

## The Use of Attitude Adverbials by Kurdish and English Writers in Academic Discourse A Corpus-Based Contrastive Study

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### Article Information

#### Article History:

Received September 13, 2023  
Reviewer September 30, 2023  
Accepted October 9, 2023  
Available Online June 1, 2024

#### Keywords:

Stance,  
Attitude adverbials,  
Contrastive interlanguage analysis,  
Academic writing,  
Corpus

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### Abstract

Attitudinal adverbials play a key role in conveying the author's perspective in scholarly discourse. They serve to articulate their emotions, judgements, and evaluations. This study presents findings of a contrastive corpus-based study conducted to examine the use of attitude adverbials by both native English authors and non-native Kurdish writers. The main objective of the study is to find out the types and frequency of attitude markers in academic writing of those two groups of writers. Following the Contrastive Interlanguage Analysis (CIA), the research compares Kurdish non-native writers' language with native authors', aiming to identify nativeness features. It involves three phases: analyzing the non-native corpus, the native corpus, and comparing the use of attitude adverbials by both groups. Data for quantitative analysis was taken from two corpora: the Non-Native speaker corpus (KNNSC) and a subcorpus of academic discourse by English native speakers compiled from CAEC (Cambridge Academic English Corpus) as a reference corpus. The analysis in both corpora was carried out using the Sketch Engine (SkE) software. In terms of how frequently attitude markers were employed in the academic texts under analysis, the results indicate that native authors utilized attitude markers more frequently than the Kurdish academic writers. This tendency can be related to cultural norms of writing, personal communication styles, education, and exposure to diverse cultural contexts.

DOI: [10.33899/radab.2024.183023](https://doi.org/10.33899/radab.2024.183023), ©Authors, 2023, College of Arts, University of Mosul.

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استخدام الكتاب الكرد والإنجليز للظروف الدالة على موقف الكاتب في الخطاب الأكاديمي

دراسة مقارنة قائمة على المتن

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إن بيان وجهة نظر الكاتب وموقفه في الكتابة الأكاديمية ذو تأثير كبير على بلاغة النص الأكاديمي. وفي هذا المجال، يعد الخطاب المكتوب وسيلة للكاتب للتعبير عن مشاعرهم وأحكامهم وتقييماتهم، وتؤدي ظروف الموقف التي تشير إلى وجهة نظر الكاتب في الأفكار المطروحة في النص دوراً حاسماً للدلالة على مدى التزام المؤلف تجاه الأفكار التي ينقلها النص. هذا البحث هو دراسة مقارنة لظروف الموقف في النصوص الأكاديمية المكتوبة من قبل الباحثين الناطقين باللغة الإنجليزية كلغة أم والباحثين الكرد الذين يستخدمون اللغة الإنجليزية كلغة أجنبية في بحوثهم. الدراسة مبنية على البيانات الكمية المأخوذة من مجموعتين من النصوص، أولهما (KNNSC) وهي البيانات الكمية المستخرجة من الخطاب الأكاديمي من قبل الباحثين الكرد، والمجموعة الثانية (CAEC) مأخوذة من كوريس كامبردج الأكاديمي الإنجليزي وتشمل النصوص الأكاديمية المكتوبة من قبل ناطقين باللغة الإنجليزية كلغة أم. تم تحليل البيانات في كلتا المجموعتين من النصوص باستخدام برنامج (Sketch Engine (SkE) أظهرت النتائج التي تم الحصول عليها من تحليل البيانات في هذا البحث وجود تفاوت ملحوظ في تواتر استخدام الظروف المذكورة في أعلاه بين مجموعتي المؤلفين. ومن خلال التحليل، ظهر أيضاً أن نقص الاستخدام لهذه الظروف من قبل الباحثين الكرد يعزى إلى عدم اتقانهم للقوانين النحوية لاستخدام هذا النوع من الظروف في الخطاب الأكاديمي والمعايير الثقافية للكتابة وأساليب الاتصال الشخصي والتعليم والتعرض لسياقات ثقافية متنوعة.

**الكلمات المفتاحية:** الموقف، الظروف الدالة على الموقف، التحليل المقارن بين اللغات، الكتابة الأكاديمية، المتن.

## 1. INTRODUCTION

To effectively convince readers about the significance and value of their research, a proficient academic writer must go beyond the mere presentation of an accurate depiction of external reality. The need of developing the necessary abilities to achieve these rhetorical objectives via written communication is widely recognized as essential for achieving success in the academic realm (Hyland 1999; Lancaster 2016). Numerous scholarly studies have been conducted to explore the various linguistic pathways via which stance is conveyed (e.g., Charles 2004). Linguistic patterns arise from the conscious decisions made by people during interactions, as they contemplate their self-identity in relation to the other interlocutors involved. The proposition posits that stances serve as the fundamental structure through which people structure their relationships, including the language used within such interactions. From my perspective, stance refers to an individual's manner of conveying their attitude in relation to their discourse, such as the level of confidence they possess in their assertions. Additionally, it encompasses their interpersonal stance towards their conversational partners, including factors such as friendliness or dominance. . According to Biber *et al.* (1999: 766-767), speakers use stance adverbials as a means to effectively communicate their evaluations and perspectives, hence indicating their specific intentions about the interpretation of their utterances.

