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# Metadiscourse Distribution Measurement – an experimental case study of a translation

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*The term metadiscourse is used for language elements that either aid the organising of a text or serve the expression of the writer's stance towards the content of the text or towards the reader. Most research done on metadiscourse scrutinise the number and quality of these elements for whole texts, while disregard the examination of the patterns on a lower level. Nevertheless, discovering paragraph-level patterns may not just help understand the metadiscourse structure of texts but could also help us understand better what happens to texts during translation. To our knowledge, no established methods exist to measure and compare metadiscourse distribution patterns. This paper introduces a method of paragraph-level analysis and comparison, and presents the results of a small case study carried out on a textbook excerpt and its translation. The method shown here opens up the possibility to furthering the depth of knowledge about text construction, reader-writer communication and discourse community-specific characteristics and how these features are handled during translation.*

Keywords: *contrastive rhetorics, distribution measurement, metadiscourse, metadiscourse distribution, paragraph*

## Introduction

Text and discourse sciences employ a broad spectrum of methodologies to describe a not less varied array of dimensions of human interactions. Metadiscourse, though being only one of the many methodologies and a relatively novel approach, has been gaining ground steadily, and *"has become one of the most commonly employed methods for approaching specialist written texts"* (Hyland, 2017:16). This rapid success is somewhat striking taking into consideration that defining metadiscourse is a rather elusive task and there is no universally agreed interpretation of the term.

Its first use in a similar meaning to what we now understand as metadiscourse dates back to the 1980's but it was actually Anna Mauranen's (1993), Ken Hyland's (1999) and Annelie Ädel's (2001) papers that made metadiscourse a well-known approach to text analysis. However, these researchers conceptualise metadiscourse differently, according to Hyland's view (2017), along a cline of the concept. It is the definition of Mauranen which is the least accommodating and thus in certain ways the least debatable. She narrows down the idea to metatext, which essentially means text organisers and excludes

all other possible candidates, resulting in a perspicuous but rather straitened approach. Ädel's concept of metadiscourse is somewhat broader, as she allows for so-called reader- and writer-oriented discourse categories to be included, which are, respectively, examples of authors referring to themselves and to the reader directly.

However, it is actually Hyland's formulation that is the most encompassing. In his view, metadiscourse incorporates *"a coherent set of interpersonal options which includes text organising material together with the ways speakers and writers project themselves into their discourse to signal their understandings of the material and their audience"* (2017:19). In his model, as detailed in Table 1, there are two categories of metadiscourse, interactive and interactional, and both categories incorporate five different resources. In the case of interactive metadiscourse, these are used for organising discourses into comprehensible and authentic texts, while the interactive devices play a crucial role in creating and maintaining a writer-reader interaction through which the author can modulate propositions, adjust the text to their expected readership and build his personal image in the discourse community.

Table 1. Hyland's model of metadiscourse (Hyland, 2010:49)

| CATEGORY | FUNCTION |
|---|---|
| **Interactive** | **Guide reader through text** |
| Transitions | Express relations between main clauses |
| Frame markers | Refer to discourse acts, sequences or stages |
| Endophoric markers | Refer to information in other parts of the text |
| Evidentials | Refer to information from other texts |
| Code glosses | Elaborate prepositional meanings |
| **Interactional** | **Involve the reader in the argument** |
| Hedges | Withhold commitment and open dialogue |
| Boosters | Emphasize certainty or close dialogue |
| Attitude markers | Express writer's attitude to proposition |
| Engagement markers | Explicitly build relationship with reader |
| Self-mentions | Explicit reference to author(s) |

## Metadiscourse in translation

The combination of these features make metadiscourse a powerful, versatile tool for discourse studies that allows the analysis of texts in their linguistic and social complexity. One of the many areas that can benefit from a complex, discourse-based approach is translation studies. As comparative studies have shown, texts

are community-specific, with each discourse community and culture exhibiting specific patterns (cf. Mauranen, 1993; Čmejrková, 1996; Pisanski Peterlin, 2005; Fløttum et al., 2006; Van Bonn – Swales, 2007; Mur Dueñas, 2009; Neumayer, 2014). These observations are of special interest for translators as following target culture-specific rhetorical conventions is necessary for producing translations that fit reader expectations (cf. Károly, 2012). Nevertheless, studies so far have shown that translations actually follow neither source nor target language norms (cf. Bennett, 2007; Montgomery, 2009; Williams, 2005, 2006). As this affects the way translations are received, or worse, understood by target-language readers, it is vital that we understand what the community norms are, how translators deal with them, how translations diverge from them and raise awareness of possible alternative strategies.

