

Hedging in Academic Discourse: Native English Speakers vs. Czech and Slovak Writers

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Abstract

The pervasiveness of hedging in Anglo-American academic discourse is determined by the dialogic nature of research articles, which allow scientists to tentatively present their findings and ask colleagues with modesty and deference for their acceptance. Hedging devices allow researchers to express the lack of complete commitment to the truth of the proposition, or unwillingness to state a claim categorically. The comparison of frequencies and functions of hedging devices in individual sections of native English speakers' research articles to those written by Czech and Slovak authors revealed considerable differences in the article structure and the overall aims of individual sections, which is probably caused by the different socio-pragmatic context. Czech and Slovak writers underestimate the use of mainly reader-motivated hedges in all parts of the articles, do not appear to admit the constraints of the research, and seldom show awareness of the relatively minor value of their findings.

Keywords: hedging devices – epistemic modal verbs – lexical verbs – attribution to sources – reference to the first person.

Introduction

Scientists who wish to join the international research community need to be able to write effectively in English if they want to contribute to the construction of world academic knowledge. Many non-native researchers and novice writers, however, struggle to have their articles accepted by reputable journals. Thus, a growing number of universities have been involved in cross-cultural and corpus-based studies of academic discourse to gain grounds for the preparation of their students to master the key genre in academic disciplines: the research article. One of the inadequacies that Hyland and Milton noticed was that L2 writers of academic essays in English do not tend to “convey statements with an appropriate degree of doubt and certainty” (1997) despite being able to produce grammatically flawless texts. This perceived inability to hedge appropriately, viewed as a

lack of pragmatic competence, was considered a serious problem that may have prevented L2 writers from achieving their communicative aims in academic discourse. Consequently, hedging in research articles has been studied extensively. Although Czech and other Central European linguists (e.g. Chamonikolasová 2005; Čmejrková and Daneš 1997; Dontcheva-Navratilova 2013; Duszak 1997) have studied the differences between Central European and Anglo-American academic discourse and discovered that the two academic styles differ mainly in “the way they approach writer-reader interaction” (Dontcheva-Navratilova 2013, p. 12), hedging as such does not appear to be the centre of their attention.

The current study is informed by Bakhtin’s influential notion of dialogism under which all verbal communication, including a research article, is dialogic in a way that it refers to previous research in the particular area, and at the same time anticipates the responses of potential readers who are members of the research community. This paper attempts to:

1. Give a detailed overview of hedging devices and their functions in academic discourse
2. Compare native English speaker’ and Czech and Slovak academic texts on similar research problems
3. Draw practical implications for the teaching of academic writing in L2 context.

The notion of hedging

According to Fraser:

- Hedging is a rhetorical strategy by which a speaker, using a linguistic device, can signal a lack of commitment to either the full semantic membership of an expression, or the full commitment to the force of the speech act being conveyed (2010, p. 22).

These linguistic devices, called “metalinguistic operators”, were first studied by Weinreich (1966) and introduced into linguistic literature by Lakoff, who used the term “hedges” and described them as “words whose job is to make things more or less fuzzy” (1972, p. 194). He also argued that the interpretation of hedges is dependent on context and that the effect of hedging is a pragmatic not a semantic phenomenon. Much of the research of hedging in the 1980s and early 1990s (e.g. Holmes 1984; Coates 1987; Dubois 1987; Skelton 1988; Channell 1994;) was concerned with spoken interaction. The most common hedging devices were either assigned their multiple functions, or specific pragmatic functions (e.g. expressing politeness, conveying purposive vagueness, achieving distance between a speaker and what is said, etc.) were studied in order to reveal the means they employed. The ability of hedging devices to assume various grammatical classes is reflected in Brown and Levinson’s (1987) definition of a hedge based on a conversational model:

- A hedge is a particle, word, or phrase that modifies the degree of membership of a predicate or noun phrase in a set; it says of that membership that is partial, or true

only in certain respect; or that it is more true and complete than perhaps might be expected. (p.145)

Studies in scientific discourse conducted by Myers (1985; 1986) focused on various devices used to achieve politeness by mitigating claims and minimizing impositions in order to gain acceptance from colleagues when challenging existing assumptions. Hyland (1996a; 1996b) categorized functions of hedging in academic discourse and provided quantitative data concerning hedging expressions. Vague quantification in otherwise precise journal articles was analysed by Banks (1998).

The recent studies focusing on L2 academic writing appear to vary considerably. They are generally based on the prerequisite that hedging is an important means by which professional scientists confirm their membership in research communities, and its pervasiveness in academic discourse can hardly be understood without considering the socio-pragmatic context of research.

