

# The Means by which Writers Present a Proposition as an Opinion in English Research Articles

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**Abstract**— The present study is a part of an ongoing research. It is both qualitative and quantitative and it aims to contribute to an understanding of how hedging devices and strategies are exploited throughout the sampled English research articles. The corpus of the present study is made up of the discussion sections of English research articles published between 2013 and 2017. Twenty English research article discussions restricted to empirical studies were randomly selected from the *Journal of English for Academic Purposes*. The statistical data measures (i) the percentage of total research article discussions employing the four hedging orientations and (ii) the percentage of total research article discussions employing hedging items in specific categories. Each hedging orientation is contributed by the linguistic items/taxonomy of hedges by Hyland (1996).

**Index Terms**—Hedging, qualitative, quantitative, pedagogical implication.

## I. INTRODUCTION

Research in the use of hedges in academic discourse has received attentions from linguists, educators and professional researchers in various disciplines ([1]-[7]). These studies have generally showed that hedging is a salient feature of academic discourse. Hedges are variously defined. Reference [6] provides a very general definition suggesting that any linguistic expressions can be considered as hedges (cited in [1], p. 277). On the other hand, ([8], p.50) defines hedges as “the means by which writers can present a proposition as an opinion rather than a fact: items are only hedges in their epistemic sense, and only then when they mark uncertainty”. This study however adopts [3]’s definition of hedging orientations. Reference [3] emphasizes that scientific research writing can only be fully understood by considering the institutional, professional, and linguistic contexts in which it is used. He suggests a comprehensive pragmatic categorization of scientific hedges, to provide a rationale for writers’ use of hedges. Reference [3] divides functions of non-factive statements into two main categories, namely content oriented and reader oriented. The content-oriented category includes both accuracy-oriented (comprising attribute-oriented and reliability-oriented) and

writer-oriented hedges (see [3], p.438). Content-oriented hedges help to present claims with precision relating to “both the terms used to describe real-world phenomena and the degree of reliability the writer invests in the statement” as well as to “signal reservations in the truth of a claim to limit the professional damage which might result from bald propositions” while reader-oriented hedges “give deference and recognition to the reader and avoid unacceptable over-confidence” ([3], p. 449). Reference [3] presents core examples to demonstrate notable features (lexical signals and hedging strategies) which realize the different hedging orientations.

Contributing to the hedging research, scholars have explored the use of hedging devices based on genre and different rhetorical sections of scientific papers (e.g. [9], [3], [10], [11]). Reference [10] examined 240 doctoral and masters dissertations written by Hong Kong students in order to display rhetorical and social differences among disciplinary communities. The most frequent category in the corpus was hedges. It comprised 41% of all interactional uses [10]. Moreover, students from soft fields such as Business Studies, Public Administration, and Applied Linguistics, particularly preferred the use of hedges [10]. He commented that claims were made through reasonable tentativeness and careful exposition as social sciences rely more on qualitative analysis or statistical probabilities in constructing knowledge [10].

Reference [12], explored the use of hedging both by Chinese and English writers by focusing on a corpus of 10 texts in material science discipline. The findings showed that research articles written by Chinese writers tend to be more direct and authoritative in tone. He held that this may be due to the nature of the language in that particular discipline.

Reference [13] analyzed hedges in English and Spanish research articles in Clinical and Health Psychology disciplines. The findings show that there are similarities between the two languages in the distribution of hedges across the different sections of the research articles, even though a certain degree of indetermination strategy occurs in English texts and showing English research articles in the field of Clinical and Health Psychology provide more protection to the author’s face.

A more recent study conducted in 2011 by [14] examining hedges and boosters employed in the discussion sections of 90 research articles from the disciplines of Applied Linguistics (ELT) and Psychology (Psychiatry). The selected articles were authored by three groups of writers; English writers, Persian-English writers (Iranian writers writing in English), and Persian writers (Iranian writers writing in Persian). The findings showed significant

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differences in frequency, type, and functions of these devices in the corpora. Reference [14] claimed the differences might be due to a lack of (i) awareness of the conventional rules of English rhetoric (ii) knowledge of academic English (iii) explicit instruction as well as exposure to pragmatic and sociolinguistic rules of English, by Persian writers and Persian-English writers. For example, one finding shows that

English writers made more frequent use of modal auxiliaries and adverbials compared to Persian-English and Persian writers.

The purpose of this study is to examine hedging in English research article discussions using [3]'s pragmatic framework of hedging categorization. The study has pedagogical implications. Based on the purpose, the present paper seeks to answer the following research questions:

1. How is the use of hedging orientations in English research article discussions as reflected in the number of research articles employing the hedging orientations?
2. How have the four types of hedging orientations been realized in the English corpus?
3. What is the most frequently-used hedging orientation in the English corpus?

