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Research Paper

Author Count, Author Gender, and Authorial Stance: A Corpus-Assisted Analysis

Esmaeel Ali Salimi[1]
Associate Professor *of Applied Linguistics, Department of English Language and Literature, Faculty of Persian Literature and Foreign Languages, Allameh Tabataba'i University, Tehran, Iran*
Mahmood Salimi
Assistant Professor of Applied Linguistics, Department of English Language and Literature, Faculty of Humanities and Literature, University of Qom, Qom, Iran
Behzad Nezakatgoo
Assistant Professor of Applied Linguistics, Department of English Language and Literature, Faculty of Persian Literature and Foreign Languages, Allameh Tabataba'i University, Tehran, Iran
Ali Marami Hajikandi
PhD Student in Applied Linguistics, Department of English Language and Literature, Faculty of Persian Literature and Foreign Languages, Allameh Tabataba'i University, Tehran, Iran

Abstract
Numerous studies have corroborated the importance of metadiscourse in academic writing. As one of the main components of metadiscourse, stance has received fairly extensive attention recently. One of the questions in this regard (with conflicting results) has been the relationship between author gender and the use of stance markers. Moreover, the relationship between

[1] Corresponding author: easalimi@atu.ac.ir

author count and stance markers in research articles has been extremely under-researched. Therefore, this study set out to investigate the relationship of author gender and author count with stance markers in the applied linguistics research articles. To this end, a corpus of 416 articles (with a total word count of over 2.6 million words) was used for the author count question. Of this large corpus, 199 articles were used for the gender-stance investigation. The normalized frequencies of stance markers were extracted using LancsBox corpus analysis software. Then, the obtained data was analyzed using Mann-Whitney test to shed light on the relationship of author gender and author count with authorial stance. Mixed results were obtained for the relationship of author count and authorial stance components (including hedges, boosters, self-mention markers, and attitude markers), while no significant result was obtained for the relationship between gender and stance.

***Keywords**:* Hedges, Boosters, Self-Mention Markers, Attitude Markers, Research Article

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1.Introduction

Publishing articles has been a concern for various stakeholders for decades. As Crase and Rosato (1992) note, university professors can attain promotions in their workplace and also get distinguished among their colleagues. They also assert that the second group for whom article publishing is of great importance involves the university deans who want to heighten their university rank through increased number of publications and more renowned professors.

One of the important features of an article that has a decisive role in the acceptance of articles for publication is metadiscourse (Bahrami et al., 2018). As Hyland (2005) puts it, metadiscourse is used by the authors for various purposes, one of which is to interact with the readers. One of the main concepts present in the interaction model (Hyland, 2005) regards stance

markers (Hyland, 2012; Hyland & Jiang, 2017; Hyalnd & Zou, 2021; Poole, 2021). Stance is defined as "the writer's textual 'voice' or community recognized personality, an attitudinal, writer-oriented function which concerns the ways writers present themselves and convey their judgments, opinions, and commitments" (Hyland, 2008, p. 7).

A brief review of the related literature shows that various aspects of stance have been researched so far, including the role of the nationality of the authors, their native/nonnative status, their gender, and the difference between novice and expert writers in using stance markers. Nonetheless, as it would be shown in the Literature Review section, the results obtained in some of these areas have been conflicting. As one of the main focal points of this study, it is shown that there are disagreeing results with regard to the role of gender in the use of stance markers, with some studies findings support for the role of gender and some not finding such a role for it in relation to stance. Therefore, an effort to shed more light on this conflict seems to be worthwhile, especially via adoption of a larger and more comprehensive corpus.

On the other hand, an extensive examination of the previous works on stance shows that although a few studies have substantiated the positive effect of collaborative writing on the use of metadiscourse markers by language learners, no study has yet probed the relationship between author collaboration and stance markers in research articles published in scholarly journals (with the exception of a limited article that contrasted single- and multiple-author research article abstracts for self-mention markers). Given the positive relationship between collaborative writing and metadiscourse use in learning environments and the enormous number of articles published every year by the single and multiple authors, it seems important to try to clarify stance use from author collaboration lens.

All in all, the examination of the previous literature on stance showed conflicting conclusions regarding the role of gender in this regard and the scarcity of research on the relationship between author count and authorial stance. Consequently, the article at hand focused on these two directions.