Wishnoff (2000) evaluated the effects of the instruction specifically targeted at the use of hedging devices which was given to L2 university students during the course of academic writing. She found a significant increase in the use of hedging devices in the treated group. Hinkel (2005) compared hedging devices and intensifiers in academic essays produced by native and non-native L2 writers. Alonso et al. asked two groups of Spanish researchers to compare and contrast a hedged and an unhedged versions of the same passage and identify hedging devices in a different passage, coming to the conclusion that Spanish researchers regard hedges as “negative evasive concepts” (2012, p. 47) and fail to recognize them. Sahragard et al. (2016) compared hedging devices in English language research articles written by native English speakers to those written by non-native English speakers in reputable journals in the field of applied linguistics (TESOL Quarterly, System and RELC) to find out that the argumentation of non-native English speakers differs, but they outperform the native English speakers in the number of hedges in all sections of the research articles except for the Introduction section.

Socio- pragmatic context

Why is hedging such a predominant feature of academic writing which is otherwise believed to have “characteristics of precision, detail and accuracy” (Channell 1990 in Banks 2010, p. 17)? Scientific knowledge is viewed as “a set of justifiable beliefs constructed through interactions among members of the scientific community” (Hyland, 1996a, p. 252), and a research article potentially opens up a dialogic space for scientific debate as it generally asks for collective agreement on the findings discovered rather than presenting them as unquestionable truths. In the Anglo-American scientific tradition, the accreditation of knowledge is a social process and much of the reputation of a researcher is in the hands of his/her colleagues. Whenever scientists report new experiments, they ask the research community for acceptance of their discoveries. By adhering to the norms of academic discourse, they show respect for the colleagues whose research they may have challenged, openly admit their awareness of “experimental limitations, possible

exceptions, and alternative explanations” (Hyland 1996a, p. 267), and signal the anticipation of possible opposition. Publishing a scientific paper involves entering into a debate with readers who might decide to accept or reject the claims, and using hedging devices can considerably influence the reader’s response. Besides, reputable journals that largely contribute to the validation of knowledge appear to impose stylistic conventions on writers in order to manage their communication.

Hedging functions in scientific writing

Hyland (1996a; b) categorized functions of hedging devices despite describing the individual forms as indeterminate in the sense that they can convey more than one function. The two fundamental functions that could be strategically exploited by writers are content-motivated and reader-motivated hedges.

Content-motivated hedges

Content-motivated hedges “mitigate the relationship between what a writer says about the world and what the world is thought to be like” (Hyland 1996a, p. 256). They help either to express the claims as accurately as possible (accuracy-oriented hedges), or to anticipate possible opposing claims by the readers (writer-oriented hedges).

Accuracy-oriented hedges

In order to present information as accurately and objectively as possible, writers attempt to clearly distinguish the facts from inferred claims, judgements and evaluation with appropriate precision and caution. Consequently, the hedging devices indicate that the proposition is the result of the writer’s reasoning, arrived at under certain research limitations and true only to the extent to which it can be proven. Accuracy-oriented hedges are further distinguished “according to whether they involve a qualification of predicate intensity (attribute hedges) or writer confidence (reliability hedges)” by Hyland (1996b, p. 437).

Attribute hedges

Attribute hedges specify “the extent to which the propositional content is precisely expressed, ... indicate variability with respect to certain descriptive terms, ...[and] specify more precisely the attributes of the phenomena described” (Hyland 1996b, p. 439–440). They are mostly expressed by “degree of precision” adverbs, also called “rounders”, or “downtoners” (partially, quite, barely), style disjuncts (generally, approximately) or phrases indicating from which standpoint the claim was made (from a practical point of view). Hinkel reported a considerably high use of downtoners in L2 academic essays, but mainly those that are typical of informal register, such as “all, almost, basically, just only, little and few” (2005, p. 42). By contrast, “advanced downtoners, such as merely, relatively, sufficiently were rare” (ibid.).

Reliability hedges

Reliability hedges “indicate the writer’s confidence in the truth of a proposition” (Hyland, 1996b, p. 441), which can be established merely by reliance on available facts, inference,

or repeated experience, while the strength of the relationship between the observed and the assumed is subjected to the writer's knowledge limitations. These hedges also signal to the readers how much confidence they can invest in the truth of the statement, taking into account how explicit the writer's hedging against accuracy is. Hyland (1996a; b) claims that epistemic modal verbs (would, may, could, might, cannot), epistemic adjectives (un/likely, possible, most, consistent with), nouns (possibility, probability), epistemic adverbs (apparently, probably, possibly, presumably), and referring to limitations of the research (e.g. the procedure only identifies) are most likely to be exploited as reliability hedges. Contrary to the aims of this function, as Hinkel (2005) pointed out, L2 writers in academic essays tend to avoid using reliability hedges while their essays abound in intensifiers, which may considerably contribute to strengthening the truth value of the proposition.

