

A Corpus-Based Comparative Analysis of Hedges in Uzbek And English Research Articles (Hedges)

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Abstract: Academic writing across languages relies heavily on pragmatic strategies to modulate propositional force, express uncertainty, and establish interpersonal stance. Hedging—a communicative device used to mitigate the commitment of authors toward their assertions—plays a pivotal role in negotiating claims within scientific discourse. This study presents a corpus-based comparative analysis of hedging devices in academic research articles written in Uzbek and English within the field of philology. Based on a localized parallel corpus of 40 peer-reviewed research papers (20 published in Uzbek OAK-indexed journals and 20 in English SCOPUS/Web of Science-indexed publications between 2018 and 2024), this research quantifies and classifies hedges using Hyland's taxonomy. The empirical findings reveal a significantly higher total frequency of hedging instances in English research articles (58.4 markers per 1,000 words) compared to Uzbek research articles (22.1 markers per 1,000 words). Modal verbs and epistemic verbs constitute the majority of hedging devices in English, whereas Uzbek authors rely primarily on lexical adverbs, conditional constructions, and passive voice structures. The analysis highlights distinct cultural, epistemological, and stylistic conventions governing scholarly communication in the two traditions.

Keywords: Corpus linguistics, hedging, contrastive rhetoric, pragmatic stance, Uzbek linguistics, English academic discourse, philology, academic writing.

Introduction: In academic writing, presenting research claims requires an intricate balance between asserting novelty and maintaining rhetorical deference to the scientific community. Authors do not merely present unvarnished factual observations; they contextualize, evaluate, and soften their conclusions using pragmatic devices known as hedges. The concept of hedging, initially introduced into linguistic studies by Lakoff to describe words whose job is to make things "fuzzier or less fuzzy," was later adapted by researchers like Hyland to describe the rhetorical strategy of withholding complete commitment to a proposition.

Within academic communication, hedges fulfill several essential functions: they signal modesty, prevent potential criticism by leaving room for alternative interpretations, acknowledge the limitations of empirical data, and foster an interactive relationship

between author and reader. While academic discourse was historically perceived as objective and impersonally objective, contemporary applied linguistics recognizes it as an interpersonal process heavily influenced by linguistic and cultural norms.

Comparative studies between English and other languages—such as Spanish, Chinese, and Arabic—have established that hedging usage varies significantly depending on national academic traditions. However, contrastive studies evaluating hedging strategies between English and Uzbek research articles remain rare and underrepresented in current literature. Traditional Uzbek academic discourse, historically influenced by prescriptive stylistic norms, often favors direct assertion, authoritative framing, and structural objectivity. Conversely, Anglo-American academic tradition places a strong emphasis on probabilistic

reasoning and deliberate hedging to hedge against overgeneralization.

Understanding these pragmatic distinctions is crucial for Uzbek scholars seeking integration into international academic circles and for foreign scholars examining Central Asian linguistic traditions. This study addresses this gap by conducting a corpus-based comparative analysis of hedging devices used in Uzbek and English philological research articles. The main objectives are to measure the quantitative distribution of hedging categories across both languages and to analyze the functional preferences of authors in these distinct academic contexts.

METHODOLOGY

This investigation adopts a quantitative and qualitative corpus-based approach. To ensure data comparability, two specialized corpora were constructed from peer-reviewed research articles in the discipline of philology published between 2018 and 2024:

1. The Uzbek Philological Corpus (UPC): Comprising 20 articles selected from leading Higher Attestation Commission (OAK) recognized journals in Uzbekistan (such as *O'zbek tili va adabiyoti* and *Filologiya masalalari*), total word count: 52,400 words.

2. The English Philological Corpus (EPC): Comprising 20 articles selected from international open-access philological and applied linguistics journals indexed in SCOPUS and Web of Science, total word count: 54,100 words.

The structural sections analyzed in both corpora include the Introduction, Results/Analysis, and Conclusion sections. Methodology and abstract sections were excluded from count standardization due to structural variations across journals.

To categorize and extract hedging markers, Hyland's functional taxonomy of hedges in academic discourse was utilized as the primary analytical framework. Under this classification, hedges are divided into five main grammatical and lexical categories:

- **Modal Auxiliaries:** (e.g., may, might, could, would, should)
- **Epistemic Lexical Verbs:** (e.g., suggest, indicate, seem, appear, assume, tend)
- **Epistemic Adjectives and Adverbs:** (e.g., possible, probable, likely, perhaps, possibly, apparently)
- **Epistemic Nouns:** (e.g., possibility, assumption, tendency, claim)
- **Approximators of Quantity, Frequency, and Degree:** (e.g., approximately, roughly, generally, usually, somewhat)

For the Uzbek corpus, equivalent grammatical forms and pragmatic strategies were categorized according to their semantic function. These include epistemic verbs (*ko'rinadi*, *hisoblanadi*, *taxmin qilinadi*), modal verbs and particles (*mumkin*, *bo'lishi ehtimoldan xoli emas*), adverbs of degree and uncertainty (*asosan*, *odatda*, *ehtimol*, *taxminan*), and conditional/subjunctive verb suffixes (*-sh/ish ehtimoli*, *-sa kerak*).

