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CONTENTS

ARTICLES

FIRST LANGUAGE AND SECOND LANGUAGE ENGLISH EDITORIALISTS' USE OF INTERACTIONAL METADISCOURSE

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Abstract

This study explores the use of interactional[1] metadiscourse by first language (L1) and second language (L2) English editorialists. The study uses Hyland's (2019) model of metadiscourse to analyse 80 editorials published between 2020 and 2021 in *The Guardian* and *The Jordan Times* newspapers (40 from each newspaper). A mixed-method approach – adopting quantitative and qualitative measures – was used to analyse the data. The frequency of interactional metadiscourse resources was statistically examined to find similarities and differences (if any) between the two corpora. The analysis revealed a statistically significant difference in the use of interactional metadiscourse resources in the editorials of the two newspapers. For instance, L2 editorialists used fewer hedges in their editorials and more boosters than L1 editorialists. In addition, engagement markers were used the most by L1 editorialists. The study provides some implications for editorialists who write in English and recommendations for future research.

Keywords
interactional metadiscourse, newspaper editorials, journalistic writing, L1 and L2 English editorialists

1 Introduction

Media discourse – which is defined by O'Keeffe (2006: 1) as the "totality of how reality is represented in broadcast and printed media from television to newspaper" – is characterised by the careful selection of linguistic resources in order to convey the message and convince readers of the content of the text. Of the many text types in media discourse is the editorial article – broadly defined as a text which represents the opinion or voice of the newspaper on a certain issue or event. Existing research on media discourse has mainly been analysed using various approaches such as genre analysis, register and style, and corpus linguistics. The literature on media discourse abounds with studies which investigate the generic and schematic structures of the editorial and the lexico-grammatical resources used. However, the use of interactional metadiscourse resources in the editorial section is under-researched.

Many attempts have been made to define metadiscourse. Crismore (1983: 1) defined metadiscourse as "the author's discoursing about discourse". Lemke

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(1990: 20) considered metadiscourse as a “kind of talk about talk”. More recently, Hyland (2017: 16) uses metadiscourse to refer to “the commentary on a text made by its producer in the course of speaking or writing, and it is a widely used term in current discourse analysis and language teaching”. Hyland (2019: 16) also argues that “metadiscourse is based on a view of writing (and speaking) as a social and communicative engagement, offering a means of understanding the ways we project ourselves into our texts to manage our communicative intentions”. In spite of the opacity in the definition of metadiscourse, it is clear that metadiscourse performs two different missions in spoken and written messages: the organisation of the text and the presentation of the writer’s voice. The text, spoken or written, is an interactive tool between the speaker/writer and listener/reader. This interaction is regularly led by means of metadiscourse resources.

The study of metadiscourse is important because it raises awareness of the nature of communication (whether this happens in writing or speaking), being a cooperative process whose ultimate objective is the expression of meaning. Vande Kopple (2012: 37) argues that the study of metadiscourse shows the intricacy of language, triggers “questions about ethics and language use”, expands our understanding of the construction of text in different languages and explains why metadiscourse instruction is valuable. Indeed, being aware of how metadiscourse is used in texts influences readers’ comprehension of the messages and the recalling of information. Metadiscourse impacts the persuasion of the reader, especially in journalistic genres, and how the reader interacts with the text. Metadiscourse also represents the position of the author in one way or another by using some linguistic elements. It also helps in guiding or signalling the overall text and in dividing the text into different sections and parts.

The use of metadiscourse resources has been examined in a spectrum of spoken and written discourses and genres, including academic discourse (e.g. Hyland 2007, Lee & Deakin 2016, Alghazo et al. 2021a, Alghazo et al. 2021b), political discourse (e.g. Sclafani 2017, Abusalim et al. 2022), media discourse (Le 2004), and classroom discourse (e.g. Hyland 1999) to discover the various patterns of language use. However, media discourse remains less researched for metadiscourse resources in the various genres. More so is the use of metadiscourse resources by first language (L1) and second language (L2) English writers. To this end, this study aims to compare L1 English writers with L2 English writers for the use of interactional metadiscourse in English newspaper editorials. Such a study is essential because it assists English as a Foreign Language (EFL) readers with different native languages and different cultural backgrounds in their understanding of foreign language texts. Metadiscourse markers not only aid the comprehension of the text for foreign language learners but also enhance their writing skills after instructing them about these markers. Obviously, in journalistic texts, having some patterns of metadiscourse reflects something fundamental about the writing style of the L1 and L2 writers. For example, using more interactive markers in the text might indicate that the writer is concerned more about the reader's involvement in an argument than about the organisation of the text. Therefore, exploring how L1 and L2 writers interact with their readers is of value to both learners and teachers in EFL contexts, particularly those involved in English for Specific Purposes (ESP). The study seeks to answer the following research questions:

1. What are the distributional patterns of interactional metadiscourse resources in editorials written by first language (L1) and second language (L2) English editorialists?
2. What are the similarities and/or differences in the use of interactional metadiscourse in editorials written by L1 and L2 English editorialists?

2 Theoretical framework

This study adopts Hyland's (2019) framework of metadiscourse. In fact, metadiscourse is not a new concept. The study of metadiscourse resources is constantly developing. In the past four decades, several models and theoretical frameworks have emerged to categorise and analyse metadiscourse. For example, Sinclair (1981) proposed a model to study written texts based on two planes of discourse: interactive and autonomous. The former refers to how writers use language to interact and negotiate with readers, and the latter refers to the analysis of language itself. Thompson (2001) devised an interactive and interactional model to categorise metadiscourse. Ädel (2006) presented a metadiscourse model, which shows that the stance of the author can be displayed either explicitly or implicitly and that writers can represent their views explicitly by using personal pronouns or implicitly by using the passive voice. Hyland (2019) offered a new classification of metadiscourse resources based on a functional approach which he called the interpersonal model of metadiscourse. In his taxonomy, Hyland (ibid.) draws on Halliday's Systemic Functional Linguistics (SFL), in which language is viewed as performing certain communicative functions. As Hyland (ibid.: 28) puts it, functional analysis in metadiscourse refers to "how language works to achieve certain communicative purposes for users".

SFL is one of the closely related approaches to the study of metadiscourse as it treats the three metafunctions of language: the ideational, the textual and the interpersonal. Halliday and Matthiessen (2013: 30-31) argued that the ideational metafunction deals with language as "a reflection of human experience", the interpersonal metafunction deals with it as “a reflection of … personal and social relationships”, and the textual metafunction as “another mode of meaning that relates to the construction of text”. Hyland (2019: 31) argued that the key difference between the two models is that “while metadiscourse theorists tend to see textual, interpersonal and propositional (ideational) elements of the texts as discrete and separable, Halliday reminds us that texts have to be seen more holistically”. This study adopts the interpersonal model of metadiscourse presented by Hyland (ibid.). In particular, the study focuses on the interactional metadiscourse resources used in English newspaper editorials written by L1 and L2 English writers. Table 1 below shows the interactional resources used in Hyland’s model.

Category	Function	Examples
Interactional	Involve the reader in the text	Resources
Hedges	Withhold commitment and open dialogue	*Might; perhaps; possible; about*
Boosters	Emphasise certainty or close dialogue	*In fact; definitely; it is clear that*
Attitude markers	Express the writer’s attitude to the proposition	*Unfortunately; I agree; surprisingly*
Self-mentions	Explicit reference to the author(s)	*I; we; me; our*
Engagement markers	Explicitly build a relationship with the reader	*Consider; note; you can see that*

Table 1: The interactional metadiscourse resources (Hyland 2019: 58)

A key issue in the study of metadiscourse in editorials is the methods of convincing the reader of the position of the newspaper about a certain topic. The persuasive function of the editorial section of the newspaper reinforces the need to use some linguistic features in persuading the audience. The sense of subjectivity or the representation of ‘self’ is always present in the editorial section, which makes it hard for the editorialist to persuade audiences. Van Dijk (1988: 74), in his description of the “general constraints on news style”, stated that “there is no ‘you’ in the news, except in quotations or sometimes in feature articles or editorials”. In other words, editorials are written to communicate the newspaper’s stance – through the editorialists’ positioning of that stance – to the readership by means of argumentation and subjectivity. As Hyland (2019: 106) shows, “[t]he means of ‘doing persuasion’ … differ across genres”. Persuasion is achieved through argumentation which is better constructed through metadiscourse tools. Here comes the importance of studying metadiscourse markers which play a vital role in expressing the writer’s attitude and organizing the text.

3 Literature review

Metadiscourse as a field of inquiry has caught the attention of researchers since the 1980s (see Beauvais 1989). It has been investigated in different types of discourse and genres. In media discourse, Van Dijk's (1988) work emphasised how the study of metadiscourse and rhetoric is so appealing in media and news discourse. In particular, Van Dijk (1988) stressed the influential impact of metadiscourse or rhetoric in forming and steering the principal tenets of the public's belief which is shaped by the media. As a result, researchers examined metadiscourse markers in media discourse, focusing on the impact of metadiscourse on the text, the writer, and the readers. Of the many genres in media discourse is the editorial section, which is the focus of analysis in this study. According to Van Dijk (1995: 14), editorials can be defined as "a genre that may be characterized both as a special type of media discourse, as well as belonging to the large class of opinion discourses". Van Dijk (1995) also demonstrated that little attention has been paid to the study of editorials despite their significance in constructing opinions and social beliefs. Particularly under-researched is the use of metadiscourse markers by L1 and L2 English editorialists.

Several studies ascribed particular importance to the use of metadiscourse in editorials and how it can affect readers' reception of the communicative messages. For example, Homayounzadeh and Mehrpour (2013) conducted a contrastive analysis of American and Persian newspaper editorials in order to investigate the strategies used to express the editorialist's attitude. The researchers found that culture does not have a powerful impact on the strategies of writing the editorial as much as the editorialists' wish to promote specific ideologies. By culture, the researchers refer to the individualist and collectivist norms that govern societies. This view of editorials is compatible with Van Dijk's perspective about the functions the editorial section performs in a newspaper. Van Dijk (1995: 2) portrayed the editorials' tasks in a newspaper: "[T]hey play a role in the formation and change of public opinion, in setting the political agenda, and in influencing social debate, decision making and other forms of social and political action". Alghazo et al. (2023) examined the use of metadiscourse in L1 and L2 English editorials, using Hyland's (2019) model of metadiscourse. The study focused on the use and functions of the interactive devices of metadiscourse. The results showed that there was no significant difference in the use of interactive metadiscourse in the two sets of editorials. However, some variation in the functions of some interactive devices was cited, and this was discussed in relation to factors of genre and L1 of the writer.

Systematic methodological comparisons between texts in the same language by different groups of writers within the same genre are necessary to clarify the correlation between the writers' cultural background and the use of metadiscourse. The cultural background refers to the set of culture-specific norms that guide the way (including generic and rhetorical structures) the text is produced. These norms are referred to in the literature as 'intercultural rhetoric', which can be broadly defined as the influence of one's L1 on the second or foreign language writing. The usage of certain linguistic features depends upon users' L1s or cultures. Connor (2018: 1) argues that "patterns of language and writing are culture-specific". Consequently, the study of metadiscourse will definitely be influenced by different cultures and culture-specific rhetorical strategies. The comparison of metadiscourse in similar texts written by different groups of writers helps determine the similarities and/or differences in metadiscourse functions and in the frequency of metadiscourse markers across these texts. A study conducted by Noorian and Biria (2010) reported that cultural-driven preferences and genre-driven conventions are two different factors affecting the use of metadiscourse markers in journalism. Siddique et al. (2018) stated that the dominance of the interactive functions implies that these editorials are reader-friendly rather than writer-friendly. Such implications can only be elicited by comparing and contrasting the different texts, languages and writers.

Based on the foregoing, it is obvious that some uncertainties still exist about the relationship between linguacultural background and the use of metadiscourse. In the present study, a comparison is drawn between editorials in *The Guardian* and *The Jordan Times* regarding the use of metadiscourse. A corpus of editorials from the two newspapers is analysed based on Hyland's (2019) interpersonal model of metadiscourse to specifically investigate the use of metadiscoursal elements in this journalistic genre of editorials. The findings of this study are expected to enrich our understanding of journalistic writing in terms of the linguistic tools that editorialists can use to interact with their readership. They also contribute to filling a gap in the literature related to the use of metadiscourse resources by L1 and L2 English writers so as to inform media writing instruction in EFL contexts with conventional norms of writing for better production of texts.

4 Material and methods

4.1 Data collection

The corpus consists of 80 editorials selected randomly from *The Guardian* and *The Jordan Times* newspapers, covering the time span 2020–2021[2]. These newspapers were selected because they are popular ones in the UK and Jordan respectively and publish in L1 English (*The Guardian*) and L2 English (*The Jordan Times*), which serves the purpose of the study. The editorials were divided into two sets, 40 from each newspaper. Information about the composition, the raw/absolute number of words and normalised/relative frequencies per 1,000 words is shown in Table 2 below. The data show no considerable variation in length: the editorials include a very similar number of words. The editorials discuss topics and issues related to the latest events, including social, economic, and health-related topics. We ensured that the editorials in the two data sets discuss similar topics. The editorials were retrieved from the archives of the two newspapers' websites. They were saved as plain text files. After that, each corpus was placed in a separate folder to prepare for the analysis. The two corpora totalled 42,029 words: 24,661 words in *The Guardian* corpus and 17,368 words in *The Jordan Times* one.

4.2 Data analysis

A mixed-method approach was adopted to analyse the data using both quantitative and qualitative measures. This approach was used in order to overcome the drawbacks of the single-method approach which neglects the contextual factors of the text. Another point to be noted here is that the qualitative analysis was conducted manually rather than automatically to apply a functional or more contextual method of analysis. In the quantitative part of the analysis, the metadiscoursal items were identified using a coding system in each editorial. We followed Hyland's (2019) coding framework and used the word as a unit of analysis. Frequencies and percentages of the metadiscoursal categories were calculated, and statistical analysis was conducted to extract the significant differences between the two corpora. In the qualitative part of the analysis, examples were presented, read in context, and interpreted accordingly. The analysis was also functional. Hyland (2019: 28) argues that, in the functional approach to metadiscourse, "the emphasis is … on meanings in context, how language is used, not what a dictionary says about it". With this in mind, the analysis started by reading the editorials and searching for metadiscoursal elements. Checking each word within its context was necessary to ensure that it performs a metadiscoursal function in this setting. Each researcher in this project checked the use of each marker independently, and upon completion, a group discussion was conducted to validate the analysis of each researcher. Each metadiscoursal marker was highlighted using the coding system designed for this purpose.

As for the statistical analysis, a list of words and expressions was created to represent the metadiscoursal items. The next step was identifying the metadiscoursal items in the editorials and calculating the frequencies of each category. The quantitative analysis of the data was done by running some statistical tests using SPSS. The significance threshold α was set at .05. The initial step was obtaining the percentages and frequencies of each interactional metadiscourse resource in the editorials. The next step was to compare the use of metadiscourse resources in the two corpora. The final step was identifying the significant differences between the two sets of editorials in terms of their use of metadiscoursal categories. The data were analysed using paired samples t-test and independent t-test as appropriate. A paired samples t-test was chosen because it calculates the differences between the values of the two sets of editorials for each type of metadiscourse resources. On the other hand, an independent t-test was selected because it is particularly useful to test the statistical differences between the means of any two groups.

5 Findings

This section addresses the results obtained from data analysis. First, we present the results of the quantitative analysis in Table 2, which shows descriptive statistics and Table 3, which shows inferential statistics. The quantitative analysis of the data was particularly helpful in revealing the distributional patterns of metadiscourse markers throughout the two sets of editorials. On the other hand, the qualitative analysis of the data, accompanied by some examples and possible interpretations was indispensable for determining the factors that might contribute to exploring similarities and/or differences between the two corpora. In presenting the findings, frequencies are calculated per 1,000 words, which is a convention in metadiscourse studies (see Hyland 1998, 1999, Fu & Hyland 2014, Liu & Zhang 2021, Wu & Paltridge 2021). Table 2 below shows the frequencies and percentages of each interactional metadiscourse resource in each corpus and the frequency of each resource per 1,000 words.

Corpora	**The Guardian Editorials**			**The Jordan Times Editorials**			Totals
	N	%	Per 1,000 words	N	%	Per 1,000 words	
Interactional Metadiscourse	3,661	14.8%	148	1,903	11%	110	5,564
Hedges	916	3.7%	37	285	1.6%	16	1,201
Boosters	643	2.6%	26	404	2.3%	23	1,087
Attitude markers	711	2.9%	29	615	3.5%	35	1,326
Self-mention	1	0%	0	19	0.1%	1	20
Engagement	1,390	5.6%	56	580	3.3%	33	1,970
Wordcount		24,661			17,368		42,029

Table 2: Frequencies and percentages of interactional metadiscourse resources

It is interesting to note, as Table 2 shows, that interactional metadiscourse markers were used more frequently by L1 English editorialists when compared to their L2 English counterparts. The table shows that there is a relatively high frequency of engagement markers, hedges and boosters in *The Guardian* corpus, and a relatively high frequency of attitude markers, engagement markers and boosters in *The Jordan Times* corpus. Table 2 also shows that engagement markers present the greatest difference between L1 and L2 editorials with 56 and 33 items per 1,000 words, respectively.

5.1 Hedges

As for each resource, we notice that hedges were used by L1 English editorialists 916 times and by L2 English editorialists 285 times. In *The Guardian* editorials, the frequency of hedges per 1,000 words was 37, compared to 16 in *The Jordan Times* editorials. Hedges were the second most frequent sub-category of interactional metadiscourse in *The Guardian* corpus, but the second least frequent sub-category of interactional metadiscourse in *The Jordan Times* corpus. Examples of hedging devices from the two newspapers are listed below:

(1) *Some combination of these measures* ***seems likely to be*** *unveiled in the comprehensive spending review this autumn. But* ***perhaps*** *the time has come for a deeper rethink.* (*"The Guardian View on Funding Universities", The Guardian*, 2021).

(2) *As of Wednesday,* ***almost*** *all economic sectors have begun resuming operations, barring a few, after* ***nearly*** *two months of work stoppage necessitated by the pandemic outbreak.* (*"Emerging from Lockdown", The Jordan Times*, 2020).

These examples of the hedging devices used in the editorial section of the two newspapers specify the writer's degree of commitment to the textual information. In Example (1), the modal lexical verb *seems* and the adverbs *likely* and *perhaps* are used to display some uncertainty and mitigation. In Example (2), the adverbs *almost* and *nearly* are used to express approximation in the viewpoint, and this might be a convenient area for the editorialist in opinion-related issues.

5.2 Boosters

Boosters, as explained by Camiciottoli (2003: 31), are used to "express communicative force or the writer's certainty". In this respect, boosters are associated with what Hyland and Tse (2004: 166) referred to as "the writer's logical inference about the likelihood of something". The results presented in Table 2 above show that L1 English editorialists used more boosters when compared to L2 English editorialists. Boosters constituted 2.6 per cent of the total word count in *The Guardian* corpus and 2.3 per cent of the total word count in *The Jordan Times* corpus. The frequency of boosters per 1,000 words in *The Guardian* editorials was 26 which is higher than that of *The Jordan Times*, with 23 per 1,000 words only. An interesting finding from the comparative analysis is that hedges were used more than boosters in *The Guardian* corpus, and the opposite was true in *The Jordan Times* corpus. Examples from the editorials are provided below to illustrate the use of boosters in this journalistic genre:

(3) *The challenges the new democracy faced were all **too evident**, but South Africa's recent history seemed a message of hope for us all.* (*"The Observer View on South Africa's Problem", The Guardian*, 2021).

(4) *It is **indeed** disheartening to see, in the face of an unprecedented pandemic, that a considerable part of the population has flouted the government's preventive measures against the novel coronavirus and the guidelines to stay at home.* (*"A Small Sacrifice for", The Jordan Times*, 2020).

The above-mentioned examples show how boosters such as *too evident* and *indeed* are used to express the certainty of the author toward textual information. Abdi (2002) highlighted that the use of boosters as metadiscourse introduces further authoritative elements to the text. The adverb-adjective combination in the first sentence *too evident* was employed in the editorial to show that the writer was confident about the given statement. In addition, the second sentence included the adverb *indeed* as a booster to emphasise and confirm the following statement.

5.3 Attitude markers

Simply put, attitude markers are the words and expressions used by the writer to express his/her own attitude towards any statement. Crismore et al. (1993: 46) asserted that attitude markers are used to "reveal the writer's attitude toward propositional content". Depending on the statistical analysis of the data, attitude markers were the most commonly used sub-category of interactional metadiscourse in *The Jordan Times* corpus and the third most frequently used sub-category of interactional metadiscourse in *The Guardian* corpus. Attitude markers occurred 711 times in *The Guardian* editorials (29 per 1,000 words) compared to 615 times in *The Jordan Times* ones (35 per 1,000 words). Attitude markers occurred less frequently in the editorials written by L1 English editorialists than L2 English editorialists. Examples of attitude markers in the two sets of editorials include the following:

(5) *Politicians' next chance will occur in October when heads of state and leaders of the G20 nations are scheduled to meet and,* ***hopefully****, ensure the final run-up to Cop26 is put back on track.* (*"The Observer View on the Urgency of", The Guardian*, 2021)

(6) *And* ***it comes as no surprise*** *that the government has been forced to impose a curfew after authorities' clarion call to the public has been disregarded by many.* (*"A Small Sacrifice for", The Jordan Times*, 2020).

These examples clearly illustrate that attitude markers are used to reveal how the writer feels or thinks about the stated utterance. The attitude of the writer can be conveyed using an adverb such as *hopefully* in Example (5) or using a linguistic expression such as *it comes as no surprise* in Example (6).

5.4 Self-mentions

Self-mention can be described as the method of representing or referring to the author of the text. It is used by Hyland (2019: 62) to refer to "the degree of explicit author presence in the text". The analysis shows that self-mention was used only once by L1 English editorialists and 19 times by L2 English editorialists, representing 0.1 per cent of the total number of words. This means that the frequency of self-mentions per 1,000 words was only one in *The Jordan Times* corpus. The low frequency of self-mentions in editorials might again be attributed to the nature of this journalistic genre. Fu and Hyland (2014: 124) argued that "editorials offer 'institutional perspectives' of the newspaper". Therefore, self-mentions have an extremely low incidence in the two corpora because editorialists are interested in representing the newspaper's voice rather than the author's voice. Below are some examples of self-mentions from the two corpora:

(7) ***We*** *need to rethink the idea that the hunger for new clothes ought to be sated immediately.* (*"The Guardian view on fast fashion", The Guardian*, 2020).

(8) ***We*** *wish* ***our*** *readers a joyous Ramadan and a strengthened sense of brotherhood in this time of pandemic.* (*"Extending a helping hand", The Jordan times*, 2020)

The first example represents the one and only time of self-mentions' use in The Guardian's collection of editorials. The pronoun *we* in Example (7) was utilised to explicitly show the writer's presence in the text (Hyland 2019). As for Example (8), the editorialist used the first-person plural pronouns *we* and *our* to participate in and contribute to the ongoing debate.

5.5 Engagement markers

Engagement markers are generally understood as the linguistic item used to construct a relationship between the writer and the reader. Hyland (2019: 63) notes that "engagement markers are devices that explicitly address readers, either to focus their attention or include them as discourse participants". The comparison between *The Guardian* and *The Jordan Times* editorials revealed that L1 English editorialists used engagement markers 1,390 times. In contrast, L2 English editorialists used 580 engagement markers in their editorials. Engagement markers represent 5.6 per cent of the total word count in *The Guardian* corpus and 3.3 per cent of the total word count in *The Jordan Times* corpus. The frequency of engagement markers per 1,000 words in *The Guardian* editorials was 56, and 33 per 1,000 words in *The Jordan Times* editorials. Examples of engagement markers' usage from the two corpora:

(9) *In 2011 a repressive, authoritarian government collapsed because it proved unable to meet people's demands.* ***Why would its return solve anything?*** *(The Guardian View on Tunisia Coup", The Guardian*, 2021*).*

(10) ***Let us*** *rise to the occasion by upholding good citizenship,* ***let us*** *rise above these difficult times. ("Time to Count on Civic", The Jordan Times*, 2020*).*

The examples above are just a small sample of engagement markers used in the editorials from the two newspapers. In Example (9), the interrogative sentence *Why would its return solve anything?* was used to engage with the readers and to establish a relationship with them. In Example (10), the editorialist used the first-person plural imperative *let us* to strongly encourage the readers to join the discussion.

The second question in this study sought to identify significant differences in the use of interactional metadiscourse markers in several editorials written by L1 English writers and L2 English writers. To answer this research question, a statistical analysis was conducted to compare the use of interactional metadiscourse in the two sets of editorials. The means and standard deviations of the frequencies were calculated for each set of editorials independently. An independent t-test was used to explore the significant differences between the two corpora in terms of their use of interactional metadiscourse categories. Table 3 below, which shows inferential statistics on the findings, illustrates the two corpora's means, standard deviations, and statistically significant differences.

Categories	Corpus	Mean	Standard Deviation	T- Value	Degree of Freedom	Statistical Significance
Hedges	*The Guardian*	22.90	9.22	9.827	78	p < .001
	The Jordan Times	7.13	4.26			
Boosters	*The Guardian*	16.08	7.84	3.694	78	p < .001
	The Jordan Times	10.10	6.58			
Attitude Markers	*The Guardian*	17.78	8.30	1.450	78	0.151
	The Jordan Times	15.38	6.38			
Self-mentions	*The Guardian*	0.03	0.16	-1.658	78	0.101
	The Jordan Times	0.48	1.71			
Engagement Markers	*The Guardian*	34.75	29.97	3.733	78	p < .001
	The Jordan Times	14.50	16.71			
Total of Markers	*The Guardian*	91.53	33.52	6.655	78	p < .001
	The Jordan Times	47.58	24.93			

Table 3: The means, standard deviations, and statistically significant differences between the two sets of editorials

What stands out in Table 3 is that there are statistically significant differences between *The Guardian* corpus and *The Jordan Times* one in terms of using interactional metadiscourse categories at the level 0.05. In particular, the table shows that there is a significant difference between the two sets of editorials in their utilisation of interactional resources. The average interactional metadiscourse usage in *The Guardian* corpus was 91.53, which is far higher than that of *The Jordan Times* corpus, with an average of 47.58. The t-value of the interactional resources at the level 0.000 was 6.655, which represents a significant difference between the two sets at the level $p = 0.05$. Firstly, engagement markers dominated the interactional resources in T*he Guardian* editorials, and attitude markers dominated these resources in *The Jordan Times* editorials. Statistical analyses showed a significant difference in the use of hedges between the two sets of editorials. The average frequency of hedges in *The Guardian* was 22.90, which is a higher frequency than that of *The Jordan Times,* with an average of 7.13. The t-value of hedges constitutes 9.827 at the level of 0.000, suggesting a statistically significant difference between the two sets. Secondly, the two sets of editorials demonstrated a statistically significant difference in using boosters. The average frequency of boosters in *The Guardian* corpus was 16.08, while the average in *The Jordan Times* corpus was 10.10. The t-value of boosters at the level of 0.000 was 3.694, which implies a significant difference at the level ($p = 0.05$). Thirdly, attitude markers were the most frequent sub-category in *The Jordan Times* corpus and the third most frequent in *The Guardian*. No significant differences were discovered between the two sets of editorials in terms of attitude marker use. The t-value of attitude markers was 1.450 at the level 0.151, which is not considered a statistically significant difference. Fourthly, there were no statistically significant differences between the two corpora in the usage of self-mentions, which were used minimally in the two sets of editorials as the least frequent sub-category of interactional metadiscourse in both corpora. The t-value was -1.658 at the level of 0.101, which is not a statistically significant difference. The mean of self-mentions constitutes only 0.03 in *The Guardian* editorials and 0.48 in *The Jordan Times*. Finally, a statistically significant difference was revealed between the two sets of editorials in engagement markers' usage. The mean of engagement markers in *The Guardian* accounts for 34.75 which is higher than the mean in *The Jordan Times*, which accounts for 14.50. The t-value of engagement markers was 3.733 at the level 0.000, which indicates a statistically significant difference between the two corpora in the use of engagement markers.