Constituting a significant part of communication, the study of translation of metadiscourse promises to reveal much about these areas, however, the number of studies available is rather limited. Agnes Pisanski Peterlin, the first researcher to venture into the study of metadiscourse in translation, working with original Slovene and English research articles and texts translated from Slovene to English, has pinpointed several characteristics of translated metadiscourse. She found that even though the number of metadiscourse elements were similar, around 30% of them were replaced. Most of the deletions were due to grammatical differences between the two languages and most of the additions were made to support the logical structure of the text (2005). Furthermore, her studies have also shown that around half of the hedges are omitted during translation and that hedging is done rather differently in the translations she studied (2008).

Finally, it was also established by her that even though Slovene and English articles use a similar number of engagement markers, their usage patterns are quite disparate and translations actually follow neither of these patterns. They contain less engagement and employ them in a third design (Peterlin – Moe, 2016), which matches the results on rhetorical patterns. According to Liao (2011), the reason of this phenomenon might be that translators would like to make the reader's task easier by introducing alterations to the texts that they feel would make it more reader-friendly. However, aside from the previously mentioned phenomenon, little is known about what these alterations are. This study aims to introduce a method of measuring how metadiscourse elements are distributed across texts and by comparing an original text with a translation, to show whether the distribution pattern was changed during translation.

## Metadiscourse distribution

Studies on metadiscourse tend to scrutinise texts in their entirety, that is, the quantity and quality of elements are measured and discussed for whole texts and not for smaller units, even if they do not comprise the whole original document

itself. According to Hyland (2017) the most researched genres in terms of metadiscourse are research articles, essays, textbooks, student writing and, outside of the academic fields, news media and business communication. Some of the studies focus on certain sections of these texts (e.g. Kawase, 2015), yet, none of them go below the level of textual sections or units when discussing metadiscourse patterns.

However, assuming that whole texts exhibit metadiscourse patterns that are culture and genre specific, it is perhaps also possible to find characteristic arrangements of elements on lower levels of text organisation. The organisation and conveyance of information and authorial voice require the combination of different rhetorical acts and for these to achieve their aim an amalgam of metadiscourse features are required.

To find out how this linguistic blend is created it is required to look beyond the level of larger chunks of text, and see how certain rhetorical acts require different amounts of metadiscourse to succeed. For example, it is possible that more interactive metadiscourse is needed in order to clearly present and support an argument, while other aims, such as deliberating a result may entail more interactional metadiscourse. Furthermore, this closer look is also indispensible for a deeper understanding of how metadiscourse is translated. While studies assessing the total number of metadiscourse and the frequency of types used can shed light on how the original and the translation compare, they say preciously little about what and how the translators actually do with metadiscourse when translating a text.

The present study therefore aims to introduce a method for analysing metadiscourse on small units of text, enabling a micro-level assessment of characteristics. Hopefully, with the help of this method future research will be able to uncover more about how metadiscourse is used for constructing the rhetorical structure of texts and what happens to these during translation, the understanding of which could lead to the development of metadiscourse translation strategies applicable in translator training. However, it is first necessary to define what small textual units are.

## Paragraphs as units

The paragraph was chosen as a unit of measurement for the present study due to several reasons. First of all, the extant textual articulation of the texts is to be observed during analysis, thus unit and sub-unit headers set borders to text processing and metadiscourse elements cannot extend across them. Furthermore, elements are typically formulated on the phrase or sentence level and practically never extend beyond the length of a handful of sentences. While it is theoretically possible for metadiscourse elements to extend from one paragraph to the next, this rarely happens. This is perhaps due to the fact that paragraphs are not solely formatting tools that enhance the reading experience by breaking up texts into

chunks that are easier to process, but they also provide cues of information structure which form the macrostructural basis (Le, 1999).

The study of paragraphs has a long tradition, going back as far as the 18th century, with its first mention appearing in Murray's English Grammar (Duncan, 2007). Grammarians, composition researchers, linguists and most recently even psychologists have tried to understand and define its role in text development, its typical or desired structure, and its usage in different types of texts. However, despite all the effort, no universally accepted definition of the paragraph exists. It has nevertheless been proven that readers have shared intuitions about paragraphing and that this intuition is based primarily on two main factors: paragraphing cues and text length (Bond – Hayes, 1984).

