A Comparative Study of Metadiscourse in Academic Writing: Male vs. Female Authors of Research Articles in Applied Linguistics

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Like conversation and other modes of communication, writing is a rich medium for gender performance. In fact, writing functions to construct the disciplines as well as the gender of its practitioners. Despite the significance of author gender, as one constitutive dimension of any writing, it has been relatively under-researched. One way, by means of which author gender is practiced, and revealed in written discourse, is the incorporation and use of metadiscoursal categories. Examining 20 applied linguistics research articles (10 written by native male English writers and 10 written by native female English writers), the present study sought to examine whether male and female native English writers differed in their use of metadiscoursal elements. For this purpose, Hyland's (2005) model of metadiscourse was employed as an analytical framework to identify the type of metadiscoursal elements. The results of Independent samples t-test showed that English male and female writers did not differ significantly in their overall use of metadiscourse; but, significant differences were observed in categorical distribution of metadiscoursal elements. The findings of the study can provide a sound basis for the development of pedagogical materials.

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There are close connections between writing and the construction of writer's identity. Identity refers to an individual/group's sense of who they are, as defined by them or others, and can be expressed in terms of "nationality, geographical location, ethnicity, social class, gender, and many others" (Swann, Deumert, Lillis, & Methrie, 2004, p. 140). In terms of discourse and identity, Paltridge (2006) defines identity as not something fixed and stable, but something in constant process that is constructed and reconstructed as people interact with each other. Moreover, it is recognized by other people. Identities are further developed as we increase our participation in particular communities of practice. These identities are based on shared set of values, agreed upon cultural understandings and the ideologies, which underlie our use of spoken and written discourse (Paltridge, 2006). One way, by means of which the writer's identity is realized and practiced, is writing. In fact, as Bazerman (1988) and Hyland (2000) suggest, writing functions to construct the disciplines as well as the identity of its practitioners. One dimension of writer' identity is the expression of the writer's gender in written discourse. Like conversation and other modes of communication, writing is a rich medium for gender performance. In a recent article, Tse and Hyland (2008) have called for the investigation of the importance of writer's gender in discourse. This simply means that female and male authors might differ in their language use. In support of the importance of gender, Tardy argues (2006) that interactions are influenced by many factors, one of which is the gender of the writer of the text. That is to say, male and female writers might not do the act of interaction with equal use of language resources.

It is argued that one way, by means of which the writer's identity (gender) is realized in written discourse, is the employment of metadiscourse elements. In addition to organizing the text, and guiding the reader through the text, these elements

can help writers to establish their identities (Hyland & Tse, 2004). Since the expression of metadiscourse is an important aspect of persuasive and successful written discourse, most of the work on metadiscourse has focused on the contrastive studies on the use of metadisourse devices by writers with different nationalities (Vassileva, 2001; Blagojevic, 2004; Dahl, 2004; Dfouz-Milne, 2008) or the way that these devices are employed by writers from different disciplines (e.g., Hyland, 1998, 1999; Gillerts & Vande Velde, 2010).

To the knowledge of the researcher, there have been few studies (Crismore, Markkanen, & Steffensen, 1993; Francis, Robsen & Read, 2001; Herbert, 1990; Johnson & Roen, 1992; Tse & Hyland, 2008) which have examined the effect of gender on the way writers and speakers use language. These studies have popularized the importance of gender in the way language is used and confirmed that male and female writers did differ in the employment of some specific features of language.

Crismore et al. (1993), having compared the use of metadiscourse in persuasive essays written by American male and female university students, suggested that the use of rhetorical devices of metadiscourse depends on the language users' culture as well as their gender. The result of the analyses revealed that although both genders used interpersonal metadiscourse more than textual one, females used them more than males. Their results were congruent with Holmes' (1984) gender study on English speakers. She found that females drew on far more instances of metadiscourse, especially interpersonal ones.

