# Filozofická fakulta univerzity Karlovy v Praze

## Ústav anglického jazyka a didaktiky

## "Hedging" in academic discourse:
## linguistic research articles

## "Hedging" v odborných lingvistických studiích

## Diplomová práce

Bc. Veronika Raušová

Praha, srpen 2016        Vedoucí práce: PhDr. Gabriela Brůhová, PhD.

Prohlašuji, že jsem diplomovou práci vypracovala samostatně, že jsem řádně citovala všechny použité prameny a literaturu a že práce nebyla využita v rámci jiného vysokoškolského studia či k získání jiného nebo stejného titulu.

Praha, srpen 2016                                                                    Bc. Veronika Raušová

**Abstract**

The present thesis focused on the differences in the usage of hedging in research articles of native speakers of Czech writing in English and native speakers of English. Hedging is considered to be a fundamental part of any academic text ensuring that the results and outcomes of one's research are successfully communicated to its intended audience. The main aim was to discover, by analysing the most heavily hedged, concluding sections of research articles, how the native Czech speakers employ hedging in comparison to native English speaking authors and if they project features typical for Czech academic discourse into their work written in English. The most important outcome of the results of this study is the observation that one of the most salient features of Czech academic discourse, which is the low degree of authorial presence and interactivity of the text, does significantly influence the way the Czech authors present the outcomes of their research in English. This is evidenced by the significant difference in the frequency of the reader-oriented hedging strategies in the NCS corpus.

**Abstrakt**

Tato práce je komparativní studií zaměřenou na rozdíl v používání prostředků zmírňujících dopad promluvy, tzv. hedges, v lingvistických studiích rodilých mluvčích češtiny píšících v angličtině a lingvistických studiích rodilých mluvčí angličtiny. Zdrojem dat pro tuto práci byly konkrétně závěry těchto studií, které dle předchozích výzkumů obsahují největší množství těchto prostředků. Vzhledem k tomu, že je žánr odborné studie v anglofonní akademické komunitě  a české akademické komunitě ovlivňován odlišnými konvencemi, kladla si práce za cíl zjistit, zda se domácí konvence projeví v anglicky psaném textu. Výsledkem této práce je zjištění, že čeští autoři užívají strategie zmírňující dopad promluvy v mnoha ohledech ve velmi podobné míře a formě jako rodilí mluvčí angličtiny. Ukázalo se ale, že jedna z nejmarkantnějších charakteristik českého odborného textu, a to sklon k potlačení autorovy osobnosti a nízká interaktivita textu ve směru ke čtenáři, se projevuje i v jejich anglicky psaných studiích. To se projevilo na významném rozdílu četnosti užití strategií spadajících pod funkční kategorii prostředků pro zmírňování dopadu promluvy orientovaných na čtenáře (reader-oriented hedges).

## LIST OF TABLES AND FIGURES

## ABBREVIATIONS

**NCS**          **native Czech speakers**

**NES**          **native English speakers**

**LL**          **log-likelihood**

**pl.**          **plural**

**RA**          **research article**

**RF**          **relative frequency**

**sg.**          **singular**

# 1. Introduction

Academic writing is a vital part of work of every scholar across all disciplines. To present theories, ideas, findings, discoveries and results relating to the research one does, it is necessary to be able to convey them comprehensibly in writing to the academic community. However, clarity and comprehensibility is far from being the only feature that defines academic discourse. Authors have to be aware of the specific tradition that governs all the aspects of academic writing in their language, with some languages imposing stricter rules on them (English) than others (Czech).[1] One such feature that is expected not only from the Anglophone authors of scientific articles is a very good command of the so called hedging strategies and devices, which "allow them to present their unproven proposition with caution a precision" (Hyland, 1996:1). This thesis will consider two traditions of academic writing and try to determine to what extent the conventions of Czech academic discourse project into academic texts of native Czech speakers writing in English in terms of use of hedging devices, by comparing their work to articles written by native Anglophone speakers. To do this, I will compare the concluding sections of linguistic research articles written by native English speakers and published in academic journals of the Anglophone scientific community (e.g. The Journal of Pragmatic, Journal of Linguistics), with conclusions in linguistic research articles published in Czech academic journals (e.g. Brno Studies in English, Ostrava Journal of English Philology)[2] written by native Czech speakers in English.

---

[1] These impositions are discussed in more detail in Chapter 2.2.2
[2] The full list of academic journals used in this study see Chapter 8.1

# 2. Theoretical background

The theoretical part of this thesis presents the background that is necessary for the analytical part of the present study. All the concepts considered relevant for the field of academic writing and hedging are introduced, which includes the description of the main features of academic discourse, a contrastive chapter on differences between Czech and Anglophone traditions of academic writing, an introduction to the concept of hedging and phenomena connected to it.

## 2.2 Academic discourse

As has been already stated in Introduction, communication of ideas, theories and knowledge within and beyond academic community is an essential part of work of every scholar, be his/hers motivation scientific progress or establishing his/her position within the community. It is important to be aware of the conventions of academic discourse both to be able to acquire information and also to convey information to others (Hyland, 2009: vii). Academic discourse represents the means to demonstrate learning, to disseminate ideas, construct knowledge, and to create social roles and relationship within academic community (ibid., 1). Hyland further considers discourse being „at the heart of academic enterprise" through which scholars collaborate and compete with others, and create knowledge (ibid., 2). However, writers can only guide readers to a particular interpretation and readers can always reject their interpretation. It is then necessary to anticipate possible negative reactions and make use of the persuasive practices of their disciplines in order to convince their audience. Such persuasion is a demonstration of credibility involving control of research methodologies and the ability to employ community approved argument forms as well as the competence to use language to relate independent beliefs to shared experience (ibid., 12-13). Even though most of the claims seem to be applicable to academic discourse in general, there are

differences in academic communities and their approach to academic discourse which are discussed in Chapter 2.2.2

## 2.2.1 Research article

The ability to write a successful research article is a crucial part of basic academic competence (Hyland, 2009: ix). Research article is described by Swales (1990:93) as a written text (although often containing non-verbal elements), usually limited to a few thousand words, that reports on some investigation carried out by its author(s). In addition, the research article will usually relate their findings within it to those of others, and may also examine issues of theory and/or methodology. It is to appear or has appeared in a research journal or, less typically, in an edited book-length collection of papers. The structure of a research article generally follows the so called "IMRAD structure". IMRAD stands for the expected parts of a scientific research article, namely introduction, methods, results, and discussion. Introduction should expose the reader to the topic, context of the study, and the objective of the paper (Tress and Saunders, 2015:5). Methods section should include a detailed account of the methodology used to obtain the data and to carry out the study, in order to be replicable by others (ibid.). The results section should present the paper's contribution of new knowledge. Finally, there is the discussion/ conclusion section, which presents "the core of the discussion, the conclusion that the report proposes"(Salager-Meyer, 1994:5).

## 2.2.2 Czech versus Anglophone academic discourse

When conducting a contrastive analysis of a linguistic phenomenon, it is necessary to establish and define the relationship between the two environments that are being compared. The environments in question are Czech academic writing tradition versus the Anglophone one. Previous research dedicated to finding differences between Czech and Anglophone academic writing focused especially on the contrasts in discourse organization, interaction

between the writer and the reader and authorial presence in the text (Dontcheva-Navratilova, 2015:41). The main differences are described below.

## 2.2.2.1 Czech academic discourse

There is an obvious difference between the Czech and the Anglophone academic community, conditioned by the number of speakers of each of the languages. Czech is spoken by approximately 12 million people, which results in an academic community that is characterized by co-operation and non-competitiveness. Having to present propositions to a small and fairly non-competitive academic community allows the authors to "convey their views using more narrative, implicit and less structured discourse (Dontcheva-Navratilova, 2015:41). This is connected to the inherent feature of Czech academic discourse, which is its primarily writer-oriented nature[3]. Writer-oriented texts strive to present the subject in question in an exhaustive, incontestable way, through a monologic discourse, which does not endeavour to interact with the reader. Czech academic texts impose responsibility for correct interpretation on the readers without offering them any help (Čmejrková et al., 1999: 27[4]). This approach can also be seen in the overall organizational structure of Czech academic texts, which is not governed by strict rules and generates texts in which the readers cannot navigate easily – especially due to lack of metatextual information. (Čmejrková et al., 1999: 30).

Another feature is the preference of Czech authors to background authorial presence by employing impersonal forms (e.g. passive voice, use of abstract rhetors[5]), which is in agreement with the European tradition and the general preference for objectivity and impersonality associated with scientific discourse (Dontcheva-Navratilova, 2015: 49).

---

[3] This is a result of close contact and inevitable influence of German tradition of academic writing, which puts emphasis on offering knowledge and ideas to contemplate about and also puts high demands on the reader when it comes to the interpretation of information. (Clyne, 1987)
[4] All cited material from Čmejrková et al. (1999) appears in my translation.
[5] See Chapter 2.5.2.3.2

Finally, the last important aspect of Czech academic discourse is a high level of modality present in the texts, especially epistemic modality (e.g. *possibly, may…*) which is a phenomenon closely connected to hedging. High level of modality then equals to low level of assertiveness, decisiveness and persuasiveness of arguments and results in more modest and cautious discourse containing high levels of contemplating. Motivation for such approach brings us back to the co-operative attitude to the process of scientific research typical for European academic community in which authors adopt more defensive position in presenting their propositions (Čmejrková et al., 1999:29). In spite of the characteristic features presented in this chapter Czech academic discourse has been and is being influenced by the Anglophone tradition, which means that some of the features (especially the high degree of modality) are levelling up to match the conventions of a more prominent tradition.

## 2.2.2.2 Anglophone academic discourse

The Anglophone academic community is incomparably larger and extremely competitive environment, which requires different attitude to academic discourse from the authors. The importance of structured and well-organized discourse is rooted deeply in the Anglophone academic community, whose members are being systematically taught, in the course of their education, to be able to write a successful and persuasive academic text. It is the author's responsibility to make the text understandable to the reader. This reader-oriented approach to academic discourse is characterized by a high degree of interactivity which is conveyed by the use of attitudinal markers (hedges, boosters), which modify the force of the argument and appealing to the reader in seeking argument with the viewpoint advanced by the author (Dontcheva-Navratilova, 2015:42). Anglophone academic discourse exhibits a higher degree of authorial presence and increasing use of self-promotional pronouns, even though such an approach goes against the scientific paradigm favouring objectivity and impersonality (ibid., 42). The authors usually indicate their authorial presence using 1st person sg. pronouns,

the 1st person plural *we* is said to be employed only in co-authored articles. Nevertheless, the authors often choose not to overtly express their identity, using abstract rhetors or passive constructions (Chamonikolasová, 2005:2.2.).

The following, very useful summary of the major distinctions between these two traditions was presented by Olga Dontcheva-Navratilova (2015) and offers a comprehensive overview of the differences described above:

| Anglophone academic writing | Czech academic writing |
| --- | --- |
| - competitive large discourse community | - small discourse community |
| - explicit discourse organization | - low on explicit discourse organization |
| - strict discourse norms | - absence of strict discourse norms |
| - negotiation of meaning | - conceptual and terminological clarity |
| - interactive, dialogic | - low interactive, monologic |
| - reader-oriented | - writer-oriented |
| - marked authorial presence | - back grounded authorial presence |
| | - modalization[6] |

**Table 1: Academic writing traditions – Czech vs. Anglophone (Dontcheva-Navratilova, 2015: 41)**

## 2.2.2.3 The effect of the contrasting traditions on hedging

The different features of Czech and Anglophone academic discourse may influence the motivation for employment of hedges and hedging strategies as well as the type and their frequency. Using hedges in Czech academic discourse is closely connected to the low degree of assertiveness, authorial confidence and to the overall defensive approach in presenting propositions in scientific texts. In comparison to that, the Anglophone academic discourse uses hedging to establish writer-reader relationship and helps the authors to negotiate claims

---

[6] A concept mentioned by Čmejrková et al. (1999:28-29) and added to the Table 1.

and debate views with the implied audience (Hyland, 2012:13). Formal discourse organization (division into chapters/sections, length of each section…etc.) also plays an important role, especially when it comes to the frequency of hedges. For example, Salager-Meyer (1994:11) observes in her study of hedging in medical scientific articles that most of the hedging occurred in the more elaborative sections of the articles Discussion/Conclusion section in comparison to Methods and Results sections, where the authors are less likely to make claims about other statements.

The following chapter, depicting the most important differences between the two traditions, is essential for the analytical part of this thesis, since the study will focus on the question if and in what ways do the local academic discourse conventions influence and project into the scientific texts written in English by Czech scholars in terms of their use of hedging.

## 2.3 Hedging

This chapter offers a brief evolution of the concept of hedging, discusses concepts that are associated with hedging and introduces existing taxonomies of hedging devices.

### 2.3.1. Overview of the concept

Fraser's definition of hedging offers a concise overview:

> Hedging is a rhetorical strategy. By including a particular term, choosing a particular structure, or imposing a specific prosodic form on the utterance, the speaker signals a lack of a full commitment either to the full category membership of a term or expression in the utterance (content mitigation), or to the intended illocutionary force of the utterance (force mitigation). Simply put, it is attenuation of the full value which the utterance would have, absent the hedging. (Fraser, 2010: 201)

The term "hedge" was first used by Lakoff (1972:461) in his paper focused on hedges, which makes use of Zadeh's theory of fuzzy set. A fuzzy set is described as a class with a continuum of grades of membership (Zadeh, 1965:338), which means that something perceived to be a member of a set to a certain degree versus the distinction of either being in the set or not. Lakoff's notion of hedges thus shows, that hedges "make things fuzzier or less fuzzy" in terms of categorial membership, which means that hedges influence the interpretation of a verb phrase or a noun phrase when it comes to their truth value (being true to some extent or false to some extent). Hedges received a great amount of attention since Lakoff's study and the concept has been expanded beyond its initial scope. Some of these expansions build upon Lakoff's (1972) such as observations of hedges interacting with performative verbs, described in detail and termed *hedged performatives* by Fraser in 1975 (e.g. *I must advise you that*...) and that this modifies the force of the speech act (Lakoff, 1972:461). The latter observation was expanded by Brown and Levinson (1978) when they depicted that a hedge does not have to influence only the propositional content of the utterance but also the illocutionary force of the utterance and speaker commitment (Kaltenböck et al., 2010:4). Building on their observation, Prince et al. (1982) contributed to the analysis of hedges by dividing them into two distinct categories according to what was being made fuzzier. They identified hedges responsible for fuzziness within the propositional content proper (approximators) and those responsible for fuzziness in the relationship between the propositional content and the speaker (shields) (Prince et al., 1982:4). The most recent contribution to typology of hedges comes from Caffi (1999, 2007) who contributed by her analysis of hedging devices by sorting them into three categories of bushes (reduce the commitment to propositional content), hedges (reduce the commitment to the illocutionary force) and shields (avoid self-ascription to the utterance).[7]

---

[7] Other attempts at functional categorization of hedges relevant for this study are described in the Chapter 2.4.2

This is by no means an exhaustive account of all the previous research focused on hedges and hedging, but it is to serve as a glimpse into the complexity and extent of the present phenomenon.

When it comes to the formal representation of hedges, i.e. what can be used as a hedge, there is a wide scope of lexical items, syntactic structures, prosodic features which are used to bring about hedging, though almost none of these are used solely in this capacity. (Fraser, 2010:202). This means that there is no lexical item, whose primary and only function would be that of a hedge and this phenomenon is highly dependent on the context in which it appears. Compare the following sentences:

**Example 1:** *He **kind of** missed the point.*

**Example 2:** *I like that **kind of** ice cream.* (Fraser, 2010: 202)

In the first sentence the expression *kind of* hedges the predicate, resulting in the sense that he *somewhat* missed the point, while in the second sentence *kind of* serves as a preposition. Hedges neither form a grammatical category, since they do not fall within a single syntactic form, nor do they constitute a functional category. It seems best to treat them as an inventory of devices by which the speaker can qualify or attenuate commitment to either the meaning or the force which would be interpreted if the hedge were absent from the utterance (Fraser, 2010: 203).

## 2.3.1 Hedging in academic discourse: adjacent concepts

Considering the basic meaning of the word *hedge* especially when used as a verb, if we "hedge" an expression or a proposition we are "protecting (ourselves) against the loss of something"[8]. What is at stake in academic writing is the loss of face either of the author or of

---

[8] Oxford Advanced Learner's Dictionary, entry „hedge"
(http://www.oxfordlearnersdictionaries.com/definition/english/hedge_1?q=hedge)

the audience/community. The concept of face was developed by Brown and Levinson (1987) and is described in the next paragraph.

## 2.3.1.1 Politeness theory

Brown and Levinson's politeness theory is closely connected to hedging. In other words, the use of hedges is in some situations motivated by the concept of the theory. Brow and Levinson claim, that all competent adult members of society have a face. The notion of face is explained as being a public self-image, that we want to claim for ourselves, and which consists of two aspects. There is a negative face that points out to freedom of action and freedom of imposition, i.e. the want that our actions are unimpeded by others, while the second aspect, a positive face, refers to the desire to be appreciated and approved of (Brown and Levinson, 1987:61-62). The notion of face stems from the expression „losing face" meaning being embarrassed or humiliated (ibid.). The goal in social interaction is to protect and maintain both the positive and the negative face of all the participants. This goal is permanently jeopardized by face threatening acts (FTAs) that are imposing damage either to the positive or the negative face of the participants. To compensate for use of FTAs, there are several politeness strategies the participants can employ:
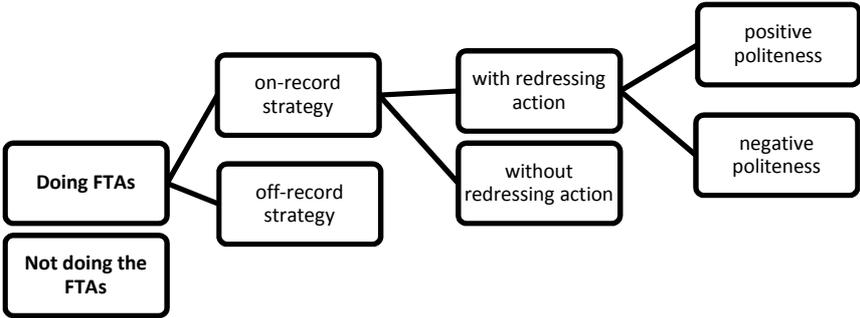


**Figure 1: Politeness strategies (Brown and Levinson, 1987)**

If the FTA is used without redressive action, it is not possible to affect the force of its imposition on the negative and/or positive face of an individual. Accompanying the FTA with a positive and/or negative redressive action provides the participant with a counterbalance to

the effect the FTA has on others and results in negative or positive politeness. Going off record allows the participant to avoid responsibility for the FTA since he/she can be attributed more than one intention. Finally, not doing the FTA means that the participant's face is not threatened (Brown and Levinson, 1987:89). How does the politeness theory motivate the use of hedges in academic discourse?

Investing face into a scientific research article is inevitable. The authors present their propositions under the scrutiny of the scientific community and need something, with which they can defend themselves or, more specifically, their public self-image. Hedges serve as a device providing the much needed defence. Brown and Levinson identified four categories of hedges:

- **Hedges on illocutionary force** – means of satisfying the speaker's want "don't assume H is willing/able to do A"
- **Hedges on Grice's maxims** – emphasize that the cooperative condition has been met, notes that it may not have been met, or question whether it has been met
- **Hedges on politeness strategies** – function directly as notices of violations of face wants
- **Hedges in prosodic and kinesic usages** – prosodic and kinesic means of indicating tentativeness or emphasis (Brown and Levinson, 1987:146)

These four categories of hedges belong under the concept of negative politeness. There is also a mention of positive politeness strategies which might be considered as hedging, which is establishing of a common ground with the addressee, or merging points of view through the use of an "inclusive *we*" (Brown and Levinson, 1987:116-117).

Drawing upon the politeness theory, hedging thus can be seen as a strategy of both types of politeness. Nevertheless, standardly, it is primarily seen as a strategy of negative politeness, since the prototypical use results in distancing the authors from their propositions and allowing them to avoid full responsibility for their claims. "Negative politeness enables the authors to make the communicative intention clear to the reader (go on-record), but with

redress, thus making effort to minimize the imposition of the proposition" (Wilamová, 2005:85). Every author has the ability to choose a strategy that will ensure a maximum effect, while minimizing the damage to face. This means that every scientific research article contains either claims that are supposed to be a contribution to knowledge or claims that either deny or criticize previous claims of others. A new proposition will demand general acknowledgement which threatens the negative face of the academic community, since it imposes obstructions and limits on them. This results in tension that has to be mitigated by face-saving strategies (Čmejrková et al., 1999:53).

## 2.3.1.2. Modality

Modality is a concept, which is represented by intermediate steps on a scale which spreads out between yes (a positive pole) and no (a negative pole). The scale includes degrees of indeterminacy ranging from expressions conveying certainty to relative probability (Halliday, 1985:147). There are two main types of modality – deontic and epistemic. Deontic modality is concerned with the logic of obligation and permission, e.g. the use of the modals in sentences such as:

> **Example 3:** *The car must be ready. (it is obligatory that the car be ready)* (Crystal, 2008:136)

Deontic modality does not contribute to the present study and will not be discussed further. What is important for this thesis and the concept of hedging is epistemic modality, which can be defined as being concerned with the logical structure of statements which assert or imply that propositions are known or believed, e.g. the use of modals in sentences such as:

> **Example 4:** *The car must be ready. (it is surely the case that the car is ready)* (Crystal, 2008:171)

Employing modality in order to express doubts about propositions brings us to hedging. The existence of modality in academic writing is conditioned by the nature of the process of scientific research, which consists of searching, hypothesizing (validating and also refuting them), and replacing old certainties by new ones. All of this takes place within academic community. Epistemic stances are not subjective in the sense of authorial whim or individual intentions but in the sense of employment of the scholar's personal knowledge and experience, which makes modality and indispensable element of academic writing (Čmejrková et.al, 1999:189). While expressing (epistemic) modality is often connected with the use of modal auxiliaries, these are not, by far, the only possible option. According to Hyland (1998:44-46), expressing tentativeness and personal attitudes of commitment and detachment falls within the semantic domain of modality and this can be expressed for example by tentative adverbs, verbs, clauses of concession, passive constructions, source attributions, questions, etc.

