

A Corpus-based Study of Writer Identity in Qualitative and Quantitative Research Articles

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ABSTRACT

Academic communication is now widely seen as a social activity where writers interact with their audience. Various studies have shown that authorial presence is one of the key strategies for achieving this interaction. This corpus-based study examines the degree of authorial presence through the use of first person pronouns (I, we, my, our, me, us) in 150 qualitative and 150 quantitative research articles in Applied Linguistics using the concordance freeware AntcConc.3.4.1w (Anthony 2014). The analysis shows a greater use of self-mention by qualitative research writers compared with their quantitative counterparts, suggesting that research design determines the degree of personal involvement in academic communication within the same discipline. It also suggests that while quantitative research is considered “objective” in nature, the writers still position themselves in their writing and try to interact with their audience. Qualitative analysis of discourse functions of subject pronouns showed great similarity between the two sub-corpora (qualitative and quantitative), stating results/claims and elaborating arguments as being the most frequent functions.

Keywords: authorial-presence; first person pronouns; qualitative research article; quantitative research article; discussion section

INTRODUCTION

It is now generally accepted that academic communication is a social activity where writers need to adopt certain positions and interact with their audience in order to be persuasive. Therefore, academic discourse can be defined not only as the “transformation of knowledge” (Tardy 2005, p. 325) but also an “act of identity” (Ivanič 1998, p. 32) which represents the author in a socio-cultural process where the success of the discourse is determined by the norms and conventions of the discipline and context.

A wealth of studies have focused on the interpersonal nature of academic communication and have described how writers strategically use language to construct a convincing argument in order to gain a credible account for themselves, their views and knowledge claims. Hyland (2005) argues that one of the central ways of achieving such interaction is by taking a stance in writing. He suggests that stance enables writers to project themselves into their texts and present a persuasive writing. According to Hyland and Sancho Guinda (2012), stance is one of “the most significant concepts in applied linguistics” which “essentially refers to the expression of point of view in speech and writing and the ways we engage with others” (p. 1). The concept of stance has been defined and conceptualised broadly and variously (Biber, Johansson, Leech, Conrad & Finnegan 1999, Huston & Thompson 2000). Hyland (2005) defines stance as the writers’ explicit presence and intervention in the text and the emphasis of their contribution to the field and construction of a credible position in the scientific community.

The concept has not only been defined variously, it has also been expressed and operationalised in different ways (Biber, 2006, Hyland, 2008). Focusing on pragmatic aspect and interactional nature of stance, Hyland (2008, p. 7) identifies three components for the stance: evidentiality (which refers to the writer's commitment to the expressed proposition), affect (which reveals the writer's attitude towards the claims), and presence (which refers to the extent to which the writer exposes him/herself into the text). Based on these components, he offers a taxonomy for stance markers and suggests that the stance consists of hedges, boosters, attitude markers, and self-mention.

Self-mention which refers to the use of first person pronouns and possessive adjectives by speakers/writers indicates the presence or absence of an explicit writer/speaker. Self-reference is a strategy that allows writers to interact with their readers and persuade them of the validity of their claims and their disciplinary competence. It "is a powerful means by which writers express an identity by asserting their claim to speak as an authority, and this is a key element of successful academic writing" (Hyland 2002a, p. 1094).

LITERATURE REVIEW

Self-reference is one of the most important ways that writers use to explicitly represent themselves in their texts and "are not just stylistic optional extras but significant ingredients for promoting a competent scholarly identity and gaining accreditation for research claims" (Hyland 2001, p. 223). Studies have also shown that authorial presence in academic communication is determined by disciplinary and cultural norms as well as academic literacy (professional vs. novice writers). Some studies have focused on students' writing and compared their preference of using interpersonal features with expert writers or students with different cultural and language background (Alyousef 2015, Çandarlı, Bayyurt & Martı 2015). A wealth of cross-cultural and cross-disciplinary studies have compared the use of personal pronouns, solely or along with other interaction components (hedges, boosters, and attitude markers), (Hooi, C. M. & Munir Shuib 2014, Martínez 2005, Molino 2010, Mur Dueñas 2007, Navidi & Ghafoori 2015).