6 Discussion

This study aimed to answer two research questions: 'What are the distributional patterns of interactional metadiscourse resources in editorials written by L1 and L2 English editorialists?' and 'What are the similarities and/or differences in the use of interactional metadiscourse in editorials written by L1 and L2 English editorialists?' To answer the first question, a quantitative analysis was conducted to compare the two sets of data in the use of interactional metadiscourse devices. According to Hyland's (2019) model of metadiscourse, the interactional dimension of metadiscourse consists of five sub-categories which are: hedges, boosters, attitude markers, self-mention, and engagement markers. These tools are important to the discourse as they aid in establishing a bond with the audience, and – as Hyland (2019: 9) argues – they contribute to achieving the communicative purpose of discourse because they deal with "the ways language is used to negotiate relationships and scaffold interaction". In the process of writing any text, the interactional aspects of language should be taken into account. Nevertheless, the interactional dialogue between the writer and the audience can only take place on the ground through the utilization of appropriate interactional features in the texts. Therefore, the interactional features of metadiscourse have become highly relevant in the study of texts of an argumentative nature such as editorials. Fu and Hyland (2014: 124) argued that "opinion pieces take a more personal interactional position, adopting a clear perspective towards both their topics and their readers by establishing a stance early on in the piece and supporting this with a range of warrants for their opinions". To recapitulate the key findings in the current study, there was a patchwork of similarities and differences between the two corpora. The findings showed a statistically significant difference in terms of the amount of interactional metadiscourse used in each corpus. The findings of this study are attributed to a variety of factors affecting the use of interactional metadiscourse. In fact, similarities and differences could potentially occur between L1 and L2 writers in their use of metadiscoursal elements for several reasons (e.g. genre, culture, L1 background, personal preferences, writing style and L2 proficiency level). The various aspects that might affect the use of metadiscourse in texts written by L1 and L2 writers were discussed in numerous studies (for example, Kaplan 1966, Dahl 2004, Hyland 2005b, Dafouz-Milne 2008, Lee 2011, Zhao 2017, Yoon 2021). Liao (2020: 1) stated that "writing in an L2 involves not only an effort to monitor linguistic quality, such as linguistic accuracy or complexity but also an effort to make metadiscourse choices that will result in cohesive written discourse". What Liao (2020) referred to is that metadiscourse choices require special attention from L2 writers because they reflect the cohesiveness of L2 texts. Due to the importance of metadiscourse in achieving cohesiveness and a bunch of other linguistic targets in the text, the factors influencing the use of metadiscourse need to be further considered and elaborated on.

In this study, there appeared to be a heavy use of interactional metadiscourse by L1 and L2 editorialists which might be caused by the need for what Hyland (2005b) called 'the construction of voice' and 'the positioning of writer's views' in editorials. Editorials, in general, are known to be argumentative and persuasive. Charteris-Black (2005: 10) stated that "persuasion either seeks to confirm or to challenge existing beliefs, attitudes and behaviors – persuasion is never devoid of intention". The high frequency of interactional features may partly be explained by reference to the persuasive nature of the editorial section in newspapers. Halmari and Virtanen (2005: 15) indicated that "editorial writing is … generally related to the notion of argumentation". In general, as proposed earlier in this work, the function of the editorial section is to persuade and convince the reader of a certain perspective through the use of certain linguistic devices. Van Dijk (1995: 14) described the effect of editorials on readers' views by stating that "for those people who read them, they help to make up their mind about events of the world, even if often by critical opposition". Therefore, the interactional resources are highly intense in the editorial section of a newspaper for the sake of informing the reader regarding the writer's intended beliefs and viewpoints. Ansary and Babaii (2009: 229) pointed out that "an argumentation process begins with a series of arguments and ends with the articulation of a position". In most cases, interactional metadiscourse elements are tools for arguing and debating ongoing issues in the editorial section of a newspaper. Frequency counts showed a significant difference in the use of interactional resources among the two groups of editorials. L1 English editorialists used nearly twice the amount of interactional metadiscourse markers used by L2 English editorialists. Hyland (2004: 139), in his depiction of the interactional resources' functions, stated that these resources "seek to display the writer's persona and a tenor consistent with the norms of the disciplinary community". Hyland's (ibid.) comment on the function of interactional resources might offer a possible explanation for the extensive use of interactional elements by L1 English editorialists in *The Guardian* corpus.

In particular, the findings showed that hedges were used more in the L1 English authors' editorials. This divergence might be ascribed to the different cultural preferences of the writers. Nguyen Thi Thuy (2018: 7) stated that "native English-speaking writers have the tendency to use hedges to avoid imposing on readers and also to save more room for readers to interact and negotiate with the texts". Brown and Levinson (1987) considered the use of hedging devices by native English speakers as a politeness strategy. They stated that this politeness strategy is taken from Western culture that paves the way for alternative views and different background considerations. Upon comparing native English and Vietnamese writers' use of hedging devices, Nguyen Thi Thuy (2018) stated that the minimal use of hedges is due to the cultural conventions of Vietnamese writers in which exaggeration of the commitment to a proposition is favoured and preferred. In addition, the L1 editorialists used more boosters than the L2 editorialists. A plausible explanation could be related to the fears that L2 English writers have concerning the use of hedges and its impact on the persuasiveness of their writings (see Yoon 2021). Therefore, L2 editorialists might fear using hedges in their editorials and tend to use more boosters to convince their audience with their arguments. In contrast, L1 English editorialists in *The Guardian* newspaper employed hedges more than boosters in their editorials.

The results also showed that attitude markers were used more in the L2 English editorials. Hyland (1999: 8) illustrated the function of attitude markers as metadiscourse by stating that "attitude markers indicate the writer's affective, rather than epistemic, attitude to textual information, expressing surprise, importance, obligation, and so on". This might indicate that the L2 editorialists are more emotionally driven than the L1 editorialists who are more realistic and epistemic. In contrast, the results revealed that the L1 English editorialists used more engagement markers than the L2 editorialists. The significance of engagement markers stems from the role that engagement devices play in engaging, involving, and letting readers take part in the discourse. Hyland (2005a: 188) argues that "writers are able to either highlight or downplay the presence of their readers in the text" by means of engagement devices. Given the high number of engagement markers in English newspaper editorials, Lee (2011: 59) stated that "English journalistic writing is characterized by frequent use of engagement expressions". The low frequency of self-mentions in editorials might be attributed to the nature of this journalistic genre. Fu and Hyland (2014: 124) argued that "editorials offer 'institutional perspectives' of the newspaper". Self-mentions have an extremely low incidence in the two corpora because editorialists are perhaps interested in representing the newspaper's voice rather than the author's voice. As Lee (2019: 184) has put it, "self-mentions display [the] writer's authorial voice", and the newspaper's voice is the focus of attention in the editorial section. This conclusion further supports the idea of Salahshoor and Tofigh (2014: 100) that "editorial writers can … go for passive voices to disguise their projection into texts".

The first reason behind the differences between the two corpora in the present study is what Vande Kopple (2012) referred to as the cultural-linguistic background. Vande Kopple pointed out that people from different cultural-linguistic backgrounds face some challenges in understanding metadiscourse, which might lead to the overuse or underuse of certain metadiscoursal features. In this study, similarly, one factor suggested to affect the amount of interactional metadiscourse usage in editorials is the cultural background of the editorialist. Dafouz-Milne (2003: 29) reported that "two major variables interact in the choice of metadiscourse categories in newspaper opinion articles: culture-driven preferences and genre-driven conventions". Lee and Casal (2014: 50) offered a nearly identical interpretation stating that "although language and culture appear to profoundly influence writers' use of metadiscourse, other factors, such as discipline, part-genre, and writer status, also seem to interact with culture in inextricably complex ways". Although it is indeed difficult to explain the differences between the L1 English authors and the L2 English authors regarding the use of metadiscourse markers, justifications might be related to the persuasive and argumentative nature of the editorial section of the newspaper. The editorialists maximised the use of certain metadiscoursal features and minimised the use of others. For instance, engagement markers were the most used in *The Guardian* editorials, and most of these editorials were concluded using engagement markers. In their discussion of newspaper editorials, Tarrayo and Duque (2011: 21) stated that "the concluding paragraph must present the strongest analytical point of the essay by giving a judgement, an opinion, or an evaluation". Therefore, the maximised use of engagement features or any other metadiscoursal feature can be explained in terms of the argumentative state of the editorial section of the newspaper. This would give a greater chance for the phenomenon of register awareness as a possible reason affecting the use of metadiscourse in editorials. Register here refers to "a cover term for any variety associated with a particular configuration of situational characteristics and purposes" (Biber & Conrad 2001: 175). Similarly, Ädel (2008) noted that register awareness might cause some variations in the use of metadiscourse by native and L2 writers.

It is also plausible to assume that the significant differences in the corpora could be related to the writing experience of the author. Zhao (2017) pointed out that the writer experience overweighs the native-speaker status in academic writing. From this perspective, Zhao's explanation could be relevant in the context of journalistic and argumentative texts although such a claim needs further verification based on empirical analyses. From another perspective, second language identity might have an impact on the use of metadiscourse and the expression of attitude in written texts. Benson et al. (2013: 17) defined the concept of second language identity as "any aspect of a person's identity that is related to their knowledge and use of a second language". In other words, L2 writers' linguistic choices might be affected by their second language identity gained throughout their L2 learning. Norton and McKinney (2011: 77) outlined the relationship between language and identity as they argued that "[L]anguage learning engages the identities of learners because language itself is not only a linguistic system of signs and symbols, but also a complex social practice through which relationships are defined, negotiated, and resisted". In the contrastive analysis of metadiscoursal features, language is a tool for expressing the identity of the author, and this expression of identity might be influenced, directly or indirectly, by mastering a second language. In this study, there were no significant differences between the two groups of editorialists in the use of certain metadiscoursal categories. Such a result might be attributed to the second language identity in which discourse, social practices and power relations are intertwined and may be addressed through a holistic approach (Norton & McKinney 2011).

Another related factor to be mentioned here is the personal preferences of the writer, which might influence the writer's decisions about the use of metadiscourse. Pérez-Llantada (2010: 41) argued that personal preferences might affect the use of metadiscourse and the "culture- and language-specific traits". One should not also forget that the use of metadiscourse has something to do with the personal choices of the author. The evidence for this would be the idea that there are differences even among the native speakers in their use of metadiscourse. Ädel (2008) compared American, British, and advanced-learner English in terms of their use of metadiscourse. She found considerable differences between the British and American writers. This makes the interpretation of *writing styles* and *personal preferences* more appropriate for explaining the differences between the two sets.

7 Conclusion

This study was designed to determine the distributional patterns and the similarities and differences in the use of interactional metadiscourse in editorials written by L1 English and L2 English editorialists. The analysis has expanded our understanding of the practices of L1 and L2 English editorialists regarding their use of metadiscourse in English editorials. This genre might have affected the use of a certain metadiscoursal element or the use of a certain type of metadiscourse. The findings of this study complement those of earlier studies in the sense that they help recognise the role of metadiscourse as a powerful tool of persuasion. Metadiscourse impacts not only the persuasive power of a text but also the comprehension or understanding of that text. The means, modes, or tactics through which metadiscourse might affect the comprehension of a text are also of particular importance to foreign language learning and teaching. Researchers have attempted to evaluate the impact of metadiscourse on foreign language reading comprehension (e.g. Camiciottoli 2003, Jalilifar & Alipour 2007, Tavakoli et al. 2010, Zarrati et al. 2014). The findings of the present study contribute to the understanding of how the study of metadiscourse and contrastive rhetoric are known to affect the writing of a specialist section of a newspaper. The reading and writing process of both sides (the writer and the audience) will be affected by the use of metadiscourse in these journalistic texts. The writer who shows an awareness of the significance of metadiscourse is expected to be somewhat considerate of the reader's needs. Therefore, training early-career journalists on the use of metadiscourse might become their own path to the mastery of the persuasive force that flows in the text through all metadiscoursal categories. In this context, Hyland (2019) confirmed that the use of metadiscourse reinforces the sense of persuasiveness in the texts. Although this study focuses on the editorial section of the newspaper, the findings may have some implications for ESP teaching, especially for English for Journalism teaching. Hyland (2019: 211) highlighted the significance of metadiscourse for foreign language teaching and stated that the understanding of metadiscourse has its “pedagogical payoffs”. One of the pedagogical payoffs advocated by Hyland is the design of ESP materials that incorporate activities to raise awareness about the use and functions of metadiscourse.

Notes

[1] We restrict the analysis in this paper to interactional devices so as to understand how editorialists involve the readers in their texts and to provide a deeper analysis of the use of various interactional devices. We leave the study of interactive devices to future research.

[2] We acknowledge the limitation that only one newspaper does not truly represent the practice of an entire language community, but we assume that analysing 80 editorials would give readers insights into how this genre is constructed by the two groups of writers.

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REFUSAL AND POLITENESS STRATEGIES FAVOURED AMONG IRAQI AND MALAYSIAN LEARNERS IN MARRIAGE PROPOSALS

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Abstract

The study targets exploring the similarities and differences between Iraqi and Malaysian learners of English in refusing marriage proposals. Also, it examines the favored politeness strategies that learners use to protect their interlocutors' face, heeding both their social distance and status. Data were gathered by a Discourse Completion Task (DCT) which contained six marriage situations. Responses were analyzed based on Beebe et al.'s (1990) refusal taxonomy and Scollon et al.'s (2012) politeness system. The findings indicated that both the Iraqi and Malaysian learners preferred the indirect refusal strategies in marriage proposals, as well as the hierarchical politeness in the form of independence strategies regardless of the social status and distance between interlocutors. However, they differed in the sort of indirect strategies most frequently utilized. The Iraqi learners favored reason, regret, and non-performative statements, whilst the Malaysian learners preferred regret, non-performative statements, and reason.

Keywords

politeness, refusal, social distance, social status, marriage proposals

1 Introduction

On a daily basis, individuals communicate with one another for various purposes, such as conveying information, sharing thoughts, expressing feelings, and maintaining relationships (Moaveni 2014: 1). They engage in various types of face negotiation where a chain of communicative acts, such as complaints, requests, apologies, invitations, and/or refusals are engendered (Félix-Brasdefer 2006: 2159). Marriage proposals are events in which one male person asks for a female's hand to walk down the aisle, the proposal can be either accepted or refused. Gass and Houck (1999: 2) claim that refusal is described as complex seeing that it demands not merely a prolonged series of negotiations and cooperative fulfillments, but "face-saving maneuvers to accommodate the non-compliant nature of the act". However, whenever such an act is realized, politeness strategies are called into action (Chojimah 2015: 906). Thus, politeness and refusal are inseparable when one wants to protect the face of their interlocutor.

Like any speech act, refusal and politeness are held to be peculiar universally as well as culturally. They are present in every language, yet they are realized

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differently across cultures (Chojimah 2015: 906). These two concepts are affected by several factors, for example, social status, age, gender, power, level of education, and social distance (Brown & Levinson 1987, Fraser 1990, Smith 1998). Hence, the current study examines politeness in regard to two key social factors, which are social status and social distance, and their effect on refusing marriage proposals. Nonetheless, refusal is arduous for L2 speakers to execute properly since both proficiency in the language and its culture are needed. Although learners of English may have enough linguistic knowledge, pragmatic expertise is necessary for different contexts because if the latter is not applied felicitously, communication breakdowns can arise (Phuong 2006).

There are several comparative studies conducted to address refusal in various daily situations. Similarly to the current study, most of the studies collected data by a DCT and analyzed refusal based on Beebe et al. (1990). The most common study is by Beebe et al. (1990) that investigated refusal strategies utilized by Japanese and American speakers using a DCT. It was concluded that the Americans and the Japanese differ considerably in their use of strategies, especially in regard to the number of occurrences, order, and content of semantic formulas. It also revealed the significance of social status; the Americans used indirect strategies when addressing lower-status people, whereas the Japanese used direct ones. However, both were polite and indirect to people of high social status. Besides, the Japanese tended to stress the social difference in interaction whereas the Americans sometimes ignore that. Nelson et al.'s (2002) findings indicated that there were commonalities between the Egyptians and the Americans in the refusal strategies favored. They found that the most common ones used by the two groups were the indirect strategies, and the most frequent semantic formulas were reasons and negative willingness.

Abed (2011) compared Iraqi learners of English and American speakers in using refusal strategies and found out that the Iraqi learners tended to refuse by statements of reasons, regrets, wishes, and adjuncts. Moreover, Iraqi learners were more sensitive and considerate when talking to lower-status people than higher or equal-status people. Saud (2019) revealed that indirect refusal strategies were the most popular among the Saudi participants, then direct ones, and lastly, adjuncts. Social status did not determine selecting the type of refusal strategies. Al-Shboul et al. (2012) indicated that both the Jordanians and the Malaysians used similar strategies and an equivalent number of occurrences emerged in refusing the situations. The most common strategies employed were statements of excuse and regret. As for the differences, the study found variance in the occurrences of indirect refusals, with the Malaysians exploiting fewer indirect strategies compared to the Jordanians. The Jordanians used gratitude statements less than the Malaysians when they refused invitations and requests from equal and lower-status people. Sattar et al. (2011) showed that when refusing requests, Malaysian learners employed statements of regret and gave excuses or explanations more frequently. The Malaysian cultural effect was present in the students' choice of semantic formulas as they realized refusal in respect of their Malaysian perceptions. Chojimah (2015) deduced that there was a pattern of occurrences for refusal strategies dominated by indirect strategies among Indonesian learners. The most frequent indirect strategies were criticism, presentation of other agendas, display of preferences, and setting auto-limitations. Their refusal responses were wordy in content. As for the politeness strategies, redressive expressions were used the most among low-high social status, followed by high-low social status, and then, by equal status. Kasih (2020) investigated the types of refusal strategies and why certain refusal strategies are picked by Indonesian, Chinese, and Libyan English as a Foreign Language (EFL) learners. A DCT, observation, and semi-structured interviews were performed to gather the study data. The findings uncovered that all three EFL groups utilized the regret strategy in their refusal. Nonetheless, they found indirect refusal strategies can signify acceptance to interlocutors. Maintaining the interlocutor's face and minimizing the face threat was the motive behind using these indirect strategies.

After reviewing the literature, marriage proposals are a gap in linguistic expertise to be investigated and they are fertile ground for refusal to take place. Given the lack of research on the Iraqi speakers in this regard, it has thus been chosen as the focal point of this study. Some studies examined refusal in contexts of buying and selling (Rosa 2010), American series (Putri 2010), and most studies compared the use of refusal concerning requests, invitations, and offers or approvals among groups of learners in various situations. Nevertheless, to the researchers' knowledge, no study has investigated refusal in the marriage context. Hence, the current study aims at scrutinizing the similarities and differences between Iraqi and Malaysian learners' use of refusal and politeness strategies, taking into consideration the social status and distance between interactants. The study seeks to answer the following questions:

1. What are the favored refusal strategies used by Iraqi and Malaysian learners in marriage proposals?
2. What are the favored politeness strategies used by Iraqi and Malaysian learners when refusing marriage proposals?

Hypothesis of the study

The current study hypotheses the following:

1. The Iraqi learners favor certain strategies to express their refusal to marriage situations as a result of learning English as a foreign language, while the Malaysian learners refuse in a certain way due to learning English as a second language.
2. The Iraqi and the Malaysian learners belong to different cultures, so they will have different politeness strategies to express their refusal to the situations of marriage.

2 Theoretical background

2.1 Refusal

Gass and Houck (1999, as cited in Qassim et al. 2021: 523) declare that refusal is a negative response to a request, invitation, offer, suggestion, etc. It is non-compliant, face-threatening (Brown & Levinson 1987), and undesirable (Levinson 1983). Brown and Levinson (1987, as cited in Abbas 2013: 186) mention that a refusal "run[s] contrary to the face wants of the addressee and/or of the speaker", and thereby, interpersonal relationships will be at risk; henceforth, pragmatic knowledge, which is difficult for learners to achieve, is demanded in order to perform refusal felicitously (Chen 1996, Al-Eryani 2007). It is necessary for interlocutors to comprehend some factors related to society and culture that affect how refusal is performed to achieve successful communication (Moaveni 2014: 1).

Takahashi and Beebe (1987: 133) remark that refusal is a "major cross-cultural stinking point for ESL students". Aside from its face-threatening nature, refusal is influenced by the linguistic hindrance subsisting in the learners' culture and language, as well as their individual evaluation of a certain situation (Nureddeen 2008). Al-Shalawi (1997) elucidates that refusal can provide information on a community's sociocultural values, and a perception of the social norms ingrained in a particular culture. In refusing marriage proposals, speakers need to employ some politeness strategies to protect each other's 'face' (Eslami-Rasekh 2005, Afghari 2007). Beebe et al. (1990) put forward a refusal strategies classification that involves three kinds (direct, indirect, and adjuncts) as follows:

- **Direct strategies**
    - a. Performative verb
    - b. Non-performative statements

- **Indirect strategies**
    - a. Statement of regret
    - b. Wish
    - c. Excuse, reason, or explanation
    - d. Statement of alternative
    - e. Set conditions for future or past acceptance
    - f. The promise of future acceptance
    - g. Statement of principle
    - h. Statement of philosophy
    - i. Attempt to dissuade interlocutor:
        1. Threat
        2. Criticize the request
        3. Request help, empathy, and assistance by dropping or holding the request
        4. Let the interlocutor off the hook
        5. Self-defense
    - j. Acceptance functions as a refusal by using an unspecific or indefinite reply and lack of enthusiasm
    - k. Avoidance by the topic switch, joke, repetition of part of the request, or postponement
- **Adjuncts**
    - a. Statement of positive opinion or feeling of agreement
    - b. Statement of empathy
    - c. Pause fillers
    - d. Gratitude or appreciation

On the basis that refusal is a negative speech act, the concept of 'face' should be taken into account when refusing. Accordingly, it is crucial to display the politeness system in further detail to analyze its impact on how refusal is performed.

2.2 Politeness

Brown and Levinson (1987: 61) define 'face' as "the public self-image that every member [of a society] wants to claim for himself". They note that 'face' is what motivates people to behave politely and that it has two components, positive and negative face. The former denotes an individual's yearning to be admired, approved, and complemented (for example, by seeking agreement, solidarity, and reciprocity), and the latter, the negative face, relates to our desire not to be imposed on (for example, being indirect, deference, and/or apologetic).

They explain that 'face' can be lost, and thus must continually be paid attention to during the interaction. They assume that some speech acts, for instance, refusals, "are intrinsically threatening to face and thus, require softening" (Brown & Levinson 1987: 24). Individuals often assess the context, for example, in marriage proposals, in which they are involved in terms of two autonomous and culture-relevant factors, i.e. social distance and social status. Interlocutors tend to use mitigating and softening strategies to avoid damaging the speaker's face, the hearer's face, or both.

On the grounds of the politeness framework of Brown and Levinson (1987), Scollon et al. (2012: 46) use the term 'involvement' to draw attention to "the common ground and a person's right and needs to be considered a normal, contributing or supporting member of society". It is recognized by some discourse-related strategies, such as "paying attention to others, claiming in-group membership, using first names, or showing that the speaker is closely connected to the hearer". They, on the other hand, suggest the term 'independence' highlights an interlocutor's individuality, which is realized by "making minimal assumptions, using formal names and titles or giving options to the interlocutor" (ibid.).

Based on such observations, Scollon et al. (2012) propose a politeness system of three types. Based on this model, in 'deference' politeness, interlocutors are of the same social status, except that there is a distant relationship. Consequently, they employ strategies of independence. Interlocutors, in 'solidarity' politeness, share equal social status and a close relationship, so they use involvement strategies to express mutual viewpoints. Lastly, an interlocutor, in 'hierarchical' politeness, is in a higher social status and the other interlocutor is in a lower position. In this case, in which the relationship can be either close or distant, Scollon et al. (2012) express that when an interlocutor from a high status utilizes an involvement strategy, a lower-status person may use an independence strategy to reduce the threat or to display esteem. The current study seeks to investigate how Iraqi and Malaysian learners refuse marriage proposals in the most polite way, taking into account factors such as social distance and social status.

2.3 Factors affecting interaction

One of the factors that determine the linguistic behavior of an individual is the social distance that exists between interlocutors in a given situation (Leech 1983, Brown & Levinson 1987). It ascribes to "the roles people take in relation to one another in a particular situation as well as how well they know each other" (Phuong 2006: 14). It refers to the level of familiarity that binds interactants. Brown and Levinson (1987) declare that politeness and social distance are linked;

the former increases when the latter exists. Wolfson (1988) remarks that a little solidarity can be found in the linguistic behavior among outsiders and insiders due to the relative antecedent intimacy of their relations, whilst the bargaining of the relations is in all likelihood to take place among friends.

According to Leech (1983) and Holmes (1995), the social status's role in contact engages the capability of realizing the social stand of one another. Holmes (1995) maintained that people of high status are extra apt to gain linguistic deference and negative politeness. Therefore, they are prone to avert insulting higher-status people and they tend to show them more honor. The concept of gender and linguistic behavior is looked at as interconnected variables (Holmes 1995). Stated differently, speech behavior relies on the gender link between interlocutors, hence to refuse a person of alike or unlike gender demands diverse linguistic molds. The culture of L2 speakers of English has an influence on the way they interact, i.e. the values of its society and the way these beliefs relate to the behavior of its members. Hofstede (2011: 9-13) proposed a cross-cultural framework for interaction that introduced four proportions on which values of cultures can be codified, namely individualism/collectivism; avoidance of uncertainty; power-distance, masculinity/femininity, and later long-term adaptation and indulgence/self-restraint were added. For serving the study objectives, only two of these factors are explained:

- Power distance index: it is the degree to which an individual with less power in a particular institution admits and receives that power is unevenly allotted. Here, disparity and power are expected from follower individuals, i.e. the lower strata. A high extent in the index denotes that hierarchy is obviously set up and carried out in a community, and there are not any doubts or any causes. However, a lower extent of the index suggests that individuals can challenge those with power and seek to diffuse authority (Hofstede 2011: 9).
- Individualism vs collectivism: it is the extent to which individuals are incorporated into groups in a particular society. In individualistic communities, there are loose relations that usually pertain only to an individual and their families. In contrast, collectivistic societies are characterized by highly integrated ties that extend beyond families to involve others in in-group connections. Such ties are twisted with unquestionable allegiance and show support to one another when there is a crisis (Hofstede 2011: 11).

The current study focuses on selected elements that control how individuals engage in the act of refusal in conversation on a daily basis. Such factors include social status, distance, and communication style type. In line with the literature on speech acts and communication, such variables played a key role in selecting the strategies that Iraqi and Malaysian learners employed when refusing marriage proposals.

3 Methodology

3.1 Participants

A total of 70 Iraqi and Malaysian learners of English were selected for the present study. Considering the fact that marriage proposals are normally directed at females, the study involved 35 Iraqi female students at the College of Education for Women – University of Baghdad, and 35 Malaysian female students at the School of Educational Studies, Universiti Putra Malaysia. All participants were learners of English between the ages of 23 and 35 years.

3.2 Instrument

Data was collected using a DCT shared through a link to a Google form emailed to the study participants (see the Appendix for the DCT form). A DCT is composed of many situations portraying various scenarios to which participants are demanded to respond either online or on paper (Blum-Kulka 1982). It is the most commonly-available and comprehensive instrument of collecting data in cross-cultural and interlanguage pragmatics. This instrument possesses several advantages, for example, comparisons of studies, a large number of participants can be administered in a limited period of time, a total control over the various contextual factors (Blum-Kulka et al. 1989), no transcription is needed, and their assessment is easy (Allami & Naeimi 2011: 342). Therefore, the Google form contains six marriage situations that included refusal to a high-status person, an equal-status person, and a low-status person, and also each one involved a close and distant social distance. The marriage situations were designed by the researchers and were checked to be valid in both cultures by two professors from the College of Education for Women – University of Baghdad, majoring in linguistics. The DCT was also piloted on twelve Iraqi and Malaysian college students majoring in English for clarity and suitability purposes.

3.3 Procedure and analysis of the data

The data were codified and analyzed using Beebe et al.'s (1990) refusal classification, and Scollon et al.'s (2012) politeness strategies. The responses were qualitatively reviewed and analyzed to determine the semantic formula and adjuncts to which they fit. After presenting a qualitative description, the researchers performed a statistical analysis in terms of the number of occurrences and percentage of the data to inspect the similarities and differences between Iraqi and Malaysian learners in using refusal strategies in marriage situations.