Writer-oriented hedges

Writer-oriented hedges "reflect the writer's desire to anticipate possible negative consequences of being proved wrong by limiting commitment to claims, thus blurring the relationship between writers and their propositions" (Hyland 1996a, p. 277). They enable the writer to speculate when interpreting the results in a wider context when greater generalization is expected. Consequently, a greater risk needs to be taken in Discussion sections of research articles. Scientists gain credibility for being able to realise the significance of their findings, but they must avoid the damage that may result from overstatement. Moreover, some scientists work in the context "in which productivity is a measure of professional worth and which results in the need for early and frequent publication" (Hyland 1996b, p. 445). As a result, they need to guard themselves from the possibility of error. A writer's responsibility for propositional validity can be concealed by the use of passive constructions (e.g. it is assumed), clausal subjects (it seems, it might be speculated), speculative verbs (indicate, assume, predict, propose), evidential verbs (seem, appear, report), attribution of the source to a wider body of knowledge or an authority (according to...), or impersonal reference to method, model, or experimental conditions.

Reader-motivated hedges

Reader-motivated hedges acknowledge the writer's personal responsibility for the validity of propositional content and invite the reader to participate in a dialogue in order to negotiate the ratification of the claim. In some cases, they exploit overt reference to the writer's personal involvement in the research, which may weaken their claims by allowing them to be perceived as personal opinion; signal alternative interpretations to those stated by the writer, and leave the claims open to readers' personal judgement. Other reader-motivated hedges help to show deference to the views of colleagues and to address the reader as a knowledgeable scientist who is capable of engaging in debate on the issue and assessing how much the paper may contribute to the current state of knowledge in the particular field. From an objective perspective, it is highly advisable not to present the propositions categorically because "categorical assertions leave no room

for dialogue, reject the need for feedback, and consign the reader to a passive role” (Hyland 1996a, p. 258). Reader-motivated hedges may also simultaneously convey other functions, but the core examples that predominantly act as reader-motivated hedges include modal auxiliaries, first person pronouns (e.g. ‘our interpretation of the results’), epistemic verbs of judgement (we propose, I believe), epistemic verbs of deduction (we calculate, I infer), an indefinite article that is able to indicate that our claim is one interpretation among many, hypothetical conditionals, personal reference to methods or models, direct questions, reference to testability, or reference to shared goals or knowledge.

Hedging expressions

Hyland (1996a; b) identified hedging devices as polypragmatic, i.e. they can convey a range of different meanings simultaneously. Consequently, one particular device can hardly be assigned a specific function. Moreover, writers exploit multiple functions of hedges in their papers when attempting to achieve an efficient exchange of information. According to Clemen, it is also impossible to create a complete list of hedging devices, because “almost any linguistic item can be interpreted as a hedge, ..., [it] can acquire this quality depending on the communicative context or the co-text” (1997, p. 6). Hyland in his corpus-based study noticed that hedging devices tend to cluster since “almost half the hedges occur in groups of two or more” (1996a, p. 259), which in his opinion reinforces “their epistemic strength” (1996a, p. 274). He supports his claim by stating that “43% of all hedges in the corpus occur with at least one other device” (ibid.) with lexical verbs and modal auxiliaries being the most frequent combinations.

Material and Methods

In order to compare the use of hedging devices in academic writing by native English speakers (NS) and Czech and Slovak authors (CS), twelve articles containing the words “hedge, hedging, or hedging devices” were selected. Native English expert writing was represented by six articles published in prestigious journals and conference proceedings, out of which three articles were co-authored. In this case, special care was taken to include only articles in which there was at least one native English speaker writer. For the sake of comparison, six articles dealing with the topic of hedging to at least some extent were found in two journals published in the Czech Republic. One of them was co-authored and one of them was written by a Slovak author. The following Table 1 shows which articles from which journals were subjected to the analysis.

