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Compensating through Jargon for Status Signaling among Psychology Students

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ABSTRACT

Academic jargon is often framed as a functional tool for efficient communication among experts, yet prior research suggests it may also serve as a status signal, particularly for individuals occupying lower-status positions. Drawing on theories of compensatory status signaling, the present research examines whether women studying psychology—a historically underrepresented group in academic science—engage in motivated communication and use jargon when presenting their scientific work. Using data from 1,739 research conference posters, two studies employed computational text analysis to examine gender differences in language use. Study 1 assessed motives of communication using Linguistic Inquiry and Word Count software (LIWC2015), focusing on latent variables of authenticity and drive. Gender of each first author was predicted using the DemografixeR R package, which scored first names based on historical name usage. Results indicated that women's posters exhibited significantly higher drive and lower authenticity scores than men's, suggesting greater evaluative concern and impression management. Study 2 examined whether these motivational differences translated into greater jargon use, operationalized as linguistic complexity via 36 readability indices derived from the Quanteda R package. No significant gender differences emerged across any measures of linguistic complexity. Findings suggest that while women may experience heightened pressures in academic communication, these pressures do not manifest in greater use of complex or jargon-laden language. This study contributes to the literature on the intersection of gender and communication, highlighting the need to reconsider assumptions about jargon as a compensatory strategy among marginalized scholars.

Keywords: Status Signaling; Motivated Language; Impression Management; Social Identity

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1. Introduction

The use of jargon is commonplace across educational institutions to present research findings (not commonly understood by the general public) to colleagues and experts within a particular discipline. While jargon is primarily used to communicate with other professionals within a shared field in an efficient and direct manner, it can inadvertently convey more than just its overt content. Studies have shown that individuals perceived as lower status, both economically and racially, are often strongly motivated to elevate their status through visible status symbols like expensive cars and jewelry, but not on less visible yet practical objects such as household appliances[1,2]. The existing literature indicates that this inferiority complex brought upon by low social status can easily translate to academia in the form of jargon use[3,4]. Jargon is defined as language used by a specialized group that is difficult for outsiders of a particular linguistic community to comprehend[5]. Researchers have extended this definition to include an additional feature: jargon is deliberately used in place of more accessible alternatives[3]. This feature can help us to understand whether a sense of low status will cause individuals to opt to use jargon to present as higher status. Thus, the present work seeks to evaluate linguistic complexity particularly among women, who have been historically underrepresented and of perceived lower status than men in the psychological sciences, to investigate status signaling behaviors through language.

The core assumption of this paper is that women are treated as lower status individuals than men in the field of psychology. A subsequent and related hypothesis of this study is that status associated with gender affects the use of jargon. That is, having low status based on being a woman may lead to increased jargon use, especially in academia, where linguistic complexity is often associated with greater intelligence, thereby higher status[6,7]. Studies have shown that low-status individuals often want to promote or show their contributions to their group as a way of elevating status in the eyes of other group members[8–10]. In academia, this equates to the publish-or-perish principle: the pressure to frequently publish to demonstrate research contribution to peers and afford exclusive access to limited professorial opportunities[11,12]. In this context, examining how internalized beliefs of low status relate to compensatory jargon use among women in research can help inform administrators about the pressures and devaluation that marginalized groups may experience in academic settings and spread awareness of systemic inequalities in employment opportunities for women and other marginalized identities[3,4,7,13].

1.1. Gender Inequality and Biases in Academia

Limits to women's access to education and their disproportionate underrepresentation in scientific fields justify why they may continue to feel a sense of low status in academia compared to men[14,15]. Indeed, studies show that women in academia are more prone than men to feelings of inadequacy (i.e., imposter syndrome) and concerns regarding impression management (i.e., curating appearance to manage one's reputation)[16]. Some studies further reveal that some women may even internalize patriarchal ideals and consider men to be of superior status[17]. In addition to signaling their membership in a group, women may therefore also use jargon more frequently for purposes of social mobility to increase their status and receive respect or admiration from others, which they may deem to be lacking[18].