4 Findings

This section offers an integrative description of the strategies employed by Iraqi and Malaysian learners to refuse marriage proposal situations. Qualitative analysis of the data supported by descriptive statistics is presented. Some examples of the analysis of the raw data are shown in Table 1:

No.	The situations	Responses	The analysis
1	A famous person who works with attractive co-stars.	I don’t trust celebrities	Statement of disinterest
2	A great person who is way too older than you.	no	Non-performative statement
		I would marry someone who is in my age	Statement of disinterest
3	A person with a good financial income, but he is a heavy smoker/alcoholic.	maybe	Hedging
		Being a smoker is not a big problem for some girls	Statement of philosophy
		But [it is] for me	Statement of principle
		I’m sorry	Statement of regret
4	Your ex-husband/boyfriend who cheated on you.	Do you think i’m that dumb to let you cheat on me again?	Ridiculing
5	A person who has a physical defect.	honey,	Identity in-group marker
		You should go to a professional to fix this issue	Condition for future acceptance
		Before stepping into the next chapter of our life?	Promise of future acceptance
6	A person who has many casual relationships (playboy).	Sorry	Statement of regret
		You’re busted	Ridiculing
		There is no way…	Statement of philosophy
		…I would accept and say yes to your proposal	Non-performative statement

Table 1: Sample of the Iraqi and Malaysian responses to the items

Below, the findings of the study are shown in the form of answers to the study's research questions.

4.1 What are the favored refusal strategies used by Iraqi and Malaysian learners in marriage proposals?

A total of 1,716 refusal strategies were exploited by Iraqi and Malaysian learners. The analysis of the data indicated that 856 strategies were collected from Iraqi learners and 965 strategies were used by Malaysian learners. According to Beebe et al.'s (1990) refusal classification, there are three types of strategies, namely, direct, indirect, and adjuncts. The number of occurrences and percentage of these strategies as they were used by the two groups are illustrated in Table 2.

Refusal strategy	**Iraqi learners**		**Malaysian learners**	
	Frequency	**%**	**Frequency**	**%**
Direct strategies	105	12%	145	15%
Indirect strategies	676	79%	750	78%
Adjuncts	75	9%	70	7%
Total	**856**	**100%**	**965**	**100%**

Table 2: The number of occurrences and percentage of refusal strategies utilized by the Iraqi and Malaysian learners

The indirect strategies were the most frequently employed by the Iraqi and Malaysian learners; the adjunct category was the one that was least used by the two groups, and the direct strategies were used by both the Iraqi and Malaysian learners. Clearly, both groups were aware of the adverse impact of refusing explicitly, so they tended to implicitly reject others for face protection purposes.

4.1.1 The Iraqi learners

The analysis denoted that the Iraqi learners utilized several strategies to make their refusal sound appropriate; such variation is summarized in Table 3.

Strategy type	**Refusal strategy**	**Frequency**	**%**
Direct refusal strategies	Performative verb	0	0%
	Non-performative statements	105	12%
Indirect refusal strategies	Statements of regret	170	20%
	Wish	25	2%
	Excuse, reason, explanation	215	25%
	Statements of alternatives	11	1%

Strategy type	Refusal strategy	Frequency	%
	Set conditions for future or past acceptance	6	0%
	Promise of future acceptance	5	0%
	Statements of principle	53	6%
	Statements of philosophy	46	5%
	Attempt to dissuade interlocutor		
	Threat or statement of negative consequences	24	3%
	Guilt trip	0	0%
	Criticize the request/requester	70	8%
	Request for help, empathy, and assistance by dropping or holding the request	0	0%
	Let interlocutor off the hook	0	0%
	Acceptance that functions as a refusal	0	0%
	Avoidance		
	Hedging	**56**	**7%**
Adjuncts to refusal strategies	Statement of positive opinion/feeling or agreement	30	4%
	Pause fillers	23	3%
	Gratitude/Appreciation	17	2%
Total		**856**	**100%**

Table 3: The sub-refusal strategies as utilised by the Iraqi learners

The most common strategy employed by the Iraqi learners was excuse, reason, and explanation (25%), statement of regret was the second (20%), then non-performative statements (12%). The least utilized strategies were promise of future acceptance and set conditions for past or future acceptance (0%).

4.1.2 The Malaysian learners

The analysis indicated that the Malaysian learners employed several strategies; such variation is illustrated in Table 4.

Strategy type	Refusal strategy	Frequency	%
Direct refusal strategies	Performative verb	0	0%
	Non-performative statements	145	17%
Indirect refusal strategies	Statement of regret	165	19%
	Wish	5	1%
	Excuse, reason, explanation	140	16%
	Statement of alternative	30	3%

Strategy type	Refusal strategy	Frequency	%
	Set conditions for future or past acceptance	40	5%
	Promise of future acceptance	0	0%
	Statement of principle	60	7%
	Statement of philosophy	10	1%
	Attempt to dissuade interlocutor		
	Threat or statement of negative consequences	65	8%
	Guilt trip	0	0%
	Criticize the request/requester	75	9%
	Request for help, empathy, and assistance by dropping or holding the request	10	1%
	Let interlocutor off the hook	15	2%
	Acceptance that functions as a refusal	20	2%
	Avoidance		
	Hedging	10	1%
Adjuncts to refusal strategies	Statement of positive opinion/feeling or agreement	20	2%
	Statement of empathy	5	1%
	Pause fillers	35	4%
	Gratitude/Appreciation	10	1%
Total		**860**	**100%**

Table 4: The sub-refusal strategies as utilised by the Malaysian learners

As illustrated, statement of regret (19%) was the most common strategy used, followed by non-performative statements (17%), then by excuse, reason, and explanation (16%). Table 4 also displays the strategies that were employed minimally, these were wish and statements of empathy, appreciation and gratitude, hedging, request for help, empathy, and assistance, and statements of philosophy (1%).

4.2 What are the favored politeness strategies used by Iraqi and Malaysian learners when refusing marriage proposals?

Based on Scollon et al.'s (2012) politeness strategies, data were analyzed for a total of 1,716 politeness strategies, 856 used by Iraqi learners, and 860 by Malaysians when refusing marriage situations. When turning down the proposals, they considered the social distance, whether distant (+) or close (-), that they have with the person making the proposal and the social status of that person, whether high (+), equal (=) or low (-). The number of occurrences and percentages were calculated to determine the strategies that were used the most by the two groups so as to sound polite.

4.2.1 The Iraqi learners

They utilized a set of politeness strategies; the number of occurrences and percentage of these strategies, in accordance with each situation, are illustrated in Table 5.

Situation	**Status**	**Politeness strategies**							
		Deference		**Solidarity**		**Hierarchical**			
						Independence		**Involvement**	
		Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**	**Freq.**	**%**
S.1	+SD +SS					23	6%	2	1%
S.2	-SD +SS	18	5%	63	16%				
S.3	+SD =SS	53	13%	17	4%				
S.4	-SD =SS								
S.5	+SD -SS					42	11%	19	5%
S.6	-SD -SS					41	10%	34	9%

Table 5: Frequency and percentage of politeness strategies as employed by the Iraqi learners

The analysis of the data demonstrated 'independence' hierarchical politeness strategies employed in situation one (6%). It is obvious that the distant relation and high social status have significance in performing refusal as they showed a desire to reduce the threat to the hearers' positive face. As for situation two, the Iraqi participants employed 'solidarity' politeness strategies (16%). In such a situation, the close distance did not seem to influence the Iraqi learners' response even when their interlocutor's social status was high.

In situation three, the participants utilized 'deference' politeness (13%). It is obvious that they seem to show value to the distance even though they are equal in social status. As for situation four, participants did not use politeness strategies in any way, which was a result of the close distance and equal social status.

As for situation five, the participants showed a preference for 'independence' hierarchical politeness (11%). Despite their low social status, the Iraqi participants chose to save the interlocutor's positive face and tended to act like they are equal in this regard. Last but not least, in situation six, the participants used 'independence' hierarchical politeness (10%). Obviously, whether the social distance is close or distant, the Iraqi participants treated their low-status interlocutors equally.

4.2.2 The Malaysian learners

They used politeness strategies when rejecting marriage situations taking into account their addressee's social distance and social status. The number of occurrences and percentages of these strategies are illustrated in Table 6.

Situation	Status	Politeness strategies							
		Deference		Solidarity		Hierarchical			
						Independence		Involvement	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
S.1	+SD +SS					38	13%	22	8%
S.2	-SD +SS					4	1%	33	11%
S.3	+SD =SS	30	10%	18	6%				
S.4	-SD =SS								
S.5	+SD -SS					43	15%	25	9%
S.6	-SD -SS					36	13%	16	6%

Table 6: Frequency and percentage of politeness strategies as employed by the Malaysian learners

The analysis of the data unveiled a preference for 'independence' hierarchical politeness in situation one (13%). The Malaysian learners valued high status and kept their distance when refusing marriage proposals. As for situation two, the participants utilized 'involvement' hierarchical politeness (11%). A close relationship and high social status lead participants to avoid offending their interlocutors' positive faces.

With regards to situation three, participants used 'deference' politeness (10%). It is obvious that the distant relation has significance in performing refusal as participants avoid threatening their interlocutors' face. In situation four, participants did not use politeness strategies in any way, which was a result of the close distance and equal social status.

In situation five, the participants utilized 'independence' hierarchical politeness (15%). The Malaysian learners show value to the interests of the hearers. Finally, situation six displayed a preference for 'independence' hierarchical politeness (13%). They performed refusal indirectly and politely considering the common ground between the interlocutors.

5 Discussion

Through answering the research questions, the results revealed some similarities and differences when refusing marriage proposals between Iraqi and Malaysian learners. Both groups of learners preferred indirect strategies, followed by direct strategies, and lastly, adjuncts. It seems that the L2 learners were aware of the attack that refusal causes on their interlocutors' 'face', especially in sensitive situations like marriage proposals, so they used indirect strategies to avoid offending them, and even if they used direct ones, they tended to soften the negative impact of refusal by blending other strategies into their responses. Such findings are in line with the majority of those in previous studies, such as Nelson et al. (2002), Abed (2011), Izadi and Zilaie (2014), Saud (2019) and many others. However, such results contradict Al-Shboul et al.'s (2012) findings that the Malaysians tend to use few indirect strategies, whereas in the current study, the number of occurrences and percentages of these strategies utilized by the two groups were almost alike. In addition, neither Iraqi nor Malaysian learners employed a guilt trip strategy in refusing marriage proposals.

The social distance and the social status had no substantial impact on the strategy selection. The findings are in agreement with Saud (2019), who found that Saudi female EFL learners did not consider the addressee's social status in situations of refusal. In addition, the Iraqi and Malaysian learners used similar politeness strategies in refusing the marriage situations. Both groups of participants used independent politeness strategies in refusing those from higher or equal social status, and with whom they have a distant or close relation. They tended to reduce the attack to the negative face of their interlocutors and show respect to them by indirectly refusing proposals. These similarities can be attributed to the Iraqi and Malaysian groups sharing the same communication style according to Hofstede (2011), both cultures are oriented as a collectivist in nature and high index where social power is appreciated, and people are integrated into cohesive and strong in-groups (Al-Shboul et al. 2012). The findings conform to Al-Shboul et al. (2012), whose findings uncovered that the Jordanian and Malaysian were alike in the use of refusal due to religious and cultural orientation. Lastly, Iraqi and Malaysian learners both responded with fewer politeness strategies to situations where they shared equal status and close relationships with their interlocutors, situations three and four. Their responses could be related to the severity of the situation (Chojimah 2015), and the speaker's assessment of the situation (Nureddeen 2008). They affected the selection of strategy since the act of an interlocutor was evaluated as inappropriate and thus led to less choice of any strategy (Watts 2003) regardless of the two social factors mentioned.

Pertaining to the differences between the Iraqi and Malaysian learners in refusing marriage proposals, they could be explained in terms of the variety of indirect refusal strategies. The Iraqi learners used excuse, reason, and explanation as the most preferable strategy, followed by statements of regret and next non-performative statements. The findings of the current study revealed that the Iraqi learners believed in giving reasons related to family matters so as to dissuade their interlocutor. Such a result can be explained by the findings of Al-Shboul and Huwari (2016: 59) which state that members of collectivist culture tend to formulate reasons in relation to uncontrollable events that are beyond their explanation. The Iraqi learners were keen to express their regret through the overuse of apologies, which were expressed at the start, middle and end of their refusal. The findings are consistent with Abed (2011), who disclosed that the refusal strategies most commonly used were excuse, reason, and explanation and statement of regret. The Malaysian learners favored statements of regret the most, next non-performative statements, and then, excuse, reason, and explanation. They believed in apologizing as the way to protect the face of their interlocutors. Such results conformed to Al-Shboul et al.'s (2012) findings that the Malaysian and the Jordanian used statements of apology and excuses, as well as reasons more than any other refusal strategies.

The two groups differed from each other in that the Malaysian learners' responses were lengthy; they varied their strategies in refusing. Unlike the Iraqi learners, the Malaysians' responses contained more idiomatic expressions and small talk phrases when refusing, and they expressed themselves more politely than the Iraqi learners. Such findings are similar to studies by Al-Shboul and Huwari (2016), as well as Chojimah (2015), in which they found that the Malaysians' refusals were long. This might be related to the Malaysian learners' exposure to English as a second language which provided them with a chance to use the language skillfully more than the Iraqi learners who could practice that in academic settings only. On top of that, there were strategies seldom used by the Iraqi learners as compared to the Malaysian learners. These strategies were threat or negative consequences, set conditions for past or future acceptance, pause fillers, and others. However, there were some strategies that Malaysian learners used less than Iraqi learners, such as hedging, statements of philosophy, appreciation and gratitude, and statements of alternatives. This can be explained in terms of the type of the culture, i.e. collectivist, where some behaviors are valued and appreciated over others.

6 Conclusion

In order to mitigate the face-threatening act of refusal, interlocutors usually employ indirect refusal strategies and politeness strategies. Nonetheless, it is difficult for L2 speakers to perform refusal without considering the social status and social distance of their interlocutors. The findings revealed that the Iraqi and Malaysian learners favored indirect strategies, independence and hierarchical politeness, as well as no significance given to the speakers' social status and distance when refusing marriage instances. It may be attributed to the fact that both groups have a common cultural orientation, age, educational level, and gender. However, the Iraqi and Malaysian learners differed in the type of indirect refusal strategies employed. Excuses and reasons strategies were highly preferred by Iraqi learners, while the regret strategy was largely favored by Malaysian learners. However, the present study falls short on some points. Firstly, considering the fact that marriage proposals are normally directed to females, the current study is limited to female participants only. Secondly, due to time constraints, the current study involves a total of seventy female participants who could provide their responses on time. Thirdly, due to limited financial resources, the current study employed a DCT that was shared online to the participants, rather than using interviews or any other instrument for collecting the data. It is recommended that more comparative studies be conducted on refusal in the context of marriage, because both refusal and marriage proposals are delicate in nature and require interlocutors to be precise and careful when responding.

APPENDIX 1 - FORM OF THE DCT

MP questionnaire

Dear participant,

This study aims to analyze PRAGMATICALLY the speech act of refusal, i.e., analyzing what you would EXACTLY SAY in the proposed situations. It is not about whether the marriage proposal suits you or not, nor whether you accept it or not. It is ALL about the way you express your refusal to the other person's proposal.

1. Email address

____

2. Age

____

Skip to question 3

MP Questionnaire

You are kindly requested to consider the following marriage proposals. Respond to them by refusing as naturally as possible, as if you were in the actual situations:

3. A famous person who works with attractive co-stars.

____

4. A great person who is way too older than you.

____

5. A person with a good financial income, but he is a heavy smoker/ alcoholic.

____

6. Your Ex-husband/ boyfriend who cheated on you.

____

7. A person who has a physical defect.

____

8. A person who has many casual relationships (playboy).

____

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A PRAGMATIC APPROACH TO THE RHETORICAL ANALYSIS AND THE METADISCOURSE MARKERS OF RESEARCH ARTICLE ABSTRACTS IN THE FIELD OF APPLIED LINGUISTICS

Eatidal Hasan and Ergaya Alsout

Abstract

Using Hyland's (2000) model as a research tool and drawing on Hyland's (2005a) model of metadiscourse, this article presents a pragmatic two-level rhetorical analysis of the constituent moves within research article abstracts. It specifically zeroes in on the identification and mapping of the most frequently used metadiscourse markers signifying these moves. The findings highlight that Libyan authors employ interactive markers more often than interactional ones. Both quantitative and qualitative analysis of metadiscourse indicate that transitions, endophoric markers, and frame markers emerge as the dominant interactive categories. In contrast, interactional metadiscourse is predominantly represented by attitude markers, hedges, and boosters. Based on the findings, Move 1 features the highest frequency of metadiscourse markers, followed by Move 2. Notably, transitions stand out as the most prevalent category across all moves. This study carries pedagogical implications for academic writing practices among Libyan academic writers and students alike. Moreover, it enhances the existing body of research on the genre of research articles.

Keywords

rhetorical analysis, metadiscourse markers, research article, academic writers, pragmatic approach

1 Introduction

In academic writing, research article (RA) abstracts, as a specific sub-genre of RAs, have become an indispensable component of journal articles (Swales & Feak 2004). Abstracts are required for nearly all academic publications, including research articles, master's theses, doctoral dissertations, and undergraduate theses, regardless of the language in which they are written. Even though it is usually written last, an abstract serves as the initial point of engagement for readers pursuing scholarly research in their respective domains. It functions as a 'promotional genre' (Dahl 2009), showcasing the research conducted and thus enticing readers to peruse the full article (Hyland 2000, Dahl 2009). Given their promotional essence, research abstracts carry significant rhetorical importance; authors should utilize their constrained space to underscore the paper's central arguments and demonstrate their significance (Jiang & Hyland 2017).

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In the face of an ever-expanding volume of research literature, readers depend on abstracts to discern relevant readings (Jiang & Hyland 2023). A meticulously crafted abstract is comparable to a traffic sign on the edge of a bustling highway: easily recognizable even amidst rush hour chaos, and straightforward (Sanganyado 2019). Hence, it should be "accurate, non-evaluative, concise, coherent, and reliable" (American Psychological Association 2001: 26). Notwithstanding its succinctness, academic authors must observe conventions, which encompass distinct rhetorical strategies and linguistic characteristics (e.g. metadiscourse) that acknowledge the audience and their prior knowledge of the subject (Hyland 2004). These conventions are considered the fundamental structures for organizing discourse (Biber et al. 2007: 53). Nevertheless, constructing RA abstracts remains daunting, especially for non-native English speakers (NNS), primarily due to their unfamiliarity with the genre-specific features of abstracts (Mauranen 2007, Amnuai 2019).

Several studies have focused on the genre-specific dimensions of metadiscourse and its recurring patterns (e.g. Gillaerts & Van de Velde 2010, Akbas 2014, Benraiss 2023, Boginskaya 2023). However, these endeavors largely address the internal dynamics of metadiscourse. A holistic comprehension of metadiscourse necessitates examining its varied roles within the intrinsic rhetorical and contextual patterns of genres (Hyland 2013). This article underscores the necessity for an in-depth exploration of the interplay between rhetorical strategies and metadiscourse in different RA sections, particularly abstracts. Such an investigation can elucidate writers' inclinations concerning micro (linguistic) and macro (rhetorical) structures, for instance, in soft discipline RA abstracts. Despite the pivotal relationship between rhetorical moves and metadiscourse in molding discourse, few studies have explored their nexus across disciplines and RA sections (Del Saz-Rubio 2011, Khedri & Kritsis 2018, Kashiha & Marandi 2019, Ashofteh et al. 2020).

This study embarks on a threefold research objective. Initially, it assesses the macro-organizational patterns of 50 RA abstracts authored by Libyan scholars in applied linguistics. Subsequently, it investigates the metadiscourse markers in these abstracts and their functions in terms of micro-organizational patterns. Finally, it determines the primary rhetorical moves of RA abstracts and the prevalent metadiscourse markers that indicate these moves. The research employs a pragmatic methodology, taking into account the rhetorical context in which metadiscoursal categories function and the communicative goals of the writers.

It is essential to acknowledge that skilful use of metadiscourse is crucial for Libyan authors to attain recognition in the academic community and secure publications in reputable journals. This holds particular importance since the Libyan Ministry of Education recently set such standards for academic promotions. This study is significant as it might uncover the most frequently used metadiscoursal elements in various RA abstract moves within applied linguistics. It also evaluates whether the academic writing of Libyan authors in local journals of Libyan public universities (LJLP) aligns with standards set by top-tier journals. Overlooking a community's rhetorical norms might result in manuscripts of diminished quality, leading to potential misinterpretation of ideas (Khedri & Basirat 2022). Consequently, this investigation can refine the conveyance of information in soft discipline abstract sections, underscoring the significance of metadiscourse markers in aiding authors to produce contextually rich texts and navigate readers through the unique strategies of this section.

In conclusion, this research is guided by the subsequent inquiries, addressing the specified gaps:

1. To what degree is metadiscourse featured in the RA abstracts of applied linguistics by Libyan authors?
2. In what manner do Libyan scholars in applied linguistics utilize metadiscourse to fulfill the rhetorical objectives of RA abstract strategies?

2 Theoretical background

2.1 Move analysis

Move analysis was first proposed by Swales (1990) as a technique to investigate the rhetorical structures of diverse genres, including research articles and theses. Over the years, move analysis has garnered significant interest (Swales 1990, Bhatia 1993). Consequently, it is perceived as a suitable methodology for uncovering text structures in academic writings across a variety of disciplines, inclusive of research paper abstracts.

In Swales' (1990) framework, a genre can be deconstructed into several move structures. A move is described as "a unit of discourse which may be smaller than an utterance" (Richard & Schmidt 2002: 344). Swales (2004: 288) further elaborated that a move represents "a discoursal or rhetorical unit that performs a coherent communicative function in a written or spoken discourse", aimed at fulfilling a significant communicative objective. Additionally, it is perceived as a stage within a genre with a distinct, subordinate communicative goal that aids the primary communicative intent of the genre (Dos Santos 1996). The extent of a move can vary from a singular finite clause to several paragraphs, given its functional nature. Moves can encompass steps (Swales 1990, Bhatia 1993), which outline diverse tactics for actualizing a move. Dudley-Evans and St John

(1998: 89) define a step as “a lower-level text unit than the move that yields a detailed perspective on the options open to the writer in setting out the moves”. Every step furthers the overarching objective of a move and, in tandem, each move advances the principal communicative aim of the genre.

Various studies have employed this approach within the academic register to discern its construction. A research article (RA) abstract encapsulates “a well-defined and mutually acknowledged communicative purpose” (Bhatia 1993: 77), making it a fitting subject for analysis. A myriad of research has probed the rhetorical moves within abstracts (e.g. Bhatia 1993, Hyland 2000, Samraj 2005, Pho 2008, Golebiowski 2009, Suntara & Usaha 2013, Amnuai 2019). These investigations offer invaluable insights into the core of academic writing, guiding academic authors across multiple disciplines.

2.2 Hyland’s model of metadiscourse

Metadiscourse is a pivotal element in the formulation and presentation of ideas and arguments within writing. It is of paramount importance in academic discourse, enabling writers to fulfill two primary functions in their compositions. First, it aids in organizing the material, guiding readers, and linking ideational components, ensuring that the context is clear and logically structured for the readers. Second, it expresses the writer’s perspectives and evaluations of the ideational content (Hyland 2004). This underscores that writers not only contribute facts and knowledge to the literature but also consider their readership and its foundational understanding of the topic (Hyland ibid.). Metadiscourse is characterized as an expansive category (Hyland 2005a) subject to multifaceted analysis.

Metadiscourse serves as a central pragmatic construct, illuminating how writers aim to influence readers’ comprehension of the text and their stance towards its content and readership (Hyland 1998b). Crucially, metadiscourse should be understood as “a rhetorical and pragmatic construct” (Hyland 2005a: 25), rather than merely “an independent stylistic device” (Hyland 1998b: 438). The focal point should not solely be ‘what is the purpose of this metadiscourse marker?’, but more pertinently, ‘‘what is this item doing here at this point in the text?” (Hyland 2005a: 25). The subsequent section elucidates the pragmatic roles of each metadiscourse category.

Concerning interactive metadiscourse, transition markers aid readers in discerning the pragmatic connections between stages of an argument (Hyland 2005a). Frame markers pragmatically structure the text either locally or more broadly, reducing the reader’s cognitive load by delineating textual patterns and boundaries (Aguilar 2008). Code glosses enhance communication clarity by pinpointing "implicated premises and conclusions" (Murillo 2004: 2066). Endophoric markers pragmatically curtail repetitions (Abdi et al. 2010), directing readers toward a specific interpretation of the unfolding discourse (Hyland 2005a). Appropriate use of evidential markers can pre-empt potential objections (Hu & Wang 2014) and "strengthen readers' assumptions of adequate documentation" (White 2011: 3347).

In terms of interactional metadiscourse, boosters serve as pragmatic instruments to amplify certainty (Peacock 2006) and are viewed as positive politeness strategies (Myers 1989), as they "show solidarity with the discourse community by exhibiting responses that assume shared knowledge and desires" (Martín Martín 2008: 139). Conversely, hedges function as rhetorical devices for courtesy, offering readers the latitude to dissent (Holmes 1982) while mitigating potential conflicts in writer-audience interactions. Attitude markers pragmatically convey authors' affective stances (Abdollahzadeh 2011). Self-mentions are of significant pragmatic value in academic discourse, shaping not only the text but also the writer's rhetorical persona (Hyland 2002: 1110). Engagements acknowledge the readers' presence in a composition (Hyland & Jiang 2016: 30). In summary, interactive markers facilitate readers in traversing the text, whereas interactional markers aim to captivate and involve the reader in the discourse.

3 Methodology

This section provides a description of the methodology used in collecting and analyzing the data, and of the analytical frameworks utilized to suit the purpose of the study.

3.1 The corpus

The corpus of this study comprises 50 RA abstracts written by non-native speakers (Academic Libyan Writers) of English, totaling 9,123 words. A mixed-method research approach was adopted, incorporating frequency and functional analyses of metadiscourse to justify the data size. Concerning article selection, a stratified random sampling method was employed. The criteria listed below ensured that the selected articles exhibited similar features (Connor 2004):

a) All selected RAs belonged to the discipline of applied linguistics (AL).
b) All chosen RAs were full-length research articles conforming to Swales' (1990) conventionally accepted format of Introduction, Method, Results, and Discussion.
c) Every author of the selected articles was Libyan. Their nationalities were verified to ensure all were non-native speakers of English.
d) All chosen RAs were published between 2011 and 2020.

The articles were sourced from local journals in the field of applied linguistics, published by Libyan public universities. These journals include *The Journal of the Faculty of Languages* (Tripoli University Press), *The Journal of Faculty of Arts* (Misurata University Press), *The Journal of Gharyan University* (Gharyan University Press), *The Journal of English Language and Translation* Studies (Sebha University Press), and *The Journal of Azzaytuna University* (Azzaytuna University Press). These are research-focused, high-quality journals endorsed by the Ministry of Higher Education in Libya. It is pertinent to note that this study emphasizes national journals where authors, editors, and reviewers are exclusively Libyan and non-native English speakers. This emphasis facilitates exploration into the construction of research article abstracts within the Libyan academic community. Given the diverse strategies across academic journals globally, honing in on national journals from a specific community offers insights into the cultural norms of Libyan academics in applied linguistics. This strategic choice enhances the study's outcome, as the findings reveal notable distinctions between Libyan non-native English speakers and native speakers.

3.2 Analytical frameworks

3.2.1 Hyland's model of move structure

As depicted in Table 1, Hyland's (2000) model comprises five moves, in contrast to Bhatia's (1993) four-move classification that encompasses introducing purpose, describing methodology, summarizing results, and presenting a conclusion. Hyland's model is deemed more suitable as it distinguishes between introduction and purpose, offering a lucid comprehension of the rhetorical move structures in the selected abstracts.

Moves	Function
1. Introduction	Establishes context of the paper and motivates the research or discussion.
2. Purpose	Indicates purpose, thesis or hypothesis, outlines the intention behind the paper.
3. Method	Provides information on design, procedures, assumptions, approach, data, etc.
4. Product	States main findings or results, the argument, or what was accomplished.
5. Conclusion	Interprets or extends results beyond scope of paper, draws inferences, points to applications or wider implications.

