Research Paper

Metadiscourse Markers in the Abstract Section of Applied Linguistics Research Articles: Celebrity vs. Non-celebrity Authors

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Abstract
Metadiscourse involves the self-reflective linguistic expressions that refer to the evolving text, the writer, and the imagined readers of that text. This study utilized an interpersonal model of metadiscourse to examine the authors' use of metadiscourse in the Abstract sections of Applied Linguistics Research Articles (RAs). It investigated the distributions of interactive and interactional metadiscourse markers at a corpus of 110 RAs published by celebrity and non-celebrity authors to determine the ways academic writers deploy these resources at a hight-stake research genre to persuade readers in their discourse community. The findings revealed that frame markers with a relative frequency of 112 were the most frequent strategy category for the non-celebrity authors. Moreover, evidentials with a relative frequency of 3 were the least frequently used strategy for the celebrity authors. There were no significant differences in the use of interactive and interactional metadiscourse markers between celebrity and non-celebrity authors. These findings might have implications for the teaching of academic writing and scholarly publishing and for novice writers who aim to publish their studies in academic journals.

Keywords: *Celebrity Authors, Interactional Metadiscourse Markers, Interactive Metadiscourse Markers, Non-Celebrity Authors, Research Articles*

استفاده از فراکلام با استفاده از مدل بین فردی فراکلام را در بخش چکیده مقالات رشته زبانشناسی کاربردی: توسط نویسندگان شاخص و غیر شاخص

فراگفتمان شامل عبارات زبانی خود بازتاب دهنده است که به متن درحال تکامل، به نویسنده و خواننده احتمالی یک متن اشاره می‌کند. این مطالعه نتایج استفاده از فراکلام با استفاده از مدل بین فردی فراکلام را در بخش چکیده مقالات رشته زبانشناسی کاربردی بررسی می‌کند. در پیکره مشتمل بر ۱۱۰ مقاله تحقیقی توسط نویسندگان شاخص و غیر شاخص، توزیع نشانگرهای فراکلام راهنمایی و تعاملی بررسی شد. این مطالعه در صدد تنویر چگونگی استفاده نویسندگان آکادمیک از این ابزارها جهت متقاعد نمودن خوانندگان جامعه رشته‌ای خودشان در گونه تحقیق سطح بالا می‌باشد. نتایج این تحقیق نشان داد چارچوب‌سازها با بسامد نسبی 112 بیشترین استراتژی مورد استفاده نویسندگان غیر شاخص بودند. علاوه بر این، استنادها با بسامد نسبی 3 کمترین استراتژی مورد استفاده نویسندگان شاخص بودند. هیچ گونه اختلاف معناداری از نظر استفاده نشانگرهای فراکلام راهنمایی و تعاملی توسط نویسندگان شاخص و غیر شاخص مشاهده نشد. این نتایج ممکن است توصیه‌هایی برای آموزش نوشتار آکادمیک و نویسندگان نوپا که قصد چاپ مقاله در مجلات آکادمیک دارند داشته باشد.

واژگان کلیدی: نوشتار آکادمیک، نویسندگان شاخص، نشانگرهای فراکلام تعاملی، نشانگرهای فراکلام راهنمایی، فراگفتمان، نویسندگان غیر شاخص، مقالات تحقیقی

Introduction

A significant number of studies have concentrated on academic writing (Hyland & Hamp-Lyons, 2002). Most of these studies are academically arranged and deal with student needs and skills. The expansion of courses on academic discourse in general and English for academic purposes has predominantly involved an expanded research movement into what students of language must acquire to associate themselves with their exploration community (Hyland, 2004).

It is clear that the writers in multiple disciplines manifest themselves, their work, and their readers in various ways. Empirical studies have accentuated that the writers take more expressly personal positions in the humanities and soft disciplines compared to those in the science and engineering fields. These distinctions result in interactive types of metadiscourse. The issue, as mentioned earlier, is abundantly clear regarding endophorics and evidentials. The individuals who utilize English as a foreign language in writing for publication suffer from a significant disadvantage in applied linguistics and science (Abdi, 2009). Research articles comprise a particular genre utilized by academic communities to scatter and endorse the knowledge. This genre is created in the advanced phases of individuals' enculturation in disciplinary networks. It presents a unique research plan to prompt the scholarly network to acknowledge new information and social dealings between authors and disciplinary gatekeepers (Koutsantoni, 2006).

Hyland (2005) contended that the term *rhetoric* had had various implications in its long history and at one time was a standout amongst the most significant scholastic subjects (Ong, 1983). Rhetoric is the craft of influence and encompasses contentions on issues that cannot be verified formally.

Composing is one of the foremost obligations of scholars and plays a prominent role in academic life. Students of English as a Foreign Language (EFL) realize that writing is a remarkable skill and is more exacting than oral abilities (Marandi, 2002). This contention is underpinned by the fact that even writing in First Language (L1) is not extremely simple for most native speakers of any language. Thorough instruction in writing and its practice in various genres are significant for L1 students and are crucial for Second Language (L2) students. Students who study English must write articles and theses in English and are typically evaluated based on their writings during their academic life.