### 1.1. Stance:

The definition and the semantic categorization of stance adverbials in this study is based on the theoretical framework adopted in Biber, Johansson, Leech, Conrad, and Finegan's (1999). They define stance as “the expression of personal feelings, attitudes, and value judgements, or assessments”.

Regarding the semantic categorization of stance adverbials, the authors distinguish between epistemic, attitude, and style stance adverbials:

- a) Epistemic adverbials often communicate the author's evaluation of the credibility of a proposition. Epistemic adverbs are related to six primary kinds of meaning, namely "certainty and doubt," "actuality and reality," "source of Knowledge, limitation, viewpoint or perspective, and imprecision. These subcategories are defined as follows:
  1. Certainty and doubt adverbials: these adverbials indicate whether the speaker is sure or uncertain about the proposition being stated .
  2. Actuality and reality adverbials: these adverbials emphasize the factuality or reality of a statement.
  3. Source of Knowledge: these adverbials refer to the source of knowledge by which information is taken from.
  4. Limitation: adverbials of limitation refer to the "limitation of a proposition". (Biber et al, 1999: 855)
  5. Viewpoint : adverbials referring to viewpoint or perspective identify the point of view from which the statement holds true.
  6. Imprecision: the adverbials in this group refer to the lack of preciseness of a stated proposition.
- b) Attitude Adverbials express the author's attitude towards a proposition such as importance, evaluation, expectation. Adverbials such as "astonishingly", "inevitably", "disturbingly", "sensibly", "importantly" , and "significantly" belong to this type. Attitude adverbials are divided , according to Biber et al. (1999), into three subtypes:
  1. **Accordance with expectation** such as *astonishingly, surprisingly, hopefully*.
  2. **Evaluation** such as *unfortunately, rightly, sensibly, for all I know*.
  3. **Judgement of importance** such as *interestingly, importantly, unbelievably*.
- c) Style adverbials are those adverbs of style, such as "honestly," "literally," "technically speaking," "generally speaking," "in short," "truly," "to put it," "to tell you the truth," "confidently," etc., serve the purpose of offering evaluative remarks on the way in which the message is being communicated or expressed.

Attitude markers, which are the focus of the current study, have been identified as "amazing adverbials" (Biber & Finegan, 1988), "attitudinal stance adverbials" (Biber et al., 1999), "content disjuncts" (Quirk et al., 1985), and "comment adverbs" (Swan, 2005). The expression of writers' affectional values and their perspectives towards the content and/or audience may be communicated via the use of attitude markers (Vande Kopple, 1985; Crismore et al., 1993; Hyland, 1998b, 1999). Simply, the concept of "attitude" or "attitudinal stance" is used to characterise the manner in which a speaker or a writer expresses their viewpoint or evaluation of a language statement. Biber *et al.* (1999) outline three distinct functions of attitude: (accordance with expectation, evaluation, and judgement of importance). They provide the list of attitude adverbials shown below:

<b>Attitude Adverbials</b>	
<b>Accordance with Expectation</b>	<i>Surprisingly, hopefully, predictably, astonishingly, rather surprisingly.</i>
<b>Evaluation</b>	<i>Unfortunately, rightly, fortunately, ironically, preferably, quite rightly, conveniently, sadly, curiously, wisely, sensibly, disturbingly, for all I know, for all I care, disappointingly, regrettably, even worse</i>
<b>Judgement of Importance</b>	<i>Interestingly, importantly, most important of all, even more importantly, unbelievably</i>

Table (1) Attitude Adverbials

Attitude adverbials investigated in the current research match those provided in the table above. It should be mentioned, however, that these three categories sometimes overlap since certain markers share traits with items in other groups and it seems that there is no absolute agreement on this categorization among the writers in the field, White (2005:42-43), for example, categorizes them into three components: affect, judgement, and appreciation. Affect refers to emotions and feelings, judgement involves evaluating human conduct, and appreciation involves evaluating objects and events. The author's attitude on the ideas presented in the texts may be conveyed via the use of attitude indicators. The significance of attitude markers in academic writing lies in their ability to influence the reader's interpretation of the author's argument (Bax, Nakatsuhara, & Waller 2019). Additionally, Attitude markers, especially attitude adverbials, serve the purpose of conveying the author's evaluation, emotions, assessments, importance, or demonstrating a range of attitudes towards the topic at hand (Hyland 2005). Kiesling (2009:172) refers

to attitudinal stance as “a person’s expression of their relation to their interlocutors (their interpersonal stance – e.g., friendly or dominating)”. To sum up, it is generally agreed that an attitude stance refers to the personal feelings, ideas, evaluation, and different expressions related to importance and value judgements.

It is crucial to acknowledge that, unlike other stance markers, attitudinal stance studies often include both grammatical and lexical aspects. The employment of value-laden words, such as evaluative adjectives, verbs, or nouns, does not exhibit grammatical marking of attitude (Biber *et al.* 1999; Conrad & Biber 1999; Grey & Biber 2012). However, these expressions remain connected to the perspective of the speaker or writer since they provide insight into their cognitive and emotional processes. The lexicogrammatical technique used in this study provides more support for the examination of the notions of stance and, more specifically, attitude.

As shown in table (1), the investigated attitude adverbials are mainly adopted from Biber *et al.* (1999) to be the basis for the analysis. Three subgroups of attitude adverbials containing the adverbials identified by Biber *et al.* (1999) were constructed.

