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Metadiscourse Markers in Abstracts of Linguistics and Literature Research Articles from Scopus-Indexed Journals

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Abstract

An abstract is generally a condensed version of a much lengthier research article (RA). It plays a crucial role in academic writing by initially grabbing the readers' attention. A well-crafted abstract can greatly increase an RA's chances of being published. Metadiscourse markers, which extend beyond the actual information being presented, provide significant assistance in textual organisation and interaction. However, less attention has been paid to the use of these markers in the abstracts of RAs within the field of linguistics and literature from Scopus-indexed journals. Therefore, this paper first investigated how authors presented their arguments in the abstracts by deploying interactive and interactional markers, and then it delved into the occurrence frequency of both types of markers in linguistics and literature corpora. A total of 100 English RA abstracts were selected for this study. The linguistics and literature corpus each contained 50 RA abstracts taken from three open-access Scopus-indexed journals. Based on Hyland's (2005) interpersonal model of

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metadiscourse, an analysis of the identification and frequency of metadiscourse markers was conducted. A comparison was also drawn between the linguistics and literature RA abstracts. The findings showed that the abstracts from both corpora employed more interactive markers than interactional markers. Regarding the interactive markers, a similar tendency of using transitions was detected. However, the difference lay in the frequency of the other four types of markers between the two corpora. In the interactional category, boosters emerged as the most prominent markers while engagement markers were the least frequent in both corpora. The difference was mainly in the occurrence of self-mentions. The results of this study highlight the disciplinary awareness of metadiscourse markers in RA abstracts and offer a practical guide for scholars to utilise these cues and indicators in academic writing.

Keywords: Metadiscourse markers, abstracts, linguistics research articles, literature research articles, Scopus-indexed journals

1. Introduction

In the academic circle, writing and publishing research articles (RAs) to gain wide acceptance from experts and scholars has always been essential, and such intellectual endeavours often contribute to advancements in various fields. Scopus, which was founded in November 2004, is the world's largest abstract and citation database, equipped with innovative tools for tracking, analysing and visualizing research (Joshi, 2016). It offers a broader range of journal coverage compared to the Web of Science Core Collection and is widely regarded as a highly reputable bibliometric database (Yirci et al., 2023). In the field of linguistics and literature, there are 296 open-access journals included in the Q1, Q2, Q3 and Q4 lists in the Scopus database. To get RAs published in prestigious Scopus-indexed journals, a clear and informative abstract is indispensable. Providing the background, objectives, methodology, major findings and implications of the research, the abstract usually serves as a gateway for readers to pick up or cast away the entire paper. As stated by Ventola (1994), abstracts have evolved into useful tools for keeping up with and managing the massive flow of information that is constantly being produced in the academic community. Therefore, the strategies for constructing a well-organized abstract are worth investigating.

According to previous studies, the use of metadiscourse is vital for creating effective texts, particularly for drafting research articles. Metadiscourse is defined as "writing about writing" (Williams, 1981, p. 40) or "discourse about discourse" (Hyland, 1998, p. 437), and it is aimed at guiding rather than merely informing readers. Through controlling the interactions between writers and readers through metadiscourse markers, arguments, evidence and claims can be effectively organized and conveyed in the research article. As stated by Hyland and Tse (2004), employing metadiscourse allows the writer to not only transform a dry, challenging text into coherent reader-friendly prose but also convey the writer's credibility, personality, audience relationship and sensitivity to the message. Metadiscourse markers, thus, aid readers in organising, classifying, interpreting, evaluating, and reacting to propositional information (Jalilifar & Alipour, 2007; Kopple, 1985).

Numerous researchers have undertaken studies on metadiscourse markers in various written genres in different languages. However, due to the divergent nature of disciplines, the usage of metadiscourse markers has seldom been investigated between the fields of linguistics and literature. Though there were studies focused on linguistics RA abstracts, Tankó (2017) once mentioned that literature RA abstracts in English have received little attention. Hence, the current study seeks to fill the gap by exploring how the authors deploy interactive and interactional markers in abstracts of linguistics and literature RAs from Scopus-indexed journals. The findings of this study not only raise the awareness of inter-disciplinary differences but also aid academic writers to use metadiscourse markers effectively in crafting well-organized RA abstracts for Scopus-indexing.

2. Literature Review

As a distinct genre in academic prose, the abstract is seen by writers as a succinct and precise encapsulation of a research article's content.

For readers, it serves as an entry point to the article, enticing them to continue reading; for journals, the quality of the abstract usually determines whether editors accept or reject a paper. Since the late 1970s, the use of RA abstracts in article publication has been a common practice, and scholars in the discourse community have normalized RA abstracts as a reading guide in managing the overwhelming volume of output in a globalized publishing market (Salager-Meyer, 1990; Ventola, 1994). Hence, constructing an engaging and well-organized RA abstract is of great

significance, and during the writing process, writers should provide cues and indicators to aid readers in understanding and responding to the text (Kumpf, 2000). These "cues and indicators" are what Hyland (2005, p. 50) refers to as *metadiscourse markers*. These markers relate to the characteristics of a text's organization or they reflect a writer's stance toward the content of the text or the reader (Hyland, 2004a). Through these markers, the rhetorical organisation of writing can be effectively manifested (Khany et al., 2019).

Based on previous research, Harris (1959) coined the term "metadiscourse" to label features that contained no essential information in texts but commented on information-carrying parts of a text. Ädel (2006) viewed metadiscourse as a functional category that can manifest in a broad range of forms. According to Halliday (1994), ideational, textual and interpersonal functions comprise the tripartite functions of metadiscourse. Over time, four models have been proposed: Kopple's Classification System for Metadiscourse (1985, p. 82-92), Crismore et al.'s Metadiscourse Categorization (1993, p. 47-54), Hyland's Interpersonal Model of Metadiscourse (2005, p. 49), and Ädel's Personal and Impersonal Configurations of Metatext and Writer-Reader Interaction (2006, p. 38). In Hyland's (2005) model, he classified the functional resources that are frequently used to accomplish these interactive and interactional features in the text. The interactive markers are intended to assist the reader in navigating the text, while the interactional markers are meant to engage or involve the reader in the argument.

Previous studies have found that the use of metadiscourse markers can enhance the effectiveness of writing by making the ideas in the text more organized, clear and comprehensible (Amiryousefi & Rasekh, 2010; Hyland, 2005; Intaraprawat & Steffensen, 1995). Meanwhile, metadiscourse usage is likely to vary across disciplines due to the divergent nature of disciplines (Hyland, 2005). There were studies on the analysis of metadiscourse markers between disciplines of hard science and soft science such as engineering and linguistics (Boginskaya, 2022), material science and applied linguistics (Hu & Liu, 2022). Additionally, studies have also been conducted on metadiscourse markers in cross-disciplinary areas of soft science, such as applied linguistics, education and psychology (Hu & Cao, 2015), education and literature (Kan, 2016), and applied linguistics and economics (Khedri et al., 2013). However, within the realm of human language studies, there is a lack of research on its sub-disciplines.

At universities, the broad study of human language is typically divided into two disciplines: linguistics and literature (UKEC, 2021). These two areas focus on very different aspects of

language studies, with the former leaning towards the scientific side and the latter towards the artistic side. While there has been research based on a comparative analysis of RA abstracts in linguistics and literature (Bhatti et al., 2019), it has mainly focused on move analysis. To date, no research has explored whether the nature or characteristics of these two disciplines influence the use of metadiscourse markers in RA abstracts from Scopus-indexed journals. In this regard, the present study aims to fill this gap. The research questions and research objectives are as follows:

2.1 Research Questions

1. How are metadiscourse markers used in the abstracts of linguistics and literature research articles from Scopus-indexed journals?
2. What is the occurrence frequency of interactive and interactional markers in both corpora?

2.2 Research Objectives

1. To investigate the usage of metadiscourse markers in abstracts of linguistics and literature research articles from Scopus-indexed journals.
2. To examine the occurrence frequency of interactive and interactional markers in both linguistics and literature corpora.

3. Methodology

3.1 Corpus Construction

The corpora in this study comprised 100 RA abstracts, in which 50 abstracts were randomly selected from two applied linguistics journals (*English for Specific Purposes* and *Language Testing in Asia*) and the remaining 50 from two literature-focused journals (*Comparative Literature: East & West* and *Journal of World Literature*). These 100 RA abstracts, written in English, were selected from peer-reviewed Scopus-indexed journals published between 2020 and 2022, all of which have high citation indices. Classified as "original articles", all the selected RAs adhered to Swales' (1990) proposed IMRD (Introduction, Method, Results and Discussion) structure, a widely accepted conventional format for empirical research articles. The open-access abstracts were subsequently transferred to a Word document for frequency and functional analysis of metadiscourse markers.

Table 1: Description of Corpora

Corpora	**Linguistics Corpus**	**Literature Corpus**
No. of RA Abstracts	50	50
No. of Journals for Abstracts Extraction	2	2
Range of Words in Abstracts	137-276	117-257
Average Length of Abstracts	198	156
Total No. of Words of Abstracts	9894	7820

3.2 Analytical Framework

The metadiscourse markers in the 100 RA abstracts were identified by adopting Hyland's (2005) interpersonal model of metadiscourse in academic texts. This model is notably popular and comprehensive, having been vetted through numerous corpora and refined through multiple iterations. Like two sides of the same coin, it consists of two dimensions of interaction: the interactive and the interactional dimensions. The interactive markers aim to guide the reader through the text while the interactional markers strive to involve the reader in the argument. The five categories of interactive markers and the other five categories of interactional markers are illustrated in Table 2, along with examples of typical words and expressions that epitomise these markers in each category.

Table 2: Interpersonal Model of Metadiscourse in Academic Texts (Hyland, 2005)

Categories	**Functions**	**Examples**
Interactive	**Help to guide the reader through the text**	**Resources**
Transitions	express semantic relation between main clauses	and, but, thus, in addition
Frame markers	refer to discourse acts, sequences, or text stages	to conclude, finally, my purpose is
Endophoric markers	refer to information in other parts of the text	noted above, in section X, see Fig X
Evidentials	refer to source of information from other texts	according to X, Y states, (Z, 1990)
Code glosses	help readers grasp meanings of ideational material	e.g., such as, namely, in other words
Interactional	**Involve the reader in the argument**	**Resources**
Hedges	withhold writer's commitment to proposition	might, perhaps, about, possible
Boosters	emphasize writer's certainty in proposition	in fact, definitely, it is clear that
Attitude markers	express writer's attitude to proposition	unfortunately, I agree, surprisingly
Engagement markers	explicitly refer to or build relationship with reader	consider, note that, you can see that
Self-mentions	explicit reference to author	I, my, we, our

3.3 Data Analysis

This study employed both qualitative and quantitative analysis of metadiscourse markers. To answer the first research question, the qualitative approach of content analysis was used. Based on Hyland's (2005) interpersonal model of metadiscourse, examples indicative of the elements of interactive and interactional markers in Hyland's list were initially coded using the auxiliary software ATLAS.TI version 9. Then, the other typical linguistic expressions that displayed the same features and functions of the metadiscourse markers were manually tagged and identified from the 100 RA abstracts in both the linguistics and literature corpora. For inter-rater reliability, two inter-coders were engaged in this study, and an agreement was reached (Cohen's Kappa = 0.814) with the researcher on the identification of the markers. Following this, to address the second research question, the occurrence frequency of the interactive and interactional markers within the ten sub-categories in both corpora was determined using SPSS. Discrepancies in the use of markers in each category between the two corpora were further examined and explained.

4. Results and Discussions

Regarding the usage of metadiscourse markers in both corpora, the analysis showed that there were 654 interactive markers and 275 interactional markers in the aggregate of 100 RA abstracts from both linguistics and literature Scopus-indexed journals. Writers in both corpora utilised more interactive markers than interactional markers. The following quantitative results further demonstrate the occurrence frequency of these markers. Examples from the two corpora were also included to illustrate the functions of interactive and interactional markers. The linguistics corpus is referred to as LINC while the literature corpus is referred to as LITC.