Tab. 1: Research articles analysed in the study

Code ¹	Author(s)	Source of the article
NS1c	Bartley and Benítez-Castro (2013)	RESLA
NS2c	Chen and Baker (2010)	Language Learning & Technology
NS3	Gabrielatos (2007)	Proceedings of the Corpus Linguistics Conference
NS4	Hinkel (2005)	Applied Language Learning
NS5	Hyland (1996)	Written Communication
NS6c	Lee and Chen (2009)	Journal of Second Language Writing
CS1	Dontcheva-Navratilova (2012)	Brno Studies in English
CS2	Dušková (2015)	Brno Studies in English
CS3	Huschová (2014)	Brno Studies in English
CS4	Kozáčíková (2015)	Discourse and Interaction
CS5	Kozubíková-Šandová (2015)	Brno Studies in English
CS6c	Válková and Tárníková (2015)	Discourse and Interaction

Source: Author

Although corpus analysis of all 12 articles was initially considered, it was ruled out during the research because the pragmatic function of many hedging devices can often become evident only after a careful analysis of the context. Moreover, many particles, words, and phrases not generally associated with hedging can assume the hedging function only thanks to the surrounding co-text. On the other hand, the selected articles, especially those written by Czech or Slovak authors, contained a large number of devices generally expected to perform the hedging function, but in many cases only semantic functions could be identified, like in the case of the words that have been underlined in the following example: “Both categories usually appear in non-progressive forms” (Kozubíková-Šandová 2015, p. 43).

As a result, the selected articles were analysed manually. First, the individual parts of the articles were distinguished and compared, and the instances of hedging were identified. They were subsequently categorised and counted manually. The frequencies of selected types of hedging devices in individual parts of the research articles were compared and major differences further investigated with a view to suggesting plausible ways to approach the use of hedging devices in order to achieve a close resemblance to the native speakers' model.

¹ NS = an article written by a native English speaker; NSc = a co-authored article written by at least one native English speaker; CS = an article written by a Czech or Slovak author; CSc = a co-authored article written by Czech or Slovak writers.

Results and discussion

As previous research revealed, hedging as a prevalent feature of academic writing is distributed unevenly in different parts of a research article. Hyland's corpus-based study (1996a) found the highest frequencies in the Results and Discussion sections where researchers are expected to interpret the acquired data in the light of generally accepted presuppositions, present their proposition as debatable, reduce the risk of negation, and invite the readers to enter into a debate on this issue. While the least hedged section was Methods, the Introduction section contained a relatively high number of hedging devices both in Hyland's (1996a) and Banks' (1998) studies.

Apart from varying frequencies of hedging devices in different sections of native speakers' texts, the variation of specific pragmatic functions was also observed in the current study. However, when comparing NS and CS articles, one of the constraints encountered early on was their notably different structure. The native speaker research articles were organized in a relatively predictable way following more closely the norms of the generally accepted Introduction-Methods-Results-Discussion (IMRD) organization, while the articles written by Czech and Slovak authors followed the structure only partly and were likely to differ from each other and the required structure much more. As can be seen in Table 2, NS writers are more likely to adhere to the IMRD structure of academic discourse while CS writers tend to deviate from it.

Tab. 2: Organization of articles under investigation

Group	A	B	C	D
Number of authors	2	5	3	2
Codes	NS2c CS2	NS1c NS3 NS4 NS5 NS6c	CS3 CS5 CS6c	CS1 CS4
Introduction	+	+	+	+
Methods	+	+	Body	+
Results	+	Results and Discussion		Body
Discussion	+			
Conclusion	+	+	+	+

Source: Author

Group A consists of articles that contain all five required sections and the only Czech author in this group also seems to be aware of specific hedging functions in each part, even though the frequencies of hedging devices in her article are considerably lower than the average frequencies in native speakers' texts.

Group B represents the majority of native expert writing, where Results and Discussion sections have been combined, but the hedging functions of both parts remained.

Group C includes the articles that contain a relatively short Introduction section followed by several subsections in which theory and already accepted knowledge is interwoven with newly discovered findings and their explanations. Description of used methods may be included, but it is hardly possible to separate it clearly from the other content. These articles largely neglect the need to appeal to the reader and ask for acceptance of their propositions.

Group D represents the articles whose structure stands somewhere between groups B and C. The clearly distinguished Methods sections in these articles are followed by several subsections which do not seem to enter into interaction with the reader and which are perceived to lack the Discussion section, or the majority of its functions.