While some of these studies have looked at the use of the personal pronouns in the whole research papers, some others have focused on specific section of articles (e.g., Introduction, Method, Discussion, Conclusion). For instance, Martínez (2005) studied the use of personal pronouns in RAs of English and Spanish writers in the field of biology. Her results showed that native speakers of English used two times more personal pronouns than their non-native counterparts. Regarding the distribution of pronouns in different sections of RAs, Martínez found the ratio of personal pronouns higher in the Results and Discussion sections particularly in the native speakers' RAs. In addition, the analysis showed that personal pronouns were used to fulfill different functions in various sections of research articles, for instance, while explaining a procedure was more common in Results section, stating findings/claims was dominant in Discussion section. Mur Dueñas's (2007) investigation of personal pronouns in business management RAs, written in English and Spanish, showed variations in the use of this feature in various sections of research articles. The results showed a higher use of *we* in the Results and Discussion sections of both corpora compared to other sections, with a higher ratio in English articles.

In a recent study Navidi and Ghafoori (2015) compared the use of stance and engagement in Introduction and Discussion sections of research articles in the field of Applied Linguistics. Their analysis showed that these features were more frequently used in Discussion section compared to Introduction, in particular, self-mention was used two times more in Discussion section.

In a cross-disciplinary study, Hyland (2002) analysed the use of self-reference by professional academic writers and students and found that novice writers used far less personal pronouns than research article writers. His results also revealed that writers in soft discipline (e.g., applied linguistics) used more self-reference than their hard discipline (e.g., engineering) counterparts. He argued that this might be due to the fact that authors in hard discipline rely more on statistical and objective results while trying to downplay the role of writer. However, as knowledge is more conceptually driven in the soft field and authors need to persuade their readers of the validity of their own interpretation of a concept, the authors in the soft disciplines need to interact with their readers and present themselves as contributors to the field.

Harwood's (2005b) study of the use of personal pronouns showed that writers in soft discipline used personal pronouns as inclusive (e.g., using *we* to refer to the author and the reader) and exclusive (e.g., using *we* to refer only to the author him/herself) while hard discipline favored exclusive pronouns. In a cross-cultural and cross-disciplinary study, Fløttum et al. (2006) investigated 450 RAs from three disciplines (economics, medicine, and linguistics) written in three languages (English, French, and Norwegian). Their analysis showed that authors in the medical RAs were less visible in their texts and argued implicitly. The economic authors were more present in their texts. Linguists, on the other hand, were more explicit in their texts than the other two groups and had the strongest author presence and interaction with readers. Other cross-disciplinary studies, (Lafuente Millán 2010, Khadri, Ebrahimi, Heng 2013) also found that personal pronouns were more frequent in soft discipline than hard discipline RAs.

Another line of investigation has focused on the functions of personal pronouns and has found that they are used by writers to serve various functions. Among these functions are: stating a goal or purpose, showing findings or results, justifying a proposition, showing commitment or contribution to research, stating conclusions, guiding the reader through the text, recounting the research methodology, expressing opinion or attitude, and elaborating an argument (Fløttum et al. 2006, Harwood 2005b, Tang & John 1999). Identifying the functions of self-reference in a text is important as it reveals in which points writers are willing to explicitly intrude into a text and show their commitment to it (Hyland 2002).

Several taxonomies of discourse functions of personal pronouns have been constructed by various scholars. For instance, Tang and John (1999, pp. S31-S32) propose a typology of six different identities behind the first person pronouns in academic writing: representative (as we already know...), guide through the essay (e.g., let us see two examples), architect of the essay (In this essay I will discuss ...), recounter of the research process (I administered the questionnaire to two groups), opinion-holder (I agree with x), and originator (Part of the problem here, as I see it, is ...). They believe these identities range from least powerful to most powerful author presentation. Author has the least powerful role as representative which is mostly realised through inclusive pronoun which refers to author and reader together, and most powerful role as originator which is realised through exclusive pronoun which refers solely to author/s.

Another taxonomy has been suggested by Hyland (2002) and includes two low-risk and two high-risk functions of personal pronouns. According to his taxonomy, when authors use first person pronouns to state a purpose or explain a procedure, they take a low-risk; however, when authors use these pronouns to express themselves explicitly in stating results/claims and elaborating an argument, they take a high-risk function. Fløttum et al. (2006) also established a taxonomy of author roles (researcher, writer, arguer, and evaluator) which have been categorised based on the verbs that collocate with the first person pronouns. According to them, the author is researcher when I is combined with research verbs (assume, examine, consider, study, analyse). The author is writer when I is used with discourse verbs

(describe, illustrate, present, focus on, return to). The author takes on the role of arguer when I is combined with position verbs (argue, dispute, claim). The author is evaluator when I is combined with evaluation and emotion verbs (feel, be skeptical about). They argue that academic authors present themselves in different ways and to different extents and this different degree of author manifestation is a strategy that is used by the writer for rhetorical purposes. As Harwood (2005a) points out, since some of these functions of personal pronouns are recognised as low risk and some others carry high-risk, the visibility of the writer depends on the amount of the risk the writers are willing to take by employing personal pronouns for various functions (Harwood 2005a).