Paragraphing cues are of two main types: shifts in the topical development and textual elements. Firstly, readers expect that any marked topic shift occurs together with the onset of a new paragraph, creating a physical cue of the topical development. Furthermore, topic shifts are frequently indicated by the authors' use of certain textual elements marking the onset of a new line of thought or the furthering of the actual. These cues are typically syntactically fronted expressions that explicitly state the rhetorical direction or create a logical connection between ideas.

Another important factor that influences the use of paragraphs is text length. It was found that most readers consider a paragraph too short if it is less than 2 sentences or 40 words long and too long if it is more than 6 sentences. Naturally, these findings only reflect an average of reader expectations and may vary according to the content and type of text, but they definitely indicate that there is a more or less universal idea about how long a paragraph should be.

It is the existence of these cues and reader ideas that is the reason behind choosing the paragraph as unit of measurement for this study. Metadiscourse partly constitutes tools that empower texts with indicators of topic development and thus it is fair to assume that readers actually see metadiscourse tools as cues of paragraphing, or in other words, these tools play an inherent role in appointing the limits of paragraphs. The primary aim of this survey being the measurement of how types of metadiscourse are distributed within texts, it is then reasonable to assume that even though paragraphs are of fluctuating length in terms of word count, they form compact units of information that offer a valid unit of analysis.

## Texts and procedures

This study is part of an ongoing PhD research project examining tertiary level textbooks, therefore the texts used for the study serve as material for other studies also (cf. Neumayer, 2019). The two texts used here are Richard Feynman's

*Lectures on Physics*, Chapter 8 (FYN) and its Hungarian translation, *Mai Fizika* (MaF).

Similarly to most metadiscourse studies examining the patterns of texts, distribution measurement primarily consists of counting the number of occurrences of stretches of metadiscourse, however, in the case of the present study this was done for each paragraph of both texts. Furthermore, in order to facilitate comparability and to enable a more in-depth analysis, the number of interactive and interactional metadiscourse tools were counted separately for each unit. Finally, the data was broken up into segments according to the sub-units of the text, and was tabulated to assist comparison.

## Results and discussion

All together the English source text consists of 34 paragraphs, contains 136 interactive and 79 interactional stretches of metadiscourse which adds up to a sum of 215 and an average of 6,3 per paragraph (Table 2). The Hungarian text consists of 33 paragraphs, contains 195 interactive and 84 interactional pieces of metadiscourse; 279 in sum, and 8,5 per paragraph on average. As it is visible from these figures, the translation contains 64 more occurrences of metadiscourse than the original, which is a rather substantial difference, amounting up to nearly 30%. Moreover, this growth does not occur equally for the two types of metadiscourse, instead it is strongly inclined towards the interactive type with a count of 59 as opposed to the count of 5 for interactional metadiscourse. These results suggest that the metadiscourse pattern of the original text was significantly altered during the translation and that by adding a high number of interactional elements, the translator was aiming at producing a text that was more explicitly structured than the original. In the following paragraphs we will present and discuss the data for each of the five subunits (consisting of 3–11 paragraphs each) to see if these alterations are equally distributed or whether they are concentrated to certain parts of the text.

Table 2. Overall text statistics

| | **Paragraphs** | **Interactive MD** | **Interactional MD** | **SUM MD** |
|---|---|---|---|---|
| **FYN** | 34 | 136 | 79 | 215 |
| **MaF** | 33 | 195 | 84 | 279 |

The first subunit of the English and the Hungarian texts both contain 6 paragraphs, but while a sum of 49 occurrences of metadiscourse was counted in the first, the second contains 85. This means that the Hungarian text contains nearly 73.5% more metadiscourse than the English, which is also a substantial difference from the average. In terms of the distribution of these elements, 16 more interactive units were found (+52%), this amount is 20 for the

interactional elements (+111%). This suggests that in the case of the first subunit, despite the general trend of strengthening the presence of interactive metadiscourse, the translation actually shifted towards being proportionately more interactional than the original. On the level of paragraphs, it is the third and the fifth paragraphs that exhibit the most marked differences, yet while the 16 more metadiscourse units of the third paragraph are proportionately distributed between the two types, in the case of paragraph five, the interactional type has grown by more than three and a half times. Thus, in the first subunit, to a large extent, the differences in the count of the elements can be attributed to these two paragraphs, and the shift towards interactional to one single paragraph.