## **1.2. Previous Research**

The study of attitude adverbials has been the focus of many researchers. Based on an analysis conducted by Hyland (1999, 2004, 2005, 2008), it was observed that writers in the hard (scientific ) discipline, such as chemistry, physics, mathematics, engineering ..etc, used a lower frequency of attitude markers in their research articles when compared to authors in the soft (Humanities) discipline, such as arts and sociology. The soft field was distinguished by the absence of reliable quantitative methods to support claims, which necessitates a more explicit evaluation. Conversely, the hard field was characterized by the subordination of individual authority to the authority of the qualitative approach of the text. There exists a diverse range of techniques for conveying one's emotional condition via written or spoken discourse.

Koutsantoni (2004) undertook an investigation on attitude markers via the analysis of research publications within the domain of engineering. A corpus of 34 papers of high-quality journals in the fields of electronics and electrical engineering between the years 1989 and 2000 was compiled. The writer chose those specific publications because they were often cited in student papers and were also suggested by experts in the area as must-reads. Students' work was used as a source for some of the articles studied, while others were selected at random. According to the study, the researcher found that attitude markers

were an effective tool for engineers in several ways. These include establishing a research area for themselves, asserting their authority and competence, obtaining acceptance of their assertions from readers, and creating consensus.

In a comparative research conducted by Blagojević (2009), an examination was conducted to analyze the manner in which authors from the English and Serbian writing cultures expressed their attitude towards their academic works. The writer analyzed the prevalence and linguistic diversity of attitude expressions in humanities-related scholarly works in sociology, social psychology, and philosophy. The findings showed that there were consistent results indicating that authors in both languages used analogous linguistic patterns to express their attitudes. However, the frequency of their occurrence was greater in works created by Serbian writers compared to those by English authors, indicating that the former exhibit a greater inclination towards expressing their attitude.

Jalilifar and Moazen (2014) conducted research on the usage of attitude language in discussion sessions of 169 publications on applied linguistics that appeared in both ISI and non-ISI journals. Following the Appraisal model proposed by Martin and Rose (2003), they examined their data for the presence of evaluative statements. According to their research, the employment of attitude expressions differed significantly across ISI and non-ISI publications. Affective and Judgmental attributions were found to be more common in ISI journals, whereas Appreciative citations were found to be more common in non-ISI publications.

Wongthanet *et al.* (2022) conducted a corpus-based study to examine the syntactic features of attitude markers and compared them across two distinct disciplines: linguistics and biology. The data used in this study was obtained from the discussion sessions of 100 research papers sourced from a selection of 20 internationally recognized academic publication places. The findings indicated that writers from both disciplines used adverbial attitude cues in a comparable manner in their written work.

## **2. PROBLEM OF THE STUDY**

Numerous studies have been conducted on the use of stance within the linguistic system of academic writing. However, a dearth of knowledge exists about the application of adverbial markers of attitude in academic written works, particularly those composed in a second language (L2). Further evidence of the significance of examining stance indicators in academic discourse is the increasing number of international scientific research publications, particularly those authored by individuals for whom English is a foreign language (EFL Kurdish writers in the current study). The challenge of adopting suitable

attitudinal stance based on existing evidence and assumptions is a complex task faced by non-native scholars.

This work synthesizes the findings of the linguistic research line and attempts to fill a gap in the field by investigating the usage of attitude adverbials to express stance by first-language English authors (L1) and Kurdish EFL writers in academic discourse. It is hypothesized that the use of those adverbials will differ between the two groups of researchers in term of frequency of use and type of the used adverbials. It is also hypothesized that the difference in the use of stance adverbials are due to differences in language proficiency and/or cultural disparity.

### **3. Research Questions:**

The study aims at finding answers to the following questions:

1. Do Native English writers significantly differ from Kurdish non-native authors in the frequency of using attitude adverbials in their academic texts?
2. Do both groups of writers use the same types of attitude adverbials?
3. To what extent the use of these adverbials is determined by writers' cultural background and pragmatic factors?

### **4. METHODOLOGY**

The current study uses a methodology based on corpus analysis to investigate attitude adverbials. The aims of this research are to investigate the attitudinal position present in academic writing produced by two distinct groups of scholars: native English academics and non-native Kurdish writers. The data used in the current study were obtained from two corpora: the Kurdish Non-Native Speakers Corpus (KNNSC) and the Cambridge Academic English Corpus (CAEC).

The first corpus, generated by use of the Sketch Engine (SkE), comprises 62 scholarly publications with a total word count of 831,911. These papers include a range of academic genres, including PhD theses, MA/MSc dissertations, and journal articles. All the 62 academic works were authored by scholars whose native tongue is Kurdish and who are from Kurdistan Region. In order to eliminate any chance of copying or plagiarism, only the findings and conclusion parts of the selected papers were chosen for examination. This phenomenon arises from the observation that non-native Kurdish scholars often exhibit their linguistic background in the research sections mentioned earlier, as they are expected to articulate their results and conclusions in a manner that reflects their own perspective.

