LATVIAN OR ENGLISH - THE LANGUAGE SITUATION IN SCIENTIFIC COMMUNICATION IN LATVIA

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Abstract. The growing dominance of English as an international language of scientific communication in the world has been widely acknowledged. However, its effect in the relevant discourse community in Latvia is still to be explored. A case study was undertaken to improve upon the current understanding of the choice of scientific publishing language in Latvia and explore historical factors underpinning the current predominance of English as the lingua franca of the scientific community. It has been concluded that with a strong focus on international publishing in indexed databases, the role of English in scientific communication in Latvia has an increasing tendency to grow. Although currently English does not pose an existential threat to the use of the Latvian language in scientific publications, there is alarming evidence of the increasing hegemony of English in Latvia.

Key words: scientific communication, publications, case study, English as a lingua franca, the Latvian language

INTRODUCTION

Today the acquisition of scientific knowledge is affected by broad information scope disseminated by scholars within and across disciplinary discourse communities in both printed and online journal publications worldwide, which are considered as valuable assets for ranking the scientific excellence and the prestige of higher education and research institutions.

To be able to climb the academic career ladder, receive research funding, and gain international recognition, academics and scientists often experience certain pressure to produce comprehensive scientific outcomes and publish articles in high-impact-factor journals and databases. Web of Science (hereinafter WoS) and Scopus are among the most valued abstract and citation databases of peerreviewed literature (e.g. see Krasnopjorovs, 2011; *Latvijas Universitātes zinātniskās publicēšanās un izdevējdarbības vadlīnijas*, 2017).

It is well-known that the English language has become the main lingua franca for academic (e.g. Oakes 2005; Bennett 2013) and scientific communication (e.g. Ferguson, 2007) in the world. Hamel accentuates that 'more than 75 per cent of the articles in the social sciences and humanities and well over 90 per cent in the natural sciences are written in English' (2007: 54).

Research by Cambridge University scholars (Online 1), who studied over 75,000 journal articles, books and theses relating to biodiversity conservation on the web platform Google Scholar in 2014, found out that 'some 35.6% were not in English. Of these, the majority was in Spanish (12.6%) or Portuguese (10.3%). Simplified Chinese made up 6%, and 3% were in French' (ibid.). Thus, a large number of scientific papers are published in languages other than English.

Moreover, it has been identified (ibid.) that only approximately half of the papers written in languages other than English contain titles or abstracts in English. The scholars seem quite worried that international scientific community and practitioners might not have access to this new knowledge owing to the lack of information in English. It is argued (ibid.) that a publication in one language causes an imbalance in knowledge transfer and suggested that summaries of key findings should be given in several languages. It is stressed that research results must be also published in the local language (ibid.). Similarly, Salö draws attention to the fact that 'the value of national languages tends to decrease in transnational communication such as that of science and research, where English currently prevails' (2017: 9).

While publications in English coexist with publications in national languages, including the Latvian language, key databases (e.g. WoS and Scopus) are biased towards the use of the English language; thus, it can be argued that asymmetrical power relationships in science exist. Similarly, Archambault, Vignola-Gagne, Lariviere, and Gringas (2006: 340) posit that English language journals in some of the major databases (e.g. Thomson Scientific) are overrepresented. They emphasize the importance of local publications in national languages especially in the social sciences and the humanities (hereinafter SSH). Moreover, the authors (ibid.) stress a fundamental difference between the scientific communication practices of scholars in the natural sciences and engineering (hereinafter NSE) and those in the SSH (e.g. Hicks, 2004; Archambault et al., 2006); namely, a large number of scientific publications in the SSH are not journal articles but mostly books, and 'the research orientation is more local' (ibid.), which means that the issues reported on are of interest to a particular country or region.

Van Raan, Van Leeuwen and Visser (2011: 34) contend that journals that are published in languages other than English have a lower impact factor than those, which are published in the English language because fewer scientists tend to read them. In this regard, the authors (ibid.) mention clinical medicine and the SSH. This situation affects the ranking of the university where the research was conducted. Rauhvargers concludes that 'the non-English-language output of these universities has a lower citation impact and thus a lower position in the rankings' (2013: 11). Thus, it can be assumed that the language choice affects impact scores.

Considering the briefly outlined context above, the present study aims at studying language choice in scientific publications in Latvia and exploring historical factors underpinning the current dominance of English as the lingua franca of the scientific and academic community globally and in Latvia.

The paper draws on literature survey and bibliometric data offered by other scholars. Empirically, it adopts a qualitative perspective by focusing on the practices of scientific publishing by the Latvian Academy of Sciences and three major universities in Latvia: the University of Latvia, Riga Technical University and Riga Stradiņš University. These are the only universities from Latvia having rankings in the *Times Higher Education World University Rankings* (Online 2), which offers a list of the world's best universities selected applying a methodology which analyses data against 13 performance indicators, covering, for example, research, knowledge transfer and international outlook.