2. Conceptual Framework

The concept of stance is driven from the interaction model proposed by Hyland (2005). He suggests that stance regards the way authors "stamp their personal authority onto their arguments or step back and disguise their involvement" (Hyland, 2005, p. 177).

In Hyland's model (2005), stance is made of four components, namely hedges, boosters, attitude markers, and self-mention markers. Hedges provide the writers with a means to soothe their claims and allow readers to discuss their claims. Examples of hedging words in Hyland's list includes words such as *frequently*, *generally*, *could*, and *apparently*. Opposite to the hedges are the boosters. These regard the terms that are used by the authors to boost their claims. Examples of boosters include terms such as *always*, *beyond doubts*, *indisputably*, and *prove*. When taken together, hedges and boosters constitute the evidentiality aspect of metadiscourse in texts (Hyland & Jiang, 2016).

The third component of the stance construct is attitude markers, which refers to the affective (Hyland & Jiang, 2016) rather than epistemic positioning of the author toward his/her claim. Example terms from Hyland (2005) list include *admittedly*, *appropriate*, *disappointingly*, and *prefer*. Finally, the last component of stance regards self-mention markers. They show author's presence (Hyland & Jiang, 2016), and include first-person pronouns, possessive adjectives, and other words that allude to the writer(s) of the intended article, including *I*, *my*, *we*, our, *the author*, and *the writer's*.

We adopted Hyland's model because it has been extensively used in metadiscourse studies, and it lends itself well to quantitative corpus analysis. To see a complete list of words and terms related to Hyland's metadiscourse framework, readers can refer to Hyland (2005).

3. Literature Review

Research on stance has taken various paths. Some of the more common directions regard the nationality of the authors and their native/nonnative status, discipline, the question that if they are novice or expert writer, and their gender.

The first line of research on stance has focused on the nationality of authors, with very close ties to their native/nonnative status. For instance, Soodmand Afshar and Bagherieh (2014) found that Iranian graduate students used less hedging markers in their thesis abstracts compared to English-speaking students. Similarly, the study by Soodmand Afshar, Asakereh, and Rahimi (2014) revealed significant differences in using hedging devices in the discussion section of articles written by Iranian and English authors. Ädel (2022) maintained that Swedish article writers used more 'I' than American and British authors, while Chen (2020) suggested that English article authors use 'I' more than their Chinese counterparts. The study by Walková (2019) showed that Slovak writers who write in English use less self-mention markers than English writers. This tendency toward neutral language was also witnessed in the articles written by the Turk authors of English articles (Can & Cangir, 2019). Candarli, Bayyurt, and Marti (2015) found that Turkish and American students had comparable authorial presence. A study by Yang (2013) demonstrated that the articles written by Chinese authors had less hedging markers than the ones written by English-speaking authors. Molino (2010) discovered that the pronoun 'I' is used with a markedly higher rate in English compared to Italian research articles. Finally, Jalilifar (2007)

found that Persian thesis and dissertation writers used hedging devices nearly fifty percent less than their English counterparts.

The second line of research on stance regards the discipline regarding which the article is written. Hyland and Zou (2021) found that the students of social sciences used less stance markers than their hard science counterparts. Ädel's (2022) study showed that linguistics articles contained more 'I' and 'we' pronouns than literary studies articles, while the latter group had more such pronouns than history articles. The study by Soodmand Afshar et al. (2014) confirmed inter- and intra-disciplinary differences in using hedging devices. Similarly, Soodmand Afshar et al. (2014) found significant differences in the use of hedging devices in the abstract section of Geography, Chemistry, and Medicine disciplines. The study of Bondi (2014) demonstrated that the article abstracts of economics articles had more 'we' pronoun than history and linguistics abstracts. The study by Hu and Cao (2015) showed that boosters were used more in psychology articles than applied linguistics and education articles. Examining a corpus of nearly 1 million words, Babaii et al. (2015) found that psychology articles used more stance markers than sociology articles. Mcgrath's study (2016) demonstrated that the rate of using 'I' pronoun has been greater in anthropology articles than history papers. Salas (2015) came to the conclusion that that linguistics articles contained more metadiscourse markers than economics and medicine articles. Jalilifar's study (2007) revealed that theses and dissertations of hard sciences used more 'we' in their abstracts than soft sciences. Poole (2021) found support for intra-disciplinary variation in the use of metadiscourse markers. This study showed that the texts used in the Courts of Appeals and the Supreme Court have different rates of metadiscourse use. In their diachronic study, Hyland and Jiang (2016) achieved mixed results. They discovered that the normalized frequency of stance markers has declined in