Consequently, it is the educators' responsibility to furnish students with the patterns of knowledge and principles of composed texts. Subsequently, conscious familiarity with the guidelines and conventions of writing is essential for successful composition, oral production, and academic discourse preparation. One part of such language awareness is metadiscourse awareness, which explicitly refers to self-reflective linguistic articulations alluding to the evolving text, the writer, and the imagined readers of that text (Hyland & Tse, 2004). Therefore, one kind of reflexivity in a language is *metadiscourse,* typically utilized regarding composed language. Nonetheless, metadiscursive phenomena are a fundamental element of spoken texts as well (Schiffrin, 1980). Hyland (2000) recommends that the academic written genre has attracted considerable attention in diverse fields, including philosophy, sociology of sciences, history, rhetoric, and applied linguistics.

A few metadiscourse models have been presented since the commencement of the idea. Somehow, most of the models are acknowledging the conviction that the utilization of language for correspondence is an endeavor to move data and learning and is accompanied by worthwhile initiatives like association, assessments, emotions, commitment, and so on.

Discourse analysis concentrates on learning a language in terms of words, conditions, expressions, and sentences. It scrutinizes the examples of language in various pieces of writing and considers the connection between language and the social setting in which it is utilized (Paltridge, 2006). We use language to induce, illuminate, engage or maybe connect with a group

of people. This issue implies that language shows our demeanor using what we state and tell our readers. These capacities are by and large known as metadiscourse which is a concept that characterizes the etymological articulations which allude to the development of content and the essayist and envisioned readers of that content. Regarding *talk*, it should be noted that some relevant concepts, including Stylistics, Conversational Analysis, Discourse Analysis, Text Linguistics, Contrastive Rhetoric, and Critical Linguistics, are utilized to examine the qualities of discourse and to compose, have their underlying foundations in talk, and fall under this old part of human information (Marandi, 2002). As indicated by Valero-Garcés (1996, p. 281), talk alludes to the "methodologies the essayist uses to persuade readers regarding his/her cases and to expand the believability of his/her exploration." Two striking patterns hold the term talk, including *generative talk* (developed by Noam Chomsky's transformational generative punctuation) and *contrastive talk* (which is the main focus of the present study) (Malmkjær, 2004). Kaplan (1996) presented a contrastive talk and expressed that English as an unknown dialect impacts EFL authors' writing. Moreover, this impact endures when EFL authors can objectively use the target language. As indicated by Abdi (2002), the contrastive investigation of talk is an appropriate methodology for uncovering the distinctions in collaborations between speakers of various dialects and can provide the researchers with materials to perform printed examination. Kaplan (1987) contended that this might assist remote understudies form judgment criteria that are reliable and are compatible with the requests made upon them based on the arrangement of the objective language. Kaplan's (1987) methodology can be utilized to determine distinctive gauges of judgment inside various classifications and territories of a particular language.

In the mid-1990s, language specialists accentuated the propositional importance in the content investigation. Presenting metadiscourse to related semantics vocabulary during the 1980s and expanding on sociolinguistic originations of planes of talk, casings, arrangement, and metatalk constituted to a great extent a response to this overemphasis on the propositional parts of language and an endeavor to set up the imperative rule that language use dependably draws on, and involves a social and informative measurement (Hyland, 2005). This development brought about a scope of new points of view on content, among which the investigation of metadiscourse has attracted considerable attention. The development of talk investigation as a critical instrument for understanding language use has highlighted the significance of communication recorded as a hard copy similar to discourse, and has introduced metadiscourse as a method for noticeably conveying these interactional highlights.

The idea of metadiscourse depends on a perspective on composing as social commitment. It manifests how we direct ourselves and our readers in a text to attracting their attention to the unfurling text as persuading discourse and coherent composition specifically in diverse social contexts. Metadiscourse, which is a broadly utilized and discussed idea in current investigations of discourse analysis and applied linguistics, constitutes an endeavor to determine the associations between text makers and the text and between text makers and the audience. As indicated by Williams (1981), we use metadiscourse markers to channel our thoughts based on our readers' capacity to take them. Metadiscourse does not allude to what we are saying about our subject.

Notwithstanding, we need some metadiscourse in all that we compose. In discourse analysis, discourse markers are similar to metadiscourse markers regarding the relevant terminology. However, they are conceptually different from these markers (Abdi, 2009).

