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TABLE OF CONTENTS

Multilingualism

Linguistic Explorations of Multilingualism, Azamat AKBAROV, 1–10

A Multilingual Speaker in Global Aviation Communication, Anna P. BOROWSKA, 11–19

Effects of the Linguistic Context on Identity Relevant Self-Characterization in Bilinguals, Zoltán KONDE, József PÁNTYA, Zoltán DÓSA, Tünde POLONYI, 21–36

The Dialectics of Hinglish: A Perspective, Nidhi NEMA, Jagtar Kaur CHAWLA, 37–51

Delivering Multilingual Schools – Emergence and Development of Language Beliefs in Immigrant Teachers, Galina PUTJATA, 53–69

CLIