21 Use of Metadiscourse in Research Articles Written in L1 and L2 by the Same Authors

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The ability to write in English at an advanced level has become paramount for non-native speakers of English who wish to participate in a wider academic community. The aim of the present study is to compare one element of English academic writing, the use of metadiscourse, in L1 and L2 by analyzing a corpus of 10 research articles written in Serbian and 10 research articles written in English on the same/similar topic by the same authors. The occurrence of metadiscourse is analyzed using Hyland's (2010) distinction between interactive and interactional categories. In a further qualitative analysis five of the authors were asked to participate in a follow-up questionnaire designed to address their awareness of the metadiscourse elements and cultural differences in this area.

Pour les non-anglophones, l'écriture académique en anglais impose de connaitre non seulement le vocabulaire et la syntaxe mais aussi des normes de l'écriture en anglais, telle celle de l'usage des métadiscours qui diffère selon les langues. Cette étude compare l'utilisation de métadiscours en L1 (serbe) et L2 (anglais) en analysant 10 articles de recherche écrits en serbe et 10 articles de recherche écrits en anglais sur des sujets similaires par les mêmes auteurs. L'apparition de métadiscours dans les deux groupes est analysée en utilisant la distinction entre catégories interactives et catégories interactionnelles. Dans la partie qualitative de l'analyse, cinq auteurs participent à des entretiens conçus pour identifier leur connaissance des éléments de métadiscours et les différences culturelles dans ce domaine. Les résultats de notre enquête indiquent une plus grande présence des caractéristiques de métadiscours dans les articles écrits en anglais par rapport à ceux écrits en serbe.

Les études précédentes suggèrent que le serbe fait partie des langues qui utilisent moins de métadiscours que l'anglais, donc les résultats actuels suggèrent que ces auteurs ont pu adapter leur écriture à cet égard et faire une transition réussie d'une culture de l'écrit à l'autre. Mais les réponses au questionnaire de suivi montrent qu'ils ne sont pas conscients de la façon dont ils utilisent des éléments de métadiscours dans leur écriture. Ces résultats montrent la nécessité d'enseigner formellement l'écriture académique.

1. Introduction

Today, English is considered to be the lingua franca of modern academia, and the ability to write in this language at an advanced level has become paramount for those who wish to participate in a wider academic community and to make progress in their academic careers. The dominance of English as the language of academic communication has raised concerns about the dichotomy between the "centre" and the "periphery" (Canagarajah, 2002) and the ways it affects the academics who are non-native speakers of English.

Writing research papers and publishing them in recognized international journals is particularly demanding for the non-Anglophone scholars (Lillis and Curry, 2010) since they are expected to satisfy additional requirements. Non-native speakers of English seeking international publication need to achieve adequate writing skills not only in relation to the correct use of vocabulary and grammar but also regarding the norms, conventions and many other aspects of English academic writing which may differ from the traditionally accepted practice in their first language. This implies that non-native English speakers have to deal with the cultural differences regarding writing in two languages. If culture is regarded in the widest possible sense as a set of learned and shared patterns of behaviors and interactions, cognitive constructs, and affective understanding, then writing is considered imbedded in a particular culture and not independent from it.

Language and culture interdependence is traditionally treated within the area of contrastive rhetoric (Kaplan, 1966). More recently, cultural differences in academic writing were studied in relation to intellectual styles (Clyne, 1987; Čmejrkova, 1996; Duszak, 1994; Ventola and Mauranen, 1996; Siepmann, 2006). Mauranen (1992: 239) sees "all writing strongly anchored in the values of the writing cultures that people get socialized into as they learn to write."

According to Kruse (2012: 293), academic writing culture may be defined as a set of rules, regulations, practices, and attitudes regarding the usage of writing for learning and teaching. Our study examines academic writing in English and in Serbian, two languages which do not share the same academic writing culture, as Serbian academic writing shows resemblance to other Slavic languages and has been under the influence of the Teutonic (German) writing tradition. Čmejrkova (1996), Duszak (1994), and Yakhontova (2002) find that academic writing in Slavic languages differs from English academic writing in being less linear, showing greater tendency towards syntactic complexity and digressions, and generally nursing a "baroque" style of writing (Čmejrkova 1996: 13).

In relation to Hinds' (1987) typology of reader vs. writer responsible languages, Blagojević (2005) describes Serbian, similarly to other Slavic languages, as a language which is to a large extent reader-responsible, presenting scientific knowledge in a manner that requires additional effort on the part of the reader to understand the text. In addition, contrary to Anglo-Saxon attitudes to writing and, in particular, North American traditions of providing writing instruction, in Serbian, how one writes is left to writer's intuition and individual talent (Blagojević, 2005).

In examining academic writing in English and Serbian, this chapter concentrates on the knowledge and use of metadiscourse as the tool to express or withhold the author's personal attitudes, as the source of expressions for referring to information sources, graphs and tables, as well as the means to build a relationship with the reader and make the reading easier to follow (Blagojević, 2005; Mauranen, 1993a).