Metadiscourse appears to be different from discourse markers and refers to the language we use when we imply our very own reasoning and composing as we might suspect and compose (e.g., to summarize, despite what might be expected, I accept); to the structure of what we compose (e.g., first, second, more vitally); and to our readers' demonstration of reading (e.g., note

that, think about now, so as to get it). Metadiscourse encompasses the language which is utilized unexpectedly to demonstrate and explain a specific topic. The verbs of metadiscourse are employed to specify our explanation, demonstration, representation, recommendation, and differentiation of diverse issues. Furthermore, metadiscourse enables us to enumerate the sections or steps in our presentation: first, second, third, at last. Also, it allows us to highlight our logical associations: infer, support, prove, illustrate, therefore, in conclusion, however, on the other hand. According to Hyland (2005), Zellig Harris coined the term metadiscourse in1959 to accentuate the writers' or speakers' endeavors to direct the readers' textual perceptions. Several other researchers, including Williams (1981), Vande Kopple (1985), and Crismore (1989), have made an effort to develop this idea during the recent decades.

Nonetheless, Ädel (2006) distinguished this broad approach from a narrow approach. Accordingly, she argued that *intertextual reference* (Mauranen, 1993) was different from metadiscourse. Metadiscourse comprises the conviction that communicative use of language aims to exchange data with authoritative efforts, assessments, feelings, a reference to members, and so on.

This concept stemmed from a distinction between *transactional* and *interactional* functions of language, accentuated by linguists like Jacobson (1960). Furthermore, *expressive meaning* and *frames* ideas which were developed by Malinowski (1923) and Goffman (1974) respectively, expedited the conception of metadiscourse. Similarly, Halliday's (1978) tripartite functions of language had a significant impact on the advancement of this idea. The transactional functions of language were dominant for a long time since they were underpinned by the Lockean Paradigm of Positivism (Guba & Lincoln, 1994). The development of Positivism resulted in an emphasis on the referential and propositional functions of language and hampered all other functions' investigation (Coates, 1983). The introduction of metadiscourse functioned as a response to the predominance of examining the transactional and referential aspects of language (Hyland, 2005).

Metadiscourse has not been characterized and remains a fluffy concept. It is a broadly employed term in current discourse analysis and language education. This concept encompasses a fascinating and innovative conceptualization of communications between text makers and their texts and between text makers and users. Metadiscourse is characterized as the self-reflective linguistic expressions "referring to the communication triangle; the evolving text, the writer and the imagined readers of that text" (Hyland, 2007, p. 268). Our writings become effective due to our social interactions, resulting from the mutual comprehension between the authors and their readers and the maintenance of a suitable identity. These interactional capacities have attracted considerable attention due mainly to the analysts' broad concentration on thoughts of writings and their interpersonal functions. It is contended that written texts comprise individuals, places, and exercises and determine, establish and arrange social relations. The scholars' efficient utilization of metadiscourse creates their identity in their writings.

Moreover, it guarantees their success in writing by offering a plausible explanation of them and their thoughts. A number of individuals argue that metadiscourse is a naturally appealing idea since it provides them with a principled method for classifying the various linguistic devices under one heading. These devices are used to arrange the writings, engage readers, and flag writers' attitudes to their materials and their audience. Consequently, this term constitutes an essential concept in research on composition, reading, rhetoric, text structure, creation, persuasion, talk, and content structure.

Metadiscourse is an umbrella term that encompasses a disparate cluster of cohesive and interpersonal features. These features relate a text to its context. Metadiscourse has been classified and described in diverse ways, mainly due to the multitudinous number of resources

used to sort out a discourse or the author's stance towards it. Metadiscourse is a fluffy term and is defined as discourse about discourse or talk about talk. These definitions highlight the fact that metadiscourse searchers internally to allude to aspects of the text itself.

Williams (1981) classified written metadiscourse into three main common categories: hedges (e.g., possibly) and emphatics (e.g., certainly); sequencers (e.g., in the next section), topicalizers (e.g., with regard to); and narrators and attributors (e.g., according to X, 2007)). Considering the classifications of both Meyers (1975, cited in Crismore, 1983) and Williams (1981), Crismore (1983) classified written metadiscourse into two general categories: informational and attitudinal. The first class comprises objectives (e.g., the motivation behind this examination), pre-plans (e.g., this part is about), post plans (e.g., in the past segment), and topicalizers. The second class encompasses saliency (e.g., still progressively essential), emphatics, hedges, and evaluatives (e.g., sadly). These two classes function like the textual and interpersonal functions of metadiscourse. Vande Kopple (1985) classified metadiscourse into seven types. The first four categories of this classification are textual, and the remaining ones are interpersonal. His textual category involves text connectives (e.g., however), code glosses (e.g., this means that), illocution markers (e.g., to conclude), and narrators. The interpersonal category comprises validity markers (hedges, emphatics, & attributors), attitude markers (e.g., surprisingly), and commentaries (e.g., you might not agree with that). Crismore and Farnsworth (1990) extended the definition of metadiscourse and provided a new classification. This classification was called *scientific commentaries* and incorporated textual and typographical markers, including quantitative (e.g., measure 19), source (e.g., Gould, Woodruff & Martin (1974)), graphics (e.g., Table 5), captions (e.g., changed over from unique information in micrometer units), and Latin terminology (e.g., post scriptum).