Comparison of Introduction sections

Introduction sections in most cases draw on previous research and its findings and tend to negotiate the reasons for acceptance of the current study. This is strongly supported by the hedging devices specifically found in this part. In NS research articles, modal verbs, which otherwise act predominantly as reliability hedges, also assume the function of reader-motivated hedges particularly when the writer involves the reader in the thinking processes and speculations in order to get their full attention as in, for example: “[the students’] improvement could² be either very slight or non-existing” (Bartley and Benítez-Castro 2013, p. 46). Reference to shared goals and using first person pronouns may also invite the reader to participate in the dialogue in order to for them gain a full understanding of the problem. Introduction sections usually consist of several subsections and include the overview of the prior research, which is demonstrated by a large number of propositions attributed to other researchers. For example, “Channell (1994), p.90) explains that in English the main discourse function of intensifiers is to play the role of exaggeratives and create hyperbole to avoid referring to the actual truth.” (Hinkel 2005, p. 31). The same sections in articles written by Czech and Slovak authors, however, are generally much shorter and often contain an explanation as to why the article was written or the research conducted, as in, for example: “Our topic emerged spontaneously at the intersection of two research perspectives:...” (Válková and Tárnyiková 2015, p. 65). The justifications for selected research problems appear to be unusual in native speakers’ academic discourse in cases where the fellow scientists share knowledge of the areas “worthy of study” (Hyland 1996b, p. 435). The significantly low number of hedging devices in CS articles that can be seen in Table 3 reflects the fact that these articles differ considerably from each other mainly due to the individual writing style of the authors in many aspects, one of them being the reference to the first person, of which 11 instances out of 12 were found in one article. The placement of the attribution to the prior research also varies to a great extent, and it often tends to be included in the subsequent, largely theoretical sections or the Methods section.

² The words in the quotes that assume hedging functions were bolded by the author.

Tab. 3: Frequencies of hedging devices in the Introduction sections of the studied articles

Hedging devices	NS articles	CS articles
Modal verbs	34	15
Attribution to sources	30	4
Reference to shared knowledge	11	5
Adverbs	22	7
Reference to first person	10	12
Lexical verb	6	0
Passive construction	5	7
Other	51	2
Total	169	43

Source: Author

Comparison of Methods sections

As argued by Hyland, the Methods section is considered to be the least hedged one, especially as he did not appear to include the passive constructions in his corpus-based analysis despite having acknowledged them as writer-oriented hedges that enable the “authors [to] conceal themselves” (1996a, p. 257). As can be seen from Table 4, when describing the individual steps of research procedures conducted, native English speakers appear to use merely passive constructions to refer to activities carried out by themselves either out of their natural modesty, or in order to adhere to the norms of academic discourse. By contrast, CS writers exploit passive to a much lower extent and occasionally tend to use first person reference and active voice instead, for example: “I assume almost identical language performance of these two samples – native and non-native writers of English.” (Kozáčíková 2015, p. 56). This example also implies a common tendency among CS authors to express their expectations of the outcome of the research as well as their astonishment in cases when the expectations were not fulfilled. Based on my analysis, this feature was not identified in NS articles. The overall low numbers of hedging devices in CS texts might be also attributed to the fact that only three out of six authors included clearly separable Methods sections in their articles, thus a full comparability could not be carried out. Moreover, CS Methods sections tend to be either shorter, or substitute some of the functions generally assigned to the Introduction section in NS articles. What the CS articles seem to underestimate most is the reference to the shared knowledge, as in, for example, “as generally reported in literature” (Chen and Baker 2010, p. 32), which may serve as the key device in maintaining the interaction with the reader. Other reader-motivated hedges that have not been identified in CS articles are questions, which allow the writer to consider alternatives and appeal to the reader as an expert capable of solving the problem, thus ensuring his greater involvement. Examples of this include: “Should we count the number of types of bundles ..., or should we count the total occurrence of bundles ...?” (Chen and Baker 2010, p. 33). Furthermore, CS writers, in contrast with native writers, do not appear to admit their lack of knowledge as openly as NS writers do, for instance: “some of the authors are likely to be non-native speakers, judging from their names and our personal knowledge” (Lee and Chen 2009, p. 284). In addition, they

acknowledge solved and unsolved problems, for example: “RANGE poses problems for the analysis of learner language.” (Bartley and Benítez-Castro 2013, p. 53).

Tab. 4: Frequencies of hedging devices in the Methods sections of the studied articles

Hedging devices	NS articles	CS articles
Passive constructions	63	10
Adverbs	10	2
Modals	17	0
Lexical verbs	5	5
Reference to shared knowledge	18	2
Admission to encountered problems	10	0
Questions	5	0
Other	8	1
Total	132	20

Source: Author

Results and Discussion sections vs. Body sections

Table 5 below attempts to compare hedging devices from sections that differ considerably in size and assume only loosely comparable functions. While the hedges in NS papers were gathered only from the Results and Discussion sections and those in CS1 and CS4 articles from approximately similar sections of Body, the hedges in CS3, CS5, and CS6c articles come from the largest parts of the papers situated between the Introduction and Conclusion. Nevertheless, the number of hedging devices is still lower than in NS articles by more than half. The highest frequencies of hedges in these sections in both NS and CS research papers partly confirm findings by Hyland, who found “84% of hedging devices in Result and Discussion sections” (1996a, p. 259) and also showed that their specific functions closely reflected the required rhetorical purposes. NS authors exploit hedges to discuss the drawbacks of the methods used in order to ensure more reader involvement, to mitigate the findings presented, and to offer more general interpretations both within the scope of what is believed to be true and within the accepted evidence from previous research.

