APPOROXIMATION AS A LINGUISTIC HEDGING TACTIC IN ACADEMIC DISCOURSE: INTERLINGUAL ASPECT

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Despite the attention paid to linguistic hedging, researchers have not focused on the ways in which these strategies are implemented in various academic texts. Therefore, our comparative study aims to identify the common and distinctive characteristics of the approximation tactic as one of the hedging strategies in academic discourse. We selected sentence constructions from scientific texts of the same volume, particularly from abstracts of academic articles in the field of humanities, in order to analyze them and draw objective conclusions about the implementation of the approximation tactic.

The analysis included an equal amount of text from English and Ukrainian academic journals. The analysis was based on texts of 20,000 characters in each language, and a corpus of sentence structures of 300 units in each language was formed. Through the work of earlier researchers and the author's analysis, several communicative techniques of approximation tactic were identified, including uncertain number, generalisation, restriction and analogy. A comparative analysis revealed differences in the implementation of the highlighted techniques.

Based on our observations, generalisation is the most common method of actualising the approximation tactic in English academic discourse, accounting for 37% of language samples. In contrast, the most common method in Ukrainian discourse is the use of the uncertain number technique, which accounts for 37% of the language samples. The use of analogy is equally common in both English and Ukrainian contexts, accounting for 15% and 16% respectively. However, the use of restriction occurs more frequently in English discourse (23%) than in Ukrainian discourse (16%). These identified trends reflect both linguistic and cultural traditions of academic language.

Key words: hedging strategy, linguistic hedging, approximation tactic, hedge, academic discourse, scientific communication, genre of abstract of scientific article, pragmatic function, comparison, multilingual discourses.
АПРОКСИМАЦІЯ ЯК ТАКТИКА МОВНОГО ХЕДЖУВАННЯ В АКАДЕМІЧНОМУ ДИСКУРСІ: МІЖМОВНИЙ АСПЕКТ

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Попри належну увагу до лінгвістичного хеджування, поза увагою мовознавців залишаються прийоми реалізації різних такіх цієї стратегії у різномовних текстах наукового дискурсу. Це актуалізує наше зіставлене дослідження, метою якого полягає у встановленні спільних та відмінних характеристик тактики апроксимації як однієї із тактик хеджування в науковому дискурсі. Відібрані для аналізу реченеві конструкції з однакових за обсягом наукових текстів, зокрема із анотацій до наукових статей галузі гуманітаристики дали змогу дійти об’єктивних висновків щодо реалізації тактики апроксимації. До аналізу було залучено однакову кількість текстового масиву з англомовних та українськомовних наукових журналів. Було проаналізовано тексти обсягом по 20 000 др. знаків у кожній із мов, сформовано корпус реченевих конструкцій обсягом 300 одиниць в кожній із мов. Напрацювання попередників та власний аналіз дав змогу відділити різні типи прийомів тактики апроксимації, зокрема: невизначеної кількості, узагальнення, обмеження та уподібнення. Зіставлення виявив відмінності в реалізації виділених прийомів. За нашими спостереженнями, в англомовному науковому дискурсі найбільш поширеним прийомом актуалізації тактики апроксимації став прийом генералізації (37%), тоді як для українського дискурсу найбільше мовних зразків припадає на прийом невизначеної кількості (37%). Прийом уподібнення є однаково поширеним як в англомовному, так і українськомовному контекстах (15% та 16% відповідно). Прийом обмеження більш властивий англомовному дискурсу (23%) на противагу українськомовному (16%). Виявлені тенденції віддзеркаляють як власне мовні, так і лінгвокультурні традиції наукової мови.

Ключові слова: стратегія хеджування, лінгвістичний хеджинг, тактика апроксимації, хедж, науковий дискурс, наукова комунікація, жанр анотації до наукової статті, прагматична функція, зіставлення, різномовні дискурси.
A Study in Meaning Criteria and the Logic of Fuzzy Concepts” Lakoff analyzed the usage of hedges and tried to throw some light on their theoretical significance (Lakoff, 1972).