Although gender differences in academic performance have been linked extensively to stereotype threat rather than natural and fixed genes[19–21], some researchers have sought to argue for men's intellectual superiority by measuring intelligence testing differences from an unrepresentative sample of men and women and generalizing their findings to the broader population[22,23]. These types of studies have been repudiated by other scholars for methodological errors, an oversimplification of intelligence domains, and operationalization of intelligence based on verbal cues without considering social influences on behavioral responses[7]. Acknowledging the systemic undermining of women's intellectual capabilities in research may help to explain the biases that some women may internalize and manifest as increased jargon and prolixity in scientific communication in response to this prejudice[24,25].

1.2. Jargon and Status Signaling

Even though academic leaders have recently called for limitations on professional jargon in publications that are meant to effectively communicate scientific research findings to the general public and to policymakers[26], studies

suggest that graduate students are inadvertently trained to use jargon as a socialization process to facilitate social bonding with colleagues and affirm their group membership as newcomers in a highly collaborative institution [27,28]. Hence, jargon becomes a specific form of language used not only to communicate efficiently, but also to signal information about individual status within a group [3,4]. This pressure to elevate status not only consumes resources by reducing the digestibility of research findings to the public, but also heightens individual stress levels, generates unethical practices among scholars to publish more to achieve perceived higher status, and reduces the quality of education by marginalizing teaching abilities in favor of superficially prolific publications when hiring faculty [29,30]. Integrating these arguments, this paper uses archival data to examine whether women studying psychology—as perceived lower status individuals in academia—will be more likely than men to utilize jargon and assess what motives underlie this linguistic strategy.

Researchers have found that low status increases jargon use after comparing dissertation titles produced by authors from lower-status schools (based on university rankings), which included more jargon than titles produced by authors from higher-status schools [3,4]. The prediction that women may use more jargon than men is rooted in the assumption that men and women have disparate underlying goals and motivations when communicating with their peers in academia. Scholars have argued that most men are more likely to concern themselves with clarity and accuracy in communication to ensure that others recognize their contributions to group goals by using the most appropriate language to communicate [31–34]. In contrast, since women face additional obstacles from being in a marginalized group, scholars argue that this will result in women's greater focus on status (i.e., how the audience is evaluating them relative to other students) given their different social concerns [18,34–37].

1.3. The Current Study

Overall, research findings suggest that women typically show heightened evaluative concern whereas men typically exhibit greater concerns with communication clarity (i.e., less jargon), with this distinction influencing the relationship between low status and jargon use [3]. This study builds on a growing body of research examining compensatory status signaling through the lens of gender. Utilizing the Linguistic Inquiry and Word Count software (LIWC2015) [38], and the Quanteda R package, two studies of computer-based text analyses were conducted to summarize the language metrics of research conference posters to determine textual clarity. This study's dataset of research conference posters was specifically selected as a research conference is an ideal environment to study compensatory behavior, such as jargon, since the way an individual presents research and generates interest from colleagues can determine competency in research and likelihood of employment in academia. Low social status (determined by historical underrepresentation) will be a predictor of jargon use; thus, women are predicted to include more jargon in their conference posters than men do in order to attract the attention and respect of their professional peers.

2. Study 1: Gender as a Predictor of Motivated Communication

2.1. Hypothesis for Study 1

Women, being perceived as lower status in academia, will exhibit more drive and lower authenticity scores in their communications than men.

2.2. Methods for Study 1

Study 1 tested the hypothesis by analyzing research conference posters (n = 1,739) to examine whether posters produced by first authors who are women include more jargon than those produced by first authors who are men. Titles and abstracts of conference posters and their first authors' first names were manually scraped from publicly available data from the annual Society for Personality and Social Psychology conference program held in 2011.

2.2.1. Independent Variable: Gender

To assess the gender of the first author, the DemografixeR package was run using R Studio to predict gender from a first name [39]. This package connected directly to the genderize.io API, parsed each name, and returned its predicted gender and associated assurance percentage of prediction accuracy [39,40]. The 41 names that were returned with an 'NA' were removed from the dataset as outliers prior to

analysis. Gender was treated as an independent variable and measured on a nominal scale. For analytic purposes, gender was converted into numerical scale and as a dichotomous variable with two levels of men (n = 738) and women (n = 1,001).