Table 3. Subunit 1

| **FYN/MaF** | **8.1.1** | **8.1.2** | **8.1.3** | **8.1.4** | **8.1.5** | **8.1.6** |
|---|---|---|---|---|---|---|
| **Interactive** | 6/9 | 2/4 | 7/16 | 7/4 | 6/11 | 3/3 |
| **Interactional** | 1/1 | 3/4 | 6/13 | 3/3 | 3/14 | 2/3 |
| **Sum** | 7/10 | 5/8 | 13/29 | 10/7 | 9/25 | 5/6 |

In the second subunit of the texts the English and the Hungarian texts differ in terms of the number of paragraphs; the first one is constructed by 9 paragraphs, the second one by 11, which indicates that the translator redistributed the information of the original text. The overall difference in terms of the number of stretches of metadiscourse is moderate (+10), however in some paragraphs of the translation the count is considerably lower, while in other cases considerably higher than in the original text. The first paragraph of the translation, for example, contains 11 less elements, while the two final, additional paragraphs together add 24 to the final count.

In terms of the proportions of the types of metadiscourse the translation contains 16 more interactive units (~+41%), and 6 less interactional units (~-18%), thus the shift here is closer to the general trend than in the previous subunit. Some of the paragraphs exhibit mildly conspicuous characteristics: while paragraph six is more interactional in the translation, paragraphs nine and eleven have a much higher rate of interactive elements. All in all, however, it is not these differences that result in the general shift but the combined effect of the changes for each paragraph.

Table 4. Subunit 2

| **FYN/MaF** | **8.2.1** | **8.2.2** | **8.2.3** | **8.2.4** | **8.2.5** | **8.2.6** | **8.2.7** | **8.2.8** | **8.2.9** | **8.2.10** | **8.2.11** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Interactive** | 6/1 | 4/6 | 4/1 | 1/0 | 1/2 | 6/5 | 9/11 | 6/2 | 4/10 | -/10 | -/9 |
| **Interactional** | 8/2 | 13/5 | 3/0 | 1/1 | 3/5 | 1/3 | 3/4 | 2/1 | 0/2 | -/4 | -/1 |
| **Sum** | 14/3 | 17/11 | 7/1 | 2/1 | 4/7 | 7/8 | 12/15 | 8/3 | 4/12 | -/14 | -/10 |

In the case of the third subunit, the Hungarian text again consists of one paragraph more (5) than the English text (4). The English text has 24 occurrences of metadiscourse, while the Hungarian one has moderately more, 30. In terms of the proportions of the two main types the original and the translation are rather similar; 17 vs. 22 interactive and 7 vs. 8 interactional elements were identified. This is a short subunit with only a handful of paragraphs and the English text is already rich in interactive metadiscourse which was slightly strengthened during the translation, but the overall composition of the text was not substantially altered.

Table 5. Subunit 3

| **FYN/MaF** | **8.3.1** | **8.3.2** | **8.3.3** | **8.3.4** | **8.3.5** |
|---|---|---|---|---|---|
| **Interactive** | 3/6 | 3/1 | 8/3 | 3/8 | -/4 |
| **Interactional** | 0/0 | 0/1 | 4/0 | 3/5 | -/2 |
| **Sum** | 3/6 | 3/2 | 12/3 | 6/5 | -/6 |

Regarding the fourth subunit, the differences between the texts are apparent. Firstly, the English text consists of five paragraphs, while the Hungarian of three, which again stipulate changes in the way information is structured. The reduction in the number of paragraphs is also accompanied by a decreased number of metadiscourse from 19 to 17, which is not a definitive change, but the only negative one found for these texts.

Nevertheless, it is actually not these discrepancies, but the difference in the rate of interactive and interactional metadiscourse that is the most meaningful between the original and the translation. The FYN text contains 12 interactive and 7 interactional metadiscourse, while the MaF text has 15 interactive and only 2 interactional, which indicates that the metadiscourse pattern of the original text was shifted strongly towards the interactive. Furthermore, this shift is also strongly detectable in the data of the individual paragraphs, as two out of the three paragraphs of the MaF text completely lack interactional metadiscourse, and the 2 instances present in the subunit are both confined to paragraph two.