Being conscious of possible research limitations, NS writers openly show their concern for whether the selected method or procedure could have had an unexpected impact on the results and speculate to what extent the findings might have been influenced by different variables as in the following example:

“This is mainly because there are substantially more texts in CAWE on EFL teaching methodology in China. The overuse of these particular words is therefore probably not an indication of problems on the part of the CAWE writers.” (Lee and Chen 2009, p. 286).

These claims are generally expressed with great caution, so they are very likely to be mitigated by a wide range of hedges. Similarly, the findings tend to be presented in a way that allows some scope for possible exceptions and awareness of them, as in, for example: “To some extent, these findings may evince shortfalls in L2 writers’ vocabulary and lexical ranges, when L2 essays seem to recycle the same type of hedges repeatedly.” (Hinkel

2005, p. 40). Researchers earn their reputation due to their ability to explain the value of their findings in the wider context of academic knowledge, however they need to avoid overstatements and reduce the risk of being proved wrong by hedging their claims and clustering the hedging devices, for example: "This would appear to imply that students' vocabulary range is as yet quite limited, resulting from an over-reliance on the most common English words..." (Bartley and Benítez-Castro 2013, p. 56). As evidenced below, the CS articles under investigation did not appear to speculate about the suitability of the method of investigation used since Czech and Slovak researchers would hardly admit a problem they had encountered or their lack of knowledge. This is probably because to do so might be viewed as a weakness in Central European academic discourse, which predominantly favours the objectivist conception of knowledge, and admitting uncertainty by the researchers might considerably influence the chances of their articles getting published. The discrepancy between NS and CS articles concerning reference to the presented findings can be attributed to the fact that the reputation of Czech or Slovak linguists is largely established by the ability to describe every detail of the studied language phenomena, include every possible exception to the discovered rule, and persuade the reader of their expertise by dense, sophisticated texts. The studied articles appear to be rich in categorically stated facts that only exceptionally seem to be interpreted in the light of previous discoveries. The occurring instances of reference to the presented findings are largely placed within sentences stating plain facts and are also likely to be followed by facts, for example: "As for my own research, there has been a visible disbalance in the use of to-infinitive clauses by native and non-native writers of English in the selected corpus." (Kozáčíková 2015, p. 56). However, the same reference in NS articles is used to highlight important claims for which the writer attempts to gain ratification, as in, for instance: "our repeated experiments have revealed that the number of recurrent word combinations retrieved might relate to corpus size to a large extent" (Chen and Barker 2010, p. 43). In this way, NS writers clearly state that the tentatively presented knowledge is their personal interpretation of multiple reality which they attempt to negotiate within their research community and thus contribute to the shared knowledge established temporarily on the bases of social constructivism.

Although attribution to sources permeates all sections of the studied academic texts to a much greater extent than is visible in the Tables, for the purpose of this research, only the instances of hedging devices specifically attributing claims to other researchers and their findings were included. I suggest at least two possible reasons for a higher frequency of these hedges in Research and Discussion sections or Body sections of CS articles. First, these hedging devices in CS texts in three cases were gathered from much larger sections, namely the body part between the relatively short Introduction sections and also equally short Conclusions. Secondly, in the Results and Discussion section, NS writers often include reference to sources to which their findings are compared, or from which similar or different results were reported, but not in the form of hedging devices showing explicitly that they avoid responsibility for their claims. They rather check if their findings are consistent with those of fellow researchers, which can be achieved by means of various structures, direct attribution being only one of them.

Further, NS writers tend to refer to themselves in the first person more often in this section mainly to mark the parts of the texts where the writer has decided to take a greater risk in order to ask for acceptance of the stated propositions, as in, for instance: “We will start the discussion with perhaps the most intriguing item: the.” (Lee and Chen 2009, p. 286). By proposing the claim as an individual interpretation, for example, “We may infer that the major function of WE CAN SEE in CAWE is to refer to or explain tables or figures, and to organize the discussion.” (Lee and Chen 2009, p. 289), thus stressing the proposition as one of many options and showing awareness of alternatives, as in, for instance, “Our investigation thus suggests that Chinese apprentice writers could be given explicit instruction on the pragmatic usage and meaning of ACCORDING TO and its alternatives.” (Lee and Chen 2009, p. 291). Some NS writers use this type of reader-motivated hedge to develop the relationship with the readers and maintain the dialogue by referring both to the reader and the writer, such as in the following example: “At this point, we need to remind ourselves of the claim under investigation.” (Gabrielatos 2012, p. 12).