4.1 The Use and Frequency of Interactive Markers in Each Corpus

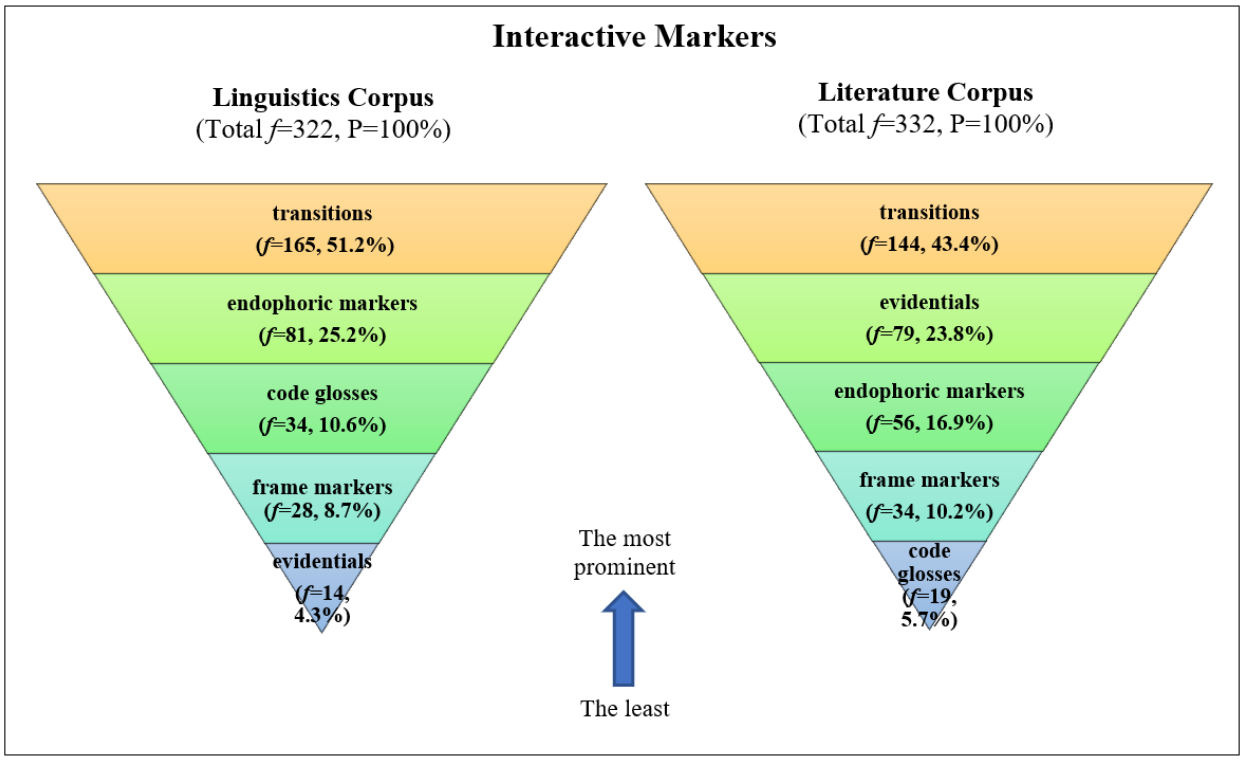

Figure 1: Distribution of Interactive Markers in Linguistics Corpus and Literature Corpus

Figure 1 shows the occurrence frequency and the percentage of interactive markers in linguistics and literature RA abstracts from Scopus-indexed journals. The results reveal a total of 322 and 332 interactive markers used in the linguistics and literature corpora, respectively. In the linguistics corpus, the distribution of interactive markers, in descending order of frequency, was as follows: transitions (51.2%), endophoric markers (25.2%), code glosses (10.6%), frame markers (8.7%), and evidentials (4.3%). Conversely, in the literature corpus, the distribution from most to least frequent interactive markers was as follows: transitions (43.4%), evidentials (23.8%), endophoric markers (16.9%), frame markers (10.2%), and code glosses (5.7%). Each of these marker types will be discussed individually in the following section.

4.1.1 Transitions

According to the findings, transitions were the most frequently used markers used in both corpora. A total of 165 transition markers have been detected in the linguistics corpus, and 144 in the literature corpus, respectively. This result aligns with previous research by Hussein et al. (2018),

who explored six thesis abstracts each from the fields of linguistics (representing different genres, namely, pragmatics and semantics) and another six thesis abstracts from the field of literature (also representing different genres, namely, poetry and novel) by native American students. They found transitions to be dominantly used in both corpora, with the frequency slightly lower in the literature corpus. The current study's result also concurs with previous research that linked metadiscourse markers with moves and showed that transitions had a numerical preponderance over the rest of the categories in all the moves of RA abstracts in applied linguistics from five prestigious journals (Ashofteh et al., 2020). These findings underscore the importance of transitions in facilitating internal cognitive connections in academic discourse. Transitions help readers interpret pragmatic linkages and contrastive relationships in the text, with conjunctive and adverbial transitions mostly commonly used in both corpora. Transitions can further be categorized into markers that describe addition, concession, consequence, comparison (similarity or contrast), etc. The variants of transitions were identified and counted. For example, *and, furthermore, moreover, besides* were all markers expressing relationships of addition, and *however, whereas, yet, while, nonetheless* were all markers showing concession. In both corpora, combinations of transition markers were detected, with *addition + consequence* markers such as *and thus, and therefore, and as a result* being the most common. The examples of transitions are as follows:

Example 1: The L1 essays have diverse patterns of noun phrases, *whereas* the L2 essays have compressed structures of noun phrases. (RA 9 in LINC).

Example 2: Some of these festivals are international, *and thus* play a role in... (RA 43 in LITC).

As shown in Example 1, the underlined *whereas* was the conjunctive transition showing the structural differences of noun phrases used in L2 essays. In Example 2, *and thus* was used as the combination of transition markers to create powerful links between ideas.

