

Agnes Pisanski Peterlin and Tamara Mikolič Južnič (Eds.)

**ACADEMIC WRITING
FROM CROSS-CULTURAL
PERSPECTIVES:
EXPLORING THE SYNERGIES
AND INTERACTIONS**

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**ACADEMIC WRITING FROM CROSS-CULTURAL PERSPECTIVES:
EXPLORING THE SYNERGIES AND INTERACTIONS**

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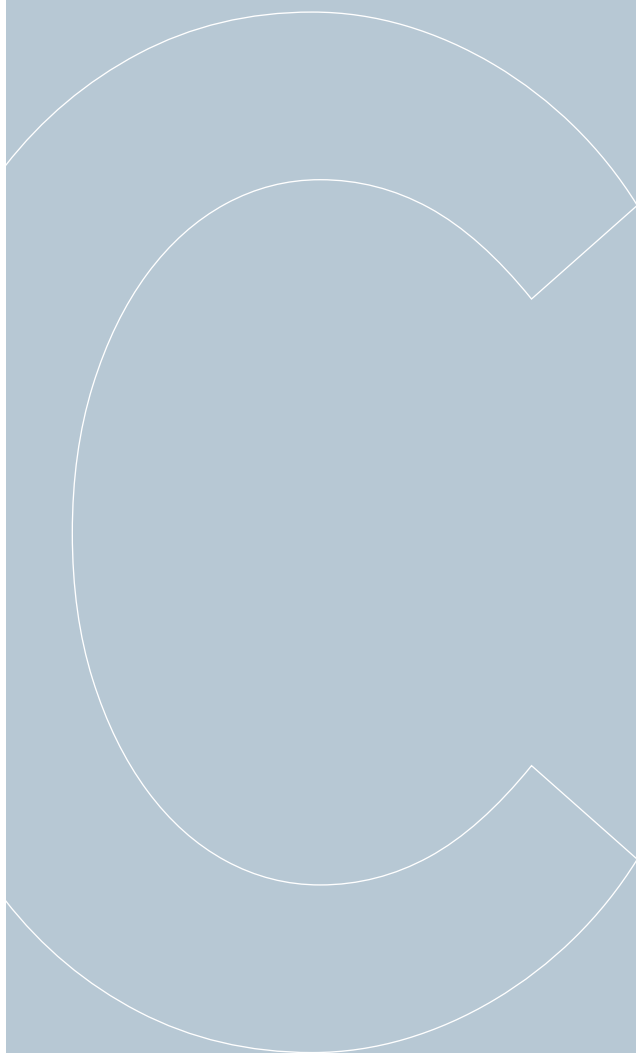
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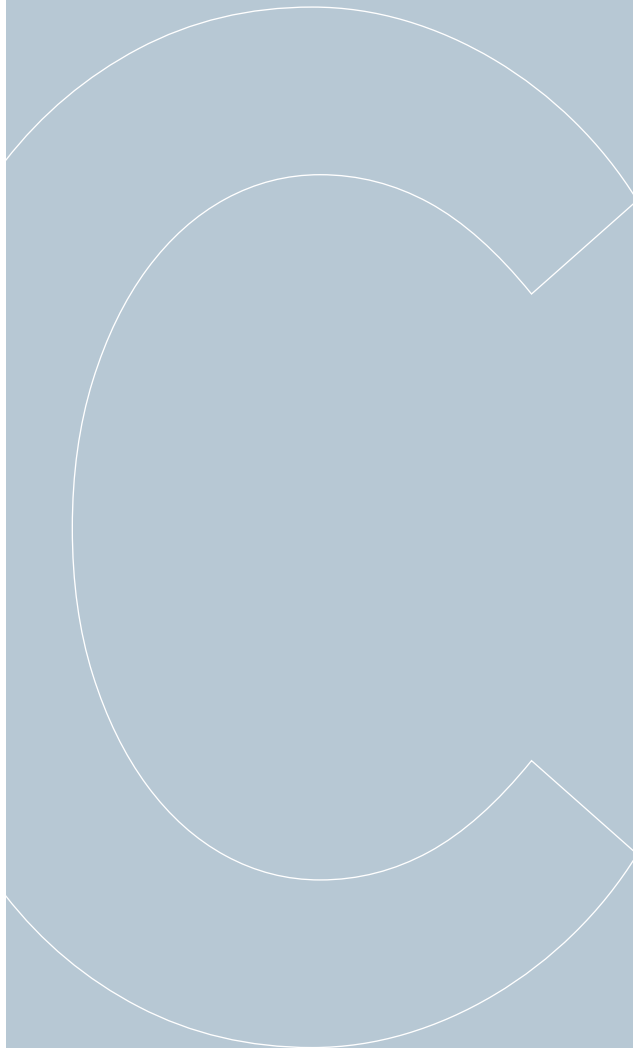
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Introduction: Exploring academic writing from cross- cultural perspectives

Agnes Pisanski Peterlin and Tamara Mikolič Južnič

This volume is the result of the mutual respect and fruitful cooperation of several researchers. As interest in academic discourse has been growing in Slovenia, as well as in the wider region, and shared research paradigms that take into consideration cross-cultural encounters in academic contexts are emerging, it seems important to create opportunities for interaction among scholars juxtaposing different lingua-cultures. With this edited volume, we wished to provide such an opportunity by bringing together researchers examining different language combinations, including those contrasting English as an academic *lingua franca* and L1 discourse, as well as experts investigating other languages and cultures. A central and recurring theme of the volume is the focus on the dynamic evolution of academic discourse conventions through language contact predominantly in Slovene, but also, in the context of the region, in Croatian and Serbian.

We believe that shifts in discourse conventions can be best observed by examining the emerging phenomena in semi-peripheral and peripheral languages (in the sense of Heilbron 2000). Because of the cultural capital of English in the scientific and technical fields, as well as its position as the hypercentral language of the academic world, English is often treated as a *sine qua non*, and the fact that academic discourse is also published in languages other than English can easily escape one's notice.¹ The reasons for publishing in languages other than English vary: they may reflect divergent audiences and disciplinary practices, or reveal strong cultural traditions and a desire to develop or maintain national academic languages (cf. Swales 1997 for a discussion of the role of academic languages other than English). While the position of English in academia and higher education may seem unchallenged and even untouchable, a closer look at the past and present reveals a complex multilingual world where the relationships between various *lingua francas* and (semi-)peripheral languages is continuously re-negotiated.

The impact of the dominant Anglo-American model of academic writing on the discourse conventions of other languages is often highlighted. However, it is important to acknowledge that English as an academic *lingua franca* is also shaped by multilingual scholars, whose cultural background in academic writing is diverse, and may be characterized by somewhat different stylistic and rhetorical preferences. It is, in fact, style and rhetoric that are at the heart of the debate. In her exploration of the development of the dominant Anglo-American model of academic writing, Bennett (2011) underlines the links between the Scientific Revolution of the 17th century, Enlightenment values and the emergence of logical argumentation, pointing out that the Catholic cultures of Continental

1 Lillis and Curry (2010, 9) report that according to Ulrich's Periodicals Directory "67% of the 66,166 academic periodicals included are published using some or all English", which conversely means that some 33% of the periodicals indexed by Ulrich use a language other than English. Non-periodic publications, such as books and edited volumes, are, of course, not indexed by Ulrich.

Europe long resisted this paradigm “for identity and political reasons” (Bennett 2011, 192), cultivating a less explicit writing style.

Building on previous research into divergent cultural traditions, this volume focuses on contrastive rhetoric, in other words, contrastive issues beyond the sentence level, including variation across lingua-cultures in terms of text organization, genre conventions, discourse functions and pragmatic elements. The particular combinations of languages examined in this volume present an opportunity to juxtapose their rhetorical conventions, re-examining our understanding of the discourse and pragmatic functions of academic communication. We therefore believe that this collection may serve as an initial step towards an in-depth examination of academic practices in the regional context, as well as a solid reference for future research on the topic.

Applied linguistics research focusing on academic writing (see, for instance, Swales 1990; Hyland 1998, 2009; Harwood and Hadley 2004; Lillis and Curry 2006; Pérez-Llantada et al. 2011; Flowerdew 2014; Charles and Pecorari 2015, to name just a few) emerged in the context of English for academic purposes. This means that many of the studies were motivated by a desire to gain an insight into the potential issues faced by non-native English speaking higher education students and multilingual scholars working in English. However, these studies have also contributed to unveiling divergences in rhetorical traditions among various lingua-cultures, and the implications that these divergences have for developing academic writing skills in a second or foreign language. One such divergence has been identified by Hinds (1987): in his seminal study, he outlined the differences between what he labelled reader vs. writer responsible languages. Cross-linguistic differences have been identified between English and a wide range of languages, including German (Clyne 1987), Finnish (Mauranen 1993), Czech (Čmejrková and Daneš 1997), Spanish (Moreno 1997), Bulgarian (Vassileva 2001), Russian and Ukrainian (Yakhontova 2001), Norwegian and French (Fløttum et al. 2006), Italian (Molino 2010), Chinese (Hu and Cao 2011), to name just a few.

This volume attempts to expand the discussion. It begins with a focus on academic writing in Slovene, a language with just over two million speakers; the scope is then broadened to include Croatian and Serbian, important regional languages, not only directly comparable to Slovene in terms of their linguistic structure, but also particularly interesting for the present volume because of their (partly) shared history with Slovene. Academic communication has received previous research attention in all three languages: this means that the papers published in this volume are informed by previous studies on Slovene, Croatian and Serbian academic discourse.

Studies of Slovene academic writing have focused on issues such as terminology development (Kalin Golob and Logar Berginc 2008; Vidovič Muha 1986), register and genre (Sajovic 1986), linguistic identity (Kalin Golob et al. 2017), corpus linguistics (Erjavec et al. 2016), discourse phenomena (Gorjanc 1998) and language for specific purposes (Logar 2017). The development of scientific writing and terminology in Slovene is systematically examined from a historical perspective by Žigon, Almasy and Lovšin (2017).

Moreover, contrastive studies of Slovene and other languages for academic purposes have revealed interesting details about text organization and cohesion in Slovene academic writing; see for instance the comparison of research articles in Slovene and English (Pisanski Peterlin 2005) or the contrastive analysis of student academic writing in Slovene and Croatian (Balažic Bulc and Gorjanc 2015). Building on the findings of contrastive research, studies examining Slovene-English translations of academic discourse also yielded potentially relevant details about Slovene academic discourse conventions, above all those relating to metadiscourse use. Thus, Zajc (2014) focused on the translation of research grant proposals, and Pisanski Peterlin (2008, 2016) on the translation of research articles. Other studies have examined L2 production of Slovene writers, most notably L2 academic writing in Spanish (Heredero Zorzo, Pihler Ciglič and Santiago Alonso 2017) and English (Grad 2010).

Croatian academic discourse studies have been approached from several angles: narrative in a range of discourse types, including academic discourse (Ilić 2014) and national identity in Croatian academic discourse (Franks, Chidambaram and Joseph 2009). A number of contrastive studies have focused on comparing Croatian and English academic discourse, most notably Varga (2016) examining epistemic modality, Bašić (2017) exploring reporting verbs as evidentiality carriers, and Bašić and Veselica Majhut (2017) focusing on explicit author reference.

A range of studies have been dedicated to contrasting Serbian and English academic discourse, including Blagojević (2009, 2012), exploring the expressions of attitude and explicit reflexivity parameters, Blagojević and Mišić Ilić (2012) and Mišić Ilić (2012) investigating the use of interrogatives, and Mirović and Bogdanović (2017) and Bogdanović and Mirović (2018) examining metadiscourse use among students, and professional academics in L1 and L2. A comprehensive perspective is offered in the volume edited by Lakić, Žiković and Vuković (2015), dealing with a number of different academic genres.

The work encompasses nine chapters, each addressing a different issue, from a contrastive, translation-oriented, educational or historical perspective. The selection of the topics was guided by two main principles. The first was to incorporate different research approaches, while the second was to cover the most

relevant language combinations. For Slovene, the initial focus of this volume, this includes comparisons with German, Croatian and Italian as the neighbouring languages with important historical connections, French and Spanish because of their special status in academic communication, above all in the humanities, and, last but not least, English as the academic *lingua franca*. For Croatian and Serbian, the analysis is limited to English.

The opening chapter provides a comprehensive overview of the birth of Slovene academic discourse in the 19th century. Tanja Žigon and Karin Almasj address the interaction between Slovene and German academic writing from a historical perspective. Their specific focus is on the role of translation of mathematics and natural science textbooks from German into Slovene, a systematic activity undertaken in the 19th century to establish disciplinary terminology in Slovene. The results of the archival research reveal that in the Habsburg monarchy the impulse for multilingualism did not necessarily always come “from below”, highlighting the pivotal role of the translators of textbooks in the emergence of scientific Slovene terminology, as well as their rather contemporary approach to translation of field-specific terms, one reminiscent of crowdsourcing.

The chapters that follow focus on synchronic cross-linguistic comparison. There is considerable variation in the type and intensity of cultural contact between Slovene and the other languages contrasted with it. Two of the chapters contrast Slovene with the neighbouring languages, Croatian and Italian. Tatjana Balazič Bulc challenges the perceptions of the impersonal and neutral nature of academic discourse by examining interactional metadiscourse in the form of self-mentions in Slovene and Croatian academic texts. Her findings reveal that self-mentions are considerably more frequent in the Slovene academic texts under analysis than in the Croatian texts: this difference is especially remarkable given the systemic similarities between the two languages, as well as the close interactions among Slovene and Croatian researchers working in various disciplines.

Tamara Mikolič Južnič investigates the role of nominalization in Slovene and Italian academic prose. Since the use of nominalization in academic discourse developed through the Italian writings of Galileo Galilei, the comparison of contemporary academic texts in Italian and Slovene offers an important insight into the conditions under which this discourse strategy, so closely associated with academic writing, is employed in the two languages. While nominalizations generally seems to play a more prominent role in Italian academic writing than in Slovene, the relationship between source texts and translations is far more complex, being influenced by other pragmatic and discourse factors.

Chapters 4 and 5 explore the cultural contact beyond the immediate borders of Slovenia, focusing on Spanish and French. This research perspective seems

particularly valuable as it is adopted relatively infrequently, although research publication in languages other than English may be a relevant option for scholars in the humanities. The comparison between Slovene and Spanish involves three sets of texts: David Heredero Zorzo and Gemma Santiago Alonso juxtapose L1 Spanish and Slovene academic writing and L2 Spanish academic writing by Slovene researchers, undertaking a systematic genre analysis of research papers with a focus on the conclusion section. Their results show that the conclusion sections in L2 Spanish have fewer rhetorical elements typical of conclusions than either L1 Spanish or Slovene conclusion sections, underscoring the need to give more prominence to rhetorical conventions and genre analysis in academic writing instruction.

Mojca Schlamberger Brezar's article focuses on the Francophone community, one of the strongholds of academic writing in languages other than English. In the context of this under-researched domain, Schlamberger Brezar addresses the topic of French academic discourse conventions, reviewing guidelines on this issue. Her focus is specifically on the macrostructure and on selected microstructural elements. Where possible, Schlamberger Brezar attempts to draw parallels with Slovene or English writing conventions, highlighting the characteristics of the French model that researchers who aim at publishing in Francophone journals need to adhere to.

The last two chapters involving Slovene contrast it with English, the *lingua franca* of academia. Martina Paradiž examines the genre of research grant proposals (RGPs) from a Slovene-English contrastive perspective, as well as from the perspective of translation. As RGPs are typically difficult to access, our understanding of the cross-linguistic issues arising in their translation is very limited. Yet since RGPs play a crucial role in obtaining research funding, Paradiž's study presents a rare insight into this genre, underlining some of the crucial differences between Slovene and English. The investigation is based on a corpus analysis of lexical bundles in a multidisciplinary corpus of Slovene RGPs, their English translations and comparable British RGPs.

Using the example of Slovene as a peripheral language and English as the *lingua franca*, Agnes Pisanski Peterlin investigates how translation direction is reflected in translation from and into the *lingua franca*, by examining reformulation, a discourse strategy used to enhance the comprehensibility of the text. Her analysis is based on a small, bidirectional corpus of research articles, composed to ensure maximum comparability. Pisanski Peterlin's comparison of source and target texts identifies a range of modifications involving reformulation; moreover, her results suggest that translation direction plays a substantial role in the type of reformulation used in the translated academic texts.

The last two chapters in the edited volume expand the topic to Croatian and Serbian. Ivana Bašić explores the function of verbs of visual perception in English and Croatian research articles, arguing that these verbs may be considered evidential strategies reflecting the authors' epistemological stance. Using an impressive corpus of 165 research articles in English and Croatian from nine disciplines, Bašić provides a comprehensive analysis of the syntactic, discourse and reporting functions of verbs of visual perception in both languages, identifying relevant cross-linguistic differences and similarities. She argues that the role of the verbs of visual perception as a rhetorical strategy in academic discourse is to facilitate the acceptance of a claim.

In the concluding chapter, Vesna Bogdanović and Vesna Bulatović address the increasingly important issue of emerging academic genres in the context of educational technology. With its multimodal, asynchronous and interactive potential, digital communication in the classroom is quite distinct from traditional academic writing. Bogdanović and Bulatović address the difference between L1 (Serbian) and L2 (English) writing posted by Serbian students in discussion forums used in the context of e-learning. Specifically, they examine the use of boosters and attitude markers. Among other things, their results reveal that L1 posts were less formal and more direct than L2 posts, while L2 posts displayed a more prominent use of boosters and attitude markers.

The papers collected in this volume bring together different methodological approaches, demonstrating how by synergizing their strengths, we gain new insights into the changing conventions of academic writing. Moreover, highlighting a range of cultural traditions allows us to reimagine the role of academic writing in the peripheral languages. We therefore hope that this volume can be used as a step towards future collaborations among scholars whose work focuses on cross-cultural encounters in academic contexts involving central, semi-peripheral and peripheral languages.

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CHAPTER I

Development of Slovene specialized terminology in the 19th century through translations of mathematics and biology textbooks

Tanja Žigon and Karin Almasy

Abstract

The article focuses on the first approved textbooks in the fields of botany and mathematics. In both of these fields, translators did pioneer work and created Slovene terminology, which later either gradually became the norm or, when the terms were merely temporary, was replaced. These textbooks are considered as some of the first specialized books in Slovene and have gone through the hands of entire generations of secondary school students, who mostly became university students in Vienna, Graz or Prague and later formed the Slovene intellectual elite. Through the translations of these textbooks and with their

terminological solutions, the translators created the guidelines for all later original and translated textbooks. However, the road to the gradual birth of Slovene specialized language was quite long. In this sense, this article focuses on teachers, translators, authors and other agents that made important contributions to the formation of specialized language, but who are nevertheless often overlooked. In particular the translators of textbooks from German to Slovene are shown here as innovators on the stage of Slovene cultural history, who coined new words, several among which have been preserved until the present day and have found their way into standard written Slovene and its specialized language.

Keywords: textbook translation, 19th century, specialized terminology, German influence, interference

Izvleček

Prispevek se osredotoča na prve aprobirane učbenike s področja matematike in biologije, saj so prevajalci na obeh omenjenih področjih orali ledino in ustvarjali in oblikovali terminologijo v slovenščini, ki se je zatem začela bodisi počasi uveljavljati bodisi so bile rešitve zgolj zasilne in so jih pozneje nadomestile nove. Prevajalci učbenikov, ki veljajo za ene prvih strokovnih knjig in so jih imele v rokah cele generacije gimnazijcev, večinoma kasnejših študentov na Dunaju, v Gradcu ali Pragi, iz katerih je izšla slovenska intelektualna elita, so s svojimi prevodi in terminološkimi rešitvami oblikovali smernice za vse poznejše avtorske in prevedene učbenike. A dejstvo je, da je bilo treba prehoditi dolgo pot, preden se je postopoma začel rojevati slovenski strokovni jezik. V tem smislu pričujoča razprava namenja pozornost šolnikom, prevajalcem, avtorjem in drugim akterjem, ki so pomembno prispevali k oblikovanju strokovnega jezika, a (pre)pogosto ostanejo prezrti. Predvsem prevajalci učbenikov iz nemščine v slovenščino tako stopajo na prizorišče slovenske kulturne zgodovine kot inovatorji, ki so kovali nove izraze, med katerimi so se številni ohranili vse do danes in, gledano z današnje perspektive, našli pot v knjižno slovenščino in v njen strokovni jezik.

Ključne besede: prevajanje učbenikov, 19. stoletje, strokovna terminologija, vpliv nemščine, interference

1 INTRODUCTORY REFLECTIONS

In the second half of the 19th century, the national Slovene identity was slowly beginning to be built, while the Slovene language was developing into a unified, standardized and codified written language. All aspects of the language, including academic writing in all the disciplines were evolving, above all in the context of terminology development. After the March Revolution in 1848, which brought changes also in the field of education, the state claimed control of the production of modern textbooks. The functions of these new textbooks were not anymore only religious, but their aim was also to fulfil the basic duty of the school system, that is the transmission of knowledge. Consequently, they also acquainted Slovene pupils and secondary school students with scientific and specialized content in their mother tongue. These processes took place one alongside the other, influencing each other. The books became a strong foundation on which the common Slovene language and national Slovene identity were being built (Almasy 2018, 63–134; Govekar Okoliš 2004, 226–241), because they accompanied generations of students, who learned and grew up with them.

It appears that it was in fact the unification and centralized management of the field of education that contributed most significantly to the development of a unified standard language and consequently to the formation of a national Slovene group identity. Centralized education enabled and promoted the development of a common “national” language and of a codified Slovene literature. Consequently, the idea that they are not (just) Kranjci, Štajerci, Korošci and Primorci, but also Slovenes, slowly began to grow stronger among students. And so, the awareness of a common national identity that went beyond the regional borders (Schmidt 1966, 330) started to take form. Compulsory education, which was introduced as early as in the 1770s, became a reality only in the second half of the 19th century, gradually gaining importance in the consciousness of the Slovenes. People started to realize that education represents symbolic capital, an entrance ticket to a better future and a step up on the social scale.

It is a fact that the *lingua franca* of the field of higher education in Cisleithania, the Austrian half of the monarchy, was German, while the Slavic languages strived to compete with it. For Slovene, the credit in this field goes to numerous intellectuals, politicians, writers and teachers, who worked in the multilingual and multicultural society of the Habsburg monarchy and often happened to take on the role of translators. Based on analysed sources and biographies (Almasy 2018, 139–186), it is clear that the professional categories that are unambiguous and neatly separated today were not as clearly distinguished then, and that the intellectuals of that time were active in many areas, in a true universal spirit. Rather typically, therefore, a Slovene teacher, writer, intellectual, cultural figure,

clerk, priest or politician of the 19th century would *also* translate, among other things. In this context, the typical reception of translators and translation work in Slovenia becomes apparent as well. Rather than to translation, a much greater significance and role is attributed to authorial work. Attention is frequently drawn to the contributions of writers and poets to the Slovene culture and language, but much less attention is given to translation activity. This is one of the reasons why in this article we explore the role of translators in the formation of specialized terminology and language by focusing on the translations of textbooks in the second half of the 19th century. These translations in fact represented the birth of Slovene terminology in various specialized fields.

In order to allow a better understanding of the subject and to give a clear overall picture, in the article we initially present the conditions in the education field in the second half of the 19th century and explore the influence of the German language on Slovene. After that, we present an overview of the formation of Slovene specialized terminology in the above-mentioned period, focusing on the terminology of the fields of mathematics (algebra and geometry) and biology. On the basis of individual examples, we also present the fundamental approaches and strategies used by textbook translators for the creation of specialized terminology. Thus, in this article, we try to verify the hypothesis that those translators clearly did decisive, important and, in effect, pioneering work by first searching for Slovenian specialized terms and shaping specialized terminology.

2 EDUCATIONAL, LANGUAGE AND CULTURAL POLICY IN THE SECOND HALF OF THE 19TH CENTURY

The March Revolution in 1848 brought about fundamental educational reforms, which were followed by the liberal reforms in the 1860s. From then on, schools were no longer a “private” domain of the Church, as the field of education passed into secular hands, and after these textbooks did not only aim to raise morally and religiously “impeccable” subordinates. Their basic purpose, instead, was now to educate responsible citizens and widen their knowledge (Engelbrecht 1986, 5).

In the second half of the 19th century, different types of schools began to take shape. Apart from people’s schools (*Volksschule*), civic schools (*Bürgerschule*) were also established as some kind of extension of people’s schools, which were attended by pupils who did not continue their education at the secondary level. After 1848, the *gymnasium* programme lasted eight years and was completed with a final examination called a *matura*. A successfully completed final examination opened the door to university. Since after 1848 the *gymnasium* pursued general

educational goals, the subjects centred on the languages and history (catechesis, Latin, Greek, mother tongue, geography and history) were integrated also with subjects dedicated to mathematics and sciences (mathematics, physics, chemistry and biology). Apart from *gymnasium*, the *Realschule* secondary schools were also established, which were oriented towards crafts and practical technical knowledge. Their main subjects were mathematics and sciences, as well as living languages, and they adapted their contents to the needs of the crafts and industry. Along with them, there were also the vocational schools, which laid the grounds for the dual system in the field of vocational education in the 19th century. These schools focused on crafts, agriculture, forestry or handicrafts, but there were also programmes for midwives, winemakers, fruit growers, etc.

In the second half of the 19th century schooling gradually became a natural part of childhood, people started to become aware of the importance of education, and schooling became differentiated. The centralization of the education policy, which was in the hands of the Ministry of Religion and Education, brought about the unification and standardization of education. In this regard, an important role was also played by the professionalization of the teaching profession. After 1848, or rather finally after the passing of the *Reichsvolksschulgesetz* in 1869, the textbook policy was under the supervision of the state in the Habsburg monarchy, which held the monopoly over the official acceptance of textbooks, i.e. the approbation, and thus the last word regarding the content of such books. The state also had its own publishing house that issued textbooks – the *k. k. Schulbücherverlag* in Vienna.

The Slovene language was introduced into schools with several small steps. An important distinction that needs to be made is that between Slovene as the language of instruction and Slovene as a school subject (especially in secondary schools). In people's schools, Slovene was used in the Slovene territory even before 1848, but it was merely the language of instruction for teaching Catholic morals and a hierarchical world view that divided people according to their social class. After 1848, learning the language became a purpose and goal in itself. As Schmidt points out, this is one of the greatest achievements of the revolution of 1848 (Schmidt 1966, 118–119).

On the secondary level, from the 1850s to the 1870s, Slovene was not considered developed enough to be used as a teaching language (Žerjav 1970, 413–472). The same arguments were stated repeatedly, and they usually went along the lines that Slovene did not have its own literature yet, that there were no adequate textbooks nor specialized literature in Slovene, and that specialized terminology in the language was underdeveloped. Another complaint was that there was a lack of qualified teachers – therefore Slovene could not become the medium of instruction in middle and secondary schools (Schmidt 1966, 88–89). It was indeed

a vicious circle, or the “*vekovečni circulus vitiosus*”, as Ivan Tušek (1862, 172) labelled it: No-one spoke Slovene well because schools were not Slovene, and schools could not be Slovene because there were no Slovene textbooks (ibid.). That is why, after 1848, it was imperative (especially for higher-level schools) to prepare appropriate Slovene textbooks, in order to introduce suitable terminology for all subjects and to train suitable teachers.

Therefore, it took the Slovene language several small steps to enter the *gymnasium* and the first step was the introduction of Slovene as a subject. At first, in 1850, Slovene was accepted into the *gymnasium* programmes as a free elective subject. Slowly the language then advanced from an elective to a compulsory subject for all Slovenes, first in the lower years and later in the higher years of the *gymnasium*. For Germans, Slovene remained a free elective subject (Almasy 2014: 148–153; Žigon, Almasy and Lovšin 2017, 41–42). Slovene was present for the first time on the list of subjects for the final examination as early as in 1850, for the students that had chosen it as a compulsory subject in 8th grade. But the fact that a student could advance from a lower to a higher grade in spite of a negative mark for this subject amply testifies to the position of Slovene in the curriculum. The unequal status compared to other subjects was abolished in 1860, when Slovene became a compulsory subject and part of the final examination for Slovene *gymnasium* students. German students often chose it, but for them it was still a free elective subject, for which a positive mark was not required: German was still regarded as having a more important, superior position (Schmidt 1966, 21).

Regardless of that, the introduction of Slovene as a subject in the *gymnasium* curricula paved the way to Slovene also being used as a teaching language in other fields. Slovene was used for catechesis (which no one ever objected to, anyway), and later also for “easier” subjects such as geography and history. At the end of the 1860s, Slovene gradually made its way to a smaller or greater degree into the *gymnasiums* of the Slovene territory. The first *gymnasium* with Slovene as a teaching language for all the subjects was the *Realschule* in Kranj, in 1870; obviously, German remained a compulsory subject (Schmidt 1966, 318–319; Engelbrecht 1986, 314–315).

German was present throughout the 19th century as the language with more power and status, and any analysis of the development of Slovene in that period cannot be carried out without also considering the influence of German on it. The intellectuals from the Slovene ethnic territory – and among them the first few female students¹ – who studied in Vienna, Graz and Prague in the second half

1 For women, the doors of the university in Vienna were opened in 1897 (Cindrič 2009, 242–257; Cindrič 2013, 121; Kramberger, Samide and Žigon 2018, 5–13). The first European university that accepted female students was Zürich University in 1863, followed in the same year by the French universities, then Swedish (1870), English (1873), Finnish, Danish and Dutch (1875), Italian and Belgian (1876), Norwegian (1882), Greek (1890), Scottish (1892) and Turkish (1894). Even just before the end of the 19th century, more than three decades later, one of the last European countries that allowed women to study was Austria, and it was followed by Prussia in 1906, while Russian female students had to study abroad, mostly in Switzerland, until 1913 (Cindrič 2013, 121).

of the 19th century and the beginning of the 20th century, were all very proficient in German. In the 19th century, we therefore witness a diglossic situation among the Slovene elite. In their native microcosmos, intellectuals often spoke German much better than Slovene, which is linked to the fact that German was the language of higher education: they read German literature (scientific, technical and literary texts); they also had access to well-stocked private libraries (Dular 2009, 13–30). In the middle of the 19th century, in his work *Napake slovenskega pisanja* (*Mistakes in Slovene Writing*), published in several issues of Bleiweis's *Kmetijske in rokodelske novice* (*Agricultural and Handicraft News*), the writer and literary critic Fran Levstik stated:

Skoraj vsi, ki pišemo, *stavimo* slovenske besede, *mislimo* pa le nemški. Po taki poti ne upajmo kmalu izvrstne slovenske proze. Čudo res ni, da je tako, ker se ločimo iz domačega kraja, ko smo še otroci; potem pa v mestih živimo, govorimo večidel nemški, beremo večidel nemške knjige poleg pisanja drugih narodov² (Levstik 1956, 38).

In other words, in this period, the Slovene literary language was only starting to get its shape. This holds even more true for individual specialized languages. In the middle of the 19th century, Slovene could not yet draw terminology from its own original production for different types of content and specialized areas. The translations of monographic textbooks, i.e. scientific and mathematical textbooks, were extremely difficult for the translators because they had to overcome a number of difficult translation and linguistic problems, often having to find new, appropriate terms in Slovene (cf. Almasy 2016, 491; Žigon, Almasy and Lovšin 2017). The translators therefore had to do pioneering work, (re)create specialized language and place Slovene side by side with German, demonstrating with their work that the former was equal to the latter in all respects. So in the 19th century, language barriers were not crossed only by the authors of original Slovene literary works, but also (and especially) by translators, who used their own knowledge and what little resources and aids they had available (dictionaries, grammar books or encyclopaedias) to tackle texts in foreign languages and transfer them into their mother tongue.

The rest of this paper is devoted to the analysis of specialized monographic textbooks that were approbated, since we can undoubtedly state that they were in general use for several years. The discussed examples are taken from textbooks for mathematics and biology, all of them translations from already existing German textbooks into Slovene. The analysis aims to explore how translation played a crucial role in the development of Slovene for specific purposes.

2 English translation: "Almost all of us who write, use Slovene words, but still think in German. This way we cannot hope to have excellent Slovene prose any time soon. It is not strange at all that it is so, as we leave our hometowns when we are children; then we live in cities, speak mainly German, read mainly German books, along with the writings of other nations."

According to the principles of sociological and historical approaches in translation studies, when doing translation analysis it is not enough to merely compare and analyse source texts and translations, but it is always necessary to take into account the political, social and historical circumstances in which the originals and translations are created (cf. Pym 1998 and 2009; Wolf 2003). Therefore, in the following chapters, primary and secondary literature, but especially previously unpublished archive sources, such as files of the approbation process of schoolbooks and included expert's reports (see the listed Primary Sources at the end of this paper) have been consulted. By doing so, we aim at presenting the cultural-historical, as well as linguistic and translation-related circumstances in the field of the translation of specialized books in the Slovene territory during the second half of the 19th century.

3 FORMATION OF SLOVENE TERMINOLOGY

A serious problem that needed to be addressed by the translators into Slovene in the second half of the 19th century was the absence of appropriate terminology and relevant dictionary sources. Martina Orožen (2003, 260) argues that “the nationally conscious experts of Slovene origins who were proficient in the specialized German vocabulary of different fields were painfully aware of this absence”, so that even the goal of the terminological efforts was emancipatory. They wanted to elevate “not only the terminology but also the Slovene specialized and scientific language as a typical genre of written language” to the level of other European cultural languages (ibid.). In their work, Slovene translators could rely only on a few grammatical sources, such as the *Kraynska grammatika*, a grammar of the Slovene language by Marko Pohlin (1735–1801), the methodologically excelling Slovene grammar *Windische Sprachlehre* (1777) and the *Deutsch-windisches Wörterbuch* dictionary (1789), edited by Ožbalt Gutsman (1727–1790), and the work of the literary historian, Slavist and ethnologist Matija Murko (1861–1952) the *Lehrbuch der Windischen Sprache* (1824) by Peter Dajnko; another source used was the Slovene-German dictionary *Ročni slovar slovenskega in nemškega jezika* (1850/1851) by Anton Janežič (1828–1869). In 1860, after over half a century of material collection, the comprehensive Wolf's German-Slovene dictionary was published by Matej Cigale (1819–1889), which was an important achievement for Slovene lexicography. Less than three decades later, this German-Slovene dictionary was also followed by its Slovene-German counterpart compiled by the linguist and lexicographer Maks Pleteršnik (1840–1923). Apart from that, translators used other foreign-language dictionaries as well (Žigon, Almasy and Lovšin 2017, 71–73).

The first turning point in the translation of specialized terminology appears to be found in the field of legal texts. The translation of legal texts in the Habsburg monarchy was made possible by the development of terminology in the official languages, Slovene included, considering that before then the small languages in the monarchy did not have the right language resources in this field (Jemec Tomazin 2010; Wolf 2005, 2012). The greatest lack in terminology was therefore perceived in the fields of technology and science, where Slovene did not have its own specialized terminology. Obviously, this was not only a problem for the Slovenes in the monarchy: other Slavic nations also did not fare much better (Legan Ravnikar 2010, 49–74). The first systematic terminological state-led endeavour to create legal terminology was made by the so-called terminology commission in 1850 in Vienna, the purpose of which was the translation of the *Reichsgesetzblatt*, texts of law, into the Slavic “dialects”, as they were named then (Nuč 2017). The commission had five sections (Czech, Polish, Ruthenian, Illyrian-Serbian and Slovene). Slovenes were represented in the commission by the linguist and Slavist Franc Miklošič, the linguist Matej Cigale and the lawyer Matija Dolenc. The result of the work of the Slovene and Illyrian-Serbian section was the common Slovene-Serbian-Croatian manual *Juridisch-politische Terminologie. Deutsch-kroatische, serbische und slovenische Separat-Ausgabe*, which was published in 1853 and contains legal and administrative terms in four languages (Commission 1853; Hebenstreit and Wolf 2001, 171–173).

The picture was slightly different in the natural sciences, as some older, popular science works in Slovene that were themselves translations from German already existed. The translators of specialized textbooks from the field of natural sciences also used these first simple translations of specialized texts, for instance those authored by Matija Vertovec (1784–1851), who adapted/translated/rewrote for Slovene readers texts such as *Vinoreja (Winemaking, 1844)* or *Kmetijska kemija (Agricultural Chemistry, 1847)*, and various popular science articles from the newspaper *Kmetijske in rokodelske novice*, which were published since 1843. The next very important step for the development of natural science terminology was made in *Knjiga prirode (The Book of Nature)*, the Slovene translation of *Das Buch der Natur*, which was published in several volumes by the *Slovenska Matica*.³ The complexity and difficulty of the text’s contents is testified by the fact that the four volumes of the book were translated into Slovene by four translators/naturalists (for the analysis of the *Knjiga prirode* translations cf. Bezjak 2005; Ciomaga 2015; Prunč 2008, 117–120; Prunč 2012, 88–90; Škornik 2006). The prestige and complexity of the project and task is testified by the fact that specialists of individual fields

3 In 1869/1870, the first volume of *Schoedlerjeva knjiga prirode (Schoedler’s Book of Nature)* was published with the title *Fizika, Astronomija in Kemija (Physics, Astronomy and Chemistry)*. *Fizika* was translated by the pedagogue and naturalist Ivan Tušek (1835–1877), *Astronomija* by the jurist and astronomy articles writer Viljem Ogrinc (1845–1883) and *Kemija* by the natural scientist Fran Erjavec (1834–1887). In 1871, *Mineralogija (Mineralogy)* and *Geognozija (Geognosy)*, translated by Janez Zajec (1842–1872), were published, and in 1875, *Zoologija (Zoology)*, translated by Fran Erjavec, and *Botanika (Botany)*, translated by Ivan Tušek.

were recruited as translators and they were offered the same fees as authors (Bezjak 2005, 20). When the Croatian *Matica Hrvatska* tried to undertake a similar project it failed, as they did not manage to find suitable translators (Čermelj 1964, 283). *Knjiga prirode* therefore clearly shows the desire for cultural and linguistic emancipation of Slovene intellectuals, as the *Slovenska Matica* wanted to publish a book that would encompass all the fields of natural science and thus prove that Slovene was able to fulfil the task of scientific communication. Thus, as Prunč (2007, 58, cf. also Prunč 2006) observes, it was an emancipatory act.

3.1 The pioneers of Slovene terminology: The case of geometry terminology

Terminological initiatives emerged already in the 1850s, even from the highest educational circles, which again shows the importance of the role played by agents in the field of education at the level of the state, not just the local level, in the process of creation of Slovene specialized terminology. A particularly representative and illustrative example is the attempt to introduce Slovene terminology in the field of geometry, which can be reconstructed on the basis of archival documents (AS 31, Namestništvo v Ljubljani, Folder 31/13,14: 31/13,14: Act from 6 June 1854, No. 6606).

At the beginning of June 1854, the Ministry of Religion and Education sent the provincial authorities in Ljubljana a copy of the German textbook for geometry used in the lower grades of *Realschule*. In the document, the Carniolan authorities were asked to consider whether it would be advisable for secondary school students to also know geometry terminology in their mother tongue, as this was already the case in Czech schools,⁴ where geometry was taught in German, but the terminology also explained to Czech students in the local language. In case, the document reads, the provincial authorities agree, they should provide a translation of the terminology into Slovene.

In this case, the desire for improvement was not a bottom-up initiative, but just the reverse, a top-down approach. The initiative came from the Vienna Ministry, which invited the provincial government to consider the proposal and make a decision in this regard. The provincial authorities then contacted local experts and asked the provincial educational institutions, i.e. individual schools and teachers, to express their opinions. This practice clearly shows that the (Slovene) periphery was not always the one that demanded its linguistic rights. The modernizing

⁴ The flagship in the introduction of terminology in a provincial language in education was Czech, as the production of Czech textbooks in that period was much greater than, for instance, the Slovene production, therefore the Ministry liked to give the Czech language as an example.

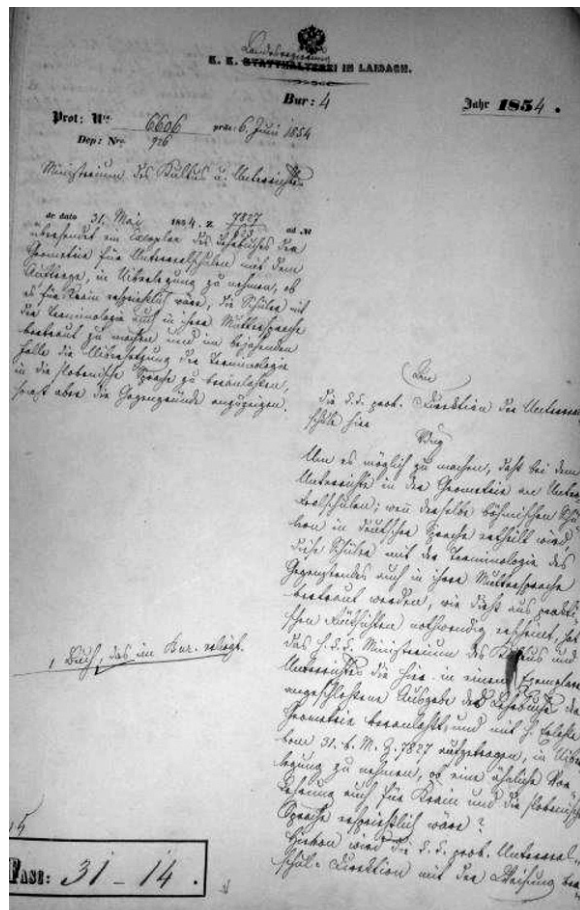


Image 1: Letter of the Vienna Ministry of Religion and Education to the Carniolian provincial authority in Ljubljana asking them to consider the preparation of a translation of geometry terminology into Slovene (AS 31, Namestništvo v Ljubljani, Folder 31/13,14: Act from 6 June 1854, No. 6606)

influences to the benefit of the (Slovene) periphery often came from the (frequently hated “German”) centre, despite it being sometimes unjustly attributed a different role (Almasy 2018, 142–172).

At the end of June 1854, the teacher Mihael Peternel expressed his opinion, in the name of the Ljubljana lower *Realschule*, on the introduction of Slovene terminology in geometry lessons. In a several pages long letter, and on behalf of the Ljubljana *Realschule*, he convincingly presented the linguistic conditions in the *Realschule* and the importance of the translation of the terminology into Slovene (AS 31, Namestništvo v Ljubljani, Folder 31/13,14: Act from 28 June 1854,

No. 7544). Peternel stressed that despite German being the official language of instruction of the lower *Realschule* in Ljubljana, teachers always did their best to find the right expressions in Slovene as well. They tried to use Slovene expressions to explain geometric relations, otherwise the students would misunderstand or not understand at all.

Regarding the question of whether the translation of geometry terminology into Slovene was necessary or at least recommended, Peternel stated that all geometry teachers are of the same opinion. He continued that such a translation is not only recommended, but essential for the students and teachers.⁵ He gave the following reasons:

- a) A number of students, especially those coming to the 1st grade of the *Realschule* from the Hauptschulen of other Carniolian towns, have such limited knowledge of German that they barely understand everyday words, and even with these it is sometimes necessary to explain and “interpret” unknown German expressions.
- b) Peternel believed that Slovene was not unified yet, and that the crafts vocabulary in particular had many different versions, causing and leading to downright comical situations where Slovenes do not even understand one another. He argued that the Slovene expressions are “quite commonly used among the simple craftsmen, while in the town, badly coined words that are neither German nor Slovene are being created under the influence of immigrant German craftsmen. It thus often happens that a craftsman from the countryside comes shopping into town and tells the merchant what he needs, but the merchant says that he does not have the goods, although the confused craftsman can see the item in front of him on the shelf. Then the merchant names the same item with a Slovenized German word or even with one of Romance origin and sells it to the desperate craftsman”.⁶ And the situation was no different at school, Peternel continued, as teachers try in vain to explain things to the students in a twisted urban version of Slovene. The teachers, who

5 We know from the archive sources that teachers often encountered problems with the comprehension of specialized texts. On 12 May 1867, teacher Valentin Konšek (1816–1899) asked the Vienna Ministry through the provincial government to approve Erjavec's *Živalstvo (Animals)* as auxiliary teaching material for use in schools (AS 33, Deželna vlada v Ljubljani, Folder 31/14, No. 5597). In the letter, Konšek notes that half of the students in the first grade of the Ljubljana *gymnasium*, where he taught natural science subjects in the 1860s (Pirjevec 2013), speak German rather poorly, and that the lack of knowledge of German, the language of instruction, represents an obstacle to understanding the learning material in individual subjects, and that the problems, of course, become worse year after year.

6 In the original it reads: “Die echt slowenischen Ausdrücke sind beim schlichten Gewerbemann auf dem Lande ganz gang und gebe, in der Stadt sind sie aber durch den Einfluss eingewanderter deutscher Gewerbeleute aus der slowenischen Sprache der Städter durch ganz verhunzte weder deutsche noch slowenische Wörter größtentheils verdrängt, daher geschieht es häufig, daß wenn der ländliche Gewerbemann seinen Bedarf in der Stadt einkaufen kommt, und die begehrten Sachen slowenisch benennt, zur Antwort bekommt: Das haben wir nicht, obwohl die verlangte Ware ringsherum im Laden zu sehen ist und nur vom Handelsmann mit einem slowenisierten deutschen oder gar romanischen Worte benannt wird.”

actually do speak both the provincial languages, are no philologists, so sometimes they are unable to find the right Slovene words, which often happens especially with the terms for technical objects. Therefore, Peternel concluded, even if all the teachers spoke Slovene, this process would still take a lot of their valuable time. But all this would change if the textbooks contained, “expressions agreed upon once and for all” in the official languages.

- c) Further on, Peternel’s letter stated that the goal of the lower *Realschule* was to raise the level of knowledge in the fields of the crafts and arts in the province: the students that will one day become masters or supervisors will need to speak with their apprentices and workers in a language that they would understand, which would be rather hard without Slovene terminology.
- d) In the next argument, Peternel moved away from education and observed the pressing issue from a wider perspective. He warned that sooner or later it will be necessary to start publishing popular-science books in Slovene, if we want to promote craftsmanship and enable its permanent development – and without proper terminology this will be difficult as well. This means, according to Peternel, that it is necessary to go among the people, collect words and record the spoken language, and then spread the vocabulary among the people, without unnecessary foreign-language additions. As examples of good practices, he quoted some works from different fields that had been published in the 1850s, such as Vertovec’s *Vinoreja* (*Winemaking*), Robida’s *Fizika* (*Physics*), Bleiweis’s *Živinozdravstvo* (*Veterinary Medicine*) and others that could be understood by any Slovene. He notes, however, that even in these cases the terminology varies considerably from one book to another. Peternel saw the reason for this in the fact “that the cited authors did not find a unified Slovene terminology, therefore each of them had to collect the terms in their own surrounding area and compile a terminology of their own”.⁷ At the same time, he wondered how much more uniform the Slovenian expressions would have been if all the authors mentioned had also been consistently and uniformly taught the Slovene equivalents of the terms that they studied in German, Latin and Greek (AS 31, Namestništvo v Ljubljani, Folder 31/13,14: Act from 28 June 1854, No. 7544, Peternel’s letter to the provincial government).

Peternel concluded his letter saying that teachers mostly agreed that it would be good and sensible to introduce Slovene terminology in other specialized

⁷ The original version says: “Weil diese Männer in der Schule nie eine slowenische Terminologie gelernt haben und sich daher jeder eine eigene in seiner nächsten Umgebung sammeln und nach seiner Art zusammenstellen musste.”

subjects, such as zoology, botany, mineralogy, as well as mathematics or civil engineering. He himself, along with some other teachers, Peternel emphasized, are already introducing Slovene terminology in their subjects. Furthermore, he noted that “compiling a complete, real collection of Slovene technical and scientific terminology would nevertheless be associated with great effort and it would require a lot of time”. In his opinion, the reason for this is the fact that the teachers would need to search for the right terms in the countryside, as in the towns they have been chased out by foreign expressions. Peternel’s thesis is therefore that “pure, unadulterated” Slovene specialized terminology, or at least that of the crafts, has been preserved only in the countryside and it should be sought there, as if a hidden treasure. The linguists that live in the town, in his opinion, are rather more concerned with literature and are not interested in the research of technical and scientific language, because they are not experts in the technical and scientific fields. Peternel finished by stating that it would be easiest if the terminology for geometry was compiled by teachers, who are in constant contact with the students, teachers who know the local language and who also know the needs of their students. He also added that he would be willing and happy to take on this demanding job (AS 31, Namestništvo v Ljubljani, Folder 31/13,14: Act from 28 June 1854, No. 7544, Peternel’s letter to the provincial government).

Mihael Peternel thus comes up as an unknown agent in the Slovene translation system. Since the middle of the 19th century, by operating on his beliefs he greatly influenced thinking in the field of translation and terminology in Slovenia. His idea of compiling terminology among the people is indeed very much idealized, but at the same time some of his suggestions about how to translate terminology without foreign or archaic additions, on the basis of the living language, are extremely progressive for his time. This was therefore a promising start for the field of terminology.

In February 1855, Peternel submitted the translated terminology to the provincial government. It was reviewed by Franc Močnik (1814–1892),⁸ the leading expert and writer of mathematical textbooks in the monarchy (AS 31, Namestništvo v Ljubljani, Folder 31/13,14: Act from 17 July 1855, No. 10170). Peternel’s terminology was printed by order of the Ministry in 1856 (Šlebinger 2013) and is also mentioned in the *Katalog des k. k. Schulbücher-Verlages* published by the *k. k. Schulbücherverlag* in Vienna in 1864, which speaks of the fact that it was approbated for use in schools (Katalog 1864, 44) with the title *Geometrie mit eingeschalteter Terminologie in slovenischer Sprache* (*Geometry with Terminology in*

8 Močnik wrote 148 different textbooks (mostly for mathematics), out of which 30 were published in Slovene, while his German textbooks were translated into 12 other languages (Povšič 1966): apart from Slovene, also in Croatian, Serbian, Albanian, Bulgarian, Czech, Italian, Hungarian, Greek, Romanian, Slovak, Ruthenian and Russian, and were published in 980 editions (Arko 2014, 21–26; Šuštar 2014, 41–51).