By analyzing a corpus of academic book reviews, written by both male and female writers and interviews with academics from philosophy and biology, Tse and Hyland (2008) found that reviewers of both genders used twice as many interactional elements as interactive ones. The greater use of interactional features especially by male writers highlighted the presence of the writer, showing the evaluative nature of this genre (book review). According to researchers, the prevalent uses of 'engagement markers', 'hedges', 'boosters', and 'self-mention' by male represented the engaging style that, according to Holmes (1989),

was associated with female discourse. They justified their findings by relating them to males' dominant and higher status in academic setting. The analyses of interactive features indicated that 'transition markers' were the most frequent features in females' texts and second most frequent elements in male's texts, showing that writers of both genders tried to assist their readers to get clear interpretation of their arguments. Interestingly, females were the heavy users of 'evidentials', but differences between the two genders on their uses of 'code glosses' were not significant. Similarly, the interviews with academics showed the same results that 'hedges' and 'boosters' were frequently used by male interviewers. However, the analysis showed that 'evidentials' and 'code glosses' were more prevalent among female interviewers.

Analysis of widely available publication titles in writing as well as in the larger field of research indicates that the issue of gender in which how male and female academic writers employ metadiscourse resources in their research articles has not been given major or explicit attention.

Drawing on Hyland's (2005) model of metadiscourse, the present study aims to see whether native male and female English writers differ in the use of metadiscourse elements in their research articles in the field of applied linguistics. This model is an improvement over earlier models (e.g., Crisemore et al., 1993; Vande Kopple, 1985) in that it acknowledges the contextual specificity of metadiscourse and puts into account social factors which surround and influence the way writers use language. Substituting Thompson's (2001) terms of interactive and interactional for textual and interpersonal resources respectively, Hyland (2005) proposed a model for metadiscourse classification. This model consists of two interactive and interactional resources with each comprising five subcategories. Three resources from each category are explained as follows:

I. Interactive Resources: These devices allow writers to manage the information flow and to provide their preferred interpretations. These resources, according to Hyland (2005), contain the following:

1. Code glosses: These devices supply additional information by rephrasing, explaining, or elaborating what has been said, to ensure the reader is also able to recover the writer's intended meaning (e.g., is called, in other words, that is, this can be defined as, for example, etc).

2. Frame markers: These devices signal text boundaries or elements of schematic text structure (e.g., my purpose here is to, to conclude, etc).

3. Evidentials: These are linguistics resources by means of which the writer finds support for his arguments and consolidates his credibility by referring to another's work or by directly or indirectly quoting them (e.g., according to X, to cite X, to quote X).

II. Interactional resources: These features involve readers and open opportunities for them to contribute to the discourse by alerting them to the author's perspective towards both propositional information and readers themselves. According to Hyland, these resources include:

1. Hedges: These devices such as possible, might and perhaps, likely, mainly indicate the writer's decision to recognise alternative voices and viewpoints and so withhold complete commitment.

2. Boosters: These devices such as certainly, clearly, obviously, definitely, demonstrate allow writers to close down alternatively, head off conflicting views and express their certainty in what they say.

3. Self-mention: They refer to the degree of explicit author presence in the text measured by the frequency of first-person pronouns and possessive adjectives (I, me, mine, my, exclusive we, our, ours) (Hyland, 2005, pp. 51-52).

To find out whether male and female writers differ in the employment of these metadiscourse elements, the present study addresses the following three null hypotheses:

1. There are not any significant differences in the frequency of the use of metadiscourse devices employed by native male and female English authors in research articles in the field of applied linguistics.

2. There are not any significant differences in the frequency of the use of interactive metadiscourse devices employed by native male and female English authors in research articles in the field of applied linguistics.

3. There are not any significant differences in the frequency of the use of interactional metadiscourse employed by native male and female English authors in their research articles in the field of applied linguistics.

Method

Data collection procedure

Twenty research articles (10 written by male and 10 written by female English writers) constituted the corpus of this study. The articles were selected from the most leading international English journals namely, Applied Linguistics, System, Journal of Second Language Acquisition, Journal of English for Specific Purposes, Journal of Pragmatics and Journal of English for Academic Purposes. To gain a better view of Anglo-American community, the articles which were selected for the analysis had either British or American authors, and the potential differences between two dialects were overlooked in this study. Due to difficulty with which articles were found, the decision was to extend the publication year to ten last years from 2000 to 2010. To invoke Swales' (2004) differentiation of data-based and theory-based articles, all articles were data-based since it makes the corpus comparability valid. He argues that, in any study, these two groups of articles should be investigated separately since they are composed for separate communicative purposes and different target audiences.