## 2.4 Taxonomy of hedges

To be able to analyse hedges which appear in the examined scientific research articles, it is necessary to settle upon a suitable classification. The classification of hedges appearing in the corpora will be two-fold. Hedges will be categorized according to the form in which they appear (i.e. verb, adverb, noun…etc.) and also to the function they exhibit in the analysed text (writer-oriented, reader-oriented, and content-oriented)[9]. The taxonomies are described in detail in the following chapter.

---

[9] For more detailed description see chapter 2.4.2.2.

## 2.4.1 Taxonomy according to form

The formal taxonomy focuses primarily on semantics of the individual items and divides them accordingly into categories. The categories were gathered from the previous studies of Malášková (2015), Varttala (2001) and Hyland (1998) and include lexical and non-lexical items.

### 2.4.1.1 Verbs

There are five categories of verbs, including modal verbs, non-factive tentative reporting, tentative cognition, activity, and tentative linking verbs. These are described in more detail below.

#### 2.4.1.1.1 Modal verbs

Modal auxiliary verbs expressing epistemic modality count among frequent means of hedging. There are nine central modals: *can, could, may, might, will, would, shall, should,* and *must* (Biber et al., 1999:485). With the exception of *can* and *shall*, which are generally regarded to be unable to express epistemic meaning in affirmative sentences, all of the modal verbs are supposed to allow an epistemic reading, which can be seen in the Table 1.

| Modal | Epistemic meaning | Paraphrase |
|---|---|---|
| **can** | none | none |
| **could** | tentative possibility | I believe/ perhaps |
| **may** | epistemic possibility | I believe/ perhaps |
| **might** | epistemic possibility | I believe/ perhaps |
| **will** | prediction about present based on repeated experience | I confidently expect |
| **would** | past prediction/ hypothetical prediction | I confidently expected/ I expect given unlikely conditions |
| **shall** | prediction about present based on repeated experience | I confidently expect |
| **should** | tentative assumption based on inference | I assume /probably |
| **must** | confident inference based on deduction | I am sure |

Table 2: Epistemic meanings of modal verbs (Coates, 1983)

The case of *can* as a hedging device will be discussed in more detail below. *Shall* will be excluded from the analysis because apart from the Coates' account, I have not been able to find evidence in support of its epistemic uses or hedging function.

May/might

Both epistemic *may* and *might* express possibility but *might* is said to be more tentative (Dušková et al., 2006:192) [10]. According to Biber et al. (1999), *may* is extremely frequent in academic prose.

> **Example 5:** *The only problem **may** be that the compound is difficult to remove after use.*
>
> **Example 6:** *Of course, it **might** be the case that i t had been settled long before that.* (Biber et al., 1999:492)

Can/Could

The auxiliary verb *can* seems to be very problematic in terms of its pragmatic analysis because while most modals have two different types of meaning (root and epistemic), *can* does not seem to allow epistemic reading in affirmative sentences. Affirmative *can* thus expresses primarily a deontic/intrinsic meaning (permission, possibility, and ability) (Hyland, 1998:109). Despite these claims, it has been argued that *can* can be successfully used as a hedge that weakens the strength of an assertion and also helps the authors to avoid personal responsibility for their statements:

> **Example 7:** T*his [the omission and the colloquial register] **can** have an impact on the answer* […] (Malášková, 2015:79)

Meyer notes that this example would be „interpreted as understating the certainty of its truth and that the reducing of the degree of certainty to a mere possibility may be read as a weakening of the assertion"(Meyer, 1997:36). According to Huschová (2014:94), in such cases, *can* expresses in root possibility and thus convey what is circumstantially possible and

---

[10] All cited material from Dušková et al. (2006) appears in my translation.

can be interpreted in terms of enabling conditions. Therefore it seems that the phenomenon of hedging does not have to be necessarily strictly limited to epistemic modality.

*Could* may standardly express epistemic sense of tentative possibility (paraphrasable with *I believe / perhaps*). Furthermore, *can* and *could* often occur with passive voice (Biber et al., 1999: 499) and in these cases *can* and *could* is used to avoid overt identification of the human agent of the main verb.

> **Example 8:** *Each interpretation **can be seen** generally to flow through the abbreviated text as a whole.* (ibid.)
>
> **Example 9:** *Nonetheless, **it could be argued** that the choice over productive use should be left to the learners, presenting further classroom teaching challenges.* (Malášková, 2015:79)

Will/would

*Will*, expressing epistemic modality, is connected with events that are possible, and whose possibility is based on the judgement of the speaker. *Would*, in comparison, also expresses possibility (the speaker's deduction), however the degree of possibility is lower (Dušková et al., 2006:200,202).

> **Example 10:** *Who is the girl George is talking to?*
> *- That **will** be Ms. Parker, no doubt.*
> *- That **would** be Ms. Parker, I expect.* (Dušková et al., 2006:202)

Should

Epistemic *should* is used to convey a degree of possibility, which is lower than the degree expressed by *must*. When referring to future events, only *should* conveys the epistemic meaning (in comparison to *must*) (Dušková et al., 2006:195-196).

> **Example 11:** *Indeed, it **should** be possible to test predictions about the carbon gain efficiency of sunflecks depending on their duration and intensity* […] (Hyland, 1998:114)

It is paraphrasable by "I assume" and expresses "tentative assumption based on reference (Coates, 1983)."[11]

Must

*Must*, as a device of epistemic modality, expresses a high level of probability. The speaker is said to consider the event modified by the epistemic *must* as almost certain. (Dušková et al., 2006:195). *Must* is used to express confident inference based on deduction from the facts available (Hyland, 1998:106).

> **Example 12:** *I suggest therefore that D1 degradability **must be** causally linked to Q B site occupation which in turn determines PEST region accessibility to protease through allosteric effects.* […] (Hyland, 1998:109)

The epistemic use of *must* is often paraphrasable by "I am sure", thus the author expresses a (high) degree of certainty that "degradability" surely is causally linked to the other phenomenon, a proposition, that is based on previous evidence (notice the conjunction "therefore").

2.4.1.1.2 Non-factive tentative reporting verbs

The following categorization of verbs is based upon that proposed by Varttala (2001). The non-factive verbs include performative verbs which may be interpreted performatively, but they can also be found in contexts other than those traditionally understood as allowing a performative interpretation (Hyland, 1998:120). These, according to Varttala (2001:121) "can be seen as tentative devices useful in constructing reports of research by other scholars (13) or tentatively describing the author's own work (14)".

> **Example 13:** *Konner (1982) **argues** that* […]
> **Example 14:** […] *we **propose** that* [...] (ibid.)

---

[11] As cited in Hyland (1998:106)

2.4.1.1.3 Tentative cognition verbs

These verbs refer to the mental status or mental processes of those whose views are reported. Their hedging function is based on their ability to introduce information which is then seen as based on subjective cognition activity rather than empirical evidence (Varttala, 2001:122)

**Example 15:** *I assume* that […] (ibid.)

2.4.1.1.4 Activity verbs

The last category of verbs was proposed by Malášková (2015), and it includes verbs that "express understatement rather than bold achievement in terms of the results of the research presented in the texts." It includes verbs such as *attempt, try* and *aim.* These are seen as reader-oriented hedges (Malášková, 2015:74).

**Example 16:** ***We have tried to show*** *how metaphor in particular, and most figurative language in general, is reinterpreted to be understood by the reader or listener.* (ibid.)

2.4.1.1.5 Tentative linking verbs

The verbs included in this category "express tentativeness concerning either the ideas put forth by the author or those expressed in the sources referred to" and include linking verbs such as: *seem*, *appear*, or *tend* (Varttala, 2001:123).

**Example 17:** *It also **appears** that the truncation errors have an impact* […] (ibid.)

## 2.4.1.2 Adverbs

The formal categorization of adverbs has been an issue addressed by other studies (e.g. Hyland 1998, Varttala 2001, and Malášková 2015). Nevertheless, none of them offers straightforward answers as to the ideal approach to this category. Hyland (1998), whose work serves as the basis for the other two studies mentioned above, approached adverbs with regard to their syntactic function (adjuncts, disjuncts), further distinguishing several sub-categories

(downtoners in adjuncts, style and content disjuncts). Varttala and Malášková decided to categorize the adverbs functioning as hedges according to their semantic properties. Varttala notes that "it appears that the hedging potential of adverbs is primarily a question of their basic meaning components rather than of whether they function syntactically as for instance adjuncts or disjuncts" (Vartalla, 2001:127). Based on this, I have decided to employ categorization based on the meaning of the adverbs rather than on their syntactic roles. This decision must be seen as a necessary compromise, which will ensure some level of homogeneity of the formal taxonomy. The categorization which I settled upon draws from both the aforementioned studies and contains the following categories: adverbs of indefinite degree, adverbs of indefinite frequency, adverbs of approximation, adverbs of certainty/doubt, and adverbs of evidence. Should the results of the analysis demand comments regarding the syntactic function of the adverbs, they will be provided in the Analysis section of the present study.

2.4.1.2.1 Adverbs of indefinite degree

Adverbs of indefinite degree "describe the extent to which a characteristic holds" (Biber et al., 1999:554). "They modify the extent to which, based on the writer's opinion, the adjectives in the proposition correspond with their prototypical meanings thus marking different degrees of precision and mark the writer's subjective assessment of the proposed information" (Malášková, 2015:82).

     **Example 18:** *This omission is **somewhat** surprising* […] (ibid.)

2.4.1.2.2 Adverbs of indefinite frequency

These adverbs are said to be "inherently indefinite" and are thus ideal for hedging purposes, because they allow the speakers not to commit to categorical assertion or to exact figures (Varttala, 2001:129).

**Example 19:** *Some support was found for the notion that new onset of sleep problems, a symptom **often** associated with PTSD* […] (Varttala, 2001:130)

2.4.1.2.3 Certainty/doubt adverbs

These adverbs express epistemic stance and serve to convey the writer's varying certainty or doubt applied to propositions. They help the writer in avoiding categorical statements, a strategy that is desirable in academic texts since it shields the writer from possible opposition coming from the academic community (Malášková, 2015: 85)

**Example 20:** *Creativity in the association of words with patterns is **presumably** one of the ways in which language change takes place.* (ibid.)

2.4.1.2.4 Evidence adverbs

These adverbs "can be used to show that a proposition is based on some evidence without specifying the exact source" (Biber et al., 1999: 557)

**Example 21:** *The challenge of making judges aware of the problem, however is **obviously** a considerable one* (Malášková, 2015: 87).

2.4.1.2.5 Approximation adverbs

The hedges in form of approximation adverbs may be used to give tentative approximation, which helps the writer to avoid providing exact numerical data (Varttala, 2001:132); in cases where such modified accuracy often signals that it is sufficient for current purposes (Hyland, 1998:140).

**Example 22:** *Finally, with **nearly** a fifth of witnesses already feeling intimidated by the prospect of giving evidence* […] (Malášková, 2015:86)

### 2.4.1.3 Nouns

The category of nouns contains five semantic sub-categories: tentative cognition nouns, tentative likelihood nouns, non-factive assertive nouns, research process nouns, and understatement nouns.

### 2.4.1.3.1 Tentative cognition nouns

Nouns in this category can be interpreted as hedges "when used tentatively to refer to vague idea, an impression, belief– a putative construct of thought or imagination." (Varttala, 2001:141) They hint that we are not dealing with unquestionable truth, but rather mental constructs of approximate characterizations of the matter (ibid.)

> **Example 23:** *The provisions also reflect the **belief** that the detrimental effects of epoxy coating on bond will decrease* […] (ibid.)

### 2.4.1.3.2 Tentative likelihood nouns

These nouns indicate that "although what is said is likely to apply, this may not be invariably or necessarily so (Varttala, 2001:142)."

> **Example 24:** *Another **possibility** (that may explain the results obtained) is related to the personality traits of many women entrepreneurs* […] (Varttala, 2001:143)

### 2.4.1.3.3 Non-factive assertive nouns

These nouns are "used to signal, that what is said may be an unfounded claim, not empirically validated fact, the issues dealt with are likely, but not absolutely certain to provide useful information, that the information is predictive by nature, or the analytical model suggested is only putative (Varttala,2001:140) "

> **Example 25:** *In order to investigate the **proposition** that perceptions of the current practice of quality management in the company will differ by strategic type, analysis of variance and mean comparisons were performed* […] (ibid.)

29

2.4.1.3.4 Research process nouns

This category, suggested by Malášková (2015:91) includes nouns that "refer either to the process or outcome of the research. According to her research, they often appear with personal nouns, which implies that the proposition regarding the research or results may not be generally applicable and apply only to the particular study in question.

> **Example 26:** *In **our** (admittedly limited) **database**, there are around three times the number of changes* (Malášková, 2015: 91)

2.4.1.3.5 Understatement nouns

The last category of nouns is represented by the so called "understatement nouns" again proposed by Malášková (2015). These are nouns that the writers use in order to present their work humbly, which also help to avoid possible criticism (Malášková, 2015: 92).

> **Example 27:** *The following is **an attempt** to provide criteria for the principled exclusion of data where this is necessary for the purposes of coherent analysis.* (ibid.)

## 2.4.1.4 Adjectives

The category of adjectives contains three subcategories – probability adjectives, adjectives of indefinite degree, and adjectives of indefinite frequency, distinguishing the adjectives on the basis of their meaning. It must be noted that this category also includes participial adjectives (-ing and –ed forms), which "may vary in how far they possess all the defining characteristics of the central adjectives (e.g. gradability) (Biber et al., 1999:530)." This is relevant especially for participial adjectives occurring attributively, since in predicative use (usually with copular verb *be*) it is very difficult to distinguish from verbs (ibid.)

2.4.1.4.1 Probability adjectives

Probability adjectives, as proposed by Varttala (2001:135), are "used to express different degrees of probability concerning the certainty or accuracy of what has been said." These adjectives often serve as content-oriented hedges (Malášková, 2015: 96).

**Example 28:** […] *we seek to investigate **possible** relationships* […] (ibid.)

2.4.1.4.2 Adjectives of indefinite degree

Adjectives of indefinite degree denote the extent to which the propositional information apply (Malášková, 2015:112) and allow the authors to invest the propositions presented with justifiable  degree of certainty or exactitude (Varttala, 2011:137).

**Example 29:** ***Significant*** *amount of cracking occur parallel to, but not in, the fillet near the leading edge of the pressure side* (ibid.).

2.4.1.4.3 Adjectives of indefinite frequency

These adjectives serve as "tentative qualifications where numerical exactitude is not necessary or possible, or as indications that what is said is based on the most characteristic features of a given phenomenon, and that it may not capture the full picture of the phenomenon or apply to each and every case" (Varttala, 2001:136)

**Example 30:** *We used the **usual** frequency of exposure to episodes of anger* […] (ibid.)

## 2.4.1.5 Pronouns

Anglophone writers are said to usually use personal pronouns (1st person sg.) to indicate their identity but also, quite often, they employ structures where the identity of the author remains unexpressed (passives, abstract rhetors). The use of 1st person plural *we* is restricted to texts written by two or more authors. (Chamonikolasová, 2005:2.2.). The use of

1st person singular *I*, is said to be "generally uncommon" save for more recent publications. Authors also often turn to passive constructions and abstract rhetors. However, the most frequently used device is the 1st person plural *we* used also in single authored articles and appearing in two sub-categories – "authorial" *we* used by single author and "inclusive" *we*, which includes the reader in the academic discourse (ibid.).

> **Example 31:** *This scene has received very little comment but is, **I think**, another of the play's remarkable conventions*. (Malášková, 2015:141)
>
> **Example 32:** ***We believe** that an interpretation of metaphor and other figurative language is a pragmatic reinterpretation of 'untruth' in known circumstances*. (Malášková, 2015: 73)

## 2.4.1.6 Non-lexical means

### 2.4.1.6.1 *If*-clauses

Hyland suggests that *if*-clauses (conditional clauses) are "a common means of qualifying commitment to methodology, theory or model, by making one circumstance dependent on another and thereby hedging the certainty of the outcome" (Hyland, 1998: 145).

> **Example 33:** ***If the scheme is correct**, **then** the orientation of the heme plane will almost be parallel* […] (Hyland, 1998: 146)

Furthermore, the *if*-clause may hedge the precision of results:

> **Example 34:** […] *indicating that only very small amounts, **if any**, of additional carotenoids like antheraxanthin could be present*. (Hyland, 1998:147)

### 2.4.1.6.2 Passive constructions

Passive constructions are a frequent means of back grounding authorial presence in academic discourse. Using passives is considered a writer-oriented hedging strategy, since it allows the author to present propositions without directly attributing them to himself/herself. (Hyland, 1996:15).

**Example 35:** *The BS fraction **is assumed** to originate from the center of the* […] (Hyland, 1996:15)

2.4.1.6.3 Questions

As Varttala (2001:147) notes, questions may be used as "the means by which the authors wish to engage the readers and thus draw their attention to the uncertainties concerning their results." Furthermore, according to Hyland, questions are "relatively uncommon means of highlighting knowledge limitations, but can be used to hedge the truth of a proposition by making it relative to the writer's state of knowledge" (Hyland, 1998: 143).

**Example 36:** *Is this just any anomaly associated with our particular sample, or a phenomenon unique to the fast-food industry?* (ibid.)

Questions are not a very common hedging strategy, but as evidenced by the studies mentioned above, they may be used as reader-oriented hedges.

Although I have assumed almost the exact formal classification of hedges as proposed by Malášková (2015) and Varttala (2001), which might seem as a shortcut, it proved necessary in order to achieve some degree of comparability of this study with the ones already undertaken and those that will analyse hedges in academic writing in the future. Devising a new classification with modified labels, but essentially identical content, would be counterproductive and only hinder future research in this area.

## 2.4.2 Taxonomy according to function

### 2.4.2.1 Salager-Meyer taxonomy

The taxonomy devised by Salager – Meyer for the purposes of her research consists of items expressing purposive fuzziness and vagueness (threat-minimizing strategy), those which reflect the authors' modesty for their achievements and avoidance of personal involvement and those related to the impossibility or unwillingness of reaching absolute accuracy and of

quantifying all the phenomena under observation (Salager-Meyer, 1994:6). The taxonomy is summarized in the following table:

| Category | Description | Examples |
|---|---|---|
| **Shields** | - all modal verbs expressing possibility<br>- semi-auxiliaries<br>- probability adverbs and their derivative adjectives;<br>- epistemic verbs (verbs which relate to the probability of a proposition or a hypothesis being true) | *May, might*<br>*to appear, to seem*<br>*probably, likely*<br><br>*to suggest, to speculate* |
| **Approximators** | - adaptors and rounders[12] of quantity, degree, frequency and time expressing heed and coyness. | *approximately, roughly, somewhat, quite, often* |
| **Personal doubt and direct involvement** | - expressions conveying authors' personal doubt and direct involvement | *I believe, to our knowledge, it is our view that ...* |
| **Emotionally-charged intensifiers** | - comment words used to project the authors´reactions | *Extremely difficult/interesting, of particular importance, unexpectedly, surprisingly* |
| **Compound hedges** | - juxtaposition of several hedges (double, treble, quadruple…) | *it could be suggested that..., it would seem likely that..., it would seem somewhat unlikely that...* |

**Table 3: Taxonomy of hedges – Salager-Meyer (1994)**

## 2.5.2.2. Hyland's taxonomy of hedges

Hyland's taxonomy of hedges draws from Zadeh's theory of fuzzy sets. Fuzzy set theory allows non-binary categorization, which means that items can be categorized according to the degree of their membership in one category or another, which is important when trying to categorize them within the proposed framework. Hyland also describes the variables determining the "core cases" – the prototypical examples of a category and states that the core cases "will most closely approximate to the meaning of that category, while examples at the periphery will exhibit less precise meaning"(Hyland, 1996:7-8) These variables concern the degree of specification (attribute hedges), verification (accuracy hedges) agentivity

---

[12] Prince et al., (1982)

34

(distinguishing between content- and reader-oriented hedges) and cooperativity (reader-oriented-hedges) (ibid., 8). Hyland also notes that it is important to keep in mind the inherent multifunctionality of hedges, stating that "cases of one category may include meanings associated with another" (ibid., 9). The following table summarizes Hyland's taxonomy:

| Category | Content – oriented hedges | | | Reader – oriented hedges |
| | Accuracy – oriented hedges | | | |
| | Attribute hedges | Reliability hedges | Writer – oriented hedges | |
| Description | specifying the extent to which a term accurately describes the reported phenomena | conveying the writer's assessment of the certainty of the truth of a proposition | occurring in a context which conceals the writer's viewpoint and avoiding personal responsibility for propositional truth | acknowledging personal responsibility for the validity of the propositional content or inviting reader involvement |
| Examples | 1. degree of precision adverbs: *partially, quite, barely* <br> 2. style disjuncts: *generally, approximately* <br> 3. qualification: *viewed in this way* | 1. epistemic modal verbs, adjectives, nouns, adverbs: *the posibility, may be, probably* <br> 2. content disjuncts: *presumably, apparently* <br> 3. expressions indicating knowledge limitations: *it is not known whether…* | 1. passive constructions: *is assumed to be* <br> 2. clausal subjects: *it might be speculated* <br> 3. abstract rhetors: *these data indicate* <br> 4. judgemental epistemic verbs + impersonal phrasing: *the model implies* | 1. personal attribution (verbs of judgement and deduction): *I believe, we infer* <br> 2. indefinite article: *a model* <br> 3. hypothetical conditionals: *if we assume that* <br> 4. questions |

**Table 4: Taxonomy of hedges according to function – Hyland (1996)**

2.5.2.3 Malášková's taxonomy

These two taxonomies were used most frequently in previous studies on hedging in academic discourse in various disciplines, however I would like to follow Malášková (2015) and use the modified classification model as the basis for my analysis, which builds upon Hyland's taxonomy but it considers the writer-oriented hedges a separate category. The classification model is following:

| Category | Content-oriented hedges | | Participant-oriented hedges | | |
|---|---|---|---|---|---|
| | | | Writer-oriented hedges | Reader-oriented hedges | |
| Description | aim at greater accuracy (precision) | aim at the extent of applicability/ generalizability | protect the writer by depersonalizing the information presented in the proposition | appeal to the reader by employing various strategies of reader involvement | attenuate assertiveness and appeal to the reader by personalizing the information presented in the proposition |

Table 5: Taxonomy of hedges (Malášková, 2015: 50)

Malášková reduces the number of sub-categories of content-oriented hedges and merges Hyland's attribute hedges and reliability hedges under one broader category. The writer-oriented hedges category has been removed from content-oriented hedges and established as a standalone category next to content- and reader-oriented hedges. The functional analysis in the present study will thus observe the categories detailed below.