The Corpus of Academic English (CAEC) served as the second data source for our study. This corpus comprises a collection of written and spoken academic English texts from various educational institutions in the United States and the United Kingdom. The texts encompass a range of academic materials, such as, theses, dissertations, lecture notes, seminar notes, student presentations, journal articles, essay prompts, and textbooks. It is important to note that the CAEC exclusively includes texts authored by native English speakers.

The corpus comprises a total of 3,163,648 words. The provided examples include a range of academic degrees, including undergraduate and graduate levels. A specific subcorpus of the Cambridge Academic English Corpus (CAEC) was compiled, considering many aspects such as the language of origin, educational level (PhD theses, MA/MSc dissertations , and research articles) for the sake of having the same genres of the examined texts, and field of study. This action was undertaken to facilitate reliable comparisons. As a result, a smaller subcorpus of 974,346 words was created to function as the principal reference corpus.

Contrastive Interlanguage Analysis (CIA) as part of an Integrated Contrastive Model was a typical approach to making comparisons and contrasts across the aforementioned corpora (Gilquin, 2000; Granger, 1996, 2015). As also noted by (Gilquin, 2000:95), by applying the CIA , we intend to compare the Kurdish non-native writers' language to the native authors' language in order to identify the features of nativeness and non-nativeness in the works of both groups. Following the CIA approach, the current study has three phases: The first phase includes the independent analysis of the Kurdish non-native corpus (KNNSC) in order to identify attitude adverbials and determine their respective frequencies. The subsequent phase includes the analysis of the corpus of native authors (CAEC) in order to identify adverbials that express attitude, along with their respective frequencies. In the last phase, a comparative analysis on the two corpora is carried out to identify any parallels or variations in the use of the aforementioned adverbials by the two groups of authors.

## **5. DATA ANALYSIS PROCEDURES**

The study on the use of attitude adverbials in academic research was based on Biber et al.'s (1999) model. The choice of attitude adverbials in the current study matches Biber *et al.*'s (1999) classification of attitude adverbials. The Sketch Engine (*SkE*) software 2003 was selected by the researchers to search for attitude adverbials in both corpora (McGillivray & Kilgarrif, 2013). Concordance tool, word list , and word sketch tools are the major tools used in the *SkE*. The concordance tool is used to identify and analyze the attitude stance adverbials being examined inside a certain text or corpus, together with the



adjacent phrases. Additionally, the adverbials included in the text were readily examined and juxtaposed using the word list tool. Word sketch tools provide a comprehensive overview of the examined attitude adverbials, emphasizing common collocations and grammatical structures. Collectively, these sites provide significant insights about the types and frequencies of adverbials use in the *SkE*.

For the sake of arranging the data and the investigated adverbials taken from both corpora, Microsoft Excel sheets were used for data organization and analysis and enhancing efficiency in data management. It offers various features for arranging and investigating adverbials, by grouping adverbials according to their types and subtypes. The data, both in numerical and normalized formats, were inputted into a spreadsheet in Microsoft Excel. The data were afterwards grouped and organized based on their semantic and syntactic categories via the use of Pivot charts.

For the sake of accurate presentation of the data, a log-likelihood test was conducted to spot the difference statistically between both corpora. By using the Log-likelihood calculator, it is possible to determine if there exist statistically significant differences in the use of stance markers between the two datasets. The test computes the absolute frequency of an item in each database and the cumulative sizes of the two databases. The Log-likelihood calculator automatically transforms the raw frequency of an item into its normalized occurrences per 100 words. The test does a comparison between the two databases by normalizing the data and analyzing the frequency of occurrences.

Item	O1	%1	O2	%2	LL	%DIFF	Bayes	ELL	RRisk	LogRatio	OddsRatio	
Word	8	0.00	54	0.01	-	31.38	-82.65	16.98	0.00001	0.17	-2.53	0.17

Figure (1) Accordance with Expectation LL test Results

Item	O1	%1	O2	%2	LL	%DIFF	Bayes	ELL	RRisk	LogRatio	OddsRatio	
Word	20	0.00	100	0.01	-	46.33	-76.58	31.92	0.00001	0.23	-2.09	0.23

Figure (2) Evaluation LL test Results

Item	O1	%1	O2	%2	LL	%DIFF	Bayes	ELL	RRisk	LogRatio	OddsRatio	
Word	27	0.00	98	0.01	-	32.40	-67.73	17.99	0.00000	0.32	-1.63	0.32

Figure (3) Importance LL test Results

In the pictures above, Q1 & Q2 refer to the raw frequency of items investigated, namely attitude adverbials. The values %1 and %2 indicate the normalized frequencies of the items being analyzed per 100 words in the datasets. These values are calculated by dividing the raw frequency of the item by the total number of words in the relevant database. The presence of a positive sign and a negative sign in the first database (O1) signifies the higher and lower frequencies of usage, respectively. The presence of a negative sign in the figure above signifies that the item under analysis exhibits a lower frequency in the first database (O1). In other words, the frequency of usage for items in the first database (O1) is comparatively lower than that in the second database (O2). Different LL values are used to indicate different levels of accuracy and ranges of attitude markers. The distinction becomes more apparent when considering greater LL values, as seen in the following citation.

