



# How gendered language emerges in applicant materials and leadership descriptions in the hospitality industry: A text analysis study

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## ABSTRACT

The hospitality industry faces a gender gap in leadership. Further research is needed to explore if gender stereotypes emerge naturally in applicant materials, like resumes and cover letters. This paper examines the use of agentic and communal language in men and women's self-descriptions in applicant materials, as well as differences in agentic and communal language in descriptions of successful leaders in the industry. Across Studies 1–3, women used more communal language than men in self-descriptions in applicant materials, though differences in agentic language did not emerge. Study 4 found that agentic characteristics were strongly associated with leadership in respondent descriptions of successful leaders in the industry. These findings suggest that gender stereotypes in selection contexts can be attributed to women using more communal language in applicant materials and highlight the need to assess potentially biased selection processes in the hospitality industry.

## 1. Introduction

The hospitality industry faces a critical reality—namely, a gender gap in leadership, including management and executive positions (American Hotel and Lodging Education Foundation, 2020; Catalyst, 2020; Liu and Li, 2020; Russen et al., 2021a). Women are over-represented in frontline positions, such as servers, front desk receptionist, housekeeping, and other customer-contact positions, but represent less than a quarter of senior management positions (Catalyst, 2020; Johnson and Madera, 2018; US Bureau of Labor Statistics, 2019; Santero-Sanchez et al., 2015). Gender differences in socialization, career decisions, motherhood, and in several job predictor domains, such as cognitive ability, personality, and occupational interests (Correll et al., 2007; Su et al., 2009) are often cited as possible explanations for gender disparities in the workforce. Nonetheless, social scientists have also shown that gender stereotypes are pervasive, and function as barriers for women aspiring to careers traditionally held by men, particularly in leadership positions across many fields (e.g., Eagly, 2013; Heilman, 2024; Russen et al., 2021a; Russen et al., 2021b).

Specifically, research is clear that gender stereotypes influence how women are evaluated relative to their male counterparts in applicant contexts (e.g., Eagly and Karau, 2002; Heilman and Okimoto, 2007;

Xiong et al., 2022). These studies consistently show that (1) men are described in more agentic ways (e.g., independent, autonomous, leaderlike) than women, and that women are described in more communal ways (e.g., kind, caring, helpful) than men and (2) leadership and management is often linked to agentic but not communal traits. Thus, women are often evaluated less favorably than men, particularly for jobs that are perceived to require agentic traits, because women are often presumed to be more communal and less agentic than men. In addition, research shows that gender biases can emerge early in the selection process (Castaño et al., 2019; Heilman and Caleo, 2018; Madera et al., 2018). However, there are two important limitations in this literature that are addressed by the current manuscript.

First, the majority of prior research has relied on applicant materials that are artificially manipulated showing how others describe male and female applicants differently (e.g., Koch et al., 2015). For example, researchers may create two identical scenarios, manipulating gender and agentic and communal traits, and then examine if they are evaluated differently by managers. While this type of research has been useful in demonstrating the presence of gender bias in hiring decisions, it has some limitations. For example, artificial, manipulated scenarios may not accurately reflect the real-world hiring process. What is missing in the literature is research examining if gender stereotypes emerge naturally

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in applicant materials (e.g., cover letters and resumes), particularly in the way that men and women describe themselves. Applicant materials, such as cover letters and resumes, are generated by applicants to showcase their work experience, skills, and abilities. Yet, little is known about how men and women describe themselves on applicant materials. This is a critical gap in the literature because applicant materials, such as cover letters and resumes, are often an employer's first impression of an applicant. Hiring managers often infer an applicant's job relevant attributes from a resume and subsequently determine an applicant's probability of success on the job (Cole et al., 2005; Derous and Ryan, 2019).

Second, the findings from the psychology and management literature may not directly translate to the hospitality industry due to its unique characteristics. Specifically, situating communal and agentic gender stereotypes in the hospitality context presents a paradox. The industry, which is centered around service, often values communal traits like friendliness, empathy, and a concern for customers' well-being—traits typically associated with women (Bahardwaja et al., 2018). Conversely, the qualities seen as key to success in management and leadership roles are often agentic (e.g., assertiveness, goal oriented, and confidence), which are more commonly linked to men (Eagly and Karau, 2002; Gupta et al., 2018). This creates a stereotype that aligns women with roles that involve serving customers and men with roles in management and leadership within the hospitality field.

Thus, the purpose of this paper is to examine if differences exist in the communal and agentic language that men and women use on their application materials by using cover letters and resumes from hospitality professionals. Specifically, the current study uses four studies—with different samples and methodologies—to understand how men and women describe themselves using agentic and communal language that they choose to use on their cover letters (Study 1 and 2) and resumes (Study 2 and 3) for hospitality jobs. We then examine the potential consequences of gender differences in the communal and agentic language that men and women use on their application materials by examining the extent to which agentic and communal language is associated with leadership in the hospitality industry (Study 4).

The present research contributes to the literature by examining how gender stereotypes emerge from applicant-generated materials used in the selection process. Specifically, this research builds upon on previous work that artificially manipulates the agentic and communal description of men and women applicants (e.g., Bahardwaja et al., 2018; Madera et al., 2009; Madera et al., 2019; Zajac et al., 2020) by investigating the extent to which the natural language that men and women use on application materials align with agentic and communal gender-roles. This research also advances current theories on how gender stereotypes can lead to selection biases by examining how agentic and communal characteristics are perceived for success in leadership in the hospitality industry (Castaño et al., 2019; Derous and Ryan, 2019; Eagly et al., 2000; Heilman and Caleo, 2018). By examining if men and women describe themselves with language that aligns with gendered agentic and communal stereotypes and the extent to which agentic and communal language is associated with leadership in the hospitality industry, this research provides evidence that biases can also be attributed to how men and women describe themselves in selection contexts. In doing so, the current research also provides another potential explanation for why women are underrepresented in leadership positions in the hospitality industry (American Hotel and Lodging Education Foundation, 2020; Catalyst, 2020; Russen et al., 2021a, 2021b).