2.5.2.3.1 Content-oriented hedges

The content-oriented hedges are those concerned with the relationship between propositional content and the representation of reality. Motivation for their use in academic discourse is the obligation of the authors to present propositions as accurately as possible (thus adhering to Grice's maxim of quality), while attempting to employ defensive strategies to shield themselves in case their claims are not accepted (a face-saving strategy). Content-oriented hedging devices thus may be used to accurately state uncertain scientific claims, while signalling to the reader that the proposition is built on plausible reasoning, but certain knowledge is absent (Hyland, 1996:10). Furthermore they are used to mark the extent to which the information in the proposition is true or applicable to real life phenomena ( Hyland's attribute hedges) and can also express the author's subjective assessment of the possibility of the propositional information being or becoming true (Hyland's reliability hedges) (Malášková, 2015:51). Content-oriented hedges are described as being the

"institutionalised" language of science, since they help convey the state of knowledge. (Hyland, 1996:10). Content-oriented hedges are mainly realized by epistemic lexical items, with regard to the taxonomy according to form in the present study, by all the categories of adverbs with the exception of the evidence adverbs, all categories of adjectives, nouns, modal verbs, and all the mentioned categories of full verbs.

> **Example 37:** […] *identifying disagreements in face-to-face workplace interactions was **often** difficult because they are **frequently** expressed implicitly* […] (NES)[13]
>
> **Example 38:** […] *syntactic correlations are rather weak and **may** prove ineffective in distinguishing subtle differences in the meaning conveyed.* (NCS)

2.5.2.3.2 Writer-oriented hedges

Writer-oriented hedges are primarily concerned with limiting the writer's commitment to statements and aim to defend the writer from the consequences of opposition by limiting his/her personal commitment. Pragmatic difference between content-oriented hedges and writer-oriented hedges lies in their primary concern. Content-oriented hedges focus on the proposition (they seek to increase precision by referring to the exact state of knowledge/ or how a proposition should be understood), while writer-oriented hedges focus on the writer and offer him/her protection (Hyland, 1996:15). Writer-oriented hedges are realized primarily by impersonal structures such as passive constructions (39), abstract rhetors (40), which are various nominal agents described by Halloran (1984:43) as being able "to supress human agency, to imply that what are essentially rhetorical acts – arguing, showing, demonstrating, suggesting – can be accomplished without human volition". There is also the strategy of attribution to literature (41), which allows the author to background his/her authorial presence,

---

[13] NES (native English speakers) and NCS (native Czech speakers) in the parentheses refer to the two analysed corpora.

and strategy of "speaking facts" (42), where the author presents a proposition as a "generally acknowledged fact used to support the truth-value of the claim (Šteflová, 2000:41)."

**Example 39:** *Firstly, the **argument was made** for the necessity of reading Grice's work in the philosophical context* [...] (NES)

**Example 40:** ***The analysis has shown** that DD (586) and FDD (263) appear in a large majority of cases non-embedded.* (NCS)

**Example 41:** ***Chomsky (2001) proposes** adopting a process of pair-Merge distinct from the standard set-Merge* [...] (NES)

**Example 42:** *It is**, of course**, not only the value of multimodality that serves here as an indicator of the development of the genre* [...] (NCS)

### 2.5.2.3.3 Reader-oriented hedges

The last category can be described as the expression of the writer's audience awareness. Propositions hedged by reader-oriented hedges either invite readers to participate in a dialogue and allow them to decide about the issues presented, since categorical assumptions leave no room for negotiation or function as means of expressing personal responsibility for the presented information and subjectivity. Claims overtly marked as subjective signal to the reader that they represent only one view on an issue and the reader is left to evaluate its significance. Hedging is a strategy of persuasion which ensures that the audience accepts and interprets presented propositions according to the writer's intentions and goals. Apart from that, the use of reader-oriented hedges may be also motivated by the conventions of academic discourse in general. (Hyland, 1996:18-19). Reader oriented hedging strategies are realized by means of personal attribution, e.g. clauses with personal pronouns as subjects with epistemic verbs (43), possessive pronouns with research nouns (indicating subjective resources/results/limitations) (44), or by means inviting reader involvement such as use of inclusive *we* (45), questions (46) or conditional clauses (47).

**Example 43:** *What **I have tried to do** here is develop a general theory of constituency […]* (NES)

**Example 44:** *[…] **my analysis** defines them as presenting new information about a subject […]* (NES)

**Example 45:** *And of course **we speak and interpret** not word by word but in the context of ongoing discourse […]* (NES)

**Example 46:** *How is it that the structuralist principles are, in an analogical way, reflected in Firbas's functional approach?* (NCS)

**Example 47:** ***If correct**, the account allows us to draw some general conclusions concerning contiguity.* (NCS)

# 3. Material and Methods

## 3.1 Material

The material for the present thesis consists of a selection of scientific research articles written by native English speakers (NES) and by native Czech speakers (NCS) writing in English. The sources from which these articles were retrieved are following:

|  | **Title of the journal** | **Peer reviewed** | **Number of articles selected** |
|---|---|---|---|
| **NES corpus** | The Journal of Pragmatics (Elsevier BV, Netherlands) | yes | 9 |
| | Language (Linguistic Society of America, Washington ,DC) | yes | 8 |
| | Journal of Linguistics (Cambridge University Press, Cambridge, UK) | yes | 3 |
| | Linguistic Inquiry (The MIT Press, Cambridge, USA) | yes | 3 |
| | | | 23(100%) |

| | | | |
|---|---|---|---|
| NCS corpus[14] | Brno Studies in English (Faculty of Arts, Masaryk University. Brno) | yes | 10 |
| | Ostrava Journal of English Philology (Department of English and American Studies Faculty of Arts University of Ostrava) | yes | 5 |
| | AUC Philologica- Prague Studies in English XXVI (Charles university in Prague – Karolinum press) | yes | 4 |
| | Linguistica Brunensia (Faculty of Arts, Masaryk University. Brno) | yes | 2 |
| | Linguistica Pragensia (Charles university in Prague – Karolinum press) | yes | 1 |
| | Studies in applied linguistics (Charles university in Prague – Karolinum press) | yes | 1 |
| | | | 23 (100%) |

**Table 6: Source academic journals**

All of the journals published within the Anglophone academic community and within Czech academia are peer-reviewed, which should ensure a high level of quality of the published articles. When it comes to their significance and scope, the Anglophone journals are all included in the Thompson Reuters JCR list[15], which offers statistical information based on citation data (calculating their impact factor[16]), which serves as one of the possible indicators or the journal's scope and prestige when it comes to its academic readership. None of the Czech journals are listed there, which makes the evaluation of their scope very difficult. In addition to this, regarding the scope of the journals and the size of their audience, journals are often indexed in different databases, ensuring their visibility in a wider academic community. The Anglophone journals are usually indexed in several databases, while the indexation of the

---

[14] All of the journal in the CNS corpus appear on the list of peer-reviewed non-impacted journals issued by the Section for Science, Research and Innovations (SRI) The Office of the Government of the Czech Republic.

[15] http://thomsonreuters.com/en/products-services/scholarly-scientific-research/research-management-and-evaluation/journal-citation-reports.html

[16] The impact factor is an average number of citations, claculated yearly, of the articles published in a journal in the previous two years.

Czech journals is usually lower (most often in SCOPUS or ERIH), which might influence the size of the academic audience the publication is able to reach.

In order to be available to analyse the differences in the use of hedging in the articles retrieved from the above described journals, the requirements for the data has to be determined. To analyse the articles as a whole proved to be problematic primarily due to the fact that the use (quantitative and qualitative) of hedging might vary depending on the section of an article. Thus, to achieve as high a degree of homogeneity in the data as possible, I have decided not to use the RAs as a whole, instead, only the concluding paragraphs ( marked most often as Discussion, Conclusion(s) or Concluding remarks) were extracted from each article. The concluding section of the articles was selected specifically due to the nature of information present and the strategies the authors employ in presenting the outcome of their work. According to the research conducted for example by Salager-Meyer (1994), Varttala (2001), and Hyland (1998) the concluding section is most heavily hedged, because the authors speculate, argue, contrast and extrapolate from the described results" and simultaneously they have to avoid stating the results too conclusively, which requires specific linguistic realization – hedging (Salager-Meyer, 1994:19).

The criteria for selecting an article into the corpora forming the basis of this study were following: firstly, target journals have been selected, both from the Anglophone academic community and from the Czech academic community. As for the topic, the article must have dealt with some linguistic phenomenon (the themes of the selected articles vary and cover issues regarding syntax, pragmatics, diachronic linguistics, discourse analysis etc.)[17] The varying thematic orientation of the research articles should not influence the results of the analysis in any way, since the concluding section should more or less uniformly

---

[17] The focus on linguistics is motivated by the assumption that linguists in general should be familiar with the concept of hedging and its proper use in academic writing.

present the results of each study in a convincing, yet tentative way, using hedging strategies and devices that are largely similar to both communities. When it comes to date of publication, only articles published between the years 2000 – present were found suitable for this study. Regarding the length of the conclusions, the ideal length was established to be 500 words. Finding appropriately sized conclusions, especially in Czech based journals proved to be quite a difficult task, since the articles considered often contained conclusions composed of only several sentences. Due to this fact, to obtain the final number of 23 source articles, more journals had to be researched in comparison to the NES data. The final selection of articles includes those whose concluding section ranges from 300 – 700 words. Shorter or longer contributions were automatically refused. The final corpus consists of 23 concluding sections written by native speakers of English and 23 conclusions written by Czech authors in English. The size of the corpora is following:

| | number of source articles | average length of the concluding section | number of words in the corpus |
|---|---|---|---|
| NES conclusions | 23 | 485 words | 11 154 words |
| NCS conclusions | 23 | 531 words | 12 211 words |

Table 7: Size of the analysed corpora

As for the authorship of the RAs, an effort has been made to select only single authored articles complying with the nature of the intended comparative study. In order to determine if the author of the article is indeed a native English speaker / native Czech speaker, a research has been conducted for each of them and conclusions have been made based on the available information. The selected journals usually include some biographic information about the author of an article (usually the university/organisation they are affiliated with). The information in the Czech based journals varies, however sufficient information about the authors of the articles used as the data for this study were retrieved. Even though the background of the authors might seem as the most important factor because we might

42

speculate that an author, born in an English speaking country might have been educated somewhere else and similarly a native Czech speaker may have been schooled in an English speaking country, it is not overwhelmingly relevant for the present study. What is considered more relevant is the intended audience, to which are the papers addressed, which correlates with the scope of the selected journals. The Anglophone based journals contain articles whose authors are presenting their research to a possibly much broader academic audience than the local Czech journals even though their content is written in English. Presenting research in these two different modes, in combination with the two different traditions of academic writing is hypothesized to influence the choice of hedging strategies and devices. More specifically, it is expected that the NES will employ more reader-oriented hedging than the NCS authors

## 3.2 Methods

Given the nature of hedging (no single lexical item can be considered as exhibiting hedging as its primary function – almost anything can be considered a hedge in a given context (Fraser, 2010: 202), it is not possible to devise a list of items that can be searched for in the text. The present study required a meticulous manual analysis of the selected texts, where the relevant words, phrases, or whole sentences have been marked, analysed and sorted according to the taxonomy described in Chapter 2.4.2. To be able to identify hedging devices in the text, I have used a series of tests, as proposed by Malášková (2015). She proposes that if a removal of a linguistic item results in any of the effects below, we are indeed dealing with a hedge:

- increase in the extent, scope or amount to which p is true for the phenomenon or
- increase in the extent, scope or amount to which p corresponds to reality
- increases the writer's commitment to p

- increases the assertiveness of the utterance (Malášková, 2015: 64)

The following sentences excerpted from my data serve as examples of this method:

**Example 48:** *Potentially at least, it seems that the suffix could be used to primarily form derivatives* […] (NES)

A possible non-hedged paraphrase of this proposition might look like this - *The suffix (primarily) forms derivatives.* The example above shows a very heavily hedged proposition in which the author employs several instances of content-oriented hedges (*potentially, at least, could)*, some of them embedded in impersonal constructions serving as writer-oriented hedging strategies (it *seems, passive construction*).

Identifying, analysing, categorizing, and counting the linguistic items in the texts has proved to be a fairly difficult task and it is necessary to clearly describe the method used in the present study. As has been already mentioned hedges cannot be identified on a basis of a pre-set list of individual items. It is important to note that even though we have these tests the identification and analysis of hedges is inevitably subjective and must be regarded as such. It means that there may be items identified as hedges, which could be regarded by some as not having this function and vice versa. As for the analysis of different forms of hedges (this is relevant to lexical means of hedging) appearing in the corpora, each occurrence of a relevant lexical item will be classified according to the taxonomy described above and each lexical item will be considered one instance of a hedge, regardless if it appears in a more complex structure with other hedging devices or not:

**Example 49:** *A more detailed analysis of the data may show more clearly some other tendencies* […] (NCS)

The example sentence above is thus considered to contain two research-process nouns (*analysis, data*), one tentative likelihood noun (*tendencies*) one modal verb (*may*), one activity

verb (*show*), a quantifier (*some*) and an indefinite pronoun (*other*). When it comes to functional analysis, the above example sentence will be considered as a whole as one instance of an impersonal reference to limits of the present research, with one instance of an embedded abstract rhetor structure (*analysis+show*). Both these strategies will appear within the writer-oriented hedging category. However, as will be apparent from the analysis, it is not possible to leave out the individual elements serving as content-oriented hedges. This means that the quantification will see single items serving as content-oriented as individual instances. Since I am dealing with two corpora of different sizes, the only possible way to compare the resulting frequencies of the hedges and the strategies found in the source texts is to compare the results through relative frequency, which can be calculated using the following formula: $REL = \frac{ABS}{N} \, x \, 1000$ which will offer normalized results of the number of items appearing in the corpora per 1000 words. In order to be able to draw some conclusions from the observed differences between the two corpora, the results will be compared using log-likelihood, a statistical measure suitable for different sized corpora (Reyson and Garside, 2000:1), which should provide us with the information regarding the statistical significance of the results.[18] These data should point at the categories of hedges that may be seen as prominent in one corpus or the other.

---

[18] Log-likelihood (LL) was counted using online calculator (available at: http://corpora.lancs.ac.uk/clmtp/2-stat.php), with p<value of 0,05 (95% confidence interval), which means that any LL higher than 3.84 is statistically significant.

# 4. Analysis

In this chapter, I will first offer a concise overview of the formal means of hedging as found in the corpus of conclusions written by native speakers of English and those written by native Czech speakers. Then a detailed description of the formal means of hedging based on the taxonomy introduced in Chapter 2.4.1 will be presented for both the corpora, followed by a functional pragmatic analysis of the hedges found in my data.

## 4.1 Formal means of hedging

The following table chapter offers an analysis of the lexical and non-lexical items functioning as hedges in the analysed corpora. Results acquired from both the corpora are presented side by side in tables including the forms, number of instances, and relative frequency per 1000 words in parentheses. The results are sorted according to the relative frequency of items in the NES data and the individual categories are presented in the same order. The following table offers overall frequencies of lexical and non-lexical means of hedging found in the corpora:

| Formal means of hedging | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| | Frequency (RF) | | Frequency (RF) |
| Lexical means | 929 (76,1) | Lexical means | 786 (70, 5) |
| Non-lexical means | 116 (9,5) | Non-lexical means | 126 (11,3) |
| TOTAL (RF) | 1045 (85,6) | TOTAL (RF) | 912 (81,8) |

Table 8: Formal means of hedging – overview

The overall results show that there is no significant difference in the frequencies of either lexical or non-lexical means of hedging between the two corpora. Thus is can be said that when it comes to the formal means of hedging in general, both the native English authors and native Czech authors employ more or less similar number of them in their texts. The Table 9 shows what kinds of lexical means in particular were found in the corpora:

| Lexical means of hedging | | | |
|---|---|---|---|
| | **NES Frequency (RF)** | **NCS Frequency (RF)** | **Log-likelihood (p-value< 0,05)** |
| **VERBS** | | | |
| modal verbs | 82 (6,7) | 78 (7,0) | 0,07 – not significant |
| tentative cognition verbs | 67 (5,5) | 47 (4,2) | 1,95 – not significant |
| non factive tentative reporting verbs | **64 (5,2)[19]** | 37 (3,3) | **5,7 – significant** |
| activity verbs | 60 (4,9) | 68 (6,1) | 1,49 – not significant |
| tentative linking verbs | 21 (1,7) | 30 (2,7) | 2,25 – not significant |
| **VERBS TOTAL** | 294 (24,1) | 260 (23,3) | 0,14 – not significant |
| **NOUNS** | | | |
| research process nouns | 133 (10,9) | 145 (13,0) | 2.17 – not significant |
| tentative cognition nouns | **59 (4,8)** | 24 (2,2) | **12,23 - significant** |
| non-factive assertive nouns | **23 (1,9)** | 7 (0,6) | **7,61 - significant** |
| understatement nouns | 12 (1,0) | 10 (0,9) | 0,05 – not significant |
| tentative likelihood nouns | 10 (0,8) | **24 (2,2)** | **7,28 - significant** |
| **NOUNS TOTAL** | 237 (19,4) | 210 (18,8) | 0,10 – not significant |
| **ADVERBS** | | | |
| degree | 32 (2,6) | **58 (5,2)** | **10,16 - significant** |
| frequency | 31 (2,5) | 44 (3,9) | 3,60 – not significant |
| other | **30 (2,5)** | 5 (0,4) | **17,62 - significant** |
| certainty/doubt | 25 (2,0) | 14 (1,3) | 2,23 – not significant |
| evidence | 12 (1,0) | 13 (1,2) | 0,18 – not significant |
| approximation | 10 (0,8) | 10 (0,9) | 0,04 – not significant |
| **ADVERBS TOTAL** | 140 (11,5) | 144 (12,9) | 1,0 – not significant |
| **PRONOUNS TOTAL** | **113 (9,3)** | 41 (3,7) | **28,81 - significant** |
| **ADJECTIVES** | | | |
| other | 29 (2,4) | 23 (2,1) | 0,26 – not significant |
| indefinite degree | 23 (1,9) | 17 (1,5) | 0,44 – not significant |
| probability | 22 (1,8) | 15 (1,3) | 0,77 – not significant |
| indefinite frequency | 8 (0,7) | **26 (2,3)** | **11,73 - significant** |
| **ADJECTIVES TOTAL** | 82 (6,7) | 81 (7,3) | 0,25 – not significant |
| **OTHER LEXICAL MEANS TOTAL** | 63 (5,2) | 50 (4,5) | 0,55 – not significant |
| **TOTAL (RF)** | **929 (76, 1)** | **786 (70,5)** | 2,5 – not significant |

**Table 9: Lexical means - results**

---

[19] Bold figures mark statistically significant differences, here and in the tables that follow.

There are seven main categories of lexical hedging devices within the formal taxonomy. Based on the results presented in the Table 9 above, frequencies of none of the main categories show a significant difference, except for the category of pronouns, where the gap is very obvious and such a result complies with the different characteristics of the Anglophone and Czech academic writing in terms of authorial presence. The high frequency of pronouns in NES data is subsequently expected to show in the functional analysis. There are also significant differences in frequencies of seven of the subcategories. Four show higher frequency in the NES corpus, while three are higher in the NCS data. Nevertheless there does not seem to be any pattern that would allow drawing any conclusions based on these results.

## 4.1.1. Verbs

The first category presented according to the frequency of occurrence would be modal verbs followed by the other semantic categories namely: tentative cognition verbs, non-factive tentative reporting verbs, activity verbs, and tentative linking verbs.

### 4.1.1.1 Modal verbs

| Modal verbs | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| VERB | Frequency | VERB | Frequency |
| would | 19 | may | 38 |
| may | 18 | can | 21 |
| can | 18 | would | 6 |
| might | 11 | could | 5 |
| will | 5 | may not | 3 |
| could | 5 | might | 2 |
| must | 2 | will | 2 |
| would not | 2 | should | 1 |
| may not | 1 | | |
| might not | 1 | | |
| **TOTAL (RF)** | **82 (6,7)** | **TOTAL (RF)** | **78 (7,0)** |

Table 10: Modal verbs - results

The use of modal auxiliary verbs as hedging devices is quite a frequent strategy in research article genre and the chief means of expressing modality in general. Expression of modality is an important aspect of scientific writing and modal verbs serve to qualify statements and are crucial in presenting the author's views of their findings in a manner suggesting both politeness to the larger scientific community and the specific differences between research findings and unequivocal facts (Hykes, 2000:17). These mostly function as content-oriented hedges. Even though the overall difference in the frequency of use of modal verbs does not seem to be significant, it is possible to say that there is a marked difference in the use of the modal *may*, which is significantly higher (LL-9.23) in the NCS corpus and in the use of the modal *would*, which is higher (LL-5.98) in the NES data.