2.2.2. Dependent Variables: Motives Underlying Communicated Text

In Study 1, latent variables of authenticity and drive from the LIWC2015 were the dependent variables used to assess motivated communication. The LIWC2015 generates these variables as standardized scores on a ratio scale that ranges from 0 (i.e., very low levels) to 100 (i.e., very high levels)[38]. Higher authenticity scores detect writing that is more honest and unguarded in nature, thus representing the degree of curated communication, whereas drive scores detect need for fulfillment via factors such as achievement and self-actualization, domination, reward, and risk-taking[38]. Based on prior research, women were predicted as more likely to be concerned with status and focus relatively more on carefully curating their words, reflected in lower authenticity scores and higher drive scores.

2.3. Results for Study 1

Text analyses were conducted to analyze the degree to which women and men exhibit social concern over their research presentations. The three variables incorporated into analyses of the poster texts were gender, drive (M = 11.18, SD = 6.22), and authenticity (M = 39.00, SD = 30.29) (**Table 1**). Correlation analyses were conducted between the dependent variables to assess multicollinearity, which indicated a small and positive correlation that was not significant, $r(1{,}737) = 0.02$, $p = 0.49$, two-tailed.

Table 1. Overall means (M) and standard deviations (SD) of drive and authenticity scores.

Gender	Drive	Authenticity
Man	M = 10.83 SD = 6.09	M = 40.69 SD = 31.02
Woman	M = 11.43 SD = 6.31	M = 37.76 SD = 29.70
Column Means	M = 11.18 SD = 0.15	M = 39.00 SD = 0.73

Drive and authenticity scores were subjected to independent samples *t*-tests, from which results show significant mean gender differences in drive and authenticity scores. For drive, scores were higher for women (M = 11.43, SD = 6.31) than for men (M = 10.83, SD = 6.09) (**Table 1**), $t(1737) = -1.97$, $p = 0.049$, two-tailed (**Table 2**). Levene's test significance of 0.156 indicated equal variance (**Table 2**). Thus, the assumption of homogeneity of variance was met for drive, and results showed a significant difference in drive as a function of gender.

For authenticity, men (M = 40.69, SD = 31.02) scored higher than women (M = 37.76, SD = 29.70) (**Table 1**), $t(1548.56) = 1.98$, $p = 0.048$, two-tailed (**Table 2**). Levene's test significance of 0.019 indicated a variance difference (**Table 2**), so a Welch's corrected ANOVA was performed via SPSS and degrees of freedom were adjusted from 1,737 to 1,549, $F(1, 1{,}737) = 5.47$, $p = 0.048$. After running a corrected *t*-test, results demonstrated a significant difference in authenticity as a function of gender.

Power analyses conducted in G*Power using Cohen's effect sizes obtained from SPSS (drive: d = −0.095; authenticity: d = 0.097) indicated that larger sample sizes—approximately 5,894 to assess drive (**Figure 1**) and 5,654 to assess authenticity scores (**Figure 2**)—would be required to detect more robust effects.

Table 2. Summary of independent samples *t*-test for drive and authenticity scores.

		Levene's Test for Equality of Variances		*t*-Test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	*t*	df	*p* (Two-Tailed)	Mean Difference	Standard Error Difference	Lower	Upper
Drive	Equal variances	2.01	0.156	−1.97	1,737	0.049	−0.59	0.30	−1.18	−0.002
	Unequal variances			−1.98	1,617.98	0.048	−0.59	0.30	−1.18	−0.005
Authenticity	Equal variances	5.47	0.019	1.99	1,737	0.047	2.93	1.47	0.04	5.81
	Unequal variances			1.98	1,548.56	0.048	2.93	1.48	0.03	5.82