- *95<sup>th</sup> percentile; 5% level;  $p < 0.05$ ; critical value = 3.84*
- *99<sup>th</sup> percentile; 1% level;  $p < 0.01$ ; critical value = 6.63*
- *99.9<sup>th</sup> percentile; 0.1% level;  $p < 0.001$ ; critical value = 10.83*
- *99.99<sup>th</sup> percentile; 0.01% level;  $p < 0.0001$ ; critical value = 15.13*

LL numbers ranging from 3.84 to 6.62 indicate a 95% level of accuracy with a 5% margin of error. Conversely, LL values equal to or beyond 15.13 suggest a higher level of importance and accuracy. The results indicate a statistically significant result with an accuracy rate of 99.99% and a margin of error of 0.01%. Rayson, Berridge, and Francis (2004:926) propose using the higher cut-off value as a recommendation upon concluding their examination of the Chi-squared and Log-likelihood tests,“ in order to extend applicability of the frequency comparisons to expected values of 1 or more, use of the log-likelihood statistic is preferred over the chi-squared statistic, at the 0.01% level. The trade-off for corpus linguists is that the new critical value is 15.13”. In every Log-likelihood estimate in the current study, the analysis employs a cutoff value of 15.13, which is consistent with the work cited.

## **6. ANALYSIS**

The results of data analysis presented in Figure (4) below clearly indicate that the rhetorical apparatus of the academic discourse in the native writers' corpus appears to rely on attitude markers much more heavily than that of the non-native corpus.

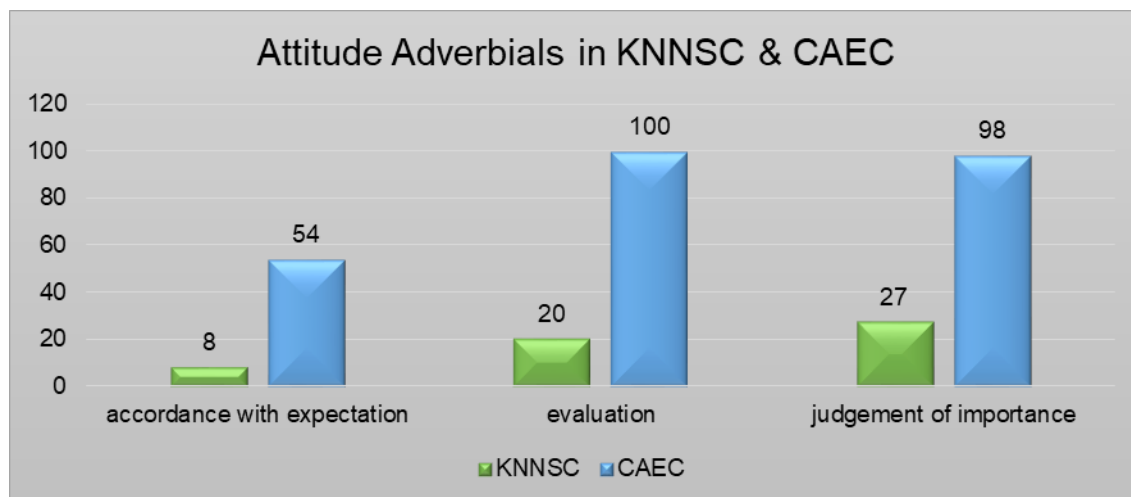


Figure (4) Attitude adverbials in KNNSC and CAEC

The figure above illustrates that the frequency of attitudinal adverbials in CAEC is projected to be threefold greater than their frequency in KNNSC. While there exists a marginal distinction in the utilization of evaluation and judgement of importance adverbials among native writers, evaluation adverbials appear to possess the highest rating in CAEC. These adverbials are used to qualify the information presented from the authors' point of view in various ways, and also to lead readers to their desired interpretations. In the context of KNNSC, it is observed that the use of judgment of importance adverbials is associated with the highest score, followed by evaluative adverbials, while, as in the native corpus, adverbials of accordance with expectation exhibit the lowest frequency.

The frequencies and the normalized frequencies per million words of the three types of attitude adverbials are introduced in the table below:

Attitude Adverbials	KNNSC FREQUENCY	Normalised Per Million	CEAC FREQUENCY	Normalised Per Million
accordance with expectation	8	6.92	54	32.35
Evaluation	20	17.28	100	59.9
judgement of importance	27	23.34	98	58.62
<b>Grand Total</b>	<b>55</b>	<b>47.54</b>	<b>252</b>	<b>150.87</b>

Table (2 ) frequency of attitude adverbials in KNNSC

Generally speaking, the data in the table above demonstrate that non-native Kurdish writers used attitude adverbials much less than English native authors. As noticed in the table, the Kurdish researchers had the

highest score with the use of importance adverbials, while the English writers' highest score was with the use of evaluative adverbials.