4.1.2 Endophoric markers

With reference to Figure 1, a slight difference can be observed in the use of the second most prominent interactive markers between the linguistics and literature corpora. Endophoric markers were the second most frequently used interactive markers in the linguistics corpus (with 81 occurrences), while in the literature corpus, they ranked third (with 56 occurrences). This finding

aligns with Khedri et al.'s (2013) study, which found endophoric markers to be the second leading category in the linguistics corpus. According to Becher and Trowler's (2001) classification, this trend might be more typical of the soft sciences. As a structural device for discourse, endophoric markers are text-internal markers that provide readers instantaneous access to pertinent information located in various parts of the text. The results indicated that non-linear text references (including markers like *table, figure, diagram, chart, graph, appendix, etc.*) were seldom used in both linguistics and literature RA abstracts. However, linear text references (including markers like *paper, study, research, essay, article, case, analysis, section, part, paragraph, sentence, above, below, etc.*) were frequently employed. As RA abstracts are compact texts that can stand alone, the employment of non-linear type of endophoric markers to direct readers to other sections of the text is usually excluded.

Example 3: *In this study*, 24 experienced EFL teachers with Spanish, Chinese and Russian language backgrounds were asked. (RA 2 in LINC).

Example 4: *The two research areas mentioned above* share a concern with the emotion of a text as well as its effect and transmittability. (RA 16 in LITC).

As shown in Example 3, *in this study* was the manifestation of an endophoric marker, which narrowed down the focus to the sample size and connected the detailed information of the work to the readers. In Example 4, the phrase *the two research areas mentioned above* served to repeat important content and facilitate a seamless reading experience.

4.1.3 Code glosses

For the use of this type of interactive marker, a distinct difference was detected between the linguistics and literature corpora. Code glosses were the third most frequent interactive markers and they accounted for 10.6% (34 occurrences) of the linguistics corpus. However, in the literature corpus, they were the least frequent, making up only 5.7% (19 occurrences). The finding is novel because previous studies have not specifically compared the use of code glosses between the linguistics and literature corpora based on a sample size of 100 abstracts. This suggests that writers in the linguistics field, due to its science-based nature, follow their primary claims with more acts of propositional embellishment. Compared with the art-based literature subjects, linguistics may contain more scientific concepts and elements that need to be elaborated or specified. Furthermore,

based on the elaboration function of code glosses, two sub-functions were proposed, which were reformulation and exemplification. The following examples illustrate how these markers were used in both corpora.

Example 5: *That is*, experienced raters, due to their idiosyncratic characteristics, did not benefit as much as inexperienced ones. (RA 41 in LINC).

Example 6: Studies on Urdu literature in the 19th century, *for instance*, focus mostly on… (RA 29 in LITC).

That is in Example 5 represented the reformulation function of the code gloss. By rewording an idea, the writer tried to make the meaning easier for readers to understand. In Example 6, *for instance* served as a code gloss with an exemplification function. Its use helped to make elements from the writer's data more concrete and tangible.

4.1.4 Frame markers

The results showed that frame markers were the penultimate in frequency among the interactive markers in both the linguistics and literature corpora. Acting as signals for shifting the authors' argumentative steps or order of discourse, frame markers assist the reader in recognizing textual boundaries. This category includes topic shifters, goal announcements, sequencers, and stage labels. The current finding differs from previous research which showed that frame markers were the most frequently used interactive metadiscourse strategy in writing linguistics abstracts by both celebrity and non-celebrity authors (Abdi et al., 2021). A possible explanation for this inconsistency might be attributed to the limited length of an abstract. Many of the writers in the current study prioritised using transitions and other interactive markers. According to our findings, the subset of topic shifters in frame markers was the least frequently used in their abstracts.

Example 7: *To this end*, a corpus entailing 100 essays written for IELTS writing task 2 was scrutinized. (RA 34 in LINC).

Example 8: *It begins by* defining comparative literature in brief. (RA 23 in LITC).

To this end in Example 7 served as a frame marker to announce the goal of establishing the method and sample size of the corpus. In Example 8 *it begins by* used was also used as a frame marker to label the stages of the study.