Metadiscourse is defined as discourse about discourse, as expressions referring to the author's linguistic manifestations in the text. Their function is to describe the text and guide the reader through it. Authors use metadiscourse expressions to "help readers to organize, classify, interpret, evaluate and react" (Vande Kopple, 1985: 83) to the information (i.e. propositional material) presented in the text, and hence the metadiscourse becomes the key to a successful communication between the writer(s) and the reader(s). As Mauranen states, "it is not surprising it [metadiscourse] has interested scholars, because it manifests a fundamental feature of natural language: the capacity of talking about itself" (Mauranen, 2007: S4).

Metadiscourse presents a valuable tool for both the writer and the reader. However, the studies that analyzed the presence of metadiscourse elements in different languages have proven that its usage varies from one language to another. In comparison to English, metadiscourse is used less in Slovene (Pisanski Peterlin, 2005), German (Clyne, 1987), Polish (Duszak, 1994), Finn-

ish (Mauranen, 1993a), and Serbian (Mirović & Bogdanović, 2013). It can therefore be stated that the usage of metadiscourse is related to the culture that a writer belongs to, not their writing style or personal choice. This situation is observed in Serbian in comparison to English. In previous research, Mirović and Bogdanović (2013) pointed out that master-level engineering students, when writing in Serbian, used metadiscourse only occasionally. Studies also report the limited usage of metadiscourse elements with Serbian authors writing scientific papers in English (Blagojević, 2005; Bogdanović & Mirović, 2013), and that is the reason why this topic demands more attention among scholars. Blagojević (2005) suggests that in Serbian, as well as in some other languages (Mauranen, 1993b; Hyland, 2005), the lack of metadiscourse relates to the fact that Serbian authors do not manage to establish successful relationship with the potential readers, which can potentially affect their chances of publishing in English.

Previous studies on the cultural differences related to the use of metadiscourse (Mauranen, 1993b; Ädel, 2006; Crismore et al., 1993; Crismore & Abdollehzadeh, 2010; Blagojević, 2008) have compared the papers written by native speakers in two different languages or have studied the use of metadiscourse by native and non-native English speakers. The present study is designed to look into the use of metadiscourse in research articles written by the same authors in their first language (Serbian) and in their second language (English). Given the pressure that modern-day academics have to write and publish in English, it is of interest to investigate whether the authors from non-English language backgrounds are able to use metadiscourse differently when they write in two different languages.

The study is divided into two parts: the first part focuses on a corpus consisting of 10 research articles written in Serbian and 10 research articles written in English by the same authors. The articles are analyzed to determine the extent of the use of metadiscourse in the two sub-corpora (English and Serbian) and the potential differences in the use of particular metadiscourse features.

In the second, qualitative part of the analysis, five of the authors were asked to participate in the follow-up interviews designed to address their awareness of the metadiscourse elements and, in particular, cultural differences in this area. They were also asked to comment on their use of particular features such as references, ways of establishing connection with the readers, self mentioning and other prominent characteristics found in their use of metadiscourse. The results are analyzed in terms of the level of congruence between their actual use of metadiscourse markers and the authors' beliefs on the use of these elements.

2. Metadiscourse in research articles in L1 and L2

2.1 Method and results

Each of the ten academics who participated in the study was asked to contribute two previously published research articles: one written in English and one written in Serbian (their mother tongue). The articles dealt with different topics in the area of science and engineering (physics, chemistry, civil engineering, mechanical engineering, electrical engineering, traffic engineering, graphic engineering and architecture). The research articles in both groups were read noting every occurrence of metadiscourse and classifying each according to the taxonomy proposed by Hyland (2005, 2010).

Authors of this chapter are aware of the fact that there are other metadiscourse classifications. The first classification of metadiscourse was made by Vande Kopple (1985), who identified seven categories. Crismore et al (1993) made a distinction between textual and interpersonal metadiscourse, which Hyland (1997) adopted and modified for academic discourse. Mauranen (1993a) presented a taxonomy based on high- and low-explicit reflexivity, which was followed by Ädel (2006) in her classification on metatext and writer-reader interaction. Present research uses the classification of metadiscourse into interactive and interactional categories introduced by Hyland (2005, 2010). This classification is based on a functional approach where the emphasis is on the manner the writer refers to the text, to themselves and to the reader. In this taxonomy, metadiscourse is related only to the context in which it occurs and the interaction between elements is always present. The model is presented in the following manner:

Interactive expressions help to guide the reader through the text and include:

- Transitions (express relations between main clauses): e.g. in addition, but, thus, and;
- Frame markers (refer to discourse acts, sequences or stages): e.g. finally, to conclude, my purpose is;
- Endophoric markers (refer to information in other parts of the text): e.g. noted above, see Fig., in section 2;
- Evidentials (refer to information from other texts): e.g. according to X, Y 1990, Z states;
- Code glosses (elaborate propositional meanings): e.g. namely, e.g., such as, in other words.