In the 1970s, B. Fraser (1975) and P. Brown and S. Levinson (1978) defined hedges primarily from a linguistic and pragmatic perspective. This led to the understanding of hedges as realizations of communicative strategies in contexts modality, evidentiality, epistemic modality, precision and accuracy, politeness, self-modesty, and indirectness (Aksiutina, 2021). More recently, hedges have been studied in comparative aspect (Dontcheva-Navratilova, 2017; Stine, 2021).

Scholars have drawn attention to the peculiarities of using the hedging strategy in academic discourse (Hyland, 1996; Ільченко, 2002; Венгринюк, 2015; Висоцька, 2008; Wallwork, 2016; Яхонтова, 2015). By using hedges, writers can maintain a balanced and cautious position, while also remaining open to possible alternative explanations and approaches (Ільченко, 2002: 134).

However, a closer look at the literature on linguistic hedging reveals a number of gaps and shortcomings. The contrasting studies of linguistic hedging in English and Ukrainian academic discourse have not been fully observed by researchers. This enhances the timeliness and relevance of our work. We will examine the approximation tactic of hedging in the genre of abstracts for scientific papers.

The aim of the study is to compare and contrast how the approximation tactic of linguistic hedging is actualized in academic discourse in English and Ukrainian, with a focus on the genre of paper abstracts.

To achieve our goal, we completed the following tasks: we clarified the meaning of “hedging” in modern communicative and pragmatic linguistics, categorized the main discourse markers of the approximation tactic of hedging strategy in academic discourse, and identified common and differing trends in this in abstracts for English and Ukrainian articles in the humanities.

The object of the study is the tactic of approximation of linguistic hedging in English and Ukrainian academic discourse.

Research material. The study created a corpus of English and Ukrainian language abstracts of academic articles in the humanities, drawn from reputable British and Ukrainian academic journals: British Journal of Arts and Humanities (http://surl.li/ryrdq), Applied Linguistics (http://surl.li/ryreco), Contemporary Woman's Writing (https://academic.oup.com/cww), Linqua (http://surl.li/ryrff), Journal of memory and language (http://surl.li/ryrft), Messenger of Kyiv National Linguistic University, Series Philology (in Ukrainian) (http://surl.li/ryrgd), Current issues of Ukrainian linguistics: theory and practice (in Ukrainian) (http://surl.li/ryrhp), Philosophy (http://surl.li/rrzb), Ukrainian Studies Almanac (http://surl.li/ryris), Notes on Romance and Germanic Philology (http://rgnotes.onu.edu.ua/). A set of 20,000 word combinations in each language was extracted from these publications. It should be noted that the basis for assigning an annotation to the English or Ukrainian corpus was information about the authors' affiliations. The texts were processed in order to identify discourse markers of hedging, namely approximation tactics. The quantitative counting of the identified markers was carried out using the technical capabilities of Microsoft Office Word 2020. In total, the research base for the analysis consisted of 300 English and 300 Ukrainian samples with markers of the approximation tactic.

Research methodology. The goal and objectives determined the basic research methods: descriptive-analytical (for analyzing the collected data with the subsequent description and generalization of the results and conclusions); hypothetico-deductive (to first establish the nature of hedging in scientific discourse); pragmatic analysis (to highlight the different characteristics of the object of study in terms of the interaction between addressee and addressee); elements of genre analysis (for analyzing the genre stratification of academic discourse); comparative method (to identify isomorphic and allomorphic features of hedging strategy in multilingual academic discourses); method of quantitative calculations (to objectify data); classification method (for dividing the set of studied objects into subsets according to the signs of their similarity or difference); inductive-deductive method (for understanding and justifying the theoretical and practical content learned).

Results and Discussion. Approximation as a component of scientific thinking and a tool of cognition helps to convey the relativity of truth, as well as the non-categorical nature of the authors' conclusions, and the realization that there are no "hard and fast lines" in science.