In data collection, Nwogu's (1997) three criteria, namely, representivity, accessibility, and reputation were met. This means that efforts were made to ensure that all articles were representative of the field of applied linguistics. Regarding reputation, all journals in general, and articles in particular were popular all over the world. All articles were electronically stored and were all searched for metadiscourse elements in order to avoid the risk of skipping some of the elements. In addition to electronic searches, manual analyses were also made to identify the type and frequency of metadiscourse elements to ensure validity. Also meticulous attention was given to make sure that context-sensitive analyses had been carried out. Since the type and appearance of metadiscourse categories are extremely varied and multifunctional, a context-sensitive analysis of each marker had to be carried out before it was finally counted. (For the alphabetical list of the journals selected in this study refer to Appendix). All male and female English writers' native statuses were obtained through personal communication (e-mails). Applied Linguistics was selected as the field of this study since it deals mainly with humanities and their social behavior. It is argued that applied linguistics draws on much more metadiscourse elements than other fields of study (Duszak, 1997). All quotations, linguistic examples, footnotes, bibliographies, tables, and figures and the titles of all articles were excluded. Abstract, introduction, result, and discussion sections were looked for metadiscourse elements. Thus all articles were checked to make sure that they all had the above-mentioned rhetorical sections.

Categories of Analyses

As mentioned earlier, this study sought to investigate whether male and female writers differed in the use of metadiscoursal elements or not. In other words, taking both quantitative and qualititative approaches, the researchers wanted to examine the similarities and differences between native male and female English writers in using metadiscourse elements. For the purpose of obtaining the afore-mentioned objectives, the researchers needed one powerful metadiscourse model to capture

all requirements of academic written discourse. The most up-to-date model of metadiscourse put forward by Hyland (2005) was employed to investigate the type and the frequency of metadiscourse elements (for the list of metadiscourse elements refer to Hyland, 2005).

Results and Discussion

Overall distribution of metadiscourse elements across male and female English writers

In order to investigate whether male and female English writers differed in their use of overall metadiscourse categories in their applied linguistics research articles, the researchers calculated the frequency of these categories per every 1000 words. Table 1 shows the Independent-samples t-test which compared the distribution of overall metadiscourse categories in the articles written by native male and female authors.

Table 1
The Independent Samples T-test to Compare the Distribution of Overall Metadiscourse Categories in the Articles Written by Native Male and Female Authors

Articles	Metadiscoursal Categories per 1000	Mean	Sig (p-value)
Females	61.646	6.164	females/males= 0.17
Males	77.728	7.117	

As it is seen in Table 1, the frequency of metadiscourse categories per 1000 words in the articles written by female and male authors was 61.64 and 77.72 respectively. The result of the Independent samples t-test did not show significant differences in the use of metadiscourse categories between male and female English writers (p-value > 0.05). Thus, the null hypothesis stating that there are not any significant differences in the frequency of the use of metadiscourse categories between native male and female

English authors in the articles written in the field of applied linguistics was not rejected. That is to say, male and female English writers employed approximately identical number of metadiscourse elements in their English research articles. This seems to be ensuing from the consensus (e.g., Tse & Hyland, 2008) that the overall use of metadiscourse elements in soft fields (e.g., applied linguistics) appear to be more discipline-specific than gender-based. This means that the incorporation of metadiscourse categories into written discourse is not constrained by the authors' gender. The result of the present study was in line with that of Tse and Hyland (2008) who found that men and women did not differ in their frequency and use of metadiscourse features. However, it was not congruent with Holmes's (1984) finding that female English speakers tended to use more metadiscourse.

One tentative explanation for this is that in soft fields such as applied linguistics that deals mainly with humanities and social behavior, metadiscourse elements are used much more than those used in other fields of studies (Duszak, 1997), regardless of the author's gender. This convergence in the frequency of the use of overall metadiscourse elements is shown in Figure 1.
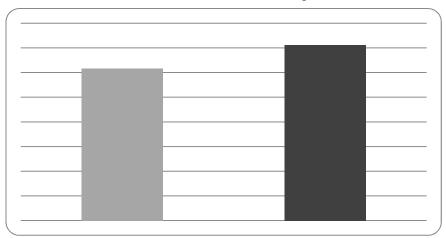

Figure 1. Overall distribution of metadiscourse in applied linguistics research articles
Note, 1: Females 2: Males

Distribution of interactive metadiscourse devices across male and female English writers

Table 2 shows the results of Independent-samples t-test which compared the distribution of interactive metadiscourse devices across native English male and female writers. Female writers employed 33.868 and male writers 41.04 interactive metadiscourse devices per 1000 words.