4.1.5 Evidentials

From the results, it could be seen that writers in the area of linguistics did not employ evidentials in the same manner that writers in the area of literature did. This aligns with the notion that the research area of metadiscourse is not unified and different strands can be discerned (Ädel, 2010). In this study, evidentials were the least used interactive markers in the linguistics corpus, while they were the second most frequent markers in the literature corpus. They accounted for 4.3% (14 occurrences) of the linguistics RA abstracts and 23.8% (79 occurrences) of the literature RA abstracts. This finding also accords with earlier observations which showed that both the non-native and native writers in the literature field deployed more evidentials than those in the linguistics field when constructing abstracts (Hussein et al., 2018). The reason why writers in the field of literature relied heavily on citing is that they are expected to know the sources of the classic works that they are investigating. Since the main genres of literature such as fiction, nonfiction, poetry and drama are quite different from the academic genres in linguistics, writers need to cite more related works before conducting descriptive content or thematic analysis. In contrast, in the linguistics corpus, writers usually just cited the methodological framework suitable for their studies.

Example 9: This paper illustrates how *Serafini et al.'s (2015)* methodological framework was used. (RA 18 in LINC).

Example 10: *To borrow Warren Motte's words*, "playing in earnest" is his literary signature. (RA 33 in LITC).

As shown in Example 9, *Serafini et al.'s (2015)* was the evidential marker used in the linguistics corpus to put forward the analytical model. In Example 10, *to borrow Warren Motte's words* was the evidential marker used to demonstrate the basis of the literary classics that the writer intended to investigate.

Having discussed the use and frequency of interactive markers, we will now examine the interactional markers in both the linguistics and literature RA abstracts.

4.2 The Use and Frequency of Interactional Markers in Each Corpus

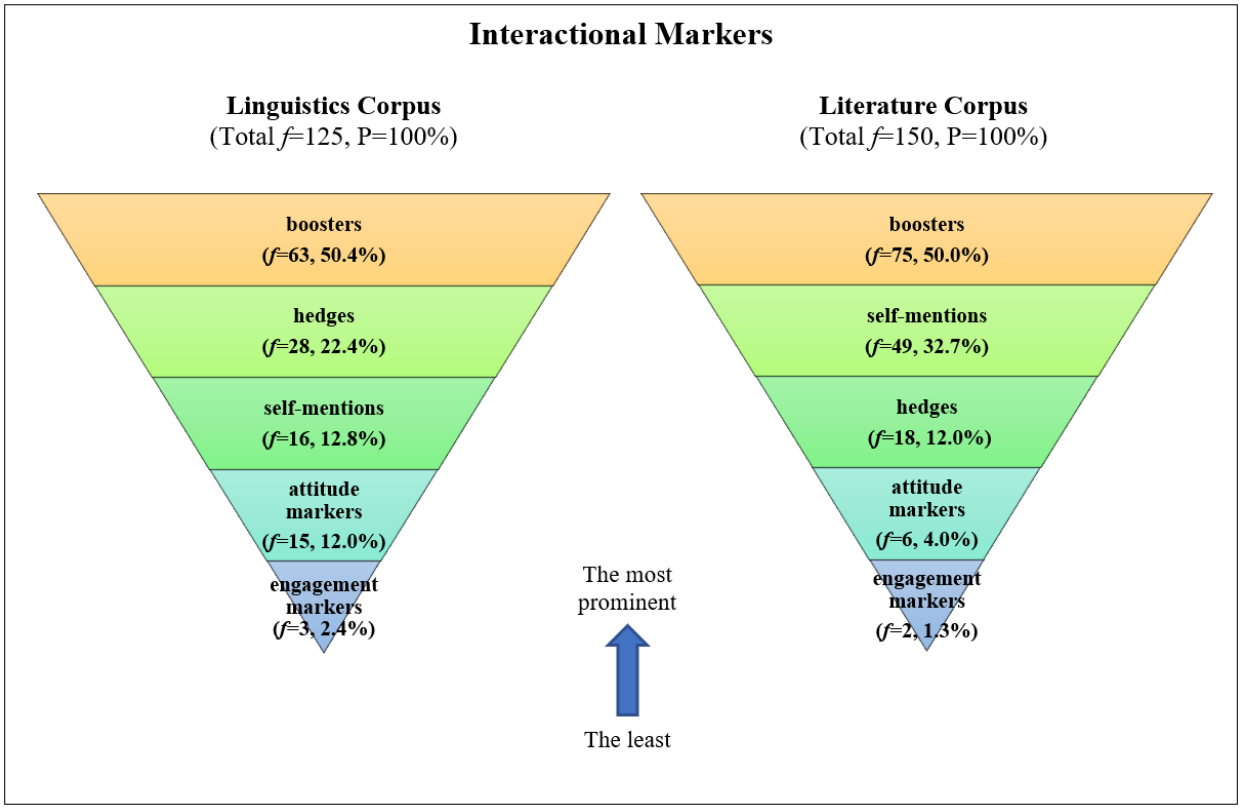

Figure 2: Distribution of Interactional Markers in Linguistics Corpus and Literature Corpus