## 2. Theory and hypotheses

Social role theory contends that people derive gender-related stereotypes through role observations of the genders, and that these perceptions reflect the gendered division of labor and the gender hierarchy of our society (Eagly et al., 2000). Accordingly, individuals learn about what behaviors and characteristics are associated with each gender by

observing the tasks and activities that men and women perform, as well as the expectations that are placed on them in different social situations. Historically, men have tended to occupy roles that involve instrumental tasks and achievement orientation, such as providing for the family, while women have occupied roles that involve expressiveness, nurturing, and group maintenance orientation, such as caring for children and managing household tasks. These gendered divisions of labor result in stereotypes that associate men with agentic attributes, such as assertiveness and independence, and women with communal attributes, such as nurturance and sensitivity.

Research also shows that gender stereotypes are pervasive and have been consistently found in natural language use in children's books, adult's books, and audiovisual media for both children and adults (e.g., TV shows, movies) across time periods (Charlesworth et al., 2021). When consistently expressed in natural language, these stereotypes become prescriptive. That is, women are not only described as being more communal and less agentic than men, but they are also expected to behave in ways that are consistent with these stereotypes. For example, women may be expected to be more nurturing and cooperative than men, while men may be expected to be more competitive and independent than women. Thus, the division of agentic and communal attributes along gender has resulted in gender stereotypes that are both descriptive and prescriptive (Eagly, 2013; Rudman and Glick, 2001).

This gendered division of labor and hierarchy is not only reflected in gender stereotypes but also has implications for the opportunities and rewards that are available to men and women in society. Gender stereotypes can influence hiring decisions. For example, men and women are evaluated differently when letter of recommendation writers describe female and male applicants in stereotypical ways during the selection process (Madera et al., 2009). Phelan et al. (2008) found evidence of backlash toward agentic women in hiring contexts. Participants evaluated male and female agentic or communal managerial applicants on competence, social skills, and hireability. Agentic women were perceived as highly competent but deficient in social skills compared to agentic men. Social skills predicted hiring decisions more than competence for agentic women, while competence received more weight for all other applicants. This suggests that evaluators shifted job criteria away from agentic women's strengths and towards their perceived deficits to justify hiring discrimination.

Gender stereotypes can also influence how men and women are evaluated and rewarded at work. Using two experiments, Heilman and Chen (2005) found that performing the exact same altruistic citizenship behavior at work would lead to more favorable evaluations and recommendations for men, but not for women, because women are expected to be communal (i.e., engage in altruistic citizenship behavior). Using the hospitality as a context, Bahardwaja et al. (2018) examined how hospitality customer attitudes are influenced by gender of the service employee performing service-oriented organizational citizenship behavior (OCB). The results of the experiments indicated that the evaluation of service-oriented OCB is particularly susceptible to the influence of gender-role stereotypes. The type of service-oriented OCB (agentic or communal) mattered for the female employee but not for male employees. Botsford Morgan et al., (2018) found that women who display counterproductive work behavior (CWB) behavior that aligns with traditional feminine stereotypes and men who display CWB behavior that aligns with traditional masculine stereotypes are at a higher risk of getting fired compared to those who engage in behavior that goes against gender stereotypes. The study also found that women who engage in stereotypically CWB feminine behavior are more likely to receive harsher punishment recommendations compared to women who engage in behavior that goes against traditional gender roles, but this was not observed for men.

Overall, these findings suggest that gender stereotypes lead to different reactions to the same behavior, depending on the performer's gender and how the workplace behavior aligns with gender stereotypes. These differing reactions to the same behavior can have significant

consequences in the workplace. Women may be passed over for selection, promotions, or opportunities because they are viewed as less competent or less suited for leadership roles, which are assumed to be agentic.

### 2.1. Gender stereotypes in the hospitality context

Exploring gender stereotypes in the hospitality context reveals an intricate dilemma. On the one hand, given that providing service is at the heart of hospitality, the hospitality industry emphasizes communal qualities among frontline employees, such as being extra friendly, empathic, or concerned for the welfare of customers, which are more often attributed to women than to men (Bahardwaja et al., 2018). On the other hand, success in management and leadership are often described using agentic qualities, such as being assertive, goal-oriented, and confident, which are also attributed to men, but not women (Eagly and Karau, 2002; Gupta et al., 2018). Thus, gender stereotypes related to communal and agentic qualities place women as a good fit for customer serving positions in hospitality, but also place men as a good fit for management and leadership positions.

This contradiction between gender stereotypes and leadership attributions has been explained by the lack of fit framework (Heilman and Caleo, 2018), which has been used to explain why women face biases in leadership and management positions (Litwin et al., 2019; Russen et al., 2021a). The lack of fit framework suggest that women are often perceived as lacking the agentic qualities needed for management and leadership skills because women are expected to be inherently communal, so they are ill-suited for a managerial role, which is agentic.

However, it is still unknown whether female and male applicants present themselves in stereotypical ways on their resumes, which is an important gap in the existing literature. Despite this, evidence is limited and indicates that both women and men hold similar gender stereotypes. Applicants may also behave in ways consistent with gender stereotypes due to their own views and attitudes (Eagly et al., 2000). According to Eagly (2013), societal expectations for gender roles can affect how motivated men and women are to present themselves as agentic or communal, respectively. Women tend to rate themselves as less agentic than men, while men rate themselves as less communal than women. For instance, in a study on work-family conflict, Powell and Greenhaus (2010) found that women rated themselves higher on femininity (communal and interpersonally oriented) than men did. In another study by Powell and Butterfield (2015), both men and women described good managers as having more masculine traits than feminine traits. Koenig (2018) discovered that gender-consistent stereotypes existed for children, adults, and the elderly, with women being stereotyped as more communal and less agentic than men, who were stereotyped as more agentic and less communal. Hentschel et al. (2019) found that women self-stereotype more than men, meaning they describe themselves in more gender-stereotypical ways.