A number of researchers such as Vande Kopple (1985), Crismore et al. (1993), Markkanen et al. (1993), and Hyland (1998, 2004) adopted a comprehensive approach to the exploration of the textual and interpersonal metadiscourse. Other researchers like Schiffrin (1980), Mauranen (1993a, 1993b), Bunton (1999), Dahl (2004), Valero-Garces (1996), and Peterlin (2005) adopted a narrow approach and focused on the textual metadiscourse. To sum up, the inclusion of stance or *attitude* (Vande Kopple, 1985) and validity markers in the broad approach distinguishes it from the narrow one.

In recent years, metadiscourse has attracted considerable attention. Nonetheless, the investigation of metadiscourse has disregarded its relevant theoretical considerations, such as the refinement of textual and interpersonal metadiscourse. Moreover, a number of metadiscourse researchers have highlighted the importance of semantic and pragmatic reinvestigation of metadiscourse.

It is argued that the dividing line between textual and interpersonal metadiscourse is to some extent fluffy (Hyland, 2004; Hyland & Tse, 2004) and that all metadiscourse markers are interpersonal mainly due to the fact that they evaluate the readers' learning, literary experience, and processing needs and furnish the creators with rhetorical means to accomplish this. Likewise, the models of reflexive metadiscourse, which were constructed by Mauranen (1993b) and Adel (2006), and the model presented here fall under this new heading since they consider all metadiscourse as interpersonal. The last models highlight another feature of metadiscourse that was not considered in the previous models. To be more specific, these models accentuate the *reflexivity* of the current text, author, and reader. Based on this distinction, *text connectives*, *code glosses*, *illocution markers,* and *commentaries* qualify as reflexive. In contrast, *validity* and *attitude markers* are non-reflexive since they allude to the inner perspective of the author as an experiencer in the real world or as the writer of other texts. Similarly, *narrators* qualify as non-reflexive since they allude to writers of other texts or to the current writer, who is regarded as the writer of other texts.

Hyland (2005) developed a new taxonomy. He constructed a model which depended on a functional approach. This approach viewed metadiscourse as the means by which authors refer to the text, the writer, or the reader. It recognized the contextual specificity of metadiscourse and, to a greater degree of delicacy, utilized Thompson and Thetela's (1995) distinction between *interactive* and *interactional* resources to characterize the organizational and evaluative features of interaction (Hyland, 2005). This model highlighted the significance of the *interactive* and *interpersonal* resources for metadiscourse. A later model was developed by Abdi, Tavangar Rizi, and Tavakoli, (2010). In this model, two maxims were added to supplement the Gricean proverbs. Additionally, this model encompassed the MSs of collapsers and disclaimers along with their proverbs. Moreover, the interaction category was added to the already-existing categories of quantity, quality, and manner to make the model appropriate to metadiscourse marking. Finally, the *overall orientation* section functioned as the supermaxims of the relevant categories.

Abdi (2002) explored a corpus of 55 academic research articles from social sciences and natural sciences fields and argued that the writers utilized interpersonal metadiscourse in order to uncover their character. He examined these disciplines based on their utilization of interactional metadiscourse using hedges, emphatics, and attitude markers. The results revealed that the writers of the social sciences articles used interpersonal metadiscourse more frequently compared to the writers of the natural sciences writers. Moreover, the findings showed significant differences between these groups of writers' uses of hedges and attitude markers. Nonetheless, their utilization of emphatics did not differ significantly. Finally, the writers' use of hedges and emphatics differed significantly within each discipline.

Hyland (2004) examined second language writers' use of metadiscourse strategies in the high stakes research genre. He analyzed the purposes and distributions of metadiscourse in a corpus of 240 Hong Kong students' doctoral and master dissertations, which comprised four million words. This study examined the academic writers' use of language to characterize themselves and their work in various fields, along with the usefulness of metadiscourse as a means of clarification of the rhetorical and social uniqueness of disciplinary networks. Hyland (2005) concentrated on techniques utilized by writers to speak to their readers as opposed to themselves. In these techniques, the language was used to structure and to establish associations with their addresses. He analyzed a corpus of 64 project reports (650,000 words) composed by the final year Hong Kong students and the transcripts of meetings with students. He asserted that the distinctive purposes of the authors had an impact on the development of the readers in the text. Hyland (2007) investigated the proficient academic writers' restatement of information in presenting arguments by screening their writings for readers. The results of this study showed that elaboration constituted a complex and critical rhetorical function in academic writing.

Bonyadi, Gholami, and Nasiri (2012) examined the frequency and types of hedges in the *Discussion* section of environmental sciences research articles composed by English research writers, Iranian research writers who wrote in English, and Iranian research writers who wrote in Farsi. First, 60 research articles in the relevant field were chosen from the leading journals (20 for each group). Second, the used hedges were examined based on the classification which was provided by Salager-Meyer (1994). Regarding the use of hedges in English, there was not a significant difference between the articles which were written by English and Iranian writers. Nonetheless, English and Farsi articles differed significantly. These results were attributed to the nature of the Farsi language, which characterizes hedged texts as texts which are not sufficiently valid. This finding was not compatible with the conviction that f hedges are believable in this field in the international academic discourse community.