applied linguistics and sociology articles in the course of 5 decades, but the same figure has been augmented in electrical engineering and biology papers. Moreover, Soodmand Afshar and Bagherieh (2014) found no difference in the use of hedging markers in the thesis abstracts written by Persian literature and engineering students.

The third line of research regards the use of metadiscourse markers by novice vs. expert writers. Aull et al. (2017) found that in non-discipline-specific essays, novice students used more generalization markers than advanced students and article authors. Flowerdew (2001) maintained that some journal editors believed novice authors do not have authorial voice (which is partly derived from stance markers). Jalali (2017) concluded that published research articles used anticipatory *it* clauses generally more than the texts written by postgraduate students did, though there were some lexical bundles which were used more by the latter group than the former group. Finally, Bahrami et al. (2018) suggested that the main reason for the rejection of novice authors' articles by scholarly journals is their unprofessional use of academic discourse, of which hedging is a part. These research works show that novice writers' use of metadiscourse markers is either more or less than the level used by and expected from professional authors, and has practical consequences for them.

The fourth line of research concerns the relationship between author gender and the use of authorial stance markers. Unlike the three previous related directions of research, the results of the fourth path are not so uniform. Some of the studies done in this arena maintain that gender is not an effective factor in the use of stance markers. For example, Bacang, Rillo, and Alieto (2019) found that there are no statistically significant differences between male and female English argumentative essay writers in terms of using hedges and boosters. Similarly, the study by Güçlü (2022) came to no

significant difference in using stance marker components in the master's thesis conclusion sections by Turk male and female students. Finally, Salek and Yazdanimoghaddam (2014) could not find any significant difference in using interactive metadiscourse markers by male and female authors of academic articles.

A second group of studies, however, suggest that gender has a significant role in the use of stance markers in academic writing. For instance, Ghafoori and Oghbatalab (2012) concluded that male authors used the overall interactional markers, boosters, and self-mention markers significantly more than female authors, while no difference was found for hedges. They did not take into account the attitude markers. The study by Weisi and Asakereh (2020) revealed that male authors of applied linguistics articles used more hedges in the discussion section than their female counterparts. Latif and Tahir Rasheed's (2020) study showed that Pakistani female writers of academic articles used more hedges and less boosters in the abstract, discussion, and conclusion section of their articles than their male counterparts. In their study of metadiscourse markers use in the abstract and discussion sections of the English articles in different disciplines written by Iranian authors, Tafaroji Yeganeh and Ghoreyshi (2015) came to the conclusion that males used more boosters while females used more hedges. Examining the reflective essays written by inbound students in Malaysia, Rahmat et al. (2020) concluded that male students used more hedges, while female students used more boosters and self-mention markers. Ghazanfari, Barani, and Rokhsari (2018) found mixed results pertaining to the use of metadiscourse markers in the students' English papers by male and female native and non-native (Iranian) student authors. Their results showed that while there were no significant differences between male and female student authors in the use of boosters, the other components of interactional

metadiscourse (i.e., hedges, self-mention markers, attitude markers, and engagement markers) had mixed results.

As this brief review of the literature suggests, unlike the first three directions of research on authorial stance that have shown generally uniform results, the third line of research has had mixed results. Moreover, the studies of on the relationship between gender and stance had mainly got their results from relatively small corpora. Moreover, most of them focused on only a part of research articles. Therefore, the study at hand was carried out to examine the role of gender in using authorial stance markers using a larger corpus of full-sized research articles. To this end, the following primary hypothesis was posed:

> MH1.There is no significant difference between male and female authors in using stance markers in English applied linguistics research articles.