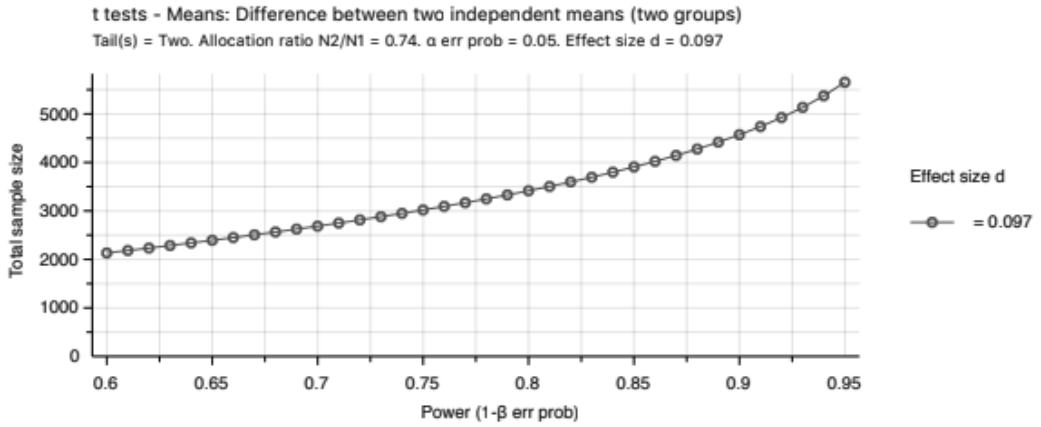

Figure 1. Power analysis of drive scores (d = 0.097).

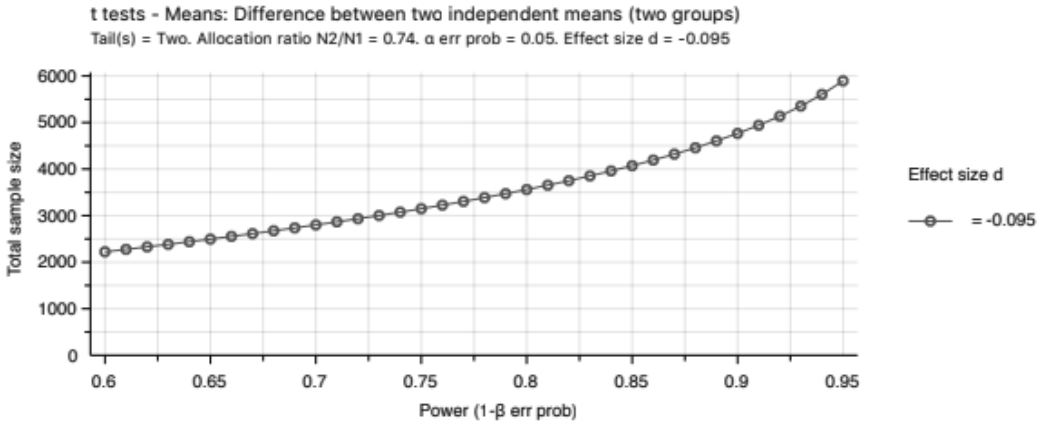

Figure 2. Power analysis of authenticity scores (d = −0.095).

2.4. Discussion for Study 1

Study 1 examined whether gender differences emerge in the linguistic expression of drive and authenticity within research conference poster texts. Using LIWC2015, statistically significant differences between women and men were identified on both variables [41]. Thus, the results of this study indicated that women scored higher in drive as a motive when communicating their research to group members. On the contrary, men, who are historically perceived as higher status holders, scored higher in authenticity in their posters. These findings confirm the hypothesis that women tend to exhibit greater drive and lower authenticity scores in their communications than men, indicating women's greater likelihood of experiencing needs for fulfillment from lack thereof. Overall, this study provides preliminary evidence of gender-linked variation in linguistic patterns within academic research presentations.

3. Study 2: Gender as a Predictor of Linguistic Complexity

3.1. Hypothesis for Study 2

Women, being perceived as lower status in academia, will use more linguistically complex language (indicated by readability scores) in their communication than men.

3.2. Methods for Study 2

The same dataset from Study 1 was used to conduct a series of independent t-tests to examine how jargon is associated with gender.

3.2.1. Independent Variable: Gender as a Status Measure

The same measure of gender to determine status from Study 1 was used for Study 2.