Table 1: Framework for abstract analysis (adopted from Hyland 2000: 67)

3.2.2 Hyland's model of metadiscourse

Hyland's (2005a) framework, presented in Table 2, is widely recognized and employed within the academic realm. Due to its prominence, it was chosen for the analysis of the collected RA abstracts for this paper. The model outlines two principal categories termed as interactive and interactional.

Category	**Function**	**Example**
Interactive resources	Help to guide the reader through the text	Resources
Transitions	Express relations between main clauses	in addition; but; and thus
Frame markers	To refer to discourse acts, sequences or stages	finally; to conclude; my purpose is
Endophoric markers	Refer to information in other parts of the text	noted above; see Fig; in section 2
Evidentials	Refer to information from other texts	according to X; Z states
Code glosses	Elaborate propositional meanings	namely; e.g.; such as; in other words
Interactional resources	**Involve the reader in the text**	**Resources**
Hedges	Withhold commitment and open dialogue	might; perhaps; possible; about
Boosters	Emphasize certainty or close dialogue	in fact; definitely; it is clear that
Attitude markers	Express writer's attitude to proposition	unfortunately; I agree; surprisingly
Self-mentions	Explicit references to author(s)	I; we; me; our
Engagement markers	Explicitly build relationship with reader	consider; note; you can see that

Table 2: Hyland's framework of metadiscourse (Hyland 2005a: 49)

3.3 Method

A mixed-method design was employed in the current research. The selected abstracts were analyzed qualitatively to identify metadiscourse markers and rhetorical moves. The quantitative approach was utilized to determine the extent of metadiscourse markers used in the chosen abstracts. The collected data were analyzed in three phases: first, we organized the texts in a Word file and created an electronic corpus that included metadiscourse markers using *WordSmith Tools*. Subsequently, a list of metadiscourse items was compiled from Hyland (2005a) and other sources (Hu & Cao 2011, Khedri et al. 2013). Each specific metadiscourse item was then identified based on its functions and meanings. In the second phase, Hyland's model (2000) was used to identify the rhetorical moves in the selected abstracts, adopting a top-down coding approach based on meaning. In instances where two or more moves appeared in a sentence, the function of the move was determined based on the most dominant move, following Del Saz-Rubio (2011). As the primary goal of move analysis in this study was to understand how metadiscourse markers functioned within each move, the analysis was confined to the organization of moves. In the third phase, metadiscourse markers were analyzed within each move to discern their enactment within each move structure.

Inter-coder agreement was employed to enhance text coding reliability. A second researcher coded 50 per cent of the chosen abstracts, and inter-reliability was assessed using Cohen's Kappa. The result of Cohen's Kappa was 90, indicating an almost perfect agreement. Nevertheless, disagreements were discussed by the researchers until a consensus was reached.

4 Results and discussion

4.1 Analysis of metadiscourse

Of the 9,123 words, only 1,156 were identified as metadiscourse markers. As shown in Figure 1 below, the analysis revealed that 33 per cent (378 cases) functioned as interactional markers and 67 per cent (778 cases) as interactive markers. Libyan writers utilized interactive markers more frequently than interactional markers. A potential explanation for this trend might be attributed to Libyan writers aiming to clarify their perspectives and structure the text cohesively for readers (Hyland 2005a). Among these categories, transitions, attitude markers, hedges, boosters, and frame markers emerged as the most commonly employed markers in the current study. However, the count of metadiscourse markers is less than anticipated. Some categories of metadiscourse, such as evidentials, self-mentions, and engagements, were seldom observed. This finding diverges from prior studies, as described below. Subsequent sections present and discuss the results of each category.

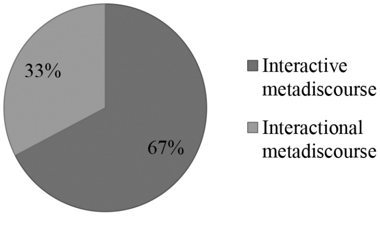

Figure 1: Metadiscourse frequency

4.1.1 Interactive markers

The overall results of this study demonstrated some variations in the frequency of interactive metadiscourse, as shown in Table 3.

Interactive markers	Frequency
Transitions	489
Frame markers	114
Endophoric	85
Code glosses	66
Evidential markers	24

Table 3: Frequency of interactive markers

Transitions "are mainly conjunctions and adverbial phrases which help readers interpret pragmatic connections between steps in an argument" (Hyland 2005a: 61). Out of the 778 words functioning as interactive metadiscourse, 489 tokens were identified as transition markers. This extensive use of transitions could be attributed to their role in facilitating cognitive relations between sentences. Transitions are commonplace in academic writing in general (Hyland & Jiang 2020), especially in applied linguistics abstracts, as underscored in previous studies (Gillaerts & Van de Velde 2010, Khedri et al. 2013, Al-Shujairi et al. 2016). Qualitative analysis showed that transitions in the selected abstracts served various functions. Libyan writers used them to: (1) provide specific details about the topic under discussion (Example 1), (2) highlight gaps in the literature (Example 2), (3) introduce their work (Example 3) and (4) present crucial findings (Example 4).

(1) *Creative writing is a wide range of literature and it deals **not only** with language **but also** with the wide imagination of writers.*

(2) *In the EFL contexts, **while** much research is conducted towards investigating the problems that students face in writing and their writing strategies, studies on how EFL writing teacher teach and adopt the writing approaches to their students' needs and levels are few.*

(3) ***Therefore** this paper attempts to investigate these advantages of ...*

(4) ***Moreover**, the majority of teachers agreed the usage of (L1) inside the class for specific purpose ...*

Frame markers reduce the reader's effort by explicitly signaling "text boundaries of schematic text structure" (Hyland 2005a: 51). They were the second most prevalent category (114 instances) in the current study, aligning with findings from studies like Al-Shujairi et al. (2016) and Khedri et al. (2013). Functional analysis discerned three discursive uses of frame markers: (1) 'sequencers' structure the discourse sequentially (Example 5), (2) 'announcers' indicate discursive aims (Example 6), and (3) 'stage labels' mark stages of textual development (Example 7). A significant difference in the frequency of these functions was noted. Markers announcing the study's purpose were notably prevalent (104 instances), while only one instance of stage labeling was found in the abstracts penned by Libyan authors. This mirrors findings from Hyland and Jiang (2020: 18), who stated that "the expression of purpose can be a powerful tool in a writer's rhetorical repertoire". Closer scrutiny revealed that, when announcing their studies' goals, Libyan writers frequently used verbs such as *investigate* (19 times), *aim* (17 times), *examine* (13 times), and *discuss* (9 times).

(5) *The study **aims** to investigate and analyze the speaking problems that Libyan university students face, and **then** identify the reasons for these problems from the perspective of teachers and students.*

(6) *The **focus** will be on the first year university students at the faculty of Arts and science, English Language Department in Al Kufra.*

(7) *These problems **in brief** are ...*

Endophoric markers, also known as 'text references' (Bunton 1999), help readers grasp the author's context and quickly access related details dispersed throughout the text (Hyland 2005a). They are the third most common markers in the current study's interactive metadiscourse (85 instances), underscoring Hyland's (2005a) claim about their prevalence in soft disciplines. Similarly, Khedri et al. (2013) highlighted their widespread use in RA abstracts within applied linguistics.

Endophoric markers encompass both linear and nonlinear reference markers (Bunton 1999, Mauranen 1993). Linear references, like previews, reviews, and overviews, clarify writing (Mauranen 1993). In contrast, nonlinear references point to supplementary content such as figures or tables. This corpus lacked previews, reviews, and other linear references, possibly due to the nature of abstracts. Only overview markers were found, used to: (1) introduce or describe the study's purpose (Example 8), (2) highlight the study's significance (Example 9), and (3) present research findings (Example 10). Such markers (e.g. *this study*) might reflect the abstracts' inherent need to tie the presented research to the present moment. Nonlinear references were almost absent, with a singular exception (Example 11).

(8) ***This work** importantly endeavours to shed light on the interface between educational linguistics and applied linguistics ...*

(9) *So, **this paper** showcases and opens new avenues for the sub-discipline "Educational Linguistics" and draw educationalists attention to the interpretation and implementation of such a topic.*

(10) ***The research results** revealed that there were not considerable differences between ...*

(11) *The answers have been transferred into statistics **presented in tables** showing the teachers' responses.*

Code glosses serve as markers to elucidate the author's propositions and arguments through further description and clarification, thereby making ideas more reader-friendly (Hyland 2005a). In this study, code glosses ranked fourth in frequency among interactive metadiscourse elements, with 66 instances. This aligns with the findings of Khedri et al. (2013) that highlight the prevalence of code glosses in research article (RA) abstracts within applied linguistics. Examining the discursive functions of code glosses in this corpus reveals two primary roles: (1) 'reformulators' rephrase prior propositions to provide enhanced clarity. These are often signaled using punctuation markers such as commas and parentheses (Example 12), or through expressions like *this means* and *that is to say* (Example 13). (2) 'Exemplifiers' amplify prior discourse by offering examples. These are typically introduced with phrases like *for instance*, *for example*, *namely*, and *including* (Example 14). A detailed qualitative analysis indicates a discernible preference for reformulators, which appeared 45 times, over exemplifiers, which were found in 21 instances.

(12) *The findings revealed some leading causes to reticence in the classroom; **i.e.**, fear of making mistakes, lack of confidence, shyness, low English proficiency ...*

(13) *This period starts at age of two years and extends to a period when the brain reaches complete lateralization. **That is to say** a right hemisphere and a left hemisphere ...*

(14) *The participants also demonstrated some needs which can be used as strategies by teachers to help reduce reticence; **such as**, teacher encouragement, appropriate teaching methodology ...*

Evidential markers cite the works of other researchers to establish a credible foundation for research (Hyland 2005a). In this study, they were minimally represented (24 instances). Given that citation is a fundamental persuasion tool in academic writing (Hyland 2010), it is significant that 45 out of the abstracts analyzed lacked any citations. This suggests that Libyan authors often assert their claims without justifying them through external sources (Example 15). Additionally, they sometimes introduce research problems without indicating a gap through citations (Example 16).

Upon closer inspection, two citation forms emerged: integral and non-integral (Swales 1990). The former cites the author in the main text (Example 17), and the latter within parentheses (Example 18). The latter was particularly rare (2 instances). Functionally, citations were used to highlight analytical frameworks (Example 19) or pinpoint literature gaps (Example 20).

(15) *Reading skill is not practiced by Libyan students even in their first language. Unfortunately, Libya is a culture that does not encourage, support, facilitate and provide for reading.*

(16) *In the EFL contexts, while much research is conducted towards investigating the problems that students face in writing and their writing strategies, studies on how EFL writing teacher teach and adopt the writing approaches to their students' needs and levels are few and far between.*

(17) ***Cutrim-Schmid** (2008) discussed ...*

(18) *Technology is a new initiative in Libyan education (**Hamdy**, **2007**).*

(19) *It was conducted using an interruptive epistemology (Cohen, et al 2007) and grounded theory methodology (**Denscombe**, **2007**).*

(20) *Although considerable research related to the use and benefits of interactive whiteboards (IWBs) in teaching and learning is available (**Smart Technologies Inc**, **2006**), there are few empirical studies that consider ...*

4.1.2 Interactional metadiscourse

The study revealed variations in the frequency of interactional metadiscourse categories, as shown in Table 5. Libyan writers commonly employed attitude markers, hedges, and boosters in their abstracts, consistent with previous research (Hyland 2005b, Gillaerts & Van de Velde 2010). These markers enable authors to engage readers by modulating their claims (Gillaerts & Van de Velde 2010).

Interactional markers	Frequency
Attitude markers	165
Hedges	110
Boosters	70
Self-mentions	29
Engagement markers	4

Table 4: Frequency of interactional markers

Attitude markers convey authors' sentiments about a topic rather than a commitment to its veracity (Hyland 2005a). Of the 378 words identified as interactional metadiscourse, 165 were attitude markers. Their prevalent use suggests they function as a persuasive tool, reflecting the author's personal sentiments (Dafouz-Milne 2008). Libyan linguists likely value these markers for their promotional function (Hyland 2004). In line with Hyland's observation (2005a), they are more frequent in soft disciplines. Their primary use was to underscore the importance of the subject (Example 21) and findings (Example 22).

(21) *There are some **important** elements that will be discussed throughout this study and the most elements of all is for Libyan EFL teachers and students to understand that there is a **significant** relationship between what the learner writes and what he/she reads which is called creative reading.*

(22) *It is concluded that learner-produced learning materials can be a **successful** and an **effective** tool to promote ...*

Hedges are defined by Lakoff (1973) as terms that introduce ambiguity. Hedges ranked second in frequency among interactional markers, with 110 occurrences. This aligns with findings from prior studies (Gillaerts & Van de Velde 2010, Al-Shujairi et al. 2016) and indicates Libyan authors' tendency to convey uncertainty, possibly to be less confrontational (Martín Martín 2008).

Functionally, hedges were used to (1) make general assumptions about the investigated topic (Example 23), and (2) show uncertainty when presenting findings (Example 24), to create a 'discursive space' where the audience may contest their interpretations (Hyland 2005b). The study also found a preference for modal auxiliaries in these abstracts, with 60 out of 127 tokens being modals.

(23) *This article discusses some theoretical ideas that **might** help offer guidance to teachers of foreign language.*

(24) *The paper **suggests** that if learners' needs and expectations are known and considered in the pre-planning stages of lessons, any language teaching model **may** be favourable for teachers.*

Boosters are words used to "close down alternatives" (Hyland 2005a: 52). They demonstrate strong conviction and confidence in the authors' claims (Hyland 1998a). They were the third most frequent, with 70 instances. A qualitative analysis showed that they were primarily used to highlight widely accepted facts (Example 25) and to present results definitively (Example 26).

(25) *The field of applied linguistics particularly the field of language teaching as a foreign language has* ***always*** *left the chance open to scientific and educational research.*

(26) *... only by overcoming the difficulties mentioned above and by establishing more favorable conditions for the implementation of CLT can students* ***truly*** *benefit from CLT in their English classrooms.*

Self-mentions, by employing personal and possessive pronouns, highlight the author's involvement (Hyland 2005a). However, they were infrequent, with only 29 occurrences, possibly due to cultural preferences (Hyland 2001, 2005b) or a desire for objectivity (Langacker 1990), because using first person pronouns explicitly (Example 27) may lead to subjectivity towards the topic being discussed.

(27) ***I*** *argue that CLT has not received widespread enthusiasm, has failed to make the expected impact on ELT ...*

Engagement markers play a pivotal role in directly addressing the audience, ensuring they remain attentive and feel included in the discourse (Example 28). Despite their recognized significance in enriching academic writing (Hyland 2001, 2005a), their use has surprisingly diminished, with a mere four instances noted in this study. Cultural factors might underpin this limited use (Hyland 2001). Furthermore, Libyan authors might be wary of employing them, fearing they might impart a less formal, conversational tone to their writing (Alotaibi 2015).

(28) *As educators,* ***we*** *frequently search for more effective methods of communicating information and ...*

4.2 Metadiscourse markers enacted in move structure

In this section, the distribution of metadiscourse across each move is presented. It is noteworthy that all five moves were identified in the present study. As depicted in Figure below, introduction moves (M1) recorded the highest frequency of metadiscourse, with 228 cases of interactive metadiscourse and 157 cases of interactional metadiscourse. This can be attributed to the fact that each introduction move within the corpus spanned more than a single sentence, thereby necessitating the use of additional markers. This was then followed by Move 2, which had 263 cases of interactive metadiscourse and 34 of interactional metadiscourse.

In the realm of interactive markers, transitions, and code glosses predominated across the abstract moves, while evidential and frame markers emerged as the least frequent in all moves. This is in contrast to the findings of Ashofteh et al. (2020). Their research, aligning with Hyland's viewpoint (2005a), posits that evidentials in abstracts allow authors to showcase claims or arguments posited by previous researchers. This highlights the relationship between prior studies and the current one in terms of their aims and outcomes. Concerning interactional markers, most moves predominantly featured attitude markers, hedges, and boosters. This concurs with Ashofteh et al.'s (2020) findings, which indicated a higher prevalence of attitude markers and hedges across the five abstract moves.

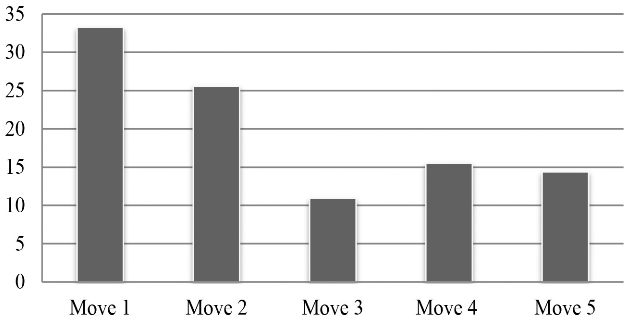

Figure 2: Metadiscourse distribution among all moves

4.2.1 Move 1: Introduction

As illustrated in Figure below, transitions (45.4%) and attitude markers (24.4%) dominated the metadiscourse categories in Move 1. The majority of the transitions in M1 were additives (e.g. *in addition*, and *and*). These transitions enhance coherence between sentences by making the relationships explicit, especially where a writer introduces the topic succinctly. Contrastive transitions such as *however* and *although* were also prevalent in M1 to signify research problems. Attitude markers in M1 evaluated new knowledge claims, represented by adjectives like *important*, *worth*, and *effective*. Notably, academic writing usually demands a detached and objective approach (Stapleton 2002). However, Libyan authors tended towards subjectivity when introducing their topics in M1. Other metadiscourse categories present in M1 included hedges (9.09%) and code glosses (7.5%). Hedges in M1 conveyed epistemic modality, which relates to the speaker's assumptions, softening the impact of claims. Code glosses (e.g. *for example*, *for instance*, *this means*) in M1 offered examples, elaborated on topics, and provided readers with supplementary details. This suggests the authors' consideration for readers' knowledge and cognitive levels. Interestingly, one might expect more frequent evidential markers in M1 to support the research problems with citations. However, evidentials constituted just 3.6 per cent of the total metadiscourse in M1. Clearly, achieving the CARS (i.e. Create A Research Space) function (Swales 1990, 2004) without proper citation proves challenging.

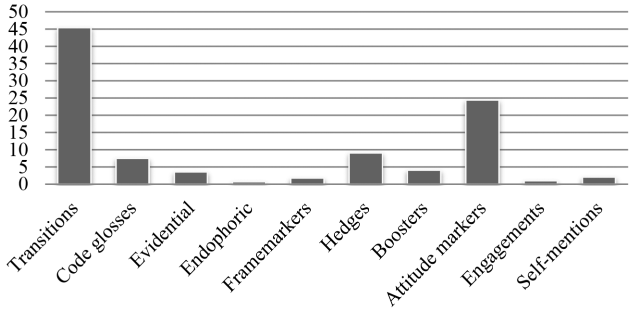

Figure 3: Metadiscourse distribution in Move 1

4.2.2 Move 2: Purpose

In Move 2, frame markers (31.6%) and transitions (37.3%) recorded the highest frequencies, as shown in Figure below, with other metadiscourse categories manifesting lower occurrences. Transitions primarily linked concepts relevant to the study's objectives. Conversely, frame markers in M2 demarcated text by sequencing and articulating objectives. A deeper analysis revealed the frequent use of announcers in M2. Also notable was the prevalence of endophoric markers (17.1%) in M2, possibly driven by the rhetorical needs of the move. In this move, authors typically state study objectives, employing phrases like *this study*, *this paper*, and *this research* to anchor their work in the present context. Additionally, the findings indicated comparable usage frequencies for both hedges (3.7%) and boosters (3.7%). Authors employed hedges (e.g. *the study attempts/tries*) and boosters (e.g. *the objective of this study was to show*) to convey varying levels of commitment to their aims.

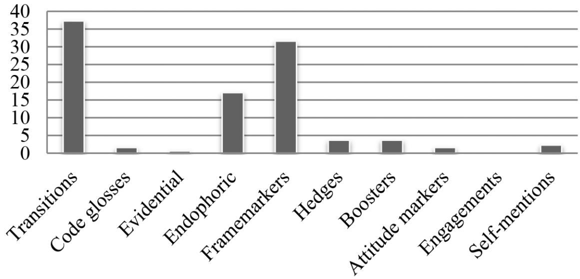

Figure 4: Metadiscourse distribution in Move 2

4.2.3 Move 3: Method

A detailed analysis revealed that transitions, code glosses, endophoric markers, and frame markers emerged as the primary markers in M3. Figure below shows the absence of attitude markers and engagements in this move, resulting in an objective tone. Transitions (57.4%), the most prevalent interactional metadiscourse markers in M3, connected the various methodologies. Another salient category was endophoric markers (14.1%), which introduced methods and related them to the present (e.g. *The data collection tools used in this study, 30 high school students were involved in this study*). Code glosses (9.4%) in M3 clarified methods and participants, while frame markers (8.6%), like *first* and *then*, outlined methodological sequences and procedures.

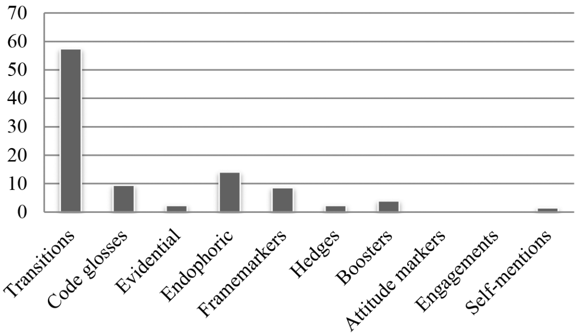

Figure 5: Metadiscourse distribution in Move 3

4.2.4 Move 4: Product

In Move 4, transitions, attitude markers, hedges, and boosters stood out. Transitions (35%) structured results for clearer reader comprehension, though a closer look revealed a scarcity of comparative transitions, with additive markers being more common. Attitude markers (18.8%) in M4 emphasized the significance or interest of results and arguments. The consistent use of these markers suggests that Libyan applied linguistics writers lean toward subjectivity, despite academia's preference for objectivity. As shown in Figure below, the use of hedges (17.2%) and boosters (14.4%) was nearly equivalent. Hedges in M4 communicated potential reservations regarding results, while boosters exuded confidence in established findings. Notably, verbs like *show*, *find*, and *believe* were frequently used. A balance between these categories is essential; to gain academic approval, writers can employ boosters to underscore findings and hedges to acknowledge potential interpretative variations and pre-empt academic critiques (Ngai et al. 2018).

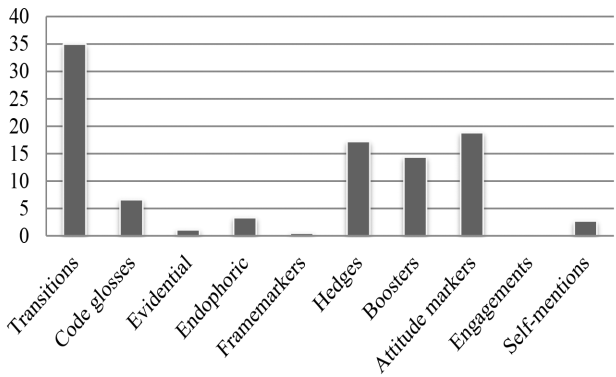

Figure 6: Metadiscourse distribution in Move 4

4.2.5 Move 5: Conclusion

In Move 5, among all the metadiscourse categories, only transitions (40.1%), attitude markers (19.1%), and hedges (17.9%) were prominent. Given that this move was typically articulated in a single concise sentence, it exhibited the fewest metadiscoursal features compared to the other four moves, as depicted in Figure below. Transitions in M5 served to interlink interpretations from various studies. Such transitions have the power to make complex and dull content both accessible and engaging to readers, guiding them in their pragmatic understanding of the information (Hyland 2004). Again, attitude markers were employed to voice the researchers' perspectives and emphasize the importance and relevance of their findings. Hedges in M5, meanwhile, indicated a degree of uncertainty regarding interpretations and their broader implications.

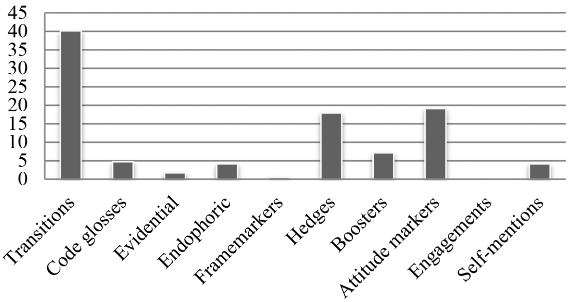

Figure 7: Metadiscourse distribution in Move 5

5 Conclusion

This paper examined the use of metadiscourse markers in the abstracts of research articles within the field of applied linguistics. Furthermore, it delved into how these metadiscourse elements manifested within the abstracts' structural moves. The findings suggest that Libyan authors have a pronounced dependence on transitions in their abstract writing. Conversely, evidentials were largely sidelined, and there was a noticeable dearth of engagements and self-mentions. In terms of the correlation between moves and metadiscourse, both M1 and M2 demonstrated the highest frequencies of metadiscourse markers. Of particular note, transitions topped the category list across all moves. Generally speaking, Libyan authors, being non-native English scholars, should acquaint themselves deeply with the conventions of English academic writing to produce cohesive and globally-accepted papers.

The insights gleaned from this study can lay the foundation for creating pedagogical resources tailored for budding Libyan writers and students. This would aid in guiding them on structuring their discourse in the abstract section and ensuring text cohesiveness through informed use of metadiscourse. Such understandings can also be invaluable for English for Academic Purposes educators, equipping both seasoned and novice non-native writers with the pragmatic and socio-rhetorical norms for structuring abstracts in their respective disciplines. Nevertheless, this research serves as an initial exploration, and a broader spectrum of studies is warranted. A significant limitation to highlight is the study's focus on just one soft discipline, namely applied linguistics. Consequently, generalizing these findings to the entirety of academic disciplines, both soft and hard, would be imprudent. This distinction is pertinent as the literature indicates variances in the usage of metadiscourse markers between soft and hard academic disciplines.

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ON THE USE OF RHETORICAL QUESTIONS IN TWEETS RELATED TO THE RUSSIA-UKRAINIAN WAR: PODOLYAK VS POLYANSKIY

Džemal Špago

Abstract

The paper explores the use of rhetorical questions in Twitter posts of Mykhailo Podolyak (a Ukrainian presidential adviser) and Dmitry Polyanskiy (a Russian official), in light of the ongoing war in Ukraine. The goals of the paper are, among others, to find out what kinds of rhetorical questions are used, what their main communicative functions are, and what differences or similarities can be observed in the use of these questions on Twitter by the two officials. The obtained results indicate that notable, statistically significant differences in the use of rhetorical questions by the two individuals do exist, regarding the form of such questions, who they are addressed at, as well as in terms of the primary functions that they perform in the analysed tweets.

Keywords

rhetorical questions, Twitter, Russia-Ukrainian war, sarcastic rhetorical questions

1 Introduction

Rhetorical questions (henceforth, RQs) are "effective persuasion devices" (Hautli-Janisz et al. 2022: 57), extensively used in various fields and contexts (political speeches, judicial procedures, marketing and advertising, social media, etc.). As such, they have attracted a lot of attention, and have been frequently studied from different angles. The convenience and communicative effectiveness of such questions is often explained by a number of distinguishing qualities or practical uses that can be associated with them: their persuasive power (Frank 1990, Blankenship & Craig 2006), or the power to resist persuasion (Blankenship & Craig 2006), challenge the interlocutor's arguments (Cerović 2016), express an opinion (Ranganath et al. 2017), engage or entice the audience (Neitch & Niebuhr 2022), make sarcastic comments (Oraby et al. 2017), or to strengthen or mitigate the content which they express (Frank 1990, Ilie 1994). A particularly important quality of RQs is that they can perform multiple discourse functions simultaneously.