Interactional expressions involve the reader in the text, i.e. allow writers to conduct interaction by intruding and commenting on their message. These include:

- Hedges (withhold commitment and open dialogue): e.g. might, perhaps, possible, about;
- Boosters (emphasize certainty or close dialogue): e.g. in fact, definitely, it is clear that;
- Attitude markers (express writer's attitude to proposition): e.g. unfortunately, I agree, surprisingly;
- Engagement markers (explicitly build relationship with reader): e.g. consider, note that, you can see that;
- Self mentions (explicitly refer to author(s)): e.g. I, we, my, our.
- As Hyland (1997: 444) pointed out, the taxonomy cannot fully cover the complexity of metadiscourse and one and the same item can be perceived to have different functions in the text. When we encountered such dilemmas, the cases that some researchers (Ädel, 2006: 24; Crismore et al., 1993: 41) term "multifunctional metadiscourse," we tried to discuss the item together and thus solve the problem according to what was commonly seen as the item's dominant function in the particular case. We adopted the principle that each instance of metadiscourse can be classified into only one subcategory which also meant that larger textual chunks were regarded as one occurrence of metadiscourse, similar to Crismore and Farnsworth (1990). For example, a phrase: As we shall see in Figure 21.2 is counted only as one instance of metadiscourse and is classified as an endophoric marker.

Table 21.1 shows the data obtained from the two groups of articles (articles in English and articles in Serbian) comparing the overall use of metadiscourse in two groups as well as the presence of particular metadiscourse features (interactive and interactional subcategories). Overall there were 655 instances of metadiscourse in the articles written in English vs. 438 instances in the articles written in Serbian.

Table 21.1. Use of metadiscourse in articles in English and in Serbian

	English: 34,921 words		Serbian: 28,269 words	
	Items	%	Items	%
Total METADISCOURSE	655	1.88	438	1.55%
INTERACTIVE	579	1.67	413	1.46
Transitions	87	0.25	58	0.21
Frame markers	63	0.18	46	0.16
Endophoric markers	170	0.49	171	0.61

	English: 34,921 words		Serbian: 28,269 words	
	Items	**%**	**Items**	**%**
Evidentials	194	0.56	113	0.40
Code glosses	65	0.19	25	0.09
INTERACTIONAL	76	0.22	25	0.09
Hedges	27	0.08	14	0.05
Boosters	6	0.02	3	0.01
Attitude markers	12	0.03	6	0.02
Engagement markers	3	0.01	2	0.01
Self mentions	28	0.08	0	0.00

Since the articles were not of the same length (the total length of the research articles written in Serbian was 28,268 words and the total length of the articles written in English was 34,921 words) the results are presented in percentages for easier comparison. However, it should be noted that the percentages do not represent the percentage of words devoted to metadiscourse but rather the instances of metadiscourse in relation to the length of the texts, similar to the approach used by Hyland (1999). The elements of metadiscourse found in the study took the form of words, expressions and even sentences. Some authors (Mauranen, 2007) mention the possibility of whole paragraphs having discourse reflexive functions but such cases were not observed in the articles in our study.

It can be seen from Table 21.1 that the articles written in English contain more metadiscourse than the articles written in Serbian (1.88% vs. 1.55%) and that in both groups interactive elements are used much more than interactional (1.67 vs. 0.22 in the English articles and 1.46 vs. 0.09 in the Serbian articles).

Although the authors generally used metadiscourse to a lesser extent when they wrote in Serbian than when they wrote in English, they used more endophoric markers in Serbian articles than in their English articles. At the same time endophoric markers are the type of metadiscourse most used in Serbian articles and all other subcategories are present to a lesser extent. With articles written in English the dominant group is evidentials.

Interactional elements are used, roughly speaking, twice as much in English as in Serbian articles, and among them, self mentions, although present in English articles, are not found at all in Serbian articles.

2.2 Corpus analysis

The analysis of the articles written in English and in Serbian shows that

the authors used metadiscourse in both languages to support their claims (by referring to the source of information), to indicate information located elsewhere in the text, to connect ideas, state the purpose of their research, etc.

The texts written in English demonstrate greater use of metadiscourse elements of almost all subcategories than the texts written in Serbian. Previous findings (Blagojević, 2005; Bogdanović & Mirović, 2013) indicate that features of metadiscourse are more prominent in English than in Serbian and attribute this to cultural differences in writing between the two languages. The fact that authors in this study, generally speaking, used more metadiscourse elements when they wrote in English than when they used their mother tongue speaks well of their ability to adapt their writing styles to different writing cultures and thus function more successfully in the academic environment. The modern academic environment demands the mastery of the English language and specialist vocabulary but also good command of other, more sophisticated features, which are not easily (or regularly) taught, such as metadiscourse.

The use of interactive metadiscourse features in the two groups of articles deserves closer analysis. As can be seen in Figure 21.1, the only category of metadiscourse that is used more in Serbian articles (0.61%) than in English articles (0.49%) is endophoric markers. They are used more in Serbian by seven authors, which means that it was a rather general feature of metadiscourse use, and not just limited to one or two authors. The use of these markers in the studied articles was generally frequent as they contained a large number of illustrations, tables, mathematical formulas (even photographs) that the authors had to refer to in argumentation and discussion.