## II. METHODOLOGY

The present study is both qualitative and quantitative and aims to contribute to an understanding of how hedging devices and strategies are exploited throughout the sampled English research articles. The corpus of the present study is made up of the discussion sections of English research articles published between 2013 and 2017. Twenty English research article discussions restricted to empirical studies were randomly selected from the *Journal of English for Academic Purposes* (impact factor 1.414) published by Elsevier.

The existence of the four types of hedges (writer-orient, attribute-orient, reliability-orient and reader-orient) was established. As shown in [3]'s work, the functions are primarily realized by a repertoire of lexical markers and hedging strategies. Reference [3] held that functions are mainly realized by a range of lexical markers and strategies. A particular form may have the grammatical discourse function besides that of hedging. In the coding procedure, the range of linguistic items or notable features/devices realizing particular functional categories as well as the sentence context was considered. Principal realization devices found in [3]'s work were used as a guideline in the coding (see [3], p. 450). The coding results of this study show that the four hedging orientations were contributed by the some hedging items. The hedging items in each of the four categories were given codes to facilitate the tabulation of quantitative data. For example, the type of hedging orientation is labelled as 'category' while a linguistic feature that realizes a specific category is labelled as 'item'. The results of the coding are subjected to:

(i) statistical data measuring the percentage of total research article discussions employing the four hedging orientations (each orientation is contributed by the above linguistic items/taxonomy of hedges presented by [3])

(ii) statistical data measuring the percentage of total

research article discussions employing hedging items in specific categories

## III. FINDINGS AND DISCUSSION

The use of hedges in the set of English research article discussions was examined in the light of [3]'s four categorizations of scientific hedges, namely (i) attribute-oriented (ii) reliability-oriented (iii) writer-oriented and (iv) reader-oriented, referred to here as hedging devices. Overall, the discussions employ the four hedging devices outlined by [3].

The findings show most of the articles used writer-oriented hedges are by far the most frequently-used hedging device (100%). The next hedging orientation used in many articles was reliability hedges (85%), and then attribute-oriented hedges (75%). Compared to other hedging orientations, fewer research article discussions (65%) employing the reader-oriented hedges.

The four most widespread hedging items in for writer-oriented hedges are Category 1 Item 2 (reference to wider bodies of knowledge) and Category 1 Item 1 (the interpersonal subjects with epistemic speculative verbs) (100% of English discussions), Category 1 Item 3 (reference to underpinnings elsewhere in the text) (65%), Category 1 Item 6 (qualification indicating the precise standpoint for which to judge the claim) (60%). The least widespread is Category 1 Item 5 (the hypothetical conditionals) (20% of the discussions).

The relatively high number of English discussions employing the above two hedging items (Category 1 Item 1 and Category 1 Item 2) show that writers tend to support claims and deductions by using impersonal subjects with epistemic speculative verbs (Category 1 Item 1) and reference to wider bodies of knowledge (Category 1 Item 2).

In using Category 1 Item 2 (references to wider bodies of knowledge), English writers rely on other writers' voices that is, opinions of past researchers to support their findings and claims. Both non-integral citations (100% of English discussions) encompassing both the writer's own and past researcher's voices and integral citations (100% of English discussions) comprising past researcher's voices, are employed to realize these writer-oriented hedges. The following example E8 shows an example:

E8

It might also be reflective of the written register, particularly in scientific writing, which is characterized by a large proportion of nominalization in academic texts indicating high information content. For example, Biber and **Gray (2010: 2)** found that academic writing is 'structurally "compressed", with phrasal (non-clausal) modifiers embedded in noun phrases'. Fang, Schleppegrell, and Cox (2006) reported that the extensive use of nouns and nominal expressions in academic text can pose great challenges for comprehension (for the discussion of nominalization in the written register, see also **Halliday, 1985; Quirk, Greenbaum, Leech, & Svartvik, 1985**).

This is followed by 65% of discussions employing Category 1 Item 3 (Reference to underpinnings, elsewhere in

the text) [e.g. Figure 2 (E4), in the figures below (E7)] and 60% of discussions employing Category 1 Item 6 (qualification indicating the precise standpoint from which to judge the claim) [e.g. from this perspective (E11); based on these findings (E9); taking into account (E16) and given the Ethiopian Government's widely-reported intolerance of dissent (E13)] in the set of data. Some of the examples from the corpus are as follows:

Category 1 Item 3 (Reference to underpinnings, elsewhere in the text)

E4

**Figure 2** shows that three factors dominate the most important reason for the choice of school; better quality teachers, good discipline and good academic performance.

E7

As can be **seen in the figures below**, the percentage of lower secondary students who receive the USE grant has increased dramatically in recent years, both by region and by wealth.

Category I Item 6

E11

**From this perspective**, native- English speaking students may believe that English is enough and learning other languages is an unnecessary struggle.

E9

**Based on these findings**, it could be argued that none of the teachers were sufficiently well equipped to consistently model for pupils comprehensive critical reading of science-related news.

E16

**Taking into account** the Simple View of Reading (Gough & Tunmer, 1986), it can be predicted that as well as training in word recognition and decoding, intervention to support underlying oral language skills should have an impact on reading comprehension ability.