*Table 6 – Subunit 4*

| **FYN/MaF** | **8.4.1** | **8.4.2** | **8.4.3** | **8.4.4** | **8.4.5** |
|---|---|---|---|---|---|
| **Interactive** | 5/4 | 1/5 | 1/6 | 2/- | 3/- |
| **Interactional** | 6/0 | 0/2 | 1/0 | 0/- | 0/- |
| **Sum** | 11/4 | 1/7 | 2/6 | 2/- | 3/- |

Finally, the comparison of the fifth subunit also unveils substantial differences. Here, similarly to the fourth subunit, the translation comprises two less paragraphs than the original, nonetheless, the count of metadiscourse

elements is markedly higher (62), compared to the source text's 48. In addition, this considerable rise in the overall count occurred while the amount of interactional metadiscourse fell by 38% (5 occurrences), and thus the weight of interactive metadiscourse increased heavily, by 54%, from 34 to 54. On the paragraph level, this can especially be well traced on the eights paragraph, for which the ratio of the two types of metadiscourse was found to be twelve to zero, which figure is far higher than those measured for any of the paragraphs of the FYN text. Thus, this last subunit clearly plays a major role in transforming the FYN text into the substantially more interactive metadiscourse-rich text, the MaF.

Table 7. Subunit 5

| **FYN/MaF** | **8.5.1** | **8.5.2** | **8.5.3** | **8.5.4** | **8.5.5** | **8.5.6** | **8.5.7** | **8.5.8** | **8.5.9** | **8.5.10** |
|---|---|---|---|---|---|---|---|---|---|---|
| **Interactive** | 7/16 | 4/6 | 1/2 | 7/9 | 1/5 | 2/1 | 7/3 | 3/12 | 1/- | 2/- |
| **Interactional** | 2/4 | 2/1 | 1/0 | 2/2 | 1/1 | 0/0 | 3/0 | 2/0 | 0/- | 0/- |
| **Sum** | 9/20 | 6/7 | 2/2 | 9/11 | 2/6 | 2/1 | 10/3 | 5/12 | 1/- | 2/- |

As an assessment of the result, it can be concluded that the transformation of the metadiscourse pattern of the FYN text into the pattern of the MaF text is the result of the combination of two main factors. Firstly, ubiquitous alterations across the text produced a rise in the overall number of metadiscoursive elements and a shift in the rate of interactive and interactional metadiscourse towards the interactive. This is the case for most paragraphs, with those in subunit three being good examples forming a block of paragraphs without any extreme cases of shifts, and those in subunit four representing a marked change towards interactive metadiscourse as a result of their combined effect.

The second factor is the presence of certain salient paragraphs of the translation which strongly contrast those in the original text. These play a crucial role in transforming the patterns by strengthening the rate of interactive metadiscourse through exhibiting an extremely high density of interactive elements. Examples of these are the first sentence of the first subunit with nine times more interactive metadiscourse than interactional, and the last sentence of the fifth subunit with a rate of twelve to zero.

## Conclusions

This article described a new apporach to the study of translated metadiscourse which examines and compares distribution patterns for small textual units (paragraphs) instead of the customary method of using either sections or whole texts. By registering the metadiscourse structure on the paragraph level it is possible to establish the distribution of elements across the texts in terms of quality and quantity and then compare the distribution of the source text to that

of the target language text, yielding data on the details of how the patterns changed during translation. As the study was intended to be an experimental venture into testing the possibility of using the method on a larger scale, it was carried out on a small textual sample, yet the results show that the method applied here has managed to shed light on the changes form a quantitative point of view on a lower level than previous studies.

According to the findings, the translator has made subtle as well as and robust changes in the metadiscourse structure during the translation process. The two main differences were found to be a considerably raised number of metadiscourse elements and a marked shift towards interactive metadiscourse, which were the results of the combination of slight alterations across the whole text and certain conspicuously modified paragraphs. Nonetheless, while the changes in the the metadiscourse structure of the FYN text are evident and definitive, they seem to have a rather haphazard nature. Neither is it apparent why certain paragraphs and subunits exhibit stronger or weaker changes, nor does any regularity seem to emerge from the data gained during the analysis.

However, the present study is confined to comparing the number and category of metadiscourse elements, and hopefully a closer look at the changes on the textual level would allow us to gain a better insight into what transformations actually took place during the translation process on the micro level. The results for the texts used in this project have confirmed the findings of previous studies in terms that the metadiscourse density and structure of translations differ considerably from those of source texts. It can also be concluded that the methodology of this study could be successfully applied in further studies to extend our knowledge of metadiscourse in translation, however, in transformation the analytical apparatus is to be augmented with a qualitative analysis of the transformation of metadiscoursive text on the level of the elements.

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