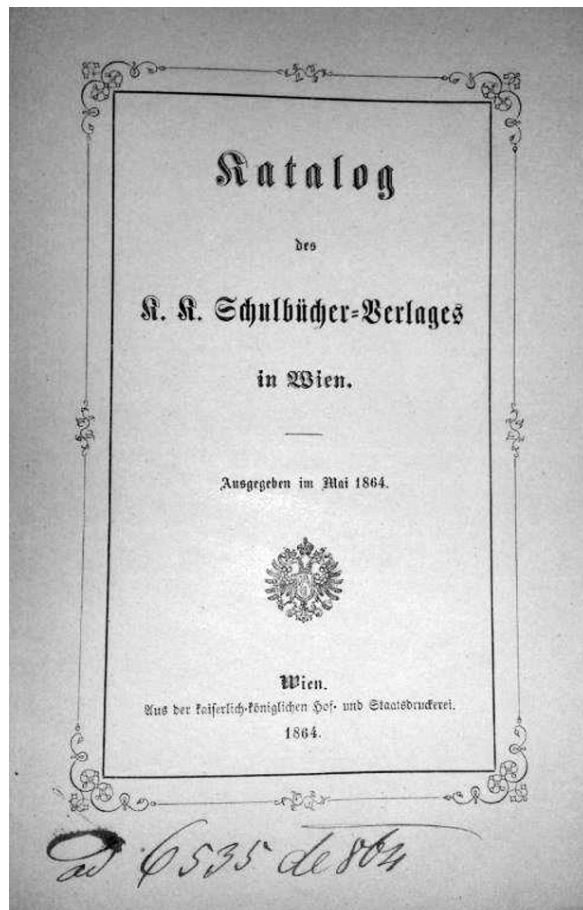


Image 2: The cover of the *Catalogue of the k. k. Schulbücherverlag* (1864)

the Slovene Language Included). Apart from Cigale's translation of the textbook on the geography of the Austrian Empire, it was the only other textbook among the Slovene textbooks of the time which was approved for use in the lower *Realschule*, which demonstrates the modest production of Slovene textbooks.

The very next year, Peternel was commissioned by the authorities in Vienna to collect and edit a terminology of natural sciences. He was asked to find the Slovene terms for the expressions used in the book on botany written by Franz Xaver Zippe (1791–1863), a Czech naturalist and mineralogist who lived in Vienna. The unrealistic expectations of the Ministry of Religion and Education and their opinion on the terminological work, which was considered rather easy, can be seen in the timeframe in which Peternel was supposed to complete the job. In a letter from 20 October 1854, he was given just a two-month period to translate

— 44 —

	Preis pr. Stück			
	Erstausg.		Zweite Ausg.	
	fl.	kr.	fl.	kr.
Uputba u računanju za prvi razred nižjih stvarnih učilistah od dva godišnja tečaja. (Anleitung zum Rechnen für die I. Klasse der Unter-Realtschulen.) 11 Bog. gr. 8 ^o , Lwd. Nud.	30	11	—	41
Prirodopis za nižje realne škole. (Naturgeschichte von Zippe.) 24 $\frac{1}{2}$ Bog. gr. 8 ^o , mit einer Kupfertafel, Lwd. Nud.	65	14	—	79
Slovnica némačkoga jezika za prvi razred nižjih realkah s ilirskim nastavnim jezikom. (Deutsch-slovenische Sprachlehre für Unter-Realtschulen.) 7 $\frac{1}{2}$ Bog., gr. 8 ^o , Lwd. Nud.	21	11	—	32
In slovenischer Sprache.				
Kratek popis cesarstva avstrijskega sploh in njegovih dežel posebej. (Kurze Reichs- und Länderkunde des Kaiserthums Österreich.) 24 $\frac{1}{2}$ Bog., mit einer Kupfertafel. Lwd. Nud.	67	18	—	85
Geometrie, mit eingeschalteter Terminologie in slovenischer Sprache. 20 Bog. gr. 8 ^o , Lwd. Nud.	52	11	—	63
In magyarischer Sprache.				
Kurze Reichs- und Länderkunde. (Unter der Presse.) A földrajz az alreál tanoda harmadik osztályának használatára. (Lehrbuch der Geografie für die dritte Klasse der Unter-Realtschulen von Zapp.) 12 Bog. gr. 8 ^o , Lwd. Nud.	31	11	—	42
Bevezetés a számolástanba a két évfolyamtu alsó reál tanoda első osztályának számára. (Anleitung zum Rechnen für die erste Klasse der Unter-Realtschulen in zwei Jahrgängen, von Dr. Franz Močnik.) 12 Bog. gr. 8 ^o , Lwd. Nud.	31	11	—	42
Mértan. Alsó-reál iskolák használatára. Dr. Močnik Ferencz után fordította Dr. Szabóky Adolf, kegyesrendi tanár Pesten. 265 a szövegbe nyomott idommal. (Geometrie für Unter-Realtschulen, von Dr. Franz Močnik, übersezt von Dr. A. Szabóky.) 19 $\frac{1}{2}$ Bog. gr. 8 ^o , Lwd. Nud.	52	11	—	63
Természetrész. Tankönyv az alreáliskolák használatára, írta Zippe, fordították Dienes L. és Jánosi F. (Zippe's Naturgeschichte.) 23 $\frac{1}{2}$ Bog. gr. 8 ^o , mit einer Kupfertafel. Lwd. Nud.	63	15	—	78

Image 3: Page 44 of the *Katalog des k. k. Schulbücher-Verlages in Wien* (1864), where Peternel's *Geometrie mit eingeschalteter Terminologie in slovenischer Sprache* (*Geometry with Terminology in the Slovene Language Included*) is listed

the terms in Zippe's book (AS 31, Namestništvo v Ljubljani, Folder 31/13,14: Act from 5 October 1854, No. 11704).

The letter, signed by Minister von Thun, states that Peternel should insert Slovene terms in the attached Zippe's textbook; they should be placed at each first occurrence of a specialized word. It was especially emphasized that Peternel should use the popular language that was in use ("*die populäre Ausdrucksweise*"). Evidently, Peternel did not complete the work in the given time, as in June 1856 he was allowed to wait for the release of the German-Slovene (Wolf's) dictionary, with which he apparently helped himself when he had terminological issues. On 5 June

1857, he finished his work and he handed in the Slovene translation to Zippe's botany images in Vienna. Furthermore, in the archive sources we also found a hint that a similar terminological list was being prepared for the field of physics (AS 31, Namestništvo v Ljubljani, Folder 31/13,14: Act from 18 August 1859).

It follows from the above that the initiatives for Slovenian textbooks often came from the administrative centre, namely from the Ministry of Religion and Education in Vienna, and that the centralization of education and progressive teachers made a decisive contribution to the development of the first Slovene terminology for certain fields, such as geometry, in this case. It can be concluded that, already in the 1850s, terminology was being formed for certain specialized fields of knowledge, and that terminological lists were being prepared, either as expressions in brackets in the running text or attached as glossaries to German textbooks.

3.2 Cigale's *Znanstvena terminologija* (1880)

A significant turning point, which influenced the development of the Slovene specialized and scientific terminology, was the year 1880, when the long-time associate and translator in the editorial team of the *Reichsgesetzblatt* in Vienna, Matej Cigale, published the *Znanstvena terminologija s posebnim ozirom na srednja učilišča* (*Scientific Terminology with Special Attention to Teacher Training schools*) at the *Slovenska Matica*. The volume was a godsend to writers and translators of textbooks. The mathematician Luka Lavtar (1846–1915), for instance, in the foreword to his *Geometrija* (*Geometry*), commented regarding terminology: "I mostly followed Cigale's /terminology/, but I could not manage to solve everything with it" (Lavtar 1881: V).

Cigale's manual was compiled following a Czech model from 1853 and a Croatian one with the title *Rječnik znanstvenoga nazivlja osobito za srednja učilišta* (*Dictionary of Scientific Terms Particularly for Teacher Training Schools*), which was published in 1874 in Zagreb, also with the help of the Slovene Ivan Tušek. Apart from that, Cigale published the *Znanstvena terminologija* as a supplement to Wolf's German-Slovene dictionary, which he edited in the period 1854–1859. While later generations of textbook translators used the *Znanstvena terminologija* for their work, the first generation of translators and writers of monographic textbooks greatly contributed to the creation of this terminological manual. To compile it Cigale drew from original works and translations of Slovene specialists, among them Tušek and Erjavec, which will be mentioned in more detail later, but also the linguist and Slavist Fran Miklošič (1813–1891), the geographer Janez Jesenko (1838–1908), and others.

Cigale's manual contains the terminology of 25 specialized fields, and clearly shows that various expressions competed for acceptance, such as derivatives from Czech, Russian and Croatian, which some wanted to use instead of the loan translations from German, or derivatives from Latin, which competed with unestablished and unused neologisms. We need to take into account that Cigale's *Znanstvena terminologija* (*Scientific Terminology*, 1880), just like Cigale's German-Slovene dictionary (1860) and Pleteršnik's Slovene-German dictionary (1894/95), is very descriptive, that is, it describes the variety and in principle, it states all the translation versions and does not prescribe one "correct" equivalent.

The translators were therefore building the terminology gradually, upgrading the existing translations and solutions of the previous translators, and also looking for new equivalents, as can be seen in the example from the field of mathematics. From the terminological point of view, on the basis of the translations of primary school and *gymnasium* textbooks for mathematics that were published in the 1870s and 1880s, we can notice the rather rapid development of the arithmetic and geometry terminology, which can also be linked to the publication of Cigale's terminology in 1880. It is a fact that since these first translations the terminology has been updated and is mostly stabilized today. In the table below, in the left column, the original German terms are given, in the middle one we see the terminological equivalents for primary school mathematics textbooks by Ivan Tomšič, and in the right one the equivalents proposed by Josip Celestina in his translations of the *gymnasium* textbooks (Table 1):

Table 1: Tomšič's and Celestina's terminological equivalents in the translations of mathematics textbooks

	Močnik's originals ⁹	Tomšič's equivalents ¹⁰	Celestina's equivalents ¹¹
1	Bruch	drob, drobce	ulomek
2	Bruchstrich	drobčeva črta	ulomkova črta
3	Rechnen	številjenje	računanje
4	Cubikinhalt	telesnina	prostornina
5	Oberfläche	poveršje	površina
6	Fläche	poveršina	ploščina
7	Grundfläche	temeljna ploskev	osnovna ploskev
8	Mantel	oblina	plašč

9 From the textbooks *Viertes Rechenbuch* (1873), *Fünftes Rechenbuch* (1878), *Lehrbuch der Arithmetik* (1879b) and *Geometrische Anschauungslehre*, I. Theil (1879a) and II. Theil (1876). English glosses are given in brackets.

10 From the textbooks *Četrta računica* (Močnik 1873) and *Peta računica* (Močnik 2004 [1878]).

11 From the textbooks *Aritmetika I* (Močnik 1882), *Geometrija I* (Močnik 1891) and *Geometrija II* (Močnik 1884).

If we compare these equivalents with Cigale's terminology from 1880, we discover that Cigale cites *ulomek, drob* for *Bruch* ('fraction') and adds a perhaps better (most probably his own) solution, *lom*; he does not have an equivalent for *Bruchstich* ('fraction slash'), but suggests *znamenje ulomka* for *Bruchzeichen* ('fraction symbol'). *Rechnen* ('to calculate') is *računiti* (*številiti* and Old Church Slavonic *čisliti*), *Cubikinhalt* ('cubic volume') does not have a translation, *Grundfläche* ('base face') is *spodnja, osnovna ploskev* in Cigale, *Fläche* ('area') is *ploskev*, while *Mantel* ('boundary surface') is translated into Slovene by Cigale with *oblina, plašč* or *obstransko površje*. Comparing these equivalents, it is clear that Cigale's terminology is more descriptive and lists several expressions that were used, but we cannot claim that either Tomšič or Celestina had "the right" terminological solutions and the other "the wrong" one. We can instead conclude that the terminological problems were far from solved at that time, and that among the specialists several versions were circulating for the same concept or specialized content.

In the manual, Cigale used a synchronic descriptive approach and took into account the contemporary language as it was actually used (Cigale 1880: VI). In this way, he resisted the archaization and Slavization of the language that was prevailing at that time. He also tried to avoid excessive purism and unnecessary classicism, since he had to consider two opposite sides: on the one hand, the simple reader without a classical education who did not understand the terms of Greek or Latin origin, and on the other, the interest of science, which required preservation and phonetic adaptation of internationally established terms in order to maintain contact with state-of-the-art science (cf. Orožen 2003).

Some of the equivalents from the *Znanstvena terminologija* eventually found their way into Pleteršnik's German-Slovene dictionary (1894/95). All in all, Cigale's approach to terminology is quite modern, although his concrete equivalents are now part of lexical history (Jemec Tomazin 2010, 112–113). As we have seen, in the second half of the 19th century, terminology was developing in a rapid and organized manner. Apart from dictionary compilers and terminologists such as Cigale, a great contribution to the development was also made by experts and Slovene textbook writers/translators.

3.3 Basic approaches to the formation of terminology

In forming Slovene specialized terminology, we notice three basic approaches that were established in the 19th century.

1. The first approach relied on the **old dialectal Slovene words, if they existed**, that is on the expressions that were used by the people, especially

by the rural people who were not under the influence of Germanic or Romance words. Such an approach was promoted by the teacher and pioneering terminologist Peternel, who was introduced in section 3.1. This approach was of course usable only in certain cases. While Peternel hoped that expressions from the field of crafts and various craftsmanship operations could be found among the common people, or that it was sensible to expect to find some botanical expressions in this way, it was of course impossible to use this method for terms in the fields of specialized legal or mathematical terminology.

2. The second approach was extremely creative, as it involved the **formation of new words**, which was used when no other options were available. Most frequently, new words were formed on **German models through loan translations, i.e. calques**, especially new-formed compounds, e.g. *slankamen* (literally ‘salty stone’) for the German *Salzgestein* (‘rock salt’), *dojivke* (‘literally sucklers’) for the German word *Säugetiere* (‘mammals’) and so on. Sometimes such neologisms have been preserved, other times they have not. Birds that run and do not fly, for instance, were named by Fran Erjavec *brzoteki* (literally ‘fast runners’) in analogy with the German *Laufvögel* (‘ratites’). In his *Znanstvena terminologija*, he also gave the equivalent *tekavci* (‘runners’), and today they are named *tekači*.
3. The characteristic of the third approach is **copying and searching for equivalents in other Slavic languages**, which means that authors endeavoured to introduce Czech, Croatian or (old) Russian words into Slovene. Cigale’s *Znanstvena terminologija* shows that various expressions competed for acceptance, such as derivatives from Czech, Russian and Croatian, which some wanted to use instead of the loan translations from German (e.g. *ljubin* from Croatian for the German *Seebarsch*, ‘sea bass’).

If we look closely at all three approaches, we must first mention the naturalist Ivan Tušek (1835–1877). His approach to compiling terminology was extremely modern, and would be called crowdsourcing today. Tušek’s basic idea was that for certain realia from the field of botany Slovene names might already exist, and it was just necessary to find and collect them. When established terms did not exist, Tušek resorted to the old principle “more heads are better than one”, and asked other specialists to contribute their solutions, i.e. a new expression or expressions taken from other Slavic languages.

In fact, the public debate about the correctness and appropriateness of the terms that was taking place in the contemporary newspapers is characteristic of the formation of Slovene terminology. In 1862, Tušek published an article in the field of botany with the title *Najbolj potrebne stvari iz botanične terminologije* (‘The most needed things in botanical terminology’) in the *Slovenski glasnik* (Tušek 1862,

160–171), which was the basis for Tušek's later translations of botanical works, such as his translation of the textbook written by the botanist Alois Pokorny (1826–1886) with the title *Privodpis rastlinstva* (*The Natural History of Plants*; Pokorny 1872a). In the article, he laid the foundations of Slovene botanical terminology and nomenclature, while in brackets, he added German, or sometimes even Latin names, when he believed it necessary for the sake of comprehension (e.g. *časa*, *Kelch* (*calyx*); *venčič*, *Blumenkrone* (*corolla*)). He concluded his long list of terms with an appeal to the (intellectual) public to contribute and help collecting terms, and above all to give their opinions and critiques on the compiled terminology. Tušek called on the (educated) public to contribute their knowledge to help solve a problem, the solution of which would benefit the entire community:

Menim, da je najbolji in najkrajši pot, da dobimo veljavno in stalno terminologijo botaniško, ako se ta stvar pretresa po časopisih; zato pa prosim vsacega, kdor bo to od meno sestavljeno terminologijo bral, naj pošlje svoje opazke in popravke »Glasniku« ali pa neposredno meni¹² (Tušek 1862, 171).

In the article named “*O terminologiji*” (‘About terminology’), which followed Tušek's botanical terminology in the same issue of the *Slovenski glasnik*, the sad state of Slovene terminology was described in even greater detail. In his contribution, the editor Anton Janežič, strongly supported Tušek in his efforts to collect botanical terminology, and added that “every Slovene that has the necessary knowledge, should actually take part in it”, and offered his help as an editor. He wrote at the end that the “Slovenski Glasnik gladly opens its pages to such discussions, because only this way we can obtain good expressions” (Janežič 1862, 174).

Interestingly, this is not the only example of “crowdsourcing” in this context, and in newspapers, concrete terminological questions were often discussed. In 1871, in four consecutive numbers of Bleiweis's *Kmetijske in rokodelske novice* (47–50), Tušek also published the *Matematična terminologija* (‘Mathematical terminology’), that was used by the translators of mathematics textbooks, Ivan Tomšič, Luka Lavtar and Josip Celestina. The reviewer Ivan Berbuč (1845–1924) wrote a review of *Fizika za nižje gimnazije, realke in učiteljišča* (*Physics for Lower Gymnasium, Realschule and Teacher Training Colleges*; 1883) for the *Ljubljanski zvon*, which was actually a literary journal but often also discussed new school textbooks, and he especially warned that it is necessary to distinguish between the terms *topitev* or *raztopitev* (‘dissolving’, Germ. *Auflösungsprozess*) and *talitev* (‘melting’, Germ. *Schmelzprozess*) (Berbuč 1883, 183). A similar pattern occurred when in the 1880s and early 1890s Močnik's textbooks on arithmetic and geometry for lower grades of the *gymnasium* were published, both in two parts and translated into Slovene by Josip Celestina (1845–1912). On the terminology

12 English translation: “I think that the best and shortest way to get a valid and permanent botanical terminology is through discussion in newspapers; therefore, I ask every person who reads this terminology compiled by me, to send comments and corrections to the “Glasnik” or directly to me.”

Naj bolj potrebne stvari iz botaniške terminologije.

A. Popis posamnih glavnih delov cvetečih rastlin.

Korenina, Wurzel; steblo, Stängel; list, Blatt; cvet, Blüte; plod, Frucht.

Prave zajedavke, echte Schmarotzerpflanzen; zračna korenina, Luftwurzel; glavna korenina, Hauptwurzel; vlaknata korenina, Faserwurzel; srčna korenina, Pfahlwurzel. Čebula, Zwiebel; gomolj, Knollen; korenika, Wurzelstock (rhizoma); bil, Halm (culmus); betva, Blütschaft (scapus); deblo, Stamm (truncus); steržen, Mark; sterženovi stremeni, Markstrahlen; belina, Splint; želišče, Kraut; drevje, Holzpflanzen, enolet, einjährig; dveleten, zweijährig; večleten, ausdauernd (perennis); drevo, Baum; grm, Strauch; razrast, Verzweigung; vretence, Quirl; pasha, Astwinkel; listna nožnica, Blattscheide; petlja, Blattstiel; listna ploha, Blattfläche; listna žila, Blattnerv; vrtelesta črta, Spirallinie; okrogel, kreisrund; okrogeljast, rundlich; pokrožen, elliptisch; jajčast, eirund; podolgast, länglich; sulicast, lanzettlich; črtast, lineal; igličast, nadelförmig; šilast, pfriemenförmig; ščetinast, borstenförmig; kupast, rautenförmig; tri-vogljest, dreieckig; konec lista, Blattspitze; dno, Blattgrund; rob, Blattrand;

*) To so bile levskega žrelu podobne nabiravšnice pisanih natočevanj, ktere je smel vsak vanje metati zoper ktereга si je hotel. Napravljene so bile pri cerkvah in na dožni palači, v kteri se sedaj v sobi „della Bussola“ vidiš tako žrelo, ktero je hljuvalo od zunaj sprejete suniljive liste, da so jih inkvisitorji in „consiglio dei dieci“ toliko hitrejšje sprejemali.

Image 4: The first page of Tušek's *Najbolj potrebne stvari iz botanične terminologije* ("The most needed things in botanical terminology") in the *Slovenski glasnik* in 1862, page 160

in Celestina's translation, Andrej Senekovič (1844–1926), who is known for his textbooks for physics and chemistry, wrote that Celestina's work was considerably easier because he could rely on the terminology that was already in Luka Lavtar's (1846–1915) mathematics book (Senekovič 1883, 71). In fact, Lavtar added a chapter with the title *Terminologija* ("Terminology")¹³ at the end of his translations of textbooks for teacher training schools, in which all the terms used in the textbook were listed. Although as a rule in the body of the textbook he used terms of foreign origin, in the glossary Lavtar always places the Slovene term first before the German source expression. Since he was aware that one author could hardly create a terminology that would be accepted by everyone, he suggested what we already saw in Tušek and his botanical terminology, "that we should start to critically discuss the dubious expressions in some paper; this way we could get to permanent expressions in the quickest way" (Lavtar 1881: V).

The second and third approaches are characterized by the formation of new words following foreign, usually German, examples. The writer and naturalist Fran Erjavec (1834–1887) translated *Priradopsis živalstva s podobami* (*The Illustrated*

¹³ Undoubtedly, it is a desideratum for future research to compare Peternel's terminology from the 1850s and Lavtar's terminology from the late 1870s/1880s.

Natural History of Animals) (Pokorny 1872b), which was reprinted three times after it was first published in 1864.¹⁴ In Erjavec's translation of *Prirodopis živalstva*, we see that the names of the animal orders, classes and species in Slovene are usually followed by the German and Latin equivalents as well. This shows the initial uncertainty in introducing new terms and thus the use of the German term preserved along with the Latin, as the former was likely to be known by the *gymnasium* students, making things easier to understand. Consequently, in the Slovene textbook each animal species is named at least in three languages, while as a rule, the original German text only has expressions in two languages.

Table 2: Names of the animal species in the textbooks *Illustrierte Naturgeschichte* and in Erjavec's translation *Prirodopis živalstva*

	<i>Illustrierte Naturgeschichte</i> (Pokorny 1870)	<i>Prirodopis živalstva</i> (Pokorny, transl. by Erjavec 1872b)
1	die Viper oder Kreuzotter (Vípera berus) (p. 118).	gad (die Viper oder Kreuzotter, Vípera berus) (p. 125)
2	der europäische Seebarsch (italien. Branzin, latein. Labrax lupus) (p. 127)	ljubin (der Seebarsch, laško: branzin, latinsko: Labrax lupus) (p. 134)
3	die Gazelle (Antílope Dorcas) (p. 47)	gazela (die Gazelle, Antílope Dorcas) (p. 46).
4	der Kuguar (Puma oder amerikanischer Löwe, Felis cóncolor) (p. 19)	kuguar, puma ali ameríkanski lev (der amerikanische Löwe, Felis Cóncolor) (p. 19)

For marine animal species, the original and translation listed terms in Italian as well (example 2), which indicates that the author/translator took into account the frequency of use in the coastal region. In example 3, Erjavec's newly introduced word for the sea bass, i.e. *ljubin*, is interesting; this word is not present in Wolf's dictionary and it has not been preserved until today. Erjavec borrowed the term from Croatian (Cro. *lubin*, still used today), which confirms the above-mentioned fact that translators sometimes sought terminology in other Slavic languages. The examples also show that Erjavec used local names (example 1) for the animals that were present in the Slovene territory, while with foreign animals the Slovene term was usually modelled on German (examples 3 and 4). When the original offered more than one term in German, as a rule, Erjavec also included all the versions. Based on the analysed examples, the textbook could be described

¹⁴ In this analysis, we looked into two approbated editions, the Slovene one from 1872, printed by the Slovenska Matica, and the German one, published by the Prague publisher H. Mercy (Pokorny 1872b). Erjavec's translation, *Prirodopis živalstva*, was used in *gymnasiums* between 1872 and 1907, when it was replaced by the approved textbook by Ivan Macher, *Prirodopis živalstva za nižje razrede srednjih šol* (*Zoology for Lower Grades of Secondary Schools*).

as some kind of terminological glossary, as the students were able to learn the names of animal species in at least three languages.

Phyla, orders and classes, unlike the names of animal species, are scientific categories that were not present in the language of the people, therefore the translator, Erjavec, had to search for new (sometimes very creative, but presently completely archaic) solutions, as shown in Table 3 below:

Table 3: Erjavec's loan translations of the names of animal orders in the textbook titled *Prirodopis živalstva*

	<i>Illustrierte Naturgeschichte</i> (Pokorny 1870)	<i>Prirodopis živalstva</i> (Pokorny, transl. by Erjavec 1872b)
1	Laufvögel	brzoteki
2	Schwimmvögel	plovci
3	Laufkäfer	brzci

We see that in some examples Erjavec did not find the most appropriate solution in terms of word formation principles. From the German term *Laufkäfer* it is clear that we are dealing with “running” beetles and they belong to the order of insects, while Erjavec calls them *brzci*, which only tells us that they are fast, but not that they are beetles. The Slovene terms were therefore derived by Erjavec only on the basis of the first part of the German compound, and thus, for instance, the Slovene equivalent of the German term *Laufvögel* (‘running birds’), *brzoteki*, does not tell us that these are *birds* that run fast; today they are called *nojevc* (‘ostriches’), or sometimes *tekači* (runners’). Out of all the examples mentioned, only Erjavec’s translation of the order *Schwimmvögel*, i.e. *plovci*, water birds with webbed toes and flat beaks, was preserved, and even in this case, the term *plojkokljuni* is preferred.

Except for the names of animal species, in Erjavec’s textbook there are no German equivalents in brackets after the Slovene equivalent. German expressions are given only in the additional chapter on humans, where when they are first mentioned, as all the terms from the field of anatomy have the German equivalent beside them. Such examples are *sluznica* (*Schleimhaut*; ‘mucous membrane’), *uranica* (*Milz*; ‘spleen’) ali *žolč* (*Galle*; ‘bile’). The fact that Erjavec used the original German words in brackets clearly shows that the translator was aware of the introduction of new terms; therefore, he tried to ensure that the target reader could understand the meaning of the word, so he diligently also noted the German term. In this way, Erjavec as a translator took on the role of an innovator who introduces new expressions into the vocabulary.

3.4 Different strategies in the formation of Slovene terminology from the viewpoint of the target audience

When forming and introducing new terminology, translators followed different strategies. The differences were mostly the result of the translator's consideration for his target readers, which were not always the same. Below, some examples from Močnik's translation of mathematics textbooks are shown. We analysed the differences in translation strategies between Ivan Tomšič's (1838–1894) translation of the mathematical terminology in primary school mathematics textbooks, and those used in the translation of *gymnasium* textbooks by Josip Celestina (1845–1912).

Ivan Tomšič translated Močnik's five-volume mathematics textbooks for people's schools between 1871 and 1878. He is not listed as the translator in any of the five books, but is mentioned as the translator by Povšič (1966), among others. The remade three-volume mathematics textbooks for people's schools, which were first published in Slovene in 1894, were also translated by Ivan Tomšič. Again, he is not mentioned in these editions, so he remains "invisible" (Venuti 2002) or is at least not credited, but from the obituary written by Anton Funtek (1894, 309) and published in the *Ljubljanski zvon*, we can see that these translations were Tomšič's work.

As far as terminology is concerned, in primary school mathematics textbooks there are a number of examples when the Slovene standard expression is followed by a generally known – rather dialectical or colloquial – expression in brackets, which is usually a loanword from German. Examples such as *zeleno (frišno) spravljeno seno* ('fresh harvested hay'), *pločevina (pleh)* ('sheet metal') or *zaboj (kišta)* ('box') are found in all primary school mathematics textbooks, even in the revised editions from 1894. From today's perspective, the expressions such as *frišno* (*frisch*, i.e. 'fresh hay'), *pleh* (*Blech*, i.e. 'sheet metal') or *kišta* (*Kiste*, i.e. 'box') are archaic or dialectal/colloquial; however, we must put ourselves in the position of the observer in the original time and space. Undoubtedly, the use of calques of German expressions, which would be called Germanisms today (and are still present in some Slovene dialects), was much more frequent than the use of the "pure" Slovene expressions introduced by Tomšič. The latter words still had to be established. In order to make his audience understand, the translator used basic vocabulary, the language of communication, in which Germanisms had often been introduced, and probably felt the obligation to "clean" and Slovenize, look for expressions with less German connotation and replace them with new, not yet established words. The words given in brackets in Tomšič were a sign of uncertainty: as the translator wanted to reach the audience, he tried to ease their comprehension by using known, colloquial expressions.

Subsequently, we compared Tomšič's translation strategy in the mathematics textbook for primary schools with Josip Celestina's translation strategy in his translations of mathematics textbooks for higher schools. For the lower grades of the *gymnasium*, textbooks on arithmetic and geometry, each in two volumes, were translated by Josip Celestina. On the covers of all four textbooks, both the name of the author of the original text and the name of the translator are given. When the first part of the *Aritmetika* was published, the *Ljubljanski zvon* especially praised the appearance of the textbook: "Those who compare the German original, printed on bad paper with old fonts, with Celestina's book, must be happy with all their hearts about this beautiful textbook"¹⁵ (Levec 1882, 507). We can see, therefore, that even the look of the textbooks was used as proof to show the equivalence of the Slovene volumes compared to the German ones.

Slovene mathematics textbooks for the *gymnasiums* pursued other goals compared to primary school ones, which wanted to train the pupils with practical exercises to act independently in farming and trading and were therefore written in a simple and comprehensible language. The *gymnasiums* educated future university students, so they introduced their students to the language of science and to the terminology that the students needed to know in both Slovene and German. In all the four analysed *gymnasium* textbooks, when a mathematical term is first mentioned, the Slovene expression is given first, followed by the German equivalent (Table 4).

Table 4: German equivalents of Slovene terms in the textbook *Geometrija II*

<i>Geometrija za nižje gimnazije. II. del</i> (Močnik 1884, translated by Celestina)	
1	krožnica (<i>Kreislinie</i>)
2	polumer ali radij (<i>Halbmesser, Radius</i>)
3	včrtan (<i>eingeschrieben</i>)
4	računati (<i>rechnen</i>)
5	oni sta v premem razmerji (<i>stehen im geraden Verhältnisse</i>)

The German equivalents in brackets are used for nouns (examples 1 and 2), adjectives (example 3), verbs (example 4) and phrases (example 5), which again shows the specific goal of the text and at the same time the idea of the translator that it might be easier for the *gymnasium* students to learn the Slovene term if they also saw the German one.

¹⁵ The original says: "Kdor primerja nemški, na slabem papirji s starimi črkami natisnjen izvornik s Celestinovo knjigo, mora se te lepe šolske knjige veseliti iz vsega srca".

The difference between primary and secondary school textbooks is therefore apparent in the use of terminology. A characteristic of the mathematics textbooks was thus the addition of synonyms, often in brackets, for both terms and words from the general vocabulary, which was already pointed out by Prunč (2007, 25–27) in his analyses of translations from the second half of the 19th century. This phenomenon is indicative of the instability of the standard written Slovene language during this period, since the translator additionally explained terms that were not yet widespread among users, and might not be understood, by adding a synonymic term. The explanatory addition of synonyms is especially present in primary school mathematics textbooks. These taught the pupils how to use mathematics in practice, for which they did not need to have any terminological knowledge. It was quite different at a *gymnasium*, which educated future students and prepared them for university, as is shown in Table 5.

Table 5: Comparison of the explanation of subtraction in the translations of the textbook *Tretja računica* and *Aritmetika I*

<i>Tretja računica</i> (Močnik 1871, translated by Tomšič)	<i>Aritmetika I</i> (Močnik 1882, translated by Celestina)
Odštevatı (subtrahirati) se pravi število od števila jemati. Število, od kterega se odjemlje, imenuje se zmanjševanec; manje število, ktero se odštevā, imenuje se odštevānec, in število, ki pri odštevānji izide, imenuje se ostanek ali razloček (p. 16).	Odštevatı (subtrahieren) se pravi, iz vsote dveh števil in iz jednega obeh sumandov iskati drugęga. Dano vsoto imenujemo minuend ali zmanjševānec, dani sumand subtrahend ali zmanjševālec, odštevānec, iskani sumand diferenco, razliko ali ostanek. Ako prištejemo diferenco k subtrahendu, dobimo minuend (p. 16–17).

While primary school textbooks talked about *zmanjševānci*, *odštevānci* and *razlika*, or *ostanek*, in the *gymnasium* books, foreign words started to appear, such as *minuend*, *subtrahend* and *diferenca* ('minuend, subtrahend, difference'). Translators translated the same German terms differently, depending on the level of schooling the book was intended for. For primary school pupils it was enough if they knew the terms derived with Slovene root words (*zmanjševānec*, *odštevānec*, *ostanek*). In the *gymnasium* textbooks, when a term is first mentioned both the term of classical origin and the Slovene term were used, but the terms of foreign origin (*minuend*, *subtrahend*, *diferenca*) were placed first.

On the basis of the analysis of individual examples, a typical feature of the translation of the textbooks in the second half of the 19th century is revealed. Since the translators of the mathematics textbooks analysed in this chapter were also teachers,

they translated for the needs of the schools in which they operated. Tomšič, as a primary school teacher, translated mathematics textbooks for people's schools, while Celestina, being a *gymnasium* teacher, translated textbooks for *gymnasiums*. Both of them knew their target readers very well, so they were able to adapt the translations to their needs. It has been shown that the people's schools textbooks translated by Ivan Tomšič, and even more so the textbooks of Luka Lavtar, are adaptations rather than translations of Močnik's original textbooks, while Josip Celestina preserved equivalence with the source texts in his *gymnasium* textbooks. This is in line with the findings of Prunč (2007, 59), who studied translations of German texts into Slovene between 1848 and 1918 and found that for texts with a high status the rules of equivalence would usually apply, while texts with lower status are goal-oriented and adapted to the needs of the end users. In primary school textbooks we can find simplifications and adaptations, while Celestina, in his translations of *gymnasium* textbooks, remained faithful to the source text even with regard to terminology.

4 CONCLUSIONS

Just as Rome was not built in a day, so Slovene specialized terminology was not developed overnight. Archival sources show that since the 1850s some kind of terminology lists started to appear – Mihael Peternel, for instance, compiled the first known geometry and botany terminology. Slovene terms were given in brackets within the main body of the text or attached in the form of glossaries in German textbooks, which can be considered as an intermediate step towards the first fully Slovene monographic textbooks that appeared from the 1860s onwards. The importance of the terminological work of translators is also testified by the fact that a considerable share of the entries in the first Slovene terminological manual (Cigale 1880) were gathered from the translations of the above-mentioned textbooks.

The road to the gradual birth of Slovene specialized language was indeed long. At first, there was complete chaos in this field. Linguists and translators of textbooks invented new Slovene expressions, some of which were based on German word formation processes, others were derived from Czech, South Slavic or even Old Church Slavonic expressions that the translators tried to render in Slovene. Most frequently, however, in creating new terms the authors followed German terminology and existing German textbooks and used loan translations, basing the word formation processes they used, for instance in forming compounds, on German word-formation rules. Regardless of the aspiration for linguistic and national emancipation and in spite of the resistance towards German cultural dominance, German remained an important, if not fundamental reference point.

Hence, it is not possible to talk about the development of Slovene specialized terminology – undoubtedly an important foundation for the formation of Slovene as a mature “national” language – without considering the influence of German on its development.

Our aim in this study was to show that translation played a pivotal role in the development of Slovene mathematical and biological terminology: our findings reveal that this was indeed the case. In the present research, the translators of textbooks from German to Slovene are shown as innovators on the stage of the Slovene cultural history, who coined new words, several of which have been preserved until the present day and – judging from the present-day point of view – have found their way into standard written Slovene and its specialized language. For Slovene, the credit for this achievement goes to the numerous intellectuals who were active in several fields, in a true universal spirit. In fact, in the 19th century it was fairly typical that the average teacher, writer, intellectual, cultural worker, official, priest or politician worked as a translator, among other things. In the field of terminology in particular, we found that all the individuals that were responsible for the development of Slovene specialized terminology and for the creation of the first specialized translations worked in the field of education. They sought and found numerous creative equivalents and were very aware of the target audience, adapting their translation strategies to their target readers.

Nevertheless, it is precisely at the level of the agents that the typical reception of translators and translation work in Slovenia becomes apparent, too, since the individuals mentioned above are little known today. A much greater significance and role is attributed to authorial work, rather than to translation. Attention is frequently drawn to the contributions of writers and poets to the Slovene culture and language, but much less is given to translation activity. As far as the first specialized translations are concerned, the need for specialists in various fields was even more pressing, because – as the teacher Peternel already found out in the 1850s – specialists from the fields of the humanities knew too little about natural sciences, mathematics, law and technology, therefore they seldom ventured into those areas or even overlooked them. We like speaking about the contribution of the canonized writers and poets, but unfortunately few are aware of the good work and importance of Mihael Peternel, Fran Erjavec, Ivan Tušek, Ivan Tomšič, Josip Celestina, Matej Cigale and other specialized translators/teachers for the development of Slovene specialized terminology.

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CHAPTER 2

Self-mentions as interactional metadiscourse strategies in Slovene and Croatian research article abstracts

Tatjana Balažić Bulc

Abstract

One of the primary communicative functions of scientific texts is to attract the attention of as many members of a discourse community as possible and convince them of the accuracy and acceptability of the author's claims. To this end, the author uses a variety of rhetorical strategies, which are, in part, conditioned by their individual style of writing, and to a certain extent also by specific features of their cultural background. This paper presents the results of a study focusing on the strategy of self-mentions, i.e., the author's direct engagement in the text, in Slovene and Croatian research article abstracts sourced from four fields of research: social sciences, humanities, natural sciences and technology. Research attention is devoted to explicit as well as implicit self-mentions. For the purposes of the study, two corpora containing 80 research article abstracts

in Slovene (the SLAB corpus) and 80 abstracts in Croatian (the CRAB corpus) were compiled, both of which were manually annotated. In its first part, the paper focuses on the types and frequency of self-mentions and the definition of specific genre conventions related to the use of self-mentions in Slovene and Croatian. In its second part, a contrastive method is applied to reveal similarities and differences (i.e., variations) between the corpora. Although the two languages are related and come from a similar cultural backdrop, our results show that the strategy of using self-mentions in Slovene and Croatian research article abstracts does differ, and that this could suggest a degree of cultural specificity in the languages under consideration.

Keywords: academic discourse, scientific discourse, research article abstracts, rhetorical strategies, elements of interactional metadiscourse, self-mentions, cultural characteristics

Izveček

Ena temeljnih sporazumevalnih funkcij znanstvenega besedila je pritegniti pozornost čim večjega števila članov diskurzne skupnosti in jih prepričati v pravilnost in, posledično, sprejemanje avtorjevih stališč. Da bi to dosegel, avtor uporablja različne retorične strategije, ki so delno pogojene z individualnim stilom, delno pa so rezultat kulturoloških značilnosti. V prispevku obravnavamo strategijo samoomemb oz. avtorjevega neposrednega pojavljanja v besedilu v slovenskih in hrvaških izvlečkih znanstvenih člankov s štirih znanstvenih področij: družboslovja, humanistike, naravoslovja in tehnike. V središču raziskovalne pozornosti so tako eksplicitne kot implicitne samoomembe. Za namen raziskave sta zgrajena korpusa 80 izvlečkov znanstvenih člankov v slovenščini (korpus SLAB) in 80 v hrvaščini (korpus CRAB), ki sta ročno označena. V prvem delu raziskave določimo vrste in pogostnost samoomemb ter opredelimo žanrske značilnosti pri rabi samoomemb v slovenščini in hrvaščini. V drugem delu s kontrastivno metodo ugotavljamo podobnosti in razlike oz. odstopanja med korpusoma. Čeprav sta jezika sorodna in izhajata iz podobne kulturne tradicije, rezultati kažejo, da je strategija rabe samoomemb v slovenskih in hrvaških izvlečkih znanstvenih člankov različna, kar bi lahko nakazovalo kulturno specifičnost v obravnavanih jezikih.

Ključne besede: akademski diskurz, znanstveni jezik, izvlečki znanstvenih člankov, retorične strategije, interakcijski metabesedilni elementi, samoomembe, kulturološke značilnosti

1 INTRODUCTION

Ever since the 1980s, there has been a prevailing idea in the investigation of academic discourse that in academic writing the communication between the author of the text at one end and its recipient or reader at the other is bi-directional (see, e.g., Sinclair 1981; Swales 1990), as scientific texts serve not only a referential or informative purpose, but also a communicative purpose. In every part of the text, the author strives to convince the reader of the plausibility of the stated claims (see, e.g., Hunston 1994; Ornatowski 2007), while at the same time having to keep in view the target audience and present the content in a responsible manner, crediting other authors who have conducted similar studies, while also presenting themselves and their own ethical values in a suitable way (Ornatowski 2007, 2). To achieve the highest possible degree of persuasion, the author uses various methods, arguments and rhetorical strategies (Hyland 2005, 66–67) which can be defined, in a similar way to that in Blagojević (2007, 127), as a set of various linguistic elements through which the author attempts to present their ideas to the reader as they see fit, and persuade the reader as efficiently as possible of the plausibility of these claims. Such strategies are, e.g., the strategy of explicitly guiding the reader through the text, the strategy of addressing the reader, the strategy of the author's own presence in the text, etc.

In postmodern societies, the role of the academic community has undergone significant changes, which has, along with the development of modern technologies, had a significant impact on the language of science. Fairclough (1995, 230–231) notes that in modern societies, under the influence of the Internet, the boundaries between academic discourse and informal, personal communication are becoming increasingly blurred, with elitism being gradually replaced by a more informal and personal style. Similarly, Kuteeva and Mauranen (2018, 2) argue that over the past two decades the rise of information and communication technologies has had a profound influence on academic discourse. It has brought about new methods of interaction and consequently given rise to new genres, while new ways of self-representation on the web have, in turn, also affected language use. With its growing presence in the general media (and popularization of scientific research), academic discourse is shifting from specialized to public discourse, which means that the perceptions of the language of science are changing as well. Thus, as stated by Crystal (2006, 23), a non-emotional, neutral and objective language of science has become little more than a myth. The fact is that scholars are constantly striving to have their ideas and views accepted, thereby introducing into their studies, consciously or not, their own sociocultural, economic and other subjective beliefs, which they express through the use of various linguistic elements.

It seems remarkable that in both Slovene and Croatian linguistics there is still a prevalent belief that the objectivity of academic discourse requires the use of objective, impersonal, and non-emotional linguistic structures. According to Pogorelec (1986, 20), even though a scientific text does entail a type of covert subjectivity which tries to present the topic in an objective manner, the terms referring to the author (e.g., possessive pronouns, first person singular, various qualitative adjectives, specific sentence structure, choice of wording) are rarely used. A similar line of thought can also be observed in more recent literature. Skubic (2005, 104), for example, regards scientific texts as markedly impersonal and objective, both in terms of discourse strategies and syntax, as well as in terms of strictly defined and non-emotional vocabulary. This view is also present in Croatian linguistics. Silić (2006, 63–64) maintains that scientific communication is above all communication with the content rather than with the people creating and formulating this content, which is why the language of science must be in strict alignment with the scientific content. In effect, this means that the author of a scientific text should avoid using subjective and expressive linguistic elements. However, research into Slovene and Croatian academic discourse suggests, as will be shown below, a slightly different state of affairs (see, e.g., Balažić Bulc and Požgaj Hadži 2016; Balažić Bulc and Požgaj Hadži 2017). According to Logar (2019, 14), if we are to define the characteristics of the language of science, we must more clearly define the concepts of non-emotionality, precision, neutrality, impersonality, etc., in terms of the exact words and/or syntactic structures through which they are realized.

2 SELF-MENTIONS IN ACADEMIC WRITING

As mentioned above, one of the basic communicative characteristics of written academic discourse, or the research article as its most prestigious genre, is the fact that in presenting their research findings the authors are also attempting to persuade the reader of their relevance and accuracy. To this end, they use a variety of rhetorical strategies, which have been most thoroughly explored within the context of metadiscourse (Hyland 2005). Hyland (2005, 44–46) distinguishes between the elements of interactive and interactional metadiscourse. Through the use of the former, the author guides the reader (or listener) through the text, thereby facilitating the reader's comprehension of the stated propositional matter, while through the use of the latter, the author expresses their own opinion and attitudes related to the propositional content, thus establishing direct communication with the reader, while at the same time enabling the reader to form a different opinion. According to Hyland (2001, 211),

the linguistic choices writers make not only affect the conceptual or ideational meaning that they convey, but can also influence the impression they make on their readers. The decision to adopt an impersonal rhetorical style or to represent oneself explicitly would seem to have significant consequences for how one's message is received.

Our study focuses on one of the elements of interactional metadiscourse, namely self-mentions, which Hyland (2005, 49) regards as indications of the author's presence in the text, which can be measured by the frequency of first person structures in the text (Hyland 2005, 57). Such signals of the author's presence in the text may be explicit or personal, i.e., the author chooses the linguistic elements indicating their direct appearance in the text (e.g., personal and possessive pronouns in the singular or plural); implied or impersonal, which suggest the author's indirect presence (e.g., passive verb structures); or, conversely, the author may not appear in the text at all (see, e.g., Ivanič 1998; Hyland 2001; Molino 2010). In terms of establishing a relationship with the reader, personal linguistic structures may be inclusive (first person plural), which means that the author directly addresses the reader or the general discourse community, or exclusive (first person singular or plural), which indicate the author's personal presence in the text (see, e.g., Bašić and Veselica-Majhut 2016; Harwood 2005; Pisanski Peterlin 2017b).

Self-mentions in academic discourse have been at the centre of scholarly studies for decades, and most research attention has been devoted to English academic discourse, often in contrast with that of other languages (for a more detailed review, see, for example, Pisanski Peterlin 2017a, 9–11). However, very few studies have focused on contrasting Slovene and Croatian academic research. For example, Zrnc (2016) compares the use of self-mentions in Slovene and Polish research articles in the field of linguistics and literary studies and notes that self-mentions are more frequent in Slovene than in Polish texts, and are more common in older texts, while their representation in Polish texts is similar in the two analysed time periods. Self-mentions in older Slovene texts are dominated by personal linguistic elements (first person plural), while impersonal linguistic elements are more common in more recent texts. According to the results obtained in the study, the author concludes that the contemporary culture of academic writing is increasingly following the trend of using an objectified impersonal form through which the author's presence is least pronounced (Zrnc 2016, 40). Bašić and Veselica-Majhut (2016) examine the use of personal pronouns in Croatian and English research articles from the field of linguistics. They find that, compared to English texts, the use of first person singular pronouns is not frequent in Croatian texts, and that first person plural pronouns include inclusive and exclusive personal pronouns to a similar extent, while inclusive personal pronouns are predominant in English. Similar findings are reported by Varga (2016), who examines

elements of metadiscourse in English and Croatian research articles from the field of psychology. Based on a survey on the use of personal and impersonal linguistic elements in research articles conducted on a sample of linguistics scholars, Bašić and Veselica-Majhut (2016) also find that authors of scientific texts find it more appropriate to use impersonal forms in Croatian, with the author being the one who decides on the exact forms to use, and conclude that the author's choice is based "both on the cultural conventions of the community and the status of the individual within that community" (Bašić and Veselica-Majhut 2016: 241).

As the research conducted to date suggests potential differences in the use of the strategy of self-mentions between the Slovene and Croatian academic discourse, the question arises whether these differences do in fact exist. Our aim in this study is to answer the following two questions: 1. Are there any discrepancies between the two languages in the use of self-mentions in academic discourse, and if so, 2. Are they culturally or professionally conditioned?

Unlike previous research, which focuses on the study of complete scientific articles, our focus will be limited to self-mentions in research article abstracts. According to Busch-Lauer (2014, 43), abstracts are one of the most important genres of academic discourse today, as they accompany a wide variety of activities of the academic community: they are an important part of research articles and research grant proposals, they are pivotal in applications to scientific conferences, and form a crucial part of bachelor's, master's and doctoral theses and dissertations, grant applications, and so on. This genre therefore deserves more attention in Slovene linguistic research.

3 CORPUS AND METHOD

Slovene and Croatian are related languages, which both belong to the South Slavic language family. This means that the differences between them, at least at the grammatical level, are minor (see, e.g., Balazic Bulc 2004). At the same time, their rhetorical development has taken place within a similar (partly also the same) cultural context and social circumstances; however, these were dissimilar enough for the respective conventions to also show certain differences. It is precisely these small differences that are potentially the most problematic, both in writing and translating. In fact, as argued also by Pisanski Peterlin (2017a, 9), the skill of composing texts is essential for successful communication in any culture that has developed writing. Since numerous studies have confirmed the existence of differences not only between languages but also between individual scientific disciplines, this study was conducted on Slovene and Croatian texts from four fields of research: humanities, social sciences, natural sciences and technology.