Past literature has relied on methods in which men and women rate themselves on measures of gender stereotypes (Hentschel et al., 2019; Koenig, 2018; Powell and Greenhaus, 2010; Powell and Butterfield, 2015). Thus, research has yet to examine if men and women describe themselves according to agentic and communal gender stereotypes in quotidian contexts in which they are not cued to attend to gender stereotypes by survey measures or experimental settings. To understand how men and women describe themselves, we observe the language that they choose to use on their cover letters (Study 1 and 2) and resumes (Study 2 and 3). Based on social role theory, the extent that men and women are influenced by stereotypical gender norms may confirm these norms in their own self-reported attitudes and behavior. Therefore, in line with gender stereotypes we predict:

**Hypothesis 1.** Women will use more communal words in their cover letters (Study 1, Study 2) and resumes (Study 2, Study 3) as compared to men.

**Hypothesis 2.** Women will use fewer agentic words in their cover letters (Study 1, Study 2) and resumes (Study 2, Study 3) as compared to men.

## 3. Study 1 methodology

### 3.1. Sample and procedure

We used Prolific to collect data from 226 employees (71 men, 155 women) employed in the US hospitality industry. Prolific is an online platform that helps researchers recruit study participants and is known for its high-quality participant pool, which is made up of individuals who have been pre-screened for honesty and accuracy (Eyal et al., 2021). This helps ensure that researchers receive reliable data from their studies. To participate, the applicants were required to be a fulltime employee at either a hotel/lodging or food and beverage organization and have work experience in the hospitality industry. The “Employment-Sector” filter on Prolific was set to “Hospitality & Tourism.” The participants had an average age of 31.94 (SD = 5.55) with 9.24 (SD = 8.723) years of work experience in the hospitality industry. The participants worked in the food and beverage sector (50 %) and hotel/lodging sector (50 %); with non-management positions (58 %) being slightly more represented than management positions (42 %). The majority of participants self-identified as Caucasian (71 %), and also included Latinx (10 %), Asian (8 %), African American (8 %), and mixed/multiracial (3 %).

Participants were sent to Qualtrics via a link on Prolific where they were instructed to upload the cover letter they used for their last job search. Qualtrics is a commercial data collection platform that allows users to create and distribute surveys (Douglas et al., 2023). They were asked to remove any identifying information such as their name, contact information, and address. To guide them, participants were shown an example of a deidentified cover letter. They were paid \$4.00 in exchange for participation. These cover letters were downloaded and analyzed using the Linguistic Inquiry and Word Count (LIWC) (Tausczik and Pennebaker, 2010), a language content analysis program. LIWC calculates the percentage of words in each document that falls into pre-specified language categories and has been previously shown to be reliable and valid for linguistic analysis of natural language (Boyd et al., 2022). In the current study, LIWC provided the percentage of agentic and communal words from cover letters.

### 3.2. Measures

**Communal and Agentic Words.** To establish communal and agentic categories of words, we relied on previous measures of communal and agentic words (Madera et al., 2009; Zajac et al., 2020) in natural linguistic content analysis (see supplementary materials file). Communal words included descriptors such as helpful, interpersonal, and caring, while agentic words included descriptors such as proficient, confident, and goal-oriented. To derive a score for analysis we calculated the percent of communal and agentic words in each cover letter.

**Gender of Applicant.** The participants self-selected their gender,<sup>1</sup> which was dummy coded as male = 0 and female = 1.

#### 3.2.1. Control variables

We used word count and words per sentence as control variables as women have been shown to write using more words and complex phrases (i.e., words per sentence) than men in natural language (Newman et al., 2008). Additionally, we controlled for whether participants worked in the food and beverage or hotel/lodging sector by dummy

<sup>1</sup> Although we recognize and respect the diversity within gender identities spectrum beyond the dichotomy of male and female, this research draws from research and theories that focus on the male/female gender role dichotomy.

coding their response. We also controlled for whether the participant was a manager or non-manager to account for use of different words that may have been used to describe themselves on cover letters.

### 3.3. Results

To test the hypotheses, we conducted an ANCOVA with applicant gender (male, female) as the independent variable and the communal and agentic words from the cover letters as the dependent variables, along with control variables.<sup>2</sup> The results revealed no main effect of gender on percentage of agentic language ( $F(1, 220) = 1.41, p = 0.24$ ), suggesting that no differences emerged between the agentic words that men ( $M = 2.44, SD = 2.65$ ) and women ( $M = 1.98, SD = 1.91$ ) used on their cover letters. However, the results revealed a main effect of gender on percentage of communal language on the cover letter ( $F(1, 220) = 4.95, p = 0.03$ ), such that communal words were used more by women ( $M = 1.53, SD = 1.61$ ) than by men ( $M = 1.03, SD = 1.16$ ). See Table 1 for the descriptive statistics of the agentic and communal language use.

In additional analyses we examined if the ratio between agentic and communal language participants used on the cover letters was different for men and women. A paired samples t-test examining the agentic and communal language difference was conducted for each gender, which showed that the agentic and communal language difference was significant for both men (mean difference = 1.41,  $SD = 3.05; t(70) = 3.89, p = 0.001$ ) and women (mean difference = 0.45,  $SD = 2.50; t(154) = 2.23,$

**Table 1**  
Descriptive statistics of the agentic and communal language across Study 1–3.

	Gender	Mean	SD	N
<b>Study 1 (Cover letters)</b>				
Agency	Male	2.44	2.65	71
	Female	1.98	1.91	155
	Total	2.13	2.17	226
Communal	Male	1.03	1.16	71
	Female	1.53	1.61	155
	Total	1.38	1.49	226
<b>Study 2 (Cover letters)</b>				
Agency	Male	6.98	4.31	44
	Female	6.84	4.32	92
	Total	6.89	4.30	136
Communal	Male	3.84	2.22	44
	Female	5.13	3.88	92
	Total	4.72	3.48	136
<b>Study 2 (Resumes)</b>				
Agency	Male	4.40	2.68	44
	Female	4.51	1.89	92
	Total	4.47	2.17	136
Communal	Male	2.67	1.61	44
	Female	3.59	1.99	92
	Total	3.29	1.93	136
<b>Study 3 (Resumes)</b>				
Agency	Male	10.61	2.88	50
	Female	9.69	3.49	50
	Total	10.15	3.22	100
Communal	Male	4.49	1.84	50
	Female	5.71	2.55	50
	Total	5.09	2.30	100
<b>Study 4 (Leadership success)</b>				
Agentic	Male	13.66	18.18	79
	Female	15.53	20.50	78
	Total	14.59	19.33	157
Communal	Male	7.93	9.59	79
	Female	10.56	10.19	78
	Total	9.24	9.95	157

<sup>2</sup> As robustness check, across all 4 studies the same analyses were conducted without the control variables. The results of all 4 studies remain the same with or without the control variables.