In the World University Rankings 2019, the University of Latvia is ranked between the 801st and 1000th place, in the University Impact Ranking – in the 92nd place, and in the European Teaching Rankings 2019 – in the 201+ place. Riga Technical University is ranked between the 801st and 1000th place in the World University Rankings 2019, in the University Impact Ranking – between the 201st and 300th place, and in the European Teaching Rankings 2019 in the 201+ place. Riga Stradiņš University is ranked in the 80th place in the Impact Ranking: Good health and well-being for people 2019, in the Impact Rankings: Quality education 2019 in the 301+ place, and in the Impact Rankings: Peace, justice and strong institutions 2019 in the 201+ place (Online 2).

ENGLISH AS A LINGUA FRANCA OF SCHOLARLY COMMUNICATION: HISTORICAL BACKGROUND

Although the world-wide triumph of English has a long history (e.g. Kaplan, 2001), major preconditions for English becoming a dominant language of science can be attributed to the end of the Second World War, when the United States of America emerged as a key leader in scientific, technical and educational fields. This was largely due to the fact that its infrastructure was not damaged (ibid.), and it was able to allocate substantial resources for research. At about the same time, the United Nations (UN), founded in 1945, established Chinese, French, English, Russian and Spanish as its official languages, and English and French as its working languages (Online 3). It is claimed (e.g. Kaplan, 2001) that the formation of the UN 'coincided with the birth of the computer age' (ibid.: 10), and the first computer programs, for instance FORTRAN, a scientific computing language, developed in the 1950s, used 'English-like statements' (Online 4). Up to 1914, much scientific literature was written in German (Ferguson, 2007: 6), so it was still used as 'a documentary language' (Kaplan, 2001: 10). Due to the cold war period, there were 'heavy political restrictions on the use of Russian - imposed on both sides' (ibid.: 11). As a result, much research in the 1950s and 1960s was undertaken and documented in English. Moreover, in 1973, with the United Kingdom becoming a member country of the European Union (EU), English became one of the nine official languages of the EU. Currently, English (along with French and German) is a working language of the EU.

Although English, French and German had quite a balanced role in the scientific landscape at the beginning of the 20th century, a constant shift towards English as a lingua franca of scientific publications started in 1980 and had reached a status of the dominant language by the end of the 20th century (Hamel, 2007: 56; 60).

There is no doubt that English has gained significance in the world, as it is the primary foreign language of most prestigious international conferences and journals; it has become the language of instruction in many academic and professional study programmes of non-Anglophone universities, and it facilitates staff and student mobility and scholarly communication in academia (e.g. Bennett, 2013: 169). Similarly, Mauranen, Pérez-Llantada and Swales emphasize that it is also 'the premier vehicle for the communication of scholarship, research and advanced postgraduate training' (2010: 634).

In fact, the necessity to acquire knowledge of one globally recognized foreign language in order to gain information and disseminate research results may seem to simplify scientific communication and offer opportunities; on the other hand, it poses challenges to academics and scientists: 'While English manifestly opens doors for many worldwide, it also closes them for others' (Phillipson, 2008: 251). The scholar questions the role of English as a neutral medium and claims that it is a false assumption: 'a lingua franca generally seems to imply that the language is a neutral instrument for "international" communication between people who do not share a mother tongue' (2008: 260). Since English is not a native language for all its users, there is certain inequality between Anglophone and non-Anglophone scholars (Ammon, 2010). Non-Anglophone scholars who want to publish their papers in peer-reviewed journals and present their papers at international conferences, and produce globally recognized work are expected to possess high level English language skills, which they often do not have, or they lack confidence in the ability to meet high rhetorical standards of publications in the English language. This may affect their scientific output. As it is posited by Ferguson (2007: 7), non-Anglophone scholars' opportunities to publish their research in prestigious international journals may be marginalised due to a likely lack of appropriate English language skills.

The situation discussed above has given rise to numerous sociolinguistic questions about the dominance of English over national languages. The almost monolingual situation in scientific communication having traces of cultural imperialism might cause irreversible consequences for the development of science and national scientific languages.

One of the consequences of the dominance of English in the academia in the world is the loss of linguistic diversity, which can be described as 'linguistic imperialism' (Phillipson, 2013). In this context, the dominant role of English can be viewed as a hegemonic tendency. Swales (2004: 52) sees 'Englishization' as a form of power or dominance. Also, Ferguson is critical of the prominence of English in international scientific communication. He argues that this may result

in 'global diglossia' and in 'domain loss because of English potentially relegates other languages to a lesser role' (2007: 7).