As stated above, the present study focuses on self-mentions, investigating the use of explicitly and implicitly expressed exclusive self-mentions. Unlike English, in which the most common elements of metadiscourse in the context of self-mentions are personal and possessive pronouns such as *I, we, mine, our*, etc., Slovene and Croatian are classified as null-subject languages (Golden 2001, 261), which means that the subject in the sentence is not necessarily explicitly expressed, but can be expressed in the inflection of the verb. According to Toporišič (2004, 607), the subject may only be implied through the verb form, or not even that, whereby it can only be understood from the context. The same applies to Croatian. Silić and Pranjković (2005, 286), for example, argue that subject personal pronouns are unnecessary unless they are used for a specific reason. Pisanski Peterlin and Mikolič Južnič (2018) note that with the increasing formality of discourse in Slovene, the number of subject personal pronouns has been markedly declining and reached its lowest level in periodicals and technical texts. The analysis of self-mentions in these two languages must therefore also include verb forms, both personal and impersonal (as in Grad 2017, 66–67).

3.1 Corpus

For the purposes of the study, two specialized corpora were created: a corpus of Slovene research article abstracts (SLAB) containing a total of 11,421 tokens, and a corpus of Croatian research article abstracts (CRAB) containing a total of 12,309 tokens. Each corpus consists of 80 abstracts from the fields of humanities (20 abstracts), social sciences (20 abstracts), natural sciences (20 abstracts) and technology (20 abstracts) (see Table 1 and the Appendix). In investigating the use of singular and plural personal and possessive pronouns in the metadiscourse elements, it is important to take into account the number of authors. However, in the compilation of these corpora we did not use this criterion and are aware of the fact that the corpora should be suitably upgraded for the purposes of future research.

Table 1: The number of tokens in SLAB and CRAB and their subcorpora

	SLAB		CRAB	
	No. of abstracts	No. of tokens	No. of abstracts	No. of tokens
Humanities	20	2,626	20	2,829
Social sciences	20	2,266	20	3,259
Natural sciences	20	3,469	20	3,400
Technology	20	3,060	20	2,821
Total	80	11,421	80	12,309

The corpora are rather limited in size, which is in fact necessary for this kind of research, as the texts must be manually examined. This is because, as argued also by Pisanski Peterlin (2007, 12), metadiscoursal elements form an open set, which makes it impossible to predict all the potential occurrences for most of its categories. Consequently, the data obtained through automatic annotation could be deficient or lacking.

When selecting the abstracts to be included in the corpora, we observed the following criteria: 1. international recognition of the journal (inclusion in any of the current scientific databases, such as Scopus, WoS, etc.); 2. abstracts published in Slovene or Croatian (which often proved problematic, as a high number of internationally recognized national scientific journals publish abstracts and research articles in English only); 3. the author's affiliation with domestic research institutions, which was intended to ensure that the abstract in Slovene or Croatian was an original work rather than a translation, as the translator's intervention in the text would produce additional variables (see, e.g., Limon 2007, Pisanski Peterlin 2016).

3.2 Method

In the first stage of the study we manually annotated the SLAB and CRAB corpora for all the occurrences, both explicit and implicit, of exclusive self-mentions, i.e., those which do not address the reader or the entire academic community. Based on the results thus obtained, we performed a quantitative and a qualitative analysis. The paper presents the results obtained in terms of the occurrences of explicit exclusive self-mentions, in which the author appears directly in the text and which clearly refer only to the author of the text. In the second part of the study, we performed a contrastive analysis of the two corpora and determined the differences between them.

4 RESULTS AND DISCUSSION

In the analysed corpora, explicit exclusive self-mentions appear primarily as first-person singular and plural personal and possessive pronouns (e.g., Slo: *me bo vodilo / will guide me, kot nam kaže / as we can see*; Cro: *naš cilj je / our goal is*) and personal verb forms (e.g., Slo: *smo analizirali / we analysed*; Cro: *analizirali smo / we analysed, zbog toga ih smatram izvrsnim / this is why I consider them excellent*), while implicit self-mentions appear as impersonal verb forms (e.g., Slo: *v prvem delu je predstavljena / in the first part, ... is presented*; Cro: *dobivena su eksplicitna rješenja / explicit solutions were obtained, u radu se promatra / the paper investigates*).

4.1 Self-mentions in Slovene research article abstracts

In the SLAB corpus, self-mentions appear in all the scientific fields analysed. As illustrated in Figure 1, their occurrence is slightly more frequent in the natural sciences (1.7 self-mentions per 100 words) and technology subcorpora (1.5 self-mentions per 100 words), and is, surprisingly, smaller in the subcorpus of humanities abstracts (0.72 self-mentions per 100 words). Similar results for the humanities are given by Zrnc (2016) for scientific articles in the field of linguistics and literary sciences.

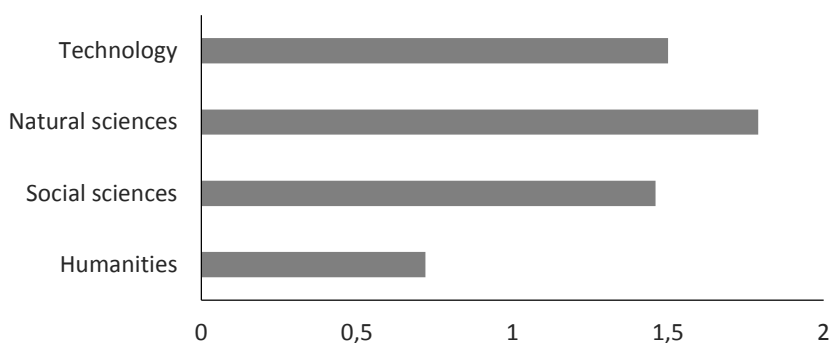


Figure 1: Frequency of self-mentions in the SLAB corpus per 100 words

In terms of the occurrence of personal and impersonal linguistic structures in individual abstracts (Table 2), we can see that self-mentions are most commonly used in the natural sciences (70% of abstracts), slightly less in the social sciences (55% of abstracts) and humanities (45% of abstracts) and least of all in the technology subcorpus (30% of abstracts), where the representation of personal and impersonal linguistic structures is approximately equally distributed (self-mentions in 30% of abstracts, impersonal structures in 35% of abstracts). The results also show that the authors of abstracts from the humanities, social sciences, and natural sciences mostly opt for a single rhetorical strategy, either personal or impersonal (only 10% of abstracts contain both strategies), while technology abstracts show a similar occurrence of a combined strategy (35% of abstracts). What seems striking in this context is that in about a quarter of the abstracts from the social sciences (25% of abstracts) and humanities (30% of abstracts) none of these strategies are used, and other self-mention strategies should therefore be explored. This points, in particular, to the process of personification, through which another, usually inanimate, object assumes the role of the author (e.g., *Članek obravnava kompleksno ozadje nastanka poslikave* / *The article examines*

the complex circumstances in which the painting was created), which should be further examined. Given that the focus of the research was limited primarily to the use of pronouns and verbs, we did not place such cases into the category of self-mentions. However, it might be reasonable to include them as elements of impersonal self-mention in further research.

Table 2: The frequency of personal and impersonal structures in individual abstracts in the SLAB corpus

	HUM		SOC		NAT		TECH	
	No. of abstr.	%	No. of abstr.	%	No. of abstr.	%	No. of abstr.	%
Self-mentions	9	45	11	55	14	70	6	30
Impersonal structures	3	15	2	10	4	20	7	35
Both	2	10	2	10	2	10	7	35
Other	6	30	5	25	-	-	-	-

Given that in Slavic languages it is the verb which expresses the categories of person, number and gender (rather than the pronoun, as is typical in English), the verb was, as expected, found to be most common type of self-mention. Table 3 lists the types of self-mentions which occur in the SLAB corpus, their frequency per 100 words, and their distribution across the corpus.

By far the most common form of self-mentions in the SLAB corpus is the first-person plural verb (in the present tense: *predstavljamo / we demonstrate, izpostavljamo / we highlight, obravnavamo / we examine*; in the past tense: *smo analizirali / we analysed, smo raziskali / we investigated*; in modal structures: *lahko pokažemo / we can show*, etc.), which all contain the pronominal category *mi (we)*. As can be seen in Table 3, it occurs in all four fields of research, but most notably in the natural sciences (1.79 per 100 words, in 16 of the 20 abstracts analysed) and in technology (1.5 per 100 words, in 12 of the 20 abstracts analysed). It is also the only self-mention strategy which appears in the abstracts of the journal *Ars Mathematica Contemporanea*. A unique feature among self-mentions found in the subcorpus of social sciences is the third person verb in the singular or dual (the grammatical number depends on the actual number of authors of the paper) containing the pronoun category *he, she, they*, etc., (*avtorica predstavlja / the author presents, avtorica izpostavi / the author argues, avtorici obravnavata / the authors examine*). This strategy even appears as the only one in the abstracts of the journal *Dve domovini*. Other types of self-mentions, such as the first person singular verb (*bom orisal / I will outline, bom sklenil / I will conclude*, etc.), the first person

Table 3: Types of self-mentions and their representation by research field in the SLAB corpus

Type of self-mention	HUM		SOC		NAT		TECH	
	/100 words	abstr. of 20	/100 words	abstr. of 20	/100 words	abstr. of 20	/100 words	abstr. of 20
verb, first person plural	0.5	8	0.53	3	1.79	16	1.5	12
verb, first person singular	0.11	1	-	-	-	-	-	-
verb, third person (singular/dual)	0.04	1	0.84	8	-	-	-	-
personal pronoun, first person singular	0.04	1	-	-	-	-	-	-
personal pronoun, first person plural	0.04	1	-	-	-	-	-	-
possessive pronoun, first person singular	-	-	0.04	1	-	-	-	-
possessive pronoun, first person plural	0.08	2	-	-	-	-	-	-
adjective <i>lasten</i> 'svoj'	-	-	0.04	1	-	-	-	-

singular personal pronoun (*me bo vodil / will guide me*) and the first person plural personal pronoun (*se nam kaže / it seems to us*), the first person singular possessive pronoun (*po mojem mnenju / in my opinion*) and the first person plural possessive pronoun (*v ospredju našega zanimanja / at the forefront of our interest*) appear only with individual authors, and could therefore be attributed to the authors' individual style.

4.2 Self-mentions in Croatian research article abstracts

In the CRAB corpus self-mentions also occur in all the research fields analysed, but to a much lesser extent than in the SLAB corpus. As can be seen from Figure 2, their occurrence is slightly more frequent in the social sciences subcorpus (0.8 self-mentions per 100 words), while being almost negligible in the abstracts from the humanities, natural sciences and technology (natural sciences 0.29, humanities and technology 0.21 self-mentions per 100 words).

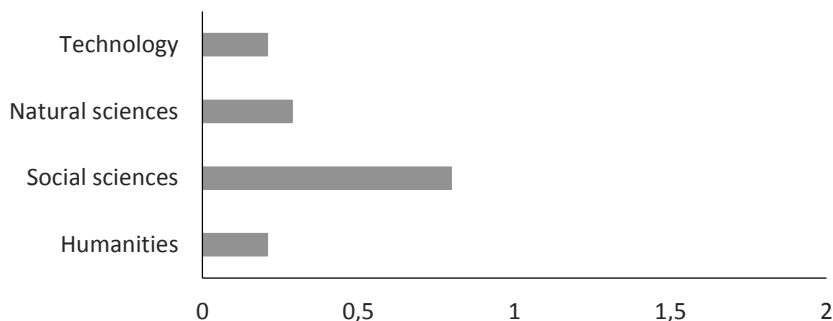


Figure 2: Frequency of self-mentions in the CRAB corpus per 100 words

On the basis of the results, we can conclude that explicit self-mentions are not a common strategy in Croatian research article abstracts. As shown in Table 4, all four subcorpora are dominated by impersonal structures, which are most commonly expressed by a passive verb structure (*dobivena su eksplicitna rješenja* / *explicit solutions were obtained*, *razmotren je* / *was considered*, *predložen je* / *was proposed*, etc.) and impersonal verb forms with a reflexive pronoun *se* (*određuje se* / *is defined*, *u radu se promatra* / *is observed in the paper*, etc.). Bašić and Veselica-Majhut (2016) reach a similar conclusion in the analysis of research articles from the field of linguistics. Abstracts in the social sciences subcorpus show a somewhat more diverse structure (self-mentions in 20% of abstracts, passive structures in 40% of abstracts). In case of Croatian authors, too, we can observe the choice of a single rhetorical strategy, i.e., the use of either personal or impersonal explicit and implicit structures of metadiscourse. There is a slight discrepancy in the use of a combined strategy in the social sciences (25% of abstracts with the occurrence of both strategies).

Table 4: The frequency of personal and impersonal structures in individual abstracts in the CRAB corpus

	HUM		SOC		NAT		TECH	
	No. of abstr.	%	No. of abstr.	%	No. of abstr.	%	No. of abstr.	%
Self-mentions	2	10	4	20	1	5	1	5
Impersonal structures	14	70	8	40	15	75	17	85
Both	2	10	5	25	3	15	2	10
None of the above	2	10	3	15	1	5	-	-

If we look at the types of self-mentions occurring in the CRAB corpus, their frequency per 100 words and their distribution across the corpus (Table 5), it is clear that the number of different types of self-mentions and their frequency in the CRAB corpus is much lower than in the SLAB corpus. Given that they mostly occur in individual authors, they cannot be claimed to form a part of the overall strategy of the author's presence in research article abstracts, but could instead be attributed to the author's individual style.

Table 5: Types of self-mentions and their representation by research field in the CRAB corpus

Type of self-mention	HUM		SOC		NAT		TECH	
	/100 words	abstr. of 20	/100 words	abstr. of 20	/100 words	abstr. of 20	/100 words	abstr. of 20
verb, first person plural	0.12	2	-	-	0.24	3	0.18	3
verb, first person singular	0.04	1	-	-	-	-	-	-
verb, third person (singular/dual)	0.04	1	0.8	9	-	-	-	-
possessive pronoun, first person plural	0.04	1	-	-	0.06	2	0.04	1

Similar to the SLAB corpus, first person plural verbs appear in the role of self-mentions (in the present tense: *predlažemo / we propose*, *proučavamo / we study*, and in the past tense: *izgradili smo / we constructed*, *pokazali smo / we showed*, *analizirali smo / we analysed*), specifically from individual authors in the natural sciences (0.24 per 100 words in three abstracts), technology (0.18 per 100 words in three abstracts) and humanities subcorpora (0.12 per 100 words in two abstracts), while this form is not represented in the social sciences subcorpus. Further research should examine the occurrence of this form in the light of the actual number of authors of the text. In one abstract from the humanities subcorpus, the first person singular verb appears as a self-mention (*i zbog toga ih smatram izvrsnim / which is why I consider them excellent*). A similar frequency was observed for the first person plural possessive pronoun (*naš cilj / our goal*, *naš pristup / our approach*), which was found in the natural sciences (0.06 per 100 words in two abstracts), technology and humanities subcorpora (both 0.04 per 100 words in one abstract). What stands out among the self-mentions is the third person verb (*autor razmatra / the author considers*, *autori zaključuju / the authors conclude*, *autorice se zalažu / the authors advocate*, etc.), which, as in Slovene, appears as an important strategy in the social sciences subcorpus (0.8 per 100 words in nine abstracts).

4.3 Self-mentions as a cultural metadiscourse strategy in Slovene and Croatian research article abstracts

The results show that there are considerable differences in the frequency of self-mentions between the Slovene and Croatian research article abstracts examined in this study. The contrastive comparison of personal and impersonal structures between the two languages reveals a rather dissimilar situation, shown in more detail in Figure 3.

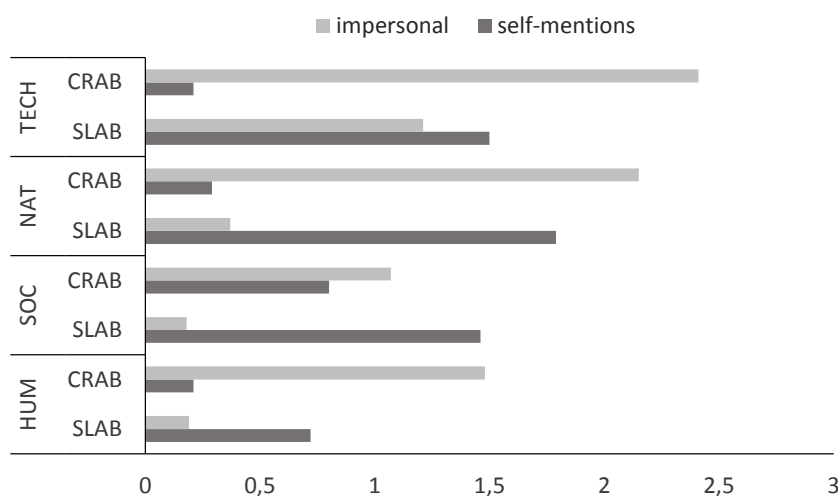


Figure 3: The frequency of self-mentions and impersonal structures per 100 words in the SLAB and CRAB corpora

In the corpus of Croatian abstracts (CRAB), the strategy of impersonal communication with the reader is dominant in all fields of research, while the corpus of Slovene abstracts (SLAB) is dominated by the self-mentions which establish personal communication with the reader. Even though the use of such strategies in Slovene academic discourse is often attributed to the influence of Anglo-American academic writing, a study conducted by Pisanski (2002) on a corpus of articles from mathematics and archaeology shows that, for example, compared to their use in the 1950s, the use of previews and reviews in the analysed texts originating in the 1990s had decreased. Moreover, in the grammar of the Slovene language, we find that the use of the passive is common in professional, popular-science or scientific texts. Yet even in these fields of discourse excessive use of the passive is not advisable (Toporišič 2004, 359). On the other hand, Silić and Pranjković (2005, 197) claim that passive structures are particularly common in

Croatian scientific and administrative texts. We can therefore conclude that there exist certain culture-specific differences between the two languages in the use of self-mentions. It would certainly be worth conducting a more detailed exploration of the strategy of self-mentions in Slovene and Croatian research articles, as well as comparing the results with other Slavic languages.

5 CONCLUSION

Our study focused on explicit self-mentions in Slovene and Croatian research article abstracts. Despite the fact that the languages of Slovene and Croatian are related and have been in close cultural contact for centuries, our findings show that there exists a considerable variation in the strategy of the author's presence in the texts of the analysed corpora. Whereas in Croatian research article abstracts explicit self-mention is not a generally accepted strategy, as scientific objectivity is still strongly associated with linguistic objectivity, in Slovene research article abstracts it represents a dominant strategy, although there are certain discrepancies between individual research fields. On these grounds we can conclude that the differences between the analysed corpora could reflect a degree of cultural specificity present in Slovene and Croatian academic discourse, while also affirming the existence of certain differences between individual fields of research.

Since this study marks the beginning of research focused on Slovene and Croatian scientific texts, many questions remain unaddressed. It would be interesting to conduct a more detailed investigation of the functions of explicit and implicit self-mentions occurring in the analysed corpora. Such research should also include a diachronic perspective so as to determine the extent to which cultural differences associated with the strategy of self-mentions in the languages under consideration are time-bound. Furthermore, the study should certainly be repeated on a larger corpus and extended to also include other genres of scientific discourse. Given the fact that there are differences in the use of self-mentions between individual fields of research, as has also been confirmed for other languages (see, e.g., Bondi 2006: 29), in the future, it would be interesting to perform a more detailed investigation of the strategy of the author's presence in the text in various disciplines within each field of research.

Acknowledgement

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Appendix

Sources used for the corpus of Slovene research article abstracts SLAB

- Acta chimica slovenica* 65, No. 2, 3, 4, 2018.
- Acta historiae artis slovenica* 23, No. 1, 2, 2018.
- Ars mathematica contemporanea* 16, No. 1, 2, 2019; 15, No. 2, 2018.
- Contributions to contemporary history* 58, No. 2, 2018; 57, No. 2, 2017.
- Dve domovini – Two homelands* 48, 2018.
- Elektrotehniški vestnik* 85, No. 1–2, 2018.
- Etnolog* 28, 2018.
- Filozofski vestnik* 39, No. 1, 3, 2018.
- Geodetski vestnik* 62, No. 1, 2, 2018.
- Geologija* 61, No. 1, 2018.
- Materials and geoinvironmnet* 65, No. 1, 2, 3, 4, 2018.
- Pravnik* 72 (134), No. 7–8, 9–10, 2017.
- Slavistična revija* 66, No. 4, 2018.
- Tekstilec* 61, No. 1, 2, 2018.
- Teorija in praksa* 54, No. 1, 3–4, 2017.
- Zdravniški vestnik* 87, No. 1–2, 3–4, 5–6, 2018.

Sources used for the corpus of Croatian research article abstracts CRAB

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- Agromonski glasnik: Glasilo Hrvatskog agromonskog društva* 80, No. 2, 3, 4, 2018.

- Anali Hrvatskog politološkog društva: časopis za politologiju* 15, No. 1, 2018; 14, No. 1, 2017.
- Automatika: časopis za automatiku, mjerenje, elektroniku, računarstvo i komunikacije* 57, No. 2, 3, 4, 2016.
- Časopis za suvremenu povijest* 50, No. 1, 2, 2018.
- Etnološka tribina: Godišnjak Hrvatskog etnološkog društva* 48, No. 41, 2018.
- Filozofska istraživanja* 38, No. 1, 2, 2018.
- Geofizika* 35, No. 1, 2, 2018; 34, No. 1, 2, 2017; 33, No. 2, 2016.
- Hrvatski geografski glasnik* 80, No. 1, 2, 2018.
- Kemija u industriji: Časopis kemičara i kemijskih inženjera Hrvatske* 67, No. 1–2, 3–4, 5–6, 7–8, 2018.
- KoG* 22, No. 22, 2018; 21, No. 21, 2017.
- Revija za sociologiju* 48, No. 1, 2, 3, 2018.
- Suvremena lingvistika* 44, No. 85, 2018.
- Tehnički vjesnik* 24, No. 1, 2017.
- Zbornik Pravnog fakulteta Sveučilišta u Rijeci* 39, No. 1, 2018.
- Život umjetnosti: časopis o modernoj i suvremenoj umjetnosti i arhitekturi* 103, No. 2, 2018; 101, No. 2, 2017; 100, No. 1, 2017; 99, No. 2, 2016; 98, No. 1, 2016.

CHAPTER 3

Between syntax and pragmatics: Nominalization in Italian and Slovene academic discourse

Tamara Mikolič Južnič

Abstract

Nominalization is one of the most important syntactic and pragmatic characteristics of academic discourse in a number of languages, but it has been often shown that the rhetorical conventions linked to its use may vary among different languages. Some languages have been shown to be more inclined to prioritize nouns as carriers of meaning, while others prefer verbs. The article discusses the occurrence of nominalization in Italian and Slovene academic texts, and focuses on the differences in frequency of this structure in original Italian texts and their Slovene translations. Additionally, it compares the results with existing data on original Slovene texts. The data has been collected with the ISPAC bilingual parallel corpus, more specifically its non-literary (academic) subcorpus, as well as a small corpus of original Slovene academic texts. The aim of the analysis is to show whether the use of nominalization in the two languages differs, whether there are any divergencies between the original and translated Slovene academic texts, and which alternative structures may

be used in the translation of nominalization. The results suggest that there are important quantitative differences in the two languages, while the cross-comparison sheds light on other interesting syntactic and pragmatic elements that influence the frequency of nominalization in Slovene.

Keywords: nominalization, academic discourse, grammatical metaphor, Italian, Slovene

Izvleček

Nominalizacija je ena od pglavitnih sintaktičnih in pragmatičnih značilnosti znanstvenega pisanja v številnih jezikih, vseeno pa se je večkrat izkazalo, da se retorične konvencije, vezane na njeno uporabo, lahko razlikujejo od jezika do jezika. Kot kažejo raziskave, s nekateri jeziki namreč bolj nagnjeni k privilegiranju samostalnikov kot nosilcev pomena, drugi pa pogosteje uporabljajo glagole. Prispevek prikazuje pojavljanje nominalizacije v italijanskih in slovenskih znanstvenih besedilih in se osredotoča na razlike v pogostnosti strukture v izvirnih italijanskih besedilih ter njihovih slovenskih prevodih, obenem pa te rezultate primerja z obstoječimi podatki za izvirna slovenska besedila. Vira podatkov sta dvojezični vzporedni korpus ISPAC oz. njegov neleposlovni (znanstveni) del ter manjši korpus slovenskih izvirnih znanstvenih besedil. Namen analize je torej izpostaviti, ali se raba nominalizacije v obravnavanih jezikih razlikuje, ali so opazne razlike med prevodno in izvirno znanstveno slovenščino ter katere so alternativne strukture, ki se lahko pojavljajo pri prevajanju nominalizacije. Rezultati nakazujejo, da se med jezikoma pojavljajo bistvene kvantitativne razlike, ob tem pa navzkrižna primerjava osvetli tudi zanimive dodatne sintaktične in pragmatične elemente, ki pogojujejo pogostnost nominalizacije v slovenščini.

Ključne besede: nominalizacija, akademski diskurz, slovnična metafora, italijanščina, slovenščina,

1 INTRODUCTION

Academic discourse is characterized by several defining syntactical, pragmatical as well as textual and other features across languages, which are related to the way thoughts and ideas are expressed in certain genres. Despite a number of common basic communicative needs, how these syntactical and pragmatical features are realized may well vary in different languages and present a problem when producing academic texts in another language or translating.

Nominalization has been identified as one of the characteristic features of academic discourse in several studies on different languages (cf. Biber and Gray 2010; Colombi 2002; Halliday and Martin 1993, Halliday and Matthiessen 1999; Jiang 2015; Mattiello 2010; Owtram 2010). Following systemic functional linguistics, as defined by Halliday and his co-workers (e.g. Halliday and Matthiessen 2004; Simon-Vandenberg, Taverniers and Ravelli 2003), nominalization is a type of ideational grammatical metaphor in which a process, congruently expressed by a verb, is instead realized by a noun, i.e. a nominalization (cf. next section). While some languages such as English, French and German (cf. for instance Azpiazu Torres 2005; Roald and Whittaker 2010) are quite prone to the use of such grammatical metaphors, others such as Hopi, Chinese and Turkish (cf. Altunkamış, Kern and Sofu 2014; Halliday and Martin 1993; Whorf 1950¹) do not react well to such rearrangements of the information structure and to the consequent higher lexical density of the clause, and seem to be more verb-oriented. Such tendencies are observable in general (i.e. with respect to the language as shown in referential corpora), but can be even more extreme when specific genres are considered. In fact, nominalization has been shown to be highly dependent on genre (Mikolič Južnič 2016; Yang 2006) and although academic discourse is listed among those genres where it is most present (see above), even within this wide genre, studies have confirmed differences among languages.

This study focuses on two languages which have been previously shown to have diverging tendencies in terms of the use of nominalization: if Italian is known as a language where the frequency of nominalization is usually high (cf. Cassese 1993; Cortelazzo and Pellegrino 2003; De Mauro 1980/2003; Fioritto 1997) Slovene, on the other hand, is said to be less inclined to make use of this feature (cf. Klinar 1996; Mikolič Južnič 2017; Žele 1996), although the frequency varies considerably among different genres (cf. Mikolič Južnič 2011). The aim of this paper is thus to explore whether there are any differences in the occurrence of nominalization in Slovene and Italian. More specifically, the research questions are:

1 Some other of Whorf's arguments about Hopi have been challenged, but his analysis of the use of nominalization has been quoted as valid (e.g. by Halliday and Martin 1993, 23).

- 1) How frequent is nominalization in Italian academic discourse?
- 2) What happens when Italian nominalizations are translated into Slovene in this type of discourse?
- 3) Does the frequency of nominalization in the translated academic texts differ from the frequency in original Slovene academic texts?

In the following sections, a brief overview of the development of nominalization will be presented along with the main studies centred on this syntactical device for Italian and Slovene. Subsequently, the corpus-based methodology used to identify the nominalizations, their frequency, and the relations between instances of nominalization in the original Italian texts and their Slovene translations is described. Finally, the results are cross-compared with the figures for original Slovene texts reported in a similar study (Mikolič Južnič 2011).

2 NOMINALIZATION AND ACADEMIC DISCOURSE

2.1 A definition

In this paper, nominalization is defined in the framework of systemic functional grammar (Halliday and Matthiessen 2004): according to this model, language is a system of meanings and specific forms that can be used to realize these meanings (Halliday 1994, xiv). From the point of view of the functions of natural language, each clause unites three different levels of meaning which are described with the interpersonal, textual and ideational metafunctions (cf. Halliday 1994, Halliday and Matthiessen 1999, 2004). Nominalization is primarily a shift on the ideational level, although changes on the level of one metafunction always imply shifts on the other two (Halliday and Matthiessen 1999, 239–242).

The ideational metafunction is related to the concept of the clause as a representation and the realization of the transitive structures that express the ideational meaning, which usually includes processes and their participants (and circumstances). One of the key concepts of systemic functional grammar, as Ravelli stresses (1988, 133), is the meaning potential: there are a number of elements which can carry meaning, and speakers/writers can choose among these meaning potentials when they wish to communicate. The relation between the meaning potential and the chosen realization is not random: for each meaning that we want to construe, there is a natural option which leads to a congruent realization. Halliday (1994, 343) states that the speakers/writers of a language recognize certain realizations as typical, and calls those realizations congruent. But language,

the author continues (*ibid.*), offers alternative possibilities in which patterns are used that are not typical: such cases are called grammatical metaphors.

In particular, nominalization is an ideational type of grammatical metaphor whereby a process, which is congruently realized by a verb, is metaphorically realized by a noun with the help of various suffixes and other grammatical means. For example, the congruent realization *John arrived yesterday and it did not surprise us* may be rephrased metaphorically as *John's arrival yesterday was no surprise for us*. This entails a rearrangement of the participants and circumstances (e.g. the direct object *us* becomes part of a prepositional phrase with the function) and it even allows us to join the two processes in one single nominal phrase: *the lack of surprise about John's arrival*. The example clearly shows how nominalization causes shifts in the configuration of the participants of the process, which allows the speaker/writer of the text to compress complex sequences of text in a way that they form an element in a different semantic configuration (Halliday and Martin 1993, 15).

2.2 A brief history of nominalization

Nominalization is therefore the realization of a process in the form of a noun, as well as an instance of such a realization (e.g. *arrival* above). In most cases, such a noun is derived from the verb that would be used in a congruent realization (e.g. *arrival* < *to arrive*). Halliday and Matthiessen (2004, 636) note that the nominalization of a process is a more sophisticated realization compared to the congruent version, and that it is not part of everyday spontaneous language. It is characteristic of the fields of science, education, bureaucracy and law, but it is present in virtually all registers and genres produced by adults for adults, although there are considerable differences among different registers and genres in terms of frequency and types of nominalization (*ibid.*).

Halliday and Matthiessen (1999, 242–244) state that nominalization is present in all natural languages in some form: it is a natural development and like lexical metaphor it enriches the meaning potential. Its beginnings can be recognized in the transcategorization present in the earliest technical terminology developed by ancient Greek thinkers, but changed historical conditions caused it to become “a dominant feature of the semantic system” (*ibid.*, 244). This development is mainly due to advances in science, and one of the first authors that has made great use of this feature is Galileo Galilei, the father of modern science and of scientific writing in Italian (Migliorini 1948).² Altieri Biagi (1993, 58) noticed that one of the most typical characteristics of Galileo's syntax seems to be the

2 Although Galileo is indeed often quoted as the “inventor of the scientific language”, he did not work in a vacuum and there were others working in the same field before and along with him (cf. Castagné 2015).

reduction of the role of the verb in favour of the noun. As Halliday and Matthiessen (1999, 240) report, it appears very probable that Galileo's writing directly influenced Newton's texts and consequently a great portion of English scientific writings. Scientists quickly learned to exploit other important options offered by nominalization, especially the possibility of virtually indefinite expansion through modification (*ibid.*, 265) and the possibility to use the strategy repeatedly and accumulate instances of nominalization in clauses and in texts. From there, this potential was transmitted through calques into a number of modern European languages such as Spanish, German, Greek, Norwegian, etc. (Halliday and Martin 1993).³

Languages and their means of expression, or language potentials, however, did not develop everywhere along the same lines nor with the same speed. At a time when Italian and English, for instance, already had a literary history of at least a couple of centuries and had started developing a style rich with nominalizations that went along with Galileo, Newton, their contemporaries and progress in science, the Slovene written language was still in its earliest stage. The first Slovene books, Trubar's *Abecedarij* and *Katekizem*, were published in 1550, just 50 years prior to the publication of Galileo's first important works. It took almost three centuries for Slovene scientific writing to develop and start (*cf.* Pisanski Peterlin 2005; Vidovič Muha 1986; Žigon and Almasy, this volume). Therefore, it is not surprising that the development of grammatical metaphor in Slovene prose started somewhat later. Yet according to Vodušek (1933), nominalization was already a feature of certain technical texts in the first decades of the 20th century. In fact, Vodušek (1933, 72–73) warns about tendencies towards archaization that originated from a Panslavic orientation that was dominating the scene in that period, according to which the power of Slovene would reside in its verbal style (in contrast with a nominal one). Vodušek himself believed that in the contemporary Slovene of workers, technicians and scientists, a language characterized by nominal style already existed at the time and that some linguists were trying to artificially stop this natural development.

Regardless of such early disagreements, it is clear that just as English most probably started to use a "nominal style" under the influence of Italian texts (*cf.* Halliday and Matthiessen 1999, 240), scientific Slovene as well tends to assume a pattern that has proved to be especially productive and efficient in scientific argumentation. And while this is partly the result of transfer from a foreign system in translation (initially undoubtedly under the influence of German, but later on also due to other languages' influences; *cf.* Žigon and Almasy, this volume), it is

3 Nominalization was obviously not invented by Galileo, but it was rather a step further from transcategorization (Halliday and Martin 1993, 15), which was present already in the writings of ancient Greeks; from there, it spread to Latin and Arabic and eventually into other European languages, but it was not until the birth of modern science that it assumed the important role in argumentation that it still has today (*ibid.*, 12–13).

also a solution that scientists and technical authors seem to find functionally better, and therefore they use it as their own.

2.3 Nominalization in modern academic discourse

Several studies deal with nominalization in academic discourse in various languages, notably Banks (2008), Biber and Gray (2010), Byrnes (2009), Colombi (2002), Fang (2005), Fang, Schleppegrell and Cox (2006), Halliday (2009), Halliday and Martin (1993), Halliday and Matthiessen (1999), and Nichols (1988), showing that the phenomenon is widespread albeit unevenly used. In fact, nominalization might perhaps be the single most discussed feature of academic writing. There are several reasons for the propensity of most scientific writing to use nominalization, some of which have remained the same since Galilei and Newton's times, ranging from its rhetoric power in building an argument (Halliday and Martin 1993), to creating technical terms, establishing cause-and-effect relationships between disparate phenomena, synthesizing and systematizing detailed information, and creating measurable entities (Veel 1997, 184). Other features of academic writing where nominalization plays a crucial role are information density, abstraction, technicality (Fang 2005), reduced explicitness (Biber and Gray 2010) and so on. While most studies either focus on or include English as the *lingua franca* of academic writing, several studies explore differences and similarities between different language pairs. To name but a few, Halliday and Martin (1993), for instance, compare nominalization in English and Chinese, Byrnes (2009) studies the development of the use of nominalization in students of German as L2, and Colombi (2002) observes bilingual Spanish/English students and their development of academic writing skills.

Focusing on Italian, several studies on academic writing have been published (e.g. Diani 2009, Giannoni 2002, 2008; Mattiello 2012; Molino 2010), but few of them discuss nominalization. Apart from a few studies concerning the oldest stages of nominalization in scientific Italian (Altieri Biagi 1993, Fiorentino 1998 and others, cf. previous section), Scarpa (2003) presents the diachronic development of nominalization in Italian scientific articles, Zucchi (1993) discusses the nominalized infinitive, Mattiello (2010) focuses on a related field, that of legal texts. Apart from these works, comparisons between Italian and Slovene nominalizations are few, as we have seen in section 1, and with the exception of Mikolič Južnič (2010, 2011, 2012, 2013, 2017), none of them are specifically devoted to academic discourse. Furthermore, with the exception of Zajc (2014), who compared research proposals, there are no studies exploring nominalization in academic writing in Slovene, either in itself or its relationship with other

languages. This study will therefore try to fill the gap from the viewpoint of a comparison of Italian and Slovene.

Based on the brief account above and on previous studies, the hypotheses at the base of this research are that nominalization will have a relatively high frequency in Italian, that the frequency of nominalization is higher in Italian than in Slovene academic texts, and that for academic texts there is virtually no difference between original Slovene texts and translations from Italian into Slovene.

3 CORPUS AND METHOD

3.1 Corpus

To gain insight into the use of nominalization in Italian and in Slovene, a parallel corpus named ISPAC was used. The corpus comprises approximately 2.5 million words and is subdivided into two main subcorpora named simply literary and non-literary texts. The non-literary subcorpus consists of a collection of Italian academic books and their Slovene translations (see the Appendix).⁴ All the Italian source texts were written by native speakers of Italian and all the Slovene translations were done by native speakers of Slovene. The source texts were published between 1977 and 2004, while the translations were published between 1993 and 2004. The single titles were randomly chosen among the translations available when the original corpus was being built (between 2002 and 2005). The corpus is lemmatized and POS tagged, and the two parallel sets of texts are sentence-aligned. Table 1 shows the number of tokens in the two sections of the subcorpus.

Table 1: Number of tokens in the two parts of the non-literary subcorpus of ISPAC

Subcorpus section	Tokens
Italian	657,380
Slovene	621,036

The corpus can be searched with the NoSketch Engine concordancer through the Slovene Clarin platform (<http://www.clarin.si/info/about/>). The search criteria can be narrowed down to the corpus constituent parts and the parallel texts can be searched and processed simultaneously.

4 Further details on the corpus are available in Mikolič Južnič (2017).

3.2 Method

The research was carried out in three phases, with the use of quantitative and qualitative approaches. Although nominalizations are not especially marked in the corpus, the majority of them can be identified through typical suffixes. The most productive suffixes in both languages, shown in Table 2, have been identified in previous research (Mikolič Južnič 2017): together, they are used in the formation of approximately 90% of all nominalizations present in monolingual reference dictionaries.⁵ This entails that the study does not cover all the instances of nominalization that might be present in the analysed corpus, but it nonetheless accounts for a reasonably vast sample. As seen in Table 2, the number of Italian suffixes taken into account is greater, although four of them (-menzo, -zione, -ura and -ata) alone account for 75% of all the nominalizations present in the dictionary.

Table 2: Italian and Slovene nominalization suffixes included in the analysis

Italian suffixes	Slovene suffixes
-aggio	-anje
-ata	-cija
-ato	-enje
-eggio	-tev
-enza	-tje
-ere	
-io	
-ita	
-mento	
-ore	
-sione	
-tà	
-ura	
-zione	

In the first phase of the research, therefore, the above-listed suffixes were inserted in simple CQL queries such as, for instance, [lemma="*.zione" & tag = "Nc*"]. This was done for all listed suffixes for both languages: apart from searching the source texts, target texts were also analysed separately, thus yielding two sets of data. The raw number of instances with the selected Italian suffixes was 50,813 and for the Slovene 19,116 (see Table 3). Since the search criteria did not allow us to distinguish nominalizations from other nouns having the same suffix/ending

⁵ The two dictionaries are Lo Zingarelli and Slovar slovenskega knjižnega jezika (see the Bibliography).

(e.g. *seggio*, which is not a nominalized process), and also instances like *traduzione* in the meaning of the product, not the process), the results had to be manually cleaned. The results are given in the next section.

Table 3: Raw number of extracted examples from ISPAC for each suffix (Italian and Slovene)

Italian suffixes		Slovene suffixes	
-aggio	1,222	-anje	8,778
-ata	558	-cija	3,654
-ato	1,939	-enje	2,271
-eggio	190	-tev	2,211
-enza	3,842	-tje	2,202
-ere	1,846		
-io	7,615		
-ita	907		
-mento	4,058		
-ore	3,308		
-sione	2,870		
-tà	7,066		
-ura	2,808		
-zione	12,584		
Sum total	50,813		19,116

The second phase consisted of a manual analysis of a sample of all the instances extracted in the first phase. The sample was selected randomly for each Italian suffix that had more than 100 instances, while where there were less, all instances were included. To obtain a balanced sample for both languages and considering the smaller number of Slovene suffixes, larger numbers of instances of nominalizations with single suffixes were taken into account, depending on their overall frequency. Table 4 summarizes the number of instances included in this phase for both languages.

The two separate sets of data were then qualitatively analysed: first, translation equivalents of Italian nominalizations were analysed in terms of parts of speech, and second, the source expressions of Slovene nominalizations were also analysed in terms of parts of speech (see Table 5 for details on the analysed categories).

Table 4: Number of instances used in the qualitative analysis for each suffix in Italian and Slovene

Italian		Slovene	
Suffix	No. of examples	Suffix	No. of examples
-aggio	100	-anje	300
-ata	88	-cija	250
-ato	25	-enje	200
-aggio	25	-tev	250
-enza	100	-tje	200
-ere	100		
-io	100		
-ita	100		
-mento	100		
-ore	65		
-sione	100		
-tà	100		
-ura	100		
-zione	100		
Sum total	1,203		1,200

Table 5: Categories of analyses for the parallel corpus

Categories of elements	
Slovene translations of Italian nominalizations	Italian source elements of Slovene nominalizations
Nominalization	Nominalization
Other noun	Other noun
Finite verb	Nominalized infinitive
Non-Finite verb	Infinitive
Adverb	Gerund
Adjective	Finite verb
Pronoun	Adverb
Preposition	Adjective
Omission	Pronoun
	Omission

In the last phase, these results were cross compared as well as compared with the results of a similar prior study on original Slovene academic texts (Mikolič Južnič 2011). In that study, a specialized corpus was used which consisted of academic texts from scientific journals from various fields divided into two main fields, i.e. natural sciences and social sciences and humanities. The size of the corpus is 719,744 words, with 304,744 words belonging to the science field and 415,000 to the humanities and social sciences. The methodology used in that experiment is comparable to the one used here. Only the Slovene suffixes used here, i.e. those in Table 4, will be taken into account, therefore a comparison with the data gained with the ISPAC corpus is possible if we normalize the results to the number of occurrences per 100,000 words. The length of the texts in the two corpora differs (books in ISPAC, articles in the 2011 study), but it is reasonable to believe that the difference in lengths does not affect the use of nominalization to a discernible degree.

4 RESULTS AND DISCUSSION

4.1 Frequency in Italian source texts and Slovene translation

As mentioned above, the instances of nominalizations extracted from the ISPAC corpus were manually cleaned to eliminate improper occurrences. The resulting number of instances is 19,379, i.e. 2,948 examples per 100,000 words. Table 6 summarizes the results for each of the analysed suffixes.

The number of Slovene nominalizations in the analysed academic texts is 13,549, i.e. 2,182 instances per 100,000 words. The results for each analysed suffix are given in Table 7.

The number of target text nominalizations is substantially lower than in the source texts. Comparing the frequency in both the analysed sections of the academic texts' subcorpus of the ISPAC corpus, we can see that the frequency in target texts is 25% lower. But if we consider the absolute number of nominalizations – indeed, we are dealing with the same set of texts in two languages – the difference is even more prominent: there are 30% fewer nominalizations in the Slovene target texts compared to the Italian source texts. This confirms that except for certain genres (e.g. literary texts, cf. Mikolič Južnič 2015), nominalization seems to be considerably more frequent in Italian texts. Despite the fact that the number of nominalizations in the Slovene academic texts is relatively high in comparison to other Slovene genres (cf. Mikolič Južnič 2015), Italian

originals display an even higher frequency. The data confirm prior results about the difference between the two languages, showing that nominalization is indeed more frequent in Italian academic prose. But the relations between Italian and Slovene nominalizations are more complex than it might appear if we only look at the numbers.

Table 6: Absolute number of nominalizations in the Italian source texts

Suffix	No. of instances
-aggio	222
-ata	84
-ato	22
-eggio	23
-enza	2,148
-ere	906
-io	1,577
-ita	266
-mento	1,869
-ore	61
-sione	1,777
-tà	457
-ura	667
-zione	9,300
Sum total	19,379

Table 7: Absolute number of nominalizations in the Slovene target texts

Suffix	No. of instances
-anje	7,849
-cija	2,136
-enje	1,186
-tev	2,071
-tje	307
Sum total	13,549

4.2 Nominalizations in Italian source texts and their equivalents in Slovene target texts

As it has been previously shown (e.g. in Mikolič Južnič 2010), the relations between nominalizations present in the source and target texts are not linear: it is clear that not all Italian nominalizations are translated with a Slovene nominalization – in fact, almost one third are not – but not even all Slovene nominalizations are translations of Italian ones. To better comprehend these relations, the translation equivalents of Italian nominalizations were analysed in terms of part of speech categorization. Due to the large number of nominalizations present in the analysed corpus section (19,379 instances), only a sample of 1,203 examples was analysed (cf. section 3.2). Table 8 summarizes the absolute results for all the analysed instances, while Figure 1 shows the relative proportions of each translation equivalent in the sample.

Table 8: Absolute numbers of Slovene translation equivalents of the sample Italian nominalizations

	Nominalization	Other noun	Omission	Finite verb	Non-finite verb	Adjective	Adverb	Pronoun	Preposition
-aggio	69	13	1	8	1	6	1	1	0
-ata	48	7	5	10	0	12	0	1	1
-ato	21	0	0	0	0	1	0	0	0
-eggio	15	1	0	7	0	0	0	0	0
-enza	79	4	5	8	0	4	0	0	0
-ere	89	8	0	1	0	1	1	0	0
-io	77	9	2	3	1	5	2	1	0
-ita	82	1	0	14	2	1	0	0	0
-mento	70	10	1	11	2	4	2	0	0
-ore	51	2	3	2	0	2	1	0	0
-sione	77	7	0	12	2	2	0	0	0
-tà	81	8	5	3	0	3	0	0	0
-ura	64	18	1	4	7	4	2	0	0
-zione	88	2	0	6	2	1	1	0	0
Sum total	911	90	23	89	17	46	10	3	1

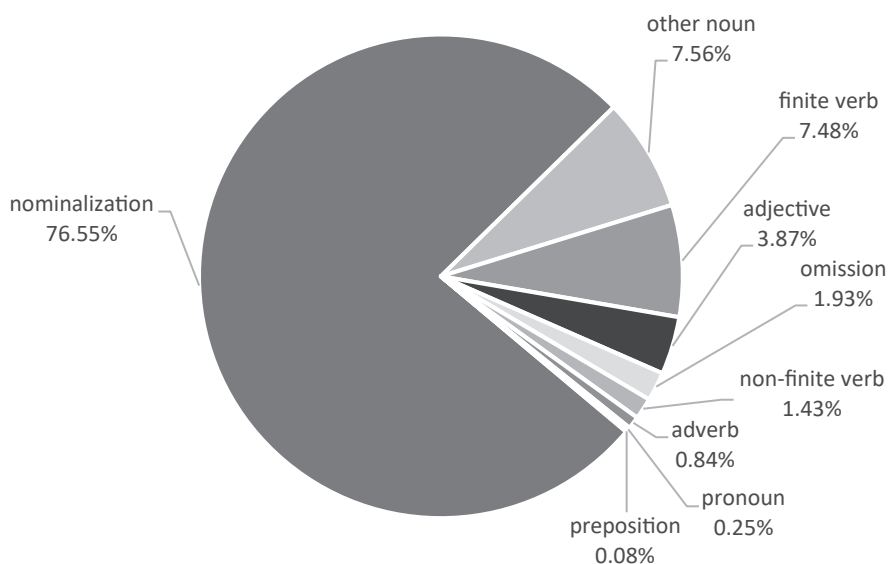


Figure 1: Proportions of translation equivalents in the sample of Slovene target texts

Figure 1 shows how the most frequent translation equivalent of Italian nominalizations in the analysed sample is, indeed, a nominalization (76.55%, example 1), followed by other nouns (7.56%, example 2); in total, nominal translation equivalents amount to 84.11%.

- (1) a. A causa della diminuzione della pressione dell'aria nel recipiente ...
 'Due to the decrease of the pressure of the air in the container'⁶
 b. Zaradi zniževanja zračnega tlaka v posodi ... 'Due to the decrease of
 the air pressure in the container'
- (2) a. ... non mancarono caute adesioni di specialisti, ... 'careful adhesions
 of specialist were not missing'
 b. ... ni manjkalo previdnih pripomb izvedencev, ... 'careful comments
 of specialists were not missing'

The second most frequent class are verbs (8.91% in total), which have been subdivided into finite verb forms (7.48%, example 3) and much rarer non-finite verb forms (1.43%, example 4), Example 3 shows how the translator decided to join two Italian clauses into one in Slovene, in which the process *abbattimento* 'demolition' is realized by a verb (*so podrli* 'demolished'), and then continued with

⁶ English glosses are as literal as possible in order to reflect the structures in the originals and translation equivalents.

a copulative coordination. In example 4, the translator rearranged the elements of the sentence in a way that the verbs *začeti* ‘to start’ and *dopolnjevati* ‘to complete’ are linked together.