$p = .014$ ). Comparing the mean difference between men and women showed that the agentic-communal difference was stronger for men than for women (Cohen's  $d = 0.34$ ; Hedges'  $g = 0.36$ ).

### 3.4. Study 1 discussion

Consistent with social role theory and findings from previous gender studies, women used more communal language in resumes and cover letters than men. The results from Study 1, however, did not support the hypothesis that men would use more agentic words than women. This finding suggests that women are not necessarily conforming to stereotypes of being more communal than agentic and is consistent with research that shows that women are more likely to endorse masculine-related traits than they have in the past (Donnelly and Twenge, 2017). In addition, implicit stereotypes linking women to family and men to occupations have slowly weakened over time with women changing faster than men (Charlesworth and Banaji, 2022). A potential reason for this trend is that women in the United States have made significant progress in gaining agency and power. For example, women now make up nearly half of the workforce, and many formerly male-dominated fields have been more open to women. In addition, women have made significant gains in political representation, with a record number of women elected to Congress in recent years. Thus, women today may identify with more agentic characteristics than they have in the past. It is also important, however, to point out that the difference between agentic and communal language use on the cover letters was stronger for men than for women.

Although the participants in Study 1 were experienced full-time employees in the hospitality industry, it is important to note a limitation. The sample consisted of individuals who were not actively job-seeking at the time. This means that Study 1 relied on archival data, specifically cover letters from their previous job searches. This introduces a potential bias, as the materials were sourced from successful applicants. It is worth considering that unsuccessful applicants may have used different language, possibly including counter-stereotypical language, which could have influenced their hiring outcomes. Study 1 was also limited to cover letters. Not all employers require cover letters and therefore, it is important to also examine resumes, which are the typical applicant materials used in the selection process (Brandt and Herzberg, 2020). To address these limitations, in Study 2 we used both cover letters and resumes of hospitality professionals actively seeking employment.

## 4. Study 2 methodology

### 4.1. Sample and procedure

The sample included 136 (44 men, 92 women) participants attending a hospitality industry career fair who were enrolled in a hospitality management degree program. The participants were contacted via email to participate in our study in which they can upload their cover letters and resumes to receive feedback in exchange for participating in our study. They were sent a link to a Qualtrics survey where they were instructed to upload their cover letters and resumes. Similar to Study 1, they were asked to remove any identifying information such as their name, contact information, and address. The participants had an average age of 22.82 ( $SD = 5.55$ ) with 3.39 ( $SD = 3.94$ ) years of work experience. Participants self-identified as Caucasian (28.7%), Latinx (25%), Asian (24.3%), African American (6.6%), and mixed/multi-racial (15.4%). Of those who worked,<sup>3</sup> 40% worked in food service, hotel/lodging (20.7%), events (6%), retail (10.3%), club management

<sup>3</sup> No differences in the use of agentic and communal language on the cover letters and resumes emerged for the applicants who are currently working versus those who are unemployed searching for jobs.

(2.6 %), and other service jobs (19.8%). The participants worked an average of 27.25 ( $SD = 10.12$ ) hours a week. As in Study 1, these cover letters and resumes were downloaded for analysis using LIWC (Tausczik and Pennebaker, 2010). Cover letters and resumes were analyzed separately given that resumes are typically requested, whereas cover letters are often at the discretion of the applicant (Brandt and Herzberg, 2020).

#### 4.2. Measures

The same measures of communal words, agentic words, and the dummy coding of gender from Study 1 were used in Study 2. The same word count and words per sentence were used as control variables.

#### 4.3. Results

To test our hypotheses, a series of ANCOVAs were conducted with applicant gender (male, female) as the independent variable and agentic words from the cover letters and resumes as the dependent variables. For cover letters, results revealed no main effect of gender on the percentage of agentic language used in cover letters ( $F(1, 132) = 0.0001, p = 0.99$ ), suggesting that no differences emerged between the agentic words that men ( $M = 6.98, SD = 4.31$ ) and women ( $M = 6.84, SD = 4.32$ ) used in cover letters. The results revealed a main effect of gender on percentage of communal language used in cover letters ( $F(1, 132) = 4.81, p = 0.03$ ), such that communal words were used more by women ( $M = 5.13, SD = 3.88$ ) than by men ( $M = 3.84, SD = 2.22$ ) in cover letters (see Table 1).

For resumes, ANCOVA results revealed no main effect of gender on percentage of agentic language ( $F(1, 132) = 0.001, p = 0.98$ ), suggesting that no differences emerged between the agentic words that men ( $M = 4.40, SD = 2.68$ ) and women ( $M = 4.51, SD = 1.89$ ) used in their resumes. However, the results revealed a main effect of gender on percentage of communal language used in resumes ( $F(1, 132) = 5.63, p = 0.02$ ), such that communal words were used more by women ( $M = 3.59, SD = 1.99$ ) than by men ( $M = 2.67, SD = 1.61$ ).

In additional analyses, we examined if the ratio between agentic and communal language participants used on the application materials was different for men and women. For the cover letters, a paired samples t-test examining the agentic and communal language difference was conducted for each gender, which showed that the agentic and communal language difference was significant for both men (mean difference = 3.13,  $SD = 5.14; t(43) = 4.04, p = 0.001$ ) and women (mean difference = 1.71,  $SD = 5.25; t(91) = 3.12, p = .001$ ). Comparing the mean difference between men and women showed that the agentic-communal difference was stronger for men than for women (Cohen's  $d = 0.27$ ; Hedges'  $g = 0.27$ ).