**NES data**

The data show seven modal verbs appearing in the corpus, plus negative forms in three of them. The total number of modals employed as hedges is 82, with the highest occurrence of the modals *would*, *may*, and *can*.

**NCS data**

The NCS corpus contains eight modals occurring in total of 78 instances. The most frequent modals here are *may*, *can* and *would.*

<u>Would/will</u>

Hyland (1998:111) mentions Coates' (1983) observation that *would* serves as the main hypothetical modal with epistemic meaning and it is a device of reader-oriented hedging strategies (cf. *if*-clauses). It is the most frequent one in the NES data and third most frequent one in the NCS data.

**Example 50:** *With respect to metathesis, this **would suggest** that low-frequency nonoccurring sound sequences **would tend to** lose out to more practiced sequences.* (NES)

In the example provided, we can see two instances of the modal *would* convey the meaning of a hypothetical prediction (conditional clause). In the first instance *would* appears with a non-factive tentative reporting verb *suggest* and in the second with the tentative linking verb *tend to* expresses hypothetical prediction (Hyland, 1998:106). *Would* also appears as an element of larger reader-oriented hedging structures, e.g. a question:

**Example 51:** *How **would** the pattern found here emerge in less formal read speech like e-, and in the spontaneous speech of human-computer interaction?* (NES)

*Will* is used to express prediction based on some evidence or the speaker's judgement. In the example below, the author expresses belief based on some previous findings and predicts that if the conditions apply, the results will be as stated.

**Example 52:** *If this is the case, it follows that the results of language contact **will be** slower* [...] (NES)

The difference between predictions marked by *will* and *would* is the lower degree of probability in those appearing with *would* (Dušková et al., 2006:202).

May/might

*May* and *might* count among the most common modals in the NES data and *may* appears as the most frequent one in the NCS corpus further supported by two instances of *might*. *May* most often conveys epistemic possibility and thus modifies the speaker's commitment to the truth-value of the proposition (Huschová, 2015:44). Hyland notes that in his data there were many examples where the epistemic reading (author's lack of confidence

in the possibility that X) and root possibility reading (enabling circumstances which permit X) were equally possible and thus overlapped (Hyland, 1998:116-117).

> **Example 53:** [...] *considering the potential interplay of language experience and production on metathesis **may** also prove fruitful.* (NES)

The corpora also contain negative forms of the modals:

> **Example 54:** *When determining pragmatic functions of these parentheticals, prosody alone **may not** necessarily reveal them.* (NCS)

Can/could

*Can* has been described as not being able to express epistemic meanings in affirmative and its analysis proved to be quite difficult. Varttala (2001) and Malášková (2015) came across cases, where the interpretation of the modality expressed was not clear cut, and epistemic reading was somewhat possible. Nevertheless I suggest that even *can* while expressing root possibility that concerns the role of enabling conditions and external constraints on its occurrence, may be seen as a hedge. Consider the examples below:

> **Example 55:** [...] *a limited number of them, ranging from 26.0% in English to 53.8% in Czech, **can** be regarded as constituting speech acts by themselves.* (NCS)

If we employ the tests described in the methodological section of this study and remove the modal from the sentence, we are left with a more straightforward proposition *a limited number of them is regarded as constituting speech acts by themselves.*

> **Example 5:** *In sum, hashtags **can be used** to activate certain contextual assumptions, thus guiding the reader's inferential processes.* (NES)

Removing the modal again results in *hashtags are used to activate certain assumptions. Can*, in my opinion, hedges the proposition and expresses the possibility of using *hashtags to*

*activate certain assumptions*. These readings are further supported by the passive structure where ability reading is not suitable.

Analysing *can* as a hedging device may be possible also in sentences containing verbs in active voice:

> **Example 57:** *Miscues at the semantic and pragmatic levels **can** arise and interact with each other leading to a discourse which is perceived as lacking in specificity and relevance* (NES)

Removing the modal verb again renders the proposition more assertive – "miscues arise and interact [...]". While the reading with the modal left in place suggest that it is possible for them to arise, but they may as well not arise and interact with each other depending on external conditions. *Could* may expresses epistemic modality in the sense of *I believe* or root possibility similarly to *can*. As is seen in the example below, the author uses *could* to refer to past situation and hints at the possibility of finding these structures in other contexts.

> **Example 58:** […] *the structures described in this paper **could** theoretically be found in contexts where their FSP interpretation was different* (NCS)

Must

According to Hyland (1999:108), *must* is the predominant modal of inferential certainty, ranging from strong to weak. It is infrequent in the NES data, with only two occurrences. The corpus of NCS does not contain an instance of the epistemic *must*, only occurrences where it expresses obligation.

> **Example 59:** [...] *the results presented here show that it **must** be more than simply a single, context-free rule.* (NES)

The above example is paraphrasable by *I am sure, this is more than a single, context-free rule* (based on the results presented).

<u>Should</u>

Epistemic should "typically refers to the future and consequently has a more tentative meaning than would, expressing a less confident assessment of probability based on facts known to the writer" (Hyland, 1998:114-115)

**Example 60:** *All this **should be** achieved by strengthening Georgian language education.* (NCS)

The corpus of NES does not contain an example of epistemic *should*, only occurrences where it expresses obligation.

## 4.1.1.2 Tentative cognition verbs

| Tentative cognition verbs | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| **VERB** | **Frequency** | **VERB** | **Frequency** |
| consider | 11 | consider | 7 |
| see (as) | 10 | interpret | 7 |
| assume | 7 | see (as) | 5 |
| expect | 5 | regard as | 3 |
| observe | 4 | conclude | 3 |
| think | 4 | view (as) | 3 |
| hope | 3 | perceive as | 2 |
| interpret | 3 | observe | 2 |
| hypothesize | 3 | assume | 2 |
| regard (as) | 3 | understand | 2 |
| view (as) | 2 | believe | 2 |
| conclude | 2 | take as | 2 |
| take (a look) | 1 | look | 2 |
| wonder | 1 | conceive of | 1 |
| believe | 1 | imagine | 1 |
| perceive | 1 | augur | 1 |
| feel | 1 | take (into consideration | 1 |
| take into consideration | 1 | hope | 1 |
| guess | 1 | | |
| understand | 1 | | |
| wish | 1 | | |
| resemble | 1 | | |
| **TOTAL (RF)** | **67 (5,5)** | **TOTAL (RF)** | **47 (4,2)** |

**Table 11: Tentative cognition verbs - results**

**NES data**

The results of the NES data analysis shows 22 individual verbs (in total of 67 occurrences) that are considered to fit tentative cognition verbs label; verbs that are used to signal that the proposition presented is based mostly on subjective cognition activity rather than empirical evidence (Varttala, 2001: 122). The three most frequent ones were, *consider*, *see* (*as*), and *assume*.

> **Example 61:** *In this paper, I have presented what <u>I see as</u> an important deficit in the discussion* […] (NES)

In this case the author decided to use the personal pronoun *I*, which clearly indicates his authorial presence. This, in combination with the tentative cognition verb *see* (*as*), indicates that the following proposition is subjective. It presents the author's opinion, his perception of what he/she considers important and serves a reader-oriented hedge. These verbs may also appear in impersonal constructions such as:

> **Example 62:** *Generally, it seems to be that **the CP is assumed to take** on meaning rather closer to that of the general meaning of 'cooperation'* [...] (NES)

In this example the verb appears in passive construction without the agent of the action expressed, which implies (enforced by the adverb *generally*) that this might be (notice the main clause with the tentative linking verb *seem*) a commonly accepted fact. The impersonal structure allows the author to avoid commitment to the proposition. The whole proposition would be considered a writer-oriented hedge.

**NCS data**

The corpus of native Czech speakers writing in English contained 18 individual verbs in a total count of 47 items. The three most frequent ones were *consider, interpret,* and *see (as)*.

54

**Example 63:** […] *the <u>research **has revealed**</u> a higher number of compound back-formations* […] (NCS)

The above example shows that the tentative cognition verbs also often appear with abstract rhetors. In such cases the author chooses not to express his authorial presence directly but instead attributes the action to the current "research", which again shifts the responsibility for the proposition away from the author.

## 4.1.1.3 Non-factive tentative reporting verbs

This category of verbs shows a significant difference in the number of instances found in the two corpora (LL-5,07). While the lexical choices are more or less the same, the NES shows higher counts in the most frequent items. It might be linked to the overall higher number of personal pronouns in the NES corpus and the personal attribution constructions these verbs together with the pronouns constitute.

| Non-factive tentative reporting verbs | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| VERB | Frequency | VERB | Frequency |
| suggest | 21 | indicate | 10 |
| argue | 12 | suggest | 8 |
| propose | 8 | note | 4 |
| note | 5 | argue | 3 |
| claim | 4 | propose | 3 |
| outline | 4 | say | 2 |
| state | 3 | imply | 2 |
| indicate | 3 | comment | 1 |
| imply | 2 | state | 1 |
| declare | 1 | remark | 1 |
| say | 1 | point to | 1 |
| | | share | 1 |
| **TOTAL** | **64 (5,2)** | **TOTAL** | **37 (3,3)** |

**Table 12: Non-factive tentative reporting verbs - results**

**NES data**

There are 11 individual non-factive tentative reporting verbs in total of 64 occurrences in the native English speakers' corpus. The most frequent were *suggest*, *argue*, *propose*, and *note* in this particular order. These verbs can be used either to tentatively report the results or outcomes of the author's research or to cautiously present proposition of other authors.

> **Example 64:** <u>*The research here also* **suggests** *a need to return to meaning in non-native  discourse.*</u> (NES)

In the example above, the author tentatively expresses that the results of the study undertaken may require an examination of "meaning in non-native discourse" in opposition to other linguistic features. As can be seen here, these verbs often combine with abstract rhetors. In such cases they function as elements constituting writer-oriented hedges. However, the authors may also choose to use these verbs while overtly expressing their authorial presence:

> **Example 65:** <u>*I have* **argued** </u>*that the conversion process preserves that part of the morpholexical signature that defines the word as formally an adjective.* (NES)

The verbs of reporting are often followed by nominal content clauses (introduced by *that*) containing the reported proposition. The main clause comments on this proposition and hedges its content. Compare with the example (65) above: *The conversion process preserves that part of the morpholexical signature that defines the word as formally an adjective.* Presented as such, the proposition implies that it presents a fact, whereas with the clause including the non-factive tentative reporting verb, the author indicates that the proposition is based on his/her research, thus being presented subjectively. In instances of this nature, the proposition is seen to function as a reader-oriented hedge.

> **Example 66:** *That this is an area worth investigating* <u>*is* **suggested** *by Dell and colleagues (2000:1365)*</u> […] (NES)

The example (66) illustrates presenting propositions of others in one's research; however it is not presented as an indisputable truth but a mere suggestion. While employed in constructions referring to work of other authors, they function as writer-oriented hedges.

**CNS data**

In comparison to the NES results, the CNS corpus contained 12 individual verbs in total of 37 occurrences. The most frequent ones were *indicate, suggest*, *note*.

> **Example 67:** *The findings **indicate** that both dialogue participants (the doctor and the patient) employ positive politeness mechanisms* […] (NCS)

This example shows qualification of the proposition contained in the *that-clause*. In the main clause, the author employs an abstract rhetor (*findings*), which lowers the level of commitment the author invests in the proposition and the non-factive tentative reporting verb (*indicate*) further mitigates the proposed information. The higher ranking verbs do not appear in the CNS corpus in a structure with direct attribution to literature. The one that does appear in such structure is the verb *comment*:

> **Example 68:** *Whereas Fairclough **commented** on the promotionalization of British university discourse in the early 1990s* […] (NCS)

Again, the verb is used to tentatively express the way the proposition is presented – in this case, Fairclough's contribution to the topic is lowered to a comment.

## 4.1.1.4 Activity verbs

| Activity verbs | | | |
|---|---|---|---|
| **The corpus of NES** | | **The corpus of NCS** | |
| **VERB** | **Frequency** | **VERB** | **Frequency** |
| show | 13 | show | 18 |
| find | 7 | find | 10 |
| identify | 7 | reveal | 9 |
| demonstrate | 4 | attempt | 4 |
| attempt | 4 | contribute | 4 |
| contribute | 3 | illustrate | 3 |
| investigate | 3 | aim | 3 |
| discuss | 3 | discuss | 3 |
| reveal | 2 | support | 3 |
| seek | 2 | analyse | 2 |
| aim | 2 | investigate | 2 |
| add | 2 | identify | 2 |
| support | 2 | demonstrate | 1 |
| help | 1 | help | 1 |
| explore | 1 | determine | 1 |
| ask | 1 | summarize | 1 |
| look for | 1 | try | 1 |
| question | 1 | | |
| try | 1 | | |
| | | | |
| **TOTAL (RF)** | **60 (4,9)** | **TOTAL (RF)** | **68 (6,1)** |

**Table 13: Activity verbs - results**

**NES data**

The category labelled "activity verbs" contains verbs most of which "describe or refer to the research activity or its outcomes" (Malášková, 2015: 118) and they do so by expressing physical, mental, or communication activities, often attributed to inanimate entity as subject of the verb (Biber et al.,1999: 372). Total of 19 individual verbs in 60 occurrences appear in the NES corpus. The three most frequent ones were *show*, *find*, and *identify*.

> **Example 69:** […] *overt partitives **show** that complex nominal expressions combine information often considered either given or new.* (NES)

The "activity verbs" often combine with abstract rhetors, which again shift the responsibility for the claim from the author to abstract entity. The verb *show* hedges the proposition; since the interpretation of the proposition lies in the reader's hands (*Do they indeed show that?*). There are also more tentative verbs like *attempt,* which are used to express understatement in regard to the research conducted:

> **Example 70:** […] *we **are attempting to** characterise communication style differences at a greater level of subtlety* […] (NES)

The use of inclusive *we* as a way of incorporating the reader in the research/analysis process marks this example as an instance of a reader-oriented hedge.

**NCS data**

The NCS corpus contains 17 individual verbs in 68 instances. The three most frequent ones were *show*, *find*, and *reveal*.

> **Example 71:** *As for subordinate spatial clauses, they **have been found** only in end position* […] (NCS)

The activity verbs also appear in passive voice, allowing the author to background his/her authorial presence and thus contributing to realization of writer-oriented hedges.

> **Example 72:** ***I tried to** interpret separate sections of the whole passage analogically to the usual interpretation of a clause.* (NCS)

The example (72) shows the activity verb *try* with a $1^{st}$ person sg. pronoun *I* and a tentative cognition verb *interpret*. The verb *try* expresses understatement with regards to the outcomes research activity and the pronoun + the tentative cognition verb conveys subjectivity and represents a reader-oriented hedge.

## 4.1.1.5 Tentative linking verbs

| Tentative linking verbs | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| VERB | Frequency | VERB | Frequency |
| seem | 11 | seem | 16 |
| appear | 6 | tend | 9 |
| tend | 4 | appear | 5 |
| TOTAL(RF) | 21 (1,7) | TOTAL (RF) | 30 (2,7) |

Table 14: Tentative linking verbs – results

**NES data**

The NES data contained three tentative linking verbs: *seem, tend,* and *appear* in total of 21 occurrences.

> **Example 73:** ***It seems*** *that  functional implementation of the vertical axis (to broaden the FSP analyses) is worth investigating* […] (NES)

*Seem* and *appear* are used to mark likelihood in academic discourse and frequently appear in extraposed structures with a complement *that*-clause (Biber et al., 1999: 440). In the example above, the linking verb appears in a construction with an empty *it* subject, which may serve as a strategy that allows the author to distance himself/herself from the proposition and thus functions as a writer-oriented hedge.

**NCS data**

The NCS corpus contained the same verbs, although in higher total count (30 occurrences). While *seem* and *appear* are often part of impersonal structures functioning as write-oriented hedges, they are still considered to primarily hedge the proposition and thus representing content-oriented hedges.

> **Example 74:** […] *if used medially or finally without phonological prominence, they **tend to** hedge the proposition.* (NCS)

The author employs the tentative linking verb *tend* in the example above to cautiously propose that under certain conditions there is a tendency for the verbs investigated in his/her article to hedge a proposition.

## 4.1.2 Nouns

The category of nouns contains five semantic categories – tentative cognition, tentative likelihood, non-factive assertive, research process, and understatement nouns. The nouns in these categories might participate in all of the three hedging strategies.

### 4.1.2.1 Research process nouns

| Research process nouns | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| NOUN | Frequency | NOUN | Frequency |
| data | 16 | analysis | 17 |
| analysis | 13 | paper | 15 |
| study | 14 | research | 14 |
| example(s) | 14 | approach | 13 |
| model(s) | 13 | findings | 11 |
| paper | 10 | sample | 11 |
| findings | 10 | study | 10 |
| fact | 8 | fact | 9 |
| research | 8 | corpora/corpus | 8 |
| article | 5 | data | 8 |
| methodology | 3 | results | 7 |
| techniques | 3 | investigation | 4 |
| framework | 3 | model(s) | 4 |
| approach | 3 | discussion | 3 |
| examination | 3 | solution | 3 |
| discussion | 2 | hypothesis | 2 |
| investigation | 2 | methods | 1 |
| mechanisms | 2 | exploration | 1 |
| survey | 1 | search | 1 |
| | | inquiry | 1 |
| | | methodology | 1 |
| | | article | 1 |
| **TOTAL (RF)** | **133 (10,9)** | **TOTAL (RF)** | **145 (13,0)** |

**Table 15: Research nouns - results**

**NES data**

The category devised by Malášková (2015:91) contains the highest number of items – 19 nouns in 133 occurrences. These nouns are used to refer to research processes and their outcomes (ibid.). The nouns in this category are frequently found in the text serving as abstract rhetors.

> **Example 75:** *Corpus data confirm the importance of initial position in turns* […] (NES)

The example above shows that the research process nouns often function as abstract rhetors to which the author shifts the responsibility for the presented claims. The writer-oriented hedging effect is apparent, since subjectivity in this case would not be desirable. Stating that it is the data that confirm the importance renders the proposition more objective and the author is protected against possible disagreement.

**NCS data**

The NCS corpus contains 22 research process nouns in total count of 145 instances. Apart from being frequently employed as abstract rhetors, these nouns also serve the authors to imply the underlying subjectivity of the presented work. In the example above, it is done explicitly by employing a possessive pronoun. Such a strategy would be an example of a reader-oriented hedge.

> **Example 76:** […] *having finished **my research**, I was able to define a paragraph (a chapter) as a communicative distributional macrofield* […] (NCS)

## 4.1.2.2 Tentative cognition nouns

There is a significant difference (LL-12.23) in frequencies between the two corpora in this category, however this seems to be caused by items of very low frequencies in the NES

and this result does not seem to be indicative of any distinguishable patterns or tendencies in use.

| Tentative cognition nouns | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| NOUN | No. of instances | NOUN | No. of instances |
| view | 9 | observation | 8 |
| consideration | 7 | interpretation | 4 |
| assumption | 6 | assumption | 2 |
| notion | 6 | consideration | 2 |
| perspective | 5 | view | 2 |
| understanding | 4 | notion | 1 |
| observation | 4 | standpoint | 1 |
| interpretation | 4 | explanation | 1 |
| hypothesis | 3 | account | 1 |
| approach | 3 | feeling | 1 |
| puzzle | 2 | opinion | 1 |
| stance | 2 | | |
| look | 1 | | |
| explanation | 1 | | |
| thinking | 1 | | |
| desire | 1 | | |
| TOTAL | 59 (4,8) | | 24 (2,2) |

Table 16: Tentative cognition nouns - results

**NES data**

The corpus of articles written by native speakers of English contains 16 nouns in 59 occurrences. The most frequent are *view, assumption*, and *consideration*. These nouns are considered to function as hedges when they are "used tentatively to refer to a vague idea, an impression, a belief, or a construct of cognitive processes (Varttala, 2001:141)". They may serve as content-oriented hedges when they appear as single items (77) or reader-oriented hedges when they are a part of constructions where the author expresses personal attribution (78).

> **Example 77:** *The findings of that study confirm **the view** that ordering reversals are dispreferred* […] (NES)

In the example (77), the noun *view* is used as a content-oriented hedge since it presents the following proposition in the *that*-clause not as a fact, but as a possible attitude to the issue attributed either to the author or others.

**NCS data**

The NCS corpus contains 11 nouns of this category in 24 occurrences. The most frequent one is *observation.* The example (78) shows a reader-oriented strategy, where the author establishes contact and interacts with the reader through the use of the directive (*let me*) and the noun indicates the subjectivity of the proposition that will follow (it is the author's subjective observation) which is a signal to the reader that it may not universally apply.

> **Example 78:** *First, __let me share an observation__ concerning the functional comparison of FSP* […] (NCS)

## 4.1.2.3 Non-factive assertive nouns

| Non-factive assertive nouns | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| **NOUN** | **Frequency** | **NOUN** | **Frequency** |
| claim | 6 | proposal | 2 |
| implication | 5 | indication | 2 |
| proposal | 5 | clues | 1 |
| indication | 3 | outline | 1 |
| outline | 2 | claim | 1 |
| argument | 2 | | |
| **TOTAL (RF)** | **23 (1,9)** | **TOTAL (RF)** | **7 (0,6)** |

Table 17: Non-factive assertive nouns - results

**NES data**

This category is represented by six nouns occurring in 23 instances in the NES data, with *claim, implication* and *proposal* ranking the highest. These nouns indicate that the

information offered may not be based on facts or evidence and that they are essentially the authors' suggestions. These nouns serve most often as content-oriented hedges.

**Example 79:** *All that is novel here is **the claim** that this property of syntax does rather more explanatory work than is generally assumed.* (NES)

As can be seen in the example (79), the author suggests that the outcome of his/her study is merely a claim, i.e. the author's more or less unsubstantiated assumption.