In spite of the vast amount of literature on research articles and authorial presence, no reported study has investigated how writers of qualitative and quantitative research articles construct self-representation in their texts. Hyland's (2005) study on soft and hard disciplines has shown that the differences in epistemology and how these disciplines see the world and what they consider as knowledge influences the way the academics write in these disciplines. While quantitative research is more close to the hard side of the continuum and qualitative research to the soft side, this study aimed to find out whether the distinctions in these two types of research designs are reflected in their authorial presence. In this study, the researchers investigate how self-representation is achieved in these two types of RAs in Applied Linguistics. While the literature shows that writers in soft discipline have more authorial presence than hard discipline, it would be interesting to find out whether this applies within the same discipline which uses both of these designs. Previous researches have shown variation in type and degree of interaction in various sections of research articles. This study focuses on Discussion section of RAs as it is an important section in establishing the importance of research works where writers have more opportunity to establish a credible argument for their claims and to construct a credible persona.

The aim of the present study is to contribute to the ongoing research on authorial presence by studying and comparing the extent of self-representation through the use of first person pronouns in the Discussion sections of qualitative and quantitative research articles in the field of Applied Linguistics. Additionally, it intends to explore the discourse functions of subject pronouns in both corpora. The research questions of the study are as follows:

1. What are the differences and similarities between qualitative and quantitative Applied Linguistic research articles in terms of the frequency of the use of first person pronouns?
2. What discourse functions do subject pronouns serve in these two sets of articles?

METHOD

The present study is basically a corpus-based study which analyses the use of personal pronouns both quantitatively and qualitatively in the Discussion sections of qualitative and quantitative RAs. Consisting of two main parts, the first part employs a corpus-based approach to investigate the frequency of first person pronouns (I, me, my, we, us, my) in two specialised machine-readable sub-corpora. The compiled corpus consisted of 150 qualitative and 150 quantitative RAs' Discussion sections which was analysed using AntcConc.3.4.1w (Anthony 2014), a freeware text analysis and concordance. In the second part, the data were analysed qualitatively to identify the functions associated with these pronouns.

THE CORPUS

The corpus consists of 150 qualitative and 150 quantitative RAs' Discussion sections selected from five high impact journals in the field of Applied Linguistics. The five selected journals are: Applied Linguistics, English for Specific Purposes, Journal of Pragmatics, Language Teaching Research, and TESOL Quarterly. The articles are selected from the issues published between 2002 and 2011. The first criterion considered in selecting the articles was that they have a separate Discussion section. The articles that did not match this criterion or those that had combined Discussion section with another section and titled as *Discussion and Conclusion*, *Findings and Discussion*, *Summary and Discussion*, and *Discussion and Implication* were excluded. Those articles that matched this criterion (having a separate discussion section) were checked for being qualitative or quantitative.

In categorizing the articles as qualitative or quantitative, priority was given to the article writers' own explicit statement about the design they had used. If they had not mentioned the method explicitly, the abstracts and the methodology sections were examined in detail. According to Fred (2005, p. 75), the characteristic of quantitative research is "the use of numbers to represent its data", and the characteristic of qualitative research is "verbal descriptions as its data". Benson, Chik, Gao, Huang, and Wang (2009) differentiate between the studies that *use a specific type of design* (qualitative and quantitative) and those that *represent a specific type of design* (qualitative and quantitative). The focus of this study was to identify the articles that *used* qualitative or quantitative research methods.

Double checking the articles to ensure that each article was set in the right category, 150 qualitative and 150 quantitative RAs were selected randomly, and two specialised machine readable sub-corpus were compiled. As mixed method articles were not the focus of this study, they were excluded from the final selection of the corpus.

The Discussion section of the selected articles, which were in electronic format, were converted to Text format and carefully checked. Then, all the headers, footnotes, and direct quotations were deleted. A few articles that were in *read only* format and could not be copied or converted to Text were typed in Microsoft word and then converted to Text format. The qualitative sub-corpus consisted of approximately 200,000 words and the quantitative sub-corpus comprised around 210,000 words.