For the resumes, a paired samples t-test examining the agentic and communal language difference was conducted for each gender, which showed that the agentic and communal language difference was significant for both men (mean difference = 1.73,  $SD = 3.28; t(43) = 3.49, p = 0.001$ ) and women (mean difference = 0.91,  $SD = 2.46; t(91) = 3.56, p = .001$ ). Comparing the mean difference between men and women showed that the agentic-communal difference was stronger for men than for women (Cohen's  $d = 0.28$ ; Hedges'  $g = 0.29$ ).

#### 4.4. Study 2 discussion

Replicating Study 1 using a different sample of hospitality industry professionals, the results from Study 2 showed that women use more communal language than men in both cover letters and resumes. In addition, women and men did not differ in their use of agentic language. However, the difference between agentic and communal language use on the application materials was higher for men than for women. A limitation of Study 1 and Study 2 is that samples consisted of archival sets of resumes and cover letters that participants had previously used when applying to a variety of organizations and therefore were not

providing materials to the same organization. Perhaps women used more communal words than men because they have worked in more customer-service positions than men (Study 2) or were applying to more customer-service positions than men (Study 1), requiring more use of communal words.

Therefore, Study 1 and Study 2 lacked a controlled environment in which participants react to the same stimuli. To address this limitation, Study 3 used resumes of applicants applying to the same management position for the same limited-service hotel to control for the type of job. Thus, applicants' resumes were developed for the exact same position and organizations using a quasi-experiment. Consequently, the purpose of Study 3 is to (1) explore if these differences in language extend to contexts in which individuals are applying to the exact same job, and (2) use quasi-experimental methods to triangulate findings with an additional method and source of data.

## 5. Study 3 methodology

### 5.1. Sample

We used Prolific to collect data from 100 employees (50 men, 50 women<sup>4</sup>) in the hospitality industry who were actively searching for a management position at limited-service hotels, properties that offer select facilities and amenities, typically without a full-service restaurant, but offer competitive pricing compared to full-service hotels (Belarmino et al., 2022). To participate, the applicants were required to be actively searching for hotel management positions, including at limited-service hotels, be an adult, and have work experience in the hospitality industry. The "Employment-Sector" filter on Prolific was set to "Hospitality & Tourism." The participants had an average age of 34.13 ( $SD = 7.32$ ) with 12.02 ( $SD = 7.32$ ) years of work experience. The majority self-identified as Caucasian (64 %), Latinx (16 %), Asian (8 %), African American (9 %), and mixed/multiracial (3 %).

### 5.2. Design and procedure

Using a two-group quasi-experiment, the participants were instructed that they were to read about a limited-service hotel and develop a resume for a management position. Following recommendations regarding applicants evaluating fictitious hotel websites (Lee et al., 2021), the participants read about the facts of a limited-service hotel, which was presented as an independent hotel to avoid any potential biases related to recognized brands (e.g., Hilton, Marriott). After reading about the hotel, the participants were instructed that the hotel had a management opening. The reason for using limited-service hotels is that they (1) are the most common type of hotel in the US, (2) are the fastest growing segment of the US hotel sector, and (3) require a small number of managers, who often manage most hotel departments and employees (Belarmino et al., 2022; Gordon et al., 2019; Mount and Frye, 2006). Thus, participants looking for management jobs in the limited-service hotel segment are likely to have similar skills and backgrounds.

After reading about the hotel, they were instructed to develop a resume.<sup>5</sup> Participants were instructed they could use their current resume and modify it as though they were applying to this hotel. Like Studies 1 and 2, they were instructed to deidentify the resume, which were then uploaded to Qualtrics. They were paid \$4.00 in exchange for participation. As in Studies 1 and 2, resumes were downloaded for analysis using LIWC.

<sup>4</sup> To have a gender-balanced sample, we requested an equal number of men and women for Study 3.

<sup>5</sup> Given the consistent findings across Study 1 and Study 2, Study 3 only used resumes to reduce the participants' burden and time spent in the study.

### 5.3. Measures

The same measures of communal words, agentic words, the dummy coding of gender, and control variables were used.

### 5.4. Results

To test our hypotheses, we conducted a series of ANCOVAs with applicant gender (male, female) as the independent variable and agentic and communal words from the cover letters as dependent variables, controlling for word count and words per sentence. Results revealed no main effect of gender on percentage of agentic language ( $F(1, 96) = 1.50, p = 0.22$ ), suggesting that no differences emerged between the agentic words that men ( $M = 10.61, SD = 2.88$ ) and women ( $M = 9.69, SD = 3.49$ ) used in their resumes (see Table 1). However, results revealed a main effect of gender on percentage of communal language used in resumes ( $F(1, 96) = 6.92, p = 0.01$ ), such that communal words were used more by women ( $M = 5.71, SD = 2.55$ ) than by men ( $M = 4.49, SD = 1.84$ ).

In additional analyses, we examined if the ratio between agentic and communal language participants used on the resumes was different for men and women. A paired samples *t*-test examining the agentic and communal language difference was conducted for each gender, which showed that the agentic and communal language difference was significant for both men (mean difference = 6.13,  $SD = 3.14; t(49) = 13.78, p = 0.001$ ) and women (mean difference = 3.98,  $SD = 4.59; t(49) = 6.12, p = .001$ ). Comparing the mean difference between men and women showed that the agentic-communal difference was stronger for men than for women (Cohen's  $d = 0.54$ ; Hedges'  $g = 0.54$ ).

### 5.5. Study 3 discussion

Study 3 replicated Studies 1 and 2 by showing that women use more communal language than do men on their resumes, even when applying to the same organization. In addition, women and men did not differ on their use of agentic language, although, the agentic-communal difference was stronger for men than for women. These results suggests that women may be perceived differently than men for leadership positions because leadership and management is often linked to agentic rather than communal traits (Castaño et al., 2019; Heilman and Caleo, 2018). However, the hospitality industry emphasizes communal qualities among frontline employees, such as being extra friendly, empathic, or concerned for the welfare of customers (Bahardwaja et al., 2018). Therefore, it is not clear whether emphasizing communal characteristics on their applicant materials (i.e., cover letters and resumes) place women at a disadvantage.