By contrast, it remains questionable if the reference to the first person in CS articles is a hedging function as such. It clearly indicates the writer’s involvement in the research such as in the following example:

“At the beginning of this section dealing with frequency of cognitive verbs in the corpus of political interviews, I would like to compare the results of this study with those of Prof. Anita Fetzer on a similar topic.” (Kozubíková-Šandová 2015, p. 46)

However, in the identified instances, the writers do not appear to assume responsibility for the claim or maintain a dialogue with the reader. They are more likely to a) mark the introduction of a new topic, for example: “To illustrate the spreading of variables within the template, let us compare the following BNC and COCA data.” (Válková and Tarnyíková 2015, p. 72); or b) help to express the writer’s expectations or personal opinion concerning classification of language phenomena such as in the following examples:

1. “Even though my expectation was that non-finite to-infinitive clauses mainly in their nominal functions can be predominantly found in the introductory parts of the research articles, where aims, methods and objectives are stated, the results have not proved that.” (Kozáčiková 2015, p. 57).
2. “I do not regard (6) b as a presentation sentence because it conforms to this scale only in one feature, context-independence of the subject, but not in the presentational meaning of the verb” (Dušková 2015, p. 34).

Many of the hedges are followed by categorical claims lacking hedging functions and devices.

Reference to shared knowledge, such as in the following example: “As already mentioned, the bundles (AT) THE END OF THE and AT THE BEGINNING OF can be considered discipline-specific in literature and cultural studies diploma theses.” (Dontcheva-Navratilova 2012, p. 48) seems to be the only feature attempting to invite the participation of the reader in CS research articles, and this might be one of the reasons for its relatively

high occurrence. NS writers do not appear to exploit this feature as frequently in the Research and Development section, probably due to its comparatively weak reader-motivated hedging function, especially as they widely exploit other features.

Tab. 5: Frequencies of hedging devices in the Results and Discussion sections of the studied articles

Hedging devices	NS articles	CS articles
Adverbs	114	44
Modal verbs	83	39
Lexical verbs	72	33
Reference to the presented findings	48	24
Attribution to sources	9	13
Reference to shared knowledge	15	34
Reference to the first person	24	14
Passive constructions	16	3
Conditionals	6	0
Admission to encountered problems	5	0
Admission to the lack of knowledge	6	0
Downtoners	70	15
Total	468	219

Source: Author

Comparison of conclusion sections

Conclusions in the analysed NS academic texts tend to vary in length and put a strong emphasis on reference to presented findings, for example: “As evidenced in this paper (especially section 4.1.) students’ interlanguage is often dependent on a repetitive use of vocabulary.” (Bartley and Benítez-Castro 2013, p. 61), which allows the writer to briefly summarize the key results for which they are attempting to claim acceptance. They are largely supported by reliability hedges manifested mostly by modal verbs, hedging either the value of the presented research as in the following example: “This paper could have implications for the teaching and learning of vocabulary by EFL learners.” (Bartley and Benítez-Castro 2013, p. 61) Possible implications stemming from such research; speculations regarding how the findings might be used in the future, and which aspects of the problem could be investigated further as in the following example, demonstrate other uses of modal verbs as hedging devices: “While these may be small and common words, instructors may need to make a bigger deal out of them, as they connect with larger issues in academic writing.” (Lee and Chen 2009, p. 292). These include speculations how the findings might be used in the future:

1. “We argue that, after careful selection and editing, the frequency-driven formulaic expressions found in native expert writing can be of great help to learner writers to achieve a more native-like style of academic writing, and should thus be integrated into ESL/EFL curricula.” (Chen and Baker 2010, p. 44)
2. “We cannot comment on whether the usages discussed in this paper are still communicatively effective despite being marked, as that is an empirical question that can

only be answered in complex ways through further investigations” (Lee and Chen 2009, p. 292).

Similarly, lexical verbs and adverbs mainly assume the function of reliability hedges guarding the writers against overstatement.