3.2.2. Dependent Variables: Linguistic Complexity as a Form of Jargon

Jargon was operationalized as the linguistic complexity of each conference poster. To do this, linguistic complexity scores were obtained using the Quanteda R package in R Studio [42], which runs each text (i.e., the poster title and poster abstract per first author) through 36 individual R packages that analyze readability and generate scores based on linguistic complexity. The coding of this package sets the minimum and maximum sentence lengths to include in the computation of readability and by doing so, makes it easier to exclude sentences that are not necessarily sentences (e.g., section titles, table elements, etc.). This package also implemented formulas that calculated the number of words, characters, sentences, syllables, familiarity of words, average sentence and word lengths, and number of difficulty words [42]. This study examined the formulas separately to test whether higher scores per formula are indicators of greater linguistic complexity, hence greater use of jargon. These scores were used to determine whether women, being a historically marginalized group (i.e., lower social status), will include more jargon in the form of complex language in their conference posters as described in the prior research findings [3].

3.3. Results for Study 2

For Study 2, a secondary text analysis was conducted to analyze the degree to which women and men exhibit social concern over their research presentations using the same dataset of conference posters from Study 1. The dependent variable of linguistic complexity scores was generated from 36 separate readability tests, with the mean and standard deviation of each test calculated separately for men and women (**Table 3**).

Table 3. Overall means (M) and standard deviations (SD) of linguistic complexity scores.

Test	Man	Woman	Column Means
ARI	M = 13.64 SD = 6.22	M = 13.73 SD = 6.54	M = 13.69 SD = 6.41
Bormuth.MC	M = −1.91 SD = 0.63	M = −1.91 SD = 0.65	M = −1.91 SD = 0.64
Bormuth.GP	M = 23,274,108.10 SD = 18,342,772.93	M = 23,894,927.04 SD = 19,856,179.38	M = 23,631,462.76 SD = 19,225,519.91
Coleman	M = 16.01 SD = 19.14	M = 15.67 SD = 18.15	M = 15.81 SD = 18.57
Coleman.C2	M = 26.06 SD = 17.59	M = 25.65 SD = 16.57	M = 25.82 SD = 17.01
Coleman.Liau.ECP	M = 18.23 SD = 26.33	M = 17.78 SD = 27.90	M = 17.97 SD = 27.23
Coleman.Liau.grade	M = 18.07 SD = 7.21	M = 18.19 SD = 7.64	M = 18.14 SD = 7.46
Coleman.Liau.short	M = 18.07 SD = 7.21	M = 18.19 SD = 7.64	M = 18.14 SD = 7.46
Dale.Chall	M = 6.34 SD = 14.09	M = 7.06 SD = 14.53	M = 6.76 SD = 14.34
Dickes.Steiwer	M = −409.07 SD = 98.17	M = −410.59 SD = 103.44	M = −409.944 SD = 101.21
DRP	M = 290.74 SD = 63.00	M = 291.43 SD = 64.68	M = 291.14 SD = 63.95
ELF	M = 6.33 SD = 2.23	M = 6.36 SD = 2.23	M = 6.35 SD = 2.23
Farr.Jenkins.Paterson	M = −42.07 SD = 3.17	M = −42.10 SD = 3.24	M = −42.08 SD = 3.21
Flesch	M = 11.12 SD = 43.31	M = 11.20 SD = 41.29	M = 11.17 SD = 42.15
Flesch.PSK	M = 8.58 SD = 2.32	M = 8.58 SD = 2.21	M = 8.58 SD = 2.26
Flesch.Kincaid	M = 14.45 SD = 5.99	M = 14.45 SD = 5.71	M = 14.45 SD = 5.83
FOG	M = 18.38 SD = 6.25	M = 18.38 SD = 5.49	M = 18.38 SD = 5.82
FOG.PSK	M = 6.41 SD = 1.65	M = 6.41 SD = 1.47	M = 6.41 SD = 1.55