Twitter represents a significant and powerful communication medium, as it offers a quick and easy way to reach a large number of people instantaneously (Kumar et al. 2014, Ranganath et al. 2017). As such, it is particularly convenient in times of crises or social unrest – for instance, its role during the Arab Spring

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or the Occupy Wall Street movement has been significant (Kumar et al. 2014). Additionally, it is an effective and highly popular platform for politicians (McGregor et al. 2017), or anyone else trying to rally support or influence masses. While RQs are widely used on Twitter (as well as other social media), and, according to Sharoda et al. (2011), they represent the most frequent type of questions posed in tweets, studies on the use of RQs in social media are still rather scant. A few studies that dealt with this topic focused on what kinds of questions are asked on Twitter (Sharoda et al. 2011), how to identify RQs in social media, i.e. how to differentiate them from other types of questions (Ranganath et al. 2017), or on the exploration of sarcastic vs non-sarcastic uses of RQs on Twitter and in debate forums (Oraby et al. 2017).

In this paper, I will examine and compare the use of RQs in the tweets posted over a five-month period by a Ukrainian (Mykhailo Podolyak) and a Russian government official (Dmitry Polyanskiy). The tweets are almost exclusively related to the ongoing Russia-Ukraine war, which has grabbed the attention of the world, and turned into a huge threat to peace and stability in Europe and elsewhere. Namely, as one could expect, alongside the fighting at the frontlines, an information war is being waged on social media sites, and one particularly convenient and powerful weapon in that war is the RQ.

The aim of this paper is to explore the following: i) different functions of RQs in the examined tweets, i.e. what the addressors are trying to achieve with them; ii) who the RQs are directed at; iii) the share of sarcastic RQs, compared to non-sarcastic ones, in the selected tweets; iv) potential differences and similarities in the use of RQs by Podolyak and Polyanskiy.

2 Background

2.1 Previous studies on RQs

There are different accounts regarding the nature of RQs – according to Han (2002), they are indirect statements in the form of questions (with the polarity of such implied statements being opposite to that of the questions); van Rooy (2003) treats them as questions with a limited set of possible answers; for Rohde (2006), they are redundant interrogatives, as the answers to them are already clear to everybody; Caponigro and Sprouse (2007) view them as questions which differ from the standard ones only at the pragmatic level, as they are used to emphasize something which is obvious. However, by all accounts, RQs are not posed with the intention to obtain information (or elicit an informative answer), and they have strong persuasive power.

As stated earlier, various studies explored specific uses of RQs in different contexts and languages. Ilie explored the use of RQs in political speeches (Ilie 1994), courtroom proceedings (Ilie 1995), as well as in talk shows (Ilie 1999). She found that the use of RQs is associated with opinion manipulation in political speeches, challenging or manipulating power in courtroom proceedings, or presenting arguments and shaping public opinion, when used in talk shows (for a detailed overview, see Ilie 1999: 979-980).

Schaffer (2005) investigated the use of RQs as retorts, i.e. how they can function as legitimate and convincing answers to information-eliciting questions (A: *How reliable is he?* B: *How shallow is the ocean?*). Among other things, she found that such RQs can often be associated with the addressor's intention to sound funny or humorous when answering standard questions.

Blankenship and Craig (2006: 111) examined the use of RQs in messages, and found that such RQs have resistance effects, as they "increased participants' attitudinal resistance to an attacking message".

Badarneh (2009) analyzed RQs taken from Arabic newspaper editorials, and concluded that the content of such RQs, which deal with sensitive and controversial political topics, is often aggressive and polemical. In another study, Badarneh (2016: 207) explored RQs used as proverbs in Jordanian Arabic, and found that their use is linked, among other things, with humor, irony, or "performing face-enhancing and face-aggravating acts".

Kleinke (2012) explored the use of RQs and responses to such questions by speakers of English and German in internet discussion forums, and established that their rhetorical force is often open to negotiation, which occurs through the process of responding to them.

Cerović (2016) conducted a study on the use of RQs by Montenegrin suspects during police interrogations, where such questions are intended to challenge the interrogators' accusations and arguments, finding that most of them elicited responses in the form of counter-challenges.

Neitch and Niebuhr (2022) explored how speakers of German perceive the prosody of RQs when used in sales presentations, and concluded that the survey participants favored lexically marked RQs whose prosody is the same as the one typically used for information-seeking questions.

2.2 Previous studies on the use of RQs on Twitter

There has been a limited number of studies which focused on the use of RQs on Twitter (or other social media sites). Sharoda et al. (2011) explored what types of questions are mostly posed on Twitter on a sample of over a million tweets and found that the most common type are RQs (accounting for 43%

of questions identified in their corpus), followed by what they termed factual *knowledge questions* and *polls*. The finding that RQs are the most frequent kind of questions posted on Twitter is hardly surprising if we consider the fact that RQs are not asked with the intention to elicit answers, and that over 80 per cent of the questions identified in those tweets did not get any answers.

In their study, Ranganath et al. (2017) focused on how to effectively identify RQs posed on Twitter, based on two motivations of users when posting them – to indirectly convey a message, or to mitigate/strengthen a previously conveyed message. They propose a quantitative framework designed to facilitate the identification of RQs on Twitter and other social media sites.

After previously exploring the use of sarcasm in online debate forums (Oraby et al. 2016), including sarcastic RQs, Oraby et al. (2017: 317) examined the use of sarcastic and non-sarcastic RQs on Twitter and in debate forums, and found "distinct linguistic differences between the methods of expression used in RQs across forums and Twitter". They noted that non-sarcastic RQs from debate forums tend to be used to express an argument in a more emphatical and concise way, whereas those used on Twitter are often aimed at "advertising or grabbing attention" (ibid.: 312).

2.3 The role of Twitter and other social media in information warfare

Information war is defined as "use and management of information and communication technology in pursuit of competitive advantage over an opponent" (Hussain et al. 2021: 3), and it is related to manipulative language uses aimed at accomplishing political and military gains (Thornton 2015). Social media represent a powerful and convenient venue for achieving different goals through persuasion, such as framing public opinion, promoting one's causes, or attempting to create a positive self-image at an international level (Hussain et al. 2021).

Twitter is a particularly convenient social media when it comes to reaching, attracting, and influencing masses, since it is, as noted by Ott (2016), based on simplicity, impulsivity and incivility. A number of studies dealt with the use of Twitter in information wars, focusing either on the use of bots or fake accounts (for instance, Bessi & Ferrara 2016 explored the manipulative use of fake Twitter accounts prior to the 2016 US elections, aimed at confusing potential voters, and affecting the results; similarly, Bastos & Mercea 2017 examined how fake Twitter accounts were used to promote Brexit), or on the use of Twitter by politicians - especially by Donald Trump (Ott 2016, Pain & Chen 2019; and others). The use of Twitter (and other social media) in promotion and rallying support for social movements, such as the Black Lives Matter movement, has also been explored (Wilkins et al. 2019).

3 Methodology

3.1 Research questions

Based on the set goals, the study aims to answer the following research questions:

1. What are the most common functions of the RQs used in the tweets posted by Podolyak and Polyanskiy, and who are the RQs primarily addressed to?
2. In what form do they appear?
3. What is the share of sarcastic RQs in their tweets?
4. What differences, if any, can be found in the use of RQs by the two officials?

3.2 Corpus

The corpus for this research is made up of tweets posted over a five-month period (May – September 2022) by Mykhailo Podolyak, a top adviser to the President of Ukraine (a total of 411 tweets), and Dmitry Polyanskiy, Russia's Deputy Permanent Representative to the UN (400 tweets). The tweets were taken from their official Twitter accounts in September and early October 2022. These individuals were selected because they are influential Ukrainian and Russian officials who publish tweets in English on a daily basis. Initially, I had intended to analyze the tweets of Dmytro Kuleba, the Ukrainian Foreign Minister, who is also very active on Twitter and regularly publishes tweets in English, but, surprisingly, his tweets contained very few RQs. As for Polyanskiy, he is one of very few Russian officials who regularly post tweets in English. As expected, almost all of the tweets are directly or indirectly related to the ongoing war in Ukraine, reflecting diametrically opposed viewpoints. Retweets, or tweets published in a language other than English, were not included in this study.

The size of the corpus (811 tweets) is, in my estimation, big enough to offer a solid insight into the use of RQs in this kind of discourse on Twitter, and, yet, small enough to be managable, as examples of RQs were identified and handled manually. There was no particular reason for the selection of tweets from the stated time period. The table below shows an overview of the tweets published in English by the two officials over the specified time.

	May	June	July	August	September	**Total**
Podolyak	87	75	74	80	95	411
Polyanskiy	93	94	68	85	60	400

Table 1: An overview of tweets published by Podolyak and Polyanskiy in May-September 2022

3.3 Method and study design

The analysis of data in this study was done using elements of both qualitative and quantitative methods. The former was used to describe and analyze different types of RQs from the corpus, as well as their functions, and the latter to explore the frequency of occurrence for different categories. The examples of RQs from the corpus were identified manually, and grouped into different categories based on a number of variables: sarcastic vs non-sarcastic; who the RQs are addressed to; and what the main functions of RQs are. In those instances where I had doubts regarding the classification of certain examples according to the mentioned criteria, I consulted three respondents (a professor of linguistics and two students from the Master's program in linguistics, all of them fluent English speakers). Strings of two or more RQs in the same tweet were treated as one example. When considering potential statistically significant differences in the use of RQs between the two Twitter users, the chi-square test of independence was done, using a calculation tool at https://biomath.med.uth.gr/statistics/chi_square.html.

4 Results and discussion

This section is divided into three subsections. The first two focus on the analysis of the individual use of RQs in Podolyak's and Polyanskiy's tweets, respectively, and the third deals with the differences and similarities between them.

4.1 RQs in tweets posted by Mykhailo Podolyak

Out of 411 tweets published in English by the Ukrainian official over the specified time period, 92 (22.38%) contain RQs, formulated either as single questions (68 tweets; 73.91%), or strings of two or more RQs (24 tweets; 26.09%). Interestingly, although one of the key features of Twitter is simple-message production (Ott 2016), Podolyak's RQs are, in all of the tweets, combined with other written content, and never used alone. The rhetorical interpretation and identification of these questions in tweets is, in addition to accompanying content in tweets, sometimes facilitated by images or videos. However, the implications and intended meanings conveyed by his RQs are mostly clear from the content of his tweets (i.e. not dependent on accompanying videos, images, retweets, etc.). Almost all of his RQs end in a question mark (in 90 tweets; 97.82%), the only two exceptions being RQs which are formulated as indirect questions – although it is generally quite unlikely for RQs to take this form. Regarding the form, different types of questions are represented, as shown in Table 2, with *wh*-RQs being the most common, and alternative RQs the rarest type.

Form	Example	No. of tweets in which this form appears
Wh-questions	*Who has to believe in this, except for the Z-camp?*	30
Yes-no questions	*Do they need a concentration camp ticket?*	27
Declarative questions	*Putin is talking about a desire for peace again?*	17
Fragmentary questions	*Z-ultimatums again?*	14
Question tags	*Everything is going according to the plan, Mr Rudenko, isn't it?*	8
Echo questions	*Show what?(...)*	5
Alternative questions	*Is it still according to the plan, or should we help speed it up?*	4
Indirect questions	*The question is where would Dmitry Medvedev be in two years.*	2

Table 2: Different forms of RQs posted by M. Podolyak

There seems to be a correlation between who Podolyak's RQs are addressed to, and what he is trying to achieve with them. In regard to the former, all of the RQs from his tweets can be classified into one of the following categories:

- RQs addressed to the enemy,
- RQs addressed to the Western powers or leaders,
- RQs addressed to the general public,
- RQs addressed to individual persons or organizations (other than the enemy or the West),
- RQs quoted from other sources.

4.1.1 RQs addressed to the enemy

The single most common category in this regard is RQs directed at the enemies who invaded Ukraine or support the invasion (Russian Federation, Russian leadership or soldiers, or individual Russian officials, collaborators, etc.) – such RQs appear in as many as 42 tweets (45.65% of the tweets which include RQs).

Enemy-directed RQs in Podolyak's tweets are predominantly formulated as sarcastic RQs (in 38 tweets, or 90.47% of all RQs/strings of RQs directed at the enemy), and their main function is to ridicule and express mockery of the Russian side, their actions, statements, or claims. By expressing derision towards the enemy, the addressor also gives vent to his anger towards them, serves as a voice for Ukrainians faced with the invasion, and puts down the invaders in front of the entire Twitter community. Such extensive use of sarcastic RQs in reference to the enemy could be explained by the previous findings that sarcasm intensifies the emotional effects of the sent messages, as well as negative attitudes towards the target (Filik et al. 2016, Toplak & Katz 2000). Interestingly, in opposition to the findings of Oraby et.al. (2016: 36) that sarcastic RQs used in online debate forums are often accompanied by emoticons or repeated punctuations to facilitate their sarcastic interpretation, it is never the case with sarcastic RQs in Podolyak's tweets. However, putting some words or expressions in quotation marks is occasionally used to signal sarcasm in RQs. A recurring RQ, which, in different variants, appears in twelve tweets, is related to the claim repeatedly made by the Russian leadership at the start of the war that "everything is going according to plan":

(1) (…) ***Everything is going according to the plan, right?*** *Well, the plan was great. As reliable as Swiss watch.* (7 May, 2022)

(2) (…) *September is coming.* ***Is "(Russian) Spring" still going as planned?*** (26 August, 2022)

Repeated patterns in which such RQs appear (each found in 3 tweets) are echo RQs followed by another RQ suggesting an answer (Example 3), or questions in the form "(*do you*) *want*…" addressed to the enemy soldiers or officials (Example 4), which enhances the contempt for the target (other sarcastic RQs do not follow any specific pattern):

(3) *The portrait of modern Russia – Dmitry Medvedev (...). "Just a little more and I will show you all!"* ***Show what? Murder one more child?*** (17 July, 2022)

(4) *Leaders of pro-Russian criminal enclaves claim that they want to make Mariupol a resort on the Sea of Azov. (...)* ***Want to sunbathe on the beach?*** *Ukrainian special services will issue a personal "hot tour" to everyone.* (18 May, 2022)

It is interesting to note that, in opposition to the findings of Oraby et al. (2016: 38) that many sarcastic RQs in their corpus focused on the attacks on the mental abilities of the target, it is not the case here. Instead, the focus is usually on the unscrupulousness, evil side, or incompetence of the Russian invaders.

A few non-sarcastic RQs levelled at the enemy serve either to present convincing arguments to the enemy (and everyone else) that Ukrainians are not going to give up (Example 5 – such RQs are used in 3 tweets and they are simultaneously meant to encourage Ukrainians), or to the enemy collaborators that they are being used by the Russian invaders (Example 6):

(5) *Massive shelling of (Ukraine) on Independence Day — another manifestation of ru-barbarians' helplessness and terrorist nature after six months of shame.* ***Is it still not clear that trying to intimidate Ukrainians is a losing option?*** *Better think about the final "gesture of goodwill"...* (24 August, 2022)

(6) *By the way,* ***why in the struggle for the "Russian world" in (Ukraine) Buryats, Tuvans, Dagestanis & Chechens act as "expendable" people whose corpses lie in our fields, but not Muscovites and Petersburgers?*** *The colonies of the Russian Nazi Empire should have asked some logical questions.* (27 May, 2022)

4.1.2 RQs addressed to the Western powers or leaders

Such RQs were found in 24 tweets (26% of the tweets which contain RQs). Although these RQs are sometimes addressed to the "international community", "world", and "UN", it is obvious that Podolyak is actually sending messages to Western powers or leaders, because they are the ones who are capable of providing help. Most of these RQs/strings of RQs (in 19 tweets; 79.16%) primarily function as call-to-action linguistic devices aimed at instigating the addressees to do something. While this function of RQs has been paid little attention in previous studies (or it was claimed that RQs can never be used as action-eliciting questions – Ilie 1994), RQs can apparently perform this role as well (this function of RQs was acknowledged in the study on RQs by Oraby et al. 2017). In such instances, the persuasive power of RQs is not only used to convince the addressee to accept the addressor's arguments but to do something about it. RQs are particularly convenient in such situations because they make the requests more powerful and convincing, and lace them with criticism for hesitating to do the requested thing. Namely, in line with previous studies (Frank 1990, Ilie 1994), we can attest to the multifunctionality of the RQs used in the examples below (presenting arguments in a memorable and convincing way; implicitly criticizing the Westers countries for not doing something earlier; mounting public pressure on them by posing RQs on Twitter; etc.), but the addressor's main motivation is to call the West to act. Sometimes (Example 7), the RQ is further strengthened by an explicit request:

(7) *Invasion of another country, mass murders, annexation attempt, nuclear weapons threats...* ***How many more red lines are needed for UN to end the membership of the RF, whose presence was never voted for?*** *The right petition, the right questions. #unRussiaUN* (23 September, 2022)

(8) *The type of war chosen by Russia is clear. Total destruction of cities (Mariupol, Bakhmut/Kharkiv). (...)* ***What the world is waiting for?*** (19 September, 2022)

(9) *Orban says that he will fight for the lifting of sanctions against (Russia). Let's call a spade a spade. Hungary – Trojan horse seeking the collapse of (Ukraine) at the expense of European taxpayers. (...)* ***Should EU finance these diversions?*** (18 September, 2022)

While the examples above show, in line with Oraby et al. (2017: 316), that non-sarcastic RQs are frequently utilized as call-to-action language tools, sarcastic RQs are also significantly represented among the RQs directed at the Western powers (they are found in 11 tweets; 45.83% of RQs addressed to the Western powers), and in eight tweets they also function as indirect requests, although laced with more evident sarcastic criticism towards the West for not providing help earlier. A recurring pattern of such RQs (found in 5 tweets) is "Maybe it is time to do something":

(10) *Western countries have many modern and effective missile/air defense systems. But missiles do not fly over Paris, Rome or Berlin. They fly over (Ukrainian) cities.* ***Maybe it is time to protect civilians and critical infrastructure? Or will we wait for a large-scale man-made disaster?*** (17 September, 2022)

(11) ***If the West really wants (Ukraine)'s victory, maybe it is time to give us long-range MLRS?*** *It is hard to fight when you are attacked from a 70 km distance and have nothing to fight back with. (...)* (28 May, 2022)

A few RQs from this category are not used as calls to action, but to ridicule claims or actions of some Western politicians (as shown in Example 12, sarcastic echo RQs seem to be particularly convenient for this), or to present a convincing argument in the form of a non-sarcastic RQ (Example 13):

(12) *Some Western politicians want to end the war and "save face" of (Russia) by giving it part of a (Ukrainian) territory, -@politico.* ***Save face after Bucha and Mariupol?*** *Strange logic, but if these politicians want to give away part of their territories, it is up to their electorate.* (16 May, 2022)

(13) *(...) (Ukraine) defends not only itself, but also European borders.* ***Isn't it obvious?*** (24 September, 2022)

4.1.3 RQs addressed to the general public

A significant number of Podolyak's RQs (16; 17.39%) are apparently directed to the general public, most of them (13) with the intention to convincingly present his arguments as valid and logical. The target audience for these persuasive messages is, among others, his own people, who need to be assured that the Ukrainian leadership is making the right decisions, or that they are not responsible for something:

(14) *Forget about "denazification". Real (Russian) goals in this war are: - capture of territories; - destruction of industrial potential and infrastructure; - food and metals theft; - mass murders; - migration crisis.* ***So, what to negotiate about with the ones who came to kill you?*** (11 June, 2022)

(15) ***If (Ukraine) "wasn't prepared" for the war, why did the first (Russian) strikes hit mock-ups, ammunition was scattered, trainings were held on January and February?*** *(Ukraine)'s been preparing since the last year: we've known about the invasion not only from Western, but also by our intelligence.* (11 June 2022)

The RQs addressed to the general public are, with one exception, non-sarcastic, most likely because the main intention here is not to mock or ridicule, but to present sound arguments in a memorable and persuasive way.

4.1.4 RQs addressed to individuals or quoted from other sources

RQs/strings of RQs addressed to individuals or individual organizations (unrelated either to those from the Russian side or Western powers) appear in six tweets, and they are mostly used to criticize those people for certain tweets or activities, or, in two tweets, to ridicule their claims or actions:

(16) (…) *"I was not naive" – said the chancellor (Merkel).* ***Then why did you shove (the EU) on the (Russian) oil/gas needle? And why does (Germany) have to fix (these) mistakes now?*** (8 June, 2022)

(17) *No one voluntarily queues for the death from (Russian) missiles,* @GharibashviliGe *(Ukraine) pays a terrible price (...) Values are more important than profit.* ***What is important to you? Application queue number?*** (14 June, 2022)

Finally, Podolyak quotes RQs from other sources in four tweets – either those posed by Russian officials (he quotes them in order to reject the arguments presented in them), or by someone who supports Ukraine (in order to praise them for that).

(18) *"Why would (Russia) fire at itself at ZNPP?" – ru-propagandists pretend to be clowns. Explaining: Russia fires (...)* (13 August, 2022)

4.1.5 RQs used in Podolyak's tweets – an overview

An overview of the use of RQs in Mykhailo Podolyak's tweets (presented in Table 3) shows that it is characterized by the following: the wide use of RQs, with a large share of sarcastic ones; RQs are mainly directed at the enemy, Western powers, or general public; the main functions of his RQs are to ridicule/mock the enemy, call the West to help Ukraine or convince all the Twitter community that his arguments are sound and self-evident.

Who the RQs are addressed to	Number of tweets in which it appears	Main function	Share of sarcastic RQs in tweets
Someone from the Russian side	42 (45.65%)	Ridiculing/mockery 38 (90.47%)	38 (90.47%)
		Presenting convincing arguments 3 (7.14%)	
		Other 1 (2.38%)	
Western powers/ leaders	24 (26%)	Call to action 19 (79.16%)	11 (45.83%)
		Ridiculing/mockery 3 (12.5%)	
		Presenting convincing arguments 2 (8.33%)	
General public/ Twitter community	16 (17.39%)	Presenting convincing arguments 13 (81.25%)	1 (6.25%)
		Ridiculing/mockery 1 (6.25%)	
		Other 2 (12.5%)	
Individuals (other than the Russians or the West)	6 (6.52%)	Criticizing 4 (66.66%)	2 (33.33%)
		Ridiculing/mockery 2 (33.33%)	
Other (quoted RQs)	4 (4.34%)	-	-
Total	92		52 (56.52%)

Table 3: An overview of the use of RQs in Podolyak's tweets

4.2 RQs in tweets posted by Dmitry Polyanskiy

Out of 400 tweets published in English by the Russian official over the specified time, 39 (9.75%) contain RQs, formulated either as single questions (in 28 tweets; 71.79%) or strings of two (or, in one case, three) RQs (in 11 tweets; 28.2%). Sarcastic RQs are commonly used by Polyanskiy (in 23 tweets; 58.97% of the tweets include RQs). The use of emoticons in combination with such RQs was rare (only in two cases), which is not in line with the findings of Oraby et al. (2016) that sarcastic RQs in online forums are often followed by emoticons.

The RQs in his tweets were frequently combined with other written content (in 28 tweets), but a significant number of them (11; 28.2% of tweets which included such questions) contained RQs accompanied only by images, videos, or retweets from other sources. Generally, the context for the full understanding of his RQs is often provided by such accompanying materials. Most of his RQs end in a question mark (in 35 tweets; 89.4%). Regarding the form of his RQs, they are mostly formulated as *wh-* or *yes-no* questions, and never, or almost never, as declarative or question tags. However, instances of indirect RQs have also been found in his tweets.

Form	**Example**	**Number of tweets in which this form appears**
Wh-questions	*Who cares about geography when such important things are being announced!*	20
Yes-no questions	*Can this perversion be cured?*	13
Echo questions	*Looting by Ukrainian army in Donbas?What looting?*	7
Alternative questions	*Are European leaders so naive, or they have no choice but to be naive?*	4
Fragmentary questions	*Any questions why you would welcome Russian army to liberate you?*	2
Declarative questions	*Maybe it's worth the next Oscar?*	1
Indirect questions	*I can't imagine who in sound mind could listen to such personalities who clearly hate their (...)*	2

Table 4: Different forms of RQs posted by D. Polyaskiy

There are two recurring patterns which the Russian official uses to formulate his RQs: echo RQs in the form *X*? *What x*? (found in 7 tweets; always formulated as sarcastic questions, and always accompanied by a video, image, or a retweet to clarify the intended meaning), and *Where is something/someone?* (found in 4 tweets; formulated as sarcastic or non-sarcastic questions):

(19) ***Looting by Ukrainian army in Donbass? What looting?*** (26 June, 2022)

(20) ***Where is Western Media reaction?*** (…) (13 June, 2022)

Based on who they are addressed to, Polyanskiy's RQs can be classified into four categories:

- RQs addressed to the enemy,
- RQs addressed to the Western powers or leaders,

- RQs addressed to the general public,
- RQs addressed to individuals (other than the enemy or the West).

4.2.1 RQs addressed to the enemy

It is not rare that Polyanskiy refers to (or explicitly mentions) someone from the Ukrainian side when using RQs (such instances appear in 14 tweets; 35.89% of his RQs). However, it is only in one tweet that he directly addressed them (more specifically, their Minister of Foreign Affairs):

(21) *Wait a minute…**weren't you accusing Russia up till now that we are "blocking Ukrainian ports", how does your readiness to "create necessary conditions" to resume exports fit in this narrative?*** (4 June, 2022 – it refers to a tweet posted by the Ukrainian Minister of Foreign Affairs Dmytro Kuleba)

There could be a number of reasons why Polyanskiy mostly avoids directly addressing Ukrainians. While it could be his individual language style (to address the general public instead of individual persons or groups), it can also be due to his feeling of superiority, or his focus on the general public, in an attempt to justify the actions of the Russian side and present them as necessary.

4.2.2 RQs addressed to the Western powers or leaders

Although a reference to someone from the West is quite common in Polyanskiy's RQs (it appears in as many as 22 tweets; 56.41% of tweets with RQs), it is again very rare that he directly addresses them (probably for the same reasons as with the Ukrainians), as only two such examples have been found in the corpus:

(22) *Look into these eyes! This man promotes a Nuclear disaster for most of Europe.* ***Do you agree with this plan?*** *If you do, continue to support (Ukraine)* (14 August, 2022)

(23) H*ow stubborn are our US ex-partners in denying the obvious things confirmed by many experts! Even if there are exemptions, there is such thing as overcompliance which almost nullifies these exemptions.* ***Whom do you want to convince?*** *Your empty claims alone will not drop the prices* (21 July, 2022)

While the RQ in Example 22 functions as a warning to the West, the one in Example 23 serves to express criticism of the USA leadership.

4.2.3 RQs addressed to the general public

Most of Polyanskiy's tweets which contain RQs (34; 87.17%) are addressed to the general public. The main functions (although not the only ones) that the RQs from these tweets perform are the following: a) ridiculing/expressing mockery; b) presenting arguments in a convincing way; c) criticizing.

4.2.3.1 RQs used to ridicule/express mockery

This is the most common function of Polyanskiy's RQs, found in 16 tweets (41% of all his tweets contain RQs). While these questions, which are all formulated as sarcastic ones, are addressed to all Twitter users, the main target of ridicule is the Western powers or individual Western officials, leaders, or organizations (in 12 tweets; 75% of RQs which are used to mock someone).

(24) ***Who cares about geography when such important things are being announced!*** *Let's be grateful that it's not West or East Korea!* (30 September, 2022 – he refers to a tweet in which Kamala Harris mistakenly mentions the cooperation between the USA and North Korea)

(25) ***Was*** #BorisJohnson ***having in mind such women when he implied that women are peaceful by nature?*** (30 June, 2022 – he refers to a tweet which reads "Liz Truss wants blood and surrender of Russia")

(26) ***Am I the only one who can't help noticing that this group of supposedly responsible and influential people resembles schoolchildren jealous of a guy from parallel grade?*** #G7 (26 June, 2022 – accompanied by a video from a meeting of G7 leaders)

In two instances, the ridicule and mockery of the West are realized in the form of sarcastic self-criticism (Example 27 – blaming the Russian side for allegedly doing something good). Finally, in the remaining four tweets, the target of ridicule is someone from the Ukrainian side, such as the Ukrainian President, as shown in Example 28.

(27) *Another reckless crime of Russian occupants…**where is intl community?!** there should be accountability for such actions!* #Mariupol (13 August, 2022 – he refers to a retweeted story about the alleged restoration of the Philharmonic Hall in Mariupol by the Russian side)

(28) ***Was it sincere or a good acting? Or is he acting now?*** *It's difficult with actors-presidents* (20 September, 2022)

By ridiculing and expressing contempt for the targets, the Russian official is trying to belittle and discredit them in the eyes of his Twitter followers, presenting them as worthless, dishonest or ill-intentioned, while simultaneously giving vent to his own frustration with them. Obviously, sarcastic RQs are a particularly convenient tool for this.