Moreover, as the literature shows that stance components might take different routes (e.g., Ghazanfari et al., 2018; Hyland & Jiang, 2018), the following four secondary hypotheses were also suggested:

> SH1. There is no significant difference between male and female authors in using hedges in English applied linguistics research articles.
> SH2.There is no significant difference between male and female authors in using boosters in English applied linguistics research articles.
> SH3.There is no significant difference between male and female authors in using attitude markers in English applied linguistics research articles.
> SH4.There is no significant difference between male and female authors in using self-mention markers in English applied linguistics research articles.

On the other hand, we examined the previous literature for the relationship between collaborative writing and metadiscourse markers, and came to the fact that there have been very few studies in this regard. Mirzaei and Eslami's (2013) study showed that scaffolding could help English

learners use metadiscourse markers more frequently and properly. The findings of Lei and Chan (2018) supported the positive effect of collaborative learning on the frequency of using metadiscourse markers. As these few studies show, collaborative writing has a positive effect on the frequency of the use of metadiscourse markers in language learning environments. Aside from these two articles that were in the writing instruction realm, we found only one study by Li (2021) related to metadiscourse and author count. This study came to the conclusion that self-mention pronouns are used twice more frequently in coauthored article abstracts than single-author article abstracts. However, this study has been limited to the abstract of the articles and focuses only on self-mention markers. Hence, to inspect the much larger list of stance markers by Hyland (2005) in full-length articles, the second primary hypothesis was posed as follows:

> MH2. There is no significant difference between single- and multiple-author articles in using stance markers in English applied linguistics research articles.

Moreover, to examine the possible similarities/differences in the subcomponents of stance, the following four secondary hypotheses were also suggested:

> SH5. There is no significant difference between single- and multiple-author articles in using hedges in English applied linguistics research articles.
>
> SH6. There is no significant difference between single- and multiple-author articles in using boosters in English applied linguistics research articles.
>
> SH7.There is no significant difference between single- and multiple-author articles in using attitude markers in English applied linguistics research articles.

SH8.There is no significant difference between single- and multiple-author articles in using self-mention markers in English applied linguistics research articles.

4. Methodology

The purpose of the article at hand was to shed light on the relationship of author gender and author count with the use of stance markers in applied linguistics research articles through quantitative corpus analysis. Several steps were taken to this end, which are delineated in the following lines.

4.1Data Collection and Corpus Construction

This paper is derived from a multifaceted research project. In that project, a corpus of 416 applied linguistics articles were collected through stratified random sampling technique. To this end, 2 articles from 2 issues in each year from 2000 to 2020 were selected from 10 applied linguistics journals ranked in the 1st quartile of SCOPUS. The journals included Applied Psycholinguistics, Studies in Second Language Acquisition, Language and Education, Language Learning Journal, Language Testing, Language Teaching Research, English for Specific Purposes, Journal of English for Academic Purposes, Modern Language Journal, and TESOL Quarterly.

After downloading the articles, they went through a trimming process in which only the main body of the articles were preserved. That is, the title, abstract, keywords, headings, footnotes, endnotes, tables, figures, excerpts, extracts, examples, quotations, acknowledgements, references, and appendices were removed. This led to a general corpus of over 2.6 million words.

As an offshoot of that larger study, this paper addressed the relationship between author count and authorial stance as its first question. To this end, all the 416 articles were taken into account in the form of two groups: single-author and multiple-author articles. The purpose was to see if there was any

difference between single-author and multiple-author articles in using the overall stance markers and the four stance components.

The second question addressed in this paper regarded the relationship between author gender and authorial stance. Once again, we would like to include all articles in the corpus for the analysis. However, as it was not possible to determine the share of each author in penning down the texts of the corpus articles, we had to limit our analysis for the second question to the single-author articles. Out of the 416 articles of the corpus, we had 203 single-author and 213 multiple-author articles. In the next stage, the single-article articles were examined for gender information. Although this helped us identify the gender of some authors, the lack of gender-related information about authors moved us to check all available online databases such as Researchgate, Linkedin, the authors' respective university websites, and book publishers' webpages to determine the gender of the remaining authors. When this investigation was completed, we concluded that 123 authors were female and 76 were male. Nonetheless, the gender of 4 authors could not be determined, and so their articles were not included in the data analysis phase. Therefore, the second question of this article took into account 199 articles.