As it is seen in Table 2, the difference between the means of the distribution of these categories, across male and female authors, was not statistically significant (p-value = .87> .05)

Table 2
The Independent Samples t-test to Compare Distribution of Interactive Metadiscourse in two Groups of Articles

Articles	Interactive Metadiscourse per every 1000	Mean	Sig (p-value)
Females	33.868	3.38680	females/males= 0.875
Males	41.048	3.44948	

The second null hypothesis stating that there are not any significant differences in the frequency of interactive metadiscourse features between native male and female English authors in the research articles in the field of applied linguistics was not rejected either. Both male and female writers used approximately the same number of instances of interactive metadiscourse features in the research articles. This similar rhetorical behavior between English male and female writers in the use and frequency of interactive metadiscourse is also shown in Figure 2.
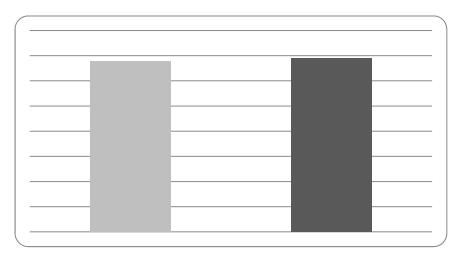
Figure 2. Overall distribution of interactive metadiscourse in applied linguistics research articles
Note, 1: Female 2: Male

As the results of the analysis confirmed, the use of this category in applied linguistics articles is more discipline-specific than gender-specific. This means that no matter whether the writer was male or female, approximately identical number of instances of interactive metadiscourse was incorporated in the texts. In other words, the writers of both genders practiced approximately identical behavior in signaling the text boundaries finding support for their arguments and supplying additional information in order to assist the readers to recover the writer's intended meaning (hence the functions of interactive elements investigated in this study: frame markers, evidentials, and code glosses, respectively). The results of the present study ran for those of Holmes (1984), Crismore et al. (1993) and Tse and Hyland (2008) who found that both female and male writers incorporated approximately the same number of interactive metadiscourse into their texts (though differences were evident but not enough to be significant). Mixed results were obtained in regard to interactive metadiscourse subcategories. 'Code glosses' were the most frequent interactive metadiscourse with 'evidentials' and 'frame markers' subcategories being the second and the third frequent

subcategories. This divergence in the use of these subcategories between English male and female writers is shown in Figure 3.
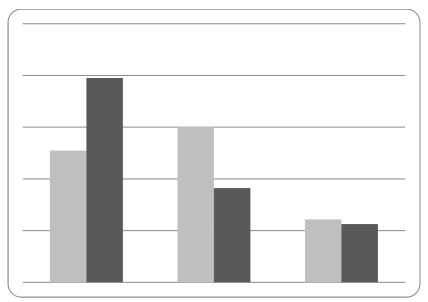

Figure 3. Categorical distributions of interactive subcategories
Note, 1: Code glosses 2: Evidentials 3: Frame markers
(■): Female (■): Male

In relation to 'code glosses' female writers used 12.730, but male writers 26.302 instances of this subcategory per 1000 words (see Table 3). The result of Independent samples t-test did confirm significant differences in the frequency of this category (p-value < 0.05). In fact, as earlier discussed, by supplying additional information these elements help the reader grasp the writer's intentions and obviate processing difficulties that the reader might encounter throughout the discourse as the following examples from the corpus clarify the point:

(1) Anthony (1999), for example, has shown that research
    article introductions in engineering contain definition of
    terms, and exemplification of difficult concepts, and
    evaluation of the research presented, moves not identified

by Swales (1990) in his discussion of research article introductions.   (Samraj, 2005)