Approximation can be a pragmatic hedging operator, having in its arsenal a number of lexical means of actualization (approximate/around, several/a number, a little/a few, much, many, a large amount, a great number, and so on/etcetera (etc), or something of that sort (kind), (a) kind of/(a) sort of ), etc.). Approximators belong to different parts of language and can be qualifiers of quality, quantity, subject, action, etc. The diversity of the semantic load of approximators is primarily due to the functional variability, which, in turn, is determined by the logic of scientific knowledge itself, that is, to a large extent by the extralinguistic factor (Wallwork, 2016). The approximation tactic is implemented through a number of techniques: 1) uncertain number, 2) generalization, 3) restriction, and 4) analogy. Figure 1 shows the structure of the approximation tactic.
1. The uncertain number technique frees the author from pointing to precise data and allows him/her to talk about quantitative indicators in general. The following language units can be used as discourse markers in this case: Engl. many/much, a lot of; very many; a great number; a great deal; a large amount; numerous; in many cases, most; more/less than; for the most part; by and large; much more; little/a little, few/a few, small, some (of); several; a number of; some; certain; not all; mean; average; approximately; primarily; essentially; (to vary over) a wide/an immense range (of); a bunch of; sundry; vestiges; an increasing number; and so forth; prevail(ing); in round terms and round figures; to some extent; a crop of; Ukr. багато, чимало, дуже багато, значна кількість, численний, у багатьох випадках, більшість, більш/менш ніж, здебільшого, набагато більше, небагато/декілька, невеликий, дехто (з), кілька, низка, певна кількість, дєзі, певний, не всі, в середньому, приблизно, переважно, більша кількість, тонка, до певної межі etc. Scientists often use discursive approximations to indicate a likely possibility (in the broadest sense) and to show that the author does not claim to cover the problem comprehensively, but only touches on specific aspects that are most important to his or her opinion. With the help of such language units, strategies are simultaneously implemented to reduce the impact on the addressee (implication of alternatives) and to attract their attention. To illustrate, let us look at the example (1).

(1) They are often unable to hear others' voices directly, and in interpreter-mediated dialogues their gaze is mostly focused on the interpreter's mediation.

The word "mostly" in the given sentence is used to specify the degree of attention given to interpreter's mediation in interpreter-mediated dialogues. In terms of pragmatics, "mostly" indicates that while people may generally look towards the interpreter's mediation, there can be cases where their focus can shift away from it. This hedge recognizes the possibility of variability or exceptions in the described behavior. Additionally, "mostly" suggests a general tendency rather than a strict rule. It conveys that in most situations, people concentrate on the interpreter's mediation, but it also acknowledges the likelihood of situations where their attention may be divided or directed elsewhere.

Examples of how the technique of uncertain number has been put into practice are as follows (2–6).

(2) This study shows how the interpreter uses several environmentally coupled gestures to mediate information about the ongoing interaction, including speaker identity.

(3) We discuss a possible mechanism and its theoretical implications.

(4) Більшість проаналізованих суверенонімів має виразне негативне оцінне забарвлення, завдяки якому експліцитно чи імпліцитно виявляються переважно такі емоції номінантів, як гнів і зневага, що слугує індикатором ставлення українського соціуму до держави-агресора.

(5) Всі формальні елементи розмежовуються на три функціональні групи відповідно до їхньої функції у рекламному візуальному просторі.

(6) Чутливість місцевих жителів до вимови та загалом до рівня володіння мовою спільності спричинює досить часто нікакого беззахисного та упередженого ставлення до нього.

Based on our observations, the use of uncertain numbers is widespread in the academic discourse we examined. In addition, we found that there were more such units in the Ukrainian abstracts than in English. Specifically, the proportion of speech patterns with an unspecified amount was 25% in English and 37% in Ukrainian discourse.

2. The generalization technique consists of presenting information in an almost absolute way. Generalization allows the author to distract from possible exceptions, special cases, inaccuracies that violate a general rule, concept, etc. Instead, the addressee draws the addressee's attention to the prevalence of the phenomenon described, its typicality. On the one hand, this assures the reader of the relative objectivity of the material presented and, on the other hand, gives the reader the right to doubt it. For the addressee it is both an opportunity to convey his idea as completely as possible, to justify its dissemination and
completeness, as well as an opportunity to protect it from being absolutized. Discourse markers in this context are words like: Engl.: chiefly(ly); mainly(ly); as a whole, on the whole; (all) in all; generally(ly); in general; in the general case; as a general rule: broadly/ generally speaking; broadly worded; fundamentally; from a (more) holistic viewpoint; essentially(ly), in essence; as a rule; more than; Ukr. головний(а); основний(а); загалом, загальний(а), як правило, загалом кажучи, в широкому розумінні, по суті etc.