PROCEDURE

Upon compiling the two sub-corpora, each of the first person pronouns was searched in each of the sub-corpora (qualitative and quantitative) separately for its frequency using AntcConc.3.4.1w (Anthony 2014). The output included frequency lists, concordance lines, summary, and collocations. After each item was searched, a careful analysis of the concordance line and, if necessary, context of the cases was carried out and several cases which were not used by the writers as self-reference were excluded from the initial results. The following extracts are a few instances of results that were deemed irrelevant for the purpose of this study and, therefore, were excluded:

- 1) In the case of the former, the learner typically wonders, 'How can I write (say) this?' **(The pronoun 'I' is not used by the writer to refer to him/herself but rather is part of an example.)**
- 2) Such tasks may force heritage speakers to (Type I or Type II) had an effect on ... **('I' refers to number one rather than first person pronoun which might be an indication of self-mention.)**

3) The rest of the texts (3 US and 8 Canadian) all state the opinion or main idea...

(‘US’ refers to a country rather than being an indication of self-mention.)

First person plural pronouns can be used by writers as *inclusive* (i.e. to refer to themselves, as writers, as well as their readers or discourse community) or as *exclusive* (i.e. to refer only to writer(s)). Inclusive pronouns are found to be used to declare solidarity with the readers in order to create a common ground with them by assuming shared experiences, knowledge, goals and beliefs in order to seek agreement and cooperation from them (Harwood 2005b, Hyland 2002, Kuo 1999, Molino 2010). On the other hand, *exclusive pronouns* indicate the presence or absence of an explicit writer/speaker. Therefore, the identified plural pronouns (we, us, our) were all examined in their context and the inclusive ones were excluded from further analysis.

The number of first person singular pronouns and exclusive plural pronouns were written down for each item and aggregated to obtain the total number of self-reference in each sub-corpus. The frequency counts were normalised at 1,000 words and were compared in the two sub-corpora.

In the next stage, the first person subject pronouns, single and exclusive plural, in their co-text and context were examined again in order to identify their functions. Only subject pronouns’ functions were studied in detail as several studies (Kuo 1999, Lafuente Millen 2010, Molino 2010) have shown that they are more frequent and stronger indicators of self-reference than object pronouns and possessive adjectives. Using Hyland’s (2002) taxonomy, each instance of exclusive subject pronouns was examined in its context in order to be categorised into four functions of: *stating a purpose*, *stating results/claims*, *explaining a procedure*, and *elaborating an argument*. During the identification of the discourse functions, a fifth function (*referring back to the text*) was also observed in the data of the present study which had also been identified in other studies as well (e.g., Molino 2010). Therefore, the subject pronouns were categorised into five categories. An independent rater who holds a Ph.D. in ELT analysed 10% of the data and an inter-rater agreement of 92% was achieved.

FINDINGS

OVERALL FREQUENCY OF PERSONAL PRONOUNS

The analysis of the 300 RAs using AntcConc.3.4.1w (Anthony 2014) revealed that both sets of article writers (qualitative and quantitative) used this device to interact with their audience in the Discussion section, though, with different frequency.

TABLE 1. Raw and normalised frequencies per 1,000 words of first person pronouns

Sub-corpus	Raw	Norm.
Qualitative (198,891 words)	787	3.96
Quantitative (208,196 words)	638	3.06

A comparison of singular and plural pronouns showed an underuse of singular pronouns in both sub-corpora, particularly quantitative papers. They comprised only 5% and around 30% of the whole personal pronouns in the quantitative and qualitative sub-corpus respectively.

TABLE 2. Raw and normalised frequencies per 1,000 words of first person plural pronouns

Pronoun	Qualitative			Quantitative		
	Raw	%*	Norm.	Raw	%*	Norm.
plural	529	67.22%	2.93	606	95%	3.18
singular	258	32.78%	1.54	32	5%	0.15

* percentage in the whole token of personal pronouns

FREQUENCY OF SUBJECT, OBJECT AND POSSESSIVE PRONOUNS

The three groups of pronouns (subject, object and possessive adjectives) appeared with different frequencies in both sub-corpora with subject pronouns being the most frequent and objective pronouns being the least frequent.

TABLE 3. Raw, normalised frequencies per 1,000 words and percentage of subject pronouns, object pronouns and possessive pronouns

Pronoun	Qualitative			Quantitative		
	Raw	%*	Norm.	Raw	%*	Norm.
Subject Pronouns	529	2.66	67.22	434	2.08	68.03
Possessive Pronouns	238	1.20	30.24	180	0.86	28.21
Object Pronouns	20	0.10	2.54	24	0.11	3.76
Total	787	-	100	638	-	100

The object pronouns, *me* and *us*, were mostly used by the writers to talk about their research process (Example 1). The possessive pronouns, *my* and *our*, were mainly used in stating the findings and claims and were mostly collocated with *analysis*, *findings*, *results*, *data*, *participant(s)*, *view*, *opinion*, and *observation* and were mostly used to state the findings and claims (Examples 2-6).