The use of evidentials is very prominent in both Serbian and English articles. Evidentials accounted for about one third of all interactive items (33.51%) in articles in English and somewhat smaller percentage (27.36%) of interactive items in articles written in Serbian. They serve to demonstrate the author's awareness of previous research in the area and thus strengthen their arguments. Previous research is mentioned usually in the first part of the article, by giving reference to the authors of earlier articles in the same field, and in this way evidentials serve to build on existing knowledge and also position the author within the academic community (Hyland, 1997). This seems to be the convention of the genre in the area of science and engineering and the use of evidentials in the two languages does not show much variation. It can be noted that the use of this type of metadiscourse does not require high-level language skills, i.e. they are easy to use in any language.
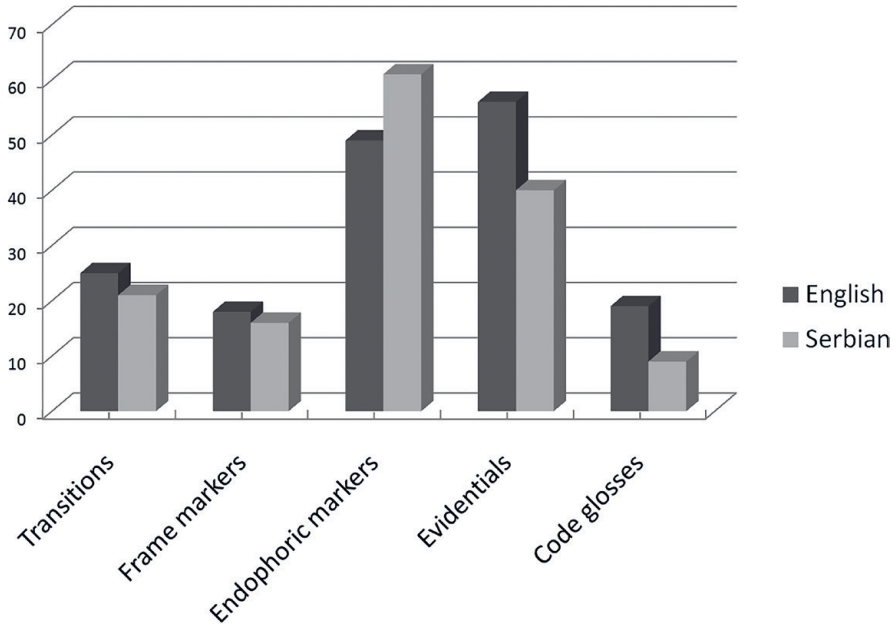
Figure 21.1. The use of interactive metadiscourse in English and in Serbian

Transitions, on the other hand, are more demanding from the point of view of language skills. It is our general impression that the authors did not have problems with their use, as it can be seen in Example 1.

> (1) Although NAA has an aromatic ring structure where-
> as the NAs are aliphatic, there is a possibility that the NAs
> operate through the same receptors as the auxin NAA. In
> addition, it was recently established that one or more of the
> compounds present in the naphthenic acid mixtures bind to
> the androgen receptor in a manner similar to that of flut-
> amide, a powerful metabolite for binding to androgen recep-
> tors. (paper E8)

However, there are sections in the articles, particularly those which describe procedures and methodology of research, which are totally devoid of transitions, leaving it to the reader to make logical connections on the basis of their understanding of the given subject area. Usually this part of the text contains statements without connectives, as seen in Example 2.

> (2) Group-structural analysis was performed by mass-spec-
> trometric fragmentation to quasi molecular ions by a soft
> ionization technique in either the positive or negative ion

> mode. Lower solution high performance liquid chromatography coupled with electrospray ionization mass spectrometry (HPLC-ESI-MS) spectra were recorded on a Finningan LCQ advantage MAX spectrometer. The spectra encompassed a molecular series of protonated and sodiated molecular ions of the acids [M+H]+ and [M+2H]+ or [M+23]+ recorded in the positive ion mode in 0.1 % trifluoroacetic acid in acetonitrile or acetonitrile-water mixture 1:1. (paper E8)

There is not much difference in the use of frame markers between the two groups. They are generally found in the first part of the article and are used either to indicate the purpose, objective or aim of the research (Example 3), or to organize a list of points (Example 4).

> (3) Considering the previous discussion, the aim of this research was to investigate measuring performances of mentioned two dental optical systems, with emphases on accuracy and precision, and to evaluate the statistically significant difference. (paper E10)

> (4) The CAD reference model's generation included the following phases:

> (1) Design of basic study model and preparation of teeth.

> (2) Creation of impression and stone replica.

> (3) 3D digitization of the stone replica and generation of the STL model. (paper E10)

Code glosses show greater difference in use: they are used twice as often in English articles, usually to add information in the form of example, as presented in Example 5.