Table 3. *Cont.*

Test	Man	Woman	Column Means
FOG.NRI	M = −0.37 SD = 0.56	M = −0.36 SD = 0.57	M = −0.37 SD = 0.57
FORCAST	M = 13.67 SD = 2.23	M = 13.71 SD = 2.11	M = 13.69 SD = 2.16
FORCAST.RGL	M = 13.46 SD = 2.45	M = 13.51 SD = 2.32	M = 13.49 SD = 2.38
Fucks	M = 68.43 SD = 20.38	M = 68.78 SD = 20.71	M = 68.63 SD = 20.57
LIW	M = 56.54 SD = 15.97	M = 56.63 SD = 14.85	M = 56.59 SD = 15.33
nWS	M = 13.50 SD = 4.90	M = 13.52 SD = 4.42	M = 13.51 SD = 4.63
nWS.2	M = 13.66 SD = 4.71	M = 13.67 SD = 4.24	M = 13.67 SD = 4.45
nWS.3	M = 11.33 SD = 4.62	M = 11.32 SD = 4.07	M = 11.33 SD = 4.31
nWS.4	M = 10.82 SD = 4.28	M = 10.82 SD = 3.77	M = 10.82 SD = 3.99
RIX	M = 4.95 SD = 2.05	M = 4.98 SD = 2.01	M = 4.97 SD = 2.02
Scrabble	M = 13.81 SD = 3.06	M = 13.89 SD = 2.71	M = 13.86 SD = 2.86
SMOG	M = 13.81 SD = 3.06	M = 13.89 SD = 2.71	M = 13.86 SD = 2.86
SMOG.C	M = 13.40 SD = 2.74	M = 13.45 SD = 2.46	M = 13.43 SD = 2.58
SMOG.simple	M = 13.24 SD = 2.94	M = 13.32 SD = 2.60	M = 13.29 SD = 2.75
SMOG.de	M = 8.24 SD = 2.94	M = 8.31 SD = 2.60	M = 8.29 SD = 2.75
Spache	M = 6.99 SD = 1.15	M = 6.96 SD = 1.14	M = 6.97 SD = 1.15
Spache.old	M = 7.63 SD = 1.21	M = 7.14 SD = 2.23	M = 7.15 SD = 2.23
Strain	M = 7.14 SD = 2.23	M = 7.15 SD = 2.24	M = 7.15 SD = 2.23
Traenkle.Bailer	M = −434.11 SD = 104.44	M = −434.81 SD = 111.34	M = −434.51 SD = 108.44

Each linguistic complexity score was subjected to an independent samples *t*-test as a dependent variable with gender as the independent variable. Results showed women did not have mean linguistic complexity scores that significantly differed from those of men, showing that gender did not have a significant impact on jargon use (**Table 4**). That is, the effects of gender on linguistic complexity scores were all statistically insignificant. Levene's test indicated equal variances for all *t*-tests except for: FOG, FOG.PSK, nWS and its variations, and SMOG and its variations (**Table 5**). For the tests with equal variances, scores for linguistic complexity were not significantly different between women and men (**Table 4**).

For the aforementioned packages with unequal variances, Levene's test significance values less than 0.05 indicated variance differences based on the mean (**Table 5**). Thus, a Welch's corrected ANOVA (a separate-variances formula) was performed via SPSS to include scores based on adjusted degrees of freedom. Even after running corrected *t*-tests, results still demonstrated no significant difference in linguistic complexity as a function of gender. The point estimates of ANOVA effect sizes for all independent samples *t*-tests on gender and linguistic complexity scores were near zero ($\eta^2 \leq 0.004$), indicating very small effects. Similarly, estimated omega-squared values suggested that, at most, only 0.5% of the variance in linguistic complexity scores could be attributed to gender differences, implying that a larger sample may be needed to detect a stronger effect.

Table 4. Summary of independent samples *t*-test for linguistic complexity scores.