Figure 2 depicts the occurrence frequency and the percentage of interactional markers in linguistics and literature RA abstracts from Scopus-indexed journals. Based on the results, there was a total of 125 and 150 interactional markers in the linguistics and literature corpus respectively. In order of high to low occurrence frequency, the interactional markers in the linguistics corpus were as follows: boosters (50.4%), hedges (22.4%), self-mentions (12.8%), attitude markers (12.0%), and engagement markers (2.4%). In contrast, in the literature corpus, the interactional markers were distributed as follows: boosters (50.0%), self-mentions (32.7%), hedges (12.0%), attitude markers (4.0%), and engagement markers (1.3%). In the following section, these markers will be discussed type by type.

4.2.1 Boosters

Boosters are linguistic devices that serve to enhance the perceived importance of a proposition. They achieve this by increasing the illocutionary force of speech acts, expressing a high level of certainty about a proposition, expressing authorial commitment, or dismissing competing viewpoints. Modal auxiliaries, epistemic lexical verbs, adjectives, adverbs, common knowledge

markers, modal nouns and epistemic *that*-constructions, which all have the above-mentioned boosting features, can be classified under the umbrella of boosters (Hu & Cao, 2011). According to the findings, boosters were the most frequently used interactional markers in both corpora, accounting for about half of all markers, despite being slightly less prevalent in the linguistics corpus than in the literature corpus. There were 63 and 75 occurrences of boosters detected in the linguistics and literature corpora respectively. This suggested that writers in the area of literature prefer to provide a more credible depiction of their works.

Example 11: *In fact*, the results indicated that using PA generated positive effects on... (RA 33 in LINC).

Example 12: …this can *indeed* become *the most* potent feature and future of a common global cosmopolitan identity. (RA 11 in LITC).

In Example 11 from the linguistics corpus, the epistemic phrase *in fact* was used in the initial position of a clause to emphasise the truth of an assertion. In Example 12 from the literature corpus, two boosters appeared in a single sentence. The epistemic adverb *indeed* and the superlative form of an adjective *the most potent* were utilised to express certainty and strengthen the writer's commitment to a position.

4.2.2 Hedges

Compared with boosters, hedges can be considered the other side of the same coin. They are metadiscursive resources that allow a writer to express ambiguity about a claim, withhold commitment to a stance, consider alternative possibilities for an idea and lessen the impact of illocutionary language. The taxonomy of hedges includes modal auxiliaries, epistemic lexical verbs, adjectives, adverbs, common knowledge markers, modal nouns and epistemic *that*-constructions (Hu & Cao, 2011). According to the results, there were 22.4% (28 occurrences) of hedges in the linguistics corpus while only 12.0% (18 occurrences) in the literature corpus. Hedges were the second most frequent markers in the linguistics corpus and the third most frequent in the literature corpus. Given that hedges constrain the information conveyed (Hyland, 2005), it can be concluded that writers in the field of linguistics exercise greater caution in presenting knowledge.

Example 13: Previous studies *seem* to have used the Standard Marine Communication Phrases. (RA 3 in LINC).

Example 14: …they *may* even sustain the development of a literary work, a theoretical topic, or even a field of study. (RA 3 in LITC).

In Example 13, the epistemic lexical verb *seem* was used as a hedge to convey the impressions drawn from previous studies. In Example 14, the modal auxiliary *may* was utilised to express possibilities or alternative voices.

4.2.3 Self-mentions

Self-mentions are regarded as indications of the author's presence in the text, and they can be measured by the frequency of first-person structures in the text (Hyland, 2005). Based on the findings, self-mentions comprised 12.8% and 32.7% of the linguistics and literature corpus respectively. They were the third most frequently used marker in the linguistics corpus and the second most dominant marker in the literature corpus. This finding is consistent with Kan (2016), who found that self-mentions were used more frequently per 1,000 words in the field of literature than in language education within the Turkish context. As in previous findings, the first-person pronoun is the most evident and prominent presence of authorial identity. This is mainly due to the subjectivity of the genres of literature. The results suggested that writers in the field of literature prefer to emphasise their scholarly identity to gain acceptance from others.

Example 15: *The authors* employed two methods to test for the DIF. (RA 38 in LINC).

Example 16: *I* first trace the novel's transtextual dialogue with Goethe's theatre and theory. (RA 41 in LITC).

In Example 15, the plural noun *the authors* was used as a self-reference to showcase the collaborative culture in conducting scientific studies. In Example 16, the subjective personal pronoun *I* was utilised to denote the research stage.