**NCS data**

The NCS corpus offers five nouns in this category only in seven total occurrences. Similar case is represented by example (80), where the author hedges his/her proposition by introducing it as a *proposal*, which indicates that it might not be an "empirically validated fact (Varttala, 2001:140). The tentativeness of the proposition is further enforced by the use of the modal *may*.

**Example 80:** *Fourth, the fact that the homophony often disappears on demonstrative determiners is accounted for by the **proposal** that demonstratives may agree with the 'group' noun.* (NCS)

## 4.1.2.4 Understatement nouns

| Understatement nouns | | | |
|---|---|---|---|
| **The corpus of NES** | | **The corpus of NCS** | |
| **NOUN** | **No. of instances** | | **No. of instances** |
| step | 4 | aim | 5 |
| goal | 3 | goal | 4 |
| aim | 3 | step | 1 |
| attempt | 2 | | |
| **TOTAL (RF)** | **12 (1,0)** | **TOTAL (RF)** | **10 (0,9)** |

**Table 18: Understatement nouns - results**

The last category of nouns also comes from the study of Malášková (2015:92) and includes nouns which authors use in order to present their work humbly. Malášková considers them all unequivocally as reader-oriented hedges, which does not seem to be the case. These

are essentially content-oriented hedges; however they may appear in larger structures of the two other functional categories.

**NES data**

This category contains four nouns: *step*, *goal*, *aim,* and *attempt* in total of 12 occurrences. As can be seen from the example above, the author evaluates his work as being only a *step* in the desired direction of research, serving in this case likely as a reader-oriented hedge, since through the understatement the author may gain the reader's acceptance of the proposed claims

**Example 81:** *This study represents **a step** in that direction.*(NES)

**NCS data**

The NCS corpus shows only three understatement nouns – *aim, goal* and *step* occurring in ten instances. As can be seen in the example below, it is also possible to attribute the pursued aims to the paper/study/research itself, which will serve as a writer-oriented strategy.

**Example 82:** ***The aim of the paper*** *was to describe and analyze the operation of back-formation in neologisms over the last three decades.* (NCS)

## 4.1.2.5 Tentative likelihood nouns

| Tentative likelihood nouns | | | |
|---|---|---|---|
| **The corpus of NES** | | **The corpus of NCS** | |
| **NOUN** | **Frequency** | **NOUN** | **Frequency** |
| possibility | 5 | tendency | 12 |
| tendency | 3 | potential | 4 |
| potential | 2 | trend | 4 |
| | | contribution | 2 |
| | | possibilities | 1 |
| | | tradition | 1 |
| **TOTAL** | **10 (0,8)** | | **24 (2,2)** |

Table 19: Tentative likelihood nouns - results

**NES data**

There are only three tentative likelihood nouns in the NES data, occurring in 10 instances. These nouns are used to convey the sense of likelihood. In the example (83), the author refers to the following proposition as being only a possibility, i.e. his/her assessment of what was considered to be likely the case. The noun functions as a content-oriented hedge which is embedded in a clause which itself functions as a reader-oriented hedge.

> **Example 83:** *I have explored **the possibility** that syllable cut, along with nuclear length, are primary properties of Orm's phonology.* (NES)

**NCS data**

The NCS corpus offers slightly richer data, with six nouns in 24 instances out of which *tendency* occurred most frequently.

> **Example 84:** *This fact was interpreted as a **tendency** towards a non-finite mode of expression in written English.* […] (NES)

Again, the noun in (84) expresses tentatively that what is being described is "likely to apply but it may not be invariably or necessarily so (Varttala, 2001:142)." In this case the noun is a part of a larger, writer-oriented hedging structure.

## 4.1.3 Adverbs

The category of adverbs proved to be a rather complicated one in terms of formal description of the relevant items. It has been noted that the categorization is based on the semantics of the individual items, resulting in six categories – indefinite degree, indefinite frequency, certainty/doubt, evidence, approximation, and other[20]. These categories contain adverbs (and also some phrases functioning as adverbs) that serve the roles of modifiers

---

[20] Even though the category of *Other adverbs* is not the least frequent, it will be listed last.

and/or adverbials in the texts. Nevertheless this syntactic distinction is not entirely relevant for hedging, since their prevalent content-oriented hedging function is apparent in both cases, which will be shown on the examples below.

## 4.1.3.1 Adverbs of indefinite degree

There is a significant difference between the frequencies of these adverbs in the two corpora; the difference is caused by a higher number of low ranking items in the NCS corpora. This is explainable by the tendency of the Czech authors to avoid repetition and instead employing various synonyms. Adverbs in general are seen as the standard, most straightforward way of hedging, which might also be an explanation of the higher frequency of items in this category and also higher, yet not significant occurrences of adverbs in the NCS corpus in general.

| Adverbs of indefinite degree | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| ADVERB | Frequency | ADVERB | Frequency |
| rather | 4 | rather | 7 |
| at least | 3 | quite | 5 |
| generally | 3 | largely | 4 |
| primarily | 3 | relatively | 4 |
| partly | 2 | in general | 4 |
| relatively | 2 | significantly | 3 |
| in general | 2 | primarily | 2 |
| more or less | 2 | more or less | 2 |
| similarly | 2 | mostly | 3 |
| mainly | 1 | notably | 3 |
| somewhat | 1 | partly | 3 |
| largely | 1 | at least | 3 |
| preferentially | 1 | fairly | 2 |
| quite | 1 | not fully | 2 |
| not entirely | 1 | somewhat | 1 |
| not completely | 1 | not adequately | 1 |
| significantly | 1 | normally | 1 |
| in part | 1 | predominantly | 1 |
| | | greatly | 1 |
| | | partially | 1 |

| | | | |
|---|---|---|---|
| | | substantially | 1 |
| | | mainly | 1 |
| | | broadly | 1 |
| | | for the most part | 1 |
| | | similarly | 1 |
| **TOTAL (RF)** | **32 (2,6)** | **TOTAL (RF)** | **58 (5,2)** |

**Table 20: Adverbs of indefinite degree - results**

**NES data**

The NES corpus contained 18 instances of indefinite degree adverbs in 32 occurrences. The most frequent ones were *rather*, *at least* and *generally*.

> **Example 85:** ***Generally,*** *it seems to be that the CP is assumed to take on a meaning **rather** closer to that of the general meaning of 'cooperation'* […] (NES)

In the example above we can see two adverbs. The first one, *generally,* in the syntactic function of a disjunct and the second one *rather* in a position of a modifier, modifying the degree to what the following adjective applies. The author uses the disjunct to comment on or evaluate the following proposition, which in this case "renders the statement less absolute" (Varttala, 2001: 131) and functions as a content-oriented hedge. The modifier *rather* does a similar thing; because it attenuates the degree to what the following adjective applies, allowing the author to avoid a categorical claim.

**NCS data**

There are 25 individual adverbs of indefinite degree in the NCS corpus occurring in 58 instances. The most frequent ones were *rather*, *quite*, and *largely.* The author in the example below employs an adverb of indefinite degree *quite*[21] as a premodifier of another adverb (of indefinite frequency), adding tentativeness to the proposed frequency of occurrence.

---

[21] While modifying adjectives and other adverbs, these items have been described as downtoners (Quirk et al.,1985:445)

**Example 86:** *The findings indicate that both dialogue participants (the doctor and the patient) employ positive politeness mechanisms **quite frequently.*** (NCS)

## 4.1.3.2 Adverbs of frequency

| Adverbs of frequency | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| ADVERB | Frequency | ADVERB | Frequency |
| often | 12 | often | 13 |
| frequently | 4 | frequently | 10 |
| in general | 3 | usually | 8 |
| generally | 3 | sometimes | 5 |
| routinely | 1 | generally | 3 |
| commonly | 1 | occasionally | 1 |
| ordinarily | 1 | traditionally | 1 |
| usually | 2 | regularly | 1 |
| normally | 1 | rarely | 1 |
| sometimes | 1 | from time to time | 1 |
| not always | 1 | | |
| more often than not | 1 | | |
| **TOTAL (RF)** | **31 (2,5)** | **TOTAL (RF)** | **44 (3,9)** |

Table 21: Adverbs of frequency - results

**NES data**

The NES corpora contained in total 12 items fitting in the category of indefinite frequency adverbs in total of 31 occurrences. The three adverbs occurring most frequently were *often, frequently,* and *in general*.

**Example 87:** […] *the primary object (01) in a double-object construction must ordinarily precede the P and, **in general**, only these precede the P.* (NES)

As can be seen in the example above, the author uses the adverbial to hedge the following claim, indicating that it applies usually/in most cases, serving as a content-oriented hedge and making the proposition less categorical.

**NCS data**

The NCS data offer 10 individual frequency adverbs in total of 44 occurrences. The most frequent ones here were *often*, *frequently*, and *usually*.

> **Example 88:** […] *adjectival relative clauses in the newer version, which are **often** employed as a means of rendering a particular communicative unit more dynamic* […] (NCS)

In the example sentence, the use of *often* expresses an indefinite frequency in which the clauses are employed, which again allows the author to avoid precise statements to which he may not have appropriate data.

## 4.1.3.3 Adverbs of certainty/doubt

| Adverbs of certainty/doubt | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| ADVERB | Frequency | ADVERB | Frequency |
| perhaps | 12 | perhaps | 3 |
| potentially | 4 | possibly | 3 |
| not necessarily | 2 | not necessarily | 2 |
| arguably | 2 | likely | 2 |
| well | 1 | seemingly | 1 |
| plausibly | 1 | supposedly | 1 |
| not really | 1 | apparently | 1 |
| rightly or wrongly | 1 | theoretically | 1 |
| apparently | 1 | | |
| **TOTAL (RF)** | **25 (2,0)** | **TOTAL (RF)** | **14 (1,3)** |

**Table 22: Adverbs of certainty/doubt - results**

**NES data**

The NES data contain nine adverbs of certainty or doubt in 25 instances. The two most frequent ones were: *perhaps* and *potentially*. Adverbs of certainty or doubt are used to convey the epistemic stance of the author toward the proposition and show the level of certainty or doubt the author wishes to invest in it.

71

**Example 89:** ***Perhaps** some would argue that syllable cut should be considered only a derivative property dependent on other factors* […] (NES)

In the sentence shown above, the author uses the disjunct *perhaps* in order to express a low level of certainty of the following proposition, which ultimately conveys a mere possibility, serving as a content-oriented hedge.

**NCS data**

The NCS corpus offered eight individual adverbs in this category in a total count of 14 items. The most frequent ones were *perhaps* and *possibly*.

**Example 90:** […] *the distribution and semantics of premodifiers, and **possibly** some others, may be afforded more general stylistic relevance.* (NCS)

In this example the author, by employing the adverb *possibly*, expresses the belief that there may be some other points, which would have more general stylistic relevance in addition to those mentioned. If we remove the adverb, we are left with a proposition conveying that there indeed are some other points like that, but the author decided not to mention them. Such an evaluation is again an example of a content-oriented hedging strategy.

## 4.1.3.4 Adverbs of evidence

| Adverbs of evidence | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| **ADVERB** | **Frequency** | **ADVERB** | **Frequency** |
| of course | 7 | certainly | 5 |
| obviously | 2 | clearly | 3 |
| evidently | 1 | apparently | 2 |
| clearly | 1 | obviously | 2 |
| apparently | 1 | of course | 1 |
| **TOTAL (RF)** | **12 (1,0)** | **TOTAL (RF)** | **13 (1,2)** |

**Table 23: Adverbs of evidence - results**

**NES data**

Five adverbs of evidence were found in the NES data: *of course, obviously* and *evidently* being the most frequent ones. The adverbs of evidence are said to be used to show that a proposition is based on some evidence, without specifying the exact source (Biber et al., 1999:557). They may be considered "rather than attenuating the scope of the proposition, to mark the source of the claim (Malášková, 2015:129)", and as such they are a writer-oriented hedging strategy, constituting an exception within the category of adverbs.

> **Example 91:** *Meaning **of course** has always been central to discourse studies* […] (NES)

The prepositional phrase *of course* functioning as content disjunct here allows the author to express his/her assessment of the truth of the proposition, which is attributed to some external evidence (the previous studies) rather than the author himself/herself. In this view, these adverbs function as a writer-oriented hedge.

**NCS data**

The NCS corpus contained five adverbs of evidence in total of 13 occurrences. The most frequent ones were *certainly, clearly* and *apparently*.

> **Example 92:** […] ***it is certainly true*** *that finite subordinate clauses are still used more than non-finite clauses*. (NCS)

The example above again shows that external evidence (observed usage) is used as the basis for this categorical claim without direct attribution to the author. It follows that the adverb, being part of a clause, serves as a writer-oriented hedge.

## 4.1.3.5 Adverbs of approximation

| Adverbs of approximation | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| ADVERB | Frequency | ADVERB | Frequency |
| essentially | 5 | almost | 4 |
| almost | 3 | virtually | 2 |
| in essence | 2 | approximately | 1 |
| | | essentially | 1 |
| | | nearly | 1 |
| | | roughly | 1 |
| TOTAL (RF) | 10 (0,8) | TOTAL (RF) | 10 (0,9) |

**Table 24: Adverbs of approximation - results**

**NES data**

The NES corpus contained only three adverbs that fit in the category of adverbs of approximation, which occurred in total of ten instances. These were *essentially*, *almost*, and *in essence*. The adverbs of approximation are said to be used to convey imprecision and typically modify quantifying expressions (Biber et al., 1999: 557). However, not *essentially* nor *almost* in the NES corpus appear in any of the instances with a numeral or a quantifying expression.

> **Example 93:** *Other Indo-European languages present* **essentially** *the same picture*. (NES)

The adverb *essentially* in the example above conveys the meaning of *almost*, which means that the picture presented is identical in some respects but may differ in other (probably minor ones). Hyland (1996:11) notes that "these indicate greater precision in conveying the sense in which a proposition may be held to be true. " This means that by employing the adverb of approximation the author modifies the precision of the proposition to suit the evidence he/she possesses.

**NCS data**

The NCS data contain six individual adverbs of approximation in 10 occurrences, with *almost* and *virtually* being the two most frequent ones. Similarly to the behaviour observed in the adverbs above, these two adverbs do not occur with numerals or quantifying expressions in my data. The ones that do are *approximately* and *nearly*.

> **Example 94:** […] *a case study of (widely delimited) negation in one Czech-speaking child during his one-word period (from* **approximately** *12 to 18 or 19 months of age)* […] (NCS)

The use of *approximately* with the numeral again serves a similar function and indicates that the level of precision of the proposition offered is appropriate for the current purposes (Hyland, 1998:140). The lack of instances where these adverbs would appear with numerals and quantifying expressions is probably inherent to the nature of the data chosen for this study (concluding sections of the research articles) since numbers would be expected to appear in the Analysis/Results part of the RA.

## 4.1.3.6 Other adverbs

The data found in the two analysed corpora demanded establishing an additional category of adverbs, which I labelled "other adverbs". This category contains adverbs that would be considered as adverbs of place, time, and manner. There is a significant difference in the frequencies of the items in this category, caused primarily by the adverb *here*, which is a device of the reader-oriented hedging category indicating subjectivity.

| Other adverbs | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| ADVERB | Frequency | ADVERB | Frequency |
| here | 27 | here | 3 |
| elsewhere | 2 | at the moment | 2 |
| somehow | 1 | | |
| TOTAL (RF) | 30 (2,5) | TOTAL (RF) | 5 (0,4) |

**Table 25: Other adverbs - results**

**NES data**

The NES data contain three adverbs not fitting in the pre-established categories, namely *here*, *elsewhere*, and *somehow*.

> **Example 95:** *The claim that productively formed derivatives are not listed in the lexicon thus does not tally with the **data studied here.*** (NES)

It has been observed that the authors use the adverbial of place *here* to refer to their own data/ research, which might be seen as a reader-oriented strategy since it signals to the reader that the proposition applies only to the present data and it does not apply generally.

**NCS data**

The NCS data contain two adverbials that were not suitable for the previous categories – *here* and *at the moment* occurring in sum in five instances.

> **Example 96:** *In conclusion, **at the moment** the state's integration policies seem to outweigh language minority rights protection* […] (NCS)

The adverbial of time in example (96) hedges the proposition in the sense that the claim applies only at the time of the study, indicating that it might change. Such a tentative assessment might be seen as a content-oriented hedge.

### 4.1.4 Pronouns

While the above mentioned categories contain devices that were not expected to show any marked differences based on the characteristics of the different traditions of academic writing, pronouns form a category that should differ significantly, based on what tradition of academic writing (Czech or Anglophone) the writer represents. The authors within the Czech tradition of academic writing are said to exhibit a lower degree of authorial presence which is expected to be observable on the number of personal pronouns in the texts. The results presented below support this expectation. It is important to note that the category of pronouns is primarily focused on pronouns that are suitable for expressing authorial presence or attribution (1st person sg. and pl. personal and possessive pronouns, and *one*).

| Pronouns | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| PRONOUN | Frequency | PRONOUN | Frequency |
| we | 38 | I | 21 |
| I | 40 | we | 8 |
| my | 12 | my | 8 |
| our | 10 | us | 3 |
| us | 7 | me | 1 |
| one | 6 | | |
| TOTAL (RF) | 113 (9,3) | TOTAL (RF) | 41 (3,7) |

**Table 26: Pronouns - results**

The analysis of pronouns in the two corpora revealed an interesting discrepancy between the results that were expected and that were obtained. It has been noted that "authorial" *we* should not appear in single-authored RAs of native English authors however in nine instances it occurred in the corpus. The NCS corpus contained only one such case. This being said, the frequency of this device is so low that no conclusions can be made.

**NES data**

The numbers of occurrence of individual personal, possessive and the indefinite pronoun *one* (implying a general human agent) are markedly higher in the NES corpus. The highest frequency is exhibited by *we* and *I*.

**Example 97:** *In this paper**, I have presented what I see as** an important deficit in the discussion and interpretation of Grice's Cooperative Principle.* (NES)

The example (97) contains two instances of $1^{st}$ person singular pronoun marking the authorial presence of the author. Presenting propositions while acknowledging responsibility and indicating subjectivity serves as a reader-oriented hedging strategy.

**Example 98:** ***We reviewed** relevant literature concerning initial position in turns* […] (NES)

The example (98) shows the use of the authorial *we*, which, due to the fact that this RA was published as a single authored work, serves as a device backgrounding authorial presence and is considered a writer-oriented hedge. The NCS corpus also contained the pronoun *one*, which refers to "people in general" but with a particular reference to the author (Markkanen and Schröder, 1997:173).

**NCS data**

Although present, the occurrence of pronouns is low in the NCS data in comparison to the other corpus. While Czech authors are expected to favour impersonal structures in their texts, $1^{st}$ person sg. personal and $1^{st}$ person pl. personal pronouns do appear in the data.

**Example 99:** *By using non-finite forms **we achieve certain** syntactic economy because we avoid repeating what is clear from the surrounding context.* (NCS)

The example retrieved from the NCS corpus shows the use of inclusive *we*, a reader-oriented strategy that invites reader involvement and supports interactivity of the text.

## 4.1.5 Adjectives

The semantic categories of adjectives found in the data are adjectives of probability, adjectives of indefinite degree, adjectives of indefinite frequency, and a category of other adjectives, not fitting in the previous ones.[22]

### 4.1.5.1 Adjectives of probability

| Adjectives of probability | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| ADJECTIVE | Frequency | ADJECTIVES | Frequency |
| potential | 7 | possible | 3 |
| possible | 4 | likely | 2 |
| presumed | 2 | proposed | 2 |
| probable | 1 | apparent | 2 |
| hypothesized | 1 | potential | 1 |
| plausible | 1 | unlikely | 1 |
| expected | 1 | tentative | 1 |
| obvious | 1 | evident | 1 |
| preferable | 1 | obvious | 1 |
| theoretical | 1 | perceived | 1 |
| unlikely | 1 | | |
| proposed | 1 | | |
| TOTAL (RF) | 22 (1,8) | TOTAL (RF) | 15 (1,3) |

Table 27: Adjectives of probability - results

The adjectives of probability are the prototypical means involving epistemic modality, i.e. the author's assessment of the certainty of the truth of a proposition (Hyland, 1998:30).

**NES data**

The category of adjectives of probability presents a fairly varied group of 12 adjectives occurring in total of 21 instances. The adjective *potential* and *possible* are the

---

[22] Although the category of *Other* adjectives ranked the highest regarding the number of its members, it will be listed last.

highest ranking ones. As can be seen below, the adjective is used to indicate that there is a possibility of ambiguous reading of an affix if considered out of context. The adjective serves as a content-oriented hedge.

> **Example 100:** […] *it can be comfortably used to denote more than one function or sense without confusion (despite the **potential** ambiguity out of context).* (NES)

**NCS data**

The NCS corpus contained ten adjectives in total of 15 instances, with the most frequent adjectives being *possible* and *likely*. In the sentence below, *likely* allows the author to convey quite a high degree of probability that the proposed claim will apply, nevertheless the content-oriented hedge serve as a shield for the author in case the interpretation is different. As we can see the sentence contains a writer-oriented hedge in which *likely* is embedded.

> **Example 101:** […] *it would **most likely be** interpreted as an imperfection resulting from processing-time constraints.* (NCS)

## 4.1.5.2 Adjectives of indefinite degree

| Adjectives of indefinite frequency | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| **ADJECTIVE** | **Frequency** | **ADJECTIVE** | **Frequency** |
| broader | 6 | large | 3 |
| major | 4 | considerable | 3 |
| small | 3 | major | 2 |
| relative | 2 | relative | 1 |
| limited | 2 | broader | 1 |
| large | 2 | limited | 1 |
| slight | 1 | negligible | 1 |
| partial | 1 | remarkable | 1 |
| not full | 1 | mere | 1 |
| substantial | 1 | marked | 1 |
| | | minor | 1 |
| | | brief | 1 |
| **TOTAL (RF)** | **23 (1,9)** | **TOTAL (RF)** | **17 (1,5)** |

**Table 28: Adjectives of indefinite degree - results**

**NES data**

The category of indefinite degree adjectives is represented by 11 verbs in total of 23 instances. The most frequently occurring ones are *broader*, *major,* and *small.* These adjectives are used to "reduce the definiteness of what is said or to avoid commitment to precise figures (Varttala, 2001:137)".