- (3) a. L'abbattimento delle mura perimetrali, che avviene quasi dovunque ... ‘the demolition of the walls that happens almost everywhere’
 b. Mestna obzidja so podrli skoraj povsod in ... ‘(They) demolished the city walls almost everywhere’
- (4) a. Il completamento del palazzo ducale verso la piazzetta, iniziato nel 1424, prosegue per tutto il secolo ... ‘The completing of the ducal palace towards the little square, started in 1424, continues through the whole century’
 b. Tisti del doževe palače, ki je obrnjen na Piazzetto, so začeli dopolnjevati leta 1424, dodelovali pa so ga vse stoletje ... ‘The part of the ducal palace that is turned towards the Piazzetta, (they) started to complete in the year 1424 and they worked on it throughout the century’

Other categories are seldom found and are linked to a specific context in the source text, which call for a particular construction in the target text. Adjectives, for instance, are found in 3.87% of the analysed instances and are virtually always used when the original nominalization is in a genitive relationship with another noun (example 5).

- (5) a. Rispetto a esse le regulae philosophandi presenti nei Principia appaiono un affinamento e una semplificazione delle regole ... ‘In comparison with them, the regulae philosophandi present in the Principia seem a refinement and a simplification of the rules’
 b. Glede na te se zdijo regulae philosophandi v Principia izpopolnjena in poenostavljena pravila ... ‘Compared to them, the regulae philosophandi in the Principia seem to be refined and simplified rules’

Similar constrictions are usually valid for adverbs (0.84%, example 6), pronouns (0.25%, example 7) and prepositions (0.08%, example 8). In example 6, an adjunct of manner constructed with a preposition and a nominalization (*senza discernimento*) is translated with a single word adjunct with the same meaning (*nerazsodno*).

- (6) a. ... chi propalando senza discernimento notizie trionfali o disastrose, vere o false ... ‘some spreading without discernment triumphant or catastrophic news, true or false’
 b. ... drugi so nerazsodno širili zmagovite ali katastrofalne novice, ki so bile resnične, lažne ... ‘others unreasonably spread winning or catastrophic news that were true, false’

A repetition is avoided in the translation in example 7 (*viaggio – nje*).

- (7) a. ... durante il viaggio e per effetto del viaggio ... ‘during the travelling or as an effect of the travelling’
 b. ... med vožnjo in zaradi nje. ‘during the drive or because of it’

In example 8, the phrase, *a portata di mano*, is translated with the equivalent phrase in Slovene (*pri roki*), the difference being that in Italian a nominalization is used, and consequently the meaning is more clearly expressed, while in Slovene a preposition is used to express more or less the same meaning.

- (8) a. ... in maniera abbastanza prossima per averli a portata di mano, per cui ... ‘in a manner close enough to have them at arm’s reach, therefore’
 b. ... v primerni razdalji, dokaj kratki, da jih je imel vedno pri roki, zato ... ‘at an appropriate distance, fairly short, so that he had them always at hand, therefore’

Omissions (1.93%) occur randomly and sometimes do not involve a loss on the level of meaning (example 9), while in other cases a part of the original is simply lost (example 10).

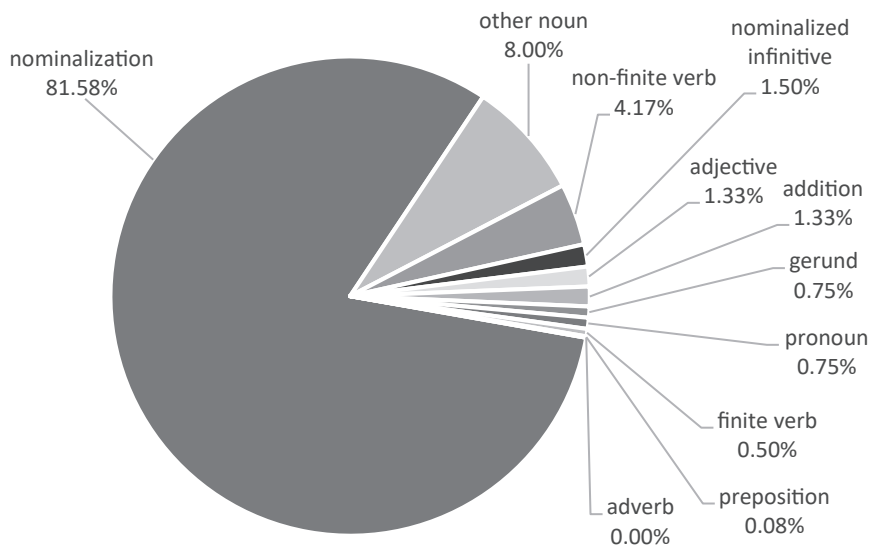
- (9) a. ... ancora né la forma della Terra né l’esistenza del continente americano ‘yet neither the shape of the existence of an American continent’
 b. ... ne za obliko Zemlje ne za Ø ameriško celino ... ‘neither the shape of the Earth nor the American continent’
- (10) a. Un’ultima avvertenza. Il discorso che segue riguarda ovviamente ... ‘A last warning. The discourse that follows is obviously about’
 b. Ø Razprava, ki sledi, seveda zadeva ... ‘The discussion that follows naturally demands’

4.3 Nominalizations in Slovene target texts and their source structures

In the next part of the qualitative analysis, the nominalizations that occur in Slovene were observed together with the structures found in the original Italian texts in their place. The perspective is therefore inverted compared to what we saw in the previous section. Table 9 and Figure 2 clearly illustrate the fact that not all Slovene nominalizations are translation equivalents of Italian nominalizations.

Table 9: Absolute numbers of Italian source structures translated as Slovene nominalizations

	Nominalization	Other noun	Addition	Finite verb	Non-finite verb	Adjective	Adverb	Pronoun	Preposition	Gerund	Nominalized infinitive
-anje	224	26	6	2	28	3	0	3	1	3	4
-cija	238	5	2	1	0	4	0	0	0	0	0
-enje	152	21	1	2	12	2	0	2	0	2	6
-tev	188	30	6	0	10	6	0	2	0	4	4
-tje	177	14	1	1	0	1	0	2	0	0	4
Sum total	979	96	16	6	50	16	0	9	1	9	18

**Figure 2: Proportions of source elements in the Italian original texts**

As we can see in Figure 2, the most frequent source elements of Slovene nominalizations by far are nouns (almost 90%), mostly nominalizations (81.58%, example 11), but also other nouns (8.00%, example 12).

- (11) a. Iskanje virov oblasti naj bi jih zavajalo k temu ... ‘The search for resources of power was supposedly making them do’
 b. La ricerca di risorse di potere li porterebbe ad introdurre ... ‘The search for resources of power would bring them to introduce’
- (12) a. ... na polemično pridiganje, retorično besedičenje in zvijačnost. ‘to the polemic preaching, rhetorical chatting and trickery’
 b. ... disposizione alla requisitoria polemica, all’artificio retorico, alla capziosità. ‘inclination for polemical indictment, rhetorical artifice, captiousness’

Just as with the Slovene translation equivalents, the second most frequent class are verbs, where finite verb forms (0.50%, example 13) are differentiated from non-finite verbs, which in turn are subdivided into gerunds (0.75%, example 14), nominalized infinitives (1.50%, example 15) and other non-finite verb forms (4.17%), which are primarily infinitives, as in example 16. This confirms previous findings (Mikolič Južnič 2010, 2015) regarding the use of nominalization as a potential translation equivalent for Italian non-finite verb forms: since Slovene is not prone to use non-finite verb forms (cf. Toporišič 1991, 336–342) in the role of implicit clause predicates, most Italian non-finites need to be either explicitated into finite forms with all the participants clearly assigned to their roles, or they can be rendered with some other element – nominalization being a highly likely possibility due to its dual – verbal and nominal – nature and its versatility in the clause in terms of functions that it can assume.

- (13) a. Kabalistično branje predpostavlja branje in razumevanje temeljnih besedil ... ‘Cabalist readings presuppose reading and understanding basic texts’
 b. La lettura cabalistica presuppone, ... che si leggano e comprendano i testi cruciali in ebraico, ... ‘the cabalist readings presupposes ... that the crucial texts in Hebrew should be read and understood’
- (14) a. ... in se nadaljuje s postopnim povečevanjem števila celih črt. ‘and goes on with a progressive increase of the number of whole lines’
 b. ... e continua aumentando successivamente il numero delle linee intere. ‘and continues by gradually increasing the number of the whole lines’
- (15) a. ... razlik v političnem razmišljanju in delovanju, kakšen je razlog ali kakšni so razlogi za to ... ‘differences in the political thought, what is the reason or what are the reasons for this’
 b. ... differenze nel pensare e nell’agire politico, qual è la ragione, o quali sono le ragioni della distinzione? ‘differences in the political thinking and acting, what is the reason or what are the reasons for the distinction’

- (16) a. ... širokosrčno izkoriščali možnosti za razdeljevanje dobrin in storitev v breme javnih sredstev. 'utilizzerebbero a piene mani la possibilità di distribuire beni e servizi, attraverso la spesa pubblica'

As far as the remaining, rarer occurrences go, the conditions are similar to what we have seen in the previous section: special circumstances have to be present in order to have a nominalization as the translation of an adjective (1.33%, example 17), a pronoun (0.75%, example 18), or a preposition (0.08%, example 19).⁷ In example 17, the adjective *produttivo* is translated with the nominalization *produkcije* in a genitive relationship with the noun *model*, probably because there are two other adjectives as pre-modifiers in the same nominal group and a third one would also have to have been placed in a pre-modifying position because of grammatical constrictions (e.g. *edinega vlečnega produktivnega modela*). The translator decided to keep the Italian order and nominalized the process that in the original was rendered with an adjective.

- (17) a. ... ne določi edinega vlečnega modela produkcije, temveč pri življenju vzdržuje ... 'doesn't define the only driving production model, but it keeps alive'
 b. ... più che determinare un univoco e trainante modello produttivo, essa mantiene in vita ... 'more than defining a unique and driving productive model, it keeps alive'

In example 18, a repetition of an element from the previous sentence is avoided in the original and a personal pronoun is used (*loro*), while in Slovene the nominalization is repeated.

- (18) a. Pomembnosti povezovanja se je na primer popolnoma zavedal Bonaiuto ... 'Bonaiuto was for instance completely aware of the importance of connections'
 b. Della loro importanza si rese per esempio perfettamente conto Bonaiuto ... 'Bonaiuto was for instance perfectly aware of their importance'

The nominalization in example 19 (*pomikanju*) more clearly expresses that there is a movement towards the centre, where the original only uses a preposition to express the same meaning. It would be possible to use a preposition in Slovene as well, but it would entail keeping the syntactic structure of the original (*kažejo naraščajočo težnjo proti sredini* '(they) show a growing tendency towards the centre'), while the translator opted to unpack the adjectivally used present participle *crescente* into a finite verb (*se krepi*) and was thus forced to add the process of moving to make the meaning clear.

⁷ Although no instances of Slovene nominalizations being translation equivalents of Italian adverbs have been found in the analysed sample, it may well be that there are such examples among the rest of the examples, as it is also possible that other source elements could be occasionally translated with a nominalization.

- (19) a. ... odkrivajo, da se krepi težnja po pomikanju k sredini ... '(they) discover that the tendency of a movement to the centre is strengthening'
 b. ... mostrano una crescente tendenza verso il centro ... '(they) show a growing tendency towards the centre'

Lastly, there were a few examples (1.33%) where the Slovene nominalization was an addition to the original sentence, usually to explicitly state a participant, circumstance or other meaning that was implicit in the source text, as in example 20.

- (20) a. ... pozorni na znamenja, ki naj bi po pripovedovanju prerokov spremljala in oznanjala zadnje ... 'paying attention to the signs that, according to the narration of the prophets, accompany and announce'
 b. ... attenta ai segni che secondo Ø i profeti avrebbero accompagnato e annunciato l'ultimo ... 'paying attention to the signs that according to the prophets would accompany and announce'

4.4 Comparing the results

According to the results shown above, nominalization is not used with the same frequency in the two languages under observation: there are fewer nominalizations in the Slovene target texts than in the Italian source texts. Looking at the details of the translation equivalents and the distribution of nominalization in the target texts; however, it appears that the relations are more complex and that they are influenced by other pragmatic factors. Comparing the number of nominalizations formed with the analysed suffixes in the two languages, it was established that there are 30% less nominalizations in the Slovene texts, yet the analysis of the sample of Italian nominalizations and their translations shows that 'only' 24.45% of nominalizations are translated with some element other than a noun, therefore there are approximately 5.5% nominalizations that we cannot account for if we do not consider other factors. In fact, the analysis of the elements found in the source texts where there are nominalizations in Slovene shows that not all Slovene nominalizations are direct translations of Italian ones. 18.42% have been translated as equivalents of verbs, adjectives, pronouns, prepositions, or even added when there was no overt element with the meaning expressed by the nominalization. The examples given above illustrate some of the textual, syntactic and pragmatic factors that might influence the translation. Furthermore, it should be noted that the examples above are all taken out of the broader context and do not show how nominalizations accumulate in short text spans. Despite the rising number of nominalizations in the last decades (cf. Mikolič Južnič 2016 and Žele 1996), the high lexical density associated with the accumulation of nominalizations is

considered heavy and difficult to understand in Slovene. Therefore, translators are likely to look for other solutions in such situations. On the other hand, one of the most common translation equivalents of Italian non-finite verb forms (such as infinitives) are indeed nominalizations, which would add up to the final count in the Slovene part of the subcorpus. When each of the potential equivalents is used therefore depends on the single situation.

As far as Slovene academic discourse is concerned, it seems to be much more prone to the use of nominalization than general language. In fact, in the original Slovene scientific texts as analysed in Mikolič Južnič (2011), there was an average of 3,032 nominalizations per 100,000 words, with the texts from the fields of natural sciences having an even higher frequency (3,321 per 100,000 words) compared to the field of humanities and social sciences (2,920 per 100,000 words). The frequency in the translations from the ISPAC corpus is 2,948 instances per 100,000 words, which is only slightly lower than the previous average figure.

We could conclude that there is only a minor difference between original and translated academic texts in Slovene as far as the use of nominalization goes. Translated texts seem to have a slightly lower average, which might be due the tendency towards standardization of the translators (Toury 1995), who had probably been taught to avoid too much nominalization, or it might be depend on the relatively small sample of analysed translations: a larger-scale analysis would be needed to either confirm these findings.

5 CONCLUSIONS

The history of the Italian and Slovene languages is quite different. While Italian is basically the language in which the use of nominalization in scientific texts was first introduced and from which it spread elsewhere, Slovene developed a scientific language rather late, under the influence of other languages, especially – but not only – German (see Žigon and Almasy, this volume). As nominalization is one of the most prominent features of scientific language (cf. section 2), analysing and comparing its presence in Slovene and Italian can complement our understanding of present-day Slovene academic writing, as well as the use of nominalization in Slovene in general.

The data confirm previous research in that the frequency of nominalization in academic discourse is relatively high, both in itself and comparing to other genres, and it is considerably more frequent in Italian (2,948 instances per 100,000 words) than in Slovene (2,182 instances per 100,000 words). In both languages nominalization is likely to occur frequently in academic discourse because of

the possibility it offers to compress meaning in high-density units and to create terms and facilitate arguments, and the results seem to confirm that the main reason for the use of extensive nominalization in both languages is linked both to the rhetorical conventions typical of that language and to construe “reality as a balanced tension between things and processes” (Halliday and Martin 1993, 17) so that it can be “kept under observation and experimented with; and in so doing, [it can be interpreted] not as changing with time (as the grammar of clauses interprets it) but as persisting – or rather, persistence – through time, which is the mode of being a noun” (ibid.). In light of this, it is no surprise that academic discourse is one of the genres where nominalization is most present, both in Italian and in Slovene.

As far as Slovene translated texts are concerned, it is confirmed that they contain fewer nominalizations than their original counterparts, although the difference is only slight and could be influenced by the small size of the analysed sample. Furthermore, when analysing translated texts, it is always necessary to take interference into account (Toury 1995, 275), as structures used in the source text are likely to influence the choice in the target text. This might result in some of the Slovene nominalizations simply being the result of a direct transfer of meaning and structure to the closest counterpart. However, our results show that there is no substantial difference in the frequency of nominalization in translated texts compared to original texts. In fact, the frequency is even smaller in the translated texts, which might be a consequence of normalization on the part of the translators (Toury 1995), who have been and are still often taught that nominalization is to be avoided in Slovene (cf. the first sections of this article). The comparison with original Slovene academic texts clearly shows that high frequencies of nominalization are the norm in academic texts, and there are no rhetorical or pragmatic reasons to avoid it in translation, since it is apparently completely accepted by the academic community when creating original texts.

The findings of the last part of the study suggest that there might be similar problems when translating from Slovene into Italian, as Slovene nominalizations are not always the result of Italian ones. Naturally, this should be further explored in future research with a corpus of Slovene-to-Italian translations, but it would seem that the possibility of substituting a congruent wording with a grammatical metaphor and vice versa is quite readily available to translators, although they seem to tend to preserve the original author’s choice more often than not.

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Appendix

ISPAC Corpus

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CHAPTER 4
Conclusions in
linguistics and
applied linguistics
research articles
written in Spanish
as a foreign language:
An intercultural
rhetoric study

Gemma Santiago Alonso and David Heredero Zorzo

Abstract

The present work is a contrastive study where we analyse the conclusions of a corpus of 36 Linguistics and Applied Linguistics research articles written in Spanish and Slovene, both by native speakers, as well as research articles written in Spanish by Slovene investigators. We focus on the structure of this section following the moves and steps established by Yang and Allison (2003) and Moritz, Meurer and Dellagnelo (2008), as well as the principles used for this kind of analysis settled by the field of intercultural rhetoric (Connor and Moreno, 2005, Moreno, 2008, Connor 2011). The results of our investigation reveal that there are important differences concerning conclusions in research articles between the two languages, which should be taken into account when teaching Spanish as an academic language.

Keywords: intercultural rhetoric, academic writing, corpus study, rhetorical moves, conclusion in research articles.

Izveček

V pričujočem prispevku je predstavljena kontrastivna študija, v kateri analiziramo sklepne razdelke v korpusu 36 znanstvenih člankov s področij jezikoslovja in uporabnega jezikoslovja, ki so jih v španščini in slovenščini napisali rojeni govorniki, pa tudi člankov, ki so jih v španščini napisali slovenski raziskovalci. Struktura sklepnega razdelka je razčlenjena po potezah in korakih, kot so jih definirali Yang in Allison (2003) ter Moritz, Meurer in Dellagnelo (2008), ter v skladu z načeli analize, uveljavljene na področju kontrastivne retorike (Connor in Moreno, 2005, Moreno, 2008, Connor 2011). Rezultati raziskave pokažejo pomembne razlike med jezikoma v sklepnih razdelkih znanstvenih člankov, ki bi jih bilo treba upoštevati pri pouku španščine kot akademskega jezika.

Gljučne besede: medkulturna retorika, akademsko pisanje, korpusna študija, retorične poteze, sklep znanstvenega članka

1 INTRODUCTION

In the last few decades, a large number of studies (Cassany and Morales 2008; Gnutzmann and Oldenburg 1991; Holmes 1997; Hyland 1996; Pérez Ruiz 2001; Swales 1990, 2004) has paid extensive attention to the delimitation of the structure and construction of research articles (henceforth RAs), in order to stimulate an ever more global form of scientific-academic communication. The aforementioned investigations are oriented to identify prototypical rhetorical moves that constitute the different sections of RAs (Introduction, Results and Discussion, Conclusion and Summary).¹ However, we cannot ignore that most of the previous studies are framed within an Anglo-Saxon context, whose impact on the global scene has highlighted the importance of the socio-cultural context within academic-scientific writing² (Santiago and Heredero 2018, 272).

Our aim in the present paper is the analysis of the rhetorical conventions in the conclusions section of RAs written in Spanish by Slovene researchers, comparing them with those made by Slovene and Spanish researchers in their native languages. Our work is framed in the same line as other investigations (*inter alia*: Amnuai and Wannaruk 2013; Aslam and Mehmood 2014; Ciapuscio and Otañi 2002; Fuentes Cortés 2013; Moritz, Meurer and Dellagnelo 2008; Reza Adel and Ghorbani Moghadam 2015; Tabatabaei and Azimi 2015; Yang and Allison 2003). All the investigations mentioned above are focused on English as a native language tongue in contrast to English used by non-native speakers. Nevertheless, in our case, although we understand that English is the reference language needed to have visibility in the international scientific community, we believe more studies of intercultural rhetoric focused on other languages are needed, such as Spanish, which it is also increasingly present in the scientific world.³ Hence, in our research we have been particularly interested in those studies that include Spanish in their corpus, although it is true that they exclusively use texts by authors for whom Spanish is their mother tongue to observe if there are transfers of rhetorical patterns into English.⁴ With regard

1 This fact points to the existence of prototypical formalities that the scientific articles have to incorporate to satisfy a series of expectations necessary for their subsequent publication in scientific journals.

2 Connor (2011); Connor and Moreno (2005); Moreno (2008); Mur Dueñas (2018) and Kubota and Lehner (2004) among others.

3 According to the annual report of the Instituto Cervantes for 2018, the growth in the number of Spanish-language texts from Spanish-speaking countries in the world's scientific production was 127.96% for the period 2003-2011. In addition, except for the period 2000-2003, such participation in the world's scientific production has been growing steadily since 1996. Despite the fact that the presence of Spanish as a scientific communication instrument remains scarce on a global scale, the Spanish language, with 103,773 records in 2017, is the third most common language in which journals (not only scientific) are published.

4 We refer, among others, to: Moreno (1997), who analyses the use of causal metatext; Ciapuscio and Otañi (2002), which analyses the cultural-rhetorical characteristics in the conclusions of RAs written in English, German and Spanish; Vázquez

to contrastive rhetorical research focused on the Slovene language, Pisanski Peterlin's work on the text-organizing metatext (2005, 2007) and the inclusion of previews and reviews in the text (2002) needs to be mentioned. However, there exist only two investigations (Heredero, Pihler and Santiago 2017; Santiago and Heredero 2018) that have worked with Spanish and Slovene, both focused on differences and similarities of the introductions of Linguistic and Applied Linguistic research articles written in Spanish by Slovene researchers, comparing them with those written in their native languages by Spanish and Slovene researchers. Taking into account all the above, this article attempts to solve this gap and to contribute to the identification and establishment of rhetorical and cultural conclusion patterns, as well as the literature on the distance between both languages, and we consider the results could be useful for future pedagogic purposes for academic writing in Spanish as a foreign language.

In our analysis, the framework of intercultural rhetoric has been considered (see Connor 2011; Connor and Moreno 2005) to establish whether there is a transfer of rhetorical patterns from the mother tongue to the foreign language (in our case, from Slovene to Spanish), using a parallel corpus for this. Regarding the comparability and equivalence of the corpus within intercultural rhetoric, we have based our work here on the contextual factors established by Moreno (2008).

With respect to methodology, a corpus composed of 36 RAs has been designed, of which 12 have been written in Spanish by native speaker experts, 12 in Slovene by native speaker experts and 12 in Spanish by Slovene experts. For the classification and analysis of the rhetorical moves of the corpus, on the basis of the pioneering works of Swales (1990, 2004) and Gnutzmann and Oldenburg (1991), we have taken into account the model in Yang and Allison (2003) (where Results, Discussion, Conclusion and Pedagogic Implications are included), adding two more steps from the model in Moritz, Meurer and Delaguelo (2008).

In summary, this research investigates how conclusions of RAs produced in Spanish by Slovene researchers, and Slovene and Spanish researchers in their native languages, are structurally organized with respect to the moves and steps of the proposed conclusion model. After describing our corpus data and our method of analysis, we present the results and discussion of our research, finishing with a conclusion that summarizes the main findings and takes into account the pedagogical implications of this investigation.

(2010), which deals with the use of modal verbs; Fuentes Cortés (2013), who studies the Conclusions section in the discipline of history; or Mur Dueñas (2018), focused on the use of metadiscourse features in Business Management RAs written in English and in Spanish.

2 METHODOLOGY

2.1 Data selection

This is a corpus-based study using three subcorpora, created for the purposes of our investigation, one including RAs written in Spanish by Spanish investigators (Corpus ESP), one with RAs written in Slovene by Slovene experts (Corpus SLO) and one including RAs written in Spanish by Slovene researchers (Corpus ELE). Each corpus contains 12 RAs, adding up to a total of 36 for the whole corpus. We are aware that 12 is a small number of examples, but it should be taken into account that there are not many RAs written in Spanish by Slovene experts. Besides that, similar previous studies (such as Moritz, Meurer and Dellagnelo 2008 or Mur Dueñas 2010) were carried on with as many RAs as in our investigation. This same corpus was also used in a previous investigation (Santiago and Heredero 2018) analysing Introductions.

In order to create a corpus as comparable as possible, we followed the criteria established by Moreno (2008). Therefore, besides the genre of RA we limited the topic of the texts to Linguistics and Applied Linguistics. The length of the articles goes from 3,750 words to 10,000, and all of them were published between 2010 and 2016. This also explains the small number of texts and authors included in the corpora, since there were not many RAs written in Spanish by Slovene investigators during this period of time. Finally, the research articles for Corpus ESP and Corpus SLO were taken from three different journals, while for Corpus ELE we needed to take them from five journals because of the small number of this kind of RAs, as already noted. However, the main criteria for selecting the articles was that the journals were indexed in the following bases: MLA, ERIH Plus and/or Scopus.⁵

2.2 Data analysis

Regarding the classification and analysis of the conclusions of each research article included in the corpora, we followed the model of moves and steps established by Yang and Allison (2003). The mentioned research analysed all rhetorical choices among the various sections, from Results to Conclusions (i.e. Results, Results and Discussion, Discussion, Conclusion or Pedagogic Implications sections). Nevertheless, we have only taken into account the structure of the Conclusion section due to our interest in the fact that this summarizes “the research

⁵ For full details of each research article included in the corpora, check the Appendix.

by highlighting the findings, evaluating and pointing out possible lines of future research as well as suggesting implications for teaching and learning” (Yang and Allison 2003, 380). However, we found that some important steps were missing in this model for the purposes of our investigation. Thus, we decided to add a few modifications that were present in the model proposed by Moritz, Meurer and Dellagelo (2008), itself based on Gnutzmann and Oldenburg 1991. As result of this combination, the model that we used in our analysis was as follows:

- | | |
|---------|--|
| Move 1. | Summarizing the study |
| Move 2. | Evaluating the study |
| Step 1. | Indicating significance/advantage |
| Step 2. | Indicating limitations |
| Step 3. | Evaluating methodology |
| Move 3. | Deductions from the research |
| Step 1. | Making reference to previous research ⁶ |
| Step 2. | Recommending further research |
| Step 3. | Drawing pedagogic implications/applications ⁷ |

Figure 1. Moves and steps in conclusion sections based on Yang and Allison (2003), Moritz, Meurer and Dellagelo (2008) and Gnutzmann and Oldenburg (1991)

Following this model of moves and steps, each RA included in the corpora was manually analysed twice by each of the investigators, since our goal was “to identify the rhetorical steps in a genre and the most salient signals leading to their interpretation” (Moreno and Swales, 2018, 42). There was a period of two months between the two analyses, so that the validity and reliability of the results were higher. Regarding Corpus SLO, since it is written in a foreign language for both of the investigators, an extra investigator, a native speaker of Slovene, analysed it. The level of analysis was usually the sentence, but we took into account even smaller units if we considered that they were realizing a certain step, since “we were aware that a segment of text might have more than one function” (Yang and Allison 2003, 371). We restricted the analysis to the presence of certain structures that realize a move or a step. Examples of every fulfilled move and step for each of the corpus are presented below, with the structures realizing the step shown in bold:

6 Step added from Moritz, Meurer and Dellagelo (2008) and Gnutzmann and Oldenburg (1991).

7 Step modified from Moritz, Meurer and Dellagelo (2008) and Gnutzmann and Oldenburg (1991).

Move 1. Summarizing the study

“**Se ha llevado a cabo un análisis** lingüístico de nombres de marca españoles.” (ESP 01, 86)

“**El presente trabajo ha presentado** la teoría de la cooperación e implicaturas conversacionales de Grice [...]” (ELE 06, 84)

“**V naši raziskavi [...] smo preverili**, kako se polprofesionalni prevajalci znajdejo pri [...]” (SLO 05, 60)

*Move 2. Evaluating the study**Step 1. Indicating significance/advantage*

“**La acumulación de evidencias** de la validez que se ha descrito hasta aquí **viene a demostrar que** [...]” (ESP 11, 108)

“**El análisis** del léxico disponible de los estudiantes eslovenos **pone de relieve** el grado de convergencia [...]” (ELE 09, 75)

“**Ugotavljamo, da** čeprav se starši [...]” (SLO 02, 202)

Step 2. Indicating limitations

“**Algunas limitaciones que presenta este estudio pueden hallarse en** la población sobre la que [...]” (ESP 02, 26)

“Además, el hecho de que la lengua española ofrezca tantas posibilidades de expresión **no facilita la tarea de** delimitar conceptos y funciones sintácticas” (ELE 10, 159)

“**Vzorec je sicer premajhen, da bi lahko** delal posplošitve, saj je le 4 CIU-TI anketirancev navedlo, da se ukvarja s tolmačenjem.” (SLO 04, 19)

Step 3. Evaluating methodology

“Asimismo, y **con vistas a obtener unos datos más completos** que puedan servir para [...] **al análisis cuantitativo se añadirá otro** de corte cualitativo” (ESP 10, 149)

“[...] **los problemas** que pueden tener los jueces a la hora de tomar la decisión sobre los puntos de corte [...] **[lo] hemos experimentado en nuestro proceso de calibración.**” (ELE 04, 320)

“**Model je nastal na podlagi dolgoletnih prevajalskih izkušenj avtorice** in njenega raziskovalnega dela [...]” (SLO 06, 122)

Move 3. Deductions from the research

Step 1. Making reference to previous research

“**En Ruiz (2014) y Ruiz (en prensa) se ofrece** una completa presentación de este modelo [...]” (ESP 03, 49)

“Con esto se confirman las características de los prototipos **según Kleiber (1995) [...]**” (ELE 08, 161)

“Različnih izrazov sloganov ter njihovih variant in modifikacij ne najdemo samo v časopisnih naslovih, **kot to obravnavata Korošec (1978) ter Kalin Golobova (2008) [...]**” (SLO 08, 17)

Step 2. Recommending further research

“Con respecto a la fraseología también **debería ser objeto de futuros estudios** el papel que desempeña [...]” (ESP 05, 107)

“**Sería interesante investigar** la recepción de la literatura traducida entre los lectores eslovenos [...]” (ELE 07, 64)

“**Vsekakor bi v zvezi z manjšalnostjo potrebovali več kvantitativnih in statističnih analiz**, zasnovanih na [...]” (SLO 07, 112)

Step 3. Drawing pedagogic implications/applications

“Con la descripción detallada de la sección 3, **se ha posibilitado que** una persona conocedora de la estructura de una PL pueda interpretarlas sin necesidad [...]” (ESP 06, 68)

“De este modo, esta investigación revela las palabras más disponibles entre los españoles y que los estudiantes eslovenos desconocen y que **deben ser enseñadas en la clase de ELE** en Eslovenia.” (ELE 12, 17)

“[...] **je nujno, da se** dejstva, da slovenščina v prevodih ni enaka slovenščini v izvorniki, **zavedamo, in da ga upoštevamo** tako **pri pouku** prevajanja kot pri pouku materinščine.” (SLO 10, 40)

3 RESULTS AND DISCUSSION

In Table 1 it can be noticed that both the interval and average length of the articles are similar in the corpora, despite Corpus ESP being the longest, followed by Corpus ELE and then Corpus SLO. Even so, although Corpus SLO is the shortest, it does not have a relevant influence in Corpus ELE. Referring to Conclusions, these are much longer in Corpus ESP or ELE (in addition to having a much wider range) than in Corpus SLO: in Corpus ELE or ESP Conclusions

account for an average of 6.96% or 6.31% of the total length of the articles, respectively, with 5.11% for Corpus SLO. In any case, in terms of RAs and Conclusion size, we can conclude that Slovene specialists in Spanish prefer to make more extensive Conclusions than their colleagues in their native language, which we interpret as a rhetorical influence from Spanish.

Table 1: Length of the RAs and the Conclusions

	CORPUS ESP	CORPUS ELE	CORPUS SLO
RAs number	N=12	N=12	N=12
Interval number of words in the RAs	4,803–9,794	3,771–9,541	5,252–8,122
Average number of words in the RAs	6,869.25	6,477.16	6,280.58
Interval number of words in the Conclusion	206–1,172	146–1216	102–587
Average number of words in the Conclusion	434.08 (6.31%)	451.33 (6.96%)	321.41 (5.11%)

With respect to Table 2, it illustrates the results and distribution of moves and steps for the Conclusion sections in relation to the presence of rhetorical moves in each of the RAs, i.e., it shows percentage of RAs in which moves and steps were used as well as total percentage of all moves together with the total number. The first thing that attracts our attention is that although Table 1 showed that Conclusion sections were much longer in Corpus ESP, Corpus ELE is the one that has the least moves (58.33%) and steps (34.52%), considering total moves and steps. Likewise, the total number of steps in Corpus ESP is higher than in Corpus SLO or Corpus ELE, what indicates that Spanish authors are more used to the moves and steps of the Conclusion section, or at least their rhetorical strategies are closer to Anglo-Saxon standards.

Table 2: Results and distribution of moves and steps

	CORPUS ESP	CORPUS ELE	CORPUS SLO
Move 1			
Summarizing the study	5 (41.6%)	1 (8.3%)	4 (33.3%)
Move 2			
Evaluating the study	12 (100%)	11 (91.6%)	12 (100%)
Move 3			
Deductions from the research	11 (91.6%)	9 (75%)	12 (100%)
Total number of moves	28 (77.77%)	21 (58.33%)	28 (77.77%)
Average number of steps in RAs	4.08	2.5	3.416
Total number of steps	49 (58.33%)	29 (34.52%)	41 (48.8%)

On the other side, Move 1 (*Summarizing the study*) is the least favoured move in all corpora: Corpus ESP (41.6%), SLO (33.3%) or ELE (8.3%). Its function is “to provide a brief account of the main points from the perspective of the overall study” (Yang and Allison 2003, 382) and it does not have any steps. Our results coincide with Moritz, Meurer and Dellagnelo (2008) or Amnuai and Wannaruk (2013), and we can interpret this as the writer’s reluctance to repeat what has been already included in the RA summary. However, this shared finding is limited to the mentioned studies (all three in the field of Applied Linguistic). In other fields (i.e. Natural and Social Sciences), the results have been completely different (Aslam and Mehmood 2014 or Tabatabaei and Azimi 2015), and the use of this pattern is more settled.

Table 3: Results and distribution of steps from move 2

MOVE 2	CORPUS ESP	CORPUS ELE	CORPUS SLO
Evaluating the study			
Step 2.1 Indicating significance/ advantage	12 (100%)	10 (83.3%)	12 (100%)
Step 2.2 Indicating limitations	4 (33.3%)	2 (16.6%)	2 (16.6%)
Step 2.3 Evaluating methodology	5 (41.6%)	1 (8.3%)	4 (33.3%)
Total number of steps	21	13	18

Unlike Move 1, Move 2 (*Evaluating the study*) is the rhetorical move with the most frequency, as we can observe in Table 3. Its objective is to evaluate the overall study. The analysis distinguishes between three steps. The first step, *Indicating significance/advantage* (Step 2.1), is the most favoured in all corpora, given that one of the goals of any research is to point out its strengths and highlight its findings. These results seem to confirm previous investigations in contrastive rhetoric (*inter alia*: Amnuai and Wannaruk 2013; Aslam and Mehmood 2014; Ciapuscio and Otañi 2002; Fuentes Cortés 2013; Moritz, Meurer and Dellagnelo 2008; Reza Adel and Ghorbani Moghadam 2015; Tabatabaei and Azimi 2015; Yang and Allison 2003). The second and the third steps, *Indicating limitations* (Step 2.2) and *Evaluating methodology* (Step 2.3), are more problematic due to the low frequency (especially in Corpus ELE, with only two and one occurrences, respectively). Surprisingly, if we just focus on the total steps of move 2, corpus ELE is the one with the least frequency (13 steps) compared to corpus ESP (21 steps) and corpus SLO (18 steps). It is striking that although corpus ELE has the longest Conclusions, there is no correlation with the number of moves and

steps included, which it could imply that Slovene authors who write in Spanish do not use these rhetorical patterns as much in their RAs. Nevertheless, we have to consider the number of different authors as a problem when establishing the corpora: Corpus ESP has 18 different authors, SLO 12, while corpus ELE has only seven, due to the lack of Slovene authors⁸ who publish in Spanish. In view of this context, the disparity concerning Corpus ELE is understandable, albeit a research limitation of the present investigation. On the other hand, a previous investigation focusing on Introduction sections carried out with the same corpora as in the present research (Santiago and Heredero 2018, 278–79), revealed that step 3.4 (*Summarising methods*) had a higher frequency in Corpus ELE (91.6%) and Corpus SLO (75%) in contrast to Corpus ESP (50%). If we compare this with the results obtained in the step 2.3 (*Evaluating methodology*) of the Conclusion section, where Corpus ELE had the lowest frequency (8.3%) followed by Corpus SLO (33.3%), we find an inverse relationship that we could interpret as a reluctance by the Slovene authors to refer back to methodology.

However, our results do not differ from Yang and Allison 2003, Amnuai and Wannaruk 2013, Aslam and Mehmood 2014 or Reza Adel and Ghorbani Moghadam 2015, which suggests that this reluctance should be taken into account in teaching/learning academic writing, as well as by future investigators, since authors should distinguish methodology presentation from methodology evaluation. There are enough studies that have already verified the adequacy and pedagogic utility of Yang and Allison's model, and steps like 2.2 or 2.3 are indispensable to achieve investigations capable of questioning their own validity and/or reliability.

Table 4: Results and distribution of steps from move 3

MOVE 3 Deductions from the research	CORPUS ESP	CORPUS ELE	CORPUS SLO
Step 3.1 Making reference to previous research	6 (50%)	6 (50%)	7 (58.3%)
Step 3.2 Recommending further research	6 (50%)	5 (41.6%)	4 (33.3%)
Step 3.3 Drawing pedagogic implications/applications	11 (91.6%)	4 (33.3%)	8 (66.6%)
Total number of steps	23	15	19

⁸ The population of Slovenia is estimated at 2.08 million, according to the Statistical Office of the Republic of Slovenia (<https://www.stat.si/StatWeb/en>, 26.2.2019).

With regard to move 3 (*Deductions from the research*), the results reveal a high frequency in all corpora (SLO with 19, ESP with 23 and ELE with 15), as shown in Table 4. This is understandable, since authors use this move to elaborate suggestions from their research results in order to “solve the problems identified by the research, pointing out the line of further study or drawing pedagogic implications” (Yang and Allison 2003, 383). Nonetheless, taking into consideration the total number of steps, Corpus ELE has the least steps of all (ESP has 23 steps, SLO 19 and ELE 15), which agrees with what we already mentioned for move 2.

Three steps build move 3. The results in step 3.1 (*Making reference to previous research*) do not show large differences among corpora (Corpus SLO 7 steps, ESP and ELE 6), although the percentage is just around 50%. However, we could explain the low number by the fact that some authors prefer to make such references in other sections of the paper, such as the Results section. Anyway, we consider it relevant to compare a study’s results with those of other investigations in the Conclusion section, as a way to highlight the significance of the work, framing it within international research lines as another of the possible findings from the research.

Something similar to the results for step 3.1 occurs with 3.2 (*Recommending further research*) in all corpora (ESP 6 steps, ELE 5 and SLO 4). Once again, this demonstrates a partial implantation of the Anglo-Saxon model in these academic cultures, a fact that is extrapolated to the whole model analysed in this work. Nonetheless, our case is comparable with previous investigations (such as Amnuai and Wannaruk 2013, Aslam and Mehmood 2014 or Reza Adel and Ghorbani Moghadam 2015), which considered this step optional.

Finally, step 3.3 (*Drawing pedagogic implications/applications*) was partially modified on the basis of the Moritz, Meurer and Dellagnelo model (2008) and Gnutzmann and Oldenburg (1991), adding ‘applications’ to the Yang and Allison model (2003). The goal of this step is to “allow authors to state the pedagogical significance of the study or indicate necessity for pedagogic changes” (Amnuai and Wannaruk 2013, 7). For this step Corpus ESP has 11 out of 12 occurrences, representing 91.6%, in contrast with SLO (8 out of 12, 66.6%) or ELE (4 out of 12, 33.3%). This last step reveals cultural and rhetorical specific variations: while Spanish authors evaluate this step as almost indispensable, the Slovene ones consider it nonessential (as well as Persian authors in Tabatabaei and Azimi 2015 and Reza Adel and Ghorbani Moghadam 2015, Pakistani researchers in Aslam and Mehmood 2014, or Thai investigators in Amnuai and Wannaruk 2013). This fact reveals again that Spanish authors of RAs are more familiar with these rhetorical patterns than Slovene authors, although we cannot forget the very small number of Slovene authors publishing in Spanish, a fact that is responsible for the disparity concerning Corpus ELE and a research limitation of the present investigation, as mentioned before.

4 CONCLUSION

The main purpose of the present study was to identify the rhetorical organization of the Conclusion sections of RAs written in Spanish and Slovene by native speakers, as well as RAs written in Spanish by Slovene authors. For the analysis of the different patterns of the Conclusion section, we followed the model established by Yang and Allison (2003), Moritz, Meurer and Dellagnelo (2008) and Gnutzmann and Oldenburg (1991), as well as the principles used for this kind of analysis settled by the field of intercultural rhetoric (Connor and Moreno, 2005; Moreno, 2008; Connor 2011; Moreno and Swales 2018).

The empirical data was based on comparable corpora compiled *ad hoc* for our research aim. However, we are aware of some limitations, especially the low number of RAs in the corpora and especially the low number of Slovene authors in the corpus ELE, due to the scarcity of Slovene authors writing in Spanish, all of which makes our study difficult to generalize. For this reason, further investigations are necessary to replicate and confirm the results presented here. Even so, we agree with Tabatabaei and Azimi (2015) regarding further investigations. These authors suggested there is a need to analyse all sections included within RAs in order to establish “the structural relation of each section to other sections”, and thus be able to “determine how sections are related to each other” (Tabatabaei and Azimi 2015, 378).

In defiance of all its limitations, this study confirmed previous research based on the field of intercultural rhetoric (cf. Amnuai and Wannaruk 2013; Aslam and Mehmood 2014; Moritz, Meurer and Dellagnelo 2008; Reza Adel and Ghorbani Moghadam 2015; Tabatabaei and Azimi 2015; Yang and Allison 2003). Despite evidence of the adequacy and the pedagogic utility of Yang and Allison model, our results also present an unbalanced distribution of rhetoric patterns, which shows that writers still maintain their differences during the process of writing their concluding sections.

Nonetheless, there were some very notable differences in the frequency of moves and steps in the three corpora of this analysis. Spanish writers proved to be more familiar with these rhetorical patterns, since corpus ESP had the most number of steps, followed by corpus SLO and corpus ELE (it is notable that corpus ELE has the lowest number of steps, although it has the longest conclusions). We cannot forget as a possible reason for this the influence of the journals’ and reviewers’ policies and views on the articles published in individual journals, since some editors/reviewers might demand a certain structure, while others are perhaps more flexible. However, all corpora (ESP, SLO and ELE) showed steps 2.2 (*Indicating limitations*), 2.3 (*Evaluating methodology*) and move 1 (*Summarizing the study*) were the least favoured. These results may persuade Spanish and Slovene authors

of the importance of Conclusion section when writing RAs, considering it is an essential part of the research in which writers can show the importance, significance and benefits of their findings, although we cannot forget the fact that all these articles were indeed published and thus successfully passed the editorial procedure. Therefore, we think it would be useful for writers to be more familiar the different patterns in the rhetorical organization of the Conclusion section. This fact underlines the need for specific investigations to focus on the teaching/ learning of rhetorical patterns within the context of Academic Writing classes.

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Appendix

Corpus ESP

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Corpus ELE

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Corpus SLO

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CHAPTER 5

The French research article: An analysis of the current state of affairs in the domains of linguistics and the humanities

Mojca Schlamberger Brezar

Abstract

This paper discusses the structure of the French research article. The first part of this paper provides an overview of the guidelines for writing research articles in French and Francophone contexts. In the second part of the paper, an analysis of 47 French articles from the fields of linguistics, language teaching, literary studies, and translation studies is presented. The analysis reveals the macrostructure of the articles (the division into the introduction, body, and conclusion, as well as referencing and the bibliography section) and the microstructure of the individual sections, such as the most frequent textual prototypes, modality, and authorial presence. We show that the individual sections differ mostly with regards to macrostructure and citation style. The results reveal that the articles from the domain of literary studies are less structurally

rigid, while the linguistics articles are more in line with the trends from the natural sciences. A characteristic feature of all the analysed articles is authorship – individual authorship is by far the most common.

Keywords: research article, French, textual prototype, macrostructure, microstructure

Izveleček

V članku obravnavamo zgradbo francoskega znanstvenega članka. V prvem delu podajamo pregled navodil za pisanje znanstvenega članka, ki izhaja iz francoskega oziroma frankofonega okolja. V drugem delu analiziramo 47 francoskih člankov s področja lingvistike, didaktike poučevanja jezika, literature in traduktologije. Analiza odkriva makrostrukturo člankov (delitev na uvodni, osrednji in sklepni del, prikazi, citiranje in bibliografija), pa tudi mikrostrukturo posameznih delov, kot je prototip besedilnega tipa, ki je najpogosteje uporabljen, modalizacija povedanega in oseba, ki jo pisec upošteva za pisanje članka. Vidimo, da pri različnih področjih raziskave prihaja do določenih razlik med pisanjem člankov, predvsem pri makrostrukturi in citiranju. Kaže, da so članki s področja literarnih raziskav bolj svobodni, medtem ko članki s področja lingvistike sledijo trendom, ki veljajo tudi za naravoslovne znanosti. Posebnost vseh analiziranih člankov pa je avtorstvo – prevladuje individualno avtorstvo.

Ključne besede: znanstveni članek, francoski jezik, besedilni prototip, makrostruktura, mikrostruktura

1 INTRODUCTION

Studies focusing on the structure of the research article in French approach this topic in different ways: in the form of guidelines on writing research articles aimed at future scientists (Robitaille and Vallée 2017; Saint-Luc 2012) or by means of a textual analysis of the article and its macro- and microstructures. The present article will encompass the following: first, an overview and analysis of several sets of guidelines on research article writing, second a review of the literature, and finally an analysis of a corpus of 47 research articles from four disciplines in the humanities (linguistics, language teaching, literary studies, and translation studies).

In the analysis of the macrostructure, the investigation will focus on whether the articles analysed contain all the sections, characteristic of the research article. The analysis of the microstructure will be based on the work of Adam (1997), who used discourse analysis, as well as on prescriptive style guides, which to an extent define the writing style and the use of the general as well as specialized language; and on our own corpus analysis.

As a final point, the results of the analysis will be contrasted with the writing instructions and non-cultural differences between different languages, as well as between different disciplines. Slovenian research articles, which traditionally do not differ strongly from the French practice, although they increasingly show the stylistic influence of the Anglo-Saxon tradition, will also be considered briefly from a contrastive perspective.

2 FRENCH GUIDELINES FOR WRITING RESEARCH ARTICLES

It is possible to find a number of guidelines for writing research articles on the Internet. These are usually included among guidelines aimed at young/novice researchers and undergraduate and post-graduate students who are at the beginning stages of writing their theses. Two French-language examples, one from France (Saint-Luc 2012) and one from the Francophone part of Canada (Robitaille and Vallée 2017), were chosen for our analysis.

The guidelines begin with pragmatic advice along the following lines: academic publishing is important for anyone who wants to work in academia;¹ a researcher has to publish at all stages of research and should not wait until the research has

1 « Les publications sont très importantes pour ceux qui veulent travailler à l'université » (Saint-Luc 2012).

been fully carried out;² academic writing style differs from applied and creative writing in the sense that academic writing demands concise, direct, and short sentences; there exist precise rules on how to present research results and which part of the research should be in focus.³

The guidelines highlight three different types of research – qualitative, quantitative, and mixed-methods – since the type of research usually determines the structure of the article (Robitaille and Vallée 2017; Saint-Luc 2012). In quantitative research, the focus is generally on the results of the descriptive analysis as well as on the results of more complex analyses (e.g., the target and control groups in an experiment) – in such research, the inclusion of tables and other visual materials (*supports visuels*) is desirable (Robitaille and Vallée 2017).

Visual materials and tables are thus an important part of a research article. They are usually located in the results section and are directly integrated into the text itself (e.g., “Table 1 shows the results,” etc.). Most printed journals publish only a limited number of tables and visual materials (Robitaille and Vallée 2017), while more can be published in an electronic version of the same (*ibid.*).

In qualitative research, the data must be presented in relation to the hypotheses; such research involves a selection of examples that best represent the answers to a specific set of questions. In addition, the synthesis can be supported with matrices, tables, etc., but the structure of article presenting qualitative research is less standardized than that of articles presenting quantitative research (Robitaille and Vallée 2017). Qualitative research articles also give researchers more creative freedom (*ibid.*).

A research article must contain a central section comprising the discussion. The aim of this section is to establish a connection between the hypotheses presented at the beginning of the article and the research results, as well as to interpret them (Robitaille and Vallée 2017). In this section, the author can also compare the results that have been obtained by other researchers and presented in the related work (*ibid.*). In French articles, this section usually is not referred to as the discussion, but is divided into several subsections that summarize the individual stages of research.