E13

The extent to which this occurs is surprising, **given the Ethiopian Government's widely-reported intolerance of dissent** (e.g. Mosley, 2015; Kalkidan, 2017) and the lack of downward accountability in schools across much of SSA ...

Under attribute-oriented hedges (Category 2), only adverbs showing the degree of precision (Category 2 Item 1) are used. The adverbs of precision are found in 75% of English discussions. The frequently-used adverbs of precision in English discussions are 'quite' (E18) and 'partially' (E10). English writers use attribute (e.g. adverbs of precision) to hedge accuracy of claims made when presenting findings and arguments. Two examples from the corpus are given below to illustrate this phenomenon.

E18

This is **quite** a stark difference from the pattern in lecture discourse.

E10

The kinds of questions asked **partially** hinged on individual participants' responses and...

On the other hand, for reliability-oriented hedges (Category 3), Category 3 Item 1 (modal verbs) are frequently found in 80% of the discussions followed by Category 3 Item 2 (evidential verbs) (60% of the discussions), Category 3 Item 3 (epistemic adjectives) (55% of the discussions) and

Category 3 Item 4 (adverbs of certainty that weaken the force of an attribute) (50%). The discussions favour the use of modal verbs in this category. The frequently-used modal verbs in the English data are 'may', 'might' and 'could'.

English writers mostly use reliability hedges (e.g. modal verbs) to hedge reliability of claims made when presenting findings. Modal verbs (e.g. 'tend', 'possible' and 'might') are found in E10 below:

E10

The results of the study reveal that single-author articles **tend** to have significantly lower Turnitin scores (less matching text) and fewer incidences of consecutive-matching text than multi-author articles. One **possible** explanation is that articles with multiple authors **might** reduce the responsibility of individual authors and thus make the resultant work more vulnerable for matching texts.

Category 3 Item 2 (evidential verbs) is the second mostly used reliability-orient hedges in the English data (60% of the discussions). The evidential verbs commonly found are 'appeared' (E5) and 'seems' (E12). The examples are presented below:

E5

With respect to research question (1), it was found that in the subjective view of the scholars, mainly three factors **appeared** to affect their language use: target audience, object of research, and language competence (in decreasing order of importance).

E12

With respect to the research questions posed earlier in the article, the answer to the first question, "How do the two participants understand the purposes and functions of paraphrasing in English academic writing?" **seems** to be that Chuck and Wendy displayed some levels of understanding paraphrasing..

In category 4 (reader-oriented hedges), Category 4 Item 1 (contrastive connectors) are found in the highest number of the discussions (55%) followed by Category 4 Item 2 (first person pronouns) (40%), Category 4 Item 3 (noun referring to the researcher(s) himself/themselves) (35%) and Category 4 Item 4 (adverbs which leave the claim open to readers' judgment) (25%).

Some examples on the use of contrastive connectors [however (E20); although (E12); nevertheless (E17)] as the most frequently used reader-orient hedges as listed above, are presented below:

E20

**However**, the loose tagging system makes predictions from tag alone unreliable.

E12

**Although** this student did not specify a task, his or her comment indeed reflected the affordances of more nuanced approaches to understanding rhetorical actions that AWG has adopted.

E17

**Nevertheless**, our analysis shows specific ways the students progressed in incorporating targeted linguistic features from the workshops. Thus, our study provides further support for the importance of discipline-specific literacy interventions (De La Paz, 2005; Monte-Sano, 2010),...

Category 4 Item 2 (first person pronouns) ('we' in E9; 'I' in E12) is found in slightly fewer than 50% of the discussions (40%). Some of the examples from the data are:

E 9

Indeed, in a post hoc analysis of the data, **we** examined the use of GSL words compared to their academic word counterparts. We found that the writers of these academic texts had used many of the GSL words to discuss specific academic content.

E12

Drawing upon a hierarchical view of activity, **I** analyzed the sequences of actions that constituted the focal students' activities and examined the actions in terms of smaller-scale activity systems (Engeström, 2000).

#### IV. CONCLUSION

Although the findings are drawn from the corpus alone and could not be claimed to be conclusive, insights gained from this study can be used to enhance the teaching of academic writing among ESL (English as a Second Language) students. Findings could also sensitize teachers to students' tendencies in writing and help teachers realize possible adjustments in pedagogy. Teachers can draw students' attention to the use of these four hedging orientations in academic writing. Teachers can provide sentences that exemplify the notable features/lexical signals that realize the multifunctional hedges (cf [3]). Reference [15] suggests that when first acquiring foreign language pragmatic competence, students should be given enough inputs before they are asked to produce the required tasks (see also [16]). In order to contribute to more comprehensive findings and pedagogical implications among ESL (English as a Second Language) students in an EAP (English for Academic Purposes) classroom, the present study proposes future studies to look at the use of hedging in English research articles in their entirety.

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