> **Example 102:** […] ***In a broader sense****, the partitive analysis characterizes quantifier float as highlighting information about discourse referents.* (NES)

In this example (102), the adjective of indefinite degree is a part of a somewhat formulaic qualifying expression, indicating a degree of imprecision of the proposition that follows. The author is not willing to commit to the statement as it is and uses this content-oriented hedging strategy to specify the extent to which the phenomenon is accurately reported (Hyland, 1998: 30).

**NCS data**

The corpus of RAs written by native Czech speakers contains 10 adjectives classified as expressing indefinite degree in total of 17 instances. The example (103) shows the adjective modifying an expressing denoting the size of the processed transcripts and by pairing with an adverb of indefinite degree *relatively* they express quite a high degree of indefiniteness. Such use is considered to be a content-oriented hedging strategy.

> **Example 103:** *The analysis enabled the processing of a relatively **large** volume of transcripts* […] (NCS)

## 4.1.5.3 Adjectives of probability

| Adjectives of probability | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| ADJECTIVE | Frequency | ADJECTIVE | Frequency |
| potential | 7 | possible | 3 |
| possible | 4 | likely | 2 |
| presumed | 2 | proposed | 2 |
| probable | 1 | apparent | 2 |
| hypothesized | 1 | potential | 1 |
| plausible | 1 | unlikely | 1 |
| expected | 1 | tentative | 1 |
| obvious | 1 | evident | 1 |
| preferable | 1 | obvious | 1 |
| theoretical | 1 | perceived | 1 |
| unlikely | 1 | | |
| proposed | 1 | | |
| TOTAL (RF) | 22 (1,8) | TOTAL (RF) | 15 (1,3) |

**Table 29: Adjectives of probability - results**

The adjectives of probability are the prototypical means involving epistemic modality, i.e. the author's assessment of the certainty of the truth of a proposition (Hyland, 1998:30).

**NES data**

The category of adjectives of probability presents a fairly varied group of 12 adjectives occurring in total of 22 instances. The adjective *potential* and *possible* are the highest ranking ones. As can be seen below, the adjective is used to indicate that there is a possibility of ambiguous reading of an affix if considered out of context. The adjective serves as a content-oriented hedge.

> **Example 104:** […] *it can be comfortably used to denote more than one function or sense without confusion (despite the **potential** ambiguity out of context).* (NES)

**NCS data**

The NCS corpus contained ten adjectives in total of 15 instances, with the most frequent adjectives being *possible* and *likely*. In the sentence below, *likely* allows the author

to convey quite a high degree of probability that the proposed claim will apply, nevertheless the content-oriented hedge serve as a shield for the author in case the interpretation is different. As we can see the sentence contains a writer-oriented hedge in which *likely* is embedded.

> **Example 105:** […] *it would **most likely be** interpreted as an imperfection resulting from processing-time constraints*. (NCS)

### 4.1.5.3 Adjectives of indefinite frequency

There is a significant difference in the frequencies of these adjectives between the two analysed corpora (LL-11.73). There seems to be no satisfactory explanation of this discrepancy.

| Adjectives of indefinite frequency | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| **ADJECTIVE** | **Frequency** | **ADJECTIVE** | **Frequency** |
| frequent | 2 | rare | 5 |
| rare | 2 | frequent | 5 |
| standard | 2 | common | 4 |
| typical | 1 | typical | 4 |
| numerous | 1 | usual | 2 |
| | | rarer | 2 |
| | | numerous | 2 |
| | | approximate | 1 |
| | | commonplace | 1 |
| **TOTAL (RF)** | **8 (0,7)** | **TOTAL (RF)** | **26 (2,3)** |

**Table 30: Adjectives of indefinite frequency - results**

**NES data**

Only five nouns of indefinite frequency in total of eight occurrences appear in the NES data. The most frequent ones are *frequent* and *rare*. Adjectives of indefinite frequency occur in cases where "numerical exactitude is not necessary or possible (Varttala, 2001:136)."

**Example 106:** *José and Sophie also displayed their orientation to the novice/expert paradigm through their **frequent** use of repair; specifically, correction.* (NES)

Another example of a content-oriented hedging strategy is shown in the sentence above. The author does not specify the exact frequency, which allows him/her to express exactly the degree of (im)precision deemed sufficient for the current purposes.

**NCS data**

The number and variety of adjectives of indefinite frequency is higher in the NCS corpus. There are 9 adjectives in total of 26 occurrences. Example (107) is similar to the previous one. By employing the adjective *rare*, which is in addition hedged by the adverb *rather* the author does not provide exact frequency of the comments in question.

**Example 107:** […] *the comments comparing finite/non-finite structures are rather **rare**.* (NCS)

## 4.1.5.4 Other adjectives

| Other adjectives | | | |
|---|---|---|---|
| **The corpus of NES** | | **The corpus of NCS** | |
| **ADJECTIVE** | **Frequency** | **ADJECTIVE** | **Frequency** |
| other | 14 | other | 11 |
| similar | 9 | certain | 6 |
| certain | 6 | similar | 6 |
| **TOTAL** | **29 (2,4)** | | **23 (2,1)** |

Table 31: Other adjectives - results

Both the NES and NCS data contained several examples of three adjectives, which do not seem to fit in the categories above but may be considered to function as hedges in the texts. While *similar* (108) may be understood as a content-oriented hedge because it that something is alike but may differ in certain aspects, *certain* (109) could be seen as a content-oriented hedge in cases where it modifies a noun in the sense of "particular", but without any additional details offered. The case of *other* (110) is described by Dušková et al. (2006:134),

noting that *other* in constructions with nouns represents an adjective that refers to entities that are additional and different from those mentioned.

> **Example 108:** […] *we reach for forms that seem to have already been relatively successful at doing something **similar**.* (NES)

> **Example 109:** […] *they seemed to form **a certain** system (a gestalt) during the period under analysis.* (NCS)

> **Example 110:** *The initial assumption that the characteristic (canonical) form of the proverb which signals its presence in the text (in addition to **other** features)* […] (NCS)

## 4.1.6 Other lexical means

### 4.1.6.1 Quantifiers

The category of other lexical means is represented by quantifying expressions (functioning as quantifiers or partitives) in combinations with different nouns, expressing indefinite or imprecise quantities.

| Other lexical means - quantifiers | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| QUANTIFIER | Frequency | QUANTIFIER | Frequency |
| some (of) | 33 | some (of) | 20 |
| many (of) | 8 | number of | 5 |
| few | 4 | much | 5 |
| number of | 4 | several | 4 |
| much | 3 | majority of | 4 |
| most of | 3 | part(s) of | 3 |
| not all | 2 | many (of) | 3 |
| part of | 2 | fewer | 3 |
| majority of | 1 | less than | 1 |
| section of | 1 | not all | 1 |
| several | 1 | few | 1 |
| more than | 1 | | |
| **TOTAL** | **63 (5,2)** | | **50 (4,5)** |

**Table 32: Quantifiers - results**

**NES data**

85

This category is represented by 12 expressions in total of 63 occurrences. *Some (of)* ranks the highest, with 33 instances in the NES corpus. The example below refers to *coordinations* that have been mentioned in the context. However, by employing the quantifier *some of*, the reference is made more obscure, since we do not know to which in particular the author refers. Such intended imprecision is seen as content-oriented hedging strategy.

> **Example 111:** *Attempting to rule out **some of** these coordinations by declaring that a verb is ambiguous between the relevant subcategorizations should be done with extreme caution.* (NES)

**NCS data**

The NCS corpus contains 11 items in total of 50 occurrences, with *some (of)* being the most frequent one. The example sentence below contains the quantifier *number of*. In this case the interpretation of its hedging qualities might not be as straightforward as in the previous example. The author states that *I think* collocates with an unspecified number of discourse markers, however, these are then listed. It is the abbreviation *e.g.* (for example) that hints that the account of the discourse markers is not exhaustive. In this way the quantifier might be seen as a content-oriented hedging strategy.

> **Example 112:** *I think collocates with a **number of** discourse markers, e.g. and, but, so, well, yes, and no*. (NCS)

## 4.1.7 Non-lexical means of hedging

| Non-lexical means of hedging | | | |
|---|---|---|---|
| **The corpus of NES** | | **The corpus of NCS** | |
| | **Frequency (RF)** | | **Frequency (RF)** |
| passive constructions | 90 (7,4) | passive constructions | **109 (9,8)** |
| *if*-clauses | 19 (1,6) | *if*-clauses | 11 (1,0) |
| questions | 7 (0,6) | questions | 6 (0,5) |
| **TOTAL (RF)** | **116 (9,5)** | **TOTAL (RF)** | **126 (11,3)** |

Table 33: Non-lexical means of hedging - overview

## 4.1.7.1 Passives

The only category of non-lexical hedges, which shows significant difference in the frequencies of the two corpora, is the category of passive constructions (LL-3,94). Higher frequency of passives in the NCS corpus is not surprising, since it is in line with the assumption that Czech academic discourse favours impersonal constructions. Using a passive construction instead of expressing the authorial presence overtly in a research article is considered one of the impersonal strategies which are connected to hedging. By employing a passive construction the author can avoid taking full responsibility for his/her propositions (Markkanen and Schröder, 1997:168).

**NES data**

The NES corpus shows a total of 90 relevant passive constructions, functioning unequivocally as writer-oriented hedging strategies.

> **Example 113:** ***It has been indicated above*** *that children of nonlocal but native speakers of English can acquire native competence in a second dialect.* (NES)

The example contains a non-factive tentative reporting verbs *indicate* in passive voice, in a construction with an "empty" *it* subject, which is a common way of realization of these constructions in my data. By backgrounding his/her authorial presence, the writer shifts the responsibility for the following proposition to an indefinite entity, in this case probably the text itself.

**NCS data**

The NCS corpus offers a higher number of passive constructions, which is in line with the assumption that within the Czech tradition of academic writing, impersonal structures, e.g. passives, are favoured over overt expression of authorial presence.

> **Example 114:** *All in all, proverbs* ***are perhaps best conceived of as*** *speech act idioms with default illocutionary force potential* […] (NES)

The example (114) shows a tentative cognition verb *conceive of* in passive voice. Again, the author conceals his/her presence, implying a general human agent.

### 4.1.7.2 *If*-clauses

Hypothetical conditional clauses, here represented by *if*-clauses are seen as being one of the strategies of reader-oriented hedging, since in this way it is possible to offer a claim as one possibility among many (Hyland, 1998:182). These function as reader-oriented hedges.

**NES data**

The NES data show a total of 19 instances of relevant *if*-clauses. They usually refer to the outcomes of the research and their hypothetical implications, inviting the reader to join the process of evaluation of the achieved results.

> **Example 115**: ***If this is the case****, it follows that the results of language contact will be slower* […] (NES)

**NCS data**

The NCS corpus contains 11 instances of *if*-conditional clauses. In the example below the author more or less appeals on the reader not to consider the present research as conclusive and invites him/her to further follow potential further research in order to be able to accurately interpret the presented findings and their implications.

**Example 116:** *If further research proves that the above-mentioned claims are valid, the findings would have some important pedagogical implications.* (NCS)

## 4.1.7.3 Questions

Questions are not a very frequent hedging device but they may be used to signal important unresolved issues, tentativeness of a solution, or genuinely seek the reader's response. They involve the reader more closely in the research and "convey communality of the scientific quest (Hyland, 1998:183).

**NES data**

The NES corpus contains seven questions used as a reader-oriented strategy, as can be seen in the example (117) below. The author poses the question to indicate an unresolved issue, inviting the reader's participation in contemplating about the answer.

**Example 117:** *And what happens when they enter a community where contestive behaviour is integral to the linguistic repertoire?* (NES)

**NCS data**

There are six questions in the NCS data, and again, the author involves the reader in the research process as can be seen in the example (118) below.

**Example 118:** *How is it that the structuralist principles are, in an analogical way, reflected in Firbas's functional approach?* (NCS)

The results of the formal analysis have shown that the differences in use of individual lexical and non-lexical items do not seem to be relevant in distinguishing differences in the way native English speakers and native Czech speakers employ hedging in their writing, since the variety of items and their frequency in most of the categories is very similar. The only,

89

and simultaneously the most important difference was observed in the much higher frequency of pronouns in the NES data, which will inevitably show also in the functional analysis in the next chapter.

## 4.2 Functional analysis

The formal analysis showed what lexical and non-lexical items may appear in academic discourse as the elements constituting various hedging strategies. It has been mentioned that hedges may appear in a text as single items, phrases, clauses, sentences, or even paragraphs. This is the reason why I would like to mention again the way these hedging devices and strategies were counted.

| Quantification | | | |
|---|---|---|---|
| **Single item** | […] *floated quantifiers never being topics but **often** being focused material.* […] | adv. | content-oriented hedge |
| **Compound hedge (more than one hedging device of the same function)** | […] *the fulfilment of the action **may sometimes** depend on a mixture of external factors* […] | modal verb + adv. (compound) | two content-oriented hedges |
| **Clause** | ***The research has** also **suggested** that* […] | abstract rhetor | writer-oriented hedge |
| | | | two content-oriented hedges |
| **Sentence** | How would the pattern found here emerge in less formal read speech like e-mail, and in the spontaneous speech of human-computer interaction? | question | reader-oriented hedge |

Table 34: Quantification - overview

As has been mentioned above (Chapter 3.2) the quantification of the hedges within the functional categories is not a simple task. Therefore, it is necessary to stress that all content-oriented hedges are counted as an instance of a content-oriented hedging strategy, even if they appear embedded within larger structures of other functional categories. The following table sums up the overall results of the functional analysis:

| Functional analysis | | | | |
|---|---|---|---|---|
| The corpus of NES | | The corpus of NCS | | |
| **Strategy** | **Frequency (RF)** | **Strategy** | **Frequency (RF)** | **Log-likelihood** |
| Content-oriented hedges | 789 (64,6) | Content-oriented hedges | 760 (68,1) | 1,09 – not significant |
| Writer-oriented hedges | 300 (24,6) | Writer-oriented hedges | 256 (23,0) | 0,64 – not significant |
| Reader-oriented hedges | **158 (12,9)** | Reader-oriented hedges | 79 (7,0) | **20,18 - significant** |
| **TOTAL (RF)** | **1247(102,1)** | **TOTAL (RF)** | **1095 (98,2)** | 0,91 – not significant |

**Table 35: Functional analysis – results**

The overall results show that there is a significant difference in the frequencies of use in the reader-oriented hedges as was predicted based on the formal analysis.

## 4.2.1 Content-oriented hedges

Content-oriented hedges attenuate the strength of the claims the author presents in his/her work. According to Hyland (1998), the motivation for employing content-oriented hedges (mitigating relationship between propositional content and mental representation of reality) is twofold – it concerns the author's interest in stating propositional accord with reality, and aids the author in protecting his/her positive face. These two motivations overlap and it is necessary to consider the context of a content-oriented hedge to determine the motivation that is more dominant in each case, which may not be always possible (Hyland, 1998:162). Content-oriented hedges helps the authors of scientific texts "to report the results of their research with the greatest possible accuracy and reliability while still making only the claims for which they have evidence (Malášková, 2015:152). Content-oriented hedges are accounted for mostly in terms of the formal categories. They may appear as single items in the text or they may be embedded in more complex hedging structures classified as writer- or reader-oriented hedges. The results below have been compared through the log-likelihood measure and it follows that the overall use of this strategy is not significantly different. The

only category reaching significance (LL-5.49) in content-oriented hedges are adverbs, in favour of the NCS corpus.

| Content-oriented hedging devices | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| DEVICE | Frequency (RF) | DEVICE | Frequency (RF) |
| Nouns | 237 (19,4) | Nouns | 210 (18,8) |
| Full verbs | 212 (17,4) | Full verbs | 182 (16,3) |
| Adverbs[23] | 101 (8,3) | Adverbs | **126 (11,3)** |
| Adjectives | 82 (6,7) | Adjectives | 81 (7,3) |
| Modal verbs[24] | 63 (5,2) | Modal verbs | 72 (6.5) |
| Quantifiers | 63 (5,2) | Quantifiers | 50 (4,5) |
| Linking verbs | 21 (0,8) | Linking verbs | 30 (2,7) |
| Qualification | 10 (0,8) | Qualification | 9 (0,8) |
| **TOTAL (RF)** | **789 (64,6)** | **TOTAL (RF)** | **760 (68,1)** |

**Table 36: Content-oriented hedges - results**

I would like to approach the category of content-oriented hedges from a different angle in the present study. In the previous accounts, they have been treated as a separate category side by side with writer- and reader-oriented hedges. While this approach is reasonable, during the analysis of the data serving as the basis for this study, I have noticed that content-oriented hedges often appear embedded in larger and more complex structures that are ultimately analysed as devices of either writer-oriented or reader-oriented hedging strategies. When trying to fit them into the taxonomies proposed in previous studies of hedging in academic discourse, this clustering of hedges of different functions and the resulting multifunctionality of these clusters proved to be very difficult. Hyland (1998) partly accounts for the multifunctionality of hedges by placing them on a scale, where some instances are more prototypical representatives of the category than other. I propose, that the content-oriented hedges, regardless of in what cluster, clause, or sentence functioning as either writer-oriented or reader-oriented hedge they are, always retain their content-hedging

---

[23] The adverbs of evidence belong under writer-oriented hedges, and are not accounted for here, also the instance of the adverb *here* (NES) and *at the moment* (NCS)

[24] The modal verb *would* can be seen as primarily contribute to writer-oriented hedging strategies, an is not accounted for here.

function and their primary function is to contribute another layer of attenuation to the structures in which they appear. If we consider the non-factive tentative reporting verb *suggest* in the following two examples, the idea should become clearer. The verb, as the category in which it has been sorted hints, is used to tentatively report ideas, outcomes of research, etc. This is viewed as its inherent semantic feature. Nevertheless, the action must be attributed (or intentionally not attributed) to some agent. The example (119) shows *analyses*, an abstract rhetor, attributed with the act of suggesting.

> **Example 119:** *Moreover, **many analyses of quantifier float in languages other than English suggest** that presenting new information defines the discourse function of an FQ* (NES)

In the example (120) the action is attributed directly to the author using the 1$^{st}$ person sg. personal pronoun *I*.

> **Example 120:** ***I would suggest*** *a valid way to proceed in order to demonstrate that miscues at the discourse level have psycholinguistic reality.* (NES)

Is it not the context of the whole hedging structure which serves as the decisive factor in determining their function? Example (119) being an instance of a writer-oriented hedge, and example (120) representing a reader-oriented hedge. Similar behaviour can be seen in various nouns. The example (121) shows the understatement noun *aim* with personal pronoun *my*, a construction representing personal attribution to the author functioning as reader-oriented hedge.

> **Example 121:** […] ***my aim*** *has been to demonstrate the distinction between the Gricean motivation behind the CP, and the type of 'cooperation drift' which has been identified in the literature.*

The example (122) contains the same noun, although in this case the aim is attributed to the paper and serves as a writer-oriented hedge, since it allows the writer to background his authorial presence and to avoid responsibility for the proposition.

**Example 122:** […] ***The aim of the paper*** *was to describe and analyze the operation of back-formation in neologisms over the last three decades.*

There are, of course, "true" content –oriented hedges, which appear in the text on their own and do not contribute to another functional class. These are represented by various adjectives, nouns, quantifiers, and adverbs, most prototypically disjuncts, due to their contextual detachability (123).

**Example 123:** […] ***perhaps*** *the entire linguistic system consists ultimately of a system of relations* […] (NES)

The content-oriented hedges may also appear in compound constructions with other content-oriented hedges, forming more complex structures themselves.

**Example 124:** *The higher representation of the former in fiction* ***appears to be at least partly*** *due to* ***a relatively*** *high frequency of occurrence of proper names.* (NCS)

Finally, there are some more or less formulaic expressions, which are used to qualify the following propositions, which may serve as a whole as content oriented hedges. In the Table 39 referred to as "Qualification". Examples include: *in some sense, in this way,* etc.

Content-oriented hedges are essential in analysis of hedging in academic discourse (and elsewhere) and it seems that they largely mirror the results of the formal analysis on the level of lexical items. As such it can be seen as the most straightforward hedging category, whose members either contribute a layer of mitigation to the other two functional categories, or stand alone in order to attenuate various elements in the discourse. Content oriented hedges thus indeed are the "institutionalised" language of science (Hyland, 1996: 10).

## 4.2.2 Writer-oriented hedges

Writer-oriented hedges focus on the author and "aim to shield him/her from the possible consequences of negatability by limiting personal commitment to the presented utterances (Hyland, 1998: 170)." They are characterized by absence of authorial presence/agentivity (ibid., 172). The means by which authors employ this strategy in my data are passive constructions, abstract rhetors, attribution to literature, reference to methods/research and its limits and reference to future work, speaking facts, and authorial use of the pronoun *we*. The results in the Table 40 again suggest that there is no statistical difference between the overall frequency of writer-oriented hedges of the two corpora, there are is a significant difference in the frequency of use of passives (LL-3,94) and most importantly in the category of Attribution to literature (LL-25,93).

| Writer-oriented hedging strategies | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| STRATEGY | Frequency (RF) | STRATEGY | Frequency (RF) |
| Passives | 90 (7,4) | Passives | **109 (9,8)** |
| Abstract rhetors | 77 (6,3) | Abstract rhetors | 80 (7,2) |
| Attribution to literature | **73 (6,0)** | Attribution to literature | 21 (1,9) |
| Impersonal reference to methods/research + limits | 23 (1,9) | Impersonal reference to methods/research+limits | 22 (2,0) |
| Speaking facts | 23 (1,9) | Speaking facts | 23 (2,1) |
| Pronouns | 14 (1,1) | Pronouns | 1 (0,1) |
| TOTAL (RF) | 300 (24,6) | TOTAL (RF) | 256 (23,0) |

Table 37: Writer-oriented hedges - results

## 4.2.2.1 Passive constructions

Passive constructions are comparably slightly more frequent in the NCS data, which is in line with the assumption that the NCS authors seem to favour this kind of impersonal authorial representation.