(2) For example, content-oriented hedges have two major functions: indicating the accuracy of a proposition (e.g. adverbials like generally, approximately, partially, possibly), or limiting the writer's commitmentto a proposition (e.g. the present work indicates., the model implies). (Biber, 2006)

Table 3
The Independent Samples T-test to Compare Categorical Distribution of Interactive Subcategories in two Groups of Articles per 1000 Words

Categories	Interactive subcategories per 1000 Words		Mean		Sig (p-value)
	Females	Males	Females	Males	Females/Males
Code glosses	12.730	26.302	1.27308	1.97488	*0.005*
Evidentials	15.047	9.109	1.50475	0.91098	*0.010*
Frame markers	6.089	5.636	0.60896	0.56363	0.743

In the present study, male writers appeared to give a higher priority to glossing whenever they felt that the reader might be burdened with unfamiliar terms or they might not have enough literacy to grasp what the writer intended to get across. One possible explanation is that by using 'code glosses', the male writers were inclined to reflect the reader-friendliness of their texts. That is to say, the male writers acted as a 'friend' to the reader and helped the reader whenever they felt that the reader needed help. Thus, here, the use of 'code glosses' seemed to be governed by the author's gender since, other things being equal, male and female writers displayed different rhetorical pattern of use regarding this subcategory. The result of the present study ran

against that of Tse and Hyland (2008); they found that male and female writers showed the same pattern of use in regard to this category.

Unlike 'code glosses' which were significantly used more by male writers, 'evidentials' were used mainly by female writers. Thus, the most instances of 'evidentials' per 1000 words belong to female writers who used 15.047 as compared to male writers who used only 9.109 instances (see Table 3). Also, the result of Independent Samples t-test confirmed a significant difference in the frequency of this category (p-value < 0.05). As touched upon earlier, finding support for one's arguments and consolidating their credibility by referring to another's work or by directly or indirectly quoting them is one indispensible part of academic discourse. This way the writer persuades the audience of his or her arguments, obviates any objections on the part of the audience and enriches his contributions to the present state of knowledge by referring to other's work in the related field as the following examples from the corpus show:

(3) According to Levinson (1983), the single most obvious relationship between language and context is reflected through the phenomenon of deixis, i.e. the means of pointing and indicating. (Hinkel, 2002)

(4) According to Horowitz's (1988) survey, typical student writing tasks include summarizing and reacting to a reading, reporting on an observation, and using a theory to interpret data. (Harwood, 2005)

Like the use of 'code glosses', evidentials are good rhetorical devices for gender preferences. One possible explanation for the frequent use of this subcategory by the female writers' is their view of being exact, providing admissible evidence for what they feel the audience will find unjustifiable. The result of the present study showed that by using more 'evidentials', female writers avoid the risk of being questioned about a particular argument. The result of the present study did not match with that

of Tse and Hyland (2008) who found male and female writers showing the same pattern of use in regard to this category.

Unlike the subcategories of 'code glosses' and 'evidentials', by means of which author gender is found to be divulged, the influence of the subcategory of 'frame markers' turned out to be neutral in both groups of articles written by native English male and female writers. In relation to 'frame markers' as the least frequent interactive metadiscourse feature, female writers employed 6.089 and male writers employed 5.636 instances of this subcategory per 1000 words (see Table 3). The result of the Independent samples t-test did not confirm significant differences in the use and frequency of this category (p-value > 0.05). As explained before, the subcategory of 'frame markers' is used to frame the elements of the discourse as they function to "sequence, label, predict and shift arguments, making the discourse clear to readers and listeners" (Hyland, 2005, p. 51), as the following examples from the corpus show:

5) In sum, the quantitative analyses reveal that while overall the group is making progress, at least if progress is defined as becoming more fluent, accurate, and complex from a target-language perspective, each member of the group is following a somewhat different path.   (Larsen Freeman, 2006)

6) To summarize, learning transfer is a fundamental goal in EAP education, and one factor that may impact on this goal is students' perceptions of support for learning transfer in target contexts of instruction: in other words, transfer climate. (James, 2010)

One explanation for this approximately identical use is that framing the discourse and sequencing parts of the text or internally ordering an argument appear to be an integral part of a written discourse regardless of the writers' gender. This has also found support in the study of Tse and Hyland (2008). They indicated that both male and female writers drew on the same number of 'frame markers'. But it ran against the study of Crismore et al. (1993) who

found that 'frame markers' were employed more by men than female writers.