We recorded a significant proportion of such constructions in our corpus of English and Ukrainian texts. In comparison, it is 37% and 31% in English and Ukrainian discourse, respectively. The most common discourse markers of generalization in approximation tactics are the following units: English: generally(ly); In general; essentially; as a rule; Ukrainian: головний(а); основний(а); загалом, загальний(а). Let’s have a look at the sentence (7).

(7) In general, figurative language contributes to a deeper understanding of the author’s intended.

The phrase “in general” acts as a hedge in the given sentence and serves to clarify the following statement. Linguistically, a hedge like “in general” suggests that what follows is broadly true, but may not apply universally or without exception. Here, “in general” modifies the claim that figurative language contributes to a deeper understanding of the author’s intended meaning. This hedge takes into account that although imagery often improves the understanding of the author’s message, there may also be cases where this is not the case or where the effect is different. It is possible that there could be exceptions to the stated observation.

The language examples used to actualize the generalization technique are shown below (see 8-12).

(8) Generically speaking, the use of metaphors enhances the reader’s comprehension of the text.

(9) In essence, the concept of intertextuality refers to the interconnectedness of literary texts through references, allusions, and borrowings.

(10) As a rule, authors draw upon pre-existing literary works to enrich their own creations.

(11) Загалом мова має важливе значення для формування іміджерантської ідентичності.

(12) Основними інтертекстуальними засобами в заголовкових комплексах є приклади і приказки, цитати, назви літературних творів і фільмів, їхні персонажі й ін.

3. The technique of restriction is the opposite of generalisation. When using it, authors leave room for clarification of information and avoid categorical statements. In our corpus, we have recorded the actualisation of this technique in both English and Ukrainian discourse (where possible; somewhat, in a way, in a sense, at times, in some cases, in principle; as possible; if at all, if any; partly, in part; just; technically (speaking); по можливості; децю, певним чином, у певному сенсі, часом, у деяких випадках, частково; звірят, інш.). The proportion of such bilingual constructions as part of the approximation tactic is 23% in English and 16% in Ukrainian.

In English sentence (13), the phrase “in some cases” serves as a hedge in the sentence provided, indicating some degree of uncertainty or qualification about the claim that follows. From a linguistic perspective, this hedging suggests that while there are cases where AI technologies are capable of reproducing human decisions, it does not mean that this is true across the board or in all situations. It is possible that there are exceptions or scenarios where AI may not mimic human decision-making. By using “in some cases,” the statement recognizes the variability and complexity of AI capabilities and their impact on moral responsibility and accountability. It suggests that the relationship between AI technologies and human decision-making is not absolute but depends on specific circumstances or contexts.

(13) It suggests that, in some cases, AI technologies could replicate human decision-making, raising questions about moral responsibility and accountability.

Below are examples with highlighted discourse markers (see 14-19).

(14) In this study, the nature of reality is investigated through the lens of metaphysical philosophy. The author proposes that, at times, reality may be perceived as a combination of objective existence and subjective experience, challenging traditional ontological views.

(15) It argues that, in principle, time is a subjective construct, and individuals experience it differently depending on their cognitive and emotional states.

(16) The paper concludes that, in part, empathy contributes to a deeper understanding of others’ perspectives, although its effectiveness depends on personal disposition and contextual factors.

(17) Ця стаття стверджує, що поняття добра визначається децю різним чином в різних культурах, але зважаючи на певну сенс статус у системі цінностей.

(18) Вона стверджує, що моральні норми у деяких випадках є частково залежними від соціокультурного контексту, але все ж можуть мати у певному сенсі універсальний характер.