**NES data**

Passives are the most frequent writer-oriented hedging strategy in the NES data, with total of 90 occurrences. The authors most often  use the passive voice to background their authorial presence to avoid direct responsibility for the presented propositions, either implying a general human agent (125) or employing the so called "authorial passive"(126), which is typical for academic discourse (Dušková et al., 2006: 260).

> **Example 125:** *Miscues at the semantic and pragmatic levels can arise and interact with each other leading to a discourse <u>which **is perceived**</u> as lacking in specificity and relevance.* (NES)

> **Example 126:** *In §4.4**, it was argued** that predictions based on phonological environments found an effect for English, where a lexical neighborhoods approach failed to find one.* […] (NES)

Using the authorial passive seems to be a strategy of hedging as well as textual cohesion, since it frequently refers back to something stated in the previous parts of the text. It only hints in this way on the identity of the agent (the author).

**NCS data**

Passives are also the most frequent writer-oriented hedging strategy in the NCS corpus (with total of 109 relevant occurrences). The example (127) shows agentless passive construction in combination with the modal *may* which adds the important notion of possibility. It is not clear whose responsibility is to afford the various points the relevance, which is the desired outcome of this writer-oriented strategy.

> **Example 127:** […] *the role of proper names, the distribution and semantics of premodifiers, and possibly some others**, may be afforded** more general stylistic relevance.* (NCS)

4.2.2.2 Abstract rhetors

Abstract rhetors are another frequently used strategy, allowing the author to avoid responsibility for the presented claims. This strategy attributes the claims to the data, methods or the text itself (Hyland, 1996:8). The nouns that are employed as abstract rhetors come from various categories of nouns described in the formal analysis, most often from the categories of research process nouns (128) and also tentative cognition nouns (129). Abstract rhetors appear most often with various verbs from the non-factive tentative reporting category (129) and the activity verbs category (128).

**NES data**

The NES data show that abstract rhetors are the second most frequent hedging strategy within the category of writer oriented hedges.

> **Example 128***: **The data examined here identify** an unmarked reading of clause- final PPs in read speech* […] (NES)*.

> **Example 129: *These observations suggest** that perhaps the entire linguistic system consists ultimately of a system of relations of various kinds between classes of lexical items*

As can be seen in the examples above, it is not the author who suggests (129) and identifies (128). The responsibility is attributed to the outcomes of the research, protecting the author from any possible rejections of his/her conclusions.

**NCS data**

The abstract rhetors category is also the second most frequent in the NCS data with total count of 80 instances.

> **Example 130:** […] ***the research has revealed*** *a higher number of compound back- formations in lively informal communication on the Internet* […] (NCS)

4.2.2.3 Attribution to literature

Attributing propositions and claims to external sources can be generally done in two ways. The author can choose to reformulate the original idea contained in other authors' studies and include a citation (131), or he/she can attribute the proposition to others more directly (132). There is a huge difference between the frequency of abstract rhetors in the NES corpus and the NCS data; the strategy is very frequent in NES and somewhat infrequent in NCS and explanation for such a discrepancy may be in the fact that the NCS authors tend to evaluate and comment upon the conclusions and outcomes of their own work rather than turning to the work of others in the concluding section of their studies.

**NES data**

The authors in the researched data favoured the strategy where they rephrased the source proposition (44 occurrences) over the more direct construction with a reporting verb (29 instances).

> **Example 131:** […] *they are frequently expressed implicitly or indirectly between native speakers in New Zealand workplace settings (Holmes and Marra, 2004).* (NES)

> **Example 132:** ***Vennemann (2000) proposes*** *that syllable cut is also the motivating factor behind HCL* […] (NES)

**NCS data**

This category shows a large difference between the two corpora. The NCS data contain only 21 instances of attributing propositions to literature, out of which two appear with a verb and 19 are paraphrases with a cited resource.

> **Example 133:** ***Bateman (2008) also stresses*** *that analysts should not ignore the potential of the technology behind it* […] (NCS)

## 4.2.2.4 Impersonal reference to methods/research and its limits

A less frequent strategy within the writer-oriented hedges is an impersonal reference to methods used, the research itself, and also their limits. The author has the possibility to more or less explicitly express the limitations of his/her approach/research or results thereof, a strategy which serves as a shield, protecting the author against possible critique. What is important here is again the absence of overt authorial presence.

**NES data**

The NES data contain 23 varied instances that can be included in this category. The example (134) shows the author's admission to the possible deficiencies of his/her study, without explicitly taking the responsibility for it. The effect of this strategy is twofold – by including such a proposition, the author is safe from any possible criticism and by not overtly stating his/her authorial presence he/she cannot be even attributed with the stated flaws.

> **Example 134:** *This study has been incomplete and tentative in some respects* […] (NES)

> **Example 135:** *Substantiating such a hypothesis, of course, will require much future research.* (NES)

The proposition in the example (135) shows another defensive strategy. The author offered a hypothesis that preceded this concluding proposition. However, the hypothesis was not proved in the study, so he/she hints at the limits of the study by proposing that only further work will shed light on the issue.

**NCS data**

The NCS data contain 22 instances of this strategy. The example below also shows the author, with backgrounded presence in the text, to comment on the limits of his/her study, protecting him from possible critique.

**Example 136:** *Even though such evaluation is beyond the scope and the aims of this study* […] (NCS)

## 4.2.2.5 Speaking facts

The writer hedges commitment to the propositional information contained in the proposition by presenting it as something widely known and accepted (Malášková, 2015:109). "These expressions frame the propositions with a structure that makes the impression of general consensus among the members of the discourse community. Although it is unlikely that the information presented in this way would be unanimously accepted by everyone, it lends the writer sufficient authority in presenting the claim (Malášková, 2015:162)." This strategy was most often expressed by the adverbials of evidence.

**NES data**

The strategy of "speaking facts" was identified in the NES corpus in 23 instances. The example below shows the adverbial *of course*, which is used to establish that the proposition is a widely-established fact, without referring to any sources of evidence.

**Example 137:** *Russian is not unique in this, **of course**.* (NES)

**NCS data**

There were 23 instances of this strategy in the NCS corpora, and as the example below shows, this strategy can be realized also by a noun phrase, which is complemented by a *that-*

clause. This construction also established the proposition as something widely known and accepted.

> **Example 138:** *This is related to **the fact that** the reported element in (F)DD can be of different length and complexity sometimes a string of sentences in a single instance of direct quote.* (NCS)

## 4.2.2.6 Pronouns

The category of pronouns, while we discuss writer-oriented hedging strategies, is quite surprising. The pronouns in question are *we* and *one*. The surprise comes from the fact that authorial *we* is supposed to be limited only to research articles/studies written by multiple authors (especially within the Anglophone tradition of academic writing) and only single-authored articles were used as data source for this study.

**NES data**

Despite the supposed limitation on the use of authorial *we* the NES data contain a total of nine occurrences. The frequency of this device is very low; nevertheless its presence was unexpected.

> **Example 139:** *We reviewed** relevant literature concerning initial position in turns, and **we found** that turn-initial position has special discourse significance* […]. (NES)

Employing authorial *we* in single-authored studies serves as a writer-oriented strategy of lowering the degree of responsibility for the proposed claims and results. By examining the source data in detail, I was able to identify two source articles containing the authorial *we*. This means that it was not an individual practice of a single author, nevertheless its

101

occurrence is still very low. Finally there were five occurrences of the pronoun *one*, which implies a general human agent in the sense of anyone.

> **Example 140:** *These words have properties of both nouns and adjectives therefore and **one might wish to think of** them as 'mixed categories'.* (NES)

**NCS data**

The corpus containing conclusions of articles written by native Czech speakers contains only one instance of a pronoun, which can be seen as conveying writer-oriented hedging. Through the use of the authorial *we.*

> **Example 141:** *When **we compared** portions of 100 sentences of texts from these two periods and the modern texts contained fewer subordinate clauses than the old text* […]

## 4.2.3 Reader-oriented hedges

The category of reader-oriented hedges is primarily focused on the relationship and interaction between the author and the intended reader. "Favourable reception of the text by the readers as fellow members of the given discourse community is essential for the success of the writer's academic career (Malášková, 2015:53)." Reader-oriented hedging strategies attenuate the assertiveness of the propositions by employing devices which present the author's claims as subjective (personal reference, attribution). Since non-categorical subjective propositions are said to be more likely accepted by the reader as being one of several possibilities. Reader oriented hedges also invite the reader's involvement in the research process by employing devices such as inclusive *we* subjects, *if*-clauses, or questions. There is a significant difference in the overall frequency of use of these strategies (LL-20,18) as well as in more than half of the individual subcategories (personal reference, personal attribution, and inclusive *we*). This result correlates with the significant difference in use of the pronouns, as observed during the formal analysis. This observation is also in line with the

difference observed between the Czech and Anglophone academic community traditions of academic writing, which lays in the fact that Czech academic discourse generally lacks in establishing interaction with the reader.

| Reader-oriented hedging strategies | | | |
|---|---|---|---|
| The corpus of NES | | The corpus of NCS | |
| STRATEGY | Frequency (RF) | STRATEGY | Frequency (RF) |
| Personal reference to method/research + limits | **59 (4,8)** | Personal reference to method/research + limits | 32 (2,9) |
| Conditionals | 34 (2,8) | Conditionals | 22 (2,0) |
| Personal attribution | **29 (2,4)** | Personal attribution | 12 (1,1) |
| Inclusive *we* | **29 (2,4)** | Inclusive *we* | 7 (0,6) |
| Questions | 7 (0,6) | Questions | 6 (0,5) |
| **TOTAL (RF)** | **158 (12,9)** | **TOTAL (RF)** | **79 (7,0)** |

**Table 38: Reader-oriented hedges - results**

## 4.2.3.1 Personal reference

The strategy of personal reference to methods or research and their limitation is very similar to the category of impersonal reference mentioned in writer-oriented hedging strategies. The author again comments on the possible limits or inconsistencies in his/her approach, explains what might be done in the future to amend for these flaws and generally attempts to acknowledge in advance all that might not be otherwise accepted by the readership. 1st person sg. personal and possessive pronouns can be seen as the basic devices employed in this strategy.

**NES data**

There are 59 instances of such strategy in the NES data. The following example (142) shows the author explaining that he/she did not characterize FQs in terms of focus and offers his/her definition as it appears in the study. Without acknowledging this discrepancy, the readers might refuse his/her definition.

**Example 142:** *Although I have not characterized FQs in terms of focus, my analysis defines them as presenting new information about a subject which is often the topic of the clause.* (NES)

A very frequent device, which I have decided to include in this category, is the adverbial *here*. I see the adverbial as a device that renders the proposition more subjective, since it automatically relates it only to the research presented. However, these are often embedded within structures that would be analysed as writer-oriented hedges, making them a somewhat peripheral case.

**Example 143:** *The **proposal made here seems** eminently suited to this task.* (NES)

**NCS data**

There are 32 instances of personal reference to method/research and its limits in the NCS corpus. The example (143) shows the author commenting on the limitations of his/her study, expressing a subjective evaluation (*in my view*) of the approach selected. This should appeal to the reader and convince him/her that the methods used are sufficient for the presented research, but there may be other possibilities.

**Example 144:** *This is obviously true, **but in my view**, to provide a complete examination of such a complex and multivalent phenomenon would be impossible anyway.* (NCS)

## 4.2.3.2 Conditional clauses

Conditional clauses were, in the theoretical part of this study, seen as being realized primarily by *if*-clauses, however it is necessary to include hypothetical conditional clauses realized by the modal *would*, since they both express reader-oriented hedging strategies.

**NES data**

There were 19 instances of conditional clauses with *would* in the NES corpus and 15 *if*-clauses. The example below shows the author inviting the reader's involvement in evaluation of the presented claims. The example (145) then shows the author conveying hypothetical prediction.

> **Example 145:** ***If rationality is about evaluation*** *– which is the strongest available implication from Grice's papers –* ***then*** *to model this rational action, we need to know what competing needs the human brain is weighing up*. (NES)

> **Example 146:** […] *the function* **would** *yield the value true for each individual in the set of dogs in the domain and false for each individual in the complement of the dog-set.* (NES)

The NCS corpus contained only six clauses with *would* and six *if*-clauses, again exhibiting lower frequencies than the NES data.

### 4.2.3.3 Personal attribution

The next strategy is based primarily on the use of 1$^{st}$ person sg. personal pronoun *I*. For the purposes of this study, personal attribution is understood as being essentially opposite to the impersonal constructions employed within the functional category of writer-oriented hedges. The author chooses to attribute the propositions directly to himself/herself in order to express subjectivity. This category might to some extent overlap with the personal reference above.

**NES data**

The corpus of NES contains 29 instances of this strategy. The example below shows personal attribution further mitigated by the verb *try*. In this way the author signals to the reader that the outcome of his work might not be conclusive.

**Example 147:** *What **I have tried to do here** is develop a general theory of constituency and constituency diagnostics.* (NES)

**NCS data**

The NCS data show 22 instances of this strategy. The example (148) contains the tentative cognition verb *believe*, which signals subjective cognition activity and together with the personal pronoun this reader-oriented hedging strategy attempts to convince the reader about the validity of the claim.

**Example 148:** *I believe I have brought enough evidence to support the standpoint* […] (NCS)

## 4.2.3.4 Inclusive *we*

The strategy of employing the so called "inclusive *we*" subject serves as a device inviting involvement of the reader in the inferential processes of the research or assuming shared knowledge.

**NES data**

There are 29 cases of this strategy in the NES corpus. By employing the inclusive *we* the author is trying to convince the reader to assume hi/her point of view on the issue in question (149).

**Example 149:** […] *we can therefore regard gender-inflecting converted nouns and surnames as forms of a single lexeme.* (NES)

**NCS data**

The NCS data offer only seven instances of inclusive *we*. The example below contains two uses of the pronoun *we* in the function of a device including the reader in the research process.

> **Example 150:** *By using non-finite forms **we achieve** certain syntactic economy because **we avoid** repeating what is clear from the surrounding context.* (NCS)

### *4.2.3.5* Questions

The lowest ranking reader-oriented hedging strategy is represented by the use of questions. The NES corpus contained only 10 instances of this strategy, while the NCS corpus offers even lower figure, with five questions in total. These have been already described in more detail in Chapter 4.1.7.3.

### 4.2.3.6 Discussion of results

The functional analysis has shown that the authors, regardless of their background most often employ content-oriented hedges, which involve "either a concern with the need to present claims as accurately as possible or to anticipate what may be harmful to the writer (Hyland, 1996:7). Content-oriented hedges are seen as the prototypical strategy of hedging, and as the results indicate, it is also a very frequent one. The high frequency is caused by the fact that content-oriented hedges are usually single lexical items, which may appear singly in the text or are embedded in more complex structures with different function. The only significant difference between the two corpora was observed in adverbs in the NCS data. The second most frequent strategy in both the corpora were writer-oriented hedges, which serve to diminish the author's presence in the text to avoid assuming direct personal responsibility for a claim (Hyland, 1996:8). Significant difference was shown in the use of passives in the NCS data and in the use of the Attribution to literature strategy in the NES corpus. The authors of

RAs in the NES corpus were observed to often compare and contrast the outcomes of their studies to work of other scholars in the concluding part of the article, which does not seem to be, based on my data, a common practice within the Czech academic writing tradition. The last category is represented by reader-oriented hedges, which "contribute to developing a relationship with readers by addressing the need for deference and cooperation in gaining the ratification of claims (Hyland, 1996:9)." Although being the least numerous category, the reader-oriented hedges show the most prominent difference between the two traditions of academic writing. The Czech tradition is said to be characterized by "monologic discourse, which does not endeavour to interact with the reader and imposes responsibility for correct interpretation on the readers without offering them any help (Čmejrková et al., 1999: 27). This is supported by the results obtained from this analysis. While it cannot be said that these strategies are absent in the concluding sections of the RAs of Czech native speakers they are far less numerous in comparison with the texts of native English speakers. It might be that, due to the smaller and presumably less competitive academic environment, the author does not feel the need to overtly persuade the reader to accept his/her propositions.

# 5. Conclusion

The present thesis represents an attempt at analysis and description of hedging practices in Czech academic discourse in comparison to academic discourse of Anglophone academic community. The aim was, based on two corpora of concluding sections of RAs, to find out how, if at all, the characteristic features of Czech academic discourse project into the texts of native Czech speakers writing in English. The Conclusion/Discussion part of a research article was selected as a source material for the present study partly to achieve homogeneity of data and partly due to the fact, reported by previous studies, that this section of a RA is usually the most heavily hedged. The texts were manually analysed in two ways. First, all the items regarded as hedges we extracted, categorized according to the form in which they appeared (noun, verb, adverb, etc.) and further divided into semantic sub-categories. These results served as the base for formal analysis. Second analysis involved assessment of the context of the extracted items and resulted in functional categorization and description of the different devices and strategies to which the individual forms contributed. Both the analyses offered different points of view on the studied phenomenon of hedging. The formal analysis contributed with lists of items used to convey hedging, which might be important from the perspective of an author of academic texts, in order to determine which kinds of items are used to convey which kinds of attenuation. While the formal analysis did not offer data that would allow me to draw conclusions about the differences in the use of hedging between the two traditions, it pointed to a contrast in the data that would prove fundamental in the functional analysis. It was a significant difference in frequencies of pronouns found in the corpora. The functional analysis revealed that the significantly higher occurrence of personal and possessive pronouns in the NES corpus projected into a significant

difference in the frequency of use of reader-oriented hedging strategies, which ensure interactivity and dialogic nature of academic texts. Such observation thus confirmed that one of the most salient differences between the two traditions of academic writing - the monologue-like nature of Czech academic discourse indeed projects into the authors' research articles written in English. The other functional categories of hedging did not offer any similarly significant results and most of the strategies appear to be used in relative conformity by native Czech authors writing in English as well as native English authors. Nevertheless it is worth to mention for example the observation of a significantly higher frequency of occurrence in the writer-oriented strategy labelled "Attribution to literature" where authors attribute the responsibility for presented claims to other scholars' work. While the native English authors used this strategy quite frequently in their conclusions, native Czech authors focused primarily on their own interpretation of the outcomes of their work without relating it to the works of others. Apart from the findings mentioned above, this thesis offers a slightly different approach to classification and quantification of the data especially within the category of content-oriented hedges. While the previous approaches (e.g. Malášková 2015) treat, for example, epistemic verbs as being able to perform in the texts as devices of all the three functional categories, I suggest that these items, which more or less mirror results of the formal analysis, only contribute content-hedging effects when appearing in more complex hedging structures of ultimately different functional category (e.g. writer-oriented hedge) and the function of such structure is not determined on the level of a single lexical item. This modified approach unfortunately rendered the overall results of this study incomparable with the previous ones. To conclude, it is still important to note that analysis of hedging is a highly subjective task resulting in findings that are open to further discussion. Also, since the corpora used for this research were relatively small, the results cannot be taken as unequivocally conclusive but only indicative of the described tendencies. Future research in this field may

focus on individual functional or formal categories in order to obtain a clearer picture of the differences between the two traditions of academic writing.

# 6. References

Biber, D. Johansson, S., Leech, G., Conrad, S. & Finegan, E. (1999). Longman Grammar of Spoken and Written English. Harlow: Pearson Education.

Brown, P. & Lewinson, S. (1978). Politeness: Some universals in language use. Cambridge: Cambridge University Press.

Clyne, M. (1987). "Cultural differences in organization of academic texts: English and German", *Journal of Pragmatics* 11, 211-249

Clemen, G. (1997). The concept of hedging: Origins, approaches and definitions. In Markkanen, R. and Schröder, H. (eds), Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Texts. New York: Walter de Gruyter. 235-248.

Čmejrková, S., Daneš, F., Světlá J. (1999).  Jak napsat odborný text. 1. vyd.  Praha : Leda

Crystal, D. (Ed.). (2008). A dictionary of linguistics and phonetics. Malden, MA: Blackwell Pub.

Dontcheva-Navratilova, O. (2015). "The changing face of Czech academic discourse." In Karen Bennett. The Semiperiphery of Academic Writing. 1. edition. Besingstoke, Great Britain: Palgrave Macmillan,  39-61

Dušková et al. (2006). Mluvnice současné angličtiny na pozadí češtiny, Praha - Academia

Chamonikolasová, J. (2005). "Comparing the structures of texts written in English and Czech" In Slovak Studies in English I (Conference Proceedings). Bratislava: Univerzita Komenského, 77-84

Fraser, B. (2010). "Hedging in political discourse". Discourse Approaches to Politics, Society and Culture,  201–214

Halliday, M. A. K. (1985). An Introduction to Functional Grammar. London: Arnold.

Halloran, S. (1984). The birth of molecular biology: An essay in the rhetorical criticism of scientific discourse. Rhetoric Review, 3(1), 70-83.

Hyland, K. (1996). Talking to the academy: Forms of hedging in science research articles Written Communication 13 (2): 251-281

Hyland, K. (1998). Hedging In Scientific Research Articles. Amsterdam, NLD: John Benjamins Publishing Company. Available at: http://site.ebrary.com/lib/cuni/Doc?id=10491709 [Accessed August 6, 2016].

Hyland, K. (2009) Academic discourse: English in a global context. London; New York: Continuum.

