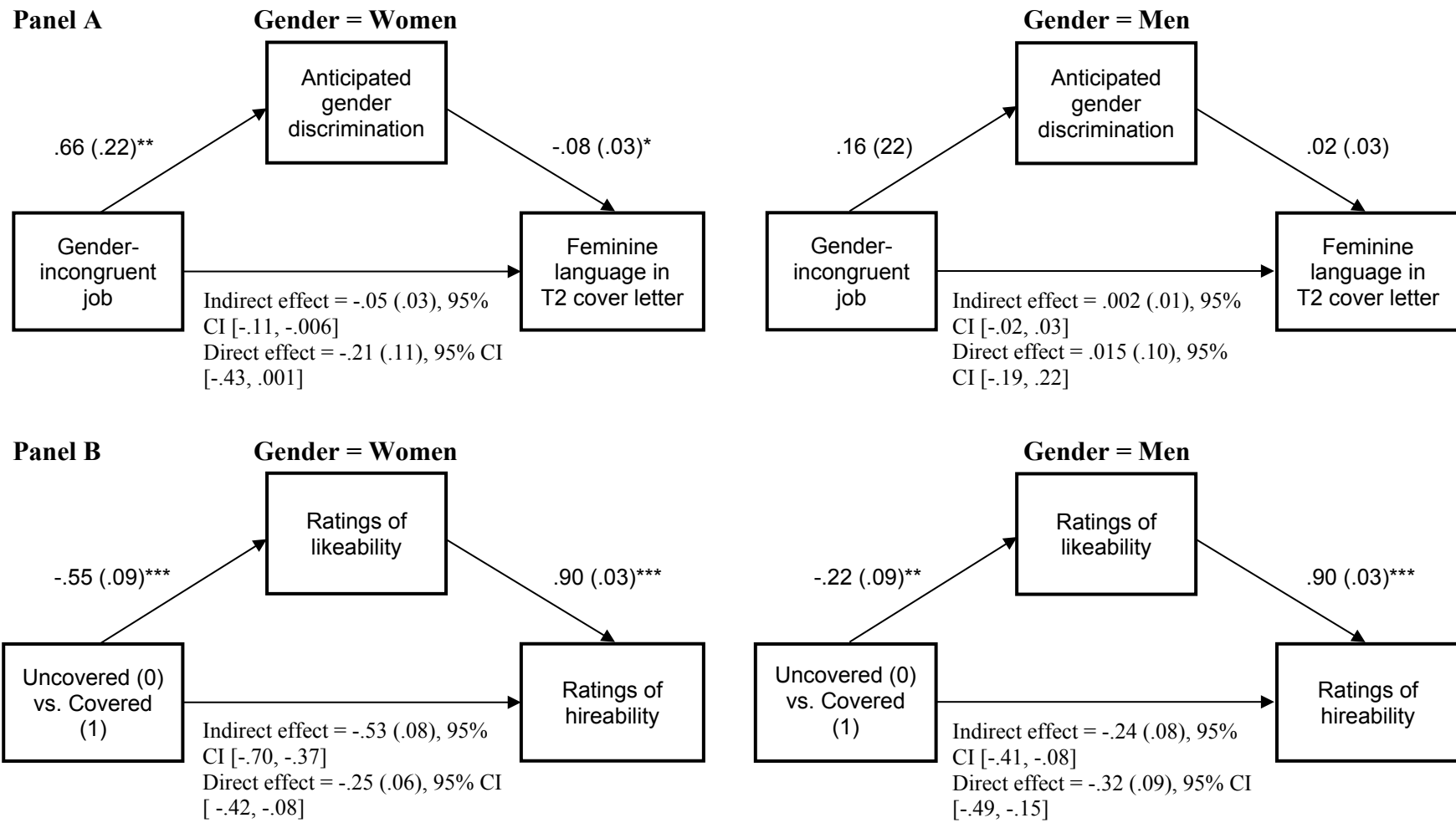

Panel A

Panel B

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Figure 4. Panel A shows the Study 3A PROCESS bootstrapped moderated mediation results by gender with 5000 percentile bootstraps of condition on feminine language in T2 cover letters through anticipated gender discrimination, controlling for age, ethnicity, gender identity, and interest. Panel B shows the Study 3B MLMed bootstrapped moderated mediation results by gender with 5000 percentile bootstraps of cover condition on hireability ratings through liking. The presented values are unstandardized multiple regression coefficients, with standard errors in parentheses. $* = p < .05$, $** = p < .01$, $*** = p < .001$. Analyses without controls for Study 3A can be found in the online supplement.

Panel A   **Gender = Women**   **Gender = Men**

Anticipated gender discrimination

.66 (.22)**   -.08 (.03)*   .16 (22)   .02 (.03)

Gender-incongruent job → Feminine language in T2 cover letter

Indirect effect = -.05 (.03), 95% CI [-.11, -.006]
Direct effect = -.21 (.11), 95% CI [-.43, .001]

Indirect effect = .002 (.01), 95% CI [-.02, .03]
Direct effect = .015 (.10), 95% CI [-.19, .22]

Panel B   **Gender = Women**   **Gender = Men**

Ratings of likeability

-.55 (.09)***   .90 (.03)***   -.22 (.09)**   .90 (.03)***

Uncovered (0) vs. Covered (1) → Ratings of hireability

Indirect effect = -.53 (.08), 95% CI [-.70, -.37]
Direct effect = -.25 (.06), 95% CI [-.42, -.08]

Indirect effect = -.24 (.08), 95% CI [-.41, -.08]
Direct effect = -.32 (.09), 95% CI [-.49, -.15]

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