Several authors (e.g. Coulmas, 2007; Hamel, 2007; Ammon, 2012) regard the dominance of English as a threat to local languages. This may be true in case of languages with a small number of native speakers, as they may be threatened with extinction. A situation when journals are converted to English from other languages has also been observed, and this might result in 'a real loss in professional registers in many national cultures with long scholarly traditions' (Swales, 2000: 67).

It is important that recognition at national level is given for the articles to be published in the non-Anglophone authors' native languages, especially if the reported research is of national importance and if it may have less value outside a national scientific domain. To avoid a situation when the reach of such articles is limited locally, summaries should be given in English.

LANGUAGE SITUATION AND SOME CONSEQUENCES OF THE DOMINANCE OF ENGLISH IN LATVIA

Contact between languages is an every-day reality in Latvia due to the opportunities provided by the free movement of people as well as modern technologies. Latvians have been in contact with other languages (e.g. Swedish, German, Russian) for centuries. For instance, German was the language of the elite from the 13th to the beginning of the 20th century (Rozenvalde, 2018: 55). The foundation of the Latvian scientific language was laid in the 19th century (Raag, 2008 in Rozenvalde, 2018: 57). Today, Latvia is a multilingual society – at least 95 per cent of Latvian population speak one more language in addition to their mother tongue (Lauze, 2016: 52). The most popular foreign languages are Russian and English (ibid.: 57). The presence of English in Latvia, as a language of high economic, academic and research value, has increased tremendously since regaining Latvia's independence in 1991, joining the EU and NATO in 2004, participating in a single European higher education and research area.

In Latvia, increasing Russification efforts to impose the Russian language on non-Russian community were observed since the 70s' of the 19th century (Lauze, 2016: 13), and they continued throughout pre-revolutionary Russia. To give an example of the language of science used in the period from 1923 to 1944, all Latvian scientists obtained their scientific degrees in Russian or German universities (Baltiņš, 2004: 7). Dissertations were written in German, French, Latin, Russian, and none – in the English language (ibid.). After the Second World War, when the Soviet power was established in Latvia, the Russification and the Sovietization of Latvia were enforced by the Soviet Union. The Russian language held the position of being the language of knowledge dissemination, and it dominated not only in education and science, but also at work, in daily

life and events, as the government of the Soviet Union 'had the goal of gradually diminishing the importance of the Latvian language' (Mežmalis, 2017: 22).

At present, the Latvian language faces a situation when it is forced to compete with the priority language of publications, namely English. Many Latvian scientific journals have either switched to English or they accept publications both in Latvian and in English.

The Proceedings of the Latvian Academy of Sciences (Online 5) is a peer reviewed scientific journal, published by the Latvian Academy of Sciences since August 1947. Beginning with 1992, the journal has two sections. Section A covers the social sciences and the humanities, and the languages of publication are Latvian, English and German. All articles are provided with summaries in English. Section B deals with natural, exact, and applied sciences. English has been the language of publication since 1994. The journal is indexed by key databases, including Scopus, WoS, Biological Abstracts, and Google Scholar.

Riga Stradinš University publishes a collection of scientific articles in Latvian and English in the field of medicine, health care and social sciences. Manuscripts must be prepared in Latvian or English (Online 6). For instance, Acta medicohistorica Rigensia is a refereed academic open access journal devoted to research in the history of medicine and life sciences and medical museology in Latvia and the Baltic Sea region countries. It is interesting to observe its long history (published since 1957): the title of the journal was originally in Russian Iz istorii meditsini (From the History of Medicine), acquiring its present title only in 1992.

Riga Technical University enlists 23 journals on its website (Online 7), and only one - about the history of engineering and higher education institutions. Inženierzinātņu un augstskolu vēsture (History of Engineering Sciences and Higher Education Institutions) is published in the Latvian language; others are either in the English language (e.g. The Baltic Journal of Road and Bridge Engineering), or they offer publication opportunities in Latvian and English (e.g. Materials Science and Applied Chemistry. Vol. 29, 2013). Materials Science and Applied Chemistry. Special Issue (Vol. 35, 2018) is a publication in Latvian to mark the anniversary of the foundation of the Department of Silicate Technology. The Scientific Journal of Riga Technical University is published in 13 series, each having its own title and ISSN number (ibid.). As it can be seen, there is a growing tendency of publications in the English language.