The conclusion, which can be explicit (and explicitly labelled with the term *conclusion*) or implicit, follows the discussion. In some journals, a section labelled conclusion is required, in others it is not; nevertheless, the last part of the research article has to summarize the research question and/or the motivation and results.

2 « Un chercheur doit publier à tous les stades de sa recherche et ne pas attendre d'être arrivé à sa fin » (Saint-Luc 2012).

3 « L'écriture scientifique possède, en effet, son propre code qui diffère de celui qui s'applique à l'écriture utilitaire ou à l'écriture créative. L'écriture scientifique requiert des phrases courtes, concises et directes (...) est également régie par des règles précises concernant la présentation et les contenus à aborder » (Robitaille and Vallée 2017).

A good conclusion should highlight the importance of the study. Robitaille and Vallée (2017) propose that researchers should always determine what they want the readers to remember and what kind of message should be conveyed,⁴ when writing the conclusion.

References are an integral part of all research articles, while the citation style is determined by the journal style guide or by the disciplinary conventions. For instance, literary scholars usually cite differently than linguists – that is, they place in-text references in footnotes instead of using the author-date style (see the analysis), which shows that such a citation style is unique to French articles, even in comparison to Slovenian articles, where the same citation style is consistently used in literary studies as well as other disciplines (Hladnik 2002).

These are the key sections of the research article, and there is little cross-disciplinary or cross-linguistic variation when it comes to the macrostructure. However, individual disciplinary community approaches to academic writing must also be taken into consideration. We can see that these approaches differ somewhat between French-Canadian and French researchers in that the former are more influenced by the Anglo-Saxon tradition (L'Encyclopédie canadienne, n. d.) than the latter researchers, whose writings have their own unique features (Saint-Luc 2012).

The style of research articles is also well-defined, and is a feature of the genre rather than of the language. The French author Florence Saint-Luc describes the style of academic writing as *s'acculturer à l'écriture d'un article scientifique*, which can be paraphrased as “one must adopt the culture of academic writing”. She also emphasizes the importance of being familiar with the established practice of academic writing (Saint-Luc 2012), as mastering the style enhances the comprehensibility of the article.

Academic writing is stylistically rooted in logical reasoning (« Le style doit être le plus logique possible! », Saitluc 2012), which stems from the traditional Cartesian approach to analysis and synthesis (Descartes 1637, 2011). With respect to text typology, Florence Saint-Luc claims that the introductory section is usually descriptive, whereas the discussion that follows in the central part of the article is argumentative. For the abstract, Saint-Luc proposes that a concise style that enables quick reading should be adopted.

The French-Canadian authors Robitaille and Vallée (2017) cite Anglo-American authors, who advocate the use simple words and short sentences, as well as a clear outline of the content in subsections and paragraphs, based on the “one idea, one paragraph” principle. The authors also believe that writers should dedicate a substantial amount of attention to linking the paragraphs. This seems to be the

4 In their words: « Pour rédiger cette section, il peut être utile de se poser la question suivante: En fin de compte, que voulez-vous que le lecteur retienne? Quel serait le message à retenir? »

stylistic influence of English, since French authors do not advocate the use of short and concise sentences, but rather highlight the importance of using connectors (see Saint-Luc 2012 below). The use of the active voice instead of the passive is recommended, as well as the use of the present tense with the sole exception of the abstract, where the use of the past tense is recommended (Robitaille and Vallée 2017, 27). Moreover, the authors are encouraged to clearly define the concepts discussed, and use the same term for the same concept consistently.

Research article writing also entails revision and correction, but a more detailed account of this stage is beyond the scope of the present article. In the last 12 years, the publishing of research articles has become the main way to measure research impact. However, according to the French agency AERES (*Agence de l'évaluation de la recherche et de l'enseignement supérieur*), books remain an important type of research publication primarily in the humanities.⁵ Regardless of the form the publication, clarity and logical sentence structure are highlighted, above all in the abstract which is to be written in a style that enables quick and easy reading (Saint-Luc 2012). The French are adapting to the Anglo-American system more slowly than the rest of Europe, and continue to regard their own publications as the most central, especially in the humanities (without any attempt to assign points), while Canadians tend to be more integrated in the American research trends, which set the academic standard for the rest of the world. French academia continues to appreciate papers published in important local journals not indexed in international citation databases. This, however, is a problem for international researchers who study the French language, since such publications do not yield much research impact even though they help the researchers gain recognition in French academia. In recent years, the situation has been changing, as even French (as well as Slovenian) researchers can no longer ignore the Anglo-American research article structure. For instance, Saint-Luc (2012) discusses the IMRAD structure (Introduction, Methods, Results, and Discussion), which is also referred to by Hladnik (2002) in his style guide for Slovenian authors.

To sum up, the guidelines of French-Canadian and French authors (Robitaille and Vallée 2017; Saint-Luc 2012) suggest that research articles should go through the process of revision. Such a revision is to, an extent, uniform. How such uniformity affects the text will be shown by the analysis presented in the central part of the article. Metatexts on research articles, referred to as academic writing (*écriture académique* in French), generally take either the historical perspective or that of text analysis as their starting points. The topics of the research article and its structure have been addressed by several Francophone authors, including Pollet (1997), Fernández, Liffourrena (2016), and Vold (2008), as well as the Lidilem research group at the Université Grenoble Alpes (Tutin et al., 2009). Pollet (1997) focuses

5 « Pour de nombreuses disciplines des sciences humaines et sociales, la production des livres reste la forme majeure de l'oeuvre scientifique. » (<https://www.aeres-evaluation.fr/>)

on the text types in research articles, while Fernández and Liffourrena (2016) analyse French and Spanish abstracts from a contrastive perspective. In addition, the authors highlight the use of specific terminology characteristic of a particular field, and investigate modality (Vold 2008), above all from a contrastive perspective.

3 MATERIALS AND METHODS

A corpus of 47 research articles published in various humanities disciplines was used in the analysis. The corpus comprises seven articles from *Langue française*, March 2012, Larousse, and eight articles from *Langages* 184, December 2011, Larousse), as well as the collected volume *Le proche et le lointain / The Near and the Far. Enseigner, apprendre et partager des cultures étrangères / Teaching, Learning and Sharing of Foreign Cultures* (Paris: Éditions des archives contemporaines), which contains articles on linguistics, translation studies, language teaching, and literary studies (18 articles), and the collected volume *Cahiers Claude Simon 10–2015* (Traduire Claude Simon), which contains articles on translation studies and literary studies (14 articles).

In our corpus analysis of the 47 articles, the macrostructure was analysed from the perspective of the explicit presentation of the individual sections, as well as the typical stylistic features (or rather the microstructure) of each section, immediately discernible from the subheadings corresponding to the above mentioned IMRAD structure (Saint-Luc 2012). The focus of the analysis was on the following textual features, which the authors above do not explicitly discuss even though they might refer to them in passing: the prototypical textual sequences in the analysed texts (cf. the following section), the basic constituent parts of the article – that is, the introduction, the body, and the conclusion – and their incorporation into the text, as well as the use of modality, which also covers the use of personal forms expressing authorial identity.

In addition, citation styles and the elements of the microstructural analysis characteristic of academic texts were examined: expression of modality, above all epistemic modality, including the author's presence in the text (as a first person singular or plural narrator), modality markers and the use of connectors.

The description of textual prototypes is based on the work of Adam (1997), who adapted Werlich's (1975) analytical framework. The German text linguist Egon Werlich (1975) proposed five text types (*Texttypen*) – description, narration, exposition, argumentation, and instruction. Adam's typology of prototypical textual sequences (1997) includes Werlich's (1975) descriptive, narrative, argumentative, and expository sequences, while the instructive sequence is analysed as a subtype

of the descriptive sequence. Adam (1997, 28–35) outlines prototypes based on the structure of sequences characteristic of each type of text, since texts comprise sequences which are relatively autonomous. The text is structurally heterogeneous, comprising various prototypical sequences (Adam 1998, 31).

4 PROTOTYPES OF TEXTUAL SEQUENCES IN AN ACADEMIC TEXT

From the perspective of discourse analysis, Adam (1997) primarily discusses textual prototypes, concretely the descriptive, argumentative and expository texts in a typical sequence. For the purposes of the present analysis, Adam's (1997) approach will be adopted.

4.1 Descriptive text

A descriptive text primarily involves the ascription of features to a particular entity that is described: Adam (1997, 85–95) lists four descriptive procedures (or rather macro operations) which are at the heart of this prototype: establishing the entity, which he labels with the French term *ancrage* ('rooting/establishing'); ascribing the features to this entity (French *affectation* 'ascription'); describing the entity from various perspectives (French *aspectualisation*); and rewording the same content by using different words (*reformulation*). Below, a description of these procedures is provided on the basis of an example taken from one of the articles in the corpus. Example 1 involves the so-called *ancrage* procedure, since it establishes the key entity *la rédaction d'une lettre*, while examples 2 and 3 constitute the *affectation* procedure in which relevant features are ascribed to the entity.

- (1) Dans l'enseignement des langues étrangères, la rédaction d'une lettre constitue toujours d'un cours ou d'exercices écrits. (Comment correspond-on en coréen; Le proche et le lointain, 83)

'In foreign language teaching, the writing of a letter represents a course or a written exercise.'

- (2) La plupart des unités d'une langue dont le sémantisme a été mis en rapport avec l'évidentialité sont des unités à plusieurs valeurs. (Langue française, 17)

'Most of the linguistic units whose meaning has been linked with the expression of evidentiality are units with several values...'

The entity is already established by the title. What follows is the stage in which the features are ascribed; in this case, ascription involves the verbs *être* ('be') and *avoir* ('have').

- (3) De plus, le conditionnel soulève un problème supplémentaire: la nature de la valeur dite « épistémique » est décrite différemment selon les linguistes. (Langue française, 17)

'The conditional raises an additional problem: the nature of the value called "epistemic" is described differently by linguists.'

4.2 Argumentative text

An argumentative text makes use of connectors in order to steer the presented theory towards a specific conclusion. Such a text can also involve substantiation, where all the arguments point towards a single conclusion and are introduced by causal connectors, or counter-argumentation, which is often introduced by adversative connectors of the *mais* type; in example 4 below, the adversative connector is *cependant* (see also Adam 197, 105–120; Schlamberger Brezar 2009).

Example 4 is a typical case of the argumentative prototype: the adversative connector *cependant* introduces the thesis (which by itself is a counterargument for the point made in the preceding paragraph, which we will not discuss at this point). What follows is the antithesis, introduced by *si d'un côté X, de l'autre Y*, the synthesis, introduced by the connector *or*, and finally the conclusion, introduced by the connector *donc*. The example also involves the use of the colon to introduce the consequence (a connector is not used in this case because the argumentative structure is explicit enough by itself). We can see here that the text is rich in its expression of causative and adversative relations, which are made explicit by connectors (*cependant, or, donc*) or the use of punctuation (:).

- (4) On remarquera, **cependant**, qu'il y a une petite zone d'ombre : si d'un côté, L. de Saussure et P. Morency (2011) posent (avec justesse) que le sens conjectural réside dans une croyance présente (e-INF₁) distincte de l'état de fait exprimé par le contenu propositionnel de ψ l'énoncé au futur, de l'autre, ils assimilent la persistance temporelle d'e (événement décrit par ψ) à la persistance dans le futur de la croyance e-INF₁. **Or**, il est dans l'absolu possible que l'intervalle temporel où *Je crois que P* est valide diffère de celui où P est valide (cf. *Je crois que Pierre était malade*); la persistance de e_ψ , jusqu'à e-INF₂ n'implique **donc pas ipso facto** qu'un hiatus temporel soit impossible entre e-INF₁ et e-INF₂. (Langue française, 124)

‘One will notice, however, that there exists a small grey area: if, on the one hand, L. de Saussure and P. Morency (2011) state (justifiably) that the conjectural sense lies in the present belief and is distinct from the state that is expressed by the propositional content of ψ the utterance in the future, on the other hand, they equate the temporal persistence of e (a written event described by ψ) with the persistence of the belief e -INF in the future. However, it is absolutely possible that the temporal interval where *I believe that P* is valid differs from *where P is valid* (cf. I believe that Peter was ill); the persistence of e_ψ up to e -INF₂ does not *ipso facto* imply that a temporal hiatus is impossible between e -INF₁ and e -INF₂.’

4.3 Expository text

Adam (1997, 127–138) argues that an expository text includes the following structural schema (Adam 1997, 132), where S_1 stands for the initial sequence, S_q corresponds to the sequence in which a question of reason (i.e., Why?) is asked, and S_e corresponds to the expository sequence (*sequence explicative*), which provides the answer to the *Why* question (i.e., Because):

S_1 Pourquoi ? → S_q Parce que → S_e

In the sequence, the Why and Because can be expressed implicitly, as shown by example 5 below.

- (5) A partir de l'analyse des manuels roumains de FLE, nous avons constaté qu'avant 1989 l'humour était mis au service de l'enseignement du français et qu'il était envisagé comme un moyen agréable d'apprendre une langue étrangère par le recours aux émotions qui désinhibent et stimulent l'imagination. Car la fonction cathartique du rire est bien connue depuis l'Antiquité et on peut l'utiliser avec succès en classe de langue pour libérer les enseignés des pressions et des contraintes exercées par l'enseignant et /ou les enseignés (...) (Le proche et le lointain, 172)

‘In the analysis of Romanian textbooks for French as a foreign language (FFL), we found that before 1989 humour was used as a device for teaching French, and it was seen as a pleasant way to learn a foreign language via emotions that disinhibit and stimulate the imagination. The cathartic function of laughing has been well known since Antiquity, and it can be successfully used in the classroom in order to free the students from the stress and constraints created by the teacher or other students.’

In the first part of example 5, it is possible to understand an implicit *Why*; the connector *car* (‘because’) in the next sentence is explicit.

4.4 Narrative text

Narrative sequences are less frequent in academic texts as they are more typical of fiction than non-fiction, and because they require the use of the past tense and involve changes in the described entity brought about by the temporal shifts in the narrative. A narrative in an academic text can hypothetically be used to present a historical overview (see the beginning of the article cited below (example 6), which is a narrative in the past tense). It is usually employed in the introduction but not in the main discussion:

(6) Né en Inde britannique (1925-2004), Ashfaq Ahmad a migré à Lahore à l'âge de vingt ans juste avant l'indépendance de l'Inde en 1947. Dès son enfance, il a commencé à écrire des nouvelleset, plus tard, il s'est mis à écrire non seulement des fictions, mais aussi des essais. (Le proche et le lointain, 48)

'Born in the British Indian Empire (1925–2004), Ashfaq Ahmad migrated to Lahore at the age of twenty just before Indian independence in 1947. Since childhood, he wrote news articles and later started writing not only fiction but also essays.'

5 THE CORPUS ANALYSIS OF THE RESEARCH ARTICLES

In this section, we will first focus on the macrostructure of the analysed articles, and subsequently on their microstructure.

5.1 Macrostructure of the research article

5.1.1 *The title*

Titles are generally long and describe the content of the article very precisely, because it is important that the reader is able to determine what the article is about from the title itself. Two examples of titles from the analysed corpus are given below:

(7) La parenthèse en suspens : notes sur la traduction italienne des Géorgiques (Cahiers Claude Simon, 169)

'The parenthesis in suspension: notes on the Italian translation of Georgiques'

- (8) Expériences de mobilité. Apports et limites des sciences sociales dans un dispositif institutionnel de formation en français langue étrangère (Le proche et le lointain, 18)
 ‘Experiences of mobility. The contributions and limitations of the social sciences within an institutional system of teaching French as a foreign language’

The length of the titles in the corpus varies between five and 29 words, with the average length being 11. Many titles (45%) are divided into a general part in which the article is placed in the relevant research domain and into a specialized part in which the content of the article is defined more specifically, as illustrated by the examples below. Of the 47 articles analysed, 21 contain such two-part titles. The general and specialized parts are often divided by a colon or full stop – 15 titles employ a colon in this dividing role, two employ a full stop, two articles do not contain any punctuation at all, in which case the beginning of the second part is capitalized (e.g., *L’italien ecco et les français voici, voilà Regards croisés sur leurs emplois dans les textes écrits*), while two titles contain a question mark.

Four examples in total contain a question mark in the title. Two of these employ the question mark to divide the general and specialized parts, while the other two already reveal the main research question in the title:

- (9) Décidément et décidamente : une évolution à deux vitesses ? (9 words)
 (Langages, 69)
 ‘Décidément and décidamente : a two speed evolution?’
- (10) A la fin, in fine, au final : qu'est-ce qui fait la différence, finalement ?
 (Langages, 111)
 ‘A la fin, in fine, au final: What makes a difference in the end?’

This is quite different from the Slovenian conventions (Hladnik 2002), although it is being increasingly used by Slovenian researchers fluent in French, because of the succinctness of expression (e.g., Schlamberger Brezar 2009).

5.1.2 *The introductory section*

The introduction includes a description of what the authors aim to present in the article, or, as we can read in the guidelines, « Introduction permet de décrire ce qui fait le problème » (Robitaille and Vallée 2017). Referring to the introductory section with the explicit title *Introduction* is frequent but not obligatory. Out of 47 examples, 25 contain an introductory section with an explicit title – the most

common is *Introduction* (22 examples), while other variants include *Préliminaires*, *Généralités* and *Prologue*. As many as 22 articles lack an introductory title; in such cases, the first paragraph or the entire first part (without the title) serves as the introduction.

The analysed articles show that the type of publication does not affect the macrostructure – in other words, the macrostructure is not prescribed by the journal. The distribution of explicit and implicit introductory titles is as follows: in the journal *Langages*, the title *Introduction* is used in four texts, while three texts are without a title; in the journal *Langue française*, *Introduction* is used in five texts, *Préliminaires* is used in one text, *Généralités* is used in one text, and in one text there is no explicit title; the collected volume *Le proche et le lointain* contains 13 articles with an explicit introduction and five texts without one; finally, the collected volume *Cahiers Claude Simon* is somewhat of an exception, as it contains a single article with an explicit introduction titled *Prologue*, while the other articles lack such a title (13 examples).

5.1.3 *The central section*

The central section of the article contains the discussion. The titles are varied and never correspond to the generic title *Discussion*, but rather range from general titles such as *Quelques détails* and *Trois niveaux d'analyse* to very specific ones, such as *Le traitement de l'adresse en malgache* and *Pour une traduction « philologique »*.

This section begins with a description of the research problem and continues with the discussion, ultimately leading to new findings. The section is usually divided into at least two parts: the first part includes a thorough description of the problem and of previous research, which means that the authors typically make use of descriptive sequences. Examples of titles used for this first part are *Un bref aperçu descriptif et historique* and *Quelques données*. This part is usually descriptive or explicative. Some articles only contain the first part and merely describe the problem (e.g., 1. *Description diachronique de décidément*, 2. *Description diachronique de décidamente*; *Langages*, 69–87), omitting the second part, while both sections are compared in the conclusion.

The second part of the central section contains the discussion which introduces new perspectives on the problem that is the focus of the work. The discussion usually employs the argumentative prototype. Some articles also contain a third part in the central section which synthesizes the first and second parts. However, there is no strict adherence to the IMRAD scheme (see also Hladnik 2002), which is typical of articles written by authors from the Anglo-Saxon tradition

and is nowadays used all over the world because of the widespread influence of the English language.

However, some articles from the domains of translation studies and literary studies are an exception, in that they contain historical overviews which typically employ narrative sequences. An example of a narrative introduction which shifts into a descriptive sequence is provided below:

- (11) En 2008, le premier cours au format MOOC a vu le jour à l'Université de Manitoba (Canada). Cette initiative pionnière a été conçue dans le cadre du connectivisme qui est une des théories d'apprentissage actuelles prenant en considération l'influence et les possibilités des TOC. Le trait-principal de cette approche est la constitution autonome de la connaissance, basée sur la recherche de ressources accessibles de leur mise en relation par les étudiants eux-mêmes, les enseignants n'ayant qu'un rôle de supervision ou d'orientation du processus de « découverte » dans la direction souhaitable. (Le proche et le lointain, 206)

'In 2008, the first course in the MOOC format was launched at the University of Manitoba (Canada). This pioneering initiative was conceived in the context of connectivism, which is one of the current theories of learning that takes into consideration the influence and possibilities of TOC. The basic characteristic of this approach is the autonomous creation of knowledge, based on searching for available resources or their synthesis by the students themselves, while the teachers only supervise and guide the process of "discovery" in the desirable direction.'

The central part of a research article also provides concrete illustrations of the claims in the form of figures, which range from quotations to tables and other types of figures. Out of the 47 articles analysed, 40 contain figures in the form of textual examples (36), tables (six), other schemata (four), photographs (three) and illustrations (three). Seven articles contain no examples, tables or figures in general; instead, they just contain the discussion.

5.1.4 *The concluding section*

This section can be explicitly titled as *Conclusion*, *Conclusion partielle*, or *Bilan d'expérience* (37 examples). In ten examples, this section lacks an explicit title. Articles from the domains of literary theory and translation studies in the collected volume *Cahiers Claude Simon* are again an exception in this regard, as all the examples of implicit conclusion except for one are from this collected volume.

The conclusion contains a brief overview of the main findings and lists potential future perspectives (see examples below):

- (12) Il faudrait donc établir une banque des données sur la manière dont on a appris à apprendre dans les cultures données. (*Le proche et le lointain*, 124)
 ‘It would therefore be necessary to establish a database on how we learned to learn in the given cultures.’
- (13) Sur le plan pédagogique, les enseignants devraient donc développer avant tout – sans ou avec un manuel, mais par des activités réellement authentiques et motivantes – la sensibilité interculturelle ainsi que la conscience de l’importance de celle-ci chez leurs étudiants. (*Le proche et le lointain*, 110)
 ‘At the pedagogical level, teachers should, above all else – with or without a handbook, but with truly authentic and motivating activities – develop intercultural sensitivity and raise awareness of its importance amongst their students.’

5.1.5 Citations and bibliography

Citations employ the author-date style within the text (e.g., the journal *Langages*, C. Rossari et al. 2007, 207), while the bibliography is listed at the end of the article. This system has been adopted by the journals *Langages* and *Langue française*, as well as the collected volume *Le proche et le lointain* (33 articles out of the total 47). The journal *Cahiers Claude Simon* is an exception, as in-text citations are included in footnotes while the entire bibliography is not listed at the end of the article. This is due to the instructions of the editorial board, which are to an extent typical of academic publications in the domain of literary studies (and are a relic of a bygone era). For Slovenian, Hladnik (1990, 2002) for example suggests that authors should follow the standard citation style.

5.2 Microstructural analysis

The use of epistemic modality, which is typical of academic texts (Palmer 1985), as well as the use of personal pronouns which may often be stylistically marked were the main focus of the microstructural analysis. Based on our own experience, the use of the first-person is quite common, but there is a difference between the singular or plural. In Slovenian, the use of the plural first person pronoun is typical; this is also the case in French, while Anglo-Saxon academia favours the

first person singular. In Central Europe, such usage is generally less appropriate (Riegel, Pellat and Rioul 1994; Toporišič 2000).

5.2.1 *The responsibilities of the authors for the claims presented (Prise en charge énonciative)*

To begin with, the authorship of the articles needs to be briefly considered: among the analysed texts, 43 articles are written by a single author, four articles have two authors, while each journal or collected volume contains an article co-authored by several authors.

Articles written in French typically employ the *nous de modestie* pronoun (Riegel, Pellat, and Rioul 1994, 197)⁶ – that is, the pragmatic use of the first person plural pronoun *nous* which rhetorically denotes a singular author in the first person singular *je* with whom plurality establishes a metaphoric link. The plural pronoun *nous* can highlight the meaning of royalty (i.e., the royal ‘we’, *Nous roi de France*), sympathy (*nous avons bien dormi*, cf. also ‘how are we today?’), while in research articles the modest use of *nous* stands for *je*, thus implying that the author is part of a collective whole, thereby deemphasizing the author’s individuality.⁷ In this case, *nous* exhibits notional agreement with the singular gender and number of the author: *Nous sommes convaincu* (in case the author is male) / *convaincue* (in case the author is female). *Nous* is overwhelmingly used in such a way in most of the analysed articles (example 14).

(14) Nous abordons ici l'étude contrastive du fonctionnement de deux adverbes modaux épistémiques. (Langages, 91)

‘Here we discuss a contrastive study of the function of two epistemic modal adverbs.’

In two out of all 47 analysed articles the pronoun *je* is explicitly used, as shown in examples 15 and 16 below.

(15) J'ai d'abord tenté de clarifier (Langue française, 126)

‘First, I tried to clarify’

(16) Je tiens, pour conclure (Langue française, 127)

‘To conclude, I’d like (to) ...’

6 « Nous fonctionne également comme substitut rhétorique de *je* qui’il assimile métaphoriquement à une pluralité – nous de majesté, nous de modestie, nous de sympathie. »

7 « Dans les textes scientifiques, nous apparaît comme nous de modestie en remplaçant le *je* dont il estompe l’individualité derrière une entité collective. » (Riegel, Pellat and Rioul 1994, 197)

First-person structures can also be indirectly expressed with a personal pronoun:

- (17) Ma conviction, mes expériences (Le proche et le lointain, 109)
 ‘My convictions, my experience’
- (18) Dans le cadre des entretiens semi-structurés que j’ai menés avec des collègues (Le proche et le lointain, 103)
 ‘As part of the semi-structured interviews I conducted with my colleagues ...’

Because the broad focus of our research, other markers of epistemic modality that also convey the inclusion of the author in the text (as also discussed by e.g. Vold 2008, 32–35) were not included in the analysis.

Finally, the indefinite pronoun *on*, which is used to refer to an indefinite generalized agent, needs to be mentioned: note, however, that *on* cannot be substituted by *nous* in academic writing, although this type of substitution is common in contemporary French. This impersonal pronoun almost completely replaces the passive voice, which is often considered to be less acceptable in French except in a few discursive contexts where the passive improves clausal cohesion from the perspective of information structure (either by retaining the theme or by establishing a short theme and a long rheme) or helps avoid ambiguity of expression (Riegel, Pellat and Rioul 1994, 198). A more in-depth discussion of the passive is beyond the scope of the article.

5.2.2 *Logical connectors*

By definition, connectors are used to steer the argumentation towards a certain goal, either by introducing arguments in favour of a conclusion (e.g., causal connectors) or counter-arguments (adversative connectors), or they can even introduce the conclusions of an argument (resultative connectors) (Schlamberger Brezar 2009, 84). In Sperber and Wilson’s Relevance Theory (1986), connectors are used to improve the comprehensibility of information and to make more explicit the relations between linguistic utterances (Schlamberger Brezar 2009, 48–51). Consequently, logical connectors are used relatively frequently in research articles; Saint-Luc (2012) argues that such connectors are a defining characteristic of academic texts, as shown in example 4, above.

The use of connectors in French research articles is also linked to the fact that authors employ them to express themselves with precision and grace, as shown by the example below.

- (19) **Sans** vouloir être réducteur, il faut **néanmoins** constater que l'humour repose largement sur deux dispositifs qui font que son universalité **n'est que** relative: d'un côté, il s'agit des mécanismes métalinguistiques, de l'autre, de jeux de stéréotypes culturels. **Lorsqu'**on pratique sa langue maternelle, ces deux dispositifs ne constituent nullement un obstacle, bien **au contraire**, ils permettent de tisser des « connivences » entre locuteurs partageant le même contexte linguistico-culturel. **En effet**, la compétence métalinguistique, qui permet aux locuteurs de réfléchir sur la langue (...) qu'ils utilisent, semble être une capacité acquise spontanément par le locuteur dans un milieu socio-culturel donné. (Le proche et le lointain, 162)

'Without wanting to be reductive, we have to concede that humour largely relies on two devices that make its universality only relative: on the one hand, it is based on metalinguistic mechanisms, and on cultural stereotypes on the other. When one is speaking in his or her mother tongue, these mechanisms do not present an obstacle; on the contrary, they establish complicity between the speakers from the same socio-linguistic context. Indeed, the metalinguistic competence that allows the speakers to think about their own language (...) seems to be a spontaneously acquired ability within a socio-cultural background.'

5.2.3 *Expressing epistemic modality in a research article*

The level of the author's commitment to the truth is paradoxically highest when modal expressions conveying epistemic modality are not used. Such a lack of modal expressions is characteristic of the articles analysed here, and is shown by example 20:

- (20) La réponse est entièrement rhématique. *Vraiment* n'est pas réactif, il renforce la vérité d'un énoncé *p* indépendamment du contexte gauche. À la différence de *vraiment*, il n'est aucunement confirmatif ni polyphonique. Le locuteur se limite à asserter à partir de sa conviction personnelle. (Langages, 98)

'The response is a part of the rheme. *Vraiment* is not reactive but reinforces the truth of an utterance *p* independently from the left-side context. Unlike *vraiment*, it is neither confirmative nor polyphonic. The speaker only makes an assertion following his or her personal conviction.'

In general, academic language employs unmodalized statements; in Palmer's view (1986, 71), this denotes the highest possible degree of commitment. As pointed out above, such use is – in the context of academic writing – sometimes paradoxical (Palmer 1986), since researchers in most cases deal with (confirmed) hypotheses; in spite of this, such unmodalized use turns out to be very frequent in the articles analysed here. Given that one of the researcher's primary aims is to confirm his or her results, one would expect epistemic modal expressions to be very frequent in research articles. However, in our case most articles are in the indicative mood without any modal markers, as we can see in example 20 above. Nevertheless, there are a few cases when the authors employ modalizing expressions (example 21); in the example below, this is shown by the use of *nous pensons* ('we think'):

- (21) (...) Si modalité épistémique et évidentialité inférentielle sont souvent imbriquées, **nous pensons** qu'il est pertinent de distinguer les deux notions afin de rendre compte des emplois de certains marqueurs (...) (Langue française, 54)

'(...) Since epistemic modality and inferential evidentiality are often interlinked, we think that it is relevant to distinguish the two notions in order to account for the use of certain modality markers (...)'

6 CONCLUSION

An analysis of 47 research articles from the humanities (linguistics, translation studies and literary studies) reveals that the articles – in spite of the diversity of the presented topics – employ a fairly unified structure, characteristic of both French research articles and of research articles in general. Descriptive text sequences can be found in all 47 articles. Six of the 47 texts analysed (all of which are published in the collected volume *Le proche et le lointain*) contain a narrative sequence, and all the articles contain descriptive, argumentative and expository sequences. The heterogeneous nature of academic discourse has been addressed by Pollet (1997), although her primary focus is on the expository sequence. The IMRAD structure mentioned above is not always adhered to, in spite of the fact that it has become the recommended scheme, while all the articles analysed follow the logical structure of the presentation of arguments. All of this suggests that French research articles have, on the one hand, started to adopt the general structure used throughout the world (in light of the fact that the attitudes towards science are fast becoming more and more global), as reflected in the macrostructure, citation styles, and abstracts. On the other hand, French research articles remain a unified genre with French cultural

characteristics, revealed in the microstructure: the use of *nous* for *je* (hiding the author's identity behind the collective whole), the use of connectors for argumentation and, in part, for highlighting the craftsmanship of the text, and long multiclausal sentences, which deviate from the model proposed by Robitaille and Vallée (2017) for French-Canadian academia. We can conclude that the cultural characteristics, especially in humanities articles, are retained, and we believe that there exists a model of the French research article which has been adopted by researchers who are not native speakers of French but who wish to gain recognition in French academia. This model varies to some extent depending on the article type. Even though our attention was focused on humanities articles, which tend to present qualitative research, we have been able to show that there exists a small degree of divergence from the usual macrostructure of research articles. Articles from the domain of literary studies differ from the establish macrostructure most, as they do not adhere to the explicit division into the main sections and employ their own citation styles (see *Cahiers Claude Simon*). In contrast, there is no such divergence between disciplines in Slovenian if we follow academic writing guidelines for the humanities (Hladnik 2002).

The present article attempted to outline the main discursive features of the French research article, although a detailed analysis was beyond its scope. As research articles from the Francophone contexts have so far received very little attention in Slovenia researchers, future studies could provide more detailed contrastive comparisons between French and Slovenian research articles for each of the categories outlined above.

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CHAPTER 6

Competing for funding: Contrasting Slovene and British genre conventions in research grant proposals

Martina Paradiž

Abstract

Research grant proposals (RGPs) are texts which represent a key step towards the acquisition of research funding and therefore also the development of scholarly knowledge. Their central position is reflected in the fact that to become successful members of an academic discourse community, researchers need to develop the skills of writing effective RGPs. Researchers competing for public funding in Slovenia need to submit their proposals both in Slovene as well as English, as the peer review process includes international reviewers, which, of course, requires strong translation or writing skills in L2 English. Acquisition of the latter may be challenging as, due to the confidential and occluded nature of these texts, they have to date not been given much research attention which would shed light on their genre conventions or their intercul-

tural and translational aspects. This chapter offers an overview of an extensive study into the genre of RGP's conducted on a purpose-built corpus of 66 RGP's (Slovene originals and translations into English) submitted in response to public calls for the co-financing of research projects published by the Slovenian Research Agency Poglavlje and 88 RGP's submitted to the Research Councils UK (RCUK) in the context of applications for public research funding. It presents the macro-level differences in the rhetorical structure of Slovene and English RGP's, and then narrows its focus on the intercultural and translational aspects of self-mentions in lexical bundles as quantitative indicators of interpersonal style.

Keywords: research grant proposals, academic discourse, intercultural rhetoric, translation studies, lexical bundles

Izvleček

Predlogi raziskovalnih projektov (PRP) so besedila, ki tvorijo ključni korak na poti do financiranja znanstvenih raziskav in posledično razvoja akademskega znanja. O njegovem središčnem pomenu lahko sodimo tudi po tem, da uspešna vključenost v akademsko diskurzno skupnost sloni na vse bolj poudarjeni potrebi po spretnosti oblikovanja učinkovitih PRP. V Sloveniji se v sklopu javnih razpisov za (so)financiranje raziskovalnih projektov zaradi procesa ocenjevanja, ki vključuje tujejezične recenzente, tej spretnosti pridružuje še spretnost pisanja tovrstnih besedil v angleščini oziroma njihovega prevajanja v angleščino. Poglavitna težava za uspešno prevajanje je, da so zaradi svoje zaprte narave (tajnost, nedostopnost) ta besedila deležna vse premalo raziskovalne pozornosti, ki bi osvetlila njihove žanrske in meddisciplinarne lastnosti, predvsem pa v literaturi drugih jezikovnih kombinacij in žanrov že nakazane medkulturnoretorične ter prevodoslovne specifike. Poglavlje ponuja pregled obširnejše raziskave žanra PRP, izvedene na namensko zgrajenem korpusu 66 izvornih slovenskih in v angleščino prevedenih PRP, oddanih v sklopu prijav na javne razpise Javne agencije za raziskovalno dejavnost Republike Slovenije (ARRS) za (so)financiranje raziskovalnih projektov, ter 88 PRP, oddanih v sklopu prijav na financiranje raziskovalnih projektov preko britanskega RCUK. Podrobneje predstavi medkulturno in prevodoslovno primerjavo rabe enega od kvantitativnih kazalcev stopnje osebnosti diskurza, namreč besednih nizov v medosebni funkciji, in specifiko njihovega prevajanja.

Ključne besede: predlogi raziskovalnih projektov, akademski diskurz, medkulturna retorika, prevodoslovje, besedni nizi

1 INTRODUCTION

Successful research grant proposals (RGPs) form a vital part of facilitating research by securing its financing and further dissemination (Myers 1991) and have therefore been described as crucial not only for the work of researchers, but also entire university departments and universities (Tardy 2003, 7). This, of course, means that both postgraduate students and established researchers writing RGPs in English as native (NES) or non-native English speakers (NNES) need to be familiar with the specific conventions of this genre if they are to participate in grant-funded research projects (Connor and Mauranen 1999; Flowerdew 2016; Stašková 2012). However, despite its prominent role in academia, this genre is not intended for the public eye, but remains accessible only to its author(s), the funding agency and reviewers, and has as such been termed an “occluded genre” (Hyland 2005; Swales 1990), a “behind-the-scenes” document (Englander 2014, 26). The obscure nature of RGPs presents academics – those wishing to study its conventions, as well as those needing to produce such texts – with considerable difficulties. Moreover, with the growing internationalization of research communities, researchers applying for funding need to be aware of potential discipline-specific rhetorical conventions of RGPs not only in their native language, but in English as well (Hyland 2002). Such is the case in Slovenia, where proposals for public funding through the National Research Agency (ARRS) require RGPs to be submitted in English as well as Slovene, as the RGP review process includes international reviewers. RGP reviewers may come from various cultural backgrounds, and it is quite likely that English is not going to be the first language of the person reading the RGP. At the same time, it has been shown that, with the internationalization of academia, the pervasive use of English has also brought with it Anglo-American rhetorical norms and conventions in constructing academic texts (House 2001). Therefore, in accord with the theory of Toury (1995), reviewers may (consciously or not) expect translated RGPs to read as native-speaker English texts and find acceptable those RGPs which conform to the conventions of the target culture. Since, to date, studies in intercultural rhetoric have revealed the existence of several differences between the rhetorical conventions governing academic discourse in English and other Slavic languages (e.g. Dontcheva-Navrátilová 2013, Chamonikolasová 2005, Čmejrková 2007 (for Czech); Lewandowski 2015, Duszak 1997 (for Polish), Vassileva 2001 (for Bulgarian), Yakhontova 2002 (for Ukrainian and Russian)), pronounced differences between original Slovene and original British RGPs may well cause problems in the process of translation of RGPs from Slovene into English.

As part of a broader domain of academic discourse, the RGP does share with other research genres (e.g., conference proposals, research articles (RAs), RA introductions (Cotos 2019, 15; Connor and Mauranen 1999, 60)) general rhetorical and

discourse conventions of academic writing, e.g. the formality of register, citing and referencing of sources, and presence of some similar rhetorical moves (Swales 1990), such as *establishing a territory*, *indicating a gap*, *reporting previous research*, *describing means* (Cotos 2019, 17). However, as the RGP writer aims to persuade the funding agency/reviewer of the value of the proposed idea by highlighting its importance, their own competence to conduct the research, and benefits of the expected outcomes, the rhetorical conventions of RGPs have been characterized as typical of *persuasive* (Connor 2000; Connor and Mauranen 1999), *promotional* (Koutsantoni 2009; Stašková 2012), *promissory* (Swales and Feak 2000) and *problem-oriented* (Connor and Mauranen 1999) discourse. Consequently, as Tseng (2011, 20) puts it, “writing a proposal is not the same as writing a research paper”, and RGP writers need to be familiar also with the conventions the entire genre system (Tardy 2003, 33). In the context of an interview-based study investigating the process of peer review in the assessment of RGPs, conducted by Porter (2005), respondents (RGP reviewers) outlined the stylistic features of a well-presented RGP. These included clarity and conciseness of expression, and a well-organized and readable text conveying the enthusiasm and commitment of the researcher, which would spark a similar level of interest and enthusiasm in the reviewer. Conversely, an abstract, information-heavy and highly academic writing style was considered a feature of a poorly written RGP.

An increased level of reader-writer interaction and personal engagement of the author is, according to Hyland (2005, 65), more and more characteristic of English academic discourse in general. It is realized particularly through the elements of metadiscourse he labels “interactional” (which directly correspond to Halliday’s (2004) interpersonal metafunction), which include self-mentions, hedges, boosters, attitude and engagement markers (Hyland 2005, 65). Self-mentions in particular have been investigated as prominent elements of self-promotional discourse (e.g. Harwood 2005a; Stašková 2012) and their use as “means of promoting a competent scholarly identity” (Hyland 2012, 145) has even been regarded a “marketing tactic” (Harwood, 2005a, 1217). On the other hand, compared to Anglo-American academic discourse, Central European academic discourse has been characterized as less interactive, more writer-oriented, and having more of a backgrounded authorial presence (Dontcheva-Navrátilová 2013, 10). More specifically, writing in Slavic languages has been said to lack the elements of promoting and persuading (Stašková 2012), which are otherwise central to the genre of RGP, and use structures of ‘telling’, as opposed to ‘selling’ (Swales and Feak 2004, 214; Yakhontova 2002). This, in effect, may produce discourse focused on the information and content as opposed to the interaction between the reader and the writer. Similarly, studies by Pisanski Peterlin comparing English and Slovene academic discourse (e.g. 2005, 2011) reveal a less pronounced interpersonal metafunction in Slovene texts.

Focusing more specifically on the cultural differences in the use of self-mentions in Slovene and English, research shows that in RA the use of self-mentions, particularly the 1st-person pronoun *we*, is much more frequent in native-speaker English papers than in non-native-speaker papers in English produced by Slovene authors (Grad 2010). A study by Pahor (forthcoming) compares the use of pronominal personal references in Slovene academic writing by undergraduate and postgraduate students and translations into English and finds that pronominal authorial references are frequently rendered with impersonal structures in the translation of texts into English. A survey focusing on the use of 1st-person pronouns in Croatian and English RA by Bašić and Veselica Majhut (2017) shows that Croatian researchers prefer the use of impersonal references rather than explicit self-mentions, shying away in particular from 1st-person singular pronouns and striving to achieve an objective tone of writing which they perceive as the norm of academic discourse. As can thus be seen, there are considerable cultural differences in the use of these rhetorical elements, and they also seem to cause certain challenges in the process of translation and writing in English as L2.

Generally, researchers tend to learn the conventions of the genres they need to produce simply through exposure to similar texts (Connor and Mauranen 1999, 47). As grant applicants usually have no access to previous successful RGP from their discipline or even native-speaker RGPs (when writing in English as L2), they tend to learn the complexities of the genre via “trial and error” (Connor 2000, 14; Tardy 2003, 33). This, however, may not be the most efficient way, as the benefits of targeted instruction supported by explicit explanations have been shown to outweigh those of exposure alone (e.g., Flowerdew 2016; García Izquierdo and Borja Albi 2008; Koutsantoni 2009: 54). The occluded nature of this genre – and the consequent difficulty sourcing these texts – presents the main obstacle for incorporating it into courses of academic writing (Flowerdew 2016). Producing RGPs in a foreign language (i.e. English, as is the case in Slovenia) might be even more of a struggle¹ in case of translators, who are most often not experts in the discipline and have hence been termed “outsiders” (García Izquierdo and Montalt 2002). In addition to using discipline-appropriate terminology, the work of translators also entails following culture-specific genre conventions, i.e. a set of skills which García Izquierdo and Borja Albi (2008, 45) refer to as “contrastive genre knowledge or genre competence”, a concept closely related to what House terms “application of a cultural filter” (2006, 30). Producing a text which applies such a filter requires access to the relevant findings of contrastive studies comparing the conventions of a certain genre in different languages/cultures. So far not much is known about the discourse conventions governing this genre in Slovenian, and neither have there been any contrastive studies focusing on their differences in Slovenian and English.

1 “Genre-as-Struggle” is a metaphor used by Tseng (2011) to describe the process of composing RGPs.

In the light of the mentioned distinctive features of the genre of RGP, namely its obscurity, distinctive rhetorical features and promotional nature, as well as potential intercultural differences, this paper aims to compare native-speaker Slovene and native-speaker British RGPs² to define the differences in their rhetorical structure and use of self-mentions as a rhetorical element of persuasion, which is characteristic of promotional discourse (e.g., Harwood 2005a; Hyland 2005; Stašková 2012).

The present study forms part of an extensive research project investigating the genre of RGPs in Slovenia and the UK (Zajc 2012, 2014, 2015). Following an overview of previous studies on the genre, the paper presents the respective socio-cultural contexts of RGPs submitted for national funding, describes the compilation and structure of the purpose-built parallel and comparable corpus of RGPs, and, finally, focuses on the Slovene-English intercultural differences in the rhetorical structure of RGPs and use of self-mentions (in lexical bundles).

2 RESEARCH CONTEXT

2.1 Studies on the genre of RGPs

To date, relatively little research attention has been devoted to the genre of RGPs. As mentioned above, the main reason behind this lies in the difficulty of sourcing a substantial enough corpus of RGPs (e.g. Cotos 2019, 17–18; Flowerdew 2016), as these are high-stakes and confidential texts, which their authors are not willing to disclose for analysis. While poor accessibility is arguably the biggest problem, Feng and Shi (2004, 8) mention two other issues that may prove problematic in compiling a corpus of RGPs for linguistic research, namely that of the substantial length of national RGPs, and discrepancies in RGPs stemming from the related funding agency's specific requirements. The challenging task of RGP sourcing becomes even more evident in the context of intercultural rhetoric or translation studies, as such studies would entail obtaining a large enough corpus of comparable RGPs from two or more cultural/linguistic contexts. This may be the reason why studies focusing on RGPs have more often than not been based on a rather limited number of texts or have only focused on their individual sections.

While most of the existing research focuses on the rhetorical structure of RGPs in English, following the model of rhetorical moves analysis introduced by Swales (1990), Connor and Mauranen (1999), Connor (2000), Feng and Shi (2004), Koutsantoni (2009) and selected lexico-grammatical features of RGPs (e.g. Feng

2 Although English is the *lingua franca* in the academic world used by both native and non-native speakers, British English will be used for comparison in this study, as it is a standard variety of English.

and Shi 2004), studies on intercultural aspects of RGP writing have been limited to examining RGPs in English by NNES (e.g., Connor and Mauranen 1999; Feng 2011; Pascual and Unger 2010). Even though the need for more studies focusing on their cross-linguistic/cultural aspects has been recognized (e.g., Feng 2008; Flowerdew 2016), save for a study by Feng (2008), who examined research grant writing in Chinese and compared it against her previous study focusing on Canadian English-language RGPs (Feng and Shi 2004), none have been conducted on a comparative corpus of RGPs in two languages.³

The first scholarly examination of the genre of RGPs to apply the model of rhetorical structure by Swales (1990) is that of Connor and Mauranen (1999), who examined a corpus of 34 RGPs in English by Finnish authors (NNES) and compared the identified rhetorical moves against that of the RA. The results of this study reveal rhetorical moves that are typical of the genre of RGPs (*Territory, Gap, Goal, Means, Reporting Previous Research, Achievements, Benefits, Competency Claim, Importance Claim* and *Compliance Claim*). Applying the same model to a corpus of 14 RGPs in English written by NES from the USA, Connor (2004) identified certain discrepancies between individual texts in terms of the presence, order/sequence and length of the moves. Also focusing on the rhetorical structure of RGPs is the study by Feng and Shi (2004), who analysed nine RGPs in English submitted to a Canadian research agency and found that their RGPs do not include the *Compliance Claim* move identified by Connor and Mauranen, but do include a move that had not yet been identified in previous studies (*Communication of Results*). Koutsantoni (2009, 54) applied the same methodology to a corpus of 14 RGPs submitted to the Research Councils UK (by NES) and found a great complexity of individual moves, highlighting the influence of not only the author's native language/culture and discipline, but also the funding agency's guidelines and assessment criteria. More importantly, she distinguished another previously unidentified move, namely *Time Plans*. Feng (2008) applied the same method of investigation on Chinese RGP writing, analysing the rhetorical moves in nine RGPs, and found a move that is unique to Chinese RGPs (*Research Difficulties*). Pascual and Unger (2010) focused on interpersonal (engagement) elements in the *Benefits* and *Importance Claim* sections of two RGPs in English by Argentinian NNES. Feng (2011) performed a rhetorical moves analysis followed by an analysis of keywords, hedges and boosters on a total of 37 RGP abstracts in English by NNES (in Hong Kong) and the citation practices (in the *Literature Review* section and the *Gap* rhetorical move). Fazel and Shi (2015) examined the citation practices in six RGPs by doctoral students in Canada (NES and NNES). The corpus of RGPs compiled by Cotos (2019) is the most substantial one to date, as it includes a total of 91 proposals in English (US); however, the study

³ Within a related genre of non-profit grant proposals (NGPs), we can find two such studies: one by Connor and Wagner (1998) on the differences between non-profit grant proposals (NGPs) by NES and NNES (Latino non-profits) and one by Khadka (2014), comparing eight American NGPs to six Nepalese NGPs.

limited its investigation of rhetorical moves and n-grams to the BI (Broader Impact) section.

2.2 Competing for public research funding in Slovenia and the UK

In Slovenia, researchers competing for public funding of research projects (basic, applied, postdoctoral) apply to public calls for the (co)financing of research projects published annually by the Slovenian Research Agency (ARRS). Since 2008, the application, consisting of two application forms and appended documents, is submitted in an entirely electronic form. Since 2007, the review process is conducted in two phases, whereby, typically, applicants first submit a Phase I Application Form (comprising a biography and the main achievements of the principal investigator and a brief description of the research project) and, having successfully passed through Phase I, are then invited to submit their Phase II Application Form which contains the achievements of all the project group members, the allocation of their workload (along with appended statements of intent) and a detailed description of the proposed research project (the RGP itself). Due to the inclusion of international reviewers,⁴ both application forms must be completed in Slovene as well as in English.⁵

In the UK, the financing of scholarly research from the national budget takes place through various research councils, government agencies and national academies (BIS 2014, 10). Research is also funded through private funds, e.g. by philanthropic organizations such as the *Leverhulme Trust*. (BIS 2014, 43). To allow for a comparative overview of the research funding procedures in Slovenia and the UK, we shall focus only on the proposal submission and assessment procedures established by the largest of these funding bodies, namely the Research Councils UK (RCUK), a strategic partnership of a total of seven research councils, covering specific fields of research. These are the *Arts and Humanities Research Council* (AHRC), *Biotechnology and Biological Sciences Research Council* (BBSRC), *Engineering and Physical Sciences Research Council* (EPSRC), *Economic and Social Research Council* (ESRC), *Medical Research Council* (MRC), *Natural Environment Research Council* (NERC), and *Science and Technology Facilities Council* (STFC) (BIS 2012, 2014, 13). As in Slovenia (ARRS), applications to calls for proposals are

4 In 2006 and 2007, applications were assessed by one national and one international reviewer in Phase I and two international reviewers in Phase II. Currently, applications are assessed by two international reviewers in Phase I and three international reviewers in Phase II (Articles 92, 94 and 97 of the Rules on the Procedures for the (Co)financing and Assessment of Research Activities and on Monitoring the Implementation of Research Activities).

