VERBS AS HEDGE ELEMENTS IN THE TRANSLATION OF MRA FROM BULGARIAN INTO ENGLISH

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Abstract: The research article (RA) is the academic writing heavyweight with all other forms of scholarly endeavor emulating its structure and rhetoric. The MRA is a subgenre form of the RA and as such also adheres to the principles of the former. Swales was the first one who captured the true structural and rhetorical value of academic writing introducing the notion of rhetorical move. A rhetorical move indicates "a change in information flow", while the main function of RA is to convince the reader of the importance of the presentation of the scientific product through publication. The special focus of the paper is the MRA – medical research article and particularly the strategy of hedging or mitigating the author's claim. In linguistics, the word "hedge" implies reducing the power of expression. Hedges are instances of epistemic modality signalling a level of caution in making assertions by speakers or writers. Brown and Levinson, using Goffman's framework, introduced the concepts of Positive Face and Negative Face. The notion of Negative Face exemplifies an individual's need not to be interrupted, while Positive Face refers the desire to be liked and approved by others. On the basis of these two ideas, we can distinguish between positive and negative strategies of politeness that preserve the writer's integrity and their status. Hedging theories suggest that there may be factors in linguistic interaction that make it possible for the sender's language message to be perceived as a "threat". Hedge forms are far from being merely lexical - the use of the Passive, the choice of a tense system, impersonal structures, can also be interpreted as forms of hedge. In this article we have turned our attention to one element of the hedging category – verbal forms. For the purpose, we make use of specially built corpora – one of Bulgarian language articles, a second, consisting of the former translations and a third- original English language articles. The corpora in the current research have been built so as to suit the purposes of translation analysis. The grammatical structure of the two languages implies different strategies for expressing a distancing from a categorical standpoint, with English employing heavily the use of modal verbs. Seen at first glance, what draws the attention is that the main part of the hedge forms are in the sections Discussion and Introduction. These structures are virtually non-existent in Methods, as might be expected, since the rhetorical purpose of this part of MRA is not related to opinion. To some extent, Results also does not abound in hedge forms, as it is a natural extension of the previous section.
Keywords: MRA, corpora, Bulgarian, English, hedge, verb

1. INTRODUCTION

The research article (RA) is fundamental to academic writing, most often serving as the prototypical scholarly paper whose structure is emulated and expanded into larger forms such as PhDs, monographs, etc. Its true structural and rhetorical value was first captured by Swales (1990), who introduced the notion of rhetorical move. A rhetorical move indicates "a change in information flow" (Swales 1990: 140-141), while the main function of RA is to convince the reader of the importance of the presentation of the scientific product through publication. The medical research article (MRA), being a subgenre of RA, has taken a fully-fledged form in the middle and late 20th century (Marta 2015), adopting the IMRD structure – represented by Introduction, Methods, Results and Discussion sections, respectively. The main role of IMRD is to facilitate a paper's ultimate goal – persuading the reader in the trustworthiness of the presented hypothesis and its proof. Thus, each of the above mentioned sections is employed to a different end, according to its rhetorical function. The Introduction illuminates the aim of the study, the main hypothesis and upholds the significance of the research. The Methods main goal is to convince the reader that the applied approach(es) are reliable and replicable. The Results section presents the findings of the research, while the Discussion interprets the latter, while juxtaposing them against the backdrop of prior research.

In the study of academic registers, a particular place in the plan of pragmatics is occupied by the so-called "Hedging theories". In linguistics, the word "hedge" has the meaning of "mitigation" or reducing the power of expression. Hedges are instances of epistemic modality signalling a level of caution in making assertions by speakers or writers. It was as far back as Brown and Levinson (1987), who using Goffman's framework (Goffman 1956, 1967), introduced the concepts of *Positive Face* and *Negative Face*. According to Goffman (1967), the notion of *Negative Face* exemplifies an individual's need not to be interrupted, while *Positive Face* refers the desire to be liked and approved by others. On the basis of these two ideas, we can distinguish between positive and negative strategies of politeness that preserve the writer's integrity and their status. Hedging theories suggest that there may be factors in linguistic interaction that make it possible for the sender's language message to be perceived as a "threat" - for

example, when using the English personal pronoun "YOU" in summarizing the recipients can subconsciously associate themselves with the referrer of the personal pronoun. Given that MRA puts forward scientific hypotheses, which are either proven or contradicted, it is quite natural to resort to different strategies of distancing or expressing solidarity (Myers 1989). It is necessary to point out that hedging in academic discourse is expressed by the use of various hedge forms including lexical means, impersonal structures, Passive Voice and the tense system (Hyland 2012).