> (5) Other very important aim of such a system is the possibility of fast reactions in the case of contaminated batches of food (e.g. with poisonous chemicals or bacteria). (paper E9)

However, it seems that when they write in their mother tongue, the authors do not feel the need to clarify or exemplify to the same extent. This may be related to their increased sense of authority when they write in their mother tongue, which in our study resulted in the reduced need to clarify and exemplify things for their readers in Serbian texts. At the same time a specific form of code glosses was found in some articles written in Serbian: namely English

terms, usually given in parenthesis, were used as a form of clarification for the key terminology used in the articles.

As it was already mentioned, both groups of articles have more interactive metadiscourse than interactional. This is something that we anticipated; engineering and science disciplines are not characterized by the presence of the author, but rather by the dominance of facts. Other studies (Hyland 1997; Bogdanović & Mirović, 2013) also found that research articles in these areas do not contain a lot of interactional metadiscourse or as many examples of interactional metadiscourse as articles in social sciences (applied linguistics and marketing).

If we compare the amount of interactional metadiscourse in the articles in English and articles in Serbian, we notice a significant difference: twice as much interactional metadiscourse in English articles. With articles written in English, interactional metadiscourse accounted for 11.6% of the total metadiscourse and with articles in Serbian 5.7% of the total metadiscourse was interactional. The higher proportion of interactive metadiscourse features is also observed by Blagojević (2008), who also compares academic writing in English and Serbian although she uses a somewhat different taxonomy and does not compare the papers by the same authors. The limited use of interactional metadiscourse features by Serbian authors in this study is not surprising. These expressions indicate author's presence in the text. Their use in academic discourse is largely defined by the conventions of an academic or discourse community. In this case we can say that the differences in the use of interactional metadiscourse also reflect cultural differences between two languages. The overall greater use of interactional metadiscourse in English articles can be observed in almost all subcategories (see Table 21.2).

Table 21.2. The use of interactional metadiscourse in English and in Serbian

	English: 34,921 words		Serbian: 28,269 words	
	Items	%	Items	%
Total METADISCOURSE	655	1.88	438	1.55%
INTERACTIONAL	76	0.22	25	0.09
Hedges	27	0.08	14	0.05
Boosters	6	0.02	3	0.01
Attitude markers	12	0.03	6	0.02
Engagement markers	3	0.01	2	0.01
Self mentions	28	0.08	0	0.00

The subcategory of interactional metadiscourse which was used the most was hedging, which, again was not surprising. Hedging plays an important role

in scientific writing as it allows writers to make scientific claims with appropriate caution and at the same time avoid the possible disagreements or opposition. The authors used hedges to present their interpretation of the facts as possible but not necessarily absolutely correct. The most frequently found way of hedging was the use of adverbials and the use of modal verbs. Some examples of hedging are presented in Example 6.

> (6)   That opinion was found somewhat more frequently among the residents of peripheral blocks (91%) than in urban ones (85%). It can be concluded that spatial organization of blocks in the settlements of Vojvodina provides privacy to their residents to a great extent. (paper E6)

All other interactional forms of metadiscourse are used rather sporadically. Self mentions (the use of pronoun we or possessive adjective our), which seem as numerous as hedges are actually concentrated in one paper (27 out of 28 instances). It could be said that their use represents a convention in academic writing which some authors adopt and some do not. The same author did not use the first person pronoun in the text on a similar topic written in Serbian.

Although the results obtained in this part of the study complement previous research, the question remains whether the amount of metadiscourse used by these authors and the way in which it is employed in their articles equals or approaches the use of metadiscourse by native English speakers. To determine this, we would need to compare these papers with a third sub-corpus of research articles written on these topics by native English speakers which would provide a norm or standard against which non-native speakers' papers could be evaluated. Still, at this point, we can say that, on the whole, these authors made a successful cultural transition from one writing culture to the other in their use of metadiscourse.

3. Questionnaires

On completing the analysis of research articles, five of the authors were asked to participate in the follow-up questionnaire designed to address their awareness of the metadiscourse elements and cultural differences in this area. They were asked to comment on their use of particular features such as references, self mentioning and other prominent characteristics found in their use of metadiscourse. The questionnaire is presented in the Appendix 1 of the paper.

The questionnaire consisted of three parts. The first part related to general information about participants. They were asked how long they had studied

English in an institution and if they had attended any course in academic writing (whether Serbian or English). These questions were related to their previous education on writing skills and general English competence. They were also asked how long they had been working at the Faculty of Technical Sciences, University of Novi Sad, Serbia and how many research articles they had published during that time. It showed their writing competence and presence in the academic community.

The second part of the questionnaire was concerned with their knowledge on metadiscourse. The participants were asked whether they use metadiscourse, whether they pay special attention to it or incorporate it into the article subsequently, if they have any favorite expressions and if they had any training in the use of metadiscourse. There was also a question on whether they write in first person singular, which was to be related to self mentions. Most of the questions were simple factual questions.

Finally, in the third part, they were provided with examples of each of ten metadiscourse types and they were asked to grade, from 1 as not being used to 5 as always being used (so-called basic Likert scale in a checklist type format; according to Adams & Cox, 2008: 21), what they believed to be the frequency of their usage of individual metadiscourse types. In the end, what is presented here is a qualitative analysis of the data obtained from five writers.