Consequently, the purpose of Study 4 is to examine how agentic and communal characteristics are perceived for success in leadership in the hospitality industry. Investigating whether hospitality professionals prioritize agentic or communal characteristics for success in their industry could provide insight into how the homogeneity among hospitality leadership is maintained. If leadership in hospitality is associated more with agentic characteristics, such as confidence and independence, it may lead to a preference for male leaders and perpetuate gender stereotypes. Similarly, if communal characteristics, such as collaboration and empathy, are less valued in leadership positions, it may perpetuate stereotypes that women do not fit leadership roles. By understanding the association between leadership and agentic versus communal traits, we can identify and address these biases, promote diversity in leadership positions, and create more gender equitable work environments. Following past research examining gendered language in describing success in a specific industry (Ramsey, 2017), Study 4 uses an open-ended format because research suggests that responses to open-ended questions comprise of thoughts that immediately come to an individual's mind, reflecting the schemas that individuals have of leaders (Jackson and Trochim, 2002; Schuman and Presser, 1979). Thus,

Study 4 examines the following research question:

**RQ1.** Is leadership success in the hospitality industry described using more agentic language than communal language?

## 6. Study 4 methodology

### 6.1. Sample

We used Prolific to collect data from 160 fulltime employees (50.3 % identified as male and 49.7% as female) working in the hospitality industry. The "Employment-Sector" filter on Prolific was set to "Hospitality & Tourism." To participate, applicants were required to be adults and have work experience in the hospitality industry. The participants had an average age of 37.69 ( $SD = 11.94$ ) with 12.20 ( $SD = 10.03$ ) years of work experience. The participants worked in the food and beverage sector (50 %), hotel/lodging sector (35 %), and casinos or country clubs (15 %); 56 % worked in a management position and 44 % were in non-management positions. The majority self-identified as Caucasian (75 %), Latinx (5.6 %), Asian (5.6 %), African American (12.5 %), and mixed/multiracial (1.2 %).

### 6.2. Procedure

Participants completed a Qualtrics survey via Prolific. Following past research examining gendered language in describing success in a specific industry (Ramsey, 2017), participants were asked using an open-ended question to describe qualities and traits an individual needs to be a successful leader in the hospitality industry. Participants were subsequently asked to complete demographic questions. The responses to the open-ended question were downloaded for analysis using LIWC to calculate the percentage of agentic and communal language used to describe successful leaders in the hospitality industry. Before being analyzed, the responses were cleaned following text preprocessing best practices (e.g., Banks et al., 2018; Boyd et al., 2022) by (1) correcting spelling errors, (2) removing stop words, which are common words that do not contribute to the meaning of the text (e.g., "the", "a", "an", "and", "or", and "but"), and (3) removing the repetition of the question (i.e., "the qualities and traits an individual needs to be a successful leader in the hospitality industry...").

We used the same measures of communal and agentic word usage employed in Studies 1–3. Participants self-selected their gender, which was dummy coded as male = 0 and female = 1 (three participants did not select gender and therefore were not used in the analyses). We included participant gender in the analyses given that men and women identify with agentic and communal characteristics differently (Donnelly and Twenge, 2017).

#### 6.2.1. Control variables

Similar to Studies 1–3, word count and words per sentence were used as control variables. Like Study 1, whether they worked in the food and beverage, hotel/lodging, or casino/country club sector was dummy coded and used as a control variable. We also controlled for whether the participant was a manager or non-manager to account for participants use of different words to describe success in leadership in the hospitality industry.

### 6.3. Results

The percent of agentic and communal language in the participant's description of a successful leader in the hospitality industry were analyzed using a mixed ANCOVA, with agentic vs. communal language as the within-subjects factor and gender (male or female) as the between-subjects factor. As shown in Table 2, the results revealed a significant main effect of agentic vs. communal language,  $F(1, 150) = 5.13, p = 0.025$ , indicating that the participants used more agentic

**Table 2**  
Within-between mixed ANCOVA results (Study 4).

Within subjects	df	Mean Square	F	p-value	Partial Eta Squared
Agentic vs. Communal	1	1224.423	5.134	0.025	0.033
Agentic vs. Communal * Gender	1	24.319	0.102	0.750	0.001
Error	150	238.470			
Between subjects Gender	1	324.870	2.00	0.159	0.013
Error	150	162.42			

language ( $M = 14.59$ ,  $SD = 19.33$ ) than communal language ( $M = 9.24$ ,  $SD = 9.95$ ) to describe a successful leader in the hospitality industry. Neither the main effect of gender nor the interaction effect were significant, suggesting that men and women did not differ in how they described a successful leader in the hospitality industry;  $F(1, 150) = 2.00$ ,  $p = 0.16$ . In addition, manager or non-manager status did not influence the use of agentic or communal language;  $F(1, 150) = 2.12$ ,  $p = 0.15$ .

#### 6.4. Study 4 discussion

The results of Study 4 showed that agentic language was used more than communal language to describe a successful leader in the hospitality industry. These results suggest that agentic characteristics are more strongly associated with leadership in the hospitality industry than communal characteristics. The finding can be attributed to two possible explanations. First, being agentic might be crucial for success in advancing into leadership positions. Some agentic characteristics such as confidence and decisiveness seem appropriate. However, other agentic characteristics, such as ambition and individualism, may hinder service climates that are important for hospitality organizations (Li and Huang, 2017). Alternatively, the dominance of men in leadership positions in the hospitality industry, who are commonly stereotyped as agentic, may have led to a false connection between agentic traits and success in leadership (Lee et al., 2023; Russen et al., 2021a).

### 7. General discussion

Across four studies, this paper examined the use of agentic and communal language in men and women's self-descriptions in applicant materials, as well as differences in agentic and communal language in descriptions of successful leaders in the industry. Studies 1–3 converged to show that women used more communal language in cover letters (Study 1 and 2) and resumes (Study 2 and 3) than men. These findings suggest that whether applying to different organizations (Study 1 and 2) or the same organization (Study 3) gender differences emerged for communal language but not for agentic language. Study 4 further suggests that agentic characteristics are more strongly associated than communal characteristics with leadership in the hospitality industry.