4.2.4 Attitude markers

The attitude markers assist writers in indicating their opinions, feelings and judgments, thereby displaying their stance on a particular matter. According to the results, these markers ranked fourth in terms of frequency in both the linguistics and literature corpora. These indicators are usually followed by logical facts that are difficult to contradict, and this explains why they occur infrequently. Martin and White (2005) have provided evidence for this by stating that when authors

use attitude markers, they are not only showing their feelings toward the proposition, but also inviting others to endorse and share with them the feelings, tastes, or normative assessments they are announcing. To bring the addressee into a group of people who share their values and beliefs, attitude declarations are dialogically aimed in that direction. Based on the results, the occurrences of attitude markers in the linguistics corpus were slightly higher than in the literature corpus. They had a percentage of 12.0% (15 occurrences) and 4% (6 occurrences) in the linguistics and literature corpus respectively. This finding indicated that writers in the linguistics area tend to take a stance and engage in evaluative discussions more frequently than those in the literature field.

Example 17: In this paper, we ***question*** this claim. (RA 14 in LINC).

Example 18: Such a practice, ***interestingly***, has long appeared in both Chinese and English literary writings. (RA 3 in LITC)

In Example 17, the verb *question* was used as an attitude marker to attract scholarly attention. In Example 18, the adverb *interestingly* was used to evaluate a specific practice mentioned in the authors' study and to elicit an emotional response to the propositional meanings they conveyed.

4.2.5 Engagement markers

Engagement markers play the role of drawing readers into the text and assist in the meaning-negotiation process. They raise the writer's dialogic awareness by treating the reader as an active participant in the text rather than a passive observer of the discussion (Hyland, 2001). The findings showed that this type of marker was the least frequently used in both the linguistics and literature corpora. Based on Figure 2, only 3 occurrences (2.4%) of engagement markers were found in the linguistics RA abstracts and only 2 occurrences (1.3%) in the literature RA abstracts. These results corroborate with Gillaerts and Van de Velde's (2010) idea that engagement markers are uncommon in RA abstracts, and this is mainly because few elements qualify as engagement markers and they are hard to distinguish from attitude markers. The following examples showcase the rarely occurred engagement markers in the linguistics and literature corpora.

Example 19: ***Considering*** the results of this study, a number of conclusions are drawn. (RA 47 in LINC).

Example 20: <u>*With this in mind*</u>, the essay concludes by discussing the concept of *World Literature*. (RA 28 in LITC).

In Example 19, the word *considering* reflected how the writer embodied the result to make it relevant to readers. In Example 20, *with this in mind* was the directive expression used to include readers as participants in the discourse.

5. Conclusion

This paper investigated the use and frequency of metadiscourse markers in 100 RA abstracts from linguistics and literature Scopus-indexed journals. Based on Hyland's (2005) interpersonal framework, interactive and interactional markers were identified and analysed. Overall, the results showed that interactive markers outnumbered interactional markers in both datasets, and the literature corpus exhibited a higher frequency of both interactive and interactional markers compared to the linguistics corpus. As for the interactive markers, transitions were the most common markers used in both corpora. However, the frequency sequence (from high to low) of the remaining four types of markers was different. In the linguistics corpus, the order was endophoric markers, code glosses, frame markers and evidentials. Whereas in the literature corpus, the order was evidentials, endophoric markers, frame markers and code glosses. This suggests that the disciplinary nature and features influence the choice of markers. In terms of interactional markers, both corpora shared a similar tendency, with the most prominent being boosters and the least prominent being engagement markers. This suggests that writers in human language disciplines prefer to enhance their claimed positions, though there is room for improvement in drawing readers into their texts. The second least frequent markers were attitude markers, which contributed to a resemblance in both corpora. Concerning the differences, self-mentions were more popular for writers in the field of literature, and this could be attributed to the subjectivity of literary genres. The findings of this study not only reinforce the idea of metadiscoursal analysis as an effective means of exploring academic writing and of comparing rhetorical preferences but also carry pedagogical implications by showing the specific distribution conventions of interactive and interactional markers in RA abstracts from reputable Scopus-indexed journals. Being cognizant of how these markers vary in RA abstracts across human language disciplines will help writers in crafting their research for the academic community. The limitation of this research lies in the small

size of the corpora. The study was confined to analysing metadiscourse markers from 50 RA abstracts in each corpus. Future research could expand the corpora and explore other sections of the RA. Additionally, it would be beneficial to look into interactive and interactional markers in other connected disciplines within the soft sciences.

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