Kim and Lim (2013) investigated the metadiscourse strategies in the *Introduction* section of research articles composed in English and Chinese. The researchers used Hyland's (2004) model to carry out their study. The study results highlighted the fact that the interactive metadiscourse was used more frequently compared to the interactional form in both of these article groups. Moreover, based on the findings, the frequency of attitude markers in English introductions was less than the Chinese introductions. Finally, the Chinese introductions emphasized the use of endophorics, attitude markers, and engagement markers.

Zeinolabedini and Gholami (2016) analyzed 60 research articles which were written by Iranian medical researchers in order to examine the role of peer convenience editing in the improvement of medical professionals' articles. This study enumerated nine editing interventions classified into two strategy groups, including micro and macro editing strategies. Based on the results, the substitution, addition, and mechanical alteration micro-strategies were the most frequently used strategies. Moreover, the results revealed that the majority of editorial changes were made in the Abstract, Introduction, and Discussion sections of the articles, respectively.

A number of studies have examined the use of metadiscourse in different genres, across different languages, across disciplines, and between different groups such as native speakers and non-native speakers. Most of the relevant studies of metadiscourse markers have investigated the relationship between discipline and language. Notwithstanding, there is a lack of research on the use of metadiscourse markers by celebrity authors and non-celebrity authors in Applied Linguistics. In other words, the previous studies have not examined these groups of authors' discursive practices in terms of their use of metadiscourse markers based on their status. This issue prompted me to conduct the present study. In this study, I intended to shed light on the ways celebrity writers as the editors or ex-editors of top-tier journals of Applied Linguistics and their non-celebrity counterparts use metadiscursive features in their articles to persuade readers and referees in their discourse community. To this end, the study examined the format of articles of celebrity authors in top-tier journals and their non-celebrity counterparts to deal with the aforementioned inadequacies of research in the context of Iran. More specifically, the study strived to answer the following questions:

1. Is there a significant difference between the use of metadiscourse markers by celebrity and non-celebrity authors in the abstract section of applied linguistics research articles?

2. Is there a significant difference between the use of interactive metadiscourse markers by celebrity and non-celebrity authors in the abstract section of applied linguistics research articles?

3. Is there a significant difference in the use of interactional metadiscourse markers by celebrity and non-celebrity authors in the abstract section of applied linguistics research articles?

Method

First, a 10-point scale questionnaire regarding the celebrity and non-celebrity authors was administered to a group of TEFL instructors in order to determine their perspectives on celebrity and non-celebrity authors in the field of Applied Linguistics. It should be mentioned that the authors in this questionnaire were the writers of bestseller books, editors, or ex-editors of top tier journals such as *Applied Linguistics, Journal of Second Language Writing, Language Testing, Language Learning, Modern Language Journal, Studies in Second Language Acquisition, English for Specific Purposes, Journal of English for Academic Purposes*, and *TESOL Quarterly*. The authors whose ranks were above six were regarded to be celebrity authors.

Second, the materials of the study were determined based on the results of the questionnaire. These materials included a corpus of 110 Applied Linguistics RAs published

between 2012 and 2018 in the above-mentioned journals. The selected RAs were obtained from the electronic versions of the relevant journals. All of the RAs were scanned and saved on the computer to build an electronic corpus and compare the interactive and interactional markers in the Abstract section of RAs. Based on Hyland's (2005) model, the transitions, frame markers, endophoric markers, evidentials, and code glosses sub-categories were classified as interactive metadiscourse markers. Moreover, the attitude markers, boosters, self-mentions, engagement markers, and hedges were categorized as interactional metadiscourse markers. The researcher took account of the possible lexical and phrasal realizations of these markers along with their probable ambiguities and various functions.

Third, the data were analyzed based on the functional meaning of each marker. As Crismore (1990), Crismore et al. (1993), Salager-Meyer (1994, 1998), Crompton (1997, 1998), and Halliday (1985) argued, metadiscourse marking is not confined exclusively to certain features. A single judgment was inadequate for the determination of interactive and interactional metadiscourse markers. Consequently, three experts examined the data and the corpus. The results were averaged out to provide a reliable set of data.

More specifically, the articles were carefully read, and the interactive and interactional metadiscourse markers in each article were highlighted and were classified according to Hyland's (2005) model. Next, the number of interactive and interactional metadiscourse markers in each category and the abstract section of the RAs were counted, and their frequency was determined. Then, the relative frequency of these markers was determined per 1,000 words. Finally, the relative frequency data of metadiscourse markers were entered into SPSS. The *Chi-square* test was used to determine the significant differences between the use of metadiscourse markers by celebrity and non-celebrity authors.