The answers from the questionnaire revealed that the writers participating in the research learnt English for approximately 10 years in primary and secondary schools. Neither of them entered a course in any academic language, whether English or Serbian. In other words, they are all self-taught in writing skills and writing research articles. They have been employed for a long time at the Faculty, during the period between 15 and 25 years, and during that time they have written a great number of scientific papers (most of them circled that they have written between 20 and 50 research articles).

One of the interesting observations regarded general information related to their frequency of writing in two languages. They all tend to write in English more than they do in Serbian. It seems that the global academic market demands that the papers be written and published in English, so they are beginning to neglect their writing skills in Serbian. Even when they attend domestic conferences, they still write in English for general understanding and on line accessibility.

As for the information regarding metadiscourse, the participants claim they use metadiscourse in both English and Serbian, which is confirmed by our investigation (but with differences in the amount of metadiscourse used in two languages). They claim they always pay attention to metadiscourse, and they do not have any favorite expressions. They report that they sometimes

add metadiscourse expressions if that is requested by the reviewers, in a situation when they have to refer to a table or a figure, or when they want to have better organization, which they achieve using expressions like *however* or *on the other hand*. They all claim they do not write in first person singular because they learnt not to do that, and the journals demand they not do it.

It is interesting to observe that they all believe their use of metadiscourse in the two languages does not differ. When asked about their use of different types of metadiscourse in the two languages, they always provided the same answers for both languages. However, both previous researches (Mauranen, 1993b; Markkanen et al., 1993; Ädel, 2006; Blagojević, 2008; Mirović & Bogdanović, 2013) and the analysis in this chapter indicate differences between L1 and L2.

Whereas the results of the analysis show greater use of metadiscourse in the articles written in English, the results of the questionnaire seem to indicate that the participants are not aware of their use of metadiscourse markers, especially the interactive ones.

For example, these writers believe they use frame markers, endophoric markers and evidentials regularly, whereas the analysis has proven that frame markers are not that common in their writing. Some of the participants believe they use code glosses moderately in both languages, though there are actually very few examples of code glosses found in their articles in Serbian. Conversely, there are also situations when they believe they use endophoric markers only moderately whereas endophoric markers present one of the most used types of metadiscourse. Rarely are they aware of how they use certain markers, and most of their misconceptions are related to code glosses, which they believe they use more than they actually do.

As already emphasized, interactional expressions are rarely found in research articles. However, the writers believe they use boosters and engagement markers quite often, while they believe they never use attitude markers and self mentions. The analysis proved them wrong again, since the most used type of interactional metadiscourse is hedges. The results also show that there are situations when the writers believe they are using one marker type more than the others (e.g. hedges) but the analysis of the research papers shows that it is actually vice versa. The authors definitely follow the advice never to use self mentions and they are aware of that fact as an element in their writing skill.

Of course, we did get some interesting feedback. For example, the writer with 37 endophoric markers in English and 17 endophoric markers in Serbian believes to use them rarely. On the other hand, the same writer believes s/he uses code glosses quite often although there were only 14 expressions in their

research papers. We would also like to single out a writer with the greatest number of interactional expressions used, even though s/he believe s/he uses those expressions only occasionally. And in the questionnaire s/he answered that s/he never used metadiscourse in writing and never wrote in first person singular. The analysis counted 27 self mentions in his/her English paper, which were the only instances of self mentions in all analyzed papers.

4. Conclusion

In view of the increased need for researchers from different language backgrounds to publish in English, the study looked into the use of metadiscourse by a group of Serbian academics and analyzed their papers published in L1 (Serbian) and L2 (English). The results of this investigation indicate greater presence of metadiscourse features in the articles written in English compared to the articles written in Serbian, in both interactive and interactional metadiscourse categories. Since earlier studies which compared articles by native and non-native English speakers (Blagojević, 2008; Mirović & Bogdanović, 2013) suggest that Serbian is among the languages which use metadiscourse less than is the case in English, the fact that these authors were able to adapt their writing in this respect can indicate their successful transition from one writing culture to the other. At the same time the data from the follow-up questionnaire indicate that they are not consciously aware of how they use metadiscourse elements in their writing in the two languages. The indication that these authors share some wrong assumptions regarding their use of metadiscourse suggests that providing them with a formal course in academic writing based on the research results would almost certainly improve their writing, taking it one step further in text organization. Considering the increasing need for academic communication in English for researchers from different language backgrounds, further research into this area would be interesting for both theoretical and practical reasons.

References

Adams, A. & Cox, A. L. (2008). Questionnaires, In-Depth Interviews and Focus Groups. In Cairns, P. & Cox, A. L. (Eds.), *Research methods for human computer interaction* (pp. 17-34). Cambridge, UK: Cambridge University Press.

Ädel, A. (2006). *Metadiscourse in L1 and L2 English*. Philadelphia: John Benjamins.