Test	*t*-Test for Equality of Means			95% Confidence Interval of the Difference	
	t	df	p	Lower	Upper
ARI	0.30	1,737	0.76	−0.52	0.70
Bormuth.MC	−0.22	1,737	0.82	−0.07	0.05
Bormuth.GP	0.67	1,737	0.51	−1,209,879	2,450,617
Coleman	−0.38	1,737	0.71	−2.11	1.43
Coleman.C2	−0.49	1,737	0.62	−2.02	1.21
Coleman.Liau.ECP	−0.34	1,737	0.74	−3.04	2.15
Coleman.Liau.grade	0.34	1,737	0.74	−0.59	0.83
Coleman.Liau.short	0.34	1,737	0.74	−0.59	0.83
Dale.Chall	1.03	1,737	0.30	−0.65	2.08
Dickes.Steiwer	−0.31	1,737	0.76	−11.15	8.11
DRP	−0.19	1,737	0.85	−0.33	0.28
ELF	0.04	1,737	0.97	−3.94	4.09
Farr.Jenkins.Paterson	−0.03	1,737	0.97	−0.22	0.21
Flesch	−0.02	1,737	0.99	−0.56	0.55
Flesch.PSK	−0.02	1,737	0.98	−0.56	0.55
Flesch.Kincaid	0.04	1,737	0.97	−0.15	0.15
FOG	0.45	1,737	0.65	−0.04	0.07
FOG.PSK	0.38	1,737	0.71	−0.17	0.25
FOG.NRI	0.38	1,737	0.71	−0.18	0.27
FORCAST	0.36	1,737	0.72	−1.60	2.31
FORCAST.RGL	0.12	1,737	0.91	−1.37	1.55
Fucks	0.09	1,737	0.93	−0.42	0.46
LIW	0.05	1,737	0.96	−0.41	0.43
nWS	−0.03	1,737	0.97	−0.42	0.40
nWS.2	−0.02	1,737	0.98	−0.38	0.38
nWS.3	0.26	1,737	0.80	−0.17	0.22
nWS.4	1.20	1,737	0.23	−0.005	0.02
RIX	0.57	1,737	0.57	−0.19	0.35
Scrabble	0.30	1,737	0.76	−0.52	0.70
SMOG	−0.22	1,737	0.82	−0.07	0.05
SMOG.C	0.57	1,737	0.57	−0.19	0.34
SMOG.simple	0.57	1,737	0.57	−0.19	0.34
SMOG.de	−0.49	1,737	0.63	−0.14	0.08
Spache	−0.48	1,737	0.63	−0.14	0.09
Spache.old	0.10	1,737	0.92	−0.20	0.22
Strain	−0.13	1,737	0.90	−11.01	9.63
Traenkle.Bailer	0.57	1,737	0.57	−0.19	0.34

Table 5. Tests of homogeneity of variance for linguistic complexity tests with unequal variances.

Test		Levene's Statistic (F Value)	df1	df2	Sig.
FOG	Based on Mean	10.23	1	1,737	0.001
	Based on Median	10.30	1	1,737	0.001
	Based on Median with adjusted df	10.30	1	1,704.01	0.001
	Based on trimmed mean	10.23	1	1,737	0.001
FOG.PSK	Based on Mean	8.69	1	1,737	0.003
	Based on Median	8.37	1	1,737	0.004
	Based on Median with adjusted df	8.37	1	1,713.61	0.004
	Based on trimmed mean	8.48	1	1,737	0.004
nWS	Based on Mean	4.45	1	1,737	0.04
	Based on Median	4.57	1	1,737	0.03
	Based on Median with adjusted df	4.57	1	1,706.75	0.03
	Based on trimmed mean	4.50	1	1,737	0.03
nWS.2	Based on Mean	4.79	1	1,737	0.03
	Based on Median	4.85	1	1,737	0.03
	Based on Median with adjusted df	4.85	1	1,706.13	0.03
	Based on trimmed mean	4.83	1	1,737	0.03
nWS.3	Based on Mean	9.18	1	1,737	0.002
	Based on Median	9.24	1	1,737	0.002
	Based on Median with adjusted df	9.24	1	1,700.84	0.002
	Based on trimmed mean	9.20	1	1,737	0.002

Table 5. *Cont.*

Test		Levene's Statistic (F Value)	df1	df2	Sig.
nWS.4	Based on Mean	10.18	1	1,737	0.001
	Based on Median	10.25	1	1,737	0.001
	Based on Median with adjusted df	10.25	1	1,704.00	0.001
	Based on trimmed mean	10.18	1	1,737	0.001
SMOG	Based on Mean	9.45	1	1,737	0.004
	Based on Median	6.66	1	1,737	0.01
	Based on Median with adjusted df	6.66	1	1,706.49	0.01
	Based on trimmed mean	8.11	1	1,737	0.004
SMOG.C	Based on Mean	8.08	1	1,737	0.01
	Based on Median	6.39	1	1,737	0.01
	Based on Median with adjusted df	6.39	1	1,717.74	0.01
	Based on trimmed mean	7.84	1	1,737	0.01
SMOG.simple	Based on Mean	8.45	1	1,737	0.004
	Based on Median	6.66	1	1,737	0.01
	Based on Median with adjusted df	6.66	1	1,706.49	0.01
	Based on trimmed mean	8.11	1	1,737	0.004
SMOG.de	Based on Mean	8.45	1	1,737	0.004
	Based on Median	6.66	1	1,737	0.01
	Based on Median with adjusted df	6.66	1	1,706.49	0.01
	Based on trimmed mean	8.11	1	1,737	0.004