- 1) It is so unremarkable that **I** initially received ‘funny looks’ when asking individuals to explain what they were saying, whenever (to **me**) it did not necessarily follow from a previous utterance.
- 2) **Our** analysis shows that topical organization embedded in this institutional speech event displays (Quali)
- 3) **Our** study also suggests that the teachers need to become more conscious of ... (Quali)
- 4) **Our** results reveal that features drawn from a wide range of categories were ... (Quanti)
- 5) **Our** findings also lend support to the conclusions of previous (Quanti)
- 6) Interestingly, **my** analysis of the data in this paper suggests that ...

FREQUENCY OF FIRST PERSON SINGULAR PRONOUNS

As Table 4 indicates, singular pronouns comprise more than 30% of the whole self-references in the qualitative sub-corpus compared to 5% in the quantitative one. Among the singular pronouns (*I*, *my*, *me*) only *I* was used in the quantitative articles. All three pronouns were used in the qualitative sub-corpus, with *I* being the most frequent and *me* the least frequent.

TABLE 4. Raw, percentage and normalised frequencies per 1,000 words of first person singular pronouns

Item	Qualitative			Quantitative		
	Raw & %	%*	Norm.	Raw & %	%*	Norm.
I	140 (54%)	17.79	0.70	32 (100%)	5	0.15
My	100 (39%)	12.70	0.50	0	0	0
Me	18 (7%)	2.29	0.09	0	0	0
Total	258	32.78	1.54	32	5	0.15

* percentage in the whole token of personal pronouns

In order to find out whether the underuse of the singular pronouns in the quantitative sub-corpus compared to the qualitative sub-corpus can be attributed to single/multiple authorship in these articles, the status of authorship in both sub-corpus was examined (see Table 6). It was found that more than half of the quantitative RAs were single-authored. In other words, 87 out of 150 quantitative RAs were single authored which means that the pronoun *I* (with a frequency of 32) did not occur even once in every single-authored RAs.

FREQUENCY OF FIRST PERSON PLURAL PRONOUNS

As Table 5 illustrates, exclusive *we* is the most common pronoun among the plural pronouns in both sub-corpora.

TABLE 5. Raw and Normalised Frequencies per 1,000 Words of First Person Plural Pronouns

Pronoun	Qualitative			Quantitative		
	Raw & %	%*	Norm.	Raw & %	%*	Norm.
We	389 (73.53%)	49.43%	1.96	402 (66.33%)	63.01%	1.90
Our	138 (26%)	17.53%	0.75	180 (29.70%)	28.23%	1.09
Us	2 (0.37%)	0.25%	0.21	24 (3.97%)	3.76%	0.17
Total	529 (100%)	67.22%	2.93	606 (100%)	95%	3.18

* percentage in the whole token of personal pronouns

By comparing Tables 4 and 5, we can see that first-person plural pronouns appeared more frequently than the first-person singular pronouns in both sub-corpora. As was mentioned in the previous section, all the 300 RAs were checked in terms of authorship. In the quantitative sub-corpus 87 out of 150 (58%) and in the qualitative sub-corpus 101 out of 150 (67%) RAs were single-authored. Thus, the prominent use of plural pronouns compared to single pronouns cannot be attributed to the patterns of authorship. Other studies (e.g., Hyland 2001, Kuo 1999) have identified the uses of first person plural pronouns in the single authored RAs. In order to investigate whether such instances occurred in the corpus of the present study as well, the researchers examined instances of the first person plural pronouns in the single authored RAs separately which revealed the use of plural pronouns in the single-authored RAs.

INDIVIDUAL WRITERS' VARIATION

The degree of variation in the use of personal pronouns in the present data was investigated to find out whether there was a difference in the use of first-person pronouns between writers. A great variation was noticed in both qualitative and quantitative sub-corpora (see Table 7). In the qualitative sub-corpus, while 101 RAs were single-authored, the first person singular pronouns were used in 58 RAs. It was also noticed that the frequency of the use of these pronouns in these types of articles varied quite greatly, with a minimum of one and a maximum of 14 occurrences. In the quantitative sub-corpus, while 87 articles were single-authored, only 16 writers used the first person singular pronouns. The frequency of occurrence varied from one to six cases in the sub-corpus.