5 The Public Call for the (Co-)Financing of Research Projects in 2019 states that reviewers receive the English part (entry fields) of the application.

submitted electronically through *the Research Councils' Joint Electronic Submission System (Je-S)*⁶, which also includes the guidelines for completing the application form.⁷ The *Case for Support (CfS)* can be considered as the actual RGP as a concise, specific and clear explanation of the proposed research on the basis of which the reviewers are able to assess the proposal (AHRC 2019, 55). It is not part of the application form, as is the case in Slovene grant applications, but takes the form of an attachment (along with *Justification of Resources*, the principal investigator's CV, *List of Publications*, etc.). The peer review process for the RGPs submitted to the RCUK takes place in two stages, whereby in the first stage proposals are evaluated by external experts from similar disciplines in the UK or abroad, and in the second stage these reviews and the applicant's subsequent comments are considered by the Research Council Board/Panel, which decides on whether or not to fund the proposed project (RCUK 2015: 4, AHRC 2015a).

3 CORPUS AND METHOD

3.1 Corpus compilation

To investigate the cultural differences of the genre of RGPs in Slovene and English, it was necessary to build a parallel (consisting of RGPs in Slovene and their translations into English) and comparable (consisting of original RGPs in English) corpus of RGPs, which was to be balanced in terms of size, discipline and the approximate time-frame of submission, and the comparable part of which would only incorporate texts written by NES (as explained in the Introduction). As RGPs are not publicly accessible, the task of compiling such a corpus proved to be a long and demanding one.

Slovene RGPs and their translations into English were obtained from the Science and Research Centre Koper – SCR. Having signed a confidentiality agreement, the RGPs submitted by the associates of the SRC in the period from 2004 to 2009 were sourced from the Centre's database of submitted proposals.

For the comparable part of the corpus, grant holders of previously awarded grants published on the web portal of the RCUK were contacted with a request for access to their RGP for the purposes of linguistic research. This request also contained a clear statement that their RGPs would be anonymized and used for research purposes only, whereby no personal or confidential data would be disclosed. Approximately 15% of the researchers responded to the request favourably.

⁶ <https://je-s.rcuk.ac.uk>

⁷ <https://je-s.rcuk.ac.uk/Handbook/Index.htm#pages/NavigationGuidance/NavigationGuidance.htm>

There is a slight discrepancy in the success of the RGPs included in the respective parts of the corpus. While all the RGPs included in the comparable part of the corpus were successful due to the nature of obtaining the texts (by contacting the principle investigators of funded projects), the parallel part of the corpus includes both successful and unsuccessful proposals, the reason for this being that leaving out unsuccessful RGPs would make the already challenging task of compiling a balanced enough corpus representative of individual disciplines even more demanding if not impossible. Moreover, the reasons for an RGP not being successful may not lie in the quality of its text in terms of specific genre and rhetorical conventions, but may be dependent on other factors as well, such as specific priorities of the call, annual funding resources, etc.

As in both cultural contexts grant applications consist of the application form(s) and several attachments, a decision had to be made regarding which sections of the application form(s) to include in the corpus as the actual RGP. In the Slovene context the section from Phase II Application Form entitled *Research Project Proposal*⁸ was chosen as the RGP, and only the subsections containing connected stretches of text (connected discourse) were included in the corpus, while those containing mere lists, e.g. codes, amounts, bibliography, were left out. As for the British context, the CfS was included in the corpus, and in the few cases where the researchers also contributed the entire application form, the following parts were also included: *Objectives, Summary, Beneficiaries, Impact Summary, Communications Plan and User Engagement, and Outputs*,⁹ so as to allow for a better comparability of the parallel and comparable corpus in terms of text length within individual sections.

3.2 Corpus structure

The parallel and comparable corpus of RGPs compiled for the purposes of the research contains a total of 1,093,243 words and 220 RGPs. Its parallel part comprises a total of 66 original RGPs in Slovene (SLO RGPs) and the same number of translations into English (TRA RGPs). Although information is not available on the identity of the translators of individual proposals, according to the SRC administrative services there were seven translators cooperating with the SRC on a regular basis in that time period, which means that although “outsiders” to the field, in some cases at least, the translators might have been familiar with the field within which they were translating. They were all translating into English as L2, and these texts had not been edited by NES. Some texts may have been

8 *Predlog raziskovalnega projekta.*

9 The RCUK application forms vary to a certain extent by individual research councils.

translated or subsequently edited (parts of the text added or deleted) by the researchers themselves. The comparable part of the corpus consists of a total of 88 original British RGP's written by NES. As can be seen in Table 1, the RGP's come from three scientific domains and a total of 11 disciplines, with the percentage of ENG RGP's from each domain and discipline largely corresponding to that of the parallel part of the corpus.

Table 1: Structure of the parallel and comparable corpus of RGP's

Domain	Discipline	SLO RGP's			TRA RGP's		ENG RGP's		
		No. of RGP's	Word count	% of words	Word count		No. of RGP's	Word count	% of words
HUMANITIES	Linguistics	9	27,006	7.7%	33,783	7.9%	12	25,239	8.0%
	History	14	101,460	29.0%	122,849	28.9%	15	43,036	13.6%
	Archaeology	4	20,661	5.9%	25,949	6.1%	10	26,992	8.5%
	Art	4	14,534	4.2%	18,398	4.3%	5	21,116	6.7%
	Philosophy	7	47,166	13.5%	56,585	13.3%	5	13,217	4.2%
	Theology	4	24,257	6.9%	29,735	7.0%	4	17,383	5.5%
	Total	42	235,084	67.2%	287,299	67.5%	51	146,983	49.6%
SOCIAL SCIENCES	Cultural Anthropology	6	30,448	8.7%	36,574	8.6%	8	32,066	10.1%
	Social & Human Geography	5	30,371	8.7%	35,741	8.4%	6	26,470	8.4%
	Sociology	3	12,518	3.6%	15,751	3.7%	8	37,995	12.0%
	Total	14	73,337	21.0%	88,066	20.7%	22	96,531	30.5%
NATURAL SCIENCES	Plant Genetics, Food	6	22,891	6.5%	27,811	6.5%	9	39,279	12.4%
	Zoology	4	19,936	5.7%	22,226	5.2%	6	33,800	10.7%
	Total	10	42,827	12.2%	50,037	11.8%	15	73,079	23.1%
TOTAL		66	351,248	32.0%	425,402	39.0%	88	316,593	29.0%

The parallel and comparable parts of the corpus are balanced not only in terms of text/word count and discipline, but also with regard to the time period of RGP submission. Overall, the RGP's included were submitted between the years 1996 and 2010, with the average year of submission being 2006,3 for SLO RGP's and 2006,2 for ENG RGP's.

Compilation of the corpus entailed conversion of .doc, .docx and .pdf files into the .txt format, whereby line breaks were removed but the paragraph structure of documents was preserved to also allow for qualitative examination of individual

texts. All RGPs were anonymized and classified according to discipline. Each .txt file was named with an acronym denoting the research field (e.g. ARC – Archaeology, HIS – History), followed by the letter E for original English texts, S for Slovene texts, T for translations, and an ordinal number.

3.3 METHODS

3.3.1 Contrastive analysis of the formal and rhetorical structure of Slovene and British RGPs

To obtain a clearer insight into the potential differences between the rhetorical structure of RGPs in the two cultural contexts, the texts of individual RGPs were first manually examined and qualitatively compared in terms of their formal structure (sections), requirements of respective funding agencies (JeS Helpdesk) and presence of rhetorical moves as defined by Connor in Mauranen (1999), Feng and Shi (2004), and Koutsantoni (2009) (*Territory, Gap, Goal, Means, Reporting Previous Research, Achievements, Benefits, Competence Claim, Importance Claim, Compliance Claim, Time Plans, Communication of Results*).

3.3.2 Self-mentions (LBs) in the parallel and comparable corpus of RGPs

The second aim of the study was to quantitatively explore and compare the use of self-mentions in individual parts of the corpus (SLO RGPs, TRA RGPs and ENG RGPs). To this end, a quantitative corpus-driven analysis of lexical bundles (LBs) in the function of self-mentions was performed. Introduced by Biber et al. (1999) and subsequently widely applied in studies of academic discourse (e.g., Allen 2009; Biber et al. 2004; Cortes 2004; Hyland 2008a, 2008b; Vo 2019; Wright 2019), LBs have been defined as statistically most frequently occurring combinations of words across a minimum number of texts in a given corpus (Biber et al. 1999). In identifying a string of words as an LB, existing studies typically set the distribution criterion to five texts, i.e., a string of words must appear in at least five texts (e.g., Biber et al. 2004, Cortes 2004), but use different cut-off frequencies, i.e., the number of times an LB occurs in the corpus per million words: 10 (Biber et al. 1999), 20 (Cortes 2004 and 2008; Hyland 2008a and 2008b), 25 (Chen and Baker 2010), 40 (Biber 2006 and Jablonkai 2009, 2010). In the present study, a frequency cut-off point of 40 per million words for three and four-word units and 20 per million words for five-word units was used

(following the suggestion of Biber et al. (1999: 990) to use lower cut-off frequencies for longer LBs).

For the purposes of investigating the use of lexical bundles, the corpus was processed using the WordSmith 5.0 software (Scott 2008), and also by the AntConc corpus tool (<https://www.laurenceanthony.net/software/antconc/>). The WordSmith software (Scott 2008) was used to generate lists of three-, four- and five-word LBs in each part of the corpus of RGP (SLO RGP, TRA RGP and ENG RGP), whereby 40/mil was set as the cut-off frequency for three- and four-word LBs and 20/mil was set as the cut-off frequency for five-word bundles. Since the three parts of the corpus differ in size in terms of word count, the results were normalized to 100,000 words. Thus, the cut-off frequency used for the extraction of three- and four-word LBs was set as 14 occurrences (tokens) for SLO RGP, 17 tokens for TRA RGP and 12 tokens for ENG RGP; while the cut-off frequency for five-word LBs was seven tokens for SLO RGP, eight tokens for TRA RGP and six tokens for ENG RGP. To avoid potential distortion of results caused by idiosyncratic uses of strings of words by individual authors or translators, the minimum requirement of an LB occurring in at least five different texts was used, which is in line with the recommendations of the study by Biber and Barbieri (2007, 267).

It should also be noted that some LBs were found to be part of longer LBs, whereby in some cases there was a complete overlap (e.g., *'project team will'* (55 tokens in TRA RGP) in *'the project team will'* (also 55 tokens in TRA RGP). In such cases, these occurrences were only counted once. In other cases, the shorter LB was found to be part of a longer LB only in some occurrences, e.g. *'we will be'* (13 tokens in ENG RGP) was part of the LB *'we will be able to'* (six occurrences in ENG RGP) in six cases. As suggested by Bychkovska and Lee (2017) and Lu and Deng (2019), in such cases of overlap, the number of occurrences of shorter LBs was subsumed under the longer LBs. To this end, a concordance analysis using the AntConc software (Anthony 2014) was performed to verify that the overlap was in fact complete.

Although not always structurally complete (Biber et al. 1999), it is possible to discern the function of LBs in a text and classify and compare them from a functional perspective. For the purposes of this study, LBs in the function of self-mentions were compared between the three parts of the corpus. To first classify the obtained LBs according to their function in the text, Hyland's (2008a) classification of the function of LBs (*research-oriented*, *text-oriented* and *participant-oriented*) was applied, complemented by his classification of metadiscourse (2005a), in which he includes self-mentions as a separate category within the interactional (participant-oriented) elements of metadiscourse. While Hyland (2000a) limits self-mentions to first-person pronouns, other authors (e.g. Heng and Tan 2010;

Pho 2008; Walková 2019) also include other self-references such as *the writer* and *the author*. Hence, such (non-pronominal) self-references were also taken into account (e.g. *the project team*). Walková 2019 (61–62) distinguishes the following rhetorical functions of self-mentions: stating the researcher's contribution to the discipline, expounding an argument, outlining the research procedure, stating intention, acknowledging the work of others and stating the plans for future research. She states (ibid., 63) that of all the possible forms of self-referencing, the 1st-person pronoun (e.g., *we*) as the subject presenting the author as an active agent indicates the most powerful authorial presence.

The list of LBs generated by the WordSmith software was manually checked for all occurrences of self-mentions, which resulted in a list of LBs containing self-mentions for each subcorpus (SLO RGP, TRA RGP and ENG RGP). Where necessary, the AntConc concordancing tool (Anthony 2014) was used to investigate the context of individual LBs in order to verify their function in the text.

4 RESULTS

4.1 Formal and rhetorical structure of RGPs

On the whole, the requirements of the Slovene and British funding agencies as to what information to include in the application forms and their attachments are very similar, although the specific guidelines of individual research councils within the RCUK consequently also affect the structuring of the CfS and the entire application form. Thus, some sections of the RCUK application forms are unique to individual research councils (e.g. *Technical Summary* and *Animal Costs* to the BBSRC, *Communications Plan and User Engagement* and *Data Collection* to the ESRC, *Outputs* to the AHRC). The ARRS application forms, on the other hand, show substantial changes over the years (2004–2009). Not only have there been changes in the application procedure (single-phase to two-phase) which, naturally, affected the application form structure and number of application forms, there have also been changes in the sequence and presence of individual sections, as well as their headings and translations into English. To allow for a simpler overview, only the English terms were used for the Slovene RGPs in the formulation in which they were presented in the 2009 ARRS application form, while the Slovene wording is provided in the footnotes.

The most comparable and similar sections in the two sets of RGPs were found to be the *Proposal Abstract – Summary* (SLO RGP – Example 1) and *Summary* (ENG RGP – Example 2). In both cultural contexts, the author is expected to place the

proposed research into the academic and broader context, to justify the need to conduct the research, to state their motivation for the project, to specify its aims, and to list the potential benefits of its expected results.

Example 1 (SOCS1): Temeljni cilj projekta je v najširšem pomenu celovito preučiti in analizirati ...

[*Goal*] Projekt ... prevedeva izvedbo kvantitativnega in kvalitativnega raziskovanja na ... Analiza ... vidikov ... vključuje dve ravni raziskovalnega interesa: V primeru prve se bo ugotavljalo V primeru ... ravni pa se bo ugotavljalo ... [*Means*] Pri navedenih determinantah preučevanja se pričakuje razlike glede na ... [*Achievements*] Zaradi očitne odsotnosti raziskovalnega interesa in posledičnega pomanjkanja raziskav in literature, ki bi obravnavala fenomen ... [*Gap*] v Sloveniji se omenjen projekt izpostavlja kot še posebno pomemben ... [*Importance Claim*] bodo rezultati projekta uporabni kot osnova za nadaljnje komparativne študije in temeljno raziskovanje, kot del izobraževalnih kurikulumov ..., kot strokovne podlage za [*Benefits*]

Example 2 (CULE2): The proposed project investigates the ways in which...

[*Territory*] It asks... To

address these theoretical questions it takes the example of... [*Means*] ... the project addresses

current sociological debates by asking whether ... [*Goal*]

What we want to find out is how ... [*Goal*] To address this question, five focus groups ... Case studies will therefore explore ... [*Means*]

The work will be disseminated to academic audiences through a symposium, at conferences and in scholarly books and journals; wider dissemination to more general audiences will be achieved by a website, an interim workshop with ... [*Communication of Results*]

The AHRC guidelines to British RGP's require applicants to formulate their CfS by first stating the Research Questions or Problems and providing the Research Context. Although the sequence of these headings is not strictly prescribed, most researchers within the humanities tend to structure their proposals in this sequence. Conversely, RGP's from the field of social sciences tend to first provide the research context and then outline their research questions.

In the section titled *Research Questions or Problems* applicants are required to clearly state the research questions or issues they intend to address (AHRC 2019). Although the authors tend to do this applying the rhetorical move of *Goal*, they also incorporate rhetorical moves of *Territory*, *Gap* and *Reporting Previous Research* and thus put the stated objectives into perspective (Example 3).

Example 3 (ARCE4): The proposed research will explore ... – a region that has undergone little systematic research, yet is central to the question of [*Territory, Gap*]
 Recent findings ... have produced evidence of ... [*Reporting previous research*] In order to assess the development of ..., the objectives of the proposed project are to 1) excavate ... 2) describe, analyze... 3) conduct systematic survey of ... [*Goal*] the study aims to understand the processes through which These processes include ... The study will therefore consider the ways in which ... and will investigate the ways in which ... Through doing this, the study aims to establish ... [*Goal*]
 Within the investigation of ... a number of core questions emerge:
 - Does ...? – How do ...? – What is ...? – What qualities ...? – How are these ...? [*Goal*]

The corresponding section of Slovene RGP is that of Scientific Background, Problem Identification and Objective of the Proposed Research¹⁰ in which applicants are required to describe the current situation in the field, outline the research questions or problems, justify the need for this research, and state its objectives and methodology. Similarly to British RGPs, authors were also found to apply the rhetorical moves of Territory, Gap and Goal. However, this section differs from that of Research Context in that it also includes the move of Means (description of methods to be used) (Example 4), whereas in British RGPs, this move is mostly part of the Research Methods section.

Example 4 (LINS3): Raziskava temelji na dosedanjih ugotovitvah Gre namreč za dejstvo, da ... [*Territory*] Predvidena raziskava bo skušala poiskati celovit odgovor na vprašanja:
 a) ...; b) ...; c) ... [*Goal*] Raziskava bi bila tako dvodelna: 1) osnovni del bi zajemala ... 2) aplikativni del pa bi predstavljale študije ... [*Means*] ..., ki jih namerava raziskava še posebej vzeti pod drobnogled, doslej ... še niso bili niti obdelani niti objavljeni, ... [*Gap*]

¹⁰ Znanstvena izhodišča ter predstavitev problema in ciljev raziskav.

In the *Research Context* section in British RGPs, applicants are required to place the proposed research into context (*Territory*), cite the relevant existing studies on the topic (*Reporting previous research*), define the gap or niche to be filled by the project (*Gap*) and the objectives of the proposed project (*Goal*) along with its contributions and beneficiaries (*Achievements, Benefits*) (Example 5).

Example 5 (LINE8): ... is, in comparison with ..., the least covered specialisation of ... [*Territory*,

Gap] A number of studies have been carried out on ..., [*Reporting Previous Research*] but

these are rare. Explanations for this comparative lack of treatment are not difficult to find: ... It

is very difficult to analyse [*Gap*] Some work has been carried out on these matters in ...

[*Reporting previous research*] Although there have been no scholarly analyses of ..., [*Gap*]

studies such as ... are also of some importance to our understanding of ... [*Reporting previous research*]

Beyond this, a number of excellent data resources on ... These works differ in their coverage and quality, but present further material upon which a comparative study can be based. Finally, all ... contain ... which ... can be particularly rewarding for an investigator. [*Reporting previous research, Gap, Goal*]

Although in Slovene RGPs there is a separate section allocated to the overview of literature entitled *State-of-the-Art in the Proposed Field of Research and Survey of the Relevant Literature*,¹¹ the main rhetorical move in this section is *Reporting Previous Research*, which also offers a convenient starting point for stating the perceived niche (*Gap*) in previous research (Example 6). However, many Slovene RGPs were found to only contain the bibliography in this section and rarely included a thorough discussion of previous findings, as it was already presented in the *Scientific Background, Problem Identification and Objective of the Proposed Research section*.

Example 6 (LINS9): Kot je razvidno iz zgornjega pregleda ključne aktualne literature s področja ..., se večina tako domačih kot tujih del nanaša na ... Nekaj del obravnava... [*Reporting previous research*] Le v manjšem delu literature ... je pozornost usmerjena na očitno pa je, da so tako teoretske osnove kot aplikacije s področja ... še v povojih. Sploh pa pogrešamo usmeritve, ki bi ... [*Gap*]

¹¹ Pregled in analiza dosedanjih raziskav in relevantne literature.

The sections entitled *Research Methods* in British RGP and *Detailed description of the work programme*¹² in Slovene RGP are similar as they both incorporate a detailed description of the proposed methodology. In Slovene RGP, applicants are also required to state the main objectives and research hypotheses, and this is where they often also outline their plans for disseminating the results (Example 7). British applicants, on the other hand, are advised to describe the role of individual members of the research team and the reasons for recruiting them (Example 8). Most of the Slovene RGP contain this same information in the sections *Detailed description of the work programme* and *Project Management: Detailed Implementation Plan and Timetable*.¹³

Example 7 (HISS11): Projektna skupina si prizadeva zastaviti raziskavo, ki bo predstavljala

temeljno podlago za proučevanje ... [*Territory*] V prvi fazi bo projektna skupina zastavila

oziroma nadaljevala z že utečenimi prizadevanji... [*Goal*] Metodološko bo raziskava ...

temeljila predvsem na izvedbi kvantitativne analize... [*Means*] Teme oziroma naloge, s katerimi

se bo projektna skupina spoprijela, so:

1. Proučitev ... [*Goal*] Ta cilj bo projektna skupina zasledovala v prvi fazi s kritično ... analizo ... V drugi fazi bo skušala ... Proučene bodo ... Na ta vprašanja bo raziskava skušala odgovoriti s proučevanjem ... [*Means*] Ti pristopi lahko prispevajo k jasnejši konfiguraciji ... [*Gap, Goal*], koristijo pa tudi boljšemu razumevanju ... [*Benefits*]

Example 8 (ARTE3): Stage One: The research will draw on The investigation will be located at

The aim will be to ...

Stage Two: The concepts ... that emerge from the ..., will be investigated through ...

Stage Three: ... will investigate ways in which

Stage Four: Experimentation with ... Creation of ...

Stage Five: dissemination of research via exhibition/publication/conferences. [*Means, Achievements, Communication of Results*]

The sections which also show great similarity are *Project Management: Detailed Implementation Plan and Timescale*¹⁴ in Slovene RGP (Example 9) and *Project*

¹² Podroben opis vsebine in programa dela raziskovalnega projekta.

¹³ Upravljanje projekta: podroben načrt wresničevanja in časovna razporeditev.

¹⁴ Upravljanje projekta: podroben načrt wresničevanja in časovna razporeditev.

Management in British RGPs (Example 10). The requirements in both cultural contexts comprise outlining the plan for project activities along with a timetable, milestones and expected results. In texts of both corpora, the rhetorical moves found in this section were *Time Plans*, *Means* and *Achievements*. The only difference in this section is that in British RGPs, applicants are also required to justify the stated expenses, describe the responsibilities and requirements of recruited research associates, and state staff (career) development opportunities. In Slovene RGPs, the latter are stated in the section *Indirect Impact of the Project for Society*.¹⁵

Example 9 (BIPS3): 1. leto: ... izdelava ..., identifikacija ..., določanje ..., urejanje ...

2. leto: Izdelava ... in optimizacija ... Karakterizacija ... Analiza ..., vrednotenje in določanje ... Izdelava ... in predstavitev ... Priprava in objava znanstvenega članka. [*Time Plans, Means, Achievements, Communication of Results*]

Example 10 (HISE5): ... we will recruit: 1 RA (3 years) to work on 1 RA (1 year) to collect ... 2

PhD students to work on ... [*Importance Claim*] ... will be responsible for overall management;

... for joint coordination; ... will help in supervision of Throughout the project monthly

meetings will be held of ... in order to [*Time Plans, Means, Communication of Results*]

Timetable

Year 1 ...: intensive programme of shared reading for all project members

Year 2: Continuing research of ... by all project members;

Year 3: Writing-up of case studies ... in preparation for ... symposium... [*Time Plans, Means, Achievements, Communication of Results*]

The sections in which the RGPs differ greatly between the two cultural contexts are those which require outlining the means of disseminating the expected outcomes. In British RGPs, this section is titled *Dissemination*, and is expected to describe the nature and focus of the expected outcomes, the ways to maximize their value and the beneficiaries within and outside the discipline (Example 11). While for the description of the dissemination of results, there is no separate section in Slovene RGPs, such plans are usually outlined in the *Detailed description of the work programme* and *Project Management: Detailed Implementation Plan and Timescale*.

¹⁵ Posredni pomen projekta za družbo.

Example 11 (ARHE2): We shall disseminate our findings to both scholarly and wider audiences. We shall produce an academic book; publish a series of articles in peer reviewed journals and as conference presentations ...; and organise an international workshop at We shall give regular public lectures at ...; produce for publication by ... a ... book containing ...; and provide materials for ... [*Communication of Results, Achievements*]

On the other hand, Slovene RGP's allocate a few sections to the relevance and potential benefits of the proposed project, namely *Relevance to the Development of Science or a Scientific Field*¹⁶ (Example 12), *Direct Impact of the Project for the Economy and Society*¹⁷ and *Indirect Impact of the Project for Society*.¹⁸ In British RGP's, this information is to be placed within the *Research Context* section of the CfS, however, it is often cross-referenced to the *Beneficiaries / Academic Beneficiaries* (Example 13) and *Impact Summary* sections of the application form.

Example 12 (THES2): ... je praktično še neraziskano in nepoznano področje... [Gap] Projekt in njegovi rezultati bodo po mojem mnenju pripomogli tako k izpolnitvi metodološkega instrumentarija, ki zadeva proučevanje ... kot tudi [*Benefits*]

Example 13 (HUGE4): The research will be of benefit to the academic community by contributing to the big theoretical debates on... As this is a collaborative application involving community organisations, ... it will be of direct benefit to these particular groups, but will also benefit... The data will be of use to other researchers working in this area, which will stretch beyond the confines of a particular discipline owing to the project's interdisciplinary nature. [*Benefits*]

4.2 Results: LBs in the function of self-mentions

The quantitative corpus-driven analysis resulted in lists of LBs identified in each part of the corpus. From these, the LBs in the function of self-mentions, i.e.

¹⁶ Pomen za razvoj znanosti oziroma stroke.

¹⁷ Neposredni pomen projekta za gospodarstvo in družbo.

¹⁸ Posredni pomen projekta za družbo.

Table 2: LBs containing self-mentions in the corpus of RGPs

Subcorpus	SLO RGPs		TRA RGPs		ENG RGPs	
Share of LBs normalized to 100,000 words	23.6		68.2		156.7	
Total number of LB occurrences	83		290		496	
LBs with number of occurrences in the corpus	BO PROJEKTNA SKUPINA	26	(THE) PROJECT GROUP (WILL)	71	(MEMBERS OF) THE PROJECT TEAM	66
	PROJEKTNA SKUPINA BO	25	(THE) PROJECT TEAM (WILL)	55	WE WILL USE	43
	ČLANI PROJEKTNE SKUPINE	18	WE WILL BE (ABLE TO)	28	WE WILL ALSO	42
	KI JIH BOMO	14	THE RESEARCH GROUP	24	THE RESEARCH TEAM	38
			WE WISH TO	22	OUR UNDERSTANDING OF	29
			OF OUR RESEARCH	20	WE AIM TO	29
			THE RESEARCH TEAM	19	WE PROPOSE TO	23
			ENABLE US TO	17	ALLOW US TO	22
			WE INTEND TO	17	WE INTEND TO	21
			WE WILL ALSO	17	WE WILL INVESTIGATE	20
					BY THE PI	19
					THE PI AND	18
					WE DO NOT	16
					ENABLE US TO	15
					WE PREDICT THAT	15
					WE HAVE ALSO	15
					WE WILL BE (ABLE TO)	13
					WE WILL EXPLORE	13
					WE WILL TEST	13
					ALLOWS US TO	13
				THE PI WILL	13	

those containing first-person pronouns and other self-mentions, were compared between the three parts of the corpus. Particular attention was devoted to the comparison of the results between TRA RGPs and ENG RGPs, due to the use of the same language.

Table 2 presents the lists of LBs in the function of self-mentions in the three subcorpora, stating the number of occurrences of individual LBs as well as their overall share with regard to the word count of individual corpora (see Table 1), normalized to 100,000 words. First-person pronouns are printed in bold print. As can be seen, the share of self-mentions in LBs was lowest in SLO RGPs and highest in ENG RGPs. Although the share of LBs containing self-mentions is considerably higher in TRA RGPs than in SLO RGPs, it still does not come close to that identified in ENG RGPs.

A perhaps even more striking difference is that in the use of 1st-person pronouns between the three parts of the corpus. Figure 1 shows the share of LBs which contain self-mentions in individual parts of the corpus of RGPs, whereby particular attention is paid to the comparison of the use of 1st-person pronouns as opposed to other options.

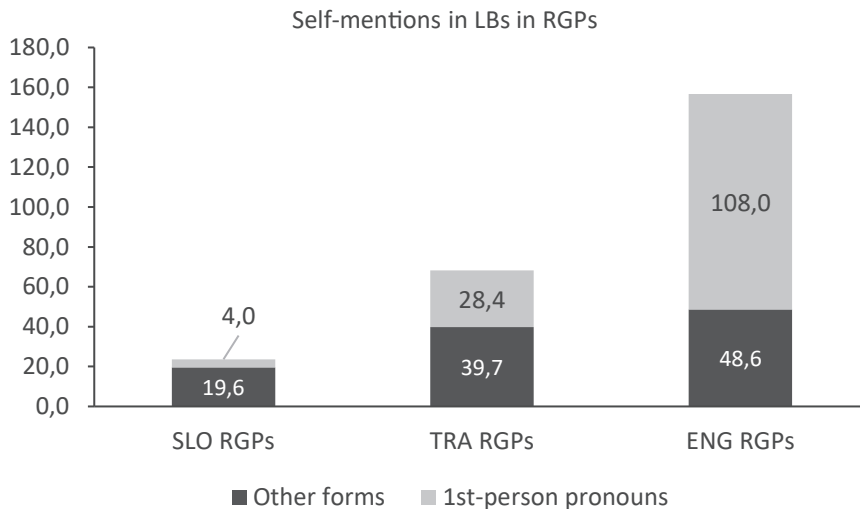


Figure 1: The share of LBs containing self-mentions in SLO RGPs, TRA RGPs and ENG RGPs, with a focus on the use of 1st-person pronouns vs. other forms of self-mentions, normalized to 100,000 words

The share of LBs containing self-mentions is lowest in SLO RGPs. The reason for this most probably lies in the morphosyntactic differences between Slovene and English, as the first person reference in Slovene does not require an explicit subject, but can be expressed with the verb (e.g. *nameravamo*, meaning ‘we intend (to)’), which means that self-mentions will not often be reflected through the use of LBs but instead through the use of single words. It is therefore much easier to compare original English texts and English translations. The difference

in the share of LBs in the function of self-mentions between ENG RGP and TRA RGP is striking, and so is the difference in the share of 1st-person pronouns in these LBs. While the use of non-pronominal self-mentions is quite similar in these two corpora, the use of 1st-person pronouns in LBs is over three times greater in ENG RGP. Moreover, in ENG RGP, LBs in 1st-person pronouns in the function of grammatical subjects (*we*) (normalized value of 76.8) also greatly outnumber those found in TRA RGP (normalized value of 19.7).

5 DISCUSSION

5.1 Rhetorical structure

Slovene and British RGP were found to be very similar in terms of their individual sections and rhetorical moves. The greatest differences between the two were observed primarily in the sequencing and scope of individual sections and consequently the rhetorical moves contained within each section. This means that the differences are not so much in the content-related requirements but rather their formal organization. In this regard, an interesting correlation with a previous finding was revealed, namely that of the so-called ‘move recurrence’ and ‘move mixing’, which according to Feng and Shi (2004, 10) characterizes promotional discourse. In Slovene as well as British RGP there is a recurrence of moves throughout different sections, creating the “niche-centred tide-like structure” identified in RGP by Feng and Shi (2004, 24), which keeps repeating the identification of *Gap*, *Goal* and *Benefits* in particular (see examples), thus re-establishing the need for the proposed research.

The main difference is that Slovene RGP have formally delineated sections as they are submitted as part of application forms, while British RGP (CfS) are submitted as an attachment to the application form, which is not restricted by form sections. While it may seem that British applicants are therefore less restrained in terms of structuring their CfS, the guidelines of individual research councils are very detailed in terms of what sections and information to include. In most cases, researchers closely follow these guidelines, which makes RGP in both cultural contexts equally structured and formally organized. In contrast, a detailed analysis of the ARRS application forms in Slovenia shows that some sections (e.g. *Scientific Background*, *Problem Identification and Objective of the Proposed Research*) are very broad in scope and therefore allow a fair amount of freedom in formulating the required contents. The guidelines in both Slovenia and the UK contain very similar requirements, which in turn explains the presence of the same rhetorical moves.

In this regard, the findings of this study differ from those obtained by Feng (2008), who found substantial differences in the rhetorical functions of RGP's in Canadian and Chinese cultural contexts (e.g., overall brevity of RGP's and less focus on *Means* in Chinese RGP's). The author attributes these differences to the discrepancies in the research traditions, socio-political structure and economic conditions of the two countries, which in turn influence the respective funding policies and evaluation procedures (ibid.). In a similar vein, the parallels identified in the rhetorical structure of Slovenian and British RGP's might also be attributed to the contextual factors of the two sociocultural contexts, such as similarities in research tradition and similar review procedures. Moreover, the Slovene research community is increasingly internationally oriented (academic mobility, international projects, etc.), with its members being in daily contact with English academic discourse, which can also account for reducing intercultural differences at the rhetorical level (Łyda and Warchał 2014, 6).

5.2 Self-mentions

While the results referring to the share of LBs in the function of self-mentions between SLO RGP's and TRA RGP's are quite similar, the comparison between the parallel and comparable part of the corpus reveals substantial discrepancies in the proportion as well as the structure of the LBs in this function. Through the use of first-person pronouns, British grant applicants show a more explicit authorial presence and higher degree of interactivity, thus accentuating the interpersonal, persuasive and promotional aspect of the genre of RGP's, whose aim is, after all, to persuade and promote (e.g. Harwood 2005a; Hyland 2002d, 1091). As has been shown in Table 2 above, in ENG RGP's, LBs in the function of self-mentions containing the 1st-person pronoun *we* (normalized value of 76.8) greatly outnumber those containing the phrases *the project/research team* or *the PI* (normalized value of 48.6). Conversely, translators seem to opt for more impersonal choices, using, e.g. *the project/research group/team* (normalized value of 39.7) instead of *we* (normalized value of 19.7) even when explicitly placing the author(s) into the text. As argued by Walkova, the 1st-person pronoun in the subject position (*we*) expresses a much more powerful authorial presence than other options of self-mentions (*our, us, the research team*). Through the use of this rhetorical device, British researchers therefore seem to assume a much more powerful authorial stance than Slovene researchers in translated RGP's.

The results of this part of the study are in line with previous research on the intercultural differences between in the use of self-mentions in Slovene and English academic discourse (e.g., Balažić Bulc, this volume; Grad 2010; Pahor

forthcoming) as well as research contrasting other Slavic and Anglo-American academic discourse (e.g., Dontcheva-Navrátilová 2013). The fact that NNES seem to be more reserved than NES in the use of self-mentions in academic writing (Hyland 2002a, 1092) has recently also been confirmed for the Slovak cultural context (Walková 2019), and has been attributed mainly to the conventions governing the author's cultural context and imagined or learned expectations of the target-language (Anglo-American) cultural context (e.g., Dontcheva-Navrátilová 2013, 22).

Walková (2019, 61) points out that while NS of English expect the author to claim authority in the text, the author's (perhaps culturally-conditioned) reluctance to use personal forms of self-referencing in presenting their contribution to the academic field may cause reservations in the reader with regard to the author's commitment to the claims they are making. It is true that the process of RGP peer review in Slovenia may not necessarily involve NS of English, however, a higher level of interaction and dialogue, achieved also through the use of 1st-person pronouns contributes to a more reader-friendly and easier-to-understand discourse, which is highly suitable for intercultural communication (Dontcheva-Navrátilová 2013: 10).

6 CONCLUSION

As part of one of the first extensive intercultural rhetoric studies on the rhetorical conventions of RGPs, the aim of this paper was to present the cultural contexts and contrastive comparison of Slovene and British RGPs. While considerable differences were found in the formal structure of respective RGPs in terms of the mode of delivery of their required contents, no major discrepancies were found in the presence of rhetorical moves. Moreover, in both sets of texts, the phenomena of move mixing and the tide-like recurrence of moves centred around highlighting the gap in existing research were observed. However, the micro-level investigation focusing on the use of LBs in the function of self-mentions revealed a more striking difference between RGPs in respective cultural contexts. In contrast to British RGPs, Slovene RGPs and their translations into English show a lower degree of interactivity, which is in line with the findings of previous studies on Slavic and Anglo-American academic discourse. As self-mentions (and first-person pronouns) have been found to also serve the promotional purpose of the genre, these findings may prove useful for L2 translators and researchers writing in L2 English by raising their awareness of the expectations and conventions regarding the use of these rhetorical elements in the target culture when composing texts of this genre.

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CHAPTER 7

Translation of academic discourse from and into the *lingua franca*: A corpus study of reformulation

Agnes Pisanski Peterlin

Abstract

In recent decades, considerable research attention has been given to cross-cultural communication in academic and scientific texts in the context of applied linguistics. In translation studies, interest for this field of translation has been growing, and it is becoming increasingly clear that translation of academic texts comprises a range of very diverse practices. An interesting factor that may play a role in the selection of the translation approach is translation direction: while translation from a peripheral language into the *lingua franca* enhances the accessibility and the impact of the study, translation from the *lingua franca* into a peripheral language contributes to the development of disciplinary terminology, reaffirming the functionality of academic registers in the target language, and promotes the pedagogical application and popularization of established theories. The aim of this paper is to analyse potential differences between translation from and into the *lingua franca*, using translation between Slovene and English as an example. A corpus analysis of a small bidirectional

translation corpus of 36 academic texts focuses on the use of reformulation, i.e., a discourse strategy where the same idea is restated in different words, used to enhance text comprehensibility. The results show that translators intervene with the use of reformulation use. Moreover, the findings reveal that reformulation is added and omitted in different ways, depending on the translation direction. The results also show that reformulation is used in slightly different ways in English and Slovene texts

Keywords: translation of academic discourse, English as a *lingua franca*, corpus study, reformulation, bidirectional corpus

Izvleček

V zadnjih desetletjih je bilo v okviru uporabnega jezikoslovja veliko raziskovalne pozornosti namenjene vprašanju medkulturne komunikacije v akademskih in znanstvenih besedilih. V prevodoslovju narašča zanimanje za to področje prevajanja in vedno bolj postaja jasno, da prevajanje akademskih besedil obsega širok razpon zelo različnih praks. Zanimiv dejavnik, ki morda prispeva k različnim prevajalskim pristopom, je smer prevajanja: prevajanje iz perifernega jezika v *lingua franca* pomembno prispeva k odmevnosti in vplivnosti študije, prevajanje iz *lingue franca* v periferni jezik pa pripomore k razvoju strokovne terminologije, krepi polno funkcionalnost ciljnega jezika in spodbuja pedagoške aplikacije in popularizacijo znanstvenih dognanj. Namen pričujočega prispevka je razčleniti potencialne razlike med prevajanjem v in iz *lingue franca* na primeru prevajanja med slovenščino in angleščino. Korpusna analiza majhnega dvosmernega prevodnega korpusa 36 akademskih besedil se osredotoča na rabo reformulacije, to je diskurzne strategije, s katero se neka ideja ponovno izrazi z drugimi besedami, s čimer se izboljša razumljivost besedila. Rezultati pokažejo, da prevajalci v rabo reformulacij posegajo. Prav tako se pokaže, da se reformulacije dodajajo in izpuščajo na različne načine glede na smer prevajanja, pa tudi da je v slovenskih besedilih reformulacija uporabljena na nekoliko drugačen način kot v angleških.

Ključne besede: prevajanje akademskega diskurza, angleščina kot *lingua franca*, korpusna študija, reformulacija, dvosmerni korpus

1 INTRODUCTION

The question of how research findings and scholarly theories are communicated across lingua-cultures has been addressed from a range of perspectives. However, while a number of studies have focused on questions related to facilitating *lingua franca* communication among multilingual scholars, including contrastive studies (e.g., Hu and Cao 2011; Molino 2010; Pisanski Peterlin 2005; Vassileva 2001), applied linguistic studies (e.g., Charles 2019; Hyland 2000), research focusing on academic literacy development (e.g., Duff 2010; Lillis and Curry 2006), research on English as an academic *lingua franca* (e.g., Mauranen 2010), translation is relatively rarely examined as a strategy of cross-cultural communication in academic settings. Within the field of applied linguistics, the role of language mediators has been addressed above all from the perspective of language editing/copyediting (Harwood et al. 2009; Mauranen 1997), while translation, as a related form of language mediation, remains less explored. On the other hand, there is an increasing interest in the area of translation of academic discourse (sometimes narrowed down to “scientific translation”) in the field of translation studies, most notably in the work of Montgomery (2000, 2009), Olohan (2015) and Bennett (2007, 2011). In addition, the number of empirical studies focusing on the characteristics of translated academic texts in the field is growing (Paradiž, this volume; Pfau 2015; Pisanski Peterlin 2008, 2016; Williams 2007).

As more insight is gained into translation of academic discourse, different types of translation purposes and approaches to translation, including intralingual translation for popularization purposes (cf. Gopferich 2008), parallel publications of original and translated academic texts (cf. Alharbi and Swales 2011; Perales-Escudero and Swales 2011; Van Bonn and Swales 2007), translation for outreach purposes (cf. McGrath 2014), self-translation (cf. Jung 2002; Pisanski Peterlin 2019) are explored. The translation of academic texts is increasingly recognized to constitute a range of diverse practices. An interesting factor that may also play an important role in the selection of translation strategies, but remains largely unexplored, is the relationship between the source and target languages. While translation from a peripheral language into the *lingua franca* ensures that new research findings become accessible to international readers, thus greatly enhancing the impact of a study, translation from the *lingua franca* into a peripheral language contributes to the development of disciplinary terminology, reaffirming the functionality of academic registers in the target language, and promotes the pedagogical application and popularization of established theories. The purpose and scope of the two translation directions are thus quite distinct, and it seems important to gain a better understanding of the ways in which this is reflected in the translation strategies used in the two translation directions.

The present paper aims to investigate potential differences between translation from and into the academic *lingua franca* by examining the differences between Slovene to English and English to Slovene translation in terms of the use of reformulation. Reformulation is the discourse strategy of restating an idea in different words, and is used to enhance the comprehensibility of the text. It is also a potential translation strategy. Using a small bi-directional corpus of academic writing translated from Slovene, a language of limited diffusion, into English, the contemporary academic *lingua franca*, and vice versa, the role of reformulation in the two translation directions is explored.

Specifically, the following research questions are addressed:

1. Are interventions with reformulations used in translation to re-negotiate the meaning of the text?
2. Are the differences between translation from and into English as the *lingua franca* of academic communication reflected in the use of reformulations in translations?
3. Are there differences between the main types of reformulation used in Slovene and English academic texts?

2 REFORMULATION

Reformulation has been shown to be an important element of academic discourse (cf. Cuenca 2003; Cuenca and Bach 2009; Hyland 2007; Murillo 2012). Hyland (2007, 269) underlines that the function of reformulations in scholarly writing is very different from that of the function of reformulations in unplanned spoken discourse, where they constitute repairs, i.e., they are used when the speaker attempts to correct the first utterance by rewording (cf. also Blakemore 1993). As Hyland (2007, 269) points out, in writing, their use is planned and “purposeful, indicating that the writer is seeking to convey particular meanings or achieve particular rhetorical effects”. In Hyland’s (2007) model, reformulation is one of the two subfunctions of code glossing (the other being exemplification).

Cuenca (2003, 1071) defines reformulation as a discourse function used to re-elaborate an idea, pointing out that the concept is “based on an equivalence operation”; i.e., the same idea is first stated and then restated in a different manner. However, Cuenca (2003, 1072) also notes that reformulation often goes beyond simple paraphrasing, and may also entail “explanation, specification, generalization, implication, gloss or summary”.

Reformulation constitutes a key rhetorical strategy in academic writing, as it facilitates the reader's comprehension of complex concepts. It needs to be noted, however, that studies have shown that there are considerable cross-cultural differences in the use of reformulations in academic discourse (cf. Cuenca 2003). In translation studies, glossing¹ has been recognized as relevant, "because of the insights it offers into the relationship between science, society and language" (Sharkas 2011, 370). In her study of glossing in translated and original scientific articles in Arabic, Sharkas (2011) focuses on the use of "supplying original source-text technical terms between brackets after their target-language correspondents in the translated text" (Sharkas 2011, 372), although she points out that in the context of translation studies, the focus on glossing entails study notes and other types of information "added by the translator to compensate for the lack of precise equivalents to certain words in the source texts, or for a perceived lack of sufficient knowledge on the part of the reader" (Sharkas 2011, 371).

For the purposes of the present study, where the corpus used is relatively limited, reformulations are defined more broadly than glossing in Sharkas (2011) to include not only glosses appearing in brackets, but also other types of paraphrasing, introduced by markers such as *i.e.*, *or* and commas. Exemplifications (cf. Hyland 2007, 270–271), which clarify a concept by producing an example (as in following passage from an English translation from the corpus used in the present study, "...traditionally 'agricultural' municipalities have entirely average or even higher proportions of inter-municipality commuters (*e. g.*, Beltinci, Veržej, Ormož)"²) are not included in the analysis. Also excluded from the analysis are instances of reformulations expressed using percentages and similar, as in the following example from an English translation: "According to calculations, some 1,637.8 ha or 29.2% of all water protection zones are covered with anthropogenic impermeable surfaces." Although these examples are clearly reformulations, they do not constitute a potential challenge in translation, as they do not involve cross-cultural or cross-linguistic issues.

3 CORPUS AND PROCEDURE

3.1 Corpus

The 160,000-word bi-directional translation corpus of academic discourse comprises 36 geography research articles in Slovene and English. As translations of

1 Sharkas (2011) employs the term *glossing* in accordance with its use in translation studies, where it refers to reformulations added by the translator.

2 The use of underlined text is mine.

research articles are only rarely overtly acknowledged as such (cf. Franco Aixela 2004), and only exceptionally published along with their corresponding originals (cf. Pisanski Peterlin 2019; see also Salager-Meyer for a discussion of bilingual journals), the availability of material for analysis is very limited. Geography was the only discipline for which bi-directional translations for this language combination were obtainable. Fortuitously, geography is also a particularly suitable discipline for investigations comparing translation into and from the *lingua franca*, as it deals with both global and local phenomena. The number of texts used was limited by the availability of English to Slovene translations.

The corpus consists of four subcorpora, comprising nine texts each: Slovene original texts (Slo-Or), their corresponding English translations (Eng-Tr), English original texts (Eng-Or) and their corresponding Slovene translations (Slo-Tr). All the texts were published between 2004 and 2014 in *Acta Geographica Slovenica*, a Slovene open-access geography journal where bilingual Slovene and English versions of papers are occasionally published side by side.

The nine Slovene articles are written by authors who are all native speakers of Slovene, while the translators of these articles are both native speakers of Slovene³ and native speakers of English (cf. Pisanski Peterlin 2016: 275 for further details on the information available on the translators). The nine English articles are authored by scholars with different first languages⁴ using *English as the lingua franca* (ELF) of academic communication. The translators of the English articles are not specifically credited, but given that Slovene is a language of lesser diffusion with just over two million speakers it seems obvious that all the translators were native speakers of Slovene working into their first language.

3.2 Procedure

The corpus was analysed using AntConc (Anthony 2018) concordance software using a list of search items that can potentially be used to introduce reformulations. The English list was based on several previous studies of reformulations (Cuenca 2003; Cuenca and Bach 2007; Hyland 2007), the Slovene search list was compiled using translations of the English reformulations. In addition to lexical items, brackets were also used to identify potential reformulations. The lists of search items are given in the Appendix. The output of the corpus search was examined manually to eliminate the instances that were not reformulations. Subsequently, the reformulations identified in the two translation subcorpora

3 L1-L2 translation is not uncommon in the context of Slovene (see Pokorn 2009 and Hirci 2012 for details).

4 These languages are Spanish, Hungarian, Persian, Romanian, Serbian, Greek, Croatian, Turkish and English.

(Eng-Tr and Slo-Tr) were compared to their corresponding originals in the Slo-Or and Eng-Or subcorpora, respectively. For each reformulation in the translated text, it was determined whether there was a matching reformulation in the corresponding original text and vice versa. When the items with no apparent matching reformulations were identified in the output of the corpus search, the texts were manually examined to identify any additional matching reformulations not detected through a corpus search.

The matching reformulations (i.e., those recurring in both the original and its corresponding translation) were then investigated to determine whether any consisting patterns of reformulation could be observed. A comparison was made between the two translation directions. The reformulations without a match were examined separately for each subcorpus, and both additions (the reformulations found in the translations but not in the corresponding originals) as well as omissions (the reformulations found in the originals but not in the corresponding translations) were compared. The two translation directions were contrasted in terms of the frequency and the type of additions and omissions.

4 RESULTS

4.1 Quantitative comparison

The initial corpus search yielded a total of 4,022 potential reformulations. After eliminating those instances that were not reformulations and those that were identified twice, the total number of reformulations identified through corpus search was 443. The manual analysis identified additional eight instances of reformulations, bringing the total number of reformulations identified in the corpus to 451.

The total number of reformulations in the four subcorpora is given in Table 1, along with the numbers of matching reformulations for both translation directions, as well as the numbers of reformulations added and omitted in translation. The ratio between matching reformulations and additions/omissions is also expressed in terms of percentage to allow a better comparison between translation into and from ELF.