Distribution of interactional metadiscourse across male and female English writer

As illustrated in Table 4, English articles written by female writers contain 27.778 and English articles written by male writers had 36.679 instances of interactional metadiscourse per 1000 words. The result of Independent samples t-test showed a significant difference in the frequency of these categories (p-value < 0.05) in the sense that male writers used more interactional metadiscourse than female writers.

Table 4
The Independent Samples T-test to Compare Distribution of Interactional Metadiscourse in two Groups of Articles

Articles	Interactional subcategories per 1000	Mean	Sig (p-value)
females	27.778	2.77784	females/males= *0.039*
males	36.679	3.66794	

Thus, the third null hypothesis stating that there are not any significant differences in frequency of interactional metadiscourse between native male and female English authors in their research articles in the field of applied linguistics, was rejected. This divergence in the use and frequency of overall interactional metadiscourse between two groups of articles is shown in Figure 4.
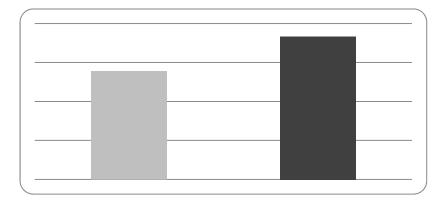
Figure 4. Overall distribution of interactional metadiscourse in applied linguistics research articles
Notes, 1: Females 2: Males

It appears that English male writers pay much more attention to how they project themselves into their texts by commenting on the possible accuracy or credibility of a claim, conveying an attitude towards both propositions and readers than female writers. Greater use of 'interactional resources' by the male writers can be seen to "represent a very different style of argument, altogether more personal and intrusive, confronting and challenging the reader with a more explicitly committed and engaged stance and expecting more of the reader in working with the writer" (Tse & Hyland, 2008, p. 1242). Thus, the result of the present study went against those of Holmes (1984) and Crismore et al. (1993) who found that female writers used more interactional metadiscourse than male writers. This, however, turned out to be in line with the study of Tse and Hyland (2008); they found that male writers used significantly more interactional metadiscourse than their female counterparts. They attributed this divergence to the male writers' stronger inclination to feel their presence noticed in their writings.

Regarding interactional metadiscourse subcategories, namely 'hedges', 'boosters' and 'self-mentions', mixed results were obtained. 'Hedges' were the most frequent interactional metadiscourse, with 'boosters' and 'self-mentions' subcategories ranking the second and the third. This divergence in the use of these subcategories between English male and female writers is shown in Figure 5.
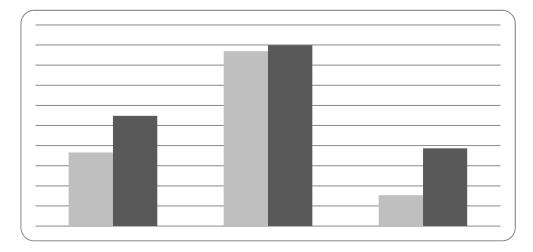

Figure 5. Categorical distributions of interactional metadiscourse
Notes, 1: Boosters 2: Hedges 3:Self-mention
(■): Female (■): Male

As the findings of Table 5 clearly indicate, female and male writers used 17.386 and17.979 'hedges' per 1000 words in their research articles respectively. The result of Independent samples t-test did not confirm significant differences in the frequency of this category (p-value > 0.05). This simply means that both groups of writers inserted approximately the same numbers of instances of 'hedges' in their articles.