4.2 Corpus Analysis Tool

The corpus analysis software used in this research project was LancsBox (Brezina, Timperley, & McEnery, 2018). This is the free software published by the Lancaster University, and has previously been used in some other research projects such as Can and Cangir (2019). The software entails many useful tools that facilitate quantitative corpus analysis to a great extent. Among its many features, the software entails the Whelk tool, which allows the researcher to obtain the raw and normalized frequency of the target terms. Moreover, the Key Word in Context (KIWIC) tool of LancsBox software can help the researcher with the frequency of a word in a corpus, a class of words

in a corpus, passives and split infinitives using its "smart searches" feature, the provision of the concordance lines, and the provision of statistical comparisons of the use of a term in two corpora. A third useful instrument provided by this software is its Text tool, which presents the exact part of the corpus in which the target token exists. This allows for the contextual analysis of the data. Consequently, considering its large box of corpus tools and its use by the previous studies, we chose LancsBox as our corpus analysis software.

4.3 Data Analysis

After collecting and trimming the articles, they were fed into LancsBox, and the normalized frequencies for the stance markers proposed by Hyland (2005) were achieved. The reason for the use of normalized frequency rather than raw frequency was the highly various word lengths of the articles. The average, minimum, and maximum word counts of the trimmed articles in the corpus were 6300, 1773, and 15218 words, respectively. The use of normalized frequency controlled for the effect of article lengths on the obtained results.

The list of stance markers proposed by Hyland (2005) has 214 words and phrases, including 76 hedges, 64 boosters, 67 attitude markers, and 7 self-mention markers. Using the Text tool in the LancsBox software, the dubious terms were checked in the corpus, and the ones that were not used for authorial stance purposes were removed from the obtained frequencies (e.g., the cases of I which were used as a numerical sign in the articles rather than a self-mention marker).

Using Kolmogorov-Smirnova and Shapiro-Wilk tests of normality in SPSS, it was determined that the data related to all subcomponents of stance was non-normal (p=.000). Taking this and the point that we had two groups of articles in each question (i.e., male vs. female authors and single vs.

multiple authors), it was determined the Mann-Whitney test would be the most appropriate test for both questions (see Field, 2009).

5. Results

The purpose of this research project was to examine the relationship of author count and gender with authorial stance in the research articles of applied linguistics. In this part of the paper, the quantitative analysis results of the corpus-driven normalized frequencies are presented.

5.1 Author Gender and Authorial Stance

Primary hypothesis 1 and secondary hypotheses 1-4 were about the relationship between authors' gender and authorial stance in the applied linguistics articles. To this end, 123 female- and 76 male-authored articles were compared in terms of the frequency of authorial stance markers in them. The results of Mann-Whitney test of the overall stance markers along with those related to hedges, boosters, attitude markers, and self-mention markers are given in Tables 1 and 2.

Table 1
Mann-Whitney Test Ranks for Gender

	Author gender	N	Mean rank	Sum of ranks
Overall	female	123	99.11	12191
	male	76	101.43	7709
	Total	199		
Attitude markers	female	123	98.38	12101
	male	76	102.62	7799
	Total	199		
Boosters	female	123	99.28	12212
	male	76	101.16	7688
	Total	199		
Self-mention	female	123	101.47	12481
	male	76	97.62	7419
	Total	199		
Hedges	female	123	97.19	11954
	male	76	104.55	7946
	Total	199		

Table 2
Mann-Whitney Test Statistics for Gender

	Overall	Attitude markers	Boosters	Self-mention	Hedges
Mann-Whitney U	4565	4475	4586	4493	4328
Z	-.27	-.50	-.22	-.46	-.88
Asymp. Sig. (1-tailed)	.39	.31	.41	.32	.19