There are two main directions within genre analysis that employ this concept: the first one targets the place of hedging in discourse community, and the other is concerned with the analysis of specific language characteristics, such as hedging used in a particular genre (Dudley-Evans 2000, Biook, Mohseni 2014, Demir 2018). Lakoff was the first one to actually use the word "hedge" meaning 'words whose meaning implicitly involves fuzziness (Lakoff 1973:471). This definition may be used as a starting point in investigating hedging as a linguistic phenomenon. The concept of hedging was developed further by other linguists, such as Brown and Levinson (1987), Dubois (1987), Myers (1989), Swales (1990) and Salager-Meyer (1994). In their analytical model of hedges Brown and Levinson considered them as devices that minimize the threat to "Face" (Brown, Levinson 1987). Hedging items are primarily used in Negative Face work, as hedge utterances leave room for the opinion of the audience. By being tentative, the sender protects his negative face against critical comments. In Swales' view hedges are rhetorical devices to safeguard one's reputation as a scientist (Swales, 1990), while Salager-Meyer considers hedges 'as a resource to express scientific uncertainty, scepticism and doubt' (Salager-Meyer 1994:151).

There is little agreement though among those who attempt to establish the category, arguing on which lexical items, phrases or syntactic structures should be classed as hedges and which strategies can be used to convey a hedging function in a given context. Salager-Meyer has postulated one of the first classifications of hedge forms in genre analysis. She has brought forward the categories of <u>shields</u>- *modal verbs and semi-auxiliaries* expressing possibility such as *may, seem, appear,* <u>approximators</u> – words (mainly adverbs) referring to quantity, degree, frequency and time, <u>intensifiers</u> – emotionally charged words and collocations, compound hedges - combinations of two categories such as *it would seem likely that ...*etc. Hyland (1994: 240) includes "If'-clauses, questions and time references. The use of the <u>Passive</u>, <u>agentless and impersonal constructions</u> has also been classified as a hedging device by many authors (e.g. Markkanen, Schröder 1997, Clemen 1997, Yang, Zheng, Ge 2015). Lewin (1998) in his turn, claims that on the discourse plane the explications of certain optional genre structures (moves/steps) can be considered as hedges since their function is to protect the author from possible attack (e.g. CARS in Swales terms or "offering implications for future research"). When trying to analyze hedging though, the varying approaches to categorization seem to fit each researcher's own analytical system thus making the analysis of academic corpora problematic. Martin-Martin (2008), for example, groups the linguistic means of hedging into three categories (or strategies, as he calls them):

1. Strategy of Indetermination – making a proposition less explicit in terms of qualitative, quantitative and semantic coloring. This strategy may comprise:

  a. Epistemic modality, which can be realized by means of:

    i. Modal auxiliary verbs expressing possibility, such as *may, might, can/ moga*

    ii. Semi-auxiliaries such as *to seem, to appear*

    iii. Epistemic lexical verbs such as *suggest, assume/ predpolagam*

    iv. Verbs of cognition such as *consider, observe, think, believe/ schita se, priemam se, pozvolyavam, preporychva se;*

2. Strategy of Subjectivization, including (1) the use of first personal pronouns (I/we) followed by verbs of cognition (*consider, believe*) or performative verbs (*suppose, suggest*), that can be interpreted as signals of personal/subjective opinion; (2) quality-emphasising adjectival and adverbial expressions such as *extremely interesting, particularly important/ izklyuchitelno interesen, osobeno vazhen*.