Blagojević, S. (2005). What should a non-native speaker of English be aware of when writing in English for academic purposes? *Romanian Journal of English Studies, 2*, 11-20. Retrieved from http://www.litere.uvt.ro/vechi/documente_pdf/RJES/no2_ELT.pdf

Blagojević, S. (2008). *Metadiskurs u akademskom diskursu* [Metadiscourse in academic discourse]. Niš: Filozofski fakultet.

Bogdanović, V. & Mirović, I. (2013). Upotreba metadiskursa u saobraćajnom inženjerstvu: analiza naučnih radova pisanih na engleskom kao maternjem i engleskom kao stranom jeziku [Metadiscourse in traffic engineering: An analysis of research articles written in English as a first language and in English as a second language]. In Dimković-Telebaković, G. (Ed.), *Strani jezik u saobraćajnoj struci i nauci* (pp. 73-92). Beograd: Saobraćajni fakultet.

Canagarajah, S. A. (2002). *A geopolitics of academic writing*. Pittsburgh: University of Pittsburgh Press.

Clyne, M. (1987). Discourse Structures and Discourse Expectations: Implication for Anglo-German Academic Communication in English. In L. E. Smith (Ed.), *Discourse across cultures* (pp. 73-83). Hawaii, USA: East-West Centre, Institute of Culture and Communication.

Crismore A. & Abdollehzadeh, E. (2010). A review of recent metadiscourse studies: The Iranian context. *Nordic Journal of English Studies*, *9*(2), 195-219.

Crismore, A. & Farnsworth, R. (1990). Metadiscourse in Popular and Professional Science Discourse. In W. Nash (Ed.), *The writing scholar: Studies in academic discourse* (pp. 118-136). Newbury Park, CA: Sage.

Crismore, A., Markkanen, R. & Steffensen, M. (1993). Metadiscourse in persuasive writing: A study of texts written by American and Finnish university students. *Written Communication, 10*, 39-71.

Čmejrková, S. (1996). Academic Writing in Czech and English. In E. Ventola, & A. Mauranen (Eds.), *Academic writing. Intercultural and textual issues* (pp. 137-152). Amsterdam: John Benjamins.

Duszak, A. (1994). Academic discourse and intellectual styles. *Journal of Pragmatics, 21*, 291-313.

Hinds, J. (1987). Reader versus Writer Responsibility: A New Topology. In U. Connor, & R. B. Kaplan (Eds.), *Writing across languages: Analyses of L2 text* (pp. 141-152). Reading, MA: Addison Wesley.

Hyland, K. (1997). Persuasion and context: The pragmatics of academic metadiscourse. *Journal of Pragmatics, 30*, 437-455.

— (1999). Talking to students: Metadiscourse in introductory coursebooks. *English for Specific Purposes, 18*(1), 3-26.

— (2005). Metadiscourse: Exploring interaction in writing. London, New York: Continuum.

— (2010). Metadiscourse: Mapping interactions in academic writing. *Nordic Journal of English Studies, 9*(2), 125-143.

Kaplan, R. (1966). Cultural thought patterns in intercultural education. *Language Learning, 16*(1), 1-20.

Kruse, O. (2012). Writing Cultures and Student Mobility. In M. Torrance et al. (Eds.), *Learning to write effectively: Current trends in European research* (pp. 293-296). Bingley, UK: Emerald Group Publishing.

Lillis, T. & Curry, M. J. (2010). *Academic writing in a global context*. London/New

York: Routledge.

Markkanen, R., Steffensen, M. S. & Crismore, A. (1993). Quantitative contrastive study of metadiscourse: Problems in design and analysis of data. *Papers and Studies in Contrastive Linguistics, 28*, 137-151.

Mauranen, A. (1992). Reference in Academic Rhetoric: A Contrastive Study of English and Finnish Writing. In A. C. Lindberg, N. E. Enkvist, & K. Vikberg (Eds.), *Nordic research on text and discourse. Nordtext Symposium 1990* (pp. 237-250). Abo, Finland: Abo Academi Press.

Mauranen, A. (1993a). Contrastive ESP rhetoric: Metatext in Finnish-English economics texts. *English for Specific Purposes, 12*, 3-22.

Mauranen, A. (1993b). Cultural differences in academic discourse—Problems of a linguistic and cultural minority. *The Competent Intercultural Communicator. AfinLA yearbook* 1993, 157-174.

Mauranen, A. (2007). Discourse reflexivity and international speakers—How is it used in English as a Lingua Franca?. *Jezik in slovstvo, 52*(3-4), S1-S19.

Mirović, I. & Bogdanović, V. (2013). Kulturološke razlike u akademskom pisanju na srpskom i engleskom jeziku. [Cultural differences in academic writing in Serbian and in English]. In Živković, M. (Ed.), *IV međunarodni naučni skup „Multikulturalnost i savremeno društvo"* [4th international conference "Multiculturalism and Contemporary Society"] (pp. 236-247). Novi Sad: Pravne i poslovne akademske studije dr Lazar Vrkatić.

Pisanski Peterlin, A. (2005). Text-organising metatext in research articles: An English-Slovene contrastive analysis. *English for Specific Purposes, 25*, 307-319.