4.2.3.2 RQs used to present arguments in a convincing way

A significant portion of Polyanskiy's RQs/strings of RQs (9; 23.07%) are primarily aimed at presenting arguments which are supposed to justify actions and positions of the Russian side. Certainly, this is, to a great extent, geared towards his own people who need to be persuaded that the Russian leadership made the right decision, or had no choice when it started the invasion. There are two ways in which he tries to accomplish his objective in this regard: by using sarcastic or non-sarcastic RQs. The former (used in 6 tweets) repeatedly put focus on the initial (and, subsequently, many times repeated) excuse for the invasion – that the Russians are trying to "denazify Ukraine", or on alleged crimes committed by the Ukrainian army. The pattern for such RQs (in all 6 sarcastic tweets) is the echo question in the form *X? What X?* accompanied by retweets, images or videos. While such RQs/strings of RQs certainly contain ridicule and mockery, the main goal is to present convincing arguments to the public (especially his own people) that the claim of the Russian leadership was valid, and, thereby, to justify the invasion:

(29) ***Nazis in #Ukraine? What Nazis?*** (10 September, 2022 – accompanied by pictures that seemingly show captured Ukrainian soldiers with Nazi tattoos)

(30) ***Looting by Ukrainian army in Donbass? What looting?*** (26 June, 2022 – again combined with pictures)

Regarding the non-sarcastic RQs from this category (appearing in 3 tweets), they are utilized for the same purpose – to justify the invasion:

(31) *Nazi collaborators. And Western democracies ignore this as well as 8 yr long war that the regime wages against Donbass where your friends die. And you are called Russian agent when you say a word in Russian.* ***Any questions why you would welcome Russian army to liberate you?*** (10 September, 2022)

4.2.3.3 RQs used to criticize someone

Equally common as the previous one (appearing in 9 tweets), this category includes non-sarcastic RQs/strings of RQs whose main function is to criticize someone, mostly Western media, countries or leaders (in 7 tweets). The most common excuse for criticism is what Polyansky sees as double standards of the West:

(32) *This is a real shelling of a functioning maternity hospital. Not the one used as a firing position.* ***But where is Western Media?*** *Maximum they report this as "claims that they can't verify". (...)* (14 June, 2022 – accompanied by a video of what seems to be a bombarded hospital in Russia-controlled territory)

(33) *Is that what's Europe is praising and commending in #Ukraine? If not, where is the criticism? Will we see this type of punishment in European cities too?* (9 July, 2022)

As always, in addition to their main purpose, RQs from this category simultaneously perform additional roles as well – for instance, presenting arguments to the public that the West has double standards, blaming the Ukrainians for war crimes, or giving vent to his frustration with Western leaders or media.

4.2.4 RQs addressed to individuals (other than the Ukrainians or Western leaders)

Just like with RQs directly addressed to Ukrainians or Western leaders, Polyanskiy's RQs which are directly addressed to other individuals are very rare, with only two tweets of this kind being identified in the corpus. One was used in reference to a tweet posted by the Secretary-General of the UN, and another one in response to a tweet by an individual Twitter user:

(34) ***Is #Russophobia, which is being actively promoted by our Western ex-partners, included in the list, Mr. Secretary General, or is it a reflection of active and progressive civil position as some high-ranking warmongers claim?*** (24 May, 2022 – it refers to Guterres's tweet which reads "Hatred is a danger to everyone")

(35) *Good to know, the whole internet was full of it.* ***Will you debunk this one as well?*** (14 June, 2022)

4.2.5 RQs used in Polyanskiy's tweets – an overview

The use of RQs in Polyanskiy's tweets is characterized by the following: his RQs are mostly addressed to the general public; there is a large share of sarcastic RQs; he mostly uses RQs to express mockery, to criticize (primarily Western powers or leaders), or, to a lesser extent, to present certain arguments in a convincing way.

Who the RQs are addressed to	**Number of tweets in which it appears**	**Main function**	**Target (if ridiculing or criticizing)**	**Share of sarcastic RQs**
General public/Twitter community	34 (87.17%)	Ridiculing/ mockery 16 (41%)	Western powers/media/ leaders 12 (75%)	22 (64.7%)
			Ukrainian leaders/ Ukrainians 4 (25%)	
		Presenting convincing arguments 9 (23.07%)	-	
		Criticizing 9 (23.07%)	Western powers/media/ leaders 7 (77.77%)	
			Ukrainian leaders/ Ukrainians 1 (11.11.%)	
			Other 1 (11.11%)	
Western powers/ media/leaders	2 (5.12%)	Criticizing 1	-	-
		Warning 1		
Ukrainian leaders/ Ukrainians	1 (2.56%)	Criticizing 1	-	-
Individual	2 (5.12%)	Ridiculing/ mockery 1	-	1
		Other 1		
Total	39			23 (58.97%)

Table 5: An overview of the use of RQs in Polyanskiy's tweets

4.3 Differences and similarities in the use of RQs by Podolyak and Polyanskiy

A lot of differences in the use of RQs in the tweets of the two officials have been observed, starting with the frequency of use of such questions, which is statistically significant ($p < .05$. $X2(1, N = 811) = 23.892$, $p = 0.00000102$), with RQs being much more common in the tweets of the Ukrainian presidential adviser. If we have in mind that, as noted earlier, the use of RQs in tweets of another Ukrainian official (Kuleba) was so low that I had to select tweets of another Ukrainian official for this study, there is a strong indication that the frequency of use of RQs on Twitter is closely related to the individual language style of Twitter users.

Regarding the form of RQs, there is also a statistically significant difference ($p < .05$. $X^2(4, N = 136) = 13.96$, $p = 0.00742382$), mainly due to RQs realized in the form of declarative questions (and, to some extent, question tags), which are rather common only in Mykhailo Podolyak's tweets.

As for the use of sarcastic RQs in their tweets, there is no statistically significant difference between the two Twitter users ($p>.05$. $X^2(1, N = 131) = 0.067$, $p = 0.79575593$). As shown earlier, both of them often employ sarcastic RQs in their tweets (more than half of their RQs/strings of RQs are sarcastic), although certain patterns which have been noted in the formulation of sarcastic RQs by one of them (for instance, a question followed by a ridiculous answer, or the pattern *X? What X?*) was never or only once used by the other. It is also interesting to note that not all sarcastic RQs primarily serve to ridicule/express mockery – Podolyak's sarcastic RQs in eight tweets are mainly geared towards urging the West to help Ukraine, whereas Polyanskiy uses sarcastic RQs in six tweets with the main purpose to present arguments which are supposed to justify actions of the Russian side.

Interestingly, Podolyak mostly chooses to address his RQs directly to someone, mostly the enemy or Western powers/leaders, while most of Polyanskiy's RQs are directed at the general public, with targets, if any, being mentioned in the third person. A possible reason for this, in addition to individual differences, could be the Russian official's attempt to somehow justify the invasion of the Twitter community, and try to frame public opinion (cf. Hussain et al. 2021), especially in relation to what he sees as double standards of the West. Furthermore, it can also be a reflection of his disrespect towards the targets.

In regard to the main functions performed by RQs in their tweets, there is statistically significant difference ($p < .05$. $X^2(4, N = 131) = 22.184$, $p = 0.00018421$), which is mainly due to the extensive use of RQs as indirect requests by Mykhailo Podolyak. The results also show that the use of non-sarcastic RQs aimed at criticizing someone is significantly more common in Polyanskiy's tweets. When it comes to the RQs (sarcastic or non-sarcastic) which mainly serve to attack targets (ridicule or criticize them), the majority of Podolyak's RQs target someone from the Russian side (38 out of 48; 79.16% of such RQs/strings of RQs in his tweets), whereas such RQs in Polyanskiy's tweets mainly target Western powers, leaders, or media (21 out of 29; 72.41%), and only occasionally someone from the Ukrainian side.

Another point worth noting is that Podolyak's tweets with RQs always contain additional written content, whereas Polyaskiy occasionally uses RQs accompanied only by videos, retweets, or images, which are necessary for the full understanding of the messages conveyed by RQs.

5 Conclusion

The exploration of the use of RQs in tweets of Mykhailo Podolyak and Dmitry Polyanskiy confirmed that RQs play a prominent role in this kind of online discourse. However, the results of this study also indicate that the frequency of use of such questions is related to the individual style of Twitter users. While RQs used in the tweets of the two officials perform multiple functions, the primary ones include the following: ridiculing/expressing derision or criticizing the target; convincing the public; and, only in the tweets of the Ukrainian official, calling to action. These RQs are mostly addressed directly to the enemy or the West (in Podolyak's tweets), or to the entire Twitter community (Polyanskiy). Although the RQs identified in the corpus appear in different forms, the most common ones are *wh-*, classic *yes-no*, and fragmentary RQs, whereas RQs realized in the form of declarative sentences are frequent only in the tweets of Mykhailo Podolyak. An interesting finding is that, although rarely, RQs can also take the form of indirect questions.

Sarcastic RQs are frequently used by Podolyak and Polyanskiy (more than half of the RQs), and, interestingly, not only to ridicule or express derision towards someone. A number of patterns in which such RQs appear have been observed, but, in opposition to the findings of Oraby et al. (2016), the use of emoticons in combination with RQs was very rare.

Significant differences between the use of RQs by the two officials have been observed regarding the form of such questions, their main functions, who the RQs are directed at, as well as the accompanying content or material they used to facilitate the intended meaning. The results also show that Podolyak's RQs which are used to verbally attack someone mostly target the Russian invaders/ leadership/individuals, whereas Polyanskiy primarily uses such RQs to target the Western powers/leaders/individuals, rather than the Ukrainian side.

A limitation of the study is the size of the corpus (a larger corpus would yield a more extensive range of different RQs), but the obtained results reveal tendencies of how RQs are used on Twitter by officials from the opposite sides, in light of the ongoing Russia-Ukraine war. Future studies could further explore this topic on a larger corpus, and by examining RQs posted by a number of officials, which would shed light on potential similarities between the use of RQs by the representatives of the same side.

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THE WINNER TAKES IT ALL: STANCE AND ENGAGEMENT MARKERS IN SUCCESSFUL PROJECT PROPOSAL ABSTRACTS FUNDED BY ERC[1]

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Abstract

This paper aims to investigate frequency and distribution patterns of stance and engagement markers across different science fields in European Research Council funded project proposal abstracts. Three science fields analysed using corpus-based quantitative and qualitative methodology are life sciences, physical sciences and engineering, and social sciences and humanities. A corpus consisting of 90 project proposal abstracts was compiled and each text was examined for stance and engagement markers following Hyland's (2005b) framework of stance and engagement. The results show that stance markers were used much more frequently than engagement markers in all science fields analysed. However, it was found that compared to writers in social sciences and humanities, authors of life sciences and physical sciences and engineering abstracts tended to use more stance markers which may suggest a greater importance placed on creating a stronger authorial persona. In social sciences and humanities abstracts, on the other hand, engagement markers were more frequent than in the other two fields, which may imply that their texts are slightly more reader focused. The results of the study shed light on competitive funding discourse which is still scarcely researched, as well as reveal strategies and techniques used to create effective scientific discourse.

Keywords

stance, engagement, competitive research funding, project proposal abstracts, European Research Council, cross-disciplinary study

1 Introduction

Author stance has become one of the key notions in the explorations of academic rhetoric over the past few decades. This is hardly surprising as author stance is "central to ways of looking at written texts as social interactions, where readers and writers negotiate meanings" (Sancho Guinda & Hyland 2012: 1) and writers use stance to highlight their authority as a scholar to have their research accepted as rhetorically convincing (Fløttum et al. 2006). Another element of scientific rhetoric going hand in hand with stance in academic texts is engagement. Linked to communal solidarity, shared experiences and values as well as building rapport with the reader, engagement is an indispensable part of academic discourse, as "[r]esearch writing is only successful to the extent that writers are able to create an appropriate relationship with their readers" (Hyland

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2019: xii). Referred to as the "poor relation in discussions of interaction" by Hyland (2019: xii) and the "flipside of the interactional coin" by Jiang and Ma (2018: 1), engagement nevertheless has been more firmly rooting in the studies of academic discourse as successful communication has been increasingly recognised to depend on the writing style (see, e.g. van den Besselaar & Mom 2022).

Elements of stance and engagement have been analysed within various frameworks and under various titles (see, e.g. Vande Kopple 1985, Crismore et al. 1993, Martin & White 2005, Ädel 2006, Hood 2012). However, within the field of academic discourse, Ken Hyland's stance and engagement model (2005b) has attracted considerable attention and has been applied to an extensive number of studies analysing disciplinary and cultural properties of academic texts. In Hyland's model, stance resources consist of hedges (to mitigate propositions), boosters (to communicate the author's certainty), attitude markers (to express the author's attitude towards propositional content) and self-mention (to explicitly refer to the author). Engagement markers allow the author to engage with the reader with the help of such engagement markers as reader pronouns, directives, questions, appeals to shared knowledge and personal asides.

Markers of stance and engagement have been extensively investigated from cross-cultural perspectives, i.e. typically in one academic culture in comparison to English. Many of these studies show that there is increasingly more visibility of the author in texts written in English (see, e.g. Mur-Dueñas (2011) for English and Spanish, Dahl (2004) for English and French, Šinkūnienė (2014) for English and Lithuanian). Alternatively, scientists in certain academic cultures, like, e.g. Czech, resort to some of these resources more intensely than English native speaking scholars, apparently seeking to create the sense of commonality and shared values with the members of academic community to a larger extent (Dontcheva-Navratilova 2020).

Another strand of research focuses on the use of these markers in different disciplines or entire science fields. The so-called hard and soft fields (Becher 1994) are frequently contrasted to reveal the specific epistemological practices of argumentation and the ways knowledge is created in different broad disciplinary domains. Such studies (see, e.g. Hyland 2005b, 2008) show that there is clearly a difference in how academic writers construct their texts "with those in the humanities and social sciences taking far more explicitly involved and personal positions than those in the science and engineering fields" (Hyland 2008: 12-13). Interestingly, diachronic studies of stance and engagement show that there is a significant decrease of the use of these markers in the soft disciplines, and an increase in the hard sciences (Hyland & Jiang 2018). In any case, the take away message of many of these empirical studies is that every scholar has to be very aware of what epistemological traditions, trends and patterns are prevailing in their "disciplinary culture" (Mauranen 1993) to be considered a reliable scientist and author, an "insider" of the disciplinary community (Hyland 2006: 19).

Many of the studies mentioned above focus on the research article as a genre. This is perhaps unsurprising as the research article is considered to be the main means to communicate relevance and novelty of the research results to academic community (Hyland 2005a: 89-90). However, especially in the past few decades the abstract has received an increasing attention of scholars investigating academic discourse. Bordet (2014) explains the importance of the abstract as a genre by its inherent capacity to attract the interest and attention of the audience. Hence a convincing abstract can act as a gateway to getting published or being accepted to a conference. Gillaerts and Van de Velde (2010: 128) draw attention to the fact that "abstracts are not just pale reflections of the full-length articles, but rather have a specific make-up", which makes this genre specifically attractive to delve into the practices of academic persuasion in a variety of ways.

Indeed, most of the research on abstracts has been focused on research article abstracts (Dos Santos 1996, Martín Martín 2003, Stotesbury 2003, Diani 2014, Friginal & Mustafa 2017, Li 2021), on conference abstracts (Yakhontova 2006, Cutting 2012, Samar et al. 2014, Treanor et al. 2020) or on MA thesis or PhD dissertation abstracts (Ozdemir & Lango 2014, Xie 2020, Nasseri & Thompson 2021). These studies revealed a host of interesting and important cross-linguistic, cross-disciplinary, cross-generic insights into the art of abstract writing from both synchronic and diachronic perspectives. However, considering the promotional nature of the abstract, it is surprising that little attention has so far been devoted to competitive funding proposal abstracts. Most of the existing research on grant proposal discourse focuses on the move structure of grant proposal abstracts or full grant proposals (Connor & Mauranen 1999, Connor 2000, Feng & Shi 2004, Cotos 2019, Matzler 2021), yet much of it dates back nearly twenty years. A refreshing addition to discourse analysis of competitive funding is research by Neil Millar and his colleagues (Millar et al. 2022, 2023). Their studies on promotional language and epistemic stance in successful US National Institutes of Health grant applications show that scholars display a very confident and optimistic stance towards their planned research and that levels of promotional language have increased over time. Millar et al. (2022: 9) conclude that "applicants, reviewers, and funding agencies should be aware of the increasing prevalence of promotional language in funding applications".

The above mentioned two studies have focused on full grant proposals but only on one specific funder and in one specific disciplinary field, and hence in the competitive research funding environment more studies on how successful applicants conceptualise their stance, organise their proposals and engage with readers is crucial, especially from an interdisciplinary perspective. The focus of this study, therefore, is on abstracts of successful proposals which resulted in grants provided by the European Research Council (ERC) to researchers from three broad science fields. As stated on the ERC webpage, "[t]he ERC, set up by the European Union in 2007, is the premier European funding organisation for excellent frontier research. It funds creative researchers of any nationality and age, to run projects based across Europe" (European Research Council 2023). The ERC grants are undoubtedly one of the most prestigious grants available to scholars from any disciplinary field. They are also one of the most challenging to obtain and so applicants must display excellence in all aspects of their proposals in order to secure the grant, including the abstracts. Therefore, in this paper we aim to investigate frequency, repertoire and employment patterns of stance and engagement markers in successful ERC advanced grant application abstracts submitted by leading, experienced principal investigators from three broad science fields: life sciences, physical sciences and engineering, and social sciences and humanities.

2 Data and methods

For this corpus-based quantitative and qualitative study, a corpus was compiled using project abstracts from the ERC database of funded projects. The database consists of entries for all projects that have been funded by the ERC. All entries in the database include basic information about each project: acronym, title, details such as the grant type, principal investigator's name, host institution and country, and the project's abstract. It is stated in the grant application form that the abstract (alternatively called summary) should not exceed 2,000 characters including spaces, that it should be precise and provide the reader with a clear understanding of what the research proposal aims to achieve and how it will be achieved. Importantly, the application form states that the abstract will be used in the evaluation process as well as in the search for potential external reviewers.

The ERC grants are of three categories. The first category is the starting grant, which is suitable for the applicants with two to seven years of research experience since the completion of their PhD. The consolidator grant requires the applicants to have seven to twelve years of research experience since the completion of their PhD. Finally, the advanced grant is directed at experienced, leading, ambitious principal investigators "who have a track-record of significant research achievements in the last 10 years" (European Research Council 2023).

The online platform where abstracts of successful research proposals can be accessed lists the category of the grant, the year of the call, the host country of the successful principal investigator and the science field to which the proposal is attributed. All the proposals are grouped into three science fields (social sciences and humanities, life sciences, physical sciences and engineering) which are further subdivided into thematic panels such as, for example, *The Study of the Human Past*; *Physiology*, *Pathophysiology & Endocrinology*; *Fundamental Constituents of Matter*, etc.

For this study, we decided to choose the advanced grant, so the principal investigators who were the authors of the project abstracts were accomplished scholars with extensive experience in their respective science fields. The most recent time span of the submission of research proposals was chosen, which at the time of compiling the corpus was 2018 and 2019. All three science fields were included into the dataset; however, since there was an unequal number of thematic panels and each thematic panel contained an unequal number of successful projects, to ensure comparability between different science fields only three thematic panels with the highest number of successful proposals were chosen from each scientific field. Then from each of these three thematic panels per science field, abstracts of ten most recent approved projects were included into the corpus, thus resulting in a corpus of 90 project abstracts from three different science fields, written by accomplished scholars in 2018-2019. The country of origin of the principal investigator was not taken into account as it would have been difficult to ensure comparability between the three science fields. The size and the composition of the corpus is shown in Table 1.

Sub-corpus	Number of words	Number of abstracts
Social sciences and humanities	8,536	30
Life sciences	8,535	30
Physical sciences and engineering	8,710	30
Total	25,781	90

Table 1: Composition and size of the corpus of ERC funded project abstracts

Examples provided in the paper are coded using abbreviations SH, LS and PE representing respectively social sciences and humanities, life sciences, and physical sciences and engineering, and the number of the research proposal abstract in the listing of the empirical dataset.

For the analysis of this paper, Hyland's (2005b) framework of stance and engagement was selected. Stance communicates the writer's attitudes "which refer to the ways writers present themselves and convey their judgements, opinions, and commitments" (Hyland 2005b: 176). Engagement, on the other hand, helps the writer "rhetorically recognise the presence of their readers to actively pull them along with the argument, include them as discourse participants, and guide them to interpretations" (Hyland 2008: 5). The subcategories of stance and engagement markers are illustrated in Figure 1.

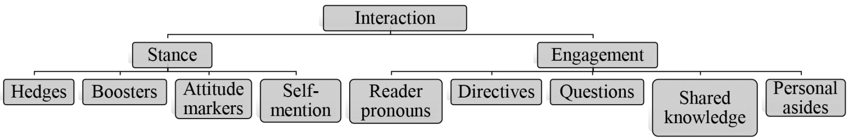

Figure 1: Stance and engagement markers (Hyland 2005b: 177)

As can be seen from Figure 1, four important categories can be employed to communicate the stance of the author. Hedges soften the proposition and/or show that the author is not fully certain or committed to it.

(1) ***Arguably**, the most important function of color is the processing of information about objects in scenes.* (SH-2)

Differently from hedges, boosters make the proposition sound more assertive showing that the writer is certain or committed to it.

(2) *We here propose three **completely** new and high-risk strategies to prevent CMD in large subsets of the population, who have elevated risk due to measurable endocrine abnormalities.* (LS-6)

Attitude markers help the writer express affective stance signalling importance, surprise, frustration, etc.

(3) *These **groundbreaking** studies should illuminate how conserved signaling pathways work through the nucleolus to regulate health and life span.* (LS-30)

Self-mention, expressed with the help of personal pronouns *I* and *we* and their forms explicitly mark the presence of the author in the text.

(4) ***We** propose to design and build switchable synthetic molecules that are capable of communicating and processing information.* (PE-13)

This particular sub-category of stance required the distinction between inclusive and exclusive *we*. Following Vladimirou (2007: 141), all cases when the author(s) referred only to themselves were considered as exclusive *we*, and all cases when *we* was used to refer to the author(s) and academic community/ readers or human beings in general were considered as inclusive *we*.

Engagement with the reader can be achieved with the help of five categories of markers. Reader pronouns, typically manifested by the inclusive *we*, create shared ground with the readers and invite them to participate in the discourse.

(5) *Human thoughts have no mass and remain definitely hidden from others' view. Still,* ***we*** *are remarkable at predicting others' mental states from observable phenomena.* (SH-7)

Questions help to create an inaudible dialogue between the writer and the reader, drawing the attention of the readers to specific research problems or research aims.

(6) *But what of the fundamental, functional cellular building block of this architecture – the single neuron and its dendritic tree?* (LS-18)

Appeals to shared knowledge signal that a piece of information is likely to be familiar or agreed upon by the disciplinary community.

(7) *History has* ***traditionally*** *prioritised literary texts, creating a Helleno- and Romanocentric narrative, which often relegates the island to a footnote.* (SH-14)

Finally, directives instruct the reader to perform a certain textual, physical or mental act, and personal asides allow readers to interrupt the text and offer a personal comment in the shape of an imitated dialogue. Neither directives nor personal asides were found in the analysed texts that is why no illustrative examples are provided.

Stance and engagement markers were identified manually by carefully reading each abstract multiple times. After the manual analysis was completed, lists of markers for each specific category were compiled and WordSmith Tools software (Scott 2020) was used to generate concordance lines for each of the marker to ensure that all of them were identified in the texts. Contexts of the use of each marker were carefully examined to make sure that each marker expressed stance or engagement rather than propositional content.

Since the three sub-corpora are of different sizes, raw frequency numbers have been normalised to 1,000 words. The statistical significance of the compared frequencies was evaluated with the help of the log-likelihood calculator (LL) with the critical value of 3.84 or higher at the level of $p < 0.05$.

3 Results and discussion

In the sub-sections that follow we first overview the overall frequency and distribution trends of stance and engagement markers. Then we discuss the types of stance and engagement markers, as well as patterns and characteristics of their use across different science fields.

3.1 Frequency and distribution of stance and engagement markers

Table 2 below shows that in the analysed research project abstracts stance markers are around ten times more frequent than engagement markers.

Markers	**Life sciences**		**Physical sciences and engineering**		**Social sciences and humanities**		**Total**	
	raw	f/1,000	raw	f/1,000	raw	f/1,000	raw	f/1,000
Stance	459	53.8	377	43.3	274	32.1	1,110	42.9
Engagement	31	3.6	24	2.8	62	7.3	117	4.5
Total	490	57.4	401	46.0	336	39.4	1,227	47.4

Table 2: Overall frequency distribution of stance and engagement markers

Similar tendencies were found in most other studies that compared frequencies of stance and engagement markers in academic texts. Hyland (2005b), for example, found stance markers to be five times more common than engagement markers in full research articles. Alghazo et al. (2021) studied research paper abstracts and found that engagement markers made up only three per cent of all stance and engagement markers. Both the results of this paper and the results of Alghazo et al. (2021) suggest that academic abstracts may display a greater difference between the distribution of stance and engagement markers than research articles.

In their study of stance and engagement markers in pure mathematics research articles, however, McGrath and Kuteeva (2012) found that engagement markers were significantly more common than stance markers. This may be the result of highly specific disciplinary practices as a typical knowledge construction pattern for pure mathematics calls for an active inclusion of the reader "through the frequent use of directives and the inclusive *we*, explicit shared knowledge references to create an expert authorial persona" (McGrath & Kuteeva 2012: 171). Since abstracts in the present study come from a variety of disciplines and subdisciplines, the trends we notice may be the outcome of a disciplinary blend which may therefore contrast with the patterns observed in individual disciplines.

A significantly larger share of stance markers may suggest that for writers of ERC project abstracts it is important to display their authorial persona. As a genre, abstracts are short, and it is imperative that the author stands out among other candidates who apply for ERC grants. The lower number of engagement markers may also suggest that leading the reader through the interpretation is less important. This does not seem unexpected because of the communicative purpose of the abstract and its short length. As the abstract presents essential information only and focuses on the objectives and importance of the study, there is less need (and space) to get the readers very much involved in the argumentation, which is typically more frequently done while presenting the results and discussing them.

A comparison of the frequency of the markers across different science fields shows that in terms of engagement there is no statistical difference between life sciences abstracts and physical sciences and engineering abstracts (LL value is +1.04). It is only abstracts in social sciences and humanities that show statistical difference from life sciences and physical sciences and engineering abstracts (LL values are respectively +18.16 and +10.53). However, the difference of stance marker use is statistically significant across all three different fields. Log likelihood value for life sciences vs physical sciences and engineering stands at +9.81, between physical sciences and engineering and social sciences and humanities at +14.35, and between social sciences and humanities vs life sciences at -47.22. Interestingly, the use of stance markers was lowest in the social sciences and humanities field. As already mentioned in the introduction, Hyland and Jiang (2018) show diachronic changes in the employment of stance and engagement markers and both seem to be increasingly more favoured by the hard sciences scholars. A much higher expression of stance markers in the hard sciences field may also suggest a higher scholarly competition for prestigious grants in life sciences and physical sciences and engineering fields in comparison to social sciences and humanities. As we will see in the following sections, it is especially scholars in hard sciences who emphasise the novelty and importance – two pre-requisites of potentially successful proposals – of the proposed research to a large extent.