Table 5

The Independent Samples T-test to Compare Categorical Distribution of Interactional Subcategories in Two Groups of Articlesper 1000 Words

Catego ries	Interactional Subcategories per 1000 words		Mean		Sig (p-value)
	females	males	females	males	females/males
Hedges	17.386	17.979	1.73863	1.79792	0.784
Boosters	7.325	10.966	0.73252	1.09667	*0.039*
Self-mentions	3.06	7.733	0.30669	0.77335	*0.014*

As explained previously, the use of 'hedges' makes it possible for the writer to both withhold from full commitment to a certain proposition and leave some opportunity for the reader to reject or accept or comment on the accuracy or inaccuracy of a particular argument raised by the writer. With this conception of 'hedges' in mind, in the present study, groups of both genders prevented giving full commitments, provided approximately the same amount of space for their readers to recognise alternative voices and viewpoints as the following examples from the corpus shows:

(7) Thus, on the basis of the present results, one might conclude that the correlation between LDV and holistic ratings may be affected substantially by writers' L1 background. (Scott, 2002)

(8) It was hypothesised that these phonologically particularly outstanding paragraph boundaries might play a special role in the organisation of the text, perhaps somewhat akin to sections in a written text (cf. Thompson, 1997). (Thompson, 2003)

Regarding 'hedges', the result of the present study ran for Tse and Hyland's (2008) study. Investigating the influence of gender on the use of metadiscourse elements, they found that men and woman academic writers did not differ in the use of 'hedges'. It, however, went against Crismore et al. (1993) who found discrepancy in the use of this subcategory between their study groups. They attributed the overuse of 'hedges' on the part of male writers to showing more interest in uncertainty and writer-reader interaction.

In the present study, unlike the use of 'hedges', which did not show significant differences between the groups, the frequency of the use of 'boosters' was significantly different. Most instances of 'boosters' per 1000 words belonged to males, who used 10.966, compared to females, who used only 7.325 (see Table 5). The result of Independent samples t-test did show significant differences in the use and frequency of this category (p-value < 0.05). English male writers drew on more 'boosters' than their female counters. This means that male writers were more quite certain and confident about what they claimed than female writers (see Figure 5). As explained previously, these devices are used to obviate any alternative viewpoints on the part of the audience and emphasize the mutual experiences needed to draw the same conclusion as the writer. With this in their minds, both groups of writers capitalised on instances of this category to show both their certainty and confidence and make an interactional relationship with their readers as the following examples from the corpus clarify the point:

(9) While it is generally agreed that listening requires a combination of both forms of processing, their respective contribution to effective listening is still not clearly understood. (Graham, 2006)

(10) However, though all collocations on our lists meet certain minimal frequency requirements in all subject areas, it is

not yet clear whether the lists will be equally useful across all disciplines. (Durrant, 2009)

Considering the significant differences that were found between English male and female writers in the use of 'boosters', one might argue that the use of this subcategory (at least the present study showed) is gender than discipline-specific. That is to say, the author's gender was constrained and conditioned the use of 'boosters'. It means that, gender is better practiced and revealed through the use of this subcategory. Two possible explanations for the frequent use of 'boosters' by male writers could be provided. One might be the view that English male writers have more spesialised knowledge of the field that makes them able to talk in certainty and confidence (it is necessary to note that this rather tentative conclusion should not be generalized and is worth examining in detail) .The other could be accounted for by the men's inherent inclinations to talk in 'absolute terms'. The result of the present study, with regard to this subcategory, supported the results obtained in Crismore et al. (1993), Francis et al. (2001), and Tse and Hyland's (2008) studies. They found that male writers incorporated more instances of 'boosters' in their writings. They attributed this divergence to male's dominant and higher status in academic setting as well as supporting their confidence in a judgment. However, it went against Johnson and Roen (1992) and Herbert (1990), who found females using more boosters than male counterparts.

The findings in Table 5 clearly indicate that the frequency of 'self-mention' subcategory in the articles written by male and female writers was 7.733 and 3.066 per 1000 words respectively. As it is evident, the male writers drew on this subcategory twice as many as their female counterparts. Also, the result of the Independent samples t-test confirmed that there was a significant difference in the frequency of this subcategory between the study groups (p-value < 0.05). Hyland (2001) attributed the use of self-mention by research article authors to their intention to be closely associated with their work or to mediate in the relationship between their arguments and their discourse communities. Also, as

discussed previously, displaying a scholarly and authoritative persona in written discourse is "an act of personal choice, where the influence of individual personality, confidence, experience, and ideological preference all enter the mix to influence our style" (Hyland, 2008, p. 158) as the following examples from the corpus show:

11) The relationship between these two domains is somewhat indistinct, but for
the purposes of this paper, I will consider rhetorical knowledge as one essential dimension of genre knowledge. (Tardy, 2005)
12) However, I am assuming that, to some degree at least, some features Are easier to learn than others and this has to do with how the human mind grapples with their intrinsic properties. (Ellis, 2006)

But as indicated, the male writers drew on far more instances of this subcategory than the female writers (see Figure 5). This means that by incorporating instances of 'self-mention' into their texts, English male writers tended to leave more traces of themselves than their female counterparts. One explanation is that making author's presence in any written academic discourse gives a writer a community-approved persona and consolidates his credibility among other practitioners and community members. The result of this study went for the findings obtained in Tse and Hyland (2008) and Crismore et al. (1993). They found more instances of this subcategory in their male writers' texts.

Conclusion and Pedagogical Implications

To sum up, apart from the most general similarities in the two groups of writers, namely the very fact that all of them employed all metadiscourse elements, many more differences were observed. To begin with, there were significant differences in the frequency of overall interactional metadiscourse elements whereas no significant differences were observed regarding the frequency of interactive metadiscourse between male and female

writers. This means that English male writers appeared to pay much more attention to how they project themselves into their texts by commenting on the possible accuracy or credibility of a claim, conveying an attitude towards both propositions and readers than female writers.

It was also found that there were no significant differences in the frequency of overall metadiscoursal elements between native English male and female writers. Thus, using metadiscourse elements was inevitable in any effective writing whether the writer was male or female. Effective writing means a successful interaction between the reader and the writer. Nystarnd (1986), for example, sees a major feature of interaction as communicative exchange between two participants through speech and writing. In fact, if an academic writer intends to establish a successful reader-writer interaction, he or she should draw on metadiscourse elements appropriately in their texts. One of the most important problems with which second and foreign language prospective writers have to grapple is to reach a level of proficiency at which they can produce as affective writing as possible. As mentioned earlier, one way to accomplish this is the appropriate use of metadiscourse elements. Thus, one principal implication of the present study for both native and non-native English prospective writers who entertain the idea of getting their English articles published in scholarly journals is to make affective uses of these elements in their articles, no matter whether they are male or female. In other words, they should all be taught these metadiscourse categories (both interactive and interactional) to be able to gain explicit awareness of how to use metadiscourse elements affectively though the result of the present study revealed male writers' greater use of interactional metadiscourse. Thus, it is incumbent on syllabus designers, and textbook writers (especially those in EAP and ESP programs) to allocate some particular sections to the instruction of metadiscourse elements. That is to say, teaching metadiscourse must be an indispensible part of any English language teaching courses.

Suggestions for further Research

Although this study investigated the effect of the author's gender on the use of metadiscourse elements in academic writing in such soft disciplines as applied linguistics written by both native male and female English academic writers, and came to the conclusion that the issue of gender is not that much influential in the incorporation of overall metadiscourse elements, it brought to our attention some key research topics that can warrant separate future studies. The present study set 20 applied linguistics articles as its corpus; however, more articles could be added to the stock of the study to come up with more generalizable conclusions.

Disciplines other than applied linguistics could be the focus of the study. Since no significant differences in the distribution of the frequency of the use of the overall metadiscourse elements were observed, other disciplines in hard fields (e.g, computering, and engineering) can be investigated for the use and frequency of the metadiscourse elements. Writers of both genders from different languages/cultures can be investigated in terms of the use and frequency of the metadiscourse elements in research articles.

Our small-scale study suggests diverse experiences and membership of overlapping communities, including those of class, ethnicity, and gender (Kubota, 2003) influence how we understand our disciplinary participation and how we want to interact with our colleagues in the performance of a professional academic identity. According to Tse and Hyland (2008) gender as an important component of our lived experience, affects our professional writing. It is worth noting that the ways that males and females use a language are not determine by their gender, but constructed, and negotiated through social practices informed by particular social settings, relations of power, and participation in particular discourse communities.

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Appendix

Sources of the selected articles in the field of Applied Linguistics

Applied Linguistics (3 articles)
English for Specific Purposes (6 articles)
Journal of English for Academic Purposes (5 articles)
Journal of Pragmatics (1 article)
Journal of Second Language Writing (1 article)
Language Testing (1 article)
System (3 articles)