Why do these results matter? The literature shows an important pattern relevant to the current findings: communal language often leads to a penalty in work contexts, particularly for women. Communal traits are associated with a lack of competency (Elman et al., 2018) and a lack of fit with jobs and roles that are often linked to agency (Madera et al., 2008), such as leadership (Heilman et al., 2024). In addition, women (compared to men) are penalized when displaying too little or too much communal behaviors in work context (Nandkeolyar et al., 2022). Eagly et al. (2020) noted that a reason for the communal language disadvantage is that women continue to be overrepresented in jobs and roles that are communal, which often have lower prestige and pay. As such, society has associated communality with less competence and prestige. In addition, even in industries in which women are a significant percentage of the workforce, such as in the hospitality industry, their underrepresentation in leadership roles further perpetuates the communal language

disadvantage (Heilman et al., 2024).

#### 7.1. Theoretical implications

These results have important theoretical and practical implications for the underrepresentation of women in leadership positions in the hospitality industry. One major theoretical implication that can be drawn from our study is that applicants play a role in how gender stereotypes can manifest early in the selection process via applicant materials, such as cover letters and resumes. As such, the current study offers an additional explanation for the gender gap in hospitality leadership. There are two main lines of research exploring the factors contributing to gender gaps in leadership, categorized as supply-side and demand-side explanations (Stockdale and Nadler, 2013). Supply-side explanations focus on vocational interests and self-selection into occupations, including gender differences in vocational interests, college majors, motherhood, and gender role socialization (Su et al., 2009; England and Li, 2006; Shauman, 2006; Heilman and Okimoto, 2008). On the other hand, demand-side explanations emphasize discrimination or bias faced by women and men for occupations that are not stereotypically linked to their sex. This includes biases and beliefs based on sex stereotypes that can explain occupational sex segregation, such as implicit biases and beliefs about men's and women's roles and attributes that can lead to bias against women in leadership roles (Ridgeway, Backor, Li, Tinkler, and Erickson, 2009; Braun et al., 2017; Rudman and Kilianski, 2000).

In our studies, we observed that (1) women tend to use more communal language compared to men on their application materials, (2) the agentic and communal language difference ratio was stronger for men than women (i.e., men used more agentic and less communal language than women), and (3) agentic characteristics are more strongly associated than communal characteristics with leadership in the hospitality industry. Taking these findings into account, when women tend to utilize more communal language than men, and this distinction in the use of agentic and communal language is more pronounced for men across the studies (i.e., supply-side), it places women at a potential disadvantage when it comes to leadership roles in the hospitality industry (i.e., demand-side). This is because leadership positions in this field are more strongly associated with agentic attributes rather than communal ones. Thus, the current research shows that applicants play a role in the supply-side (Study 1–3), which influences demand-side biases (Study 4).

Another theoretical contribution is based on the finding that women used agentic language in similar rates as men, contributing to the growing understanding of how social roles may have shifted as a result of changing norms regarding women in the workforce (Eagly et al., 2000; Stockdale and Nadler, 2013). Since the 1970 s, educational attainment of women has dramatically increased from 11 % to 45 % in 2019, with 52 % of women employed in management, professional, or related field (Bureau of Labor Statistics, 2021). Building on our understanding of gender roles and the need for women to adapt to changing environments (supply-side; Donnelly and Twenge, 2017), our findings suggest that as more women have entered and expect to remain in the workforce, they may have adopted more agentic characteristics that are perceived to be essential for success in work that has previously been typified by male roles and agentic traits such as dominance, assertiveness, and independence. Further, these finding suggest that women may be perceived differently than they have in the past during selection processes. Based on previous studies, hiring managers make selection decisions based on agentic language (Heilman and Okimoto, 2007; Madera et al., 2018) and this adoption of agentic language may provide more employment opportunities for women in leadership positions. However, while men and women use similar levels of agentic language, our findings also show that women use greater levels of communal language than men do in selection materials, which may elicit gender role stereotypes and negative decisions in the selection process. In fact,

the difference between agentic and communal language participants used on the application materials was stronger for men than for women across the studies.

Our findings also have theoretical implications for understanding the gendered language used to describe leadership. The results of Study 4 suggest that hospitality employees often describe successful leaders in more agentic, rather than communal ways, indicating that implicit beliefs of successful leadership in the hospitality industry continue to be grounded in agentic, rather than communal characteristics. Due to gender stereotypes that associate leadership with agentic attributes, prior research has argued and demonstrated that women are often not considered for leadership and management positions because they are associated with communal, rather than agentic attributes (Castaño et al., 2019; Heilman and Caleo, 2018). We therefore have theoretical and empirical reasons to suspect that broad expectations of leadership roles in the hospitality industry continue to be congenial to men (Bahardwaja et al., 2018; Eagly and Johannesen-Schmidt, 2001). Informing the demand-side explanations, our findings show that success in leadership is attributed to agentic characteristics, elucidating potential reasons for why women are frequently overlooked for leadership positions during initial recruitment stages (i.e., resume and cover letter screening).

Finally, our findings also contribute to the discussion of how gender stereotypes influence representation of men in communal roles. Recent meta-analytic research has shown that gender stereotypes have changed in the past seventy years, indicating that while women continue to be perceived by others as less agentic than men, women have increasingly been viewed as more communal (Eagly et al., 2019). Our results indicate that while men and women are similar in their use of agentic language in application materials, women tend to use communal language more so than men. This may suggest to some that as gender stereotypes change, men may be at a disadvantage in selection decisions when applying for roles that have been dominated by women due to demand-side expectations (Froehlich et al., 2020). However, men have been shown to be less interested in applying for communal positions that are dominated by women, which may be a function of the lower perceived prestige and less financial rewards often associated with communal and women-dominated roles (Eagly et al., 2019; Kleinjans et al., 2017). Moreover, studies are currently inconclusive of whether this gender gap of men in communal roles occurs and whether the gap is due to the qualifications and interests of applicants (supply-side) or because of discrimination and bias in the selection process (demand-side; Manzi, 2019). Therefore, while we have focused on hospitality leadership roles that are currently dominated by men and described as agentic, future research should explore how men describe themselves in application materials for communal roles in the hospitality industry to further our understanding of why gender gaps in these positions continue to persist.