As can be seen from Table 6 below, CS conclusions differ markedly in two regards: a) hedging devices are less frequent, and b) they are comparatively longer and summarize findings in greater detail. Nevertheless, they do not appear to go beyond the scope of the research. Instead, writers tend to condense everything that has already been written into dense texts notable for the presence of reliability hedges largely in the form of modal verbs, lexical verbs and adverbs. In some cases, conclusions seem to be the most hedged sections of the articles, perhaps because they tend to soften propositions that have been stated categorically in the previous sections. Reference to presented findings, for example, “The analysis has revealed that syntactic correlations are rather weak and may prove ineffective in distinguishing subtle differences in the meaning conveyed” (Huschová 2014, p. 102) are likely to be followed by propositions about the possible contribution of the conducted research to the current state of academic knowledge or fragmented facts rather than interpretations. If a generalisation follows, it merely covers a minor area within the researched problem. In some cases, awareness of research limitations occurs as well as suggestions regarding other features to be researched in the future as in the following examples:

1. “The present analysis has, of course, its limitations, which mainly include the limited number of texts in the corpora and the native language of non-native speakers, which was Slovak.” (Kozáčíková 2015, p. 62),
2. “Further research into the discourse of novice writers in a non-native language may focus on the appropriateness of use of the functional types of lexical bundles, paying particular attention to multifunctional expressions and to the contribution of lexical bundles to the perception of cohesion and coherence in discourse.” (Dontcheva-Navratilova 2012, p. 56).

Tab. 6: Frequencies of hedging devices in the Conclusion sections of the studied articles

Hedging devices	NS articles	CS articles
Reference to the presented findings	24	6
Modal verbs	42	15
Lexical verbs	10	6
Adverbs	12	12
Reference to shared knowledge	2	3
Others	8	2
Total	98	44

Source: Author

Overall, the NS writers tend to admit the constraints of the research and treat its outcomes with the utmost modesty, assigning it relatively little value in the pool of academic knowledge, sometimes even claiming the findings to be dubitable or uncertain, as the following examples show:

1. "This study has taken a small step in this direction." (Lee and Chen 2009, p. 292)
2. "It is still not conclusive as to whether there is a relationship between proficiency and the number of formulaic expressions used" (Chen and Baker 2010, p. 44).

The research suggests that only two out six CS writers in our sample showed some awareness of research limitations, but only one seemed to express a sufficient amount of modesty concerning research findings, stating that: "the figures are too small to be conclusive" (Dušková 2015, p. 38). The majority of CS writers, however, tend to highlight the importance of their work, or boldly claim their research as unique or exceptionally significant:

"Although the conceptual categories are drawn from earlier research, our approach is innovative in taking into view not only the paradigmatic axis of alternation within the FFs with other left-periphery communicatively regulative language devices" (Válková and Tárnyiková 2015, p. 81).

Conclusion

The present study compares the use of hedging devices in research articles published in English in reputable journals to those published in two journals in the Czech Republic using a sample of 12 articles which, at least to some extent, deal with the issue of hedging. The aim of the study was to draw pedagogical implications for novice Czech researchers who wish to contribute to the world academic knowledge and improve their chances of publishing their findings.

As the structure of academic texts published in the two Czech journals (*Brno Studies in English and Discourse and Interaction*) seems to vary a lot, the novice writer might succeed in publishing an article in a reputable journal by adhering to an internationally accepted norm (IMRD) more closely and would benefit from knowing how to appropriately hedge a text by largely adopting the specific pragmatic functions of individual sections of native English speakers' research articles.

Czech writers' introduction sections generally require a more frequent use of modal verbs, which act as reader-motivated hedges, negotiating the importance of the study and inviting the reader to take part in the scientific debate. Attribution to sources may help to place the research in the context of previous findings and in line with current research in the particular area.

To maintain the dialogue with the reader in the Methods section, reference to shared knowledge and modal verbs can assume the function of reader-motivated hedges. The fellow scientist can be further involved if the writer admits the constraints of the research, the lack of knowledge, or considering research options. Passive voice should be used as a writer-oriented hedge when describing the research procedures.

The Results and Discussion sections appear to contain the widest range and the highest density of hedges enabling writers to admit limitations, present the findings with caution and deference, and ask for acceptance of the strongest claims they can make based on the evidence from their research. Adverbs, downtoners, modal verbs and lexical verbs are

likely to be the most frequent features which convey multiple functions. Reference to the first person seems to be used strategically here helping the author to achieve a number of goals.

Conclusions tend to be brief, seek to explain the practical implications of the research, and summarize the evidence in order to ask for ratification by peers. Consequently, modal verbs and reference to presented findings should be widely employed here.

Having observed the differences between NS and CS academic discourse, Czech writers could increase their chances of publishing abroad if they viewed their articles as an opportunity for interaction, openly showed their willingness to debate their propositions, and presented their findings with a greater deal of caution and deference. This would also require dismissing the objectivist view that knowledge can be achieved by correctly conceptualizing and categorizing the only single reality independent of the human being studying it. Instead, they should adopt the constructivist concept of seeking interactions with fellow scientists and offering them their current interpretation of the world with utmost modesty.

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