Concerning the frequency of expectation adverbials, table (3) below presents the LL test results for expectation adverbials in both corpora:

	<b>KNNSC</b>	<b>CAEC</b>	<b>LL Ratio</b>
<b>Frequency of occurrence</b>	<b>8</b>	<b>25</b>	<b>31.38</b>
<b>Normalized occurrences</b>	<b>0.00</b>	<b>0.01-</b>	

Table ( 3 ) LL test results for expectation adverbials in KNNSC and CAEC

The table demonstrates that there is a statistically significant difference between the CAEC and the KNNSC (LL value = 31.38,  $p < 0.0001$ ). In other words, the LL calculation demonstrates that the frequency of expectation markers is higher for the CAEC than the KNNSC. (LL has a critical value of 15.13.) Concerning the frequency of the first subcategory of attitudinal adverbials, namely, accordance with expectation, the results show that the Kurdish writers scored only 8 hits (6.92 pmw) for surprisingly and the remaining adverbials had no occurrence in the corpus as seen in the table below:

<b>accordance with expectation</b>	<b>KNNSC</b>	<b>Normalised Per Million</b>	<b>CAEC</b>	<b>Normalised Per Million</b>
<b>surprisingly</b>	<b>8</b>	<b>6.92</b>	<b>31</b>	<b>18.54</b>
<b>Hopefully</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>11.36</b>
<b>Predictably</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1.79</b>
<b>astonishingly</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0.66</b>
<b>Rather surprisingly</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Table (4) Adverbials of Expectation in both corpora

Native writers, on the other hand, scored 55 hits in their corpus. The highest score was for surprisingly with 31 hits (18.54 pmw) , hopefully had the second highest score ( 19 hits/ 11.36 pmw) and lastly, predictably and astonishingly (3 hits and 1 hit).

Moving to the second subgroup which is evaluation adverbials, the results of the statistical test indicate that there was a significant difference in the application of those adverbials by both groups of writers.

	<b>KNNSC</b>	<b>CAEC</b>	<b>LL Ratio</b>
<b>Frequency of occurrence</b>	<b>20</b>	<b>100</b>	<b>46.33</b>
<b>Normalized occurrences</b>	<b>0.00</b>	<b>0.01-</b>	

Table (5) LL test results for evaluation adverbials in KNNSC and CAEC

The LL calculation in the table above provides evidence that there a statistically significant difference between the CAEC and the KNNSC in relation to the total utilisation of those adverbials (LL value = 46.33  $p < 0.0001$ ), as the CAEC exhibits a higher frequency of evaluative markers compared to the KNNSC. (Critical LL value is 15.13).

There were seventeen adverbials of evaluation in Biber et al.’s (1999) list. However, only six of them were found in KNNSC:

<b>Evaluative adverbials</b>	<b>KNNSC</b>	<b>Normalised Per Million</b>	<b>CAEC</b>	<b>Normalised Per Million</b>
<b>unfortunately</b>	<b>13</b>	<b>11.24</b>	<b>47</b>	<b>28.11</b>
<b>fortunately</b>	<b>2</b>	<b>1.73</b>	<b>8</b>	<b>4.78</b>
<b>preferably</b>	<b>2</b>	<b>1.73</b>	<b>5</b>	<b>2.99</b>
<b>Sadly</b>	<b>1</b>	<b>0.86</b>	<b>2</b>	<b>1.2</b>
<b>Even worse</b>	<b>1</b>	<b>0.86</b>	<b>1</b>	<b>0.6</b>
<b>Disturbingly</b>	<b>1</b>	<b>0.86</b>	<b>0</b>	<b>0</b>
<b>Rightly</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>10.76</b>
<b>ironically</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>4.78</b>
<b>Quite rightly</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2.3</b>
<b>conveniently</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1.98</b>
<b>curiously</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1.2</b>
<b>wisely</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0.6</b>
<b>sensibly</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0.6</b>
<b>For all I know</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>disappointingly</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>For all I care</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>regrettably</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Table (6) Frequency of Evaluation Adverbials in both corpora

In the KNNSC, the adverb unfortunately, scored 13 (11.24 wpm) hits, fortunately, interestingly, preferably, disturbingly, even worse and sadly occurred less than 10 times each, whereas the other eleven adverbials in the list had no occurrences. The native corpus, on the other hand, out of the seventeen assigned adverbials in the evaluation group, native writers utilized twelve. The most commonly used adverbial among them is unfortunately with 47 hits (28.11 wpm). Rightly was the second frequently used

adverbial scoring 18 hits (10.76 wpm). The remaining ten adverbials in the list were used less than ten times in the corpus. However, five adverbials mentioned in the table (disappointingly, regrettably, for all I know, and for all I care) had no instances in CEAC.

The statistical analysis for the last subgroup of attitude adverbials , namely judgement of importance, revealed a significant difference between the two groups of writers.

	<b>KNNSC</b>	<b>CAEC</b>	<b>LL Ratio</b>
<b>Frequency of occurrence</b>	<b>27</b>	<b>98</b>	<b>32.40</b>
<b>Normalized occurrences</b>	<b>0.00</b>	<b>0.01-</b>	

Table ( 7) LL test result for importance adverbials in KNNSC and CAEC

Table (7) illustrates the total frequency of importance adverbials in both the KNNSC and CEAC corpora, along with their corresponding LL ratio. As mentioned previously, a significant statistical difference is seen between the CAEC and KNNSC in terms of the overall use of those adverbials (LL value = 32.40,  $p < 0.0001$ ). The LL calculation provides empirical support for the assertion that the CAEC demonstrates a greater prevalence of evaluative markers in comparison to the KNNSC. The critical LL value is determined to be 15.13.

The main items in judgement of importance subgroup are importantly, interestingly, even more importantly, most important of all, and unbelievably. Table (8) below shows the frequencies of all the items in this subtype of attitudinal adverbials in both corpora.