Results

This section presents the distribution of Metadiscourse Markers (MMs) by celebrity and non-celebrity authors. In order to examine the differences between the RAs by these groups of authors, we determined the distribution of MMs in the Abstract section of the RAs. The analysis results revealed that the relative frequency of MMs in the Abstract section of RAs by celebrity authors (286.6397) was higher than the relative frequency of these markers in the Abstract section of RAs, which were written by the non-celebrity authors (279.8107). Figure 1 shows these results:

Figure 1
The overall distribution of MMs by celebrity compared with non-celebrity authors
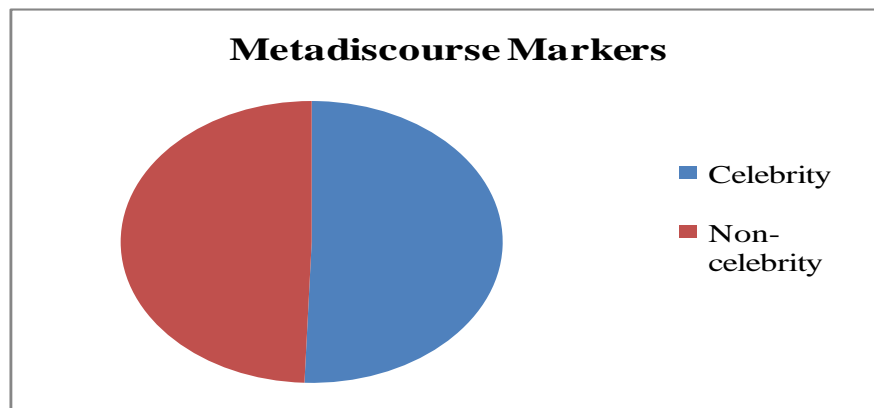
In order to specify the differences in the distribution of five strategies in RAs, which were written by celebrity and non-celebrity authors, the relative frequency of interactive metadiscourse markers in each strategy category was determined. Table 1 presents these results:

Table 1

Total distribution of interactive metadiscourse markers by celebrity vs. non-celebrity authors.

Authors	Celebrity	Non-Celebrity
Code Glosses	25.6653	24.1494
Endophoric Markers	31.3688	17.1729
Frame markers	104.5627	112.1605
Transition Markers	24.2827	28.8719
Evidential	2.8517	3.0052
Total Number of Markers	188.7312	185.3599

According to Table 1, RAs by non-celebrity authors had more frame markers, transition markers, and evidentials in comparison with the RAs by celebrity authors. However, celebrity authors used more code glosses and endophoric markers compared to non-celebrity authors. Similarly, the total number of celebrity authors' interactive metadiscourse markers (188.7312) was higher than the non-celebrity authors' markers (185.3599). Figure 2 and Table 2 illustrate these results:

Figure 2

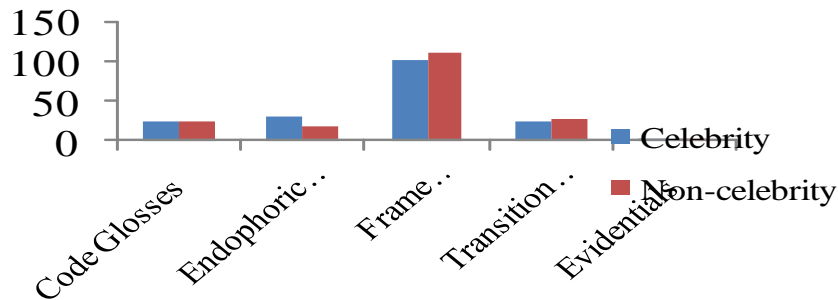*Total distribution of interactive metadiscourse markers by celebrity vs. non-celebrity authors.*

Table 2

The total distribution of interactional metadiscourse markers by celebrity vs. non-celebrity authors.

Authors	Celebrity	Non-celebrity
Attitude Markers	22.2951	20.0708
Boosters	25.2332	26.5106
Self-Mentions	4.7528	3.5419
Engagement Markers	28.9491	29.5159
Hedges	16.6781	14.8116
Total Number of Markers	97.9083	94.4508

According to Table 2, RAs by celebrity authors had more attitude markers, self-mentions, and hedges compared to non-celebrity authors. However, non-celebrity authors' RAs had more boosters and engagement markers in comparison with celebrity authors. The total number of celebrity authors' interactional metadiscourse markers (97.9083) was higher than the non-celebrity authors' markers (94.4508). Figure 3 illustrates these results:

Figure 3

*Total distribution of interactional metadiscourse markers by celebrity authors vs. non-celebrity authors*
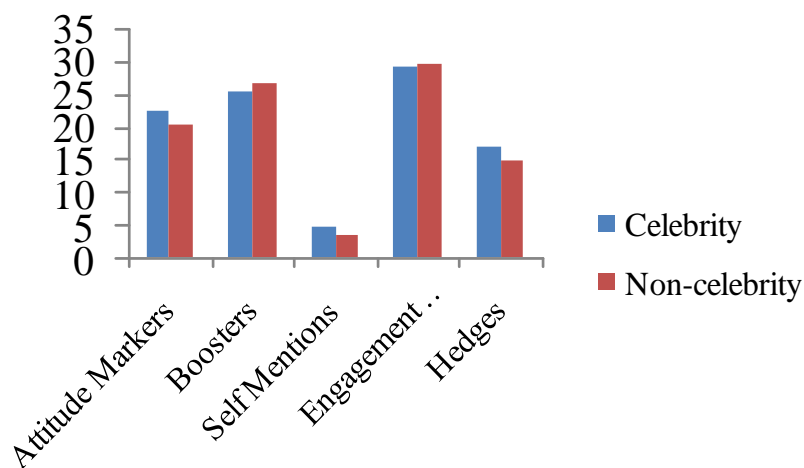
Moreover, Table 2 shows the distribution of five strategies. In this table, the relative frequencies of celebrity authors' markers were as follows: attitude markers (22.2951), boosters (25.2332), self-mentions (4.7528), engagement markers (28.9491), and hedges (16.6781). Engagement markers (28.9491) were the most frequent markers. On the other hand, self-mentions (4.7528) were the least frequent markers.

Furthermore, based on this table, the relative frequencies of non-celebrity authors' markers were as follows: attitude markers (20.0708), boosters (26.5106), self-mentions (3.5419), engagement markers (29.5159), and hedges (14.8116). Similar to the celebrity authors, engagement markers (29.5159) were the most frequent markers in these authors' RAs, and self-mentions (3.5419) were their least frequent markers. Consequently, as the results of the data analysis revealed, there were not any significant differences between the use of metadiscourse markers by celebrity and non-celebrity authors in the Abstract section of Applied Linguistics research articles.

The number of MMs in the abstract section of RAs was counted, and the relative frequency (RF) of them was calculated per 1,000 words. The results of the analysis illustrate that the relative frequency of MMs in the abstract section of RAs are higher in celebrity authors RAs (287) compared to Non-celebrity ones (279). However, the results of the Chi-square test ($\chi 2 = .909$) indicates that the differences among them are not statistically significant. To better illustrate these findings, the results are shown in Figure 4 below.

Figure 4

Total distribution of Interactive and Interactional metadiscourse markers by celebrity authors vs. non-celebrity authors
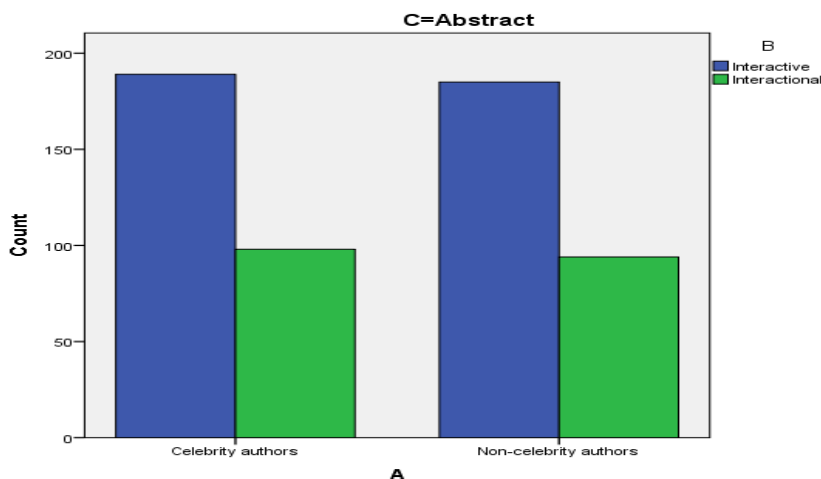
Discussion

Interactive metadiscourse markers are complex devices that perform a variety of functions. They are central to the coherence and organization of research articles. In this study, the celebrity and non-celebrity authors were relatively similar in regard to their use of interactive metadiscourse markers. The present study results revealed that there were not any significant differences in the use of interactive metadiscourse markers by celebrity and non-celebrity authors. Moreover, based on the results, both authors were equally aware of these markers' importance in RAs.

Alharbi (2021) analyzed metadiscourse markers in 40 post-method sections or chapters of research articles (RAs) and master's dissertations (MAs) in applied linguistics. The findings revealed that interactive metadiscourse markers were more frequent in both sets of texts in comparison with interactional ones and that the master's dissertation subcorpus comprised significantly higher occurrences of most metadiscourse devices. Transitions were the most used metadiscourse strategy in research articles and master's dissertations, while the most frequent interactional metadiscourse strategy used in both subcorpora were hedges. Results revealed that the master's dissertation subcorpus comprised significantly higher occurrences of some metadiscourse strategies, which might be due to the nature of both genres.

The study by Yin, Gao, Lu (2021) explored the differences between emerging and expert international publication (IP) writers' engagement with syntactic complexity in seven research article (RA) part-genres. The corpus comprised 30 RAs published in an emerging international journal authored by Chinese applied linguists with no prior English language publication and 30 RAs published in a top international journal authored by applied linguists with multiple prior publications in prominent international journals. The analysis utilized 14 measures covering multiple dimensions of syntactic complexity indicated significant differences between emerging and expert IP writers in terms of the syntactic complexity of different RA part-genres and the patterns of cross-part-genre syntactic complexity variation. The analysis showed some similarities but substantially more differences in the syntactic complexity of different partgenres between the two journals, revealing the need to notice syntactic complexity in helping emerging IP writers further develop their IP writing expertise. Also, the results indicated some consistency but some variation in the between-journal differences among the part-genres.