The analysis revealed that reformulations occurred in all four subcorpora. Regardless of the translation direction, most reformulations occurred in both the source and target texts. However, there are noticeable differences between the two translation directions in terms of omissions: in Slovene to English

Table 1: A quantitative comparison of reformulations across the four subcorpora

	Translation into ELF (Slovene to English)		Translation from ELF (English to Slovene)	
	Slo-Or	Eng-Tr	Eng-Or	Slo-Tr
Matching (%)	78 (75%)	78 (78%)	92 (81.4%)	92 (68.7%)
No match (%)	26 (25%)	22 (22%)	21 (18.6%)	42 (31.3%)
Total (100%)	104 (100%)	100 (100%)	113 (100%)	134 (100%)

translation, 25% of reformulations found in the source texts were omitted, as opposed to the English to Slovene translation where only 18.6% of reformulations from the source texts were omitted. The difference is even more pronounced in terms of additions: whereas 22% of the reformulations in the target texts in Slovene to English translation were added, additions were more frequent in the target texts in English to Slovene translation (31.3% of reformulations). The types of matching reformulations are outlined in subsection 5.2, while the types are of reformulations added and omitted in translation are detailed in 5.3 and 5.4, respectively.

4.2 Reformulations retained in translation

A systematic examination of the reformulations retained in translation identified seven different types of reformulations. Three of these, **(near-)synonyms**, **paraphrase** and **abbreviations**, involved monolingual elaborations or re-wording. The fourth category, **cross-cultural explanation**, covered those reformulations that were used to explain a culture-specific, local concept. The remaining three categories of reformulation, **L3 term**, **gloss of a L3 term** and **L3 title**, entailed cross-linguistic reformulation involving a third language.

The seven types of reformulation are outlined in Table 2. For each type, a brief explanation is provided along with illustrative examples from the individual corpora. Throughout the paper, an English gloss is provided in inverted commas for all Slovene examples.

Some of the types of reformulations identified in Table 2 also occur as additions and omissions in subsections 4.3 and 4.4 respectively. For the sake of consistency and clarity, the same label is used in those sections.

Table 2: Types of reformulations retained in translation

	Slo-Or	Eng-Tr	Eng-Or	Slo-Tr
(Near-)synonym A (nearly) synonymous term or expression is provided	<i>Migracija oziroma selitev...</i> 'migration or moving'	<i>Migration or population movement...</i>	<i>...pathogens or microorganisms...</i>	<i>...patogeni ali mikroorganizmi...</i> 'pathogens or microorganisms'
Paraphrase A term or expression is rephrased, explained in more detail or defined	<i>Motorizacija (število osebnih avtomobilov na 1000 prebivalcev)...</i> 'motorization (number of cars per 1,000 residents)'	<i>Motorization (number of automobiles per 1,000 residents)...</i>	<i>...in what is considered the peak season (July–September)...</i>	<i>...na višku sezone (od julija do septembra)...</i> 'in the peak season (from July until September)'
Abbreviation The abbreviation, which typically subsequently replaces the term in question, is presented	<i>...digitalni model višin (DMV)...</i> 'the digital elevation model (DEM)'	<i>...the digital elevation model (DEM)...</i>	<i>...analytic hierarchy process (AHP)...</i>	<i>...analitični hierarhični proces... (AHP)</i> 'analytic hierarchy process (AHP)'
Cross-cultural explanation An explanation of a culture-specific concept or a regional geographic feature is provided	<i>...v zatrepu Bohinjske kotline (Ukanc)...</i> 'at the end of the Bohinj basin (Ukanc)'	<i>Ukanc is a place at the end of the Bohinj basin, hidden under the walls of the Komna plateau.</i>	<i>One-room apartments (conventillos)...</i>	<i>Enosobna stanovanja (conventillo)...</i> 'one-room apartments (conventillos)'
L3 term A term in a third language is given	<i>Med prostornino gorskega podora (angl.: major rockfall, nem.: Bergsturz) in kotom gibanja obstaja negativna povezava.</i> 'Between the volume of major rockfalls (Eng. major rockfall, Ger. Bergsturz) and the travel angle there is a negative correlation.'	<i>There is a negative correlation between the volume of major rockfalls (bergsturz) and the travel angle.</i>	<i>...exposed to a cold and dry winter bora wind (locally called the bura).</i>	<i>...izpostavljeno hladnemu in suhemu vetru, burji (lokalno ime bura).</i> 'exposed to a cold and dry wind, bora (local name bura)'

	Slo-Or	Eng-Tr	Eng-Or	Slo-Tr
<i>Gloss of a L3 term</i> An established term from a third language is glossed	-	-	...the so-called "conventillo" – a small convent...	...conventillo – samostanček... 'conventillo – a small convent'
<i>L3 title</i> The title in the original (third) language is given	-	-	...set down a more in-depth version of <i>The Origin of Continents (Die Entstehung der Kontinente und Ozeane)</i>zasnoval bolj poglobljeno različico <i>Nastanka kontinentov (Die Entstehung der Kontinente und Ozeane)</i> ... 'drafted a more in-depth version of <i>The Origin of Continents (Die Entstehung der Kontinente und Ozeane)</i> '

4.3 Reformulations added in translation

Additions in Slovene-English translation: Reformulations found only in the Eng-Tr Subcorpus

In Slovene-English translation there are several examples of (**near**)-**synonyms** and **abbreviations** (see examples 1 and 2) added in translation.

- (1) *environmental parameters (variables)*
- (1a)⁵ *okoljskimi spremenljivkami* 'environmental variables'
- (2) *a Digital Terrain Model (DTM) or a Digital Elevation Model (DEM)*
- (2a) *digitalni model reliefa ali višin* 'Digital Terrain or Elevation Model'

Another type of reformulation added in Slovene-English translation involves **English glosses of Slovene expressions** in an attempt to bridge cross-linguistic differences. In two instances (3–4), the names of Slovene rivers are glossed in English, to further illustrate their characters; both examples occur in the same text.

- (3) *...its torrential character because it "rages" (the verb "besneti" in Slovene)*...

5 The corresponding passages from the Slo-Or subcorpus are also given where relevant and marked with the letter *a*.

- (3a) ... *njenem hudourniškem značaju, ker ob visoki vodi »besni«*... ‘its torrential character because it “rages” when the waters are high’
- (4) *is similarly linked to the word nemil (“pitiless, cruel”), reflecting the periodic*
- (4a) ...*povezujejo z besedami »ne mil« oziroma »nemil«, kar pomeni, da je hudourniška Nemilščica občasno neusmiljena* ... ‘is linked to the words “ne mil” or “nemil”, meaning that the torrential Nemiščica is occasionally merciless...’

There is also a series of examples (cf. examples 5–8), all from the same text, where street names are glossed in English. A comparison of examples 7 and 8 shows that the glossing is inconsistent.

- (5) *Cesta dveh cesarjev (“Street of Two Emperors”)*
- (6) *Dolenjska cesta (“Dolenjska Street”)*
- (7) *Tržaška cesta (“Trieste Street”)*
- (8) *Tržaška cesta (street)*

Finally, reformulations added in translation into English involve **cross-cultural explanations**. These explanations concern regional geography: where the Slovene original assumes that the reader is thoroughly familiar with the geography of Slovenia, the translation cannot make the same assumption (see examples 9–10).

- (9) *most eastern part of the Slovenian Alps (Pohorje)*
- (10) *except the seaside region called Primorska*

Additions in English-Slovene translation: Reformulations found only in the Slo-Tr subcorpus

In English-Slovene translation, **(near-)synonyms** and **abbreviations** (see examples 11–14) were also added in translation.

- (11) *restavracije, prevoznništvo in pomoč na domu (hišni pomočniki)*. ‘restaurants, transport services and household help (domestic helpers).’
- (11a)⁶ *restaurants, transport services and household help.*

Reformulation with abbreviation occurs both with a combination of a Slovene name and an English abbreviation (as in example 20), as well as with abbreviations that correspond to both the Slovene and English names (as in example 21).

⁶ The corresponding passages from the Eng-Or subcorpus are also given and marked with the letter *a*.

- (12) *Evropsko geoznanstveno združenje (EGU) podeljuje medaljo Alfreda Wegenerja.* ‘The European Geosciences Union (EGU) awards the Alfred Wegener Medal.’
- (12a) *The European Geosciences Union sponsors the Alfred Wegener Medal.*
- (13) *Zelo pomemben napredek v urbanizmu predstavlja uporaba geografskega informacijskega sistema (GIS)...* ‘A valuable breakthrough in the field of urban planning is the application of the geographic information system (GIS).’
- (13a) *One of the valuable breakthroughs in the field of urban planning is the application of the GIS.*

Interestingly, there is an example 14 where the established (English) abbreviation is given in parenthesis, but the name of the organization is mistranslated in Slovene.

- (14) *...pristop družbenega partnerstva, ki je vključeval vlado, sindikat in nove vladne organizacije (NGO)* ‘...a Social Partnership approach, involving government, trades unions and new governmental organizations (NGOs)’
- (14a) *... a Social Partnership approach, involving government, trades unions and NGOs*

Furthermore, there were a number of cases where an English term was translated into Slovene, but the **English term was also provided** (see examples 15–16).

- (15) *Kasneje se je je prijelo ime »modra banana« (ang. Blue banana).* ‘It later became known as “the blue banana” (Eng. Blue Banana).’
- (15a) *Later it was called by its popular name “Blue Banana”.*
- (16) *uporabila inteligentni programski sistem, ki je temeljil na teoriji mehkih množic oziroma na mehkem sklepanju (angleško fuzzy inference)* ‘used an intelligent software system based on fuzzy set theory or fuzzy inference (English fuzzy inference)’
- (16a) *using an intelligent system based on fuzzy inference*

Finally, there were a few cases where a **book title in another language** (German, Serbian, French,...) was provided along with the Slovene translation, as in examples 17 and 18.

- (17) *z Wegenerjem sodeloval pri pisanju knjige Podnebja v geološki zgodovini (Die Klimate der Geologischen Vorzeit)* ‘collaborated with Wegener on the book *Climates of the Earth’s Past (Die Klimate der Geologischen Vorzeit)*’

- (17a) *together with Wegener he would engage in the writing of the work Climates of the Earth's Past.*
- (18) *v publikaciji Glas, ki jo je izdajala Srbska kraljeva akademija, objavil članek z naslovom »Prilog teoriji matematske klime« (K matematični teoriji podnebja) 'published the paper "Prilog teoriji matematske klime" (On the mathematical theory of climate) in the Serbian Royal Academy's journal Glas'*
- (18a) *published the paper "On the mathematical theory of climate" in the Serbian Royal Academy's journal Glas*

4.4 Reformulations omitted in translation

Finally, reformulations found in the originals, but omitted in translation are examined briefly and separately for each subcorpus of originals.

Omissions in Slovene-English translation: Reformulations found only in the Slo-Or subcorpus

As was the case with additions, (**near-**)**synonyms** and **abbreviations** were also omitted in translation in both directions. Examples 19–21 illustrate this type of omissions for the Slovene-English translation.

- (19) *Na konglomeratni terasi [...] prevladuje izprana prst ali luvisol 'on conglomerate terrace [...] leached soil or luvisol dominates'*
- (19a)⁷ *...on conglomerate there is leached soil...*
- (20) *Pri večjem vbočenju (konkavno)... 'When the dip (concavity) is greater...'*
- (20a) *With larger slope concavity...*
- (21) *Podoben algoritem sta uvedla tudi Hegg in Kienholz (1995) za trikotno nepravilno mrežo (TIN). 'A similar algorithm was introduced by Hegg and Kienholz (1995) for the Triangular Irregular Network (TIN).'*
- (21a) *A similar algorithm was introduced by Hegg and Kienholz (1995) for the Triangular Irregular Network.*

In addition, another type of reformulation was regularly omitted in translation into English: where the **English term** (sometimes along with the German term, cf. example 23) was provided in the Slovene original along with the Slovene term,

⁷ The corresponding passages from the Eng-Tr subcorpus are also given and marked with the letter *a*.

the bilingual or trilingual reformulation was not retained in translation for obvious reasons (see examples 22–24).

- (22) *Pri razvoju računalniških programov za račun dosega skalnega podora (angl.: runout distance) je posebno pomembno...* ‘In developing computer programs for the calculation of the runout zones (Engl.: runout distance), it is especially important...’
- (22a) *In developing computer programs for the calculation of the runout zones it is essential...*
- (23) *...srednji naklon (angl.: mean gradient; nem.: mittlere Neigung)* ‘mean gradient (Eng.: mean gradient; Ger.: mittlere Neigung)’...
- (23a) *... mean gradient...*
- (24) *... med katerimi se pogosto uporablja indeks gradientov rečnih odsekov (ang. Stream Length-gradient index – SL indeks; Hack 1973)* ‘... among which the Stream-Length gradient index (Eng. Stream Length-gradient index – SL index) is frequently used; Hack 1973’
- (24a) *Among them is Stream Length-gradient index (SL index; Hack 1973)...*

In some of these cases, some degree of reformulation was retained in translation, but it was less extensive than in Slovene (see example 24a), again for obvious reasons.

Finally, a very infrequent omission of reformulation occurred with **paraphrases**: there were two cases when a specific term (the English term *commuter* and the Slovene term *hribinski plaz* ‘rock burst’) was explained in considerable detail in the original, but the explanation was not found in the translation.

Omissions in English-Slovene translation: Reformulations found only in the Eng-Or subcorpus

In English-Slovene translation, omissions of reformulations only involved (**near-**) **synonyms** and **abbreviations** (cf. examples 25–26).

- (25) *These three centres or cores are...*
- (25a)⁸ *Ta tri območja so...* ‘These three areas are...’
- (26) *...in the European Spatial Development Perspective (ESDP) in 1999.*
- (26a) *...Evropske prostorske razvojne perspektive iz leta 1999.* ‘the European Spatial Development Perspective (ESDP) of 1999’

8 The corresponding passages from the Slo-Tr subcorpus are also given and marked with the letter *a*.

5 DISCUSSION

The aim of the present study was to examine the role of reformulation in translation of academic discourse from Slovene into English and vice versa. The starting point of the analysis was the first research question, whether interventions with reformulations are used in translation to re-negotiate the meaning of the text. The results showed that interventions with reformulations did indeed occur, involving both the omission of reformulations found in the originals and addition of reformulations in the target texts.

The second research question was whether differences in the use of reformulation between the two translation directions can be observed. The results revealed pronounced differences between the two translation directions in terms of the frequency of reformulations: while 42 reformulations were added in English-Slovene translation, only 22 were added in Slovene-English translation. In fact, in Slovene-English translation there were more translations omitted from the Slovene originals (26) in translation than there were additions to the English translations.

In English-Slovene translation there was a strong focus on providing English equivalents along with the Slovene translations of terms. Two potential reasons for providing an English term or expression along with the Slovene translation seem particularly likely. The first is to provide absolute clarity: if the text introduced a Slovene equivalent for an English term for the first time (or the equivalent has been used before, but it is not yet familiar or generally accepted), the translator may have been somewhat tentative and unsure about whether the term would be understood properly (cf. Žigon and Almasy in this volume for similar findings in 19th century Slovene translations of German textbooks). The second reason is to educate the Slovene audience about established *lingua franca* equivalents used by the international discourse community of geographers. It seems very likely that sometimes the two reasons for providing the English-language equivalent are combined.

In addition, an interesting detail emerges in English-Slovene translation. It reflects the difference between the tendency of the source language, English, the *lingua franca* of academic communication, to favour a monolingual presentation of the content, and the tendency of the target language, Slovene, a language of limited diffusion, to favour a more multilingual approach.⁹ This difference emerges in the case of several book and paper titles. While in some cases both the English originals and Slovene translations also present the original L3 title, there

⁹ This is very much in accordance with the findings of Zlatnar Moe et al. (2019) for non-academic genres: they also found that translation strategies are influenced by the status of the source and target languages.

are also several examples where the English original only provides the English version of the title, while the Slovene translation gives both the Slovene version and the original German, French or Serbian version of the title.

In Slovene-English translation, there was much less emphasis on providing cross-linguistic equivalents. There were two cases where names of rivers in Slovene required glossing because the names were used to illustrate the untamed character of the rivers in the original. Linguistic equivalents were only provided in a few other, somewhat puzzling cases, where street names were glossed in English. These glosses all occurred in the same text, relatively close together. The textual data provide no clue as to the reasons for the unexpected English glosses: the glossed names, with the possible exception of Tržaška cesta (Trieste Road, the main road leading into Ljubljana from the south-west, i.e., the direction of the Italian city of Trieste), do not provide the reader with any relevant information about the location or characteristics of the streets in question; the translator's motivation to include the glosses remains unclear.

However, there is an interesting category of glosses that are added in Slovene-English translation: cross-cultural reformulations explaining the regional geography. The motivation for using these glosses is very clear. Whereas Slovene regional geography would be familiar to the Slovene readers, the same expectation cannot be made about the international audience of the English text.

Finally, it needs to be pointed out that some types of reformulation commonly occurred in both translation directions. Specifically, monolingual elaborations and re-wordings in the form of (near-)synonyms and abbreviations were retained, added and omitted in translation regardless of directionality. The reason for adding or omitting a (near-)synonym in translation probably varied, from situations where synonymy was more common (or simply more familiar to the author or translator) in one language than the other, to more complex situations where a certain term was more established in one of the languages, while additional explanation was required in the other language. As for abbreviations, reformulations were often added or omitted for discursive reasons: because the original and the translation were structured in a slightly different way, a term and the abbreviation might have been introduced sooner in one of the versions, or the abbreviation only replaced the term in one of the languages.

The third research question concerned potential differences between the use of reformulations in Slovene and English academic texts. The shows that there were more reformulations in Slovene than in English, regardless of whether English was the source or the target language, although the difference was smaller in Slovene-English translation. The fact that Slovene is a language of a lesser diffusion while English is the *lingua franca* of academic communication seems to be

reflected in the use of reformulations. Slovene texts, regardless of whether they were originals or translations, were very likely to include English language terms along with the Slovene terms, whereas bilingual Slovene and English expressions only occurred in English translations in the two cases described above: the glosses of river and street names.

6 CONCLUSION

Translation of academic texts involves a range of different practices, and translation direction is one of the factors that potentially influence the strategies employed by the translator. In the present study, translation of academic texts from and into the *lingua franca* were compared in terms of reformulation use. Reformulation is a discourse function with a prominent role in academic communication, contributing to the negotiation of meaning (cf. Hyland 2007). In translation, reformulation assumes additional functions as it contributes to the re-negotiation of the meaning across lingua-cultures.

The findings of the corpus analysis confirmed that reformulations in English-Slovene translation are used in a somewhat different way than in Slovene-English translation. Additions of reformulations were more frequent in translation from the *lingua franca* than in translation into the *lingua franca*; moreover, the reformulations in translation from the *lingua franca* were more likely to be multilingual. While the corpus used in the present study was very limited in size and the findings cannot be generalized, they nevertheless provide valuable clues about the role of directionality in translation of academic texts. The analysis of the small corpus offers strong support for the assumption that the strategies employed in translation depend on the translation direction and the relationship between the source and target languages. Furthermore, the findings reveal how the meaning is re-negotiated in translations through translators' interventions with reformulations. Finally, the results suggest that the scope of reformulation may be different in the *lingua franca* as opposed to a peripheral language.

These findings raise several interesting points for future research. The first concerns expanding the research paradigm to other discourse functions to determine whether the interplay of translation strategies and directionality is observable for a range of discourse functions. In addition, further research on the process of translation could provide important clues about the translators' decisions on when and how to interfere with reformulations. Finally, it seems important to gain insight into the impact of reformulations in translations of academic texts from the perspective of reception. Research focusing on reception would provide a better understanding of how the meaning is re-negotiated in translation.

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Appendix

English search list

(
 called
 Eng*
 expression
 i. e.
 i.e.
 in other words
 known
 label
 local
 locally
 name
 named
 namely
 or
 put another way
 referred
 Slo*
 term
 that is
 which means
 word

Slovene search list

(
 ali
 ang*
 besed*
 i. e.
 i.e.
 ime*
 izraz*
 lokal*
 namre*
 oznak*
 poimenova*
 pomeni
 povedano
 pri nas
 slo*
 termin*
 tj.
 to je
 z drugimi besedami
 znan*

CHAPTER 8

Verbs of visual perception as evidentials in research article texts in English and Croatian

Ivana Bašić

Abstract

This paper analyses the use of verbs of visual perception in research articles in English and Croatian, claiming that in academic discourse these verbs are used as *functional evidentials*. The term *evidentiality* is used in the meaning of a broad cognitive category that reflects *natural epistemology*. As natural epistemology is based on assessing evidence, we assume that the prominence of verbs of visual perception in research articles is pragmatically motivated by the wish to make the claims more reliable, reflecting the fact that the acquisition of knowledge in research begins with observing and seeing, on the basis of which we make inferences. An analysis of *evidential rhetorical strategies* is conducted on a corpus of 95 original research articles in English and 70 in Croatian in nine disciplines, and it is found that the typical syntactic frames in which verbs of visual perception are used in research article texts in both languages and all the disciplines analysed can be considered as conventionalized rhetorical devices used to ensure the acceptance of the claims made in the text.

Keywords: verbs of visual perception, evidential rhetorical strategies, research article texts

Izveleček

V prispevku je analizirana raba glagolov vidnega zaznavanja v znanstvenih člankih v angleščini in hrvaščini; postavi se teza, da se v akademskem diskurzu ti glagoli uporabljajo v *funkciji evidencialnosti*. Izraz *evidencialnost* je uporabljen v smislu široke kognitivne kategorije, ki odraža *naravno epistemologijo*. Ker *naravna epistemologija* temelji na ocenjevanju dokazov, domnevamo, da je prominentnost glagolov vidnega zaznavanja v znanstvenem članku pragmatično motivirana z željo, da bi bile trditve bolj zanesljive, kar odraža dejstvo, da se pri raziskovanju pridobivanje znanja začne z opazovanjem in videnjem, na podlagi česar nato izpeljemo zaključke. Analiza *evidencialnih retoričnih strategij* je narejena na korpusu 95 izvirnih znanstvenih člankov v angleščini in 70 izvirnih znanstvenih člankov v hrvaščini iz skupno devetih ved. Pokaže se, da je mogoče tipične sintaktične okvire, v katerih se glagoli vidnega zaznavanja uporabljajo v besedilih znanstvenih člankov v obeh jezikih in v vseh analiziranih vedah, smatrati za konvencionalizirana retorična sredstva, katerih uporaba naj bi zagotovila sprejemanje trditev, ki se postavijo v besedilu.

Ključne besede: glagoli vidnega zaznavanja, evidencialne retorične strategije, besedila znanstvenega članka

1 INTRODUCTION

This paper was inspired by the doctoral research I conducted in 2016–2017 (Bašić 2017), in which I examined the evidential meanings expressed by various reporting verbs used in research articles in English and Croatian. Among the reporting verbs in the studied corpus, verbs of visual perception featured prominently in both languages and all disciplines analysed. In this paper, I propose that verbs of visual perception are conventionally used as *functional evidentials* in academic discourse in English and Croatian (for more on *functional evidentials* see Ifantidou 2001, Mushin 2001, Bašić 2017). More specifically, I will show that in research articles in English and Croatian typical syntactic frames in which such verbs appear can be considered as *evidential strategies*, i.e. conventionalized rhetorical strategies used to ensure persuasion and, consequently, acceptance of the claims made in the text of the research article.

The initial assumption in this paper is that the rhetorical persuasiveness of verbs of visual perception can be traced to their implicit evidential meanings, namely the fact that the lexical meanings of such verbs imply either directly visually acquired knowledge or knowledge acquired by means of inferring on the basis of observing. As such empirical types of knowledge are conventionally perceived as persuasive, both in the “natural epistemology” reflected in the natural languages (Aikhenvald 2004; Givón 1982; Mushin 2001; Willett 1988; Woodbury 1986) and in the epistemologies of scientific disciplines, the rhetorical strategy of constructing a proposition around a verb of visual perception seems an effective choice in intending to ensure acceptance of one’s claims (Bašić 2017; Hyland 2011). What will be demonstrated in the textual analysis is how the evidential (and consequently rhetorical) potential of such verbs is realized by using various syntactic frames in a range of textual contexts. It will also be demonstrated that the evidential interpretation of utterances containing verbs of visual perception as reporting verbs will be the result of the interplay of a number of pragmatic factors that are relevant in the particular communicative situation, but (as the contrastive analysis of the English and Croatian corpora will show) the reports containing verbs of visual perception will always be used as functional evidentials whose ultimate aim is to construct rhetorical credibility and gain acceptance for the author’s claims.

The paper begins with defining the concepts necessary for setting up the research problem and explaining the methodology used in the analysis, namely the concepts of *evidentiality* and *epistemological stance* and their relevance for an effective analysis of academic discourse, followed by the concept of *knowledge construction* in academic discourse, as well as the concept of *reporting perspectives* in the research article genre. What comes next is information about the textual corpus

of research articles analysed, the research hypothesis and the explanation of the methodology used in the analysis. This is followed by the textual analysis of the examples from the corpus and a discussion of the findings. Finally, conclusions and potential avenues for future research are offered.

2 ACADEMIC PERSUASION, EVIDENTIALITY AND KNOWLEDGE CONSTRUCTION

Research findings and results, i.e. the information that researchers and scholars gather by means of using scientific research methods, are communicated via a specific type of discourse, the academic discourse, wherein the genre of the research article (RA), a peer-reviewed text published in a journal, is one of the typical ways in which researchers communicate within their discipline. The RA is an example of horizontal academic communication (Swales 2004), as the text is primarily intended to be read by peers, i.e. fellow researchers. In communicating their findings, researchers and scholars put forward their claims, knowing that these will be tested by their peers and ultimately disputed or accepted. Therefore, it is reasonable to claim that the underlying pragmatic function of the RA genre is to ensure acceptance for one's claims, which is achieved by making these claims persuasive and by making the presented information reliable (Bašić 2017; Hyland 2011; Swales 2004).

2.1 Evidentiality – the linguistic coding of epistemology¹

The fundamental concept underlying the setup of the research problem and the methodology for the textual analysis in this paper is the concept of *evidentiality*. In the analysis, I build on the definitions of authors who consider evidentiality to be a conceptual (cognitive) category which reflects *natural epistemology*, i.e. ways of conceptualizing, categorizing and assessing knowledge in natural languages (Chafe 1986; Givón 1982; Ifantidou 2001; Mushin 2001; Žic Fuchs 1988). Regardless of their differences in the definitions of evidentiality, researchers generally agree that all natural languages have the possibility to mark how we know what we know (what the source of the presented information is) and, additionally, how we assess that knowledge (Aikhenvald 2018; Aikhenvald and Dixon 2003; Chafe and Nichols 1986). In some languages the marking of the source of information is grammaticalized, i.e. there are morphological devices (usually verbal endings)

¹ *Evidentiality: The Linguistic Coding of Epistemology* (1986) is the title of the seminal volume edited by Wallace Chafe and Johanna Nichols, containing a collection of articles on the linguistic phenomenon of evidentiality (see the list of references).

that systematically code how information was acquired, in a similar way that tense is coded in the morphology of the verb in English and Croatian. One of the most widely quoted examples of grammatically coded evidentiality is Willett's (1988) example from the South American language Tuyuca, in which a sentence ending in five different evidential morphemes means respectively that the speaker personally witnessed (either saw or heard) the situation described, that they inferred what had happened on the basis of some concrete clue or evidence, that they heard from somebody else what had happened or that they assumed what had happened on the basis of general knowledge and reasoning.² In languages such as English and Croatian, however, evidential information (primarily referring to directly or indirectly acquired knowledge) is not morphologically coded, but there are identifiable lexical and syntactic structures that express "evidential-like meanings" or have "evidential meaning extensions", which are pragmatically inferred.³ Aikhenvald (2004) refers to such ways of expressing evidential meanings as *evidential strategies*.

The types of knowledge that particular cultures (and languages) conventionally recognize and mark may vary, but existing scholarship on this phenomenon has it that the fundamental division is between directly and indirectly acquired knowledge (Aikhenvald 2004; Aikhenvald 2018; Aikhenvald and Dixon 2003; De Haan 2005; Givón 1982; Ifantidou 2001; Palmer 2001; Willett 1988; Woodbury 1986; Žic Fuchs 1988). Regardless of specific cultural differences, there seems to be a criterion common to all languages and cultures when it comes to establishing the hierarchy of the types of knowledge in terms of its reliability. According to Givón (1982), human categorization of knowledge (natural epistemology) is based on assessing evidence, whereby directly visually acquired knowledge is conventionally considered the most reliable type of knowledge and, as such, not challenged (Aikhenvald 2004; Bašić 2017; Hardman 1986; Schlichter 1986; Weber 1986; Wierzbicka 1994; Willett 1988). This is not surprising if we take into account that the acquisition of knowledge begins with our senses (for more on the notion of *embodied cognition*, one of the tenets of contemporary cognitive science, see Varela et al. (1991, 2016).⁴ In the case of visually acquired knowledge, the process begins with seeing and observing, on the basis of which we make inferences. As this process is universal to human beings, it is reflected

2 Aikhenvald (2004, 2018) strongly advocates the use of the term *evidentiality* only for the grammatical category marking the source of information and insists that the reliability of knowledge (the "evidence") is not directly coded in the evidential marker, but always pragmatically inferred.

3 Among the first to explicitly identify evidentiality in English were Anderson (1986) and Chafe (1986), contributors to the Chafe and Nichols (1986) volume on evidentiality, while among very few authors who write about expressing evidential meanings in Croatian I point to the work of Žic Fuchs (1988), Čulić-Viskora (2008) and Gnjatović and Matasović (2010).

4 "By using the term *embodied* we mean to highlight two points: first that cognition depends upon the kinds of experience that come from having a body with various sensorimotor capacities, and second, that these individual sensorimotor capacities are themselves embedded in a more encompassing biological, psychological and cultural context." (Varela et al. 1991, 172–3)

in many languages in linguistic realizations of the primary conceptual metaphor KNOWING IS SEEING.⁵ Both in traditional oral cultures and communities and in sophisticated modern research communities, the highest degree of reliability is conventionally attributed to knowledge acquired directly, through the empirical process of observing and inferring on the basis of what you see.⁶ It may therefore be safely assumed that the prominence of the verbs of visual perception among the reporting verbs used in research article texts is pragmatically motivated by the wish to make the stated claims more reliable (Bašić 2017). In other words, language enables us to construe utterances in a way that we believe will be the most communicatively effective in a certain situation, so the linguistic behaviour of the authors of RA texts can be observed as a reflection of their disciplinary epistemologies, which at the same time points to how the authors want the reader to interpret the stated information (Bašić 2017; Hyland 2011). In this respect a very applicable framework for analysing the complex process of rhetorically constructing credibility in one's discourse can be found in Mushin's (2001) concept of *epistemological stance*. The concept unites the phenomena of *linguistic subjectivity*, *epistemic modality* and *evidentiality*. Namely, in Mushin's view (which relies on the theoretical framework of cognitive linguistics, primarily on the notions of *subjectivity* and *subjectification* as understood by Traugott (1989), Langacker (1990) and Sweetser (1990)), the linguistic framing of a situation reflects a *conceptualizer's subjective construal* of a situation, i.e. the conceptualizer's perspective concerning the knowledge of information they express in an utterance, and the ensuing evidential interpretations are the result of pragmatic inference based on the pragmatic context of the particular utterance. Conceptualizers can, for instance, present their knowledge as personal experience, an inference, a report, or a fact. In the case of research article texts this means that the authors, relying on their knowledge of the disciplinary conventions and epistemologies, can rhetorically construe utterances in ways that they believe to be the most communicatively effective.

2.2 Knowledge construction by means of academic discourse

Hyland (2011, 193) perceives academic writing as a dynamic process of *knowledge construction* in a particular discipline and a particular community, in which the disciplinary community decides what is to be accepted as verified disciplinary

5 The notion of conceptual metaphor as a fundamental mechanism of constructing meaning and organizing knowledge by cognitively (and linguistically) relating two different conceptual domains was introduced by Lakoff and Johnson (1980). The most fundamental and universal metaphors, relating to common aspects of human experience (such as KNOWING IS SEEING) are referred to as primary metaphors (Grady 1997, 296).

6 In Givón's (1982) view, natural epistemology is the equivalent of the empirical process of inductive reasoning in science.

knowledge. Hyland's term *knowledge construction* seems particularly aptly chosen and vivid, as it implies two parallel goals of academic discourse: firstly, authors hope that their findings will be used to “build” on the existing disciplinary knowledge, and secondly, in order to achieve this they try to rhetorically “construct” their discourse as persuasive. Ways of rhetorically framing academic discourse and balancing between various high and low-risk discourse functions in RA texts (see Tang and John 1999) are culture-specific and depend on various community and disciplinary conventions, which are the result of the nature of the research problems and processes (non-experimental/argumentative versus experimental) and the epistemological traditions of the disciplines (Hyland 2000, 2011). Put broadly, authors will use rhetorical strategies which they judge to be productive in achieving academic persuasion and, conversely, they will avoid strategies which they perceive as potentially counter-productive (see Bašić and Veselica Majhut 2017).

3 CORPUS, HYPOTHESIS AND METHOD

The textual analysis in this paper was conducted on a corpus of complete texts of 165 research articles in nine research disciplines, both “hard” and “soft” (computer engineering, mechanical engineering, physics, chemistry, biomedicine, psychology, sociology, linguistics, and literature), in two languages – English and Croatian. The corpus used is the corpus I studied as part of my doctoral research (Bašić 2017). The genre of the RA was chosen as the typical way for scientists to communicate their research findings to their own disciplinary community, whose members are invited to assess and verify their claims. High quality journals were chosen by consulting expert informants for each discipline, and individual research articles were then chosen randomly from one or more issues of the selected journal. The search was limited to issues between 2008 and 2014, to ensure insight into current rhetorical practices in academic discourse.

The names and volumes of the journals from which the RAs were chosen, as well as online bases used to access the articles, are listed in the Appendix at the end of this paper.

The contrastive approach was chosen in order to test the hypothesis that, regardless of the differences between disciplinary practices, epistemologies and disciplinary communities' cultures which are linguistically reflected in the varied typical syntactic framings of reports, verbs of visual perception are used as functional evidentials in RAs in the corpus in all the disciplines and in both languages. More specifically, reports containing verbs of visual perception are used as a rhetorical means of constructing credibility and gaining acceptance for the author's claims. It needs to be emphasized that the analysed corpus does not contain Croatian RA

texts in physics, chemistry and computer engineering, as my expert informants claimed that there were no longer any relevant journals in these disciplines that published contributions in Croatian, due to reasons of international visibility.

The analysis conducted in Bašić (2017) revealed a number of verbs of visual perception conventionally used in reports in different sections of the RAs in the corpus. For the purposes of this paper, a list of the most prominent of these verbs in both English and Croatian RAs was created.⁷ The corpus (in the format of a Word document) was first automatically searched for these verbs using the “Find” option, and then all examples of reporting phrases and clauses which contained verbs of visual perception were identified manually. These reports were then sorted into several categories, according to the reporting perspective that the utterance was framed in. The model and methodology used were developed in Bašić (2017), where reports were classified into the following categories: reports from the authors’ personal perspective, reports from the perspective of the research, reports from an impersonal perspective, reports from other authors’ perspective and reports framed round evaluative expressions such as epistemic modals, hedges or boosters.⁸ The discourse function of the reports was determined by analogy to the model used in Kuo’s (1999) and Tang and John’s (1999) analyses of the use of personal pronouns in scientific journal articles, where discourse function is defined as “the function that the sentence with the personal pronoun has in the immediate context of the RA”, and where it is claimed that the “discourse function reflects the communicative intention of the author of the RA” (Kuo 1999, 130).⁹ By analysing the interaction of the reporting perspective, the discourse function of the report and the meaning of the verb in the particular utterance, the evidential implications and the resulting communicative/rhetorical effects of the analysed utterances were determined.

4 ANALYSIS AND DISCUSSION

The rhetorical strategies used by authors of the RAs in the studied corpus are analysed as a reflection of the authors’ epistemological stances, i.e. the ways in which the authors want the information to be perceived (Mushin 2001). In the analysis

7 The main criterion for classifying the verb as a “verb of visual perception” was that its lexical meaning could in some way be related to the concepts of “looking” or “seeing”.

8 This model was developed through a critical assessment and modification of the classifications proposed by Thompson and Ye (1991), Charles (2006), Rundblad (2007), Hyland (2001), Molino (2010) and Yang (2013).

9 Kuo (1999) identifies some typical discourse functions common to the RA as a genre, regardless of discipline, such as, for example, expressing intention, organizing the text and guiding the reader through the argument, recounting experimental procedure and methodology, making a claim and emphasizing one’s own contribution. For more on the types of discourse functions and the distinction between high and low-risk discourse functions, see Tang and John (1999), Chávez Muñoz (2013), Bašić and Veselica Majhut (2017).

I look at the combination of the lexical meaning of the verb of visual perception, the form of the verb, the discourse function of the report in a particular utterance and the reporting perspective in which the utterance is framed, and try to explain how each of these factors contributes to rhetorically constructing credibility in the analysed utterance. In analysing individual examples, I point to the differences and similarities between the RA texts from various disciplines and the two languages analysed. The verbs of visual perception are underlined in the analysed examples to make them easier to notice. The information about the source of the example sentence is given in brackets after the sentence in the form of bold script abbreviations. The list of the abbreviations used for particular disciplines is given in the Appendix.

4.1 Rhetorical strategy of reporting from the personal authorial perspective in combination with the verbs *observe*; *uočiti*.

The personal authorial perspective in RA texts means reporting in the first person singular or plural, with the first person plural either being used exclusively, as authorial *we*, or inclusively (in a way that it “includes” the constructed reader in the text by engaging them in the rhetorically constructed dialogue).

In the corpus, the most salient verbs of visual perception in reports framed in the personal perspective were the verbs *observe/uočiti* and *show/pokazati* in the English and Croatian corpora respectively. As far as its evidential potential is concerned, depending on the actual context, this rhetorical strategy in both English and Croatian can either imply direct sensory visual knowledge, as in English example 1, or inferring on the basis of observing, as in examples 2 and 3 from the English and Croatian corpora, respectively.

- (1) We observed 136 VTE events during follow-up with incidence of 1.72 (95% CI 1.44 to 2.04) per 1000 person-years during the mean follow-up time of 10 years (table 2). (**MED 9**)
- (2) We have observed an intense occurrence of patterns in this domain, that is, many different occurrences of the patterns in the same metamodel, suggesting that many problems in this domain are intrinsically multi-level. (**CE 6**)
- (3) Svugdje smo uočili stanovitu mjeru semantičke shematizacije. (**LING 5**)

In example 1 the discourse function of the utterance is to report on the findings of an experimental research process. The verb, whose lexical meaning denotes looking, is marked as simple past tense. All this information implies that the

knowledge reported by the utterance was acquired directly through observing the research process. In example 2, however, the same verb is used, but it is marked as present perfect. The perfect here implies a resultative process and the evidential meaning implied by this utterance is that the knowledge reported is inferred on the basis of available cumulative findings. The same is true in example 3 from the Croatian corpus, where the implied evidential meaning is also inferring on the basis of observing, i.e. the primary meaning of the verb of visual perception is extended through metonymic mapping and the resulting meaning actually implies a mental process accompanying the act of the actual observing of the findings.

4.2 The rhetorical strategy of reporting from the personal perspective using inclusive *we* in combination with the verbs *see*, *observe*; *vidjeti*, *uočiti*, *promotriti*, *zapaziti*

It may be claimed that by using this strategy the author tries to prevent the challenging of their claims by creating a sense of dialogue in which the reader is invited to “see for themselves” and verify the validity of the author’s claims. The resulting effect is that the reader will most likely not dispute the claims made. In the English corpus, the most prominent verbs of visual perception used in such reports are *see* and *observe*, as illustrated in examples 4–6.

- (4) As we see in 3.4, suffixes are also quite specific in terms of the word class patterns they signal. (LING 7)
- (5) We can see this tension between “truth” and “fiction” being worked out everywhere in Amy Gutmann’s introduction to the published text and more subtly throughout the cross-disciplinary “reflections” by Marjorie Garber, Peter Singer, Wendy Doniger and Barbara Smuts that follow the lecture-narrative. (LIT 2)
- (6) We can observe that both mean and median comprehension level for the T group are consistently smaller than those in S group. (CE 1)

In examples 5 and 6, the verb of visual perception is preceded by the modal verb *can* used as a hedging device, i.e. as a way of making the claim more tentative, which is generally a strategy used for preventing the potential challenging of one’s propositions. Furthermore, in example 5 the context of the report (the discourse function of interpreting the findings in a non-experimental type of research) makes the concept of “mental activity” (rather than “looking”) more prominent in the interpretation of the evidential meaning of the utterance.

In the Croatian corpus, a wider range of verbs of visual perception is found in this type of reports, as illustrated by examples 7–10.

- (7) Usporedbom srednje koncentracije Cu za lokalitet Ivan Sedlo s trima ruralnim lokalitetima u Velikoj Britaniji (0,29, 0,20 i 0,65 $\mu\text{g L}^{-1}$), vidimo kako su vrijednosti s lokaliteta Ivan Sedlo više. (CHEM 1)
- (8) Odnos tropâ i neizvjesnog statusa ljudskog zaoštren je, vidjeli smo, u raspravi B. Johnson o ženskoj lirici. Promotrimo li iznova, u svjetlu De Manove argumentacije, etička pitanja koja je ona otvorila (...), vidimo da neodlučna antropomorfizacija pobačenih plodova ostaje trajno poetičko obilježje ženske lirike. (LIT 7)
- (9) Osvrnemo li se na stanovit broj tekstova napisanih nakon raspada Jugoslavije, uočit ćemo da se jedna poprilično velika skupina njih često spominje u kontekstu književnosti emigracije i egzila. (LIT 10)
- (10) Možemo zapaziti kako je na najstariju generaciju utjecao punk koji je dolazio sa Zapada (Sex Pistols, Clash, Ramones, Exploited, UK Subs, Dead Kennedys itd.), a na sve druge, mlađe, generacije više je utjecala već uspostavljena pulska scena nego strani bendovi, pa su... (SOC 9)

Again, the evidential interpretations in these examples will be inferred from the context. In example 7, the implication of direct visual acquisition of knowledge is more prominent, as the reader is invited to look at the figures to verify the claim, while in examples 8–10 the context makes it clear that the degree of the authors' interpretation of the findings is higher and the evidential meaning of inferring is more prominent than the meaning of visually acquiring knowledge. This is especially true in example 10, where the hedging device *možemo* emphasizes a lower degree of commitment to the proposition. It is also interesting to notice that in the discourse function of arguing the claims and finding support for them in examples 8 and 9 the authors frame their reports as conditional clauses, which is a way of negotiating the interpretation with the reader and getting the reader to agree, since the reader feels that they are directly involved in the inductive process of reasoning and inferring on the basis of observing.

4.3 Reporting from the personal authorial perspective in combination with the verbs *show; pokazati, prikazati*

Unlike the previously analysed verbs such as *observe, see* and *vidjeti, uočiti*, the verbs *show/pokazati* in RA texts in English and Croatian, respectively, behave in

the same way that other verbs of visual perception behave when they are combined with an inclusive *we*, i.e. the meaning of the verb *show* in itself implies active engagement of the reader of the text in “looking” and “seeing” what the presented information offers. In English RAs in the corpus authors usually use the verb *show* in reports from the personal perspective in the high-risk discourse functions of announcing what their research contribution will be or pointing to what they have contributed to the field of study, as illustrated by examples 11 and 12.

- (11) I show that both patterns exhibit a strong phonological within-pole relation, namely a strong preference for having their slots filled with phonologically similar elements, where phonological similarity is manifested in alliteration patterns. (LING 9)
- (12) As I shall show, several different cognitive factors go together in shaping topic-comment structures in signed languages. (LING 6)

A major difference between English and Croatian framings of high-risk discourse functions is that authors in English RAs will frequently use the first person singular, while authors of Croatian RAs will prefer the first person plural, especially the authorial *we* (see Bašić and Veselica Majhut 2017). What is more, in these discourse functions Croatian personal perspective reports will commonly contain a hedging device, which is used as a politeness strategy to make the propositions more tentative and prevent potential criticism. This might be a signal of disciplinary community notions of appropriateness (see Bašić and Veselica Majhut 2017). Typical examples of this kind of reports in Croatian texts are illustrated by 13–15.

- (13) Budući da je taj san uvukao i feminističku kritiku kao aktivnu sugovornicu te otvorio prostor za razmatranje protokola čitanja književnog teksta, nastojat ćemo pokazati da okršaje psihoanalize i dekonstrukcije valja smjestiti na sâm početak psihoanalize, a ne na početak njezina upletanja u čitanje književnih tekstova. (LIT 6)
- (14) Upravo je pitanje antropomorfizacije greben razumijevanja na koji se uvijek nasukavaju sve figure, a da bismo pokazali koje su posljedice te neobilaznosti, čitat ćemo paralelno De Mana (1984) i Johnson (2010). (LIT 7)
- (15) U ovom radu želimo prikazati svoja iskustva s upotrebom PICC-a u bolesnika s hematološkim tumorima, uz poseban osvrt na infektivne komplikacije. (MED 10)

The common denominator for all types of reporting from the personal perspective is that the author of the RA is implied as having authority over the presented information. Consequently, the author will be criticised or held responsible if the

reader assesses the presented information as open to dispute. For this reason, authors of RAs sometimes use other reporting perspectives and rhetorical strategies to “objectify” their claims and rhetorically minimize the role of the researcher in the research process, or to engage in a textual dialogue with other authors and their findings (Hyland 2011). These rhetorical strategies will be illustrated in the following sections.

4.4 The rhetorical strategy of reporting from the perspective of the research process or some segment of the research process combined with the verbs *show; pokazati/prikazati*

In this rhetorical strategy, the subject of the report is an “inanimate” nominal referent such as *research, analysis, findings, results; istraživanja, studije, radovi, rezultati, podaci*, which is combined with the verbs of visual perception *show* in English and *pokazati/prikazati* in Croatian, respectively. By using this strategy, the effect of factuality and impartiality of the presented claims is enhanced, as illustrated in English example 16 and Croatian example 17.

- (16) This review shows that there is a range of psychosocial interventions for individuals with intellectual disabilities or lower-functioning autism spectrum disorders that can be provided by non-specialist service providers. (MED 4)
- (17) Rezultati naše studije, zajedno s rezultatima ostalih studija provedenih u Hrvatskoj, pokazuju da je prevalencija atopijskog dermatitisa II. stupnja 5,76%.7–10 (MED 7)

The wide variety of noun phrases used as subjects in this kind of reports reflects the range of different methodologies used in particular disciplines and the varied nature of their research problems and processes. Broadly speaking, in both English and Croatian, in experimental research, the evidential interpretation of such reports will be “visually acquired knowledge”, as illustrated in English examples 18 and 19, while in non-experimental research the interpretation will be “inferential knowledge”, as illustrated in Croatian example 20.

- (18) Recent simulations show the flow of the granular material inside such a cavity under normal gravity for a vertically shaken system [24, 25]. (PHYS 6)
- (19) Krivulje ovisnosti koeficijenata brzine reakcije o temperaturi pokazuju jasan prijelom. (CHEM 8)

- (20) Analiza slogana na dijakronijskoj razini pokazala je razvojni put od prvotnoga poziva na zajedništvo i solidarnost prema kasnijoj izrazitoj separaciji na dvije polarizirane skupine (*mi i vi*). (SOC 6)

4.5 The rhetorical strategy of reporting from other authors' perspectives in combination with verbs *observe, see; uočiti, zapaziti, vidjeti, promatrati*

Reporting from other authors' perspectives is one of the chief rhetorical strategies for constructing the RA text, as intertextuality is an inherent principle of academic writing and the construction of disciplinary knowledge (see Swales 2004 and Hyland 2011). By using this perspective the author exhibits familiarity with disciplinary knowledge, opens research space for their own work (Swales 1990, 2004) and builds on the existing knowledge by adding their findings. In the function of reporting on other authors' findings, the evidential interpretation of the meaning of the verbs of visual perception leans towards the direct visual mode of knowing only in a limited number of cases, as in English example 21.

- (21) Park et al. 55 directly observed nanoparticle super lattice formation. (CHEM 5)

In most cases in both the English and Croatian corpora, however, the evidential interpretation in this reporting perspective will lean more towards emphasizing the mental process, i.e. knowledge acquired by means of inferring on the basis of observing, as English example 22 and Croatian example 23 illustrate.

- (22) For example, as Mulinari and Neergaard observe from interviews of immigrant union activists in Sweden, many native Swedes assume that immigrants cannot be full participants in the collective historical experience of Swedish... (SOC 1)
- (23) L. Zadeh (1965) uočio je da je članstvo u nekim kategorijama stupnjevito (rich people, tall man), a u drugima nije (senator). (LING 6)

In Croatian RAs in the corpus, the shift from the purely "visual" interpretation is grammatically marked by a specific syntactic structure that is used to ensure the "inferential" interpretation, namely the construction containing a verb of visual perception and the adverbial linker *kao*, resulting in constructions *vidjeti kao* (Eng. *see as*) and *promatrati kao* (Eng. *observe as*, in the meaning of "consider"), as seen in examples 24 and 25.