Data processing was conducted using AntConc software (version 4.2.0) to generate frequency lists, concordances, and collocates. Raw frequencies were normalized per 1,000 words to allow direct comparison across datasets of different sizes.

RESULTS

The quantitative analysis of the two corpora indicates a pronounced disparity in the overall frequency and distribution of hedging devices between English and Uzbek academic writing in philology.

The overall count revealed 3,160 instances of hedging markers in the English Philological Corpus (EPC), yielding a normalized frequency of 58.4 markers per 1,000 words. In contrast, the Uzbek Philological Corpus (UPC) yielded 1,158 instances, corresponding to a normalized frequency of 22.1 markers per 1,000 words.

The distribution across specific grammatical categories is summarized in Table 1 below:

Table 1. Comparative Frequency of Hedging Categories per 1,000 Words

Category	English Corpus (EPC)	Uzbek Corpus (UPC)	Percentage Difference
Modal Verbs / Auxiliary Markers	18.2	5.4	-70.3%
Epistemic Lexical Verbs	16.5	4.1	-75.1%
Adjectives and Adverbs	12.1	7.8	-35.5%
Approximators (Quantity/Degree)	8.3	3.6	-56.6%
Epistemic Nouns	3.3	1.2	-63.6%
Total Normalized Frequency	58.4	22.1	-62.1%

In the English corpus, modal auxiliaries (may, might, could) and epistemic verbs (suggest, indicate, tend) dominated the sample, representing 31.1% and 28.2% of all identified hedges, respectively.

In the Uzbek corpus, adverbs and adjectives of degree/probability (asosan, odatda, balki, ehtimol) constituted the largest single category, representing 35.2% of the identified instances (7.8 per 1,000 words), followed by modal construction markers (mumkin), which accounted for 24.4% of instances (5.4 per 1,000 words).

DISCUSSION

The empirical findings demonstrate clear differences in rhetorical strategies between English and Uzbek academic writing within philological research articles. English academic discourse relies heavily on hedging to modulate claims, reflect epistemic humility, and comply with peer-review standards that encourage authors to avoid absolute assertions.

In the English corpus, modal verbs such as may and could are systematically employed when interpreting data. For example, structures such as "The data suggest that these semantic variations may reflect historical shifts" serve a double pragmatic function: they acknowledge that alternative explanations might exist

while shielding the author from immediate refutation. Epistemic verbs like seem, appear, and indicate similarly create a rhetorical space between the researcher and the empirical findings.

Conversely, the lower density of hedges in the Uzbek Philological Corpus (22.1 per 1,000 words) reflects a distinct tradition of academic stance. Uzbek scientific prose traditionally emphasizes declarative certainty, structural authority, and direct presentation of findings. Sentences in the Uzbek corpus frequently employ unhedged indicative forms and definitive predicate endings (e.g., "ushbu hodisa... tasdiqlaydi" [this phenomenon proves], "natijalar ko'rsatadi" [the results show]) where English counterparts use mitigated phrasing ("the results appear to indicate").

When Uzbek authors do apply hedging, they prefer lexical adverbs of frequency and general approximation—such as asosan (mainly), odatda (usually), and muayyan darajada (to a certain extent)—or the modal word mumkin (may/can). The modal mumkin in Uzbek academic discourse often carries a dual function of expressing possibility and passive potentiality, unlike the highly nuanced modal system in English (may vs. might vs. could).

Furthermore, Uzbek writers frequently rely on passive voice constructions and impersonal sentence frames

(e.g., ma'lumki, ta'kidlash joizki) to depersonalize assertions rather than lowering the truth value of the statement itself through lexical hedging. This structural choice suggests that while English academic culture hedges to modulate commitment, traditional Uzbek scholarly writing mitigates personal responsibility by adopting an authoritative, impersonal perspective.

CONCLUSION

This study highlights noticeable differences in how hedging strategies are used in Uzbek and English philological research articles. Through a comparative analysis, the research reveals that English academic prose utilizes hedging devices at nearly two and a half times the frequency observed in Uzbek articles within the same discipline. English authors rely heavily on modal verbs and epistemic verbs to nuance their claims, whereas Uzbek authors primarily employ approximative adverbs and specific modal structures within a generally assertive rhetorical framework.

These findings reflect different conventions in academic writing traditions: Anglo-American academic writing prioritizes probabilistic framing and reader negotiation, whereas traditional Uzbek academic discourse leans toward definitive assertions and authoritative framing.

Understanding these differences carries practical value for contrastive linguistics, translation studies, and academic writing pedagogy. Uzbek researchers aiming to publish in international journals must adapt to the higher frequency of pragmatic mitigation expected in international English-language publications. Future research can expand on this work by examining larger corpora across hard science disciplines or evaluating cross-linguistic trends across different sections of research articles.

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