3.2 Distribution of stance markers in different science fields

Table 3 shows the distribution of stance markers in different science fields as well as different sub-types of stance markers found in the corpus. Despite their slightly varying overall frequency across the three sub-corpora, attitude markers were the most frequently occurring stance markers in the analysed abstracts in all three science fields. In contrast, hedges were relatively scarce, with scholars in the hard science fields employing them to the lowest extent in comparison to all other stance markers. Surprisingly, social sciences and humanities scholars also rarely mitigated their propositions in their abstracts. This is an interesting finding as it is in stark contrast with, for example, Hyland's (2005b) research on stance markers in research articles of eight disciplines representing the whole spectrum of soft and hard fields. In Hyland's study, hedges were the most frequently employed stance marker irrespective of the discipline. This difference in trends can be explained by the difference in genres. Most of hedges in research articles would occur in the results and discussion sections where researchers would be presenting the results obtained and explaining why the results are the way they are. The interpretation of discovered trends could involve much speculation and uncertainty, hence a high frequency of hedges in research articles. In contrast, abstracts would not typically discuss and interpret results as it is a research proposal only and so mitigation of arguments and propositions is more rarely required.

Stance markers	Life sciences		Physical sciences and engineering		Social sciences and humanities		Total	
	raw	f/1,000	raw	f/1,000	raw	f/1,000	raw	f/1,000
Hedges	48	5.6	42	4.8	34	4.0	124	4.8
Attitude markers	188	22.0	198	22.7	149	17.5	535	20.7
Boosters	89	10.4	85	9.8	64	7.5	238	9.2
Self-mention	134	15.7	52	6.0	27	3.2	213	8.2

Table 3: Stance markers by science field

One more interesting tendency to be noted is for self-mention to be markedly more frequent in life sciences research proposal abstracts where personal pronouns *I* and the exclusive *we* were used interchangeably to refer to either the principal investigator alone or together with their team. In contrast scholars in physical sciences and engineering and especially scholars in social sciences and humanities would frequently employ *this/the project* to refer to the overall objectives and aims of the research proposal. These and other trends of the use of stance markers are overviewed in more detail in sub-sections below.

3.2.1 Attitude markers

Attitude markers convey the writer's affective attitude towards propositions and indicate, for example, that the writer finds something important or surprising. The results in Table 3 show that for scholars in all three analysed science fields it was very important to convey their affective attitude. Rather different results were shown by McGrath and Kuteeva (2012) as they found attitude markers to occur significantly less frequently in their study of pure mathematics research articles. Yet, the authors admit that attitude markers "play an important part in the creation of a credible authorial persona" (ibid.: 167) in research articles, and thus it can be assumed that they play an even more important role in the grant proposal abstracts due to a more promotional nature of the genre.

Attitude markers constituted not only the most numerous group of markers under study but also the most diverse and idiosyncratic one. The biggest variety of attitude markers was observed in social sciences and humanities research proposal abstracts (86 different markers), closely followed by physical sciences and engineering (85 different markers), with life sciences scholars expressing their attitude with the help of 73 different markers. Many of these markers were used one time only while talking about *pivotal* questions, *severe* risks, *tantalizing* possibilities, *virgin* fields, *violent* debates, *unrivalled* data, *cutting-edge* technology, *revolutionary* options, etc. As can be guessed from the examples above, many of these adjectives would occur in prototypical rhetorical moves of the abstract describing the status-quo of the problem, identifying the niche, presenting the purpose of the study, describing data and methods and the likely results and implications of the proposed project. Millar et al. (2022) call such adjectives "hype" and show that their frequency in abstracts of successful National Institutes of Health grant applications has increased over the period of 1985-2020. They identified a total of 139 hype adjectives and discovered that as many as 130 of these adjectives were used increasingly more often, with only nine adjectives having decreased in their frequency of use (ibid.).

Table 4 below shows five most frequently used attitude markers identified in the abstracts of different science fields.

Life sciences		**Physical sciences and engineering**		**Social sciences and humanities**	
Attitude marker	Raw #	Attitude marker	Raw #	Attitude marker	Raw #
new	27	*new*	44	*new*	23
novel	25	*key*	12	*novel*	8
major	12	*novel*	9	*innovative*	7
unique	10	*unique*	8	*fundamental*	5
key	8	*unprecedented*	5	*comprehensive*	4

Table 4: Five most frequent attitude markers across different science fields

We can see that abstracts in all three science fields emphasise novelty with two adjectives, *new* and *novel*, appearing in the list of five most frequent attitude markers in all three science fields. A similar result was observed in the diachronic study by Millar et al. (2022), where the largest absolute increase was recorded for adjectives *novel*, *critical* and *key*.

Bearing in mind the significance of the abstract of the grant proposal and the highly competitive nature of research funding, it is not surprising that attitude markers pointing to novelty and uniqueness of the research are a popular choice helping the authors to try to make their proposals stand out in the competition. Both (8) and (9) illustrate these effects.

(8) *I expect PreciseCellPD will generate* ***groundbreaking*** *knowledge of the mechanisms controlling the generation of human A9/SNs and will set the basis of a* ***novel*** *and* ***transformative*** *precision cell replacement therapy for PD.* (LS-5)

(9) *In concert, these scientific developments will enable the* ***accurate*** *and* ***fine grain*** *monitoring of biodiversity from space – a* ***ground-breaking*** *contribution to the quest to meet the UN Sustainable Development Goals and CBD Aichi targets.* (SH-29)

While (8) explicitly argues for the importance, novelty and the transformative potential of the proposal, (9) emphasises great attention to detail alongside the pioneering nature of the proposal.

Quite frequently, attitude markers were used to highlight the previous experience of the principal investigator, properties of his/her proposed team, or facilities of the institution. This feature is especially obvious in life sciences, physical sciences, and engineering fields where scientists work in groups and where technological capacities of the institution may play a crucial role in the successful research trajectory of scientists. Examples (10) and (11) are cases in point.

(10) *As* ***I show*** *with the discovery and functional characterization of ERCC6l2 as a* ***novel*** *DNA repair factor in this network, the technology we have in place is perfectly suited to tackle this question.* (LS-8)

(11) *Based on* ***my broad knowledge*** *and* ***expertise*** *in all the relevant areas, and the* ***unique*** *experimental capabilities of the GSI/FAIR facility,* ***I am in prime position*** *to advance our understanding of r-process nucleosynthesis.* (PE-5)

In (10) the principal investigator refers to their previous research achievements and the outstanding technological capacities of their institution as a guarantee for a successful future work. Similarly, in (11) the principal investigator directly emphasises their expertise and exceptional institutional facilities as a prerequisite to move the field forward.

Attitude markers also allowed the writers of research project abstracts to comment on the complexity of certain problems faced by the project or solutions that either already exist or are yet to be found. Example (12) shows how the writer uses the word *enigmatic* to describe the object of their study as difficult to understand. This communicates to the reader that the object of the study has not yet been researched enough and, therefore, is a suitable candidate for future research. The writer in Example (12) plays with academic tradition of seeking yet unfound knowledge, making their project seem necessary.

(12) *The proposed project will focus on precisely that question, in an attempt to unravel what is perhaps the most* ***enigmatic*** *episode of 'Great Wall' construction.* (SH-19)

In some cases, attitude markers would be used together with boosters, thus strengthening the promotional effect of the claims to a larger extent.

3.2.2 Boosters

Hyland defines boosters as markers which help the writers "to express their certainty in what they say and to mark involvement with the topic" (2005b:179). As boosters were among frequently occurring stance markers in all three sub-corpora of ERC funded project abstracts, communicating certainty and showing a high level of involvement in the field seems to be an important effect frequently going hand in hand with expressing affective attitude with the help of attitude markers or emphasising the presence of the author with self-mention markers, as exemplified in (13)-(15):

(13) *This* ***highly*** *ambitious project combines frontier chemical and biochemical research and will deliver completely new classes of enzymes* (PE-12)

(14) *We are* ***confident*** *that our approach at the frontiers of modern neurosciences carries the potential for groundbreaking results to answer a timely question.* (LS-13)

(15) *It* ***will*** *change how we think of China and its governance and* ***be the first*** *of its kind to explicitly consider indigenous perspectives on Chinese urban transformation.* (SH-30)

In (13), boosters *highly*, *will* and *completely* combined with attitude markers *ambitious*, *frontier* and *new* create promotionally strong discourse with regard to the nature and potential outcomes of the proposed research. Example (14) is even rhetorically stronger as the booster *confident*, combined with the personal pronoun *we*, creates the impression of a very strong commitment on behalf of the authors, while attitude markers *at the frontiers*, *groundbreaking* and *timely* emphasise the importance and relevance of the methodology and results. In (15) the author of the project promises a radical improvement on the global thinking of China and its governance (note the use of the inclusive *we*) and without hesitation communicates certainty that the proposed project is the first of its kind.

Just as was the case with attitude markers, boosters could be used to emphasise previous achievements of the principal investigator and their teams, as exemplified by (16):

(16) *We were **first** in describing sheltering mutations in cancer and **pioneered** the idea of targeting sheltering as an anticancer strategy to induce length-independent telomere damage.* (LS-2)

The most frequent booster in all three analysed sub-corpora was the modal verb *will*. *Will* occurred 27 times in the life sciences sub-corpus and was used 26 times in both social sciences and humanities and physical sciences and engineering abstracts. Palmer (1990: 134-135) notes the willingness to act on behalf of the speaker expressed by the volitional *will* especially in combination with *I*: "[o]ne can say that this is the *will* of volition with the implication that volition associated with the speaker be taken as an undertaking to act". Coates emphasises that the difference between *will* expressing willingness and *will* expressing intention is a subtle one as, and "by declaring his intention to do such-and-such, a speaker is considered to have committed himself to performing such-and-such" (Coates 1983: 174). Therefore, *will* used with the future predictions about the usefulness, originality, benefit, value, novelty, etc. of the proposed project communicates little doubt about the success of the proposed research, as exemplified by (17)-(19):

(17) *We **will** develop novel VEGF-B and VEGF-C-based gene therapy to treat refractory angina and heart failure.* (LS-1)

(18) *I propose original, even revolutionary options to overcome these issues like the use of solar cells. Thus, NECTAR **will** be the seed of a new generation of nuclear-reaction experiments with unstable beams.* (PE-7)

(19) *I am **convinced** that the combination of these state-of-the-art approaches **will** yield highly useful information for designing individualized approaches to improve RT response in cancer patients.* (LS-8)

As evident in the examples above, especially with personal pronouns *I* and exclusive *we*, i.e. markers of self-mention, in the immediate context, *will* sounds as a strong rhetorical guarantee of all the successful outcomes promised in the abstract of the research proposal.

3.2.3 Self-mention

Self-mention markers were the second most frequently occurring stance markers in life sciences abstracts, and the third most frequent marker in social sciences and humanities and physical sciences and engineering abstracts (see Table 3 above). Having analysed stance and engagement markers in research articles across sixteen different disciplines, Ma (2021) found self-mention markers to be one of the main ways of emphasising authorial presence. Self-mention markers help accredit the propositions put forward in the text to the author, strengthening their authority. It is clear that in the abstracts of ERC funded life sciences projects, authors find it highly important to make themselves stand out as researchers. The fact that researchers used a higher number of self-mention markers than in the other two analysed sub-corpora might signal that life sciences as a science field is very competitive and so highlighting the role of individual researchers or teams of researchers as active contributors to the advancement of science could be seen as a strong device of rhetorical persuasion.

Surprisingly, social sciences and humanities scholars used self-mention to the lowest extent. In their diachronic study of interactive and interactional markers, Hyland and Jiang (2018) noticed a significant decrease of self-mention markers in applied linguistics in the most recent time period they analysed. On the other hand, they observed an increase of self-mention markers in sociology, so one reason for the trends of self-mention marker use we found could be related to rhetorical changes going on in individual disciplines. Another reason could be the tendency for scholars in some disciplines of social sciences and humanities to work not in large research groups but individually which is in stark contrast with hard sciences. As can be seen in Figure 2 below, it was the exclusive *we* which was dominating in all three sub-corpora implying that it was more common for the researchers to use personal pronouns while referring to themselves as a research group.

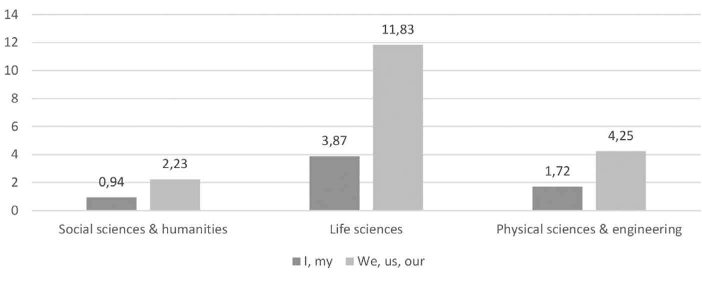

Figure 2: Distribution of *I* and exclusive *we* and their forms in different science fields (per 1,000 words)

ERC grants provide funding to individual researchers who are responsible for the project but who can also employ other researchers, which means that the projects are not expected to be carried out by a single person. Therefore, a significantly larger proportion of self-mention markers found refers to the teams of researchers rather than individual scholars. This, of course, is especially typical to life sciences and physical sciences and engineering fields where research is typically carried out in teams.

When self-mention markers are used in the abstracts, they typically refer to what the researchers have already done in the past (20), they are used to describe the aims of the project (21), to provide a description of the methodology or procedures of the project (22), or to indicate the urgency to investigate the proposed idea and the ultimate value the project will bring (23).

(20) *Using such an approach,* ***we*** *have already delineated a disease signature in a helper T cell population specific for MS.* (LS-3)

(21) ***We*** *aim at utilizing this new form of all-optical free electron control in a broad research program with five exciting objectives.* (PE-1)

(22) *Here,* ***we*** *combine genome engineering in stem cell-derived neurons and genetically altered mice with proteomic, high-resolution imaging and systems biology approaches <...>.* (LS-17)

(23) *Our overarching research question – What is the role of transport infrastructures in sustaining arctic communities? – is of urgent relevance on both theoretical and practical levels, and by addressing it we will contribute locally informed results to critical conversations about arctic futures.* (SH -24)

As has been mentioned above, in many of these contexts self-mention markers would be accompanied by attitude markers and boosters to emphasise the novelty, uniqueness, exceptionality, and urgency of the idea developed in the proposal, as well as the commitment of the principal investigator and their team to bring the promised value and benefit of the project.

3.2.4 Hedges

The effect that hedges have on propositions is described by Hyland (2008: 7) as withholding “complete commitment to a proposition, implying that a claim is based on the writer’s plausible reasoning rather than certain knowledge”. Both in research articles across different science fields analysed by Hyland (2005b) and in social sciences’ research article abstracts analysed by Alghazo et al. (2021) hedges were found to be the most frequently occurring stance marker. In the analysed abstracts of research projects, however, hedges were the least frequently used markers and there was no statistically significant difference between the three science fields. The trend of low reliance on hedging may constitute one of the distinct features of ERC project abstracts. Academic texts in general might seem to traditionally exhibit modesty while making claims. Hedges are also used to protect the writer from making sweeping generalisations. In ERC project abstracts, on the other hand, hedges are not used as frequently, especially compared to other stance markers (see Table 3 above). This could suggest that the writers of the abstracts constructed their texts to show a high level of certainty in the propositions in order to increase the possibility of receiving a research grant.

Despite overall lower numbers of hedges, there were abstracts that were rather cautious in phrasing the possible outcomes of the projects, especially as far as some substantial future impact on the field or discipline is concerned.

(24) ***If successful**, we have created the instrumental and modelling foundation for a new paradigm in structural materials.* (PE-28)

(25) *Furthermore, they **may** pave the way for the future development of therapeutics to cure nerve injury or neurological disorders linked to synapse dysfunction.* (LS-17)

(26) *This **could** lead to a revision of how we study the early visual system, better color reproduction and better lighting systems.* (SH-2)

In (24)-(26) hedges make the optimism of the future impact of the proposed research a little bit downgraded. This could be a strategic choice of grant proposal authors to refrain from being overly optimistic about the future impact of the intended result.

Apart from the modal verbs *may*, *might*, and *could*, which were used to hedge the propositions, the most frequent hedge was the verb to *propose*. It is an interesting verb in that on the one hand it displays a certain confidence of the authors about what they are saying, as in order to propose something to academic community one has to have enough competence, knowledge and stamina. At the same time, *to propose* implies that the proposing scholars are opening a dialogue with the academic community, with peers in the field, waiting for their approval and acceptance of the proposed idea. This is exactly one of the rhetorical functions that hedges perform in academic discourse, open the door for a dialogue. This effect is exemplified in (27)-(28):

(27) *We here **propose** three completely new and high-risk strategies to prevent CMD in large subsets of the population.* (LS-7)

(28) *To tackle this challenge, I **propose** focusing on the human adaptive and migration behavior of residents and other agents within one global framework <...>.* (SH-22)

Other typical cases of hedging in grant proposal abstracts would include approximation of various types, for example, while presenting numbers and existing patterns (29) or the scope of the phenomenon (30):

(29) *Yet, over the course of the following months or years, **around** 40% of the patients that underwent resection of the primary tumor with curative intention will relapse, **generally** in the form of metastatic disease.* (LS-24)

(30) *REBORN proposes **rather** unique toolboxes combining bionstructive biomaterials only based on human proteins obtained from the amniotic membrane.* (PE-29)

Removing the approximators *around*, *generally* and *rather* would not lower the writer's commitment to the proposition but make the information provided in the proposition definitive and exact.

3.3 Distribution of engagement markers in different science fields

In this section, the distribution of different engagement markers across the three sub-corpora analysed will be presented. As was pointed out earlier, engagement markers occurred far less frequently compared to stance markers.

Stance markers	Life sciences		Physical sciences and engineering		Social sciences and humanities		Total	
	raw	f/1,000	raw	f/1,000	raw	f/1,000	raw	f/1,000
Reader pronouns	17	2.0	19	2.2	30	3.6	66	2.6
Questions	6	0.7	0	0	25	2.9	31	1.2
Appeals to shared knowledge	8	0.9	5	0.6	7	0.8	20	0.8
Personal asides	0	0	0	0	0	0	0	0
Directives	0	0	0	0	0	0	0	0

Table 5: Engagement markers by science field

As we can see from Table 5, reader pronouns were the most frequent type of engagement markers in all three sub-corpora, especially prevalent in social sciences and humanities abstracts. Questions as a rhetorical engagement strategy were more visible in the abstracts of social sciences and humanities, but they did not occur at all in the abstracts of physical sciences and engineering. A few appeals to shared knowledge were found in all three sub-corpora, whereas two types of engagement markers from Hyland's (2005b) model, personal asides and directives, did not occur at all in the analysed data.

3.3.1 Reader pronouns

The function of reader pronouns is described as a way of suggesting that the reader is "a member of the same discipline" (Hyland 2008: 10), therefore bringing them closer into the discussion. In the corpus of ERC project abstracts, reader pronouns were used to include the reader either as a member of the discipline (31) or as a member of the human race (32).

(31) *The identification of distinct TS and the mechanisms that regulate their identities and functions is critical for* ***our*** *understanding of tumor heterogeneity.* (LS-24)

(32) *Rapid advancements in machine learning technologies are transforming social and political life in ways that uniquely challenge how* ***we*** *live in relation to others.* (SH-21)

Employing *our* in (31), the author of the abstract appeals to the medical community of professionals highlighting the critical importance of the object under study. In (32) the statement becomes relevant to the reader because the *ways that uniquely challenge how we live in relation to others* are applicable to the reader as a member of the same society. Inclusive *we* with the references to human beings in general would frequently appear in the opening lines of the abstracts, where the background to the problem under investigation is typically discussed. The inclusive *we* with reference to the academic community would typically occur in the opening of the niche (33)-(34) as well as in the final sentences of the abstract describing the benefit and value the proposed project would bring to the scientific field and discipline (35):

(33) *Despite this importance to so many engineering processes,* ***we*** *still do not understand how their remarkable macroscopic rheological (deformation and flow) properties emerge out of the collective dynamics of their constituent microscopic substructures.* (PE-30)

(34) *In great contrast,* ***we*** *know surprisingly little about the pathways that direct the formation, transport, and assembly of the complex molecular machines that make up a functional presynapse.* (LS 17)

(35) *The project will provide a missing link in* ***our*** *understating of the recurrence of financial crises, thus pushing the boundaries of knowledge, renewing* ***our*** *understanding of financial crises and contributing to the ongoing search for greater financial stability.* (SH-17)

In (33) and (34) the authors of the abstracts appeal to the collective responsibility of the academic community in their respective fields to address the gap that exists. The inclusive *we* serves as a sign of professional solidarity, as a link for the reader to feel included not into the discourse but also in the ultimate quest to address the gaps. As Harwood (2007: 32) mentions, this is one of the typical attempts of academic writers who seek to "get the reader onside so that they support the writer's position". This is especially relevant for grant proposals as having the reader who is also the evaluator of the proposal on your side is extremely important. A similar effect can be observed in those cases when the inclusive communal *we* is used to highlight the positive impact the proposed research will have on the whole academic community and on the discipline.

3.3.2 Questions

Questions add a dialogic dimension to the text, helping the writer lead the reader through their arguments. As a second most frequent engagement marker, questions seem to have an effect, which is at least sometimes sought after by the writers of ERC funded project abstracts. Hyland (2005b) found that 80 per cent of the questions identified in the analysis were rhetorical questions, which were used to present the writer's opinion. The situation was different in the corpus of this study as all of the questions either presented the main problem that the project deals with or specific research questions as illustrated in (36).

(36) *Our overarching research question –* ***What is the role of transport infrastructures in sustaining arctic communities?*** (SH-24)

As can be seen in Table 5, questions did not occur in physical sciences and engineering abstracts. McGrath and Kuteeva (2012) reported similar results, as they did not identify any questions in pure mathematics research articles. Thus, it seems that the traditionally more hard sciences do not use questions to create a dialogue with the reader. Questions did occur, though, in life sciences and social sciences and humanities sub-corpora. Similar to reader pronouns, questions include readers into the discourse engaging them in an inaudible dialogue. It is not surprising, then, that social sciences and humanities disciplines, being generally much more discursive than the hard sciences, employ the rhetorical technique of question raising to the larger extent than their colleagues in the hard sciences.

3.3.3 Appeals to shared knowledge, personal asides and directives

Writers use appeals to shared knowledge to signal that a proposition should be either agreed upon by the reader or at least familiar to them. As shown in Table 5, these markers occurred only a handful of times across the whole corpus. Other studies, however, found appeals to shared knowledge to occur more frequently. They were found to be among the most frequent engagement markers by Luan and Zhang (2018) and Keramati et al. (2019), in their studies of linguistics research articles. These findings may suggest that writers could be keener on using appeals to shared knowledge in lengthier texts.

Both personal asides and directives did not occur in the corpus of ERC funded project abstracts. This is probably because of the genre of the abstract as it is hard to imagine abstract to use personal asides, which halt the flow of the text to offer a writer's personal comment. The same can be said about directives, which can instruct the reader to stop and think about something, to look at some specific information, like a chart or a reference. Thus, in this case, it is the genre of the abstract which precludes the use of these markers irrespective of the science field.

4 Conclusions

This paper aimed to identify frequency and distribution trends of stance and engagement markers in ERC funded project abstracts. The results revealed that ERC funded project abstracts used about ten times more stance markers than engagement markers. This shows that writers of the analysed texts found building their authorial persona and standing out as competent researchers much more important than engaging their reader and leading them through the text. This is hardly surprising considering the length of abstracts, which allows only the most essential information to be included, as well as the communicative purpose of abstracts, which is to convince the reader to fund the research proposal.

Attitude markers turned out to be the most frequent stance resources used by principal investigators in all three science fields to communicate novelty, value, uniqueness, competitiveness, significance of the proposed research. Boosters were also important and frequently used to strengthen the attitude markers as well as to communicate the readiness of the principal investigator and their teams to carry out the proposed research successfully. Hedges were one of the least frequently used rhetorical devices in all three analysed fields. Despite the prevalence of this stance marker in other genres, such as research articles, the competitive nature of grant proposal abstracts apparently prevented the authors from mitigating their propositions to a larger extent. Finally, the dominating type of self-mention was the exclusive *we*, signalling the importance of team work in big projects of an international scale.

In terms of engagement marker use, some of the categories outlined in Hyland's (2005b) framework did not occur at all in the analysed corpus. Since Hyland's framework was based on research articles the genre difference must have resulted in the absence of personal asides and directives which would typically be found in lengthier genres. Appeals to shared knowledge were also scarce, while reader pronouns and questions were used but to a slightly different extent in all three analysed sub-corpora.

The study also suggests that there are differences between the use of stance and engagement markers in social sciences and humanities, life sciences, and physical sciences and engineering fields. The use of stance markers was most pronounced in the abstracts of life sciences, just as the use of self-mention markers. This may signal that it is more important to stand out as individual or teams of scientists in this field, to indicate the presence of the author as a crucial figure to carry out the research successfully and to communicate a very strong stance. The use of engagement markers revealed that social sciences and humanities scholars use these devices to the largest extent, which in turn suggests that more focus is put onto the scientific community, guiding the reader through the text, making sure that the reader is on the same wavelength as the writer.

In the future it would be important and interesting to investigate a larger sample of empirical data, perhaps focusing on different levels of expertise of the authors. A comparative analysis of successful and unsuccessful research grant proposals alongside the reviewer comments would also be a useful addition to the growing body of studies on competitive research funding discourse from both educational and the effective discourse construction perspectives.

Notes

[1] This paper is partly based on an unpublished academic thesis written by the first author.

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IT'S COMPLICATED: THE RELATIONSHIP BETWEEN LEXIS, SYNTAX, AND PROFICIENCY

Christopher Williams

Abstract

This paper explores the relationship between lexical and syntactic complexity measures and proficiency in L2 English argumentative essays written by L1 Czech high school students. Syntactic complexity is generally understood as referring to the "range and sophistication" (Ortega 2015) of grammatical constructions, whereas lexical complexity can refer to the range and frequency of the words used. The research used 100 essays written by final year high school students. Lexical complexity was analysed using the Lexical Complexity Analyzer (Ai & Lu 2010, Lu 2012), syntactic complexity using the L2 Syntactic Complexity Analyzer (Lu 2010, 2014) and Biber et al.'s (2011) hypothesised developmental stages for complexity framework. Despite a large number of measurements failing to produce any significant patterns, positive correlations were found between lexical diversity measures and vocabulary scores. Similarly, Mean Length of Clause (MLC) and Complex nominals per clause (CN/C) showed weak positive associations with grammar scores, as did Stage 5 of the developmental stages. The findings provide an insight into the kinds of complexity features that can be given more focus during instruction and underscore the potential of these measures as determinants of proficiency.

Keywords

syntactic complexity, lexical complexity, writing proficiency

1 Introduction

Research on second language (L2) complexity, accuracy, and fluency (CAF) production can (depending on the indices used) reveal information about a learner's level of proficiency in the target language (Khushik & Huhta 2019). CAF-based research is a crucial factor that serves as an indicator, diagnostic, and major parameter for L2 learning, teaching, and research (Wolfe-Quintero et al. 1998, Bulté & Housen 2014). The complexity branch of the CAF triad includes syntactic complexity (SC) and lexical complexity (LC). Both SC and LC are multidimensional constructs, with the former encompassing measures of length, subordination, and coordination, and the latter lexical density, diversity, and sophistication (Lu 2012). Numerous L2 academic writing studies have explored the extent to which these measures can serve as reliable and valid determiners of learners' general language proficiency, particularly the quality of their writing performance (Bulté & Housen 2014, Mazgutova & Kormos 2015). For example,

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with regards to SC, length-based measurements have shown that essays with longer sentences tend to score higher, and essays that score higher use less frequent words (Crossley et al. 2011, McNamara et al. 2013).

Though writing well in a second language can be challenging for learners, the writing process can be made less so through a better understanding of what makes for good writing. This study aims to contribute both towards research in complexity and towards better comprehension of what good writing is by analysing the syntactic and lexical complexity of timed independent argumentative essays written by L1-Czech L2-English highschool students in their final year of studies, in order to investigate whether there are proficiency-related differences in the complexity features used by the students. A further incentive for this study is that few studies have been conducted on the complexity of the writings of Czech EFL learners at a highschool level.

1.1 Syntactic complexity

The relationship of syntactic complexity (SC) to second language (L2) writing quality has long been the focus of L2 writing research (e.g. Biber et al. 2016, Kyle & Crossley 2018, Casal & Lee 2019). The general assumption is that more complex syntactic structures within a written text are an indication of more advanced writing abilities (Yang et al. 2015, Cossley 2020) and that a student who is able to produce more complex structures is more likely to do so, particularly in a high-stakes context, such as when under assessment.