## 7.2. Practical implications

Our study provides several practical implications. First, our study highlights the importance of understanding how language use may differ between genders in applicant contexts. The fact that gender differences emerged for communal language but not for agentic language suggests that gender biases are more likely to occur in evaluations of communal characteristics, which are stereotypically associated with women. This finding has important practical implications for organizations in the hospitality industry and other fields, as it underscores the need to promote gender equality by addressing gender biases in recruitment and selection processes. As such, hiring managers and recruiters might consider training in the use of standardized assessments of resumes and cover letters, which have been shown to reduce bias during the resume screening process (Deros et al., 2021).

Our results also have practical implications for job seekers in the hospitality industry. Job seekers looking for management and leadership roles should be particularly aware of biases that may inadvertently place preferences towards agentic, rather than communal

characteristics. While this may lead some to the conclusion that women should highlight agentic characteristics in cover letters and resumes, prior theory and research has shown that gender roles and stereotypes create a double standard for women, such that they are penalized for violating societal gender roles by highlighting agentic characteristics that are generally ascribed to men or when tempering communal characteristics that are inconsistent with female stereotypes (He and Kang, 2021; Tyler and McCullough, 2009). Therefore, we recommend that human resources decision makers critically evaluate the knowledge, skills, and abilities being assessed during the early recruitment process by conducting a thorough job analysis to ensure that job descriptions and evaluations are consistent with and predictive of the job-related performance of leaders and managers (Stamarski and Son Hing, 2015).

The results of our study also emphasize the importance of creating a more inclusive work environment that values and recognizes the contributions of both women and men, regardless of their gender stereotypes. As men continue to dominate leadership positions in the hospitality industry, employees' schemas of effective leadership may continue to be linked to predominantly agentic characteristics, such as independence, self-confidence, and ambition. However, this is contrary to research that has shown that effective leadership attributes often include communal characteristics, such as being concerned for others, friendly, and interpersonal (Carli, 2001; Eagly et al., 2003). Our findings indicate that hospitality organizations may not be benefiting from the communal characteristics that both women and men have to offer. As such, hospitality managers should foster an inclusive work environment that encourages and rewards employees for engaging in communal behaviors, which signals to staff that these behaviors are valued and necessary for management roles.

## 7.3. Limitations and future directions

The present study has several limitations. First, our study is limited by the use of text analysis software (LIWC) to assess the use of communal and agentic language by respondents in resumes, cover letters, and descriptions of effective leaders. Although this methodology has been validated and used in multiple studies to assess communal and agentic language (Madera et al., 2009; Pietraszkiewicz et al., 2019), it is possible the words typified as communal or agentic may change in meaning in the context of the full text. This is because LIWC is unable to account for the context in which the words are derived which may change the perceptual valence of a word. For example, the word 'relationships' would indicate communal characteristics in the context of building relationships with coworkers, whereas building relationships with executives may be seen as agency towards building power. As such, gender stereotyping research would benefit from unravelling the extent to which communal and agentic assessments of selection documents made by text analysis software reflect human assessments situated in the contextual features of each word.

Another potential limitation is the generalizability of our results outside of the hospitality industry. While we found that women and men in the hospitality industry did not differ in their use of agentic language in resumes and cover letters, this may have been a result of both women and men adapting to demand for agentic characteristics specific to hospitality positions. Moreover, while our study sampled hospitality broadly, there may be differences across levels of management and leadership. As research by Rosette and Tost (2010) have shown, women in top leadership positions are perceived as more effective when they are both more agentic and communal than women in middle management positions. Therefore, use of agentic language for women may increase when the position is higher in an organization's hierarchy and lower when the position is lower. We encourage future research to explore the generalizability of our results by testing how language used by applicants may differ as a result of differences in industry stereotypes or management levels.

Our study is also potentially limited by the sample employed across

studies, which included respondents currently residing in the United States who submitted resumes, cover letters, and descriptions of successful leaders in English. Cultural differences may influence gender roles in society, such that communal and agentic behavior may be different across different cultures. For example, East Asian cultures have been shown to be more collective than Western cultures, such as the United States (Oyserman, 2017), which may alter how communal and agentic characteristics are perceived. As Obioma et al., (2022) has shown, cross-cultural differences in gender stereotypes may influence the extent to which both men and women evaluate themselves and others as agentic or communal. Therefore, future research might examine how culture may alter the language people use in selection materials and their descriptions of successful leaders.

Additionally, while our study shows that agentic language is more often associated with descriptions of successful leaders in the hospitality industry, we cannot be certain that their use may lead to biased assessments in selection decisions. However, social role theory and empirical evidence would suggest that deviation from gender roles would result in negative decisions in the selection process (Heilman, 2024; Rosette et al., 2016). As such, future research might explore potential outcomes in the selection process, such as hireability and job offers.

#### 7.4. Conclusions

This research investigates how women and men job seekers in the hospitality industry may describe themselves differently in resumes and cover letters using agentic and communal language. We also examined how women and men differed in their descriptions of successful leaders in the hospitality industry. In studies 1–3, text analysis of respondent resumes and cover letters demonstrate that women used more communal language to describe themselves than men, whereas no differences were found in the use of agentic language. In Study 4, text analysis of respondent descriptions of successful leaders in the hospitality industry suggest that agentic characteristics are more strongly associated with leadership than communal characteristics. Taken together, these findings highlight how gender stereotypes in selection contexts can be attributed to women using more communal language than men in the initial stages of job recruitment and underscores the need to assess potentially biased selection processes that uphold the underrepresentation of women in leadership positions in the hospitality industry.

#### CRedit authorship contribution statement

**Juan Madera:** Conceptualization, Formal analysis, Methodology, Project administration, Supervision, Writing – original draft. **Alberto Beiza:** Writing – review & editing, Writing – original draft, Conceptualization, Data curation, Formal analysis. **Dustin Maneethai:** Conceptualization, Writing – original draft, Writing – review & editing.

#### Declaration of Competing Interest

The authors have no conflict of interests to declare.

#### Data Availability

The data that has been used is confidential.

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