- (24) Autori (Speer i sur., 2001.; Perren i sur., 2004.) upozoravaju na manjak socijalne integracije i socijalne podrške u suvremenom društvu, što vide kao posljedicu činjenice da ljudi češće ne žive u istom susjedstvu kao njihove obitelji, kolege s posla ili prijatelji. (SOC 2)
- (25) Silić i Pranjković (2005) tvorbu riječi promatraju kao dio morfologije, koju dijele na tvorbu oblika riječi i tvorbu riječi... (LING 10)

In both English and Croatian, in cases where the inferential evidential meaning is expressed, the verbs are marked as present tense, which is a rhetorical way of presenting information as factual, i.e. marking the knowledge as accepted by the disciplinary community and not open to dispute.

4.6 Rhetorical strategy of reporting on the findings of one's research from an impersonal perspective in combination with verbs *see, observe; uočiti, vidjeti, zapaziti, primijetiti, promotriti*

This strategy emphasizes impartiality and objectivity (Bašić 2017; Hyland 2011). By foregrounding the findings rather than the researcher, the information is presented as factual and the intended communicative effect is that the findings are perceived as persuasive and the knowledge presented as not disputable. In English texts, the impersonal perspective is generally realised by using the passive form, in the discourse function of reporting on some stage of the research process, and the verbs of visual perception are marked as past tense, to signal what knowledge was visually/inferentially acquired at some point in the research, as illustrated by example 26.

- (26) Compared with the comprehension task, much more variation was observed among the scores from the production task (see Table 4). (LING 5)

Conversely, in Croatian RA texts a prominent syntactic form used in impersonal reports in the discourse function of reporting on the findings and results of the research process is the so-called “impersonal construction”, a combination of the verb and the reflexive particle *se*. Furthermore, in the impersonal construction the verb of visual perception is typically marked as present tense. This is a rhetorical strategy that emphasizes the effect of the factuality of the presented information, as the implication is that the same knowledge would be “observed” by anyone who was to “look” at it. This effect is illustrated by Croatian examples 27 and 28.

- (27) Na temelju rezultata hi-kvadrat testa uočavaju se značajne razlike na sve tri promatrane varijable. (SOC 3)

- (28) Kod 12,6% ispitanika (45 njih) zapaža se odbacivanje nelegitimnih načina postizanja uspjeha (...) Iz ovih se rezultata vidi da je konzistentni meritokratski svjetonazor najprisutniji u istraživanoj populaciji, ... (SOC 1)

Another prominent verb of visual perception in this kind of report is the verb *show*; *pokazati* in English and Croatian, respectively. Again, in English, in impersonal reports the verb *show* is usually marked as simple past tense, in the discourse function of reporting individual research findings, or as present perfect tense, for reporting cumulative findings, as illustrated in English examples 29 and 30.

- (29) The strongest effects were shown for individuals with intellectual disability without autism (five of six effect size estimates 0.50). (MED 4)
- (30) Typically, in cancer cells, TGF-b has been shown to induce epithelial-to-mesenchymal transition (EMT), which plays a critical role in metastasis and is associated with chemotherapy resistance in numerous cancers. (MED 11)

In Croatian, the equivalent discourse functions are realized by using the verb *pokazati* in the “impersonal form”, in the past and present tense respectively, as illustrated by Croatian examples 31 and 32.

- (31) Pokazalo se da sudionici istraživanja koji doživljavaju veći strah od procjene drugih ljudi doživljavaju i veću anksioznost u socijalnim interakcijama. (PSY 5)
- (32) S tim u vezi, unutar domicilnoga znanstvenog istraživanja pokazuje se da nedostaje sustavno i kontinuirano istraživanje navedene problematike (...) 84,85 (MED 8).

This is a rhetorical strategy that can greatly enhance the apparent impartiality and factuality of the propositions made.

4.7 Rhetorical strategy of using multimodality (using non-textual modes of presenting information, i.e. figures, tables, graphs, etc.) in combination with verbs *note*, *notice*, *see*; *vidjeti*

By using this rhetorical strategy, the author directs the reader towards the important information and invites them to “see for themselves” by “looking” at the findings presented in tables, figures, graphs, etc, as illustrated by English and Croatian examples 33 and 34, respectively.

- (33) Additionally, no evidence of substantial publication bias was observed from the Begg ($p=0.533$) and Egger regression tests ($p=0.849$; *see* online supplementary table B in appendix 1). (**MED 8**)
- (34) Kategorizirani odgovori prikazani su u Tablici 3, iz koje *se vidi* da je značajan dio studentske populacije višega socijalnog podrijetla, tj. roditelji su u 1., 2. i 3. kategoriji zanimanja (45,4% očeva i 51% majki). (**SOC 1**)

5 CONCLUSION

The lexical meanings of verbs of visual perception (e.g. *see, observe, show; uočiti, vidjeti, zapaziti, promatrati, pokazati*) conventionally imply knowledge acquired by means of looking, observing and inferring on the basis of observing. This kind of knowledge is conventionally perceived as reliable and therefore not challenged. This is why authors of RA texts use reports containing verbs of visual perception as a rhetorical means of ensuring acceptance of their claims. The findings of this study confirm the hypothesis that reports featuring verbs of visual perception are used to rhetorically construct credibility in the RAs in all nine disciplines and in both languages analysed in the corpora. There is a range of conventional rhetorical strategies that authors in particular disciplinary communities and in particular discourse functions within the RA use to this end, and each of these strategies carries a certain “epistemological potential”. However, the actual evidential (and consequently epistemological) interpretation of each utterance is ultimately derived from the interaction of the lexical meaning of the verb, its grammatical coding, the reporting perspective, the discourse function of the utterance and a range of pragmatic concerns (primarily the considerations of the disciplinary and community cultures involved).

The theoretical model and methodology for analysing academic discourse presented in this paper may be used to gain insight into rhetorical strategies used in RA writing in other languages and disciplinary communities, and the findings may have practical use as reference materials for RA authors, translators and students mastering the art of academic writing. However, as the primary focus of the paper was to present a qualitative analysis of typical syntactic framings of verbs of visual perception in RAs, an obvious limitation of the presented study is a lack of quantitative data. In this respect, some future research might aim to gather data on the frequency of use of these verbs in particular parts of the RAs or particular disciplines, which would provide a fuller picture of the prominence of verbs of visual perception among the conventional ways of reporting in particular disciplines.

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Appendix

I used the following databases for access to full texts of research articles in English and Croatian:

Science Direct, arXiv, PLOS, ACM Digital Library, Taylor & Francis Online Journal Library, Sage Journals, Hrčak.

The RA texts in the corpus were randomly chosen from the issues of the journals listed below. The abbreviations used in the text for particular research disciplines are given in the brackets in bold.

COMPUTER ENGINEERING (**CE**)

ACM Transactions on Software Engineering and Methodology, Vol. 23, No. 2, No. 3, No. 4, Vol. 24, No. 1, No. 2, 2014

MECHANICAL ENGINEERING (**ME**)

American Journal of Mechanics and Application 2 (1), 2 (2), 2 (3), 2 (4), 2 (5), 2014

Strojarstvo 52 (3), 2010., 53 (2), (5), (6), 2011., 54 (1), (4), (5), 2012., 55 (3), 2013.

PHYSICS (PHYS)

Physical Review Letters, Volume 111, 2014

CHEMISTRY (CHEM)

The Journal of Physical Chemistry, 117, 2013

International Journal of Hydrogen Energy 38, 2013

Chem. Commun. 49, 2013

Dalton Transactions 42, 2013

Journal of the American Chemical Society 135, 2013

MEDICINE (MED)

PLOS Medicine, Volume 11, Issue 11, 2014

British Medical Journal Open, September/October 2014

Nature Communications, January 2014

Liječnički vjesnik 2013., godište 135. i 2014., godište 136.

PSYCHOLOGY (PSY)

Clinical Psychology Review 34, 2014

Journal of Personality and Social Psychology, American Psychological Association, 2014

Psihologijske teme 23 (2014)

SOCIOLOGY (SOC)

Work, Employment, and Society 25 (2), 2011

Human Relations 64 (3), 2010

Društvena istraživanja 20 (2011), 21 (2012), 23 (2014)

LINGUISTICS (LING)

Applied Linguistics 35/4, 2014

Cognitive Linguistics 22/1, 2011

Suvremena lingvistika 72 (2011), 74 (2012), 75 (2013), 76 (2013), 79 (2015)

LITERATURE (LIT)

Journal of Postcolonial Writing Vol. 49 No. 4, No. 5, 2013

Umjetnost riječi LVII (2013), 1–2, 3–4, LVIII (2014), 2

Chapter 9

“I fully agree with you😊”: Graphic and lexical boosters and attitude markers on discussion forums

Vesna Bogdanović and Vesna Bulatović

Abstract

Discussion forums present a new form of academic discourse. E-learning and learning platforms such as Moodle offer new possibilities in teaching and learning, with students actively using Netspeak in teacher-student communication. The aim of this paper is to provide a cross-cultural analysis of posts published on discussion forums, with an emphasis on the boosters and attitude markers used. Three Moodle courses from a higher education institution, two in Serbian and one in English, were included in the analysis. Students with Serbian as L1 and English as L2 were encouraged to post on forums after every lecture; for the analysis, a corpus of 166 posts in Serbian and 200 posts in English was collected. Posts were written for academic purposes, yet as informal texts, without any training in academic writing. This paper will analyse the use of boosters and attitude markers as lexical elements and the use of emoticons and images as graphical elements that are not to be regularly found in academic contexts, while recurrently present in Netspeak and students' idiolects. The

cross-cultural analysis will demonstrate whether these elements are to be found in one language only, or in both L1 and L2, and whether transfer is common in their use.

Keywords: boosters, attitude markers, Moodle, discussion forums, emoticons

Izvleček

Forumi predstavljajo novo obliko akademskega diskurza. E-učenje in spletna učna okolja, kakršen je Moodle, ponujajo nove možnosti za poučevanje in učenje, pri katerih študentje aktivno uporabljajo jezik interneta za komunikacijo. Namen pričujočega prispevka je predstaviti medkulturno analizo objav na spletnih forumih s poudarkom na ojačevalcih in označevalcih odnosa do okolja. V analizo so bili vključeni trije visokošolski predmeti v učnem okolju Moodle, dva predmeta sta potekala v srbsščini, tretji pa v angleščini. Študente, katerih prvi jezik je bila srbsščina, angleščina pa je bil njihov drugi jezik, so spodbudili, da objavljajo na spletnem forumu po vsakem predavanju. Za analizo je bil zgrajen korpus 166 objav v srbsščini in 200 v angleščini. Objave sodijo v okvir akademskega diskurza, vendar so besedila neformalna in so nastala brez posebnega pouka akademskega pisanja. V prispevku bo analizirana raba ojačevalcev in označevalcev odnosa do vsebine in raba emotikonov in slik kot grafičnih elementov, ki niso del običajne akademske komunikacije, so pa pogosto prisotni v jeziku interneta in študentskih idiolektih. Medkulturna analiza bo pokazala, ali se ti elementi pojavljajo le v enem jeziku ali v obeh, prav tako bo pokazala, ali pri njihovi uporabi pogosto pride do transferja.

Ključne besede: ojačevalci, označevalci odnosa do vsebine, Moodle, spletni forum, emotikoni

1 INTRODUCTION

Computer Mediated Communication (CMC) refers to human communication that occurs through the use of computers (McQuail 2005, 552). This type of communication is a blend of spoken and written language and can be synchronous or asynchronous (Crystal 2001). Synchronous communication occurs in real-time when the users are engaged in communication simultaneously (e.g. video calls, online video conferencing). On the other hand, asynchronous communication is communication with a time lag, where users do not have to communicate at the same time; they can read the message, do research, if needed, and finally write a reply. When used correctly, this can be as effective as discussions in the classroom. Its benefits include flexibility, quality and quantity in participation, communication openness and post-participation review (Morse 2003).

The type of language people use depends on the situation they are in. Academic communication demands formal vocabulary, complex sentence structures, as well as the use of participles and linking expressions in order to express one's ideas clearly and concise. On the other hand, CMC establishes new variety of written language with the elements of spoken communication. Crystal (2001) calls this type of language Netspeak, which is "identical to neither speech nor writing, but selectively and adaptively displays properties of both" (Crystal 2001, 47). Some of its distinctive features include the use of abbreviations (LOL – laugh out loud), emoticons (☹, ☺), repeated letters (waay), capital letters (WOW), repeated punctuation marks (!!!!!), and the like (Crystal 2001; Herring 2001). It is to be expected that Netspeak is infiltrating discussion forums on learning platforms, thus introducing typically non-academic language features into academic communication among students and professors.

The goal of this paper is twofold. First, it is to provide a cross-cultural analysis of the posts written by students in Serbian as L1 and in English as L2 and posted on discussion forums. The analysis will emphasize the similarities and differences when students write in different languages. However, since the analysis of such corpora may require more detail, it had to be narrowed down to two metadiscourse elements as indicators of the transition and alterations present in CMC in academic setting. Hence, the second goal of the paper is to analyse the use of boosters and attitude markers as lexical elements and the use of emoticons and images as graphical elements in students' posts published on discussion forums on the learning platform Moodle.

The study has been guided by several research questions:

1. Do students use boosters and attitude markers differently when they write in L1 (Serbian) and in L2 (English)?

2. How frequently do they use boosters and attitude markers when they write on discussion forums?
3. How often do they use graphic features to complement the linguistic ones?

2 THEORETICAL FRAMEWORK

2.1 Metadiscourse features

Metadiscourse refers to expressions of social engagement used in academic context as a way for writers to project themselves into the discourse and signal their understanding of the content and the audience (Hyland 2010). It is a widely used term, with a number of diverse interpretations (Ädel 2006; Crismore 1989; Hyland 2005a; Mauranen 1993, 2010). Hyland (2005a, 37) defines metadiscourse as the cover term for all self-reflecting expressions used in a text to negotiate meanings, assisting the writer to express certain viewpoints and simultaneously engaging the reader into those viewpoints. Interactive metadiscourse helps in guiding the reader through the text. It is concerned with the writer’s awareness of a reader; hence, it includes expressions of text shape and organization. Interactive metadiscourse expressions are a consequence of the assessment by the author on the assumed comprehension of the reader and their need for guidance (Hyland 2005a, 50). Interactional metadiscourse, on the other hand, presents writer’s attitudes, constraints, and opinions, involving the reader into the writer’s vision presented in the text. These expressions act to anticipate, acknowledge, suppress or challenge alternative and opposite positions by expanding or restricting opportunities for a certain view (White 2003). Though a number of writers do not regard metadiscourse in the interactional approach (Adel 2006; Mauranen 1993, 2010), this aspect is crucial in conceptualizing communication as a form of social engagement, where the writer has the possibility of clearly signalling their attitudes towards the content as well as the audience (Hyland and Tse 2004).

An important feature in academic discourse is to modify assertions, emphasizing what one believes to be correct and conveying appropriately collegial attitudes to readers. These expressions of certainty and the author’s attitude are known as metadiscourse features, boosters and attitude markers (Hyland 2005a). Boosters present the author’s confident voice, since they emphasize certainty and mark both personal involvement with the topic and solidarity with the audience (Hyland 1999a), stressing shared information, group membership, and direct engagement with an audience (Hyland 1998a). Boosters also convey commitment to the content of the text and respect for readers, aiming to persuade them of the

correctness of the claims it contains. In contrast, instead of being committed to the status of information, attitude markers allow the author to convey surprise, agreement, importance, obligation, frustration, etc (Hyland 2005a, 53). Attitude markers may appear with positive meaning (*fortunately, outstanding*) as well as negative meaning (*with little justification, surprisingly*).

The importance of metadiscourse has been emphasized in research on casual conversation (Schiffrin 1980), textbooks (Bogdanović 2017; Crismore 1989; Hyland 2000), and dissertations (Akbas and Hardman, 2018; Alotaibi, 2018; Swales 1990). Studies have also investigated the metadiscourse features in texts written by different cultural groups (Crismore, Markkanen and Steffensen 1993; Mauranen 1993b), novice researchers (Bogdanović and Mirović 2018), even different genders (Alotaibi 2018), as well as English as a Second Language (ESL) and native speaker student writing (Cheng and Steffensen 1996; Intraprawat and Steffensen 1995). Apart from these studies dealing with many features of metadiscourse, a number of works focused on only one or two categories. The most researched of these are hedges (e.g. Hyland 1998a, 1998b; Pisanski Peterlin 2010), followed by self mentions (e.g. Hyland 2001; Karahan 2013). Boosters are usually investigated together with hedges as their counterparts (e.g. Hyland 1998a; MacIntyre 2017), though they can be studied separately (e.g. Peacock 2008; Vázquez and Giner 2009), while attitude markers have not aroused much interest in academia (e.g. Blagojević 2009). Since there have been no similar studies so far on the use of attitude markers and boosters on English and Serbian discussion forums, the authors decided to analyse these two metadiscourse markers and their use in contemporary academic writing.

A number of researchers have carried out cross-cultural research on the use of metadiscourse. For example, Pérez-Llantada (2010) presented a cross-cultural and cross-linguistic analysis of text- and participant- oriented metadiscourse elements in the introduction and discussion sections of research articles, concluding that the frequency of metadiscourse is similar across cultures, though different preferences can be observed. Contrastive studies indicate that metadiscourse elements vary in different languages. When compared to English, metadiscourse is less used in German, (Clyne 1987), Finnish (Mauranen 1993), Turkish (Akbas and Hardman 2017, 2018; Hatipoğlu and Algı 2018), and Slavic languages such as Polish (Duszak 1994), Slovene (Pisanski Peterlin 2005) and Serbian (Blagojević 2005; Bogdanović and Mirović 2013), which presents yet another obstacle for L2 academicians' prospects to publish successfully in English. This is the conclusion of several studies focusing on the use of metadiscourse by Serbian researchers writing in English (Blagojević 2005; Bogdanović and Mirović 2013); these studies demonstrate that Serbian academicians do not use metadiscourse features sufficiently. However, a recent study by Mirović and Bogdanović (2016) is more reassuring, suggesting that same authors can vary and adapt their use of metadiscourse elements when writing in Serbian and in English. The pervasiveness of metadiscourse

features in academic discourse calls for further investigation into the use of meta-discourse by students as future academicians, which could provide pedagogical implications to improve their possibilities of publishing in the future. In accordance with this, the task of this study is to answer the questions raised regarding the cross-cultural presence of booster and attitude markers on discussion forums.

2.2 Boosters as verbal and non-verbal metadiscourse communication features

Boosters are metadiscourse expressions that allow writers to express certainty, mark their involvement, or communicate their solidarity with the audience. Boosters are expressions that can balance objective information, subjective evaluation and interpersonal negotiation (Hyland 2005b), which can be a powerful feature in gaining acceptance for one's claims. These expressions suggest that writers recognize potentially diverse positions, and choose to narrow them using a single, confident voice. Boosters include evidential verbs (*show, demonstrate, dokazati*), adverbs explaining accepted truth (*substantially, obviously, clearly, očigledno, izvesno*), and factual phrases (*it is clear that, in fact, sigurni smo, pokazuje veoma jasno*). However, following the use of Netspeak, boosters can also be presented as capital, bold or underlined letters and phrases (*WOW, DIVNO*), as well as repetitions of vowels in a word (*waay, Jaooo*).

In face-to-face communication, non-verbal communication (e.g. facial expressions and body language) can indicate happiness, satisfaction, fear or anger, and thus deliver additional information demonstrating true feelings related to a specific situation and revealing changes in mood. In online communication, emoticons can do the same. These are graphic representations of facial expressions, boosters for linguistic expressions, and as such they represent a distinctive feature of Netspeak. Emoticons are combinations of keyboard characters used to illustrate positive or negative emotions (e.g. happy face – ☺, sad face – ☹, laugh – :D etc.). They are used for expressing one's sentiments or as surrogates for non-verbal communication (Thompson and Foulger 1996, 226). Godin (1993, 4) points out that, “until the advent of the smiley, otherwise known as emoticon, individuals using electronic communication had no way to indicate the subtle mood changes”. Several studies have revealed that emoticons emphasize and simplify the meaning of a written message (Crystal 2001; Rezabek and Cochenour 1998; Walther and D'Addario 2001). They help convey and clarify the meaning of the textual communication (Kindred and Roper 2004; Walther and D'Addario 2001), assisting communication to become more effective and efficient, as well as supporting the participants in CMC to express their emotions

in strictly text-based communication. Apart from emoticons as graphic representations of feelings and attitudes, images, links or documents can also visually convey commitment to the text and the message uttered.

The aim of the present study is to observe whether students use boosters when writing on discussion forums, as well as the manner in which they use them. The study will try to compare the use of verbal and graphic boosters and make an attempt to draw a conclusion on the representations of feeling and attitude presented by these metadiscourse features.

2.3 Attitude markers as verbal and non-verbal metadiscourse communication features

Attitude markers present metadiscourse expressions that indicate the writer's affective attitude to proposition (content). They can convey surprise, agreement, importance, frustration, etc. (Hyland 2005a, 2005b). These include attitude verbs (*agree, prefer, složiti se, nadati se*), modal verbs expressing obligation (*must, should, trebati, morati, smeti*), sentence adverbs (*unfortunately, ironically, nažalost, neočekivano, istini za volju*), and adjectives (*appropriate, logical, remarkable, značajno, drastično*). Writers use them to express their position on the content and to persuade readers to have the same opinion. Attitude can also be expressed by the use of subordination, comparatives, progressive particles, punctuation, text location, etc, which are not going to be analysed in this study. Apart from lexical items, attitude can be expressed by exclamation marks and graphically, using emoticons.

This study will try to determine whether graphic communication is present on discussion forums to express one's attitude and used together with the lexical attitude markers.

2.4 Discussion forums

In the context of this study, online discussion forums provide the space for posting written contributions during the time frame set by the teacher. Within such a forum, students can start a number of threads. Each thread deals with one aspect of the given topic. The discussion is visible to all participants even after being closed, providing the opportunity for reflection (Greenlaw and DeLoach 2003; Salmon 2002).

Simply creating an asynchronous discussion forum and writing a topic of discussion is not enough to have successful discussions in a classroom (Guldberg

and Pilkington 2006). Instead, discussion topics have to be related to the course objectives, with specific open-end questions which encourage students to take a certain position on an issue. Participating in online discussion forums means that students have flexibility to contribute to the discussion when they are prepared, i.e. at their convenience (Biesenbach-Lucas 2003). Likewise, discussion forums are especially suitable for students who suffer from anxiety when speaking a foreign language or those who are just shy when it comes to speaking in public. In addition, discussion forums may be an efficient educational tool in large classes which lack student participation in classroom discussions.

A number of studies analysed the use of discussion forums in education (Biesenbach-Lucas 2003; Chizmar and Walbert 1999; Shaw and Pieter 2000; Skogs 2014). Discussion forums, due to the student-to-student and student-to-teacher interaction they encourage, proved to be a valuable tool for clarifying difficult topics analysed in class (Chizmar and Walbert 1999). The results of a study (Skogs 2014) suggest that students' written online interaction on discussion forums is more similar to academic prose than conversation, implying that students do write in a manner suitable for academic discourse. Even though every computer-mediated environment can exhibit certain challenges, such as technology frustration, coordination difficulties, timing/delay frustration, or skills deficits (Morse 2003, 39), culture also seems to play an important role in CMC communication, since individual behavioural patterns determine the modes for interpreting, assimilating and adapting the CMC experience (Morse 2003, 40). Cultural background directly influences the benefits and drawbacks of asynchronous communication, influencing the assumed learning patterns. Grading is a motivating factor as well, since students are more likely to post messages when graded and encouraged by the active involvement of their instructors (Bagherian and Thorngate 2000). Instructors, on the other hand, may be enthusiastic about the educational potential of asynchronous communication, yet worried about time spent on reading, answering and grading students' posts without adequate career rewards for the activity. All the related studies suggest that online learning and discussion forums may become effective practice if associated with predicted positive learning attitudes and higher achievement (Shaw and Pieter 2000, 17).

3 METHODOLOGY

For the qualitative and quantitative analysis presented in this paper, two corpora were collected, one in Serbian and the other in English. On beginning the research, it became apparent that professors rarely use discussion forums in their Serbian courses. Finally, the authors managed to obtain access to two courses at

the University of Novi Sad, Serbia. The first one is a course in Fundamentals in Project Management with third year undergraduate students (aged 20–22) at the Faculty of Technical Sciences, Novi Sad. The other one is a course in Hispanic Cultures with fourth year undergraduate students (aged 21–23) at the Department of Romance Studies, Faculty of Philosophy, Novi Sad. The English corpus was gathered from a course in English for Engineers with first year undergraduate studies (students aged 18–20) at the Faculty of Technical Sciences, Novi Sad.

Prior to participating in these courses, none of the students had any preparation or instruction in academic writing. Students speak Serbian as their mother tongue, and according to their curricula all students should have B2 level English language knowledge (following CEFR). Their courses and discussion forums were partially or completely supported by a Moodle platform, though some of the students used Facebook communication as a forum.

As already mentioned, learning was supported by Moodle, a learning management system designed to create and organize online courses via the Internet (<https://moodle.org/>). It provides students with online materials and activities for studying and also offers the possibility of online communication via discussion forums. In the course in English, a number of topics related to technology were offered to students to encourage discussions on the forums. The posts were posted voluntarily by students during one semester. In two courses in Serbian, lasting for one semester each, professors also left a number of topics on discussion forums for students to comment on or they used the forums to ask questions related to the course and present tasks that had to be completed.

In total, 200 posts were collected in English (24,796 words) and 166 posts in Serbian (3,212 words). Posts were gathered and coded manually by both authors. A potential list of boosters and attitude markers was compiled using the literature (Farrokhi and Emami 2008; Hyland 2005). The list was complemented with Serbian equivalents, and other examples were added as they occurred in the posts. The final list is presented in the Appendix. The list contains both single words and multi-word phrases. The latter were regarded as single markers, following Hyland's idea (Hyland 1999b) that it is easier to compare the occurrences and not the length of metadiscourse markers in corpora of unequal sizes. Hence, phrases and complex structures were quantified as single items and are listed as a single item in the Appendix. The authors worked independently on the entire corpus, listing and counting all the examples found, and they compared the results afterwards. In cases of disagreement, data were reviewed again by both authors and any further disagreement was resolved by discussion. For the purpose of comparison in the study, the percentages used present the percentage of metadiscourse marker occurrences in the entire Serbian and English corpora.

4 CORPUS ANALYSIS

In learning both general and academic vocabulary in ESL, boosters and attitude markers have not been provided with any general attention. Indeed, EAP (English for Academic Purposes) textbooks tend to focus on how referential information is typically conveyed, largely disregarding epistemic aspects of texts (Hyland 2000, 181). It can be assumed that students use these expressions mostly intuitively, without adequate knowledge. Therefore, this study can reveal the way students use specific discourse markers bringing unconscious processing and subjective perceptions into conscious reporting on discussion forums, without prior academic knowledge of them.

4.1 Boosters

As already mentioned, boosters are metadiscourse expressions that allow writers to express certainty, mark their involvement, or communicate their solidarity with the audience. These can be words or phrases; however, boosters can also be presented as capital, bold or underlined letters and phrases, as well as repetitions of vowels in a word. In addition, apart from emoticons as graphic representations of feelings and attitudes, images, links or documents can also visually convey commitment to the text and the message uttered.

Table 1: Number of boosters on discussion forum posts (% of total corpus)

Lexical boosters in Serbian		Lexical boosters in English		Graphic boosters in Serbian posts		Graphic boosters in English posts	
51	1.58%	335	1.35%	98	3.05%	17	0.06%

As it can be observed from Table 1 (and the Appendix), the students do not use a lot of boosters in their posts. This was to be expected, since they have not learnt to use them, and they do not feel the need to express certainty in their statements. The situation is the same when they write in Serbian (1.58% of boosters in the posts) and in English (1.35%). Hyland (1999b, 10) researched the frequency of metadiscourse features in academic textbooks, finding boosters to be one of the rarest categories used, with 5.1% boosters present in the corpora. Vázquez and Giner (2009) argue that the use of boosters differs by discipline, finding it to be much higher in marketing than in mechanical engineering and biology, where there are still more boosters than on these discussion forums. Peacock (2008) found boosters to be even less frequent in research articles over six disciplines.

Hence, it is not surprising that students can recognize and use an even smaller proportion of these items.

Table 2: Most frequent boosters in posts

Frequency ranking	Boosters in Serbian posts	Total of boosters in Serbian posts		Boosters in English posts	Total of boosters in English posts	
		No.	%		No.	%
1	emoticons	62	41.61%	think	58	16.48%
2	pictures	20	13.42%	really	39	11.08%
3	vowel repetition	13	8.72%	very	35	9.94%
4	links	8	5.37%	always	21	5.97%
5	videos	4	2.68%	actually	17	4.83%

On the other hand, what is surprising are the boosters that student do utilize in their writing (Table 2, Appendix). When writing in English, students prefer the verb *think* (1),¹ as well as the adverbs *really* (1) and *actually*. However, when they write in Serbian, lexical boosters can be found rarely, in only several instances (2). Instead, students use graphic boosters to present their ideas.

- (1) We can't know how exactly communication is going to look. What we can do is make a prediction. I guess that in 100 years' time we will have hologram phones or something like that. Would'n it be cool to call someone and be able to see, in front of you, a hologram of that someone? I *think* that would be *extremely* cool, and I would love if that were possible in the near future 'cause I *really* don't want to wait a 100 years for that to happen. (EP69²)
- (2) Lično sam *izuzetno zadovoljna* onim što sam naučila, dosta sam se zabilila prilikom izrade zadatka. Žao mi je što nisam imala *više* vremena da *dublje* izučim ono što smo radili, ali nadam se da ću imati priliku tokom leta. Srećno!! :) (SP103)

In the English posts, boosters are used to persuade the readers that the authors are experts on the topic (3), that they are certain in their statements (4), or that they have a high degree of confidence in the veracity of their statement (5). Also, these expressions are used to stress the author's personal opinion, convincing the reader

1 Although the verb *think* may be suspected to be a hedging device due to the lower degree of commitment and certainty, the authors regard it as a booster, following the list of metadiscourse markers provided by Hyland (2005).

2 In coding the posts, EP stands for English post and SP for Serbian post, followed by a post number.

to accept it as such (6). The boosters posted by Serbian students on discussion forums differ from those made by students from Iran (Tajeddin and Alemi 2012, 110), who prefer the verb *think*, but also the verbs *believe* and *know*, rather than using adverbs as boosters (Table 2).

- (3) *Without a doubt* the dark web is *indeed* a dangerous place, hidden underneath the everyday users superficial internet browsing. The dark web has many invisible content that goes by unnoticeable by search engines, thus making it hard for the authorities to regulate it. (EP97)
- (4) Using computers in any designer profession is one of the main things in achieving the best possible results. Trying to consume and make an idea, first in some graphic program, and then putting it in the realization is the first thing. *Of course*, besides that, internet can be a constant renewable source for inspiration. (EP54)
- (5) Should I worry? Reason for caring *certainly* has, but not for everything. First of all, thanks to the success of Silk Road, new onion domains have emerged that basically provide the same functionality as the original Silk Road. (EP98)
- (6) I *completely* agree with most of your statements. Video games play a major role in modern society, and can *definitely* have a positive impact on people. However, if we do not properly manage the time we spend playing video games, it can turn into an obsession and even ruin personal relationships. (EP128)

When writing on discussion forums in Serbian, it is clear that students feel freer in their mother tongue. They transfer the skills of tweeting and Netspeak into posts in Serbian rather than elaborating their vocabulary. In this study, it can be observed that students do not regard discussion forums as academic discourse; rather, they write and behave as on any other social network. As a result, they boost their short posts with emoticons (7), pictures, links (8) and videos.

- (7) Ja sam baš zadovoljna mojim kursem, skroz mi se sviđa :)) Završen i predat za ocenjivanje :D (SP146)
- (8) Ja se u potpunosti slažem sa njime samo sam mišljenja sa još nisam dovoljno zreo da pokrenem svoj biznis, ali definitivno to je pravac kojim težim. Pogledajte ovo malo :)) <https://youtu.be/Sl12gj67S0> (SP99)

It can be observed that posts in Serbian are much shorter than the ones in English. It seems that students are not capable or not willing to express themselves in words, boosters and attitude markers included. And while they are making an effort in a foreign language to express themselves in longer and more accurate

statements, they do not do the same in Serbian. They compensate for a lack of vocabulary with pictures and emoticons, as visual representatives of their certainty and attitude. The Serbian corpus has 77 emoticons expressing happiness, surprise, irony or sadness, out of which 62 are used as boosters (9) and 15 for no evident reason (10). There are also six pictures standing alone and having a meaning of their own, without any words accompanying them. These cannot be categorized, since they cannot be linked to anything except students' willingness to present them to other students.

(9) Meni se dopada, divno je 😊 (SP69)

(10) Kako je bilo danas na fakultetu sa našim gostima? 😊 (SP15)

Likewise, following Netspeak, posts in Serbian have multiple vowels in words as boosters to express author's involvement and solidarity with the audience. While there are 13 instances of vowel repetition (11), as well as seven instances of punctuation mark repetition (12), there is only one such case in the English posts (13).

(11) eeeeeeee tii suuu 😊 važii, hvala ti! (SP21)

(12) Svi su odlični, Kristina! Bravo!!! (SP71)

(13) Not so much related to the topic, but what do you guys think about the conspiracy that the processor power our technology achieved today was available *way* before, just that companies kept following Moore's law ('the doubling of processor power will occur every two years') so that they can put out a *new and better* product out every year and make more money? (EP10)

It may be concluded that students, while writing in a foreign language, have more sense of communication being an academic discourse. On the other hand, Netspeak is prevailing in students' mother tongue. This has to be considered rather seriously, since a number of these students will eventually join academia, bringing multiple vowels and emoticons into academic discourse while not being able to elaborate their certainty or opinion.

4.2 Attitude markers

As mentioned earlier, attitude markers present metadiscourse expressions that indicate the writer's affective attitude to a proposition (content) and try to persuade readers into having the same opinion. Apart from lexical items, attitude can be expressed by exclamation marks and graphically, using emoticons.

Table 3: Number of attitude markers on discussion forum posts (% of total corpus)

Lexical attitude markers in Serbian		Lexical attitude markers in English		Graphic attitude markers in Serbian posts		Graphic attitude markers in English posts	
82	2.55%	279	1.12%	5	0.15%	3	0.01%

Attitude markers are also not used very often (Table 3 and the Appendix). There were only 1.12% of attitude markers in the corpus of English posts in total, which is much less than the percentage (6.3%) of these markers used in academic textbooks (Hyland 1999b, 10), meaning that students should have read these markers frequently and, consequently, should have used them more often. However, if compared to the results of Blagojević (2009, 71), it seems that Serbian students use attitude markers more than Serbian researchers when they write in Serbian (0.40%) or English (0.36%). These results can also be compared to the only 0.45% attitude markers found in 200 research articles' discussion sections, as reported by Dobakhti (2013). This can be explained by the fact that students have a need to express their opinion and emotion while presenting a thought on a discussion forum, as well as the fact that students tend to be more direct and have not yet adopted the academic rules of hedging and stance. This is even more evident when students post in Serbian (2.55%) and express their agreement with the statements and the importance of the statement itself.

Table 4: Most frequent attitude markers in posts

Frequency ranking	Attitude markers in Serbian posts	Total of attitude markers in Serbian posts		Attitude markers in English posts	Total of attitude markers in English posts	
		No.	%		No.	%
1	!	22	25.29%	agree	89	31.56%
2	moći	14	16.09%	even x	66	23.40%
3	morati	7	8.04%	important	24	8.51%
4	slažem se	5	5.75%	!	10	3.55%
5	trebalo bi	5	5.75%	interesting	9	3.19%

As can be observed from Table 4 (and the Appendix), there are two features used in both Serbian and English posts, namely exclamation marks (14, 15) and the verbs *agree/slažem se* (14, 16). Exclamation marks can be regarded as a visual feature, contributing to emoticons and pictures used as graphic boosters.

- (14) I absolutely *agree* with you! Living in the era like this where everything is digitized, good (or even unbreakable) encryption is one of the most important problems engineers are facing. (EP53)
- (15) I od mene srećno svima! :) (SP106)
- (16) Ja se takođe *slažem* sa njegovom izjavom, međutim postoji još razloga zbog kojih se ljudi odluče za posao pre nego da pokrenu svoj biznis. Na primer, neki ljudi ne žele da preuzmu toliki rizik i toliko odgovornosti na sebe, lakše im je da rade za nekog i tako se osećaju sigurnije. Takođe, ne žele svi da steknu bogatsvo, već su zadovoljni platama i takvim načinom života. :) (SP100)

In the Serbian posts (Table 4), it is evident that students' attitude is mostly expressed using verbs. There are individual instances of phrases such as *drago mi je, što se mene tiče, po mom mišljenju*; however, verbs are used more frequently (17, 18).

- (17) Takodje se *slažem*, nisu svi ljudi spremni da preuzmu taj rizik. Imati svoj biznis predstavlja i mnogo žrtve i zapostavljanja porodice. Svako *mora* pronaći šta mu najviše prija i u čemu uživa. (SP101)
- (18) Mislila sam da sam zapisala sve korake redom kako treba, međutim nešto *očigledno* nije u redu :) S obzirom da vidite celu formulu, da li *možete* da mi kažete šta je greška, zbog čega ne radi? (SP143)

Example 14 is very interesting, since it combines the booster *absolutely* to commit to the agreement using the attitude verb *agree*, and complements it all with the exclamation mark as the attitude marker. This example also has the attitude marker *even* expressing surprise; *even*, as in the example 19, can also express extreme surprise.

- (19) There are skillful hackers who can lock you away from your own social media accounts and steal your personal information. They can steal your identity, hack your bank account and steal your money and *even* track your movement using street cameras and by tracking your credit card activity. No matter what you do, you are not safe. (EP35)

Students used adjectives which function as subject complements in sentences with the expletive *it*, such as *it is necessary, it is important, it is impossible* (20, 21). Serbian counterparts, such as *potrebno je, obavezno, razumljivo je* can be observed in only one instance, and this is due to the student's idiolect rather than the transfer of vocabulary.

These findings concur with Dobakhti (2013). The author analysed the discussion sections in research articles, and found that the researchers prefer adjectives,

which comprised around 70% of all attitude markers, with *important*, *appropriate* and *interesting* being the most frequent. The second category used were adverbs, among which *even* was the most frequently utilized. *Even* (14, 19), *important* (20), and *interesting* are among the most used attitude markers on discussion forums in English (Table 4), though *even* is more used than adjectives, and verbs are used more than both adjectives and adverbs.

- (20) (...) For a company to be successful, *it is necessary* to create a website in order for its customers, potential employees, business partners, even investors to find out more about the products and services it offers. Accordingly, if you don't have a website, you potentially lose a lot of jobs that companies with websites can easily get. *It is very important* to take the creation of a website seriously. To make a good first impression, the site needs to be well-designed. Otherwise, the website will spoil the image of your company. (EP78)
- (21) Although the first PCs were developed primarily because of military needs, today *it is almost impossible* to imagine our day-to-day life without them. Computers have completely changed the world in the past three decades. They have replaced printing machines, fax machines, calendars, newspapers, and a lot of other things, and thus greatly facilitated our lives. (EP88)

When posting on discussion forums in English, it appears that students in different countries tend to use the same attitude markers. For example, the attitude markers used by Serbian students (Table 4) correspond to markers used by Iranian students (Tajeddin and Alemi 2012) on discussion forums. In Tajeddin and Alemi (2012, 107), the students most frequently used *important*, *agree*, *even*, *unfortunately*, *interesting* and *prefer*. The Serbian students did use most of these (Table 4), including *unfortunately* (six instances); however, they did not seem to like the verb *prefer*. This comparison demonstrates that cultural background may not be a relevant issue when using English Netspeak in CMC. This finding is in accordance with Hyland's (2005) argument that globalization has increased intercultural and interlingual contacts, as well as the demand for learning rhetorical features that subsequently affect academic writing in English, although not present in one's own non-English writing culture. Unfortunately, even though one would assume that cross-cultural differences may exist when comparing L1 Netspeak, there have not been any comparative studies among two or more L1 that would provide more information on the issue.

Unlike in English, apart from verbs, posts in Serbian do not have many other parts of speech expressing students' attitude. There are individual examples of *bilo bi divno, po mom mišljenju, što se mene tiče*. In posts in English, there are also

individual examples of attitude markers such as *remarkable*, *unbelievable*, *surprised*. It seems that the students used them intuitively, without any knowledge of the feeling these can arouse in the audience. One more interesting attitude marker is the use of two words, *cool* (22) in English posts (nine instances) and *divno* (23) in Serbian posts (five instances). These two words, often followed by one or more exclamation marks, and sometimes even capitalized, present excitement, surprise and interest by the students as authors, definitely arousing the same emotions in the students as the audience.

(22) It was *cool* that he mentioned World of Warcraft as an example for software. I think it's really *cool* to develop games and even make hardware for gaming. I hope that some day i become a game developer so i can develop games that like :D (EP19)

(23) Ovo je jedna verzija bookmarks, uradila bih 3–4 sa različitim slikama, ali bih da čujem vaše mišljenje 😊 (SP67)

Meni se dopada, *divno* 😊 (SP69)

(24) Dobro jutro vrijedni ljudi! 😊 (SP19)

Unlike boosting, graphic elements were not used in the analysed corpus to provide the author's attitude. There were no images as attitude markers. There were only five instances of emoticons in the posts in Serbian, two of them ironic (16) and three showing that the author is evidently joking (24). In posts in English, the students used emoticons as attitude markers in only three instances. Thus, it can be concluded that attitude is still uttered lexically rather than graphically.

5 CONCLUSION

Discussion forums present an effective alternative to classroom communication, due to their flexibility, quality and quantity in participation, communication openness and possible post-participation review. Although intended for academic communication between students and professors, they present a blended writing approach, with the elements of formality used together with Netspeak. In expressing their opinion and certainty about written statements, students only occasionally present their attitude, using both lexical and graphical boosters and attitude markers, as expected.

The present study was an attempt to answer several research questions regarding the cross-cultural presence of booster and attitude markers on discussion forums. The research represents a small step towards examining the presence and use of

attitude markers and boosters in posts published on discussion forums and written by Serbian students in Serbian and English. The authors of this study are aware of certain limitations due to the relatively small size of the corpora, and further research is needed for a more detailed assessment of the results. Future research could include more undergraduate students from diverse departments, which would provide larger corpora, or even students with diverse L1, which would provide a better insight into cross-cultural similarities and diversities.

The first research question was concerned with the diversity of usage in the two languages. The conclusion is that there is not much lexical diversity in using boosters and attitude markers in writing. Students prefer boosters in English posts in order to increase the persuasive force of their statements, while they often use attitude markers to express their position on the issue and to persuade readers into having the same opinion. The results of the study also indicate that the posts written in Serbian mostly have just verbs as attitude markers, disregarding the possibility to use boosters in order to be more persuasive. This can be explained by the fact that students tend to be more direct in their L1 and hence they express their agreement with the statement more freely. When writing in a foreign language, students tend to write more complex sentences to sound more formal. On the other hand, in the Serbian posts, students rarely use lexical boosters and often rely on emoticons to boost their ideas. Netspeak prevails in their writing, e.g. the usage of multiple vowels in words as boosters to express their involvement and solidarity with the audience, and the insertion of emoticons to illustrate their emotions. It can be observed that students use similar expressions in both languages, e.g. adjectives *cool/divno* as boosters to express their excitement, surprise or interest, and verbs *agree/slažem se* as attitude markers.

In relation to the second research question, the study demonstrates that students do not frequently use boosters and attitude markers when they write on discussion forums. In the analysed corpus, lexical attitude markers account for 2.55% of the total word count in the Serbian corpus and 1.12% of the total English corpus, which can be explained by the fact that the students have not yet learnt academic writing skills. The students tend to be direct when expressing their surprise, agreement, importance or frustration. In addition, they do not use a lot of boosters in their posts either. Lexical boosters account for 1.58% of the total Serbian corpus and 1.35% of the total English corpus. Students rarely express certainty in their posts, especially in the corpus written in Serbian. Though one cannot provide a clear explanation for this, the lack of boosters may be attributed both to the lack of authorial voice of undergraduate students and the setup of assignments on the learning platforms. One of the findings indicates that students compensate for the lack of lexical boosters with graphic boosters (3.05% of the total Serbian corpus), which they are more familiar with and more certain in using. Hence, the results of this study indicate that students do not often use these expressions as a means of surprise, agreement, certainty or persuasion in their online communication, regardless of the language used.

The third research question addresses the issue of using graphic features to complement the linguistic ones. The study demonstrates that the students use graphic features to boost their statements in Serbian rather than in English. When they write in English, the students tend to use lexical features, probably having more sense of the communication being a form of academic discourse. Another possible reason could be their lack of knowledge of L2 Netspeak. However, when they write in Serbian the students act as on any other social network, finishing their statements with emoticons and complementing them with pictures, videos or links, disregarding the fact that the communication is on an academic platform and that the teacher is one of the participants. This finding is evidence that Netspeak has entered academic discourse, i.e. that students, when writing in L1, use a variety of written language with the elements of spoken communication and graphic displays.

On a final note, in order to reduce the cultural input into academic writing, at least when boosters and attitude markers are concerned, teachers may refer to authors like Peacock (2008) and Hyland (1998b) who offer teaching suggestions on how to present and teach students how to use boosters, attitude markers or hedging in order to emphasize their opinion, certainty and commitment in academic communication. Moreover, since Netspeak may be expected to infiltrate discussion forums on learning platforms, teachers, being aware of this fact, may choose to utilize some classroom time to advise their students on certain (un)desirable (in)formal aspects in academic writing.

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Appendix

This is a list of boosters and attitude markers compiled from literature (Farrokhi and Emami 2008; Hyland 2005) and complemented with Serbian equivalents, as well as other occurrences that were added as they occurred while manually analyzing the corpora.

a) List of boosters and attitude markers on discussion forums in Serbian

BOOSTERS	Count	ATTITUDE MARKERS	Count
<i>emoticons</i>	62	!	22
<i>pictures</i>	20	moći	14
<i>vowel repetition</i>	13	morati	7
<i>links</i>	8	slažem se	5
<i>capital letters</i>	7	trebalo bi	5
<i>video</i>	4	<i>emoticons</i>	5
baš zadovoljna	4	bilo bi divno	3

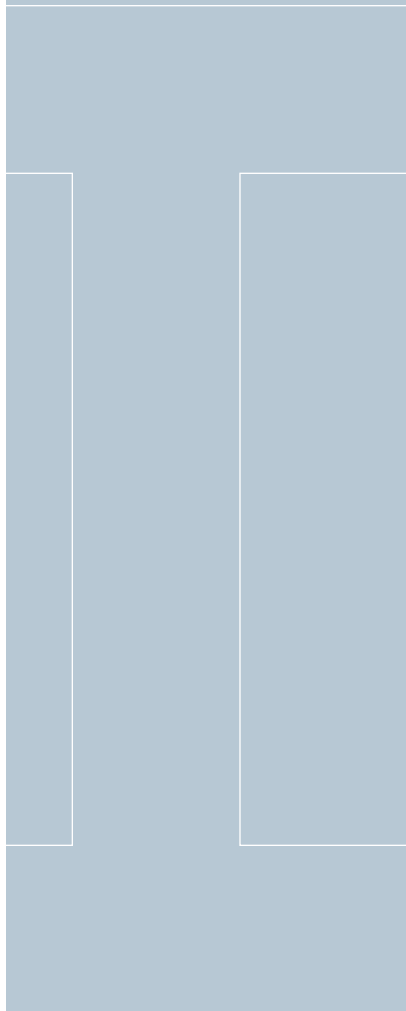
BOOSTERS	Count	ATTITUDE MARKERS	Count
jako	4	nadamo se	3
Bravo!!!	4	mislim	3
u potpunosti se slažem	3	DIVNA FOTKA !!!	2
izuzetno	3	verovatno	2
veoma	2	potrebno je	2
<i>underlined</i>	2	žao mi je	2
<i>bold</i>	2	šteta je	1
dosta	2	pažljivo	1
Jao	2	obavezno	1
<i>Word document</i>	2	naglasite!	1
eeee tii suuu	1	ne smeta	1
definitivno	1	po mom mišljenju	1
ne samo...već i...	1	razumljivo je	1
<i>gif</i>	1	bar naglasiti	1
<i>poll</i>	1	očigledno	1
		što se mene tiče	1
		drago mi je	1
		nikako	1

b) List of boosters and attitude markers on discussion forums in English

BOOSTERS	Count.	ATTITUDE MARKERS	Count
think	58	agree	89
really	39	even x	66
very	35	important	24
always	21	!	10
actually	17	interesting	9
believe	16	cool	9
completely	15	It is x	9
know	13	quite x	8
definitely	11	mostly	7
of course	11	x enough	6
sure	11	unfortunately	6
never	10	simply	5

BOOSTERS	Count.	ATTITUDE MARKERS	Count
<i>photos</i>	9	amazing	4
truly	8	disagree	4
<i>emoticons</i>	8	understandable	3
certain	5	emoticons	3
extremely	5	it is impossible	2
fully	5	it is necessary	2
absolutely	5	essential	2
find	4	essentially	1
totally	4	agrees	1
certainly	3	appropriate	1
far	3	astonished	1
found	3	expected	1
obvious	3	remarkable	1
proved	3	surprised	1
true	3	unbelievable	1
indeed	2	significantly	1
must (possibility)	2	it is dangerous	1
shown	2	it is the fact that	1
surely	2	it is a crucial	1
undoubtedly	2	claims	1
without doubt	2	logical	1
clear	1		
clearly	1		
consistently	1		
no doubt	1		
proves	1		
undeniable	1		
hold the view	1		
strongly	1		
wow	1		
hahaha	1		
<i>vowel repetition</i>	1		
<i>bold letters</i>	1		

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