<b>Importance Adverbials</b>	<b>KNNSC</b>	<b>Normalised Per Million</b>	<b>CAEC</b>	<b>Normalised Per Million</b>
<b>importantly</b>	<b>18</b>	<b>15.56</b>	<b>33</b>	<b>19.74</b>
<b>Interestingly</b>	<b>9</b>	<b>7.78</b>	<b>63</b>	<b>37.68</b>
<b>Most important of all</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1.2</b>
<b>unbelievably</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Table ( 8) Importance Adverbials in KNNSC and CAEC

The adverbs importantly and interestingly were the only adverbs used in the KNNSC with a frequency of 18 instances (15.56 wpm) for importantly and 9 hits (7.78 wpm) for interestingly, while the remaining adverbials had no occurrences in the corpus. In the CAEC, on the other hand, the native

writers used almost all of the adverbials in this subtype: they scored 33 hits for importantly, 63 hits for the adverb interestingly, and most importantly had 2 hits.

## **7. DISCUSSION**

Concerning research question 1 which reads “ Do Native English writers significantly differ from Kurdish non-native authors in the frequency of use of attitude adverbials in their academic research?”, the findings suggest that native researchers employ attitude adverbials far more frequently than non-native Kurdish writers. The examination of the use of these adverbials in both corpora reveals a notable disparity in the implementation of these linguistic components between the two groups of writers.

Concerning research question 2 which reads “ Do both groups of writers use the same types of attitude adverbials?”, The findings obtained from data analysis show that there is variation across the types of expressions used to express attitude by the two groups of writers. L1 Kurdish writers tend to use a limited number of specific attitude adverbials compared to L1 English writers. The data in table 4, evidently show that Kurdish authors used only surprisingly form the accordance with expectation adverbials group, while native writers utilized four items from that domain (surprisingly, hopefully, predictably, and astonishingly). When it came to evaluative adverbials, Kurdish authors used six items from this category while native authors used twelve. In the category of judgement of importance adverbials, Kurdish authors used two items, whilst native scholars utilized three. These results provide a negative answer to the above-mentioned research question.

As for research question 3 which reads “To what extent is the use of these adverbials determined by cultural and pragmatic factors?”, the data show a visible difference in the ways those are used by the native writers in portraying their attitudes and evaluations towards a particular proposition. The obvious highest frequency of evaluative adverbials in the native corpus compared to non-native corpus reflects the native writers’ tendency to incorporate a more evaluative voice in their writings, and often adopt a more critical tone .

<s> Unfortunately, this positive reinscription has often occurred at the expense of female liberation struggles.<s> (CAEC Doc #37)

<s> Notions of union power may, in the public mind, equate to strikes but Hyman rightly says that this is far too simplistic, power is "almost certainly the most contentious and elusive concept in social analysis"  
<s> (CAEC Doc #630)

The apparent lower frequency of those evaluative adverbials in KNNSC indicates Kurdish academic writers' refrain from offering their own opinions on the subjects being discussed and their inability to show their voice. Instead, they often resort to importance adverbials (importantly 18 hits, interestingly 9 hits) to emphasise the significance of their propositions, aiming to persuade readers with their point of view.

<s> Importantly, Ahmetbeyzade's position is that through 'narrativizing' violent Kurdish history, by rewriting stories of individual and collective struggle and resistance, Kurdish communities, especially women, are able to lay claim to social and political identities.<s> ( KNNSC Doc #23)

As previously stated, it has been observed that native writers exhibit a higher frequency in employing evaluative adverbials in their written works compared to other categories. This tendency may be attributed to their intention to trigger an emotional response from the reader and subsequently persuading them to accept their argument. On the other hand, the absence of this feature in the Kurdish corpus may be attributed to a noticeable deficiency, in other words, the low use of those adverbials can be explained in terms of their inefficiency in the use of these adverbials, a feature which can be attributed to the fact that Kurdish has a limited set of those adverbials compared to English which has a wider one.

The underuse of attitude adverbials by Kurdish writers to evaluate the propositions put forward by them indicates their inability to leave an authorial footprint of argumentation in their work. Consequently, the absence of the writer's subjectivity which can be attributed to cultural norms of writing.

On the other hand, the native scholar's corpus witnesses the inclusion of affectual views relevant to the statements offered achieving the foregrounding of writers' subjective presence. Native writers use the skill of introducing alternative ideas in order to subsequently refute and replace them. This phenomenon restricts the scope of discourse as authors dismiss other perspectives and prioritize their own proposed ideas. Simultaneously, though, the authors try to establish a connection with readers on a personal level by urging them to see their emotional responses as genuine and justified to a certain extent.

Another crucial point noticed in data analysis is that there is a difference in the type of evaluative adverbials used by both groups. Kurdish writers used evaluative adverbials which have a negative value, that is , they showed a negative attitude by using those adverbials. Whereas, native writers use evaluative adverbials in both positive and negative senses. This could be explained that Kurdish researchers lack or maybe unable to refer to the indicating factors that determine a positive evaluation. It is possible that



cultural and linguistic differences play a role in shaping their evaluative adverbial choices. Native writers, on the other hand, have a broader range of experiences and perspectives, allowing them to express evaluations in a more nuanced manner:

<s> This objection has been part of a broad turn away from truth as the goal of inquiry, one that is rightly taken to have far-reaching consequences for our understanding of epistemic normativity.<s> (CAEC Doc 456)

<s> Fortunately , every example of a search string is located by a search so that each citation appears in as many lists as it needs to.<s> (CAEC Doc 54)

In the examples above, the use of attitude adverbials indicates a positive attitude or feeling of the writer in an attempt to emphasize the importance of the proposition.