TABLE 6. Authorship Status and Use of Single and Plural Pronouns

Sub-corpus	Single authored RAs			Multiple authored RAs		
	Total	No. of RAs used SP*	Range of occurrences of SP*	Total	No. of RAs used PP*	Range of occurrences of PP*
Qualitative	101	58	1-14	49	43	1-42
Quantitative	87	16	1-6	63	55	1-19

* SP: single pronouns, PP: plural pronoun

The investigation of multiple-authored qualitative papers showed that 43 RAs out of 49 used at least one form of the first person plural pronouns. Only six qualitative multiple-authored articles did not use these pronouns in their Discussion section. Quick reading of all sections of these six articles showed that although these pronouns were not identified in the Discussion section, they were used in other sections. In the multiple-authored quantitative articles, it was noticed that 55 RAs out of 63 used at least one form of the first person plural pronouns. It should be mentioned that these pronouns occurred with a large degree of variation in the articles of both sub-corpora, i.e. between 1- 42 in the qualitative and 1-19 in the quantitative RAs.

DISCOURSE FUNCTIONS OF *I* AND *WE*

Identifying the frequency of personal pronouns, all instances of subject pronouns (*I* and exclusive *we*) were examined in detail in order to find the discourse function they associated with. As it was mentioned earlier, Hyland’s (2002) four categories were adopted for classifying the functions. Besides, the researchers added “referring back to the text” function as it was identified in the present data.

TABLE 7. Raw, Normalised Frequencies per 10,000 Words and Percentage of Personal Pronouns based on their Discourse Function

Function	Qualitative			Quantitative		
	Raw	Norm.	%	Raw	Norm.	%
Stating a goal/purpose	91	0.46	17.20	94	0.45	21.66
Explaining a Procedure	84	0.42	15.88	69	0.33	15.90
Stating Results/Claims	166	0.83	31.38	140	0.67	32.26
Elaborating an Argument	158	0.79	29.87	122	0.58	28.11
Referring back to the text	30	0.15	5.67	9	0.04	2.07
Total	529	-	100	434	-	100

Table 7 shows a similarity between the two sub-corpora concerning the functions of the first person subject pronouns. In both sub-corpora, the two *high-risk* functions (stating results/claims and elaborating an argument) were more frequent than the *low-risk* functions (stating a goal/purpose and explaining a procedure) and comprised around 60% of the occurrences (Examples 7-8). The other high-risk function, and the second most frequent one, was *elaborating an argument* (Examples 9-10).

- 7) **I found** that the students constantly blended expectations from ... (Quali)
- 8) **We did find** a relationship between ... (Quanti)
- 9) Based on these findings, **I argue that** the core properties of please entail ... (Quali)
- 10) Thus, **we believe that** the processing of negation in this case involves ... (Quanti)

By using the low-risk function of *Stating a Goal*, writers expressed their intentions, gave organization to their texts and guided the reader through the text (Examples 11-12). The

writers also used *Explaining Procedure*, another low-risk function associated with authorial presence, to refer to methodological steps taken in their research (Examples 13-14).

- 11) In this section, **I will discuss** communicative insincerity in more detail, and examine (Quali)
- 12) Having discussed the characteristics of the recasts and their effect on learner uptake, **I would now like to return to...** (Quanti)
- 13) Another significance of this research lies in its methodology. **I employed** both a textual analysis method and retrospective interviews to present ... (Quali)
- 14) To that effect, **I examined** contexts where the use of UNO was specific and the referent could only vary with the first person pronominal. (Quanti)

The researchers also identified several instances of self-reference used to refer back to the text to signal what was mentioned previously in the text.

- 15) **Until this point, we have discussed** the meta-critical interactions presented here largely in terms of the analysis of discourse. (Quali)
- 16) **We have argued in Section 5.1** that in practical applications of human-computer communication, computers are likely to be required to follow the CP ... (Quanti)

DISCUSSION

Our study aimed at identifying the similarities and differences of personal pronouns in terms of frequency and function in the two selected sub-corpus. Analysis of the overall frequency of personal pronouns showed that while the qualitative RA writers expressed themselves and their role and involvement in their research more explicitly, the quantitative RA writers distanced themselves from their research and suppressed their own voice. Considering the epistemological perspectives on which the quantitative research is based, the findings are not surprising.

The quantitative research follows positivism which is based on the assumption that research is *objective* and should be presented as if human agent is not part of the process. Instead, it gains its credibility, in general, by taking care of validity and reliability and by employing precise methodologies. It tries to persuade the reader by demonstrating impersonality and showing that researcher did not affect the research process and results would be the same regardless of who conducted the research. Therefore, by backgrounding presence in the research, the researcher “not only highlights the phenomena under study and the generality of the findings, but also his or her credibility” (Hyland 2012, p.18).