(19) Стаття розглядає питання вільної волі та детерміналізму в філософії. Вона стверджує, що вільна воля у певному сенсі може існувати в умовах детерміналізму та у деяких випадках визначати наш вчинки.

4. The technique of analogy sets up the use of analogical thinking. The addressee avoids categorical
judgements by looking for similar cases, referring to previously described phenomena, etc. The discourse markers of this technique include the following units: Engl.: some kind/sort of; (a) kind of; (a) sort of/of a sort; (some) type of things like, (in) much the same way (as), much like; some kind; real/good enough; Ukr.: накштал, у такий же спосіб (як), дуже схожий, якийсь, etc.

Our observations show that the analogy technique is used in nearly equal proportions in English and Ukrainian discourses (15% and 16%, respectively). Let us examine the hedging marker “some type” in the utterance (20).

(20) The analysis reveals how governments used some type of artistic visuals and narratives to influence citizens’ perceptions, much like contemporary media strategies.

Pragmatically, the use of “some type” implies that, while not explicitly identifying specific examples or categories of artistic representations and narratives, it does acknowledge that such strategies have indeed been used by governments. This hedging invites the reader to infer the general idea that artistic devices were employed without committing to precise details. Furthermore, the use of “some type” also suggests that the exact nature of artistic images and narratives may vary depending on the case or context of state influence. This recognizes the diversity of approaches taken by governments while emphasizing the overarching strategy of using artistic media to shape public opinion. Overall, the pragmatic effect of using “some type” in this sentence is to provide a general understanding of the government practice described while allowing interpretive flexibility and acknowledgment of variability in specific implementations. Below we present the examples extracted from the discourses with the actualised discourse markers (see 21-24).

(21) The research delves into the history of trade routes in the ancient world. It investigates how merchants navigated a kind of network of maritime and overland routes and examines the interactions between different cultures in much the same way as modern globalization operates.

(22) The way in which this is achieved, i.e. by intensity, involves the cue that is the least likely to upset existing lexical contrasts, both in English and Mandarin.

(23) Автор розглядає, як у такий самий спосіб зміни в уряді відображалися на соціальному та економічному розвитку.

(24) Вона досліджує, як, подібно до романтизму, інші художні напрямки вплинули на відображення дійсності в мистецтві.

Figure 2 presents a summary of the cross-linguistic analysis findings regarding the actualization of the approximation tactic of hedging strategy.

**Conclusion.** To compare the effectiveness of the approximation tactic in the hedging strategy, we analyzed different techniques used in English and Ukrainian language discourses. We compiled two corpora of speech samples, each containing 300 units of text from reputable academic journals in the humanities. We processed the texts to identify discourse markers of approximation tactics and used the technical capabilities of Microsoft Office Word 2020 to carry out a quantitative count of the identified markers.

Based on our observations, generalisation is the most common method of actualising the approximation tactic in English academic discourse, accounting for 37% of language samples. In contrast, the most common method in Ukrainian discourse is the use of the uncertain number technique, which accounts for 37% of the language samples. The use of analogy is equally common in both English and Ukrainian
contexts, accounting for 15% and 16% respectively. However, the use of restriction occurs more frequently in English discourse (23%) than in Ukrainian discourse (16%). These identified trends reflect both linguistic and cultural traditions of academic language.

It's worth noting that the way linguistic hedging tactics are implemented in English and Ukrainian content can be different. A foreign reader might interpret the research findings incorrectly as a result of this discrepancy. For example, a native speaker of Ukrainian culture might see the author's uncertainty about their views and scientific results in the generalisation. Foreign colleagues, on the other hand, may think that Ukrainian-speaking authors tend to make their results uncertain by using the indefinite number method. In general, hedging is used to establish a cooperative style of communication where the addressee has minimal chances to criticize the author's positions. In other words, hedging reduces the categorical nature of statements, providing a soft influence on the addressee, since a less categorical statement is more likely to be positively received. This feature should be taken into account in academic communication as well as in translation.

Further research can be carried out by analyzing the hedging of various genre texts in English and Ukrainian academic communication.

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