a. Grouping variable: Author gender

As Tables 1 and 2 illustrate, there is no significant difference between female- (*Mdn* = 99.11) and male- (*Mdn* = 101.43) authored articles in the use of overall stance markers in applied linguistics articles (U = 4565, z = -.27, p = .39, r = -.01). Thus, MH1 hypothesis is retained. Similarly, there is no significant difference between female- (*Mdn* = 98.38) and male- (*Mdn* = 102.62) authored articles in the use of attitude markers (U = 4475, z = -.50, p = .31, r = -.02); no significant difference between female- (*Mdn* = 99.28) and male- (*Mdn* = 101.16) authored articles in the use of boosters (U = 4586, z = -.22, p = .41, r = -.01); no significant difference between female- (*Mdn* = 101.47) and male- (*Mdn* = 97.62) authored articles in the use of self-mention markers (U = 4493, z = -.46, p = .32, r = -.02); and no significant difference between female- (*Mdn* = 97.19) and male- (*Mdn* = 104.55) authored articles in the use of hedges (U = 4328, z = -.88, p = .19, r = -.04). Therefore, secondary hypotheses SH1 to SH4 should be retained.

Putting all these together, the findings showed that no significant difference existed between female- and male-authored articles in using the overall stance markers, attitude markers (affect function), hedges and boosters (evidentiality function), and self-mention markers (presence function).

5.1 Author Count and Authorial Stance

Primary hypothesis 2 and secondary hypotheses 5-8 were about the relationship between author count and authorial stance in the applied linguistics articles. To this end, 203 single-author and 213 multiple-author articles were compared with regard to the frequency of authorial stance markers in them. The results of Mann-Whitney test of the overall stance markers along with those related to hedges, boosters, attitude markers, and self-mention markers are given in tables 3 and 4.

Table 3
Mann-Whitney Test Ranks for Author Count

	Author count	N	Mean rank	Sum of ranks
Overall	Single	203	214.17	43477
	Multiple	213	203.09	43259
	Total	416		
Attitude markers	Single	203	214.05	43452
	Multiple	213	203.21	43284
	Total	416		
Boosters	Single	203	222.91	45250
	Multiple	213	194.77	41486
	Total	416		
Self-mention	Single	203	180.17	36574
	Multiple	213	235.50	50162
	Total	416		
Hedges	Single	203	228.89	46465
	Multiple	213	189.07	40271
	Total	416		

Table 4
Mann-Whitney Test Statistics for Author Count

	Overall	Attitude markers	Boosters	Self-mention	Hedges
Mann-Whitney U	20468	20493	18695	15868	17480
Z	-.94	-.92	-2.39	-4.69	-3.38
Asymp. Sig. (1-tailed)	.17	.18	.01	.00	.00

a. Grouping variable: Author count

As Tables 3 and 4 illustrates, there is no significant difference between single- (*Mdn* = 214.17) and multiple- (*Mdn* = 203.09) author articles in the

use of overall stance markers in applied linguistics articles (U = 20468, z = -.94, p = .17, r = -.05). Thus, MH2 hypothesis is retained. Similarly, there is no significant difference between single- (*Mdn* = 214.05) and multiple- (*Mdn* = 203.21) author articles in the use of attitude markers (U = 20493, z = -.92, p = .18, r = -.05). Therefore, we might retain SH7 hypothesis.

On the other hand, Tables 3 and 4 show that there is a significant difference between the two groups of articles, where single-author articles (*Mdn* = 222.91) use boosters significantly more than multiple-author articles (*Mdn* = 194.77) (U = 18695, z = -2.39, p = .01, r = -.12). Therefore, SH6 can be rejected. On the contrary, it is found that single-author articles (*Mdn* = 180.17) use less self-mention markers compared to multiple-author articles (*Mdn* = 235.50) (U = 15868, z = -4.69, p = .00, r = -.23). Thus, SH8 might be rejected. Finally, tables 3 and 4 demonstrate that single-author articles (*Mdn* = 228.89) use more hedging devices than multiple-author articles (*Mdn* = 189.07) (U = 17480, z = -3.38, p = .00, r = -.17). Thus, SH5 might be rejected.

Bringing all these together, the findings showed that no significant difference existed between single- and multiple-author articles in using the overall stance markers and attitude markers. However, single-author articles were found to use more boosters and hedges and less self-mention markers than multiple-author articles. From the functional viewpoint, the results showed that the two groups of articles were not different in terms of affect (attitude markers). Moreover, the single-author articles had stronger evidentiality (hedges and boosters) and weaker presence (self-mention markers) than multiple-author articles.