However, it should be noted that in spite of the assumption of positivism which considers research as objective and emphasises impersonality, the findings from the data of this study still demonstrate the use of first person pronouns and explicit writer presence in the quantitative research, although with low frequency.

Overall occurrence of personal pronouns in this study was slightly lower than Hyland’s (2005) findings who found self-mention with a frequency of 4.8 per 1,000 words in 30 Applied Linguistics RAs. The difference might be related to the study of different rhetorical sections in Hyland’s and the present authors’ study. Hyland analysed the whole RAs compared to Discussion section in this study. There is a possibility that writers express themselves more explicitly in the other sections of RAs. For instance, Martínez (2005) found that biologists used more *we* in their Result sections than other sections. Her study also showed a frequency of 59.6 per 10,000 words of first-person pronouns in the Discussion

section of biology RAs which is higher than what was found in the corpus of the present study. The difference can be attributed to disciplinary differences. Several studies such as Fløttum et al. (2006) and Hyland (2001) have shown that the presence of authors in text is disciplinary-specific and some disciplines have more explicit author presence than others.

Examining the types of pronouns used in the corpus revealed that subject and possessive pronouns were respectively the two most frequent ones. The possessive pronouns are said to be used by writers to express the uniqueness of their contribution to the field and to “stress the ownership of their work” (Harwood 2005b, p. 1212). The use of these pronouns along with research procedures such as “analysis” and “data” can also be a strategy that the writers use to protect themselves from possible refutations. By using *our/my analysis/data/study shows/suggests/indicates*, the writers foreground the reported findings and claims and imply that the claims are driven from the data. Also, using “in our study”, and “in our data” might be a *hedging* (Hyland 1996) strategy that writers use to shield themselves against possible refutation by avoiding overgeneralization of their claims.

In terms of frequency of the singular and plural pronouns, the analysis showed that singular pronouns were underused in the quantitative data (with only 32 occurrence). This can be attributed to the assumption that the quantitative research must be “objective” and impersonal. This is in line with previous research which showed that the first person singular pronouns were non-existent or were used very rarely in hard disciplines (Hyland 2005, Kuo 1999, Lafuente Millen 2010). As Hyland (2012, p.128) states, first person singular pronouns are “the most visible manifestation of an authorial identity” and the lack of their use might be an attempt to “avoid personal responsibility that subjectivity entails” (Hyland 2002, 1107). As Starfield (2015, p.255) points out, avoidance of singular pronouns in academic writing is an “unwritten rule” set by those “with authority in university and world of publication” (Starfield 2015, p. 249). Chang and Swales (1999, p. 149) associate the use of *I* with an “informal” style which is more appropriate for speech than the “standard formal and impersonal styles of academic writing” (p. 145). However, the data of this study along with several other studies (Hyland 2002, Ivanič, & Camps 2002, Tang & John 1999) show that the use of “I” is not completely omitted from academic writing and some authors deviate from the “traditional rule” (Cameron 1995, p. 34) of avoiding it and use it to interact with their audience.

Comparison of the single and plural pronouns suggested a higher use of plural pronouns particularly exclusive *we*, a finding which is in line with previous research in other disciplines (Hyland 2001, Kuo 1999, Mur Dueñas 2007). This was an interesting finding as checking the single/multiple-authorship of the articles showed that 58% the quantitative and 67% of the qualitative RAs were single authored. Further analysis of the single-authored articles showed the use of plural pronouns by single writers. It has been suggested that the use of first person plural pronouns by single-authors to refer to themselves might indicate the writers’ “intention to reduce personal attribution” (Kuo 1999, p. 125). The use of these pronouns to refer to the single writers was more common in the quantitative than the qualitative RAs. As there is an assumption that the quantitative research writing should be impersonal, this might be a strategy which is employed by the single-writers to express themselves explicitly in their texts and at the same time reduce it by using the plural pronouns instead of *I* or *my*.

Hyland (2001), based on his interviews with his specialist informants, suggests that sometimes the reason that single-writers use the plural pronouns to refer to themselves is that the research has been done by a team of researchers, though it has been reported by a single-writer. In the data of this study it was noted that most occurrences of *our*, in single-authored quantitative RAs, were used to refer to the researchers’ own work. It was collocated mostly with *study*, *research question*, *results*, and *data*. Checking the methodology section of these

instances, it was found that some of these studies were part of a project or the data had been collected by the writers and some other people. Therefore, by using *we* and *our*, the writers referred to themselves and the other party who assisted them or who were part of the research process. Such instances, of course, were identifiable only by referring to the wider context. Such instances were also identified in Fløttum et al.'s (2006) study.