3. Strategy of Depersonalization - This refers to those cases in which the writers diminish their presence in the texts by using various impersonal, agentless and passive constructions in order to relieve themselves of responsibility for the truth of the propositions expressed. This strategy is syntactically realized by means of (1) agentless, passive and impersonal constructions such as *an attempt was made to it seems/appears/ ustanovi se, be napraven opit za* (2) grammatical metaphor – personification and nominalization.

We have paid more attention to the first strategy in particular, as it is pertinent to the narrow focus of this paper. The category of hedging in itself is very broad, since it is based on the overall rhetorical effect that a text produces on the recipient. As a number of researchers in the field (Salager-Meyer 1994, Hyland 1998, Martin-Martin 2008, Ozdemir, Longo 2014, Chenghui, Zhang 2016) show, hedge forms are far from being merely lexical - the use of the Passive, the choice of a tense system, impersonal structures, can also be interpreted as forms of hedge. In our opinion, the

methods of distancing from being categorical merit a separate and detailed study, and our aim is much more modest - to analyze certain instruments of this category in a comparative way within one particular genre - that of MRA.
Aim of the study: The aim of the present work is to explore the functional and formal means of hedging strategies and especially verbal forms exploited in Bulgarian and English MRA, juxtaposed against the translated into English Bulgarian articles.

2. METHODS
We provide an analysis of the verbal forms of hedging used in the corpora. In this sense, our conclusions about hedge forms and their importance in MRA are limited to the scope of our corpora, therefore we provide a picture that could not claim total completeness. The corpora in the current research have been built so as to suit the purposes of translation analysis. The study employs the methodology of both corpus-driven and corpus-based approaches (McEnery, Xiao, Tono 2006), aiming at the most detailed analysis of the selected language material. On the other hand, because of our desire for verification, we adhered to free access sources or those that could be obtained through institutional subscription. Desiring the highest possible representation, the study is based on a broad-spectrum corpus of Bulgarian articles from almost every field of medicine, where the representative journal published full translations into English. The English-language articles are from foreign journals with high impact factors, published in countries such as the US, Canada, the UK, the Netherlands, and others. All English-language journals are from the Elsevier and Scopus systems and are peer-reviewed. All the excerpted articles were published between 2012 and 2019.
We have built three corpora: one in Bulgarian language, dubbed Bulgarian language corpus (BLC), a second, called Translated article corpus (TAC), consisting of the full translations of the articles from BLC, while the third corpus is comprised of original English language articles (English language corpus – ELC) from foreign journals. As far as size is concerned, we have excerpted 50 articles to build BLC and the respective TAC, while ELC comprises 34 articles. In terms of word count, the BLC consists of 95586 words, TAC – 100827 words and ELC – 105641 words. Our guiding principle with regard to size was word count, which is very close if we consider the two primary corpora – BLC and ELC. For the sake of analysis we have abstained from building very large corpora. Nevertheless, the total count of words in all corpora is 302054 words, which is a formidable number and accounts for excellent representativeness by this criterion.
We have performed an initial analysis into the identification of rhetorical moves and steps. We have found 4 identical moves in both BLC and ELC in Introduction:
- Move 1: Introduction of general topic
- Move 2: Transition to specific topic
- Move 3: Identifying research niche
- Move 4: Aim of research

In Methods we identified the following moves in BLC:
- Move 5: Description of sample
- Move 6: Description of experiment
- Move 7: Data processing

In ELC there was found one additional move following the abovementioned ones: Move 8: Description of data collection procedure. In Results there were found only two moves:
- Move 8(9 in ELC): Presenting main results of research
- Move 9: Presenting specific results

The following moves were discovered in Discussion:
- Move 10: Short description of results
- Move 11: Comparison with prior research
- Move 12: Detailed description of results and data analysis
- Move 13: Statement of study importance
- Move 14: Conclusion

In ELC, there was identified one more move: Move 14: Limitations of study, prior the Conclusion.
All excerpted articles were initially scanned into PDF files and then into word processing files for ease. For data processing, we used WordSmith, version 6.0 (Scott 2012), freely available, employing all three of its features: Concordance, KeyWord and WordList, which allow the monitoring of word contexts and repetitive lexical and syntactic constructions. To this end, the three corpora were merged into three respective files, and the sections Introduction, Methods, Results and Discussion were further separated and combined into separate files for more

efficient processing. We have used Martin-Martin's (2008) analysis as the starting point and explored modal auxiliaries, semi-auxiliaries, epistemic lexical verbs and verbs of cognition.