3.4. Discussion for Study 2

Study 2 did not support the hypothesis that women would use more jargon or exhibit higher linguistic complexity in research posters compared to men. Across 36 different readability measures, no significant gender differences were observed, and effect sizes were negligible. These findings suggest that the use of jargon in poster presentations is not systematically related to gender. Contrary to the assumption that women might use more jargon to compensate for historically lower perceived status in academia, results indicated that both women and men employ similar levels of linguistic complexity when communicating their research. Overall, Study 2 highlights that, unlike subtle differences in motivational or authenticity-related language observed in Study 1, jargon appears to be largely independent of gender.

4. General Discussion

The impenetrability of some academic writing may, in part, reflect efforts to signal intelligence and group membership. In Study 1, statistically significant differences emerged in LIWC-derived drive and authenticity scores based on gendered first names in conference poster texts. Specifically, women showed higher drive scores, whereas men showed higher authenticity scores. These findings portrayed gender-based linguistic patterns, supporting the first hypothesis that women may be more preoccupied with social concerns than men, who in turn may be more concerned with providing clearer communication to ensure group recognition.

In contrast, Study 2 found no statistically significant differences in linguistic complexity scores across gendered first names. These results did not support the second hypothesis that women use more jargon than men in academic settings. Taken together, the findings suggest that while women may face more social stress from feelings of unfulfillment (i.e., greater drive), this does not necessarily manifest as increased jargon use in presentations. One possible explanation for the incongruence between the two studies' findings is that motivational states such as heightened drive may influence the tone or delivery of communication rather than the verbosity of a poster. That is, women may use jargon in their speech rather than their writing, especially in high-pressure public speaking environments like a research conference.

Several limitations to this study must be recognized. First, although LIWC-derived variables have been tested to provide indicators of language patterns, these scores should be interpreted with caution as they were not validated self-report measures of intent or motivation. Additionally, the operationalization of gender based on first names excluded nonbinary gender identities, limiting the generalizability of scores to gender minorities. Another limitation is that the analyses did not control for confounding variables that may affect jargon. Factors such as socioeconomic status, disability status, sexual orientation, and race are a few examples of variables that could also indicate historical statuses of

marginalized groups that may affect the use of jargon to an equal or greater extent than gender. For example, people of color may experience pressures to perform well due to stereotypes associated with their race or ethnicity, and not solely based on characteristics attributed to gender identity. Similarly, women who hold multiple marginalized identities may face additional, intersecting stressors that intensify social and professional pressures[43]. Finally, the dataset was limited to a single year of conference data and within a specific subfield of social psychology, which may not account for more recent language behaviors in academia and restrict the generalizability of the findings to other subfields of psychology.

5. Conclusions

The primary contribution of this study was to examine whether gender is associated with differences in linguistic patterns in academic conference posters. Gender differences were examined in the underlying motives of language in conference posters, as well as in linguistic complexity scores to assess jargon use. While Study 1 demonstrated a significant difference in motive, Study 2 did not support the main prediction that jargon varies significantly based on gender. Future research utilizing more comprehensive measures of jargon, larger and more diverse datasets, and additional controls for potential confounding variables may help clarify the relationship between social identity and linguistic patterns in academic settings. Further investigation of social identities and their influence on behavior can signal to administrations in higher education that feelings of inadequacy caused by inequitable treatment in academia may still be prevalent today and portrayed in research output. The compensatory action to increase jargon use may also negatively impact the quality of scientific writing by focusing on characteristics that are irrelevant to advancing research. Therefore, by drawing on these social issues, more research on compensatory tendencies among marginalized identities can help inform a more equitable research community in academia.

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Data available upon reasonable request. Please contact the corresponding author.

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The author declares no conflict of interest.

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