Hykes, J. M. (2000). "A comparison of the use of modal verbs in research articles by professionals and non-native speaking graduate students". Retrospective Theses and Dissertations. Paper 7929. Iowa State University (available at: [http://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=8928&context=rtd; last accessed: 25.7.2016]

Kaltenböck, G., Mihatsch, W., & Schneider, S. (2010). New approaches to hedging. Bingley, UK: Emerald.

Lakoff, George (1973). Hedges: A study in meaning criteria and the logic of fuzzy concepts. Journal of Philosophical Logic 2 (4):458 - 508.

Leech, G. (2004). Meaning and the English Verb, London: Longman.

Malášková, M. (2015). Hedging in Academic Discourse: A Comparative Analysis of Applied Linguistics and Literary Criticism Research Articles, dissertation thesis, Masaryk University in Brno

Markkanen, R. & Schröoder, H. (1997). Hedging and discourse: approaches to the analysis of a pragmatic phenomenon in academic texts, Berlin: Walter de Gruyter. Available at: http://site.ebrary.com/lib/cuni/Doc?id=10588252 [Accessed August 1, 2016].

Prince, E., J. Frader and C. Bosk (1982). ''On hedging in physician-physician discourse'', in R. J. Di Pietro (ed.), Linguistics and the professions. Proceedings of the second annual delaware symposium on language studies. Norwood, NJ: Ablex, 83–97

Quirk, R., Greenbaum, S., Leech, G., Svartvik, J. (1985). A Comprehensive Grammar of the English Language, London: Longman.

Rayson P., Garside R. (2000). Comparing corpora using frequency profiling. In Proceedings of the workshop on Comparing corpora - Volume 9 (WCC '00), Vol. 9. Association for Computational Linguistics, Stroudsburg, PA, USA, 1-6.

Salager-Meyer, F. (1994). Hedges and Textual Communicative Function in Medical English Written Discourse. English for Specific Purposes. 13(2), 149-171.

Swales, J. M. (1990) *Genre analysis : English in academic and research settings*. Cambridge: Cambridge University Press, Cambridge, UK

Šteflová, A. (2005). The Role of Hedging in the Structure of Mathematical Discourse. Ph.D. Thesis. Masaryk University, Faculty of Arts, Brno.

Tress G., Tress B., Saunders D. A. (2014). How to write a paper for successful publication in an international peer-reviewed journal.. Pacific Conservation Biology 20 , 17–24.

Varttala, T. (2001). Hedging in scientifically oriented discourse exploring variation according to discipline and intended audience. Ph.D. dissertation. Finland: University of Tampere.

Wilamová, S. (2005). On expressing negative politeness in English fictional discourse. Vyd. 1. Ostrava: Ostravská univerzita, Filozofická fakulta, Spisy Filozofické fakulty Ostravské univerzity;

Zadeh, L. A. (1965). "Fuzzy sets". Information and Control 8 (3)

# 7. Resumé

Tato práce se zabývá fenoménem "hedging" v žánru odborné studie. "Hedging" neboli používání prostředků zmírňujících dopad promluvy je jedním ze zásadních stavebních kamenů odborného textu, neboť autorovi umožňuje volit rozličné strategie atenuace jeho tvrzení s cílem přesvědčivě předložit čtenáři závěry své badatelské činnosti. Tyto strategie mohou autora chránit před možným nesouhlasem s jeho tvrzeními, dovolují mu prezentovat skutečnosti s přesně takovou mírou jistoty, jakou je ochoten do nich investovat nebo mu

umožňují navázat kontakt se čtenářem. Používání těchto strategií se zdá být všeobecně běžné ve většině akademických komunit, nezávisle na jazyce ve kterém jsou odborné studie psány.

Tato práce se zaměřila na možné rozdíly v používání prostředků zmírňujících dopad promluvy v odborných studiích psaných českými autory v angličtině ve srovnání se studiemi psanými rodilými mluvčími. V české a anglofonní akademické komunitě totiž existují rozdílné konvence v psaní odborných textů. Zatímco žánr českého odborného textu se vyznačuje orientací na autora, nízkou interaktivitou, monologičností, modalizovaností a důrazem na vyčerpávající prezentaci daného tématu, odborný text prezentovaný anglofonní akademické komunitě by měl být ideálně orientován na čtenáře, interaktivní, a co nejsrozumitelněji a nejpřesvědčivěji prezentovat dané téma. Otázkou zde je, zda jsou čeští autoři píšící anglicky ovlivněni domácími konvencemi a pokud ano, projeví se to nějak v jejich textech? Jako zdrojová data, která byla podrobena analýze, byly vybrány konkrétně jen závěry odborných studií, které, jak ukázaly předchozí výzkumy, tyto prostředky obsahují nejhojněji. Celkem bylo vybráno 23 odborných studií českých autorů psaných v angličtině a publikovaných v českých odborných časopisech a 23 studií rodilých mluvčí angličtiny publikovaných v mezinárodních odborných časopisech. Závěry těchto studií pak utvořily dva korpusy. Texty v těchto korpusech byly poté podrobeny dvojí analýze. První analýza spočívala v identifikaci, klasifikaci a kategorizaci jednotlivých slov, která byla v textu považována za jednotlivé případy prostředků zmírňujících dopad promluvy. Klasifikace a kategorizace výsledků probíhala podle taxonomie převzaté z předchozích prací Maláškové (2015) a Varttaly (2001), která jednotlivá slova rozdělila podle slovního druhu (slovesa, adjektiva, etc.) a dále podle sémantických podkategorií. Tato analýza také brala v potaz několik syntaktických konstrukcí, jako je pasivum a nebo podmiňovací věty. Takto sebrané výsledky byly okomentovány a dále proběhlo srovnání frekvence jejich četnosti za účelem zjistit, zda některá z kategorií vykazuje významné rozdíly mezi zkoumanými korpusy.

114

Nejdůležitějším zjištěním této analýzy byl významný rozdíl v četnosti výskytů (ověřený testem log-likelihood) osobních a přivlastňovacích zájmen v korpusu textů rodilých mluvčí angličtiny. Následovala druhá analýza, která se zaměřila detailněji na funkci ať už jednotlivých slov či složitějších struktur považovaných za "hedges" v textu. Ta se opírala o funkční klasifikaci Hylanda (1998), s několika modifikacemi navrženými Maláškovou (2015). Tato analýza dělila jednotlivé prostředky a strategie do tří kategorií – prostředky zmírňující dopad promluvy orientované na obsah promluv, na autora, a na čtenáře. Tato práce navrhuje změnu v identifikaci a kvantifikaci jednotlivých funkčních kategorií. Bylo navrženo, že "hedges" orientované na obsah promluvy jsou (s výjimkou např. zájmen a modálního slovesa *would* ) vlastně všechna jednotlivá slova identifikovaná v první analýze, a že ostatní funkční kategorie jsou realizovány prostředky na vyšší úrovni (např. pasivum) a tato slova, ve složitějších strukturách, přispívají další úrovní atenuace. Tento přístup, ač se zdá být vhodný pro analýzu a kvantifikaci jenotlivých prostředků, bohužel způsobil to, že se "hedges" orientované na obsahovou složku promluvy v mých výsledcích objevují v neporovnatelně vyšších frekvencích než v předchozích studiích. Výsledky funkční analýzy tedy ukázaly, že nejčastěji užívanými prostředky zmírňování dopadu promluvy v odborných studiích v obou korpusech jsou právě tyto, orientované na obsah promluvy. Nicméně se neobjevily žádné relevantní rozdíly v četnosti jednotlivých kategorií mezi oběma korpusy (až na adverbia v korpusu českých autorů). Druhou nejpočetnější kategorií byly "hedges" orientované na autora, kde se objevil statisticky významný rozdíl v užití pasiva, který byl vyšší opět u korpusu českých mluvčí, což ukazuje na vliv domácích konvencí. Nejdůležitějšího výsledku bylo ale dosaženo až analýzou "hedges" orientovaných na čtenáře (užití osobních zájmen, kondicionálů, otázek, subjektivizace tvrzení, atd.). Ukázalo se, že čeští autoři tyto strategie užívají v mnohem menší míře než jejich anglofonní kolegové, což ukazuje na vliv domácích konvencí při psaní odborného textu. Je třeba zmínit, že ač se objevily statisticky významné

115

rozdíly, zkoumané korpusy byly přeci jen moc malé na to, aby se dalo na výsledky této práce nahlížet jako na nevyvratitelné. Tato práce tedy nabízí přehled jednotlivých slov fungujících v textu jako jednotlivé prostředky zmírňující dopad promluvy, modifikovanou klasifikaci těchto slov v rámci funkčních kategorií, a popisy jednotlivých strategií "hedgingu" a jejich efektů.

# 8. APPENDIX

## 8.1 Source articles

Due to the length of the corpora, the texts cannot be included here and are offered in full in digital from on a CD, enclosed to this thesis.

### 8.1.1 NCS

| | author | title | year | journal | publisher | available at: |
|---|---|---|---|---|---|---|
| 1. | Naděžda Stašková | Back-formation in the newest level of English vocabulary | 2013 | AUC Philologica 3/2013 - Prague Studies in English XXVI | Charles university in Prague – Karolinum press | http://www.cupress.cuni.cz/ink2_stat/download.jsp?prezMat=47798 |
| 2. | Aleš Klégr | Proverbs as speech acts in English and Czech | 2013 | AUC Philologica 3/2013 - Prague Studies in English XXVI | Charles university in Prague – Karolinum press | http://www.cupress.cuni.cz/ink2_stat/download.jsp?prezMat=47796 |
| 3. | Lenka Vaňková | Expressing indefiniteness in English with regard to body parts | 2013 | AUC Philologica 3/2013 - Prague Studies in English XXVI | Charles university in Prague – Karolinum press | http://www.cupress.cuni.cz/ink2_stat/download.jsp?prezMat=47810 |
| 4. | Lucie Saicová Římalová | Negation in Early Child Communication (Remarks on Linguistic Analysis) | 2013 | Studies in applied linguistics 2013/2 | Charles university in Prague – Karolinum press | http://cejsh.icm.edu.pl/cejsh/element/bwmeta1.element.desklight-69781d8c-8a5a-49e0-b48a-10937f8e6a1e |
| 5. | Helena Lohrová | Investigating the Language of Decision-making: The Combined Use of Discursive Practices | 2014 | Brno Studies in English Volume 40, No. 1 | Faculty of Arts, Masaryk University. Brno. | http://www.phil.muni.cz/plonedata/wkaa/BSE/BSE_2014_40-1/06Lohrov%C3%A1.pdf |
| 6. | Vladislav Smolka | Linearity in functional sentence perspective: the strength of the weak factor | 2015 | Linguistica Pragensia LP 2015/1 | Charles university in Prague – Karolinum press | http://lingprag.ff.cuni.cz/sites/default/files/archive/Vladislav_Smolka_19-26.pdf |

| | | | | | | |
|---|---|---|---|---|---|---|
| 7. | Renata Povolná | Some notes on spatial and temporal adverbials with regard to functional sentence perspective : (based on conversational texts from the LLC) | 2000 | Brno Studies in English Volume 26 | Faculty of Arts, Masaryk University. Brno. | http://hdl.handle.net/11222.digilib/104278 |
| 8. | Petra Huschová | Possibility readings of can and may and their potential interchangeability | 2014 | Brno Studies in English Volume 40, No. 1 | Faculty of Arts, Masaryk University. Brno. | http://hdl.handle.net/11222.digilib/131484 |
| 9. | Jitka Kozubíková Šandová | On the use of cognitive verbs in political interviews | 2015 | Brno Studies in English Volume 41, No. 1 | Faculty of Arts, Masaryk University. Brno. | http://hdl.handle.net/11222.digilib/134763 |
| 10. | Dita Trčková | Multi-functionality of metaphor in newspaper discourse | 2011 | Brno Studies in English Volume 37, No. 1 | Faculty of Arts, Masaryk University. Brno. | http://hdl.handle.net/11222.digilib/118127 |
| 11. | Renáta Tomášková | A Walk through the Multimodal Landscape of University Websites | 2015 | Brno Studies in English Volume 41, No. 1 | Faculty of Arts, Masaryk University. Brno. | http://hdl.handle.net/11222.digilib/134765 |
| 12. | Libuše Dušková | Noun modification in fiction and academic prose | 2009 | Brno Studies in English Volume 35, No. 2 | Faculty of Arts, Masaryk University. Brno. | http://hdl.handle.net/11222.digilib/105145 |
| 13. | Naděžda Kudrnáčová | Some Notes on the Degrees of Explicitness of Pragmatic Meaning in One Type of Caused Motion Construction: An English-Czech Comparison | 2011 | Ostrava Journal of English Philology Volume 3, No.1 | Department of English and American Studies Faculty of Arts University of Ostrava | http://dokumenty.osu.cz/ff/kaa/ojoep/ostrava-journal-vol1-2011-full.pdf |
| 14. | Miroslav Černý | The Manifestation of Positive Politeness in Medical Consulting Revisited | 2012 | Ostrava Journal of English Philology Volume 4, No.1 | Department of English and American Studies Faculty of Arts University of Ostrava | http://dokumenty.osu.cz/ff/kaa/ojoep/ostrava-journal-vol1-2012-full.pdf |
| 15. | Lenka Kopečková | Will English become a new lingua franca in Georgia? | 2012 | Ostrava Journal of English Philology Volume 4, No.1 | Department of English and American Studies Faculty of Arts University of Ostrava | http://dokumenty.osu.cz/ff/kaa/ojoep/ostrava-journal-vol1-2012-full.pdf |
| 16. | Lenka Janovcová | English Canonical Antonyms in Non-Native Speakers | 2015 | Ostrava Journal of English Philology Volume 5, No.2 | Department of English and American Studies Faculty of Arts University of Ostrava | http://dokumenty.osu.cz/ff/kaa/ojoep/ostrava-journal-vol2-2013-full.pdf |
| 17. | Lenka Sedlářová | Gestures, English Spoken Discourse and Czech Dubbed Text in an American Feature Film | 2010 | Ostrava Journal of English Philology Volume 2, No.1 | Department of English and American Studies Faculty of Arts University of Ostrava | http://dokumenty.osu.cz/ff/kaa/ojoep/ostrava-journal-vol1-2010-full.pdf |
| 18. | Jiřina Popelíková | The Relations Between Syntactic Structure and Functional Sentence Perspective: a Study of Developmental Tendencies | 2013 | AUC Philologica 3/2013 - Prague Studies in English XXVI | Charles university in Prague – Karolinum press | http://www.cupress.cuni.cz/ink2_stat/dload.jsp?prezMat=47806 |
| 19. | Lenka Dočkalová | Development of Sandhi phenomena in Sanskrit and in Aśokan Prakrit and Pāli | 2009 | Linguistica Brunensia, Volume 57, No. 1-2 | Faculty of Arts, Masaryk University. Brno. | http://hdl.handle.net/11222.digilib/115116 |
| 20. | Pavel Caha | GEN.SG = NOM.PL: A mystery solved? | 2016 | Linguistica Brunensia, Volume 64, No. 1. | Faculty of Arts, Masaryk University. Brno. | http://hdl.handle.net/11222.digilib/135448 |
| 21. | Martin Adam | The horizontal – vertical dichotomy in FSP | 2006 | Brno studies in English, Volume 32 | Faculty of Arts, Masaryk University. Brno. | http://hdl.handle.net/11222.digilib/104088 |
| 22. | Marcela Malá | Notes on Norms and Usage of Finite/Non-Finite Predication in Written English | 2013 | Brno studies in English, Volume 39, No. 1 | Faculty of Arts, Masaryk University. Brno. | http://hdl.handle.net/11222.digilib/129150 |

| | author | title | year | journal | publisher | available at: |
|---|---|---|---|---|---|---|
| **23.** | Zuzana Urbanová | Direct and Free Direct Forms of Representation in the Discourse of Newspaper Reports: Less Frequent Phenomena | 2012 | Brno studies in English, Volume 38, No. 1 | Faculty of Arts, Masaryk University. Brno. | http://hdl.handle.net/11222.digilib/124303 |

## 8.1.2 NES

| | author | title | year | journal | publisher | available at: |
|---|---|---|---|---|---|---|
| **1.** | Kate Scott | The pragmatics of hashtags: Inference and conversational style on Twitter | 2015 | The Journal of Pragmatics, volume 81 | Elsevier BV, Netherlands | http://www.sciencedirect.com/science/article/pii/S037821661500096X  (access via Open Athens) |
| **2.** | Ann. M. Reed | The Discourse Function of Floated Quantifiers | 2010 | Journal of Pragmatics Volume 42, Issue 6 | Elsevier BV, Netherlands | http://www.sciencedirect.com/science/article/pii/S0378216609002616 (access via Open Athens) |
| **3.** | Neal R. Norrick | Interjections as pragmatic markers | 2009 | Journal of Pragmatics Volume 41, Issue 5 | Elsevier BV, Netherlands | http://www.sciencedirect.com/science/article/pii/S0378216608001859 (access via Open Athens) |
| **4.** | Michael Haugh | Speaker meaning and accountability in interaction | 2013 | Journal of Pragmatics Volume 48, Issue 1 | Elsevier BV, Netherlands | http://www.sciencedirect.com/science/article/pii/S0378216612002925 (access via Open Athens) |
| **5.** | Abby Dings | Native speaker/nonnative speaker interaction and orientation to novice/expert identity | 2012 | Journal of Pragmatics Volume 44, Issue 11 | Elsevier BV, Netherlands | http://www.sciencedirect.com/science/article/pii/S0378216612001555 (access via Open Athens) |
| **6.** | Cliff Goddard | 'Early interactions' in Australian English, American English, and English English: Cultural differences and cultural scripts | 2012 | Journal of Pragmatics Volume 44, Issue 9 | Elsevier BV, Netherlands | http://www.sciencedirect.com/science/article/pii/S0378216612001014 (access via Open Athens) |
| **7.** | Michael Cribb | Semantic and pragmatic miscues in non-native spoken extended discourse | 2012 | Journal of Pragmatics Volume 44, Issue 1 | Elsevier BV, Netherlands | http://www.sciencedirect.com/science/article/pii/S0378216611002840 (access via Open Athens) |
| **8.** | Meredith Marra | Disagreeing without being disagreeable: Negotiating workplace communities as an outsider | 2012 | Journal of Pragmatics Volume 44, Issue 12 | Elsevier BV, Netherlands | http://www.sciencedirect.com/science/article/pii/S037821661200149X (access via Open Athens) |
| **9.** | Bethan L. Davies | Grice's Cooperative Principle: Meaning and rationality | 2007 | Journal of Pragmatics Volume 39, Issue 12 | Elsevier BV, Netherlands | http://www.sciencedirect.com/science/article/pii/S0378216607001622 (access via Open Athens) |
| **10.** | Neal Whitman | Semantics and Pragmatics of English Verbal Dependent Coordination | 2004 | Language Vol. 80, No. 3 | Linguistic Society of America, Washington ,DC | http://www.jstor.org/stable/4489719 |
| **11.** | Elizabeth Hume | The Indeterminacy/Attestation Model of Metathesis | 2004 | Language Vol. 80, No. 2 | Linguistic Society of America, Washington ,DC | http://www.jstor.org/stable/4489661 |
| **12.** | Patrick Farrell | English Verb-Preposition Constructions: Constituency and Order | 2005 | Language Vol. 81, No. 1 | Linguistic Society of America, Washington ,DC | http://www.jstor.org/stable/4489855 |
| **13.** | Eileen Fitzpatrick | The Prosodic Phrasing of Clause-Final Prepositional Phrases | 2001 | Language Vol. 77, No. 3 | Linguistic Society of America, Washington ,DC | http://www.jstor.org/stable/3086944 |
| **14.** | Robert W. Murray | Syllable Cut Prosody in Early Middle English | 2000 | Language Vol. 76, No. 3 | Linguistic Society of America, Washington ,DC | http://www.jstor.org/stable/417137 |
| **15.** | James P. Blevins | Passives and Impersonals | 2003 | Journal of Linguistics Vol. 39, No. 3 | Cambridge University Press, Cambridge, UK | http://www.jstor.org/stable/4176832 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 16. | Andrew Spencer | Gender as an Inflectional Category | 2002 | Journal of Linguistics Vol. 38, No. 2 | Cambridge University Press, Cambridge, UK | http://www.jstor.org/stable/4176736 |
| 17. | Alan K. Scott | Accounting for the semantic extension of derived action nouns | 2010 | Journal of Linguistics Vol. 46, No. 3 | Cambridge University Press, Cambridge, UK | http://www.jstor.org/stable/40925611 |
| 18. | William Labov | Transmission and Diffusion | 2007 | Language Vol. 83, No. 2 | Linguistic Society of America, Washington ,DC | http://www.jstor.org/stable/40070845 |
| 19. | Sally McConnell-Ginet | Words in the World: How and Why Meanings Can Matter | 2008 | Language Vol. 84, No. 3 | Linguistic Society of America, Washington ,DC | http://www.jstor.org/stable/40071068 |
| 20. | Edward J. Rubin | Determining Pair-Merge | 2003 | Linguistic Inquiry Vol. 34, No. 4 | The MIT Press, Cambridge, USA | http://www.jstor.org/stable/4179256 |
| 21. | Colin Phillips | Linear Order and Constituency | 2003 | Linguistic Inquiry Vol. 34, No. 1 | The MIT Press, Cambridge, USA | http://www.jstor.org/stable/4179220 |
| 22. | John Bowers | Transitivity | 2002 | Linguistic Inquiry Vol. 33, No. 2 | The MIT Press, Cambridge, USA | http://www.jstor.org/stable/4179187 |
| 23. | Adam Albright | Islands of Reliability for Regular Morphology | 2002 | Language Vol. 78, No. 4 | Linguistic Society of America, Washington ,DC | http://www.jstor.org/stable/3086706 |