3. RESULTS AND DISCUSSION

Table 1. Verbal hedge forms in the three corpora

BLC /TAC/ELS Hedge forms in tokens	INTRODUCTION	METHODS	RESULTS	DISCUSSION
1. Epistemic modal verbs	14 / 47 / 98	- / 7 / 5	- / 15 / 33	44 / 133 / 255
2. Epistemic lexical verbs	- / 11/ 14	- / 6/ 12	- / 7/ 18	8 / 56/ 33
3. Verbs of cognition	84 / 83/ 100	- / 10 / 4	14 /29 / 54	134 / 107 / 163

Table 1 shows the number and breakdown of all identified verbal hedge forms in the three corpora. The grammatical structure of the two languages implies different strategies for expressing distancing from a categorical standpoint, with English employing heavily the use of modal verbs. The ones used in the ELC texts are: *may, might, could, should,* and *would*. In the category of semi-auxiliaries we have included *seem* and *appear*. In the BLC texts, the only modal verb of epistemic meaning that has been identified is, *moga*, most often in the form of *mozhe*. A great part of the forms of the modal verbs in TAC obviously substitutes modal adverbs in BLC as the number of the latter in BLC is twice the one in TAC. This is a good translation strategy as academic English uses modal verbs much more often than other forms when it applies hedge strategies (see Csongor 2013: 48-51.). With regard to the category of epistemic lexical verbs in ELC, four main types of verb were identified: *seem, appear, assume, suggest*. In terms of all verb categories included in the hedge forms, these are the least exploited. In BLC, we have accepted *predpolagam* (in the reflexive form *predpolaga se*) as such a verb, with only 8 tokens found in Discussion. Once again TAC follows closely the ELC outline, supplanting some more common adverbial forms in BLC articles. As for the verbs of cognition (Martin-Martin 2008), in this category we have also accepted such lexical units expressing recommendation and opinion: *schita se, priema se, pozvolyavam, preporychva* (in BLC); *consider, observe, think, believe, recommend, approve, hypothesize*, (in ELC). The distribution of these elements in the BLC completely favors the Discussion section and to some extent the Introduction, where most of the word forms mentioned above are concentrated, with only the verb *pozvolyava* being found in the Results section. In ELC, the verbs of cognition are virtually absent from Methods, and are found predominantly in Discussion, much like BLC with the exception of Results, where such verbs are more numerous on account of the commentary Steps in that section.

The use of verbs of cognition in TAC diverges from the ELC pattern with respect to epistemic verbs and resumes its path alongside BLC pattern. One explanation of this fact may be the incidence of Bulgarian verbs semantically and distributionally very close to the English counterparts. The translators simply rendered those Bulgarian verbs by way of direct equivalence, without the intent of using any shifts. The rhetorical effect achieved by these verbs, interpreted as hedge elements, can be determined by analyzing the context of their use. A closer look shows a pattern of use in which hedge forms are most noticeable when describing studies by other authors, mainly in Discussion in all corpora, coupled with Passive Voice structures. The Active Voice forms of hedge verbs denote predominantly the author's views in relation to their own research.

4. CONCLUSION

Seen at first glance, what draws the attention is that the main part of the hedge forms are in the sections Discussion and Introduction. These structures are virtually non-existent in Methods, as might be expected, since the rhetorical purpose of this part of MRA is not related to opinion. To some extent, Results also does not abound in hedge forms, as it is a natural extension of the previous section. The translated articles as a whole take a middle ground as far as verbal forms are concerned with respect to the other two original corpora.