6. Discussion

This study set out to examine the relationship of author gender and author count with the use of stance markers in applied linguistics articles. To this

end, a corpus of 416 articles was used for author count and a selection of 199 single-author articles for author gender. Different results obtained after analyzing the data using Mann-Whitney test.

Unlike Lei and Chan (2018) and Mirzaei and Eslami (2013) who reported higher use of metadiscourse markers for the collaborated works by language learners, our results showed that single- and multiple-author articles were not different in their use of stance markers in general and attitude markers in particular. A more different finding was that single-author articles had more frequencies of hedges and boosters (as the two components of evidentiality function) than multiple-author articles. It seems that having multiple authors in an article might have a mitigating effect on the use of hedges and boosters in the articles. As the evidential roles of hedges and boosters are opposite, namely hedges are used to soothe the claims made by the author(s), while boosters are to show the confidence of the authors in their claims, this finding seems to be confusing and in need of further research.

On the other hand, multiple-author articles used self-mention markers significantly more than single-author articles, which is congruent with the findings of Li (2021), Lei and Chan (2018), and Mirzaei and Eslami (2013). In fact, it seems that as collaborated articles have more authors than single-author articles, the tendency of the authors to have more self-mention – the *presence* function in Hyland (2005) model – is higher among them.

The second set of questions in this study examined the relationship between gender and stance markers. As it was discussed in the literature review section, the previous studies on the role of gender and metadiscourse markers have been split, with some studies finding support for the role of gender in using metadiscourse markers and some studies negating such a relationship. Our results sided with the second group of studies, including Bacang et al. (2019), Güçlü (2022), and Salek and Yazdanimoghaddam

(2014). That is to say, we found that male and female authors do not have any significant difference in the use of overall stance markers or its subcategories. This is at odds with the findings of Ghafoori and Oghbatalab (2012), Weisi and Asakereh (2020), Latif and Tahir Rasheed (2020), Ghazanfari et al. (2018), Rahmat et al. (2020), and Tafaroji Yeganeh and Ghoreyshi (2015). These studies have revealed different – and often conflicting – trends of metadiscourse marker use by male and female writers. We might justify our finding by looking at the previous literature in which factors such as author nationality and native/nonnative status (e.g., Ädel, 2022; Soodmand Afshar & Bagherieh, 2014; Yang, 2013), discipline (e.g., Mcgrath, 2016; Poole, 2021), and novice/expert status (Aull et al., 2017; Bahrami et al., 2018; Jalali, 2017) have been found to be decisive factors in determining the use of stance markers. Putting together the concepts of discipline and expertise, we might assert that as all expert academicians (both male and female) come into contact with similar disciplinary texts during their studies, it seems that they learn the mechanics of text in their specific discipline at a high level. Then, when writing articles, they produce texts similar to the ones they have read during their learning period. That is to say, their similar professional learning background overshadows the possible effect of their gender on their use of stance markers.

All in all, this study revealed for the first time that author count is an effective factor in the use of authorial stance markers in research articles. Moreover, the extensive scope of the data used in this article strongly supported those previous studies that found no relationship between gender and stance.

7. Conclusion

As a large-scale study of stance-markers, this study tried to shed light on some disputed findings and some under-researched areas in the literature. The

findings showed that there is no difference between male and female writers in the use of stance markers, while mixed results were obtained for the use of stance markers in single- and multiple-author articles.

Despite the novelties and statistically-supported findings of this study, there are some areas that future research articles can explore. For the first thing, we used a purely quantitative method to analyze the data. The future research can adopt a qualitative research method to obtain a more emic grasp of the stance markers use by male/female authors and in solo vs. collaborated articles. Particularly, the perplexing results we obtained with regard to author count (where both hedges and boosters were used more by single-author articles than multiple-author articles) can be examined using qualitative research method to gain a deeper insight into the reasons for this finding. Moreover, our corpus of articles was limited to the applied linguistics field; the future studies can rely on a corpus of articles related to other fields of study. Another worthwhile research project would be to examine the relationship between author count and the use of stance markers across different disciplines. Finally, our research was focused on the relationship of gender and author count with stance markers in research articles. Future research projects can examine the same relationship with reference to other writing genres such as review articles, books, and conference presentations.

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