On both conceptual and methodological fronts, researchers aim to pinpoint indices that not only capture the multifaceted essence of SC but that also exhibit robust correlations with L2 writing quality evaluations (e.g. Biber et al. 2020). From an instructional perspective, a better understanding of this interplay can provide valuable guidance as to which aspects of SC should receive greater attention for different learners, genres, and writing tasks.

Syntactic complexity has been defined as the range and the sophistication of grammatical resources used in language production that can also be referred to as variety, diversity, and elaborateness (Ortega 2015), and more recently as the addition of structural elements to 'simple' phrases and clauses (Biber et al. 2020). SC can be affected by L1 (Lu & Ai 2015) and task genre (Beers & Nagy 2009, Lu 2011, Yang et al. 2015, Qin & Uccelli 2016, Yoon 2017).

1.1.1 Syntactic complexity measures

The L2 Syntactic Complexity Analyzer (L2SCA) (Lu 2010) paired with the Stanford Parser (Klein & Manning 2003) uses 14 indices (see Table 1) to assess the syntactic complexity of sentences within a text. The L2SCA quantifies various linguistic units, such as words, sentences, clauses, t-units, complex nominals, and nominal phrases (see Lu 2010: 479 for a more detailed description). The measures chosen by Lu were predicated on their established correlation with proficiency in previous research, a decision that was subsequently corroborated by further investigation.

Area	Label	Description
Length of production unit	MLC	Mean length of clause
	MLS	Mean length of sentence
	MLT	Mean length of T-unit
Amount of subordination	C/T	Clauses per T-unit
	CT/T	Complex T-unit
	DC/C	Dependent clause per clause
	DC/T	Dependent clause per T-unit
Amount of coordination	CP/C	Coordinate phrases per clause
	CP/T	Coordinate phrases per T-unit
	T/S	T-units per sentence
Degree of phrasal sophistication	CN/C	Complex nominals per clause
	CN/T	Complex nominals per T-unit
	VP/T	Verb phrases per T-unit
Overall sentence complexity	C/S	Clauses per sentence

Table 1: Syntactic complexity measures in the L2 Syntactic Complexity Analyzer (adapted from Lu 2017)

Since the development of the L2SCA, emergent research has revealed that length-based measures hold predictive potential for L2 writing quality (Kyle & Crossley 2018). Specific measures such as mean length of t-unit (MLT) have demonstrated a correlation with the writing proficiency of tertiary-level English as a second language (ESL) learners (Kim 2014, Yang et al. 2015, Casal & Lee 2019). Similarly, mean length of sentence (MLS) (Taguchi et al. 2013, Chen et al. 2014, Yang et al. 2015) and MLC have also been linked with the proficiency of argumentative essays (Chen et al. 2014, Qin & Uccelli 2016).

While length-based measurements have shown some effectiveness in indicating proficiency levels, their use has not been without criticism. One concern is that while these measures can distinguish among Basic User, Independent User and Proficient User (according to the CEFR), they are not as effective when it comes to determining differences within user bands – for example, whether a learner is B1 or B2. This limitation becomes more pronounced higher up the proficiency scale. Paquot (2018) found that length-based measures such as MLC, MLS, and MLT fell short in adequately differentiating between high-level and higher-level learners (B2, C1, and C2), claiming that sentence length tends to stabilise as learners begin expressing complexity in different ways.

The main problem, however, with length-based measures for descriptive purposes is that although they have been used to provide a general idea of a text's proficiency level, the fact remains that they are unable to distinguish among the wide range of structural/syntactic complexity features in English (Biber et al. 2020: 9).

Housen et al. (2012: 4) provide a more specific metric for measuring complexity, suggesting it concerns "the extent to which learners use syntactic embedding and subordinate clauses, relative to the total number of clauses produced". However, as indicated by Biber et al. (2011), more advanced writers in an academic context are more likely to demonstrate complexity through embedding rather than subordination.

1.2 Lexical complexity

Studies exploring the correlation between L2 writing performance (and/or L2 writing development) and lexical complexity have mainly centred on two factors: (a) measures within the text, such as lexical density – calculated as the proportion of lexical (or content) words to total words, and lexical diversity (also referred to as lexical variation) – the ratio of unique words to the total number of words; and (b) external measures such as lexical sophistication, usually calculated as the relative frequency or infrequency with which the L2 writers' lexis appears in the target language (Lu 2012).

The following sections are an overview of the indices of lexical complexity as interpreted by the LCA. For the full list, including formulae, please refer to Table 2.

Index	Label	Calculation	Explanation
Lexical density	LD	N_{lex} / N	Lexical words to the number of words
Lexical sophistication-I	LS1	N_{slex} / N_{lex}	Sophisticated lexical words to the total number of lexical words
Lexical sophistication-II	LS2	Ts/T	Sophisticated word types to the total number of word types
Verb sophistication-I	VS1	T_{sverb} / N_{verb}	Number of sophisticated verb types to the total number of verbs
Verb sophistication-II	VS2	T^2_{sverb} / N_{verb}	Variations (corrections) of VS1 measure
Corrected VS1	CVS1	$T_{sverb} / \sqrt{2N_{verb}}$	
Number of different words	NDW	T	Number of different words used in a language sample
NDW (first 50 words)	NDWZ-50	*T* in the first 50 words of sample	
NDW (expected random 50)	NDW-ER50	Mean *T* of 10 random 50-word samples	
NDW (expected sequence 50)	NDW-ES50	Mean *T* of 10 random 50-word sequences	
Type/Token ratio	TTR	T/N	Number of word types to the number of words in a text
Mean Segmental TTR (50)	MSTTR-50	*Mean segmental TTR - 50-word non-overlapping segments*	
Corrected TTR	CTTR	$T_{sverb} / \sqrt{2N}$	
Root TTR	RTTR	$T_{sverb} / \sqrt{N}$	
Bilogarithmic TTR	logTTR	$LogT / LogN$	
Uber Index	Uber	$Log^2 N / Log\ (N/T)$	
Verb variation-I	VV1	T_{verb} / N_{verb}	Variation of specific classes of words
Squared VV1	SVV1	T^2_{verb} / N_{verb}	
Corrected VV1	CVV1	$T_{verb} / \sqrt{2N_{verb}}$	
Lexical word variation	LV	T_{lex} / N_{lex}	
Verb variation-II	VV2	T_{verb} / N_{lex}	
Noun variation	NV	T_{noun} / N_{lex}	
Adjective variation	AdjV	T_{adj} / N_{lex}	
Adverb variation	AdvV	T_{adv} / N_{lex}	
Modifier variation	ModV	$(T_{adj} + T_{adv}) / N_{lex}$	

Table 2: Lexical complexity measures in the Lexical Complexity Analyzer (Lu 2012)

1.2.1 Lexical density (LD)

Lexical density refers to the number of content words (nouns, verbs, adjectives, and adverbs) to the total number of words in a text (Johansson 2008), though Lu (2012) does not include modal verbs in the LCA. Johansson posits that analysing lexical density can explain the concept of information packaging, in that a text dense with lexical words communicates more information than one primarily containing function words (such as prepositions, articles, conjunctions, and pronouns).

1.2.2 Lexical diversity

Research examining lexical diversity (sometimes referred to as lexical variation) has identified a consistent positive relationship between lexical diversity, irrespective of the measurement method, and performance in L2 writing (Grant & Ginther 2000, Jarvis et al. 2003, Crossley & McNamara 2012, Kim 2014). Type-token ratio (TTR) is a standard metric for assessing lexical diversity, however, its reliability has been the subject of debate as it can be influenced by the length of the text being analysed. To counter this, refined measures such as the corrected TTR (CTTR) (Carroll 1964) and root TTR (RTTR) (Guiraud 1960, as cited in Torruella & Capsada 2013) were introduced, although some concerns persist (Vermeer 2000). Nevertheless, Lu (2012) and Daller et al. (2003) found meaningful correlations between using TTR and RTTR as measures of lexical variation and language proficiency.

This seems to apply across genres, though the measurement does reveal differences as to how diversity is realised. Yoon (2017) noted that variations in lexical diversity may occur when the same writer is composing in different genres, noting that when writing argumentative essays both native and non-native English language writers opted for a narrower range of vocabulary, however, a more extensive lexical range was used for narrative purposes. That being said, measurements of lexical sophistication (discussed in the following section) revealed that both L1 and L2 writers used less frequent but more sophisticated vocabulary in their argumentative essays as opposed to narrative essays.

1.2.3 Lexical sophistication

The vocabulary of advanced L2 writers has been analysed by comparing vocabulary usage against English corpora and academic word lists (Nation 2006, Davies 2008). Investigations into L2 writing have revealed that the use of a wider range of low-frequency words is an indication of L2 writing development and performance (Johnson et al. 2013, 2016). However, as touched upon in the previous section, Yoon and Polio (2016) have indicated that L1 and L2 argumentative writing incorporates less frequent and more sophisticated vocabulary than L1 and L2 narrative writing, implying that the higher informational nature of argumentative genres is realised through the use of less frequent lexis.

1.3 Hypothesised Developmental Stages for Complexity Features

The Hypothesised Developmental Stages for Complexity Features (hereafter developmental stages – DS) (see Table 3) is a sequence of stages for student writing development proposed by Biber et al. (2011) based on the findings of a large-scale corpus-based analysis. In their analysis, Biber et al. suggest that the developmental progression of language acquisition begins with conversation, which is acquired first, and then progresses to the grammar of writing. The early stages contain syntactic structures that are readily acquired and frequently produced in conversation and so do not represent a high degree of complexity. The higher stages contain types of complex phrasal embedding that are only produced in specialised formal writing contexts. These styles are not acquired as naturally, as with the lower stages – given that many native speakers of English rarely produce such structures. As such, Biber et al. consider these structures as representing a higher degree of complexity.

The Biber et al. (2011) study challenges the traditional measures of grammatical complexity, such as t-units and clausal subordination, which have been frequently used in assessing language proficiency, arguing that the grammatical complexities of academic writing are fundamentally different from those of conversation and non-academic writing, in addition to being neither effective discriminators of language proficiency nor well motivated from a linguistic perspective. The study was also unique in its consideration of lexicogrammatical factors – rather than separating lexical and syntactic indices, the co-occurrence of factors was considered.

Stage	Grammatical structure
1	Finite complements (*that* and WH) controlled by very common verbs (e.g. *think*, *know*, *say*)
2	Finite complements controlled by a wider set of verbs Non-finite complements controlled by very common verbs
3	Finite complements controlled by adjectives Non-finite complements controlled by a wider set of verbs *That* relative clauses
4	Non-finite complements controlled by adjectives Non-finite relative clauses
5	Preposition + non-finite complements Complements controlled by nouns

Table 3: Hypothesised Developmental Stages for Complexity Features (adapted from Biber et al. 2011). Note that common verbs refer to those identified in Biber et al. (1999). For a full list of verbs considered common in this study, see Appendix 1.

1.4 Research aims

Much of the previous linguistic complexity in writing research has focused on advanced or university level L2 English users, the results of which may not be applicable to intermediate secondary school users (Lee et al. 2021). This focus leaves a gap in our understanding of intermediate L2 English users in a secondary school context, in particular, the relationship of complexity measurements as applied to a common task – the argumentative essay. Being able to write an argumentative essay is an important skill for second language learners given that they form a key element in numerous exams or other such proficiency evaluations. Such essays are also viewed as preliminary demonstrations of academic writing (Kyle 2016).

The use of a comprehensive suite of complexity measurements (lexical and syntactic) further enhances the ability to capture the multidimensional nature of complexity, certainly so with the blend of lexicogrammatical features as outlined in the developmental stages. This will allow for the identification of the current level of complexity students are achieving in order to more effectively help them improve their level of English.

This study focuses on the relationship of syntactic and lexical complexity to the expert raters' judgments of the quality of argumentative essays produced by Czech learners of English in their final year of highschool studies. Specifically, I address the following research questions:

1. How do the different measures of syntactic complexity correspond to the raters' judgments of essay quality?
2. How do the different measures of lexical complexity correspond to the raters' judgments of essay quality?

The definition of essay quality in this case refers to the respective grammar and vocabulary score assigned to each essay by a pair of trained raters.

2 Methodology

2.1 Data collection and analysis

Three local high schools took part in the research, specifically, the students in the final year of their studies. Each participating student completed the same task in the same conditions, responding to the statement *Some people think that teachers should be paid according to how much their students learn* within 45-minutes and using between 160-180 words. The time and word limits were determined by circumstances of the collection context – the written data collection had to happen with the students' regular 45-minute school lesson. Though more time would have allowed the students more opportunity for planning their response, we can say that the task does mimic a typical school writing assignment, and so is able to add to the generalizability. Essays that were longer than 180 words (and so having exceeded the word limit) were trimmed to the nearest sentence near the word count in order to ensure that the essays were all within a similar range. Essays that were shorter than 160 words were removed from the process. This was a necessary step as the length of a text will have an impact on some of the complexity measurements. Also removed were essays written by non-native Czech speakers.

Two raters were recruited for the study, Rater A and Rater B. Rater A has 11 years of English language teaching experience, and Rater B has 8. Both raters have extensive experience preparing students for Cambridge suite exams – including the B2 Cambridge First, on which the marking rubric is based.

While other studies have either used or adapted rubrics from TOEFL (Kyle 2016), TOEFL-IBT (Biber et al. 2016), IELTS (Shadloo et al. 2019), and the Cambridge PET (Bi & Jiang 2020), an adapted Cambridge First (formerly FCE) rubric is used in this study. Cambridge First participants are marked according to B2 on the CEFR and so is a suitable choice as the participating schools assess their final year students at the same level. Furthermore, it was a tool that the two raters were already familiar with. It was necessary to adapt the rubric as in the existing rubric grammar and vocabulary are included together as part of the language 'section'. With this study focusing on lexical complexity, it was necessary for the grammar and vocabulary-based descriptors to be separated. The separation of vocabulary and grammar means that each element has a 'clean' score – neither is affected by the other. This has the added bonus of allowing for future research on lexical and syntactic complexity and task fulfilment using the same set of data.

The raters were introduced to the adapted rubric and were then guided through an instruction manual to clarify terminology and to synchronize marking. The raters then entered their results into a prepared recording document. The rater agreement window was a difference no greater than one. In the instances that a score difference was greater than one, a third rater determined the score. Using Cohen's kappa, inter-rater reliability for vocabulary was ≈0.946 (or 97.06%), and for grammar κ≈0.952 (or 97.14%). Both values are very close to 1, indicating a high level of agreement between the raters. The essays were then processed using all indices on Lu's L2SCA and LCA (see Tables 1 and 2).

3 Results

3.1 Syntactic complexity

Each rater scored grammar out of five – with five being the highest possible score and one the lowest. These individual scores were then combined (see Table 4). The majority of the participants scored between six and eight points, following a similar pattern as the vocabulary scores.

Number of essays: 100	
Grammar score (/10)	**Frequency**
10	2
9	10
8	21
7	26
6	31
5	8
4	2

Table 4: Combined grammar score and frequency of occurrence

Of the 14 indices used by the L2SCA, 12 reported no significant correlation with grammar score (MLS, MLT, T/S, C/S, VP/T, C/T, DC/C, DC/T, CT/T, CP/T, CP/C, CN/T). Only MLC and CN/C showed a weak positive correlation (r 0.245, p 0.014 and r 0.202, p 0.044 respectively), indicating that as proficiency increases, so too does average clause length and use of complex nominals. That CN/C correlated yet CN/T did not is indicative of the nature of the measurements, the former being more granular (or 'fine-grained') and the latter offering a broader view. A criticism of the t-unit as a measure of complexity is that it can overshadow the effects of fine-grained features – it is simply too broad to be able to capture nuance. This is demonstrated in Appendix 3, where both a high and low scoring essay and a comparison of their complexity measurements are presented. In the appendix, note that the lower scoring essay scores higher in all t-unit based measurements than the higher scoring essay.

Though previous studies have found L2SCA measurements capable of useful proficiency indicators, the general lack of correlation (positive or negative) in this study between L2SCA indices and grammar score is not too surprising, in particular the length-based measurements, given the homogeneity of the participant group. Appendix 3 shows that the lower scoring essay generally scores higher or similar to the higher scoring essay, serving as an indication of the weak or lack of correlation between grammar score and L2SCA indices. Another interpretation of these results could be that while each of the indices can contribute to the overall syntactic complexity of a text, they were not the best indicators of proficiency in the context of this study.

3.2 Lexical complexity

One hundred essays were processed. Each rater scored vocabulary out of five – with five being the highest possible score and one the lowest. These individual scores were then combined (see Table 5). The majority of the participants scored between six and eight points, with, interestingly, a similar pattern of outliers on either side.

Number of essays: 100	
Vocabulary score (/10)	**Frequency**
10	1
9	8
8	24
7	37
6	21
5	8
4	1

Table 5: Combined vocabulary score and frequency of occurrence

Tables 6 and 7 report only on the indices demonstrating a correlation with vocabulary score. Of the 25 indices, eleven reported no correlation with vocabulary score (LD, LS2, NDWZ, NDW-ER, NDW-ES, TTR, MSTTR, logTTR, AdjV, AdvV, and ModV). Of the results shown in Table 6, NDW (r 0.205), VV1 (r 0.215), LV (r 0.221), and NV (r 0.216) have a weak positive correlation. CTTR (r 0.262), RTTR (r 0.262), Uber (r 0.270), SVV1 (r 0.318), CVV1 (r 0.309), and VV2 (r 0.260) show a moderate positive relationship. The results show that higher-evaluated essays were written with a greater lexical diversity. Overall, the indices that demonstrated the largest difference across the proficiency levels among the 25 lexical complexity measures were the verb indices and the root and corrected TTR measurements, having shown the stronger positive correlation to vocabulary score. This aligns with the idea that more sophisticated and varied language usage is characteristic of higher proficiency writers.

Table 7 shows that of the five lexical sophistication measures, LS1 (r 0.215), VS1 (r 0.242), and VS2 (r 0.219) showed a weak positive correlation, with CVS1 (r 0.263) showing a moderate positive relationship. These results show that as in McNamara et al. (2010) higher proficiency writers make more use of less frequently occurring, or, more sophisticated, language.

Index	**Pearson's *r* *p*-value**
NDW (number of different words)	0.205 0.041
Type-token ratio	
CTTR	0.262 0.008
RTTR	0.262 0.009
Uber	0.270 0.007
Verb diversity	
VV1	0.215 0.032
SVV1	0.318 0.001
CVV1	0.309 0.002
Lexical word diversity	
LV (lexical word variation)	0.221 0.027
VV2	0.260 0.009
NV	0.216 0.031

Table 6: Lexical variation measures

Index	**Pearson's *r* *p*-value**
LS1	0.216 0.031
VS1	0.242 0.0015
VS2	0.219 0.029
CVS1	0.263 0.008

Table 7: Lexical sophistication measures

A possible reason for these results is that less proficient writers use a writing style similar to that of spoken/conversational language. This corresponds with

Biber et al. (2011), who suggested that early developmental stages of complexity features are more likely to contain verbs commonly used in conversation. This also suggests that more capable writers are able to access and use a broader range and more specialised vocabulary, resulting in a better quality essay. It is also clear that though positive trends exist between some of the lexical complexity measurements and vocabulary scores, these trends are mostly weak – or at best, moderate. This would suggest that, while having some useful implications, lexical complexity alone is not a sufficient indicator of proficiency.

3.3 Developmental stages

A strong positive relation exists between grammar score and the participants that used structures found at developmental Stage 5 (r 0.411, p <.001), and also a weak negative relationship between Stage 1 and Stage 2 (r 0.172, p 0.043). Though a weak trend across scores, Stage 1 features appeared with greater frequency in essays that scored a grammar total of 4 (the lowest score in the data set) than any other score. Regarding the correlation between the developmental stages and vocabulary, again, only Stage 5 has a correlation (r 0.287, p 0.004), though one of weak-to-medium significance.

4 Discussion

The results of the syntactic complexity measurements showed that measures like MLC and CN/C had positive correlations with grammar scores. Longer clauses and the use of complex nominals can indicate a writer's ability to construct more intricate and layered sentences, reflecting a deeper understanding and command of the language.

With regards to the lexical complexity measurements, several practical classroom implications are suggested. Given the positive correlation between the sophistication and variation measures and vocabulary scores, it seems that students would benefit from teaching strategies designed to enhance their range and use of more sophisticated vocabulary beyond the 2,000 most common words, with particular attention being given to lexical items that are more likely to occur in academic writing than those that feature more heavily in speech.

Of particular note was the prominence of Stage 5 features in essays that scored higher in both vocabulary and grammar, suggesting that preposition and noun-controlled complements are indicative of grammatical proficiency, and that the ability to form such constructions is complemented with a wider lexical range. On reflection, this should not be too surprising, as Stage 1 is the use of complement clauses controlled by very common verbs – which would affect lexical complexity measures. It also implies that while the correct use of foundational Stage 1 structures are essential, students should be encouraged to explore and incorporate more complex structures and vocabulary as they advance in their writing skills.

Appendices 2 and 3 show a comparison between the complexity measurements of a high and low scoring essay. It is interesting to observe how a straightforward comparison between two essays can reveal something about the predictive power of the complexity measurements. For example, the limitations of length-based measurements are revealed – the lower scoring essay has longer t-units and sentences than the higher. The difference in verb measurements are particularly telling, with the higher rated essay having a much higher degree of variation and sophistication.

Eleven lexical complexity indices reported no correlation; the lack of correlation suggests that these particular measurements, even though they are related to lexical complexity, might not be pivotal indicators of vocabulary proficiency. The absence of correlation for measures like LD (Lexical Density) might indicate that the overall density of lexical items in an essay is not as indicative of vocabulary proficiency as the sophistication or variety of words used. Similar comments can be made on the lack of correlation with most of the syntactic complexity measurements as used by the L2SCA. A possible reason for this absence is that while those features may be present in the essays, they are not necessarily determinants of proficiency scores. It could also indicate that the range of variation in these measures was insufficient in establishing a clear relationship.

Students aside, the findings are also of benefit to teachers or those working in test development. Complexity should be taken into consideration when setting a task, with regards to the type of language a student is expected to produce in response, and also during assessment – particularly when constructing an assessment rubric. By incorporating insights from linguistic complexity research, teachers and assessors can create a more targeted and specific evaluation tool.

5 Conclusion

This study investigated the relationship of 14 measures of syntactic complexity (Table 1), 25 measures of lexical complexity (Table 2) and the five stages of a hypothesised complexity developmental route (Table 3) to the grammar and vocabulary scores of L1-Czech L2-English high school student argumentative essays, using analytical software and approaches to identify patterns between grammar and vocabulary scores and complexity measures, and so providing insights into features of students' writing abilities at different levels of proficiency. The data suggests a link between lexical and syntactic complexity measurements, in that essays with a richer vocabulary and more advanced syntactic structures generally received higher vocabulary and grammar scores respectively.

These findings can aid teachers in designing writing courses and materials to enhance the writing skills of more advanced students while also addressing the needs of less skilled students. In addition, the findings can also support rater training as well as incorporating automated tools as part of assessment and evaluation procedures. Complexity should be taken into consideration when setting a task, with regards to the type of language a student is expected to produce in response, and also during assessment – particularly when constructing an assessment rubric. By incorporating insights from linguistic complexity research, teachers and assessors can create a more targeted and specific evaluation tool.

Though offering such insights, this study was not without limitations. First, this research was completed with the use of a rather homogenous group of participants – they were all of a similar age and academic background. Future studies would benefit from the inclusion of different age groups and/or a wider range of English proficiency. A wider participant range may more starkly reveal correlations between the complexity measurements and proficiency, potentially leading to more generalisable results.

The essay length and 45-minute time limit were necessary conditions of the collection context; however, future research can investigate the effects of longer time allowance. On constraints, it is likely that the word limit affected the output – a higher word count, or even removing the limit, would have possibly allowed some participants to write much more rather than feeling confined.

The relationship between syntactic and lexical complexity remains worthy of investigation, as no single independent measure can truly capture and inform on the quality of writing as a whole – a good essay is much more than a diverse range of sophisticated vocabulary. It is also worth reiterating that the quality of writing is determined by several factors, including accuracy and syntactic complexity, as well as task type, genre, and sociolinguistic factors – all factors that can be used to guide future research.

Finally, effective writing skills are important for the clear communication of ideas. As students gain a deeper understanding of the components that make up quality writing, they will be more able to effectively incorporate them into their writing.

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Appendix 1: Verbs counted as common

According to Biber et al. (1999) these verbs are more likely to occur in speech than writing, which are then categorised as common or very common. No distinction is made between common and very common in this study.

ask	*listen*	*send*	*come*	*lose*	*stand*
bring	*live*	*sit*	*eat*	*love*	*stay*
buy	*look*	*speak*	*feel*	*make*	*stop*
give	*meet*	*take*	*get*	*mean*	*suppose*
go	*pay*	*talk*	*happen*	*pick*	*tell*
hear	*play*	*thank*	*keep*	*put*	*think*
know	*remember*	*try*	*leave*	*run*	*turn*
let	*say*	*want*	*like*	*see*	

Appendix 2: High and low-scoring essays

Two sample essays are displayed. The first essay, J4, scored highly in grammar and vocabulary. The second essay, J1, scored much lower. Following the essays, the scores and measurement results are presented side by side for comparison.

Essay J4

There are some people that think teachers' salary should be higher or lower depending on how much they are able to teach their students. The question is, should this be implemented or not?

There would possibly be many benefits if this was to be used. It could give teachers a push to start working harder and really pay attention to their students. There is no doubt some of them teach just for the sake of teaching and are forgetting their responsibilities for their students' futures. But it shouldn't be surprising considering how much they are getting paid and even when they try to work harder the result is still the same. For those who find joy in this field would raise be a motivation to keep going and it would also improve the overall level of knowledge in that class. Of course, another factor is the teacher's ability in transferring information to the students and students' will to learn. But then, a good teacher should be able to handle a whole class.

Therefore, the final conclussion is that by implementing this method, most of the teachers could be motivated.

Essay J1

For some people this topic could be sensitive, but i think it's a kinda important to disccus it, because the point of this job is to teach students something and there's a big amount of teachers who sadly can't do it.

These days there is a plenty of jobs where are people paid by the job they do or more like how good, the job they did is. For example if you are an architect and you do some project that is not really good or convenient you won't get that good. So why couldn't that be for teachers too? Why would they do the job if students don't learn anything. It's just pointless to not do anything and still get the same money as someone who is really trying and just works hards to teach students something.

I think these days there's plenty of teachers who can't really teach and yeah, I mean sometimes they don't know it, but that doesn't mean that it is okay. They can always ask students for a feedback and try to figure it out.

Combined rater assigned scores

Measure	J4	J1
Grammar	10	4
Vocabulary	9	5

Appendix 3: Complexity measurements of the high and low-scoring essays presented in appendix 2

L2SCA measures

Measure	J4	J1
MLS	19.4	24
MLT	13.9	21.3
MLC	8.4	6.9
C/S	2.3	3.5
VP/T	2.6	3.7
C/T	1.6	3.1
DC/C	0.3	0.5
DC/T	0.6	1.6
T/S	1.4	1.1
CT/T	0.4	0.8
CP/T	0.2	0.6
CP/C	0.1	0.2
CN/T	1.4	2.2
CN/C	0.9	0.7

Lexical density

Measure	J4	J1
LD	0.45	0.48

Lexical sophistication

Measure	J4	J1
LS1	0.13	0.12
LS2	0.10	0.12
VS1	0.11	0.04
VS2	0.33	0.04
CVS1	0.41	0.14

Developmental stages

Measure	J4	J1
Stage 1	1	3
Stage 2	3	3
Stage 3	2	5
Stage 4	2	2
Stage 5	6	1

Lexical variation

Measure	J4	J1
NDW	99	82
NDWZ-50	36	37
NDW-ER50	37.4	36.5
NDW-ES50	37.7	33.6
TTR	0.51	0.43
MSTTR-50	0.75	0.73
CTTR	5.03	4.18
RTTR	7.11	5.92
LOGTTR	0.87	0.84
UBER	17.91	14.11
VV1	0.85	0.48
SVV1	19.59	6.26
CVV1	3.13	1.77
LV	0.8	0.56
VV2	0.26	0.14
NV	0.74	0.56
ADJV	0.13	0.009
ADVV	0.11	0.14
MODV	0.24	0.23

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