Frame markers were the most widely used interactive metadiscourse strategy by both of the groups of authors, and evidentials were these groups of authors' least utilized strategies in the Abstract section of research articles.

The use of interactional metadiscourse is an attempt to bring in the readers' voice (Thompson, 2001). It is more closely associated with the identity variable mainly due to the fact that its options are allegedly culturally motivated.

Engagement strategy was the most widely used interactional metadiscourse strategy by both of the groups of authors, and self-mentions strategy was these authors' least used strategy in the Abstract section of research articles.

Alavinia and Zarza (2016) investigated 120 undergraduate English students who were given three separate texts, all of which were doctored versions of the most popular textbooks in BA (in TEFL) (all MD-removed, interactive-removed, and interactional-removed). Each text pair was then followed by an Ifantido-style eight-item questionnaire (2005). The statistical analysis of the data revealed that metadiscourse markers play a positive role in improving EFL learners' text interpretation. Furthermore, when the findings from each step of the analysis were correlated using ANOVA and LSD tests, it was discovered that texts with both interactive and interactional tools had a more significant impact on learners' interpretation of written texts. Furthermore, it was discovered that interactive and interactional tools had similar effects on learners' responses to texts. To conclude, based on the results of this report, more evidence has been gathered in support of the claim that metadiscourse markers improve text coherence and reader friendliness.

It can be argued that rhetorical decisions may sometimes reflect either conscious choices or unreflective practices. Notwithstanding, the analysis of metadiscourse patterns in a large corpus such as the corpus of the present study indicated that a compelling argument involves a community-oriented deployment of appropriate linguistic resources to represent writers, their texts, and their readers.

The importance of metadiscourse as an analytical tool lies in its association with the contexts in which it occurs. Therefore, metadiscoursal analysis is a valuable means of the exploration of academic writing and the comparison of the rhetorical preferences of different discourse communities.

One of the most significant contributions of this study is its classroom application, which has both L2 teachers and students interested in benefitting both. This information is a possible cause for concern, as both language teachers and learners should keep in mind the concept of metadiscourse when learning the language. The teacher should train the learners in metadiscourse practices, which will help students become better readers and develop metadiscourse awareness. When students are aware that texts have both propositional content and interactional elements, they can better understand and communicate the ideas behind texts. Based on the findings, it is proposed that metadiscourse markers continue to be used as learners' foregrounding of attention. Lack of familiarity with these academic discourse resources may cause difficulties for the students, teachers, and researchers who want to be considered as a member of the disciplinary community. The awareness of metadiscourse markers provides the learners with the opportunity to meet the needs of the audience. Consequently, it may be necessary to devote special attention to English foreign language learners in the Research Methodology or English for Specific Purposes (ESP) courses. Our understanding of these resources also needs to be promoted by conducting further research in this area of rhetorical competence.

The present study has a number of pedagogical implications for instructors, scholars, writers, students, syllabus designers, teacher educators, and researchers. The findings of the study may provide the understudies with an unmistakable comprehension of the organization of target writings along with the reasons behind their organizational patterns. This explicitness gives

instructors and students something to use to make the composing results clear. As a result, the students will not depend on hit or miss inductive strategies based on repeated writing experiences or the teacher's notes in the margins of their essays.

The findings of this study might provide writers with an understanding of the appropriate language forms. They may shift writing instruction from the implicit and exploratory approaches to a conscious manipulation of language and choice. Regarding teacher educators, the results address the needs of English as Second Language (ESL) writers and draw teachers' attention to the function of texts as communicational tools and valuable resources that assist both pre-and in-service writing instructors to enable their students to produce practical and relevant texts. Knowledge of genres has an important consciousness-raising potential for teachers. Moreover, it has substantial implications for the teachers' understanding of writing and professional development.

Conclusion

This study endeavored to shed light on the complex process of the writing of academic research articles. It explored academic English in research articles. However, similar research studies can be carried out in various genres. Given the wide variety of language groups in different contexts worldwide, we hope that the findings will inspire further research and discussion on the most effective educational practices in diverse settings. More research is required on the utilization of metadiscourse in emerging genres. Additionally, there is a need for further comparative studies of metadiscourse in the emerging genres and the established ones.

This study delved into metadiscourse markers on research articles. Future studies can focus on the writing and reading instruction in ESL and EFL contexts due mainly to the fact that, although the use of some markers (e.g., hedges) has been investigated in recent years, the use of other metadiscourse markers by different groups of writers has not been examined seriously. For instance, the investigation of these markers in various communities and genres may be extremely beneficial. Finally, future studies can examine metadiscourse change over time in different speech communities, styles, and genres.

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