Siepmann, D. (2006). Academic writing and culture: an overview of similarities and differences between English, French and German. *Meta, 51*(1), 131-150.

Vande Kopple, W. J. (1985). Some exploratory discourse on metadiscourse. *College Composition and Communication, 36*(1), 82-93.

Ventola, E. & Mauranen, A. (1996). *Academic writing. Intercultural and textual issues*. Amsterdam: John Benjamins.

Yakhontova, T. (2002). "Selling"or "Telling"? The Issue of Cultural Variation in Research Genres. In J. Flowerdew (Ed.), *Academic Discourse* (pp. 216-232). Harlow, UK: Pearson.

Appendix. The Metadiscourse Questionnaire

(Underline or **bold** your answers)

Metadiscourse are expressions like the following: but, and, my purpose is, to conclude, see Figure 21.1, according to XY, e.g., in other words, I consider, as you can see, in the previous section, therefore, hence, perhaps, in fact, I agree; ali, iz tog razloga, cilj rada je, da zaključimo, vidi sliku 1, prema XY, drugim rečima, smatramo da, kao što se može videti u radu, u prethodnom poglavlju, dalje, možda, u stvari, slažemo se da, ...

Part 1—General information:

1. How long have you been learning English? _____ years

2. Have you ever attended a course about Academic writing in English?

yes	no

3. Have you ever attended a course about Academic writing in Serbian?

yes	no

4. How long have you been working at the Faculty? _____

5. How many research articles have you written?

In Serbian:	1-5	6-10	11-20	20-50	over 50
In English:	1-5	6-10	11-20	20-50	over 50

Part 2—Metadiscourse-related information:

1. Do you use metadiscourse expressions when writing your research articles?

In Serbian	yes	no		*In English*	yes	no

2. Have you ever had any training in the manner of using metadiscourse expressions for writing research articles?

In Serbian	yes	no		*In English*	yes	no

3. Do you pay attention to metadiscourse expressions when you write research articles?
(**1**—never, **2**—rarely, **3**—sometimes, **4**—often, **5**—always)

In Serbian	1	2	3	4	5		*In English*	1	2	3	4	5

4. Do you have any favourite expressions in writing research articles?

In Serbian	yes	no		*In English*	yes	no

These are: _____

5. Do you (subsequently) add metadiscourse elements after you have written your article?

In Serbian	yes	sometimes	no		*In English*	yes	sometimes	no

If your answer is yes, write why you do it and which expressions you usually insert. _____

6. Do you write in first person singular, explicitly referring to yourself as the author?

In Serbian	yes	no		*In English*	yes	no

Why do you do it?
a) This is how I have been told I should write
b) This is how I have been taught I should write
c) My colleagues write like that

d) It is recommended by the journal where I publish / want to publish my articles

e) _____

Part 3—Metadiscourse usage

7. To what extent do you consciously and intentionally use the following expressions when writing a research article?
(from 1 to 5, where: **1**—never, **2**—rarely, **3**—sometimes, **4**—often, **5**—always)

a) Conjunctions (and, but, thus, in addition, ali, stoga, dalje, ipak)

In Serbian	1	2	3	4	5		In English	1	2	3	4	5

b) Expressions that signal schematic text structure, determine the order of arguments, label text stages, announce discourse goals and indicate topic shifts (finally, to conclude, my purpose is, zaključak je, cilj rada je, prvo, drugo)

In Serbian	1	2	3	4	5		In English	1	2	3	4	5

c) Expressions which refer to other parts of the text (noted above, see Fig., in section 2, u sledećem poglavlju, vidi sliku)

In Serbian	1	2	3	4	5		In English	1	2	3	4	5

d) Expressions that refer to an idea from another source (according to X, Z 1990, Y states, prema X, Z 1990, Y navodi da)

In Serbian	1	2	3	4	5		In English	1	2	3	4	5

e) Expressions that supply additional information by rephrasing, explaining or elaborating what has been said (namely, e.g., such as, in other words, drugim rečima, odnosno, poput)

In Serbian	1	2	3	4	5		In English	1	2	3	4	5

f) Expressions that withhold complete commitment to an idea (might, perhaps, possible, about, approximately, možda, moguće je, otprilike)

In Serbian	1	2	3	4	5		In English	1	2	3	4	5

g) Expressions that express certainty in writers' views (in fact, definitely, it is clear that, zaista, jasno je da, činjenica je da)

In Serbian	1	2	3	4	5		In English	1	2	3	4	5

h) Expressions that indicate the writer's affective attitude to ideas (unfortunately, I agree, surprisingly, nažalost, nasreću, iznenađujuće je da, slažemo se da)

In Serbian	1	2	3	4	5		In English	1	2	3	4	5

i) Expressions that explicitly address readers (consider, note that, you can see that, ako posmatramo, možete videti da, primetite da)

In Serbian	1	2	3	4	5		In English	1	2	3	4	5

j) Expressions that refer to the degree of explicit author presence in the text
(I, we, my, our, ja, mi, naš, glagol u 1. licu množine)

In Serbian	1	2	3	4	5		In English	1	2	3	4	5