REFERENCES

Biook, B., F. Mohseni, (2014). The Use of Hedging in Research Articles. *Journal of Current Research in Science*, 2(4):474-477.

Brown, P., S. Levinson (1987). *Politeness: Some Universals in Language Usage*. Cambridge, Cambridge University Press.

Chenghui Ch., L. J. Zhang.(2016) An intercultural analysis of the use of hedging by Chinese and Anglophone academic English writers. Applied Linguistics Review Volume 8, Issue 1. Published Online: 2016-05-28 | DOI: https://doi.org/10.1515/applirev-2016-2009

Clemen, G. (1997). The Concept of Hedging: Origins, Approaches and Definitions. In Markkanen, R. & H. Schröder (Eds.), *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text.* Berlin: Walter de Gruyter, pp. 235-248.

Csongor, A. (2013). *Rhetorical Moves and Hedging in Medical Research Articles and their Online Popularizations*. PhD Dissertation. University of Pecs, Pecs, Hungary.

Demir, C. (2018). Hedging and academic writing: an analysis of lexical hedges. *Journal of Language and Linguistic Studies* Vol 14, No 4.

Dubois, B.L. (1987). Something of the order of around 40 to 44. Imprecise numerical expressions in biomedical slide talks. *Language and Society*. 16: 525-41.

Dudley-Evans, T. (2000). Genre analysis: a key to a theory of ESP? *Ibérica*, 2, 3-11.

Marta, M. (2015). *A brief history of the evolution of the medical research article*. Clujul Med. 88(4): 567–570.

Goffman, E. (1956).The nature of deference and demeanor. *American Anthropologist*, 1956:58, 473 – 502

Goffman, E. (1967). *Interaction Ritual: Essays on Face-to-Face Behavior*. Anchor Books.

Hyland, K. (1998). *Hedging in Scientific Research Articles*. Amsterdam/Philadelphia: Benjamins.

Hyland, K. (2012). *Disciplinary Identities: Individuality and Community in Academic Writing*. Cambridge: Cambridge Applied Linguistics.

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

Lewin, B. (1998). Hedging: Form and Function in Scientific Research Texts. In Fortanet, I., Posteguillo, S., Palmer, J. C. & J. F. Coll (Eds.), *Genre Studies in English for Academic Purposes*. Vol. 9 Filología. Universitat Jaume I: Collecció Summa, pp. 89-108.

Markannen, R., H. Schröder (1997). Hedging: A Challenge for Pragmatics and Discourse Analysis. In Markkanen, R. & H. Schröder (Eds.), *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text.* Berlin: Walter de Gruyter, pp.3-18.

Martin-Martin, P. (2008). The Mitigation of Scientific Claims in Research Papers: A Comparative Study. *International Journal of English Studies*, 8(2), 133-152. Retrieved from https://revistas.um.es/ijes/article/view/49201

McEnery T., R. Xiao, Y. Tono. (2006). *Corpus-based Language Studies: An Advanced Resource Book*. Jonh Benjamins. Published online: 08 December 2006 https://doi.org/10.1075/ijcl.11.4.09won

Myers G. (1989). The pragmatics of politeness in scientific articles. *Applied Linguistics* 10. 1-35.

Ozdemir, N. O., Longo, B. (2014). *Metadiscourse Use in Thesis Abstracts: A Cross-cultural Study*. WCLTA (pp. 59-63, doi:10.1016/j.sbspro.2014.05.011). Barcelona: Procedia - Social and Behavioral Sciences 141.

Salager-Meyer, F. (1994). Hedges and textual communicative function in medical English written discourse. *English for Specific Purposes*, vol. 13, no. 2, pp.149-170.

Swales, J. (1990). Genre analysis: English in academic and research settings. Cambridge: CUP, p.288.

Yang, A., Sh. Zheng, G. Ge (2015). Epistemic modality in English-medium medical research articles: A systemic functional perspective. *English for Specific Purposes* Volume 38, April 2015, Pages 1-10 https://doi.org/10.1016/j.esp.2014.10.005