The website of the University of Latvia Press (Online 8) gives information about 15 journals and periodicals published by the University of Latvia. Some of them have a long history, for instance, Academic life, which is devoted to significant scientific, cultural and social issues relevant for Latvia, was published by the Academic Life Publishing House in the USA from 1958 to 2005, and it has been published together with the University of Latvia Publishing House since 2006. Baltu filoloģija (Baltic Philology) is a journal of Baltic linguistics, and it is published in Latvian, Lithuanian and English. The Baltic Journal of English Language, Culture and Literature, published by the Faculty of Humanities,

the Baltic Journal of Psychology - by the Department of Psychology, Faculty of Education and Psychology are published in English. Also, a quarterly journal The Magnetohydrodynamics (former Magnitnaya Gidrodinamika) was first published in 1965 by the Institute of Physics, and it has been published only in English since 2001. Ceļš (The Way) (published since 1938), a refereed journal with an international panel of referees, publishes in English and Latvian. The articles in the journal on law Juridiskā zinātne (Law) are published in Latvian, English and German. The use of Russian as the working language of Rusistica Latviensis can be explained by the production of knowledge in the Slavic languages, cultures and literatures. Considering the examples above, it can be argued that, although the position of Latvian is still strong in the publishing practices at the University of Latvia, a growing predominant position of English is present.

In the scientific publication guidelines (Latvijas Universitātes zinātniskās publicēšanās un izdevējdarbības vadlīnijas, 2017), the University of Latvia supports all kind of publications, but it recommends publishing scientific papers in such international databases as WoS or Scopus since they have a high impact factor. It also supports scientific journals published in, for instance, EBSCO and Emerald. It should be emphasized that the UL accentuates the importance of scientific publications in the Latvian language, as this facilitates the development of scientific terminology and specialised discourses in Latvian.

The above-mentioned UL regulation is in line with the official language policy guidelines for the years 2015-2020 issued by the Cabinet of Ministers of Latvia (2014: Online):

Under the circumstances of the language competition the greater prospects to be preserved will be for those languages which will be able to follow modern science and technology development, [...]. Nowadays preservation and development of a language does not occur in a spontaneous drift, but countries must develop a consequent language policy and carry out measures for the preservation and development of languages.

The effect of the dominance of English can be seen by plentiful diachronic evidence of the increasing use of English in scholarly publications. It can be observed that language is no longer a barrier to knowledge dissemination internationally in Latvia, as universities participate in global discourse communities speaking English as a lingua franca of science. The impact of the publications in the English language in journals is evident, as the authors are included in the web of international discourse community, and they have a chance to receive international recognition by being cited more often than when having published in their native language.

Although the Latvian language retains a privileged place in education and is still respected as a language of scientific publications in Latvia, Druviete (2014) argues that a certain loss of higher education and research domain in Latvian

is taking place and, despite the adopted legal measures of the Government to protect the Latvian language, equity in the choice of language in scientific communication is under threat, as English is taking over the prestigious scientific discourse.

CONCLUSIONS

Globalization affects contemporary scholarly life in Latvia, and scholars' research output production is benchmarked by peer-reviewed publications, namely, scientific journals, books and conference proceedings in international databases. This tendency is currently happening in the whole world and thus is not unique to Latvia only.

The language policies commonly adopted by major international publications use English to disseminate scientific knowledge. The dominance of English as a lingua franca of science marks an inevitable development in the global scientific community, as the choice of language offers a shared means of communicating knowledge and helps to reach out to large scholarly audiences, to get acknowledgement by the relevant disciplinary community and achieve scientific publicity and citation. As a result, the ranking of the university where the research was conducted is increased.

The situation above may be seen not only as an advantage but also as a problem. Scientific knowledge produced by non-Anglophone scholars may be under-represented, particularly in the leading English-language academic journals. This may be caused by scholars' language barrier which may narrow the opportunities available for publications.

Although English will remain to be the lingua franca of publications and education in the world, the language policies relating to scientific communication practices which are biased towards exclusive use of English in high impact journals need critical scrutiny in order to avoid any detrimental impact on national languages. In order to strengthen national languages, the importance of local publications, including books, in national languages, especially in the social sciences and the humanities should be recognized. In order to disseminate research results and inform international society, abstracts in English should be provided.

Despite the fact that the Latvian language is an important part of Latvian national identity, the use of English in scientific publications and higher education is supported and encouraged and, thus, seen as more compelling investments in a scholar's career. There is a general tendency of English dominating in the scientific publishing practices of such fields as medicine, natural sciences, technologies, while Latvian still stands fast in fields which typically deal with national issues, such as Latvian literature and language, which might seem to have less value outside of the national scientific domain. On the other hand, it is important that national scientific achievements become available globally.

The increased tendency of academic papers in English outnumbering publications in the Latvian language is currently unthreatening to the Latvian language, but if the global tendencies continue to prevail, it is hoped that the predominance of English in scientific publishing will not lead to the eventual replacement of Latvian in the academia.

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