A great difference among the authors in the use of first person pronouns was also observed which might suggest that while the degree of authorial presence is related to the conventions of the discipline, it seems that “[i]ssues of seniority, experience, relationship to the community, and general sense of self are also likely to influence these decisions” (Hyland 2001, p. 224).

As regards what functions subject pronouns serve in the two sub-corpora, five different functions were identified among which the two high-risk functions of *stating results/claims* and *elaborating an argument* were the most frequent. While *stating results/claims* is associated with Results section, it is found as the most dominant function of using subject pronouns (I, we) in both sub-corpora which is in line with Martínez's (2005) finding. Several genre studies in different disciplines (Dobakhti 2011, Peacock 2002, Swales 1990) have shown that *stating findings* is the most common move in Discussion section, which shows the importance of bringing back the selected findings before writers comment on them, compare them with those in literature and make an argument. According to Hyland (2002, p. 1103), this function of self-mention is the “most self-assertive” and “face-threatening” use of self-reference where the authors express themselves explicitly and take the complete responsibility for their new knowledge claims.

Elaborating an argument is found as the second most common function of *I* and *we*. The final aim of academic communication is to persuade the reader by setting out a reliable and valid line of reasoning. Using self-reference when elaborating their arguments, writers show explicit ownership of their knowledge claims and take full responsibility for them.

Given the nature of Discussion section, explicit authorial presence in *stating results* and *claims* and *elaborating arguments* is not unexpected. Discussion section enjoys a crucial role in any academic writing, as in this section writers go beyond their data, present their own claims and offer their own interpretation and argument in a way that their readers find persuasive. As in this section the writers present and argue their own points of view about their findings, it can be expected that they take a more explicit stance in this section.

CONCLUSION

In this paper, qualitative and quantitative research articles' Discussion sections were compared in terms of 1) the frequency of use of first person pronouns, and 2) the discourse functions of subject pronouns. There is an assumption that quantitative research is ‘objective’ and ‘impersonal’ and the person who conducts the research does not influence the study, and results would be the same regardless of who conducted the study. This might be a reason that self-mention was lower in the quantitative articles than the qualitative ones. However, it should be noted that the difference between the two sub-corpora was not very extensive. In contrast to the assumption that research articles are “author-evacuated” (Hyland 2010, p. 116), the findings of this study, in line with previous literature, reveal that article writers use personal pronouns strategically, though with different frequency in qualitative and quantitative papers, to interact with their audience. The results also showed that though most of the RAs in both sub-corpora were single-authored, first person plural pronouns were more frequent in both sets of the articles compared to single pronouns. The qualitative analysis of discourse function of subject pronouns showed that both groups used pronouns mostly for

stating their findings and claims and for elaborating arguments which are said to serve *high-risk* functions. Pronouns were also used to state a purpose and explain procedure. Few cases of use of pronouns for referring back to text were also identified.

Overall, the findings indicate that self-reference is an important strategy that writers use to show their presence in their texts in order to emphasise their contribution to the field, gain credibility, and promote themselves (Harwood 2005b, Hyland 2001). The writers use the pronouns to emphasise solidarity with their reader and community, to emphasise the importance and uniqueness of their own work, and to earn credibility for their work and their own. By using the first person pronouns to state their findings or claims and to generate an argument, the writers show that they are responsible for the findings and claims that can benefit the whole community. This can help to persuade the reader that the writer is “an intelligent, credible, and engaging colleague” (Hyland 2001, p. 216) whose claims as well as themselves are “worth taking notice of” (Harwood 2005b, p. 1211). It can be concluded that the self-mention, at least in the Discussion section of RAs in Applied Linguistics, is a strategy that is used by both the qualitative and quantitative researchers to show their authority in their text, to gain acceptability for their findings and claims, and to promote their work as well as themselves.

This study was the first attempt to investigate authorial presence in the qualitative and quantitative RAs in Applied Linguistics and hoped to fill the gap in the literature. It is hoped that the findings of this study help in better understanding of the typical ways that the writers present themselves in their texts. These findings have potential contribution to ESP and EAP reading and writing courses. However, the study was limited to only Discussion section. Further studies can explore authorial presence in other sections of RAs and even other disciplines that employ both qualitative and quantitative designs.

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