Expressions based on discourse are not just restricted to the lexicalization of markers indicating attitude, but may also communicate the authors' opinions towards proposals. Negative evaluations of assertions are articulated using discourse-based utterances. Negative evaluations might be expressed either explicitly or implicitly. As an example, a phrase might include values that are encoded with negative connotations or evaluations and/or other attributes that provoke negative evaluations in the shape of limitations and deficiencies in knowledge.

Visible attitude:

<s> Unfortunately , our novel in Bahdinan still suffers from a practical lack of literary criticism, reviews and scholarship, which are essential in the enhancement of a literary text. (KNNSC Doc #23)

**Invisible attitude:**

<s> However, other authors take contrasting view with regard to the usefulness of BIM in enhancing ground improvement skills, which can be seen as barriers or disadvantages of using it.<s> (KNNSC Doc # 43)

## **8. CONCLUSION**

In our analysis of the frequency of attitude markers in the academic texts under review, a clear disparity emerged. Native authors in the Corpus of Academic English (CAEC) employed attitude markers significantly more frequently, with 54, 100, and 98 instances, compared to their Kurdish counterparts in

the Kurdish National Corpus of Scientific Communication (KNNSC) who used them only sparingly, with 8, 20, and 27 instances. This intriguing contrast warrants a comprehensive exploration, considering cultural, social, and linguistic factors.

The difference in the utilization of attitudinal adverbials between English writers, who tend to overuse them, and Kurdish authors, who tend to underuse them, can be attributed to variations in language structure and vocabulary. English offers a wide array of structures and lexicons to convey attitudes, while Kurdish relies on a more limited set of expressions. Consequently, Kurdish authors employ only those English attitude expressions that have equivalents in their native tongue, as they cannot fully replicate the linguistic nuances of attitude present in English.

Moreover, an overarching observation from our analysis on the frequencies of stance adverbials is that non-native researchers exhibit a more restricted vocabulary compared to native speakers. Certain types of stance adverbials in the KNNSC are notably scarce, indicating that Kurdish authors tend to limit their choice of words in most categories. Notably, in specific categories of attitude adverbials, such as accordance with expectation and evaluation, Kurdish authors lag considerably behind their native counterparts in terms of word variety.

Generally speaking, the native academics' propensity to overuse various types of attitudinal markers imparts a strong sense of authorial voice and attitude toward the subject matter and audience in their texts. Conversely, the underuse of these markers by Kurdish academics suggests a limited ability to employ attitude stance markers as a means of self-identification and qualification of the information they present, resulting in an absence of authorial subjectivity in their writing. In essence, they remain virtually inconspicuous in academic discourse.

Furthermore, the prevalence of attitude adverbials in the discourse of native academics enables readers to engage in a discourse of interpretation, whereas the limited use of these adverbials by Kurdish writers implies a lack of awareness regarding the target audience and, consequently, an inability to express their opinions and establish and maintain connections with their readers.

The discrepancy in the frequency of attitudinal adverbials between the two writer groups can also be linked to their respective cultural norms in writing. Cultures often exhibit distinct communication styles that influence how individuals convey their attitudes. It appears that in English culture, there is a strong inclination to use attitude markers for appraising propositional information, while in Kurdish culture, the emphasis tends to be more on content than on the writer's attitude or the qualification of information.

Nevertheless, it's crucial to acknowledge that these cultural influences are not absolute, and individuals within a culture may still vary in their use of attitude adverbials based on personal communication styles, educational background, and exposure to diverse cultural contexts.

In stark contrast to their English counterparts, Kurdish academics have not received systematic instruction in academic writing during their secondary or higher education. They acquire the intricacies of academic registers primarily through exposure to the works of recognized scholars. Consequently, the focus in Kurdish academic writing is predominantly on subject-matter knowledge and content, rather than on form or style. Given the findings presented here, our initial hypothesis is validated.

## **9. Pedagogical Implications**

The investigation conducted on the use of attitude adverbials in academic writing has significant pedagogical implications for both English language education and academic writing pedagogy. Educators have the opportunity to use these research results in order to raise awareness among non-native Kurdish authors about the significant function of attitude adverbials in academic discourse. The integration of this knowledge may be implemented inside language training programs and writing courses. In addition, educators have the ability to develop targeted instructional materials aimed at teaching the proficient use of attitude indicators, while considering the discrepancies identified between native English writers and non-native Kurdish authors. To develop cross-cultural understanding, workshops and seminars could be arranged, fostering conversations regarding the cultural and contextual aspects impacting writing styles. Engaging in comparative analyses of academic texts published by both native and non-native writers may provide students with valuable benefits, as they have the opportunity to learn from the writing practices of native authors. The importance of prioritizing feedback and revision procedures cannot be overstated, particularly when including corpus-based learning tools that provide access to authentic instances from the real world. Promoting critical analysis of the utilisation of attitude adverbials and fostering more investigation in this field might jointly help to the advancement of academic writing proficiency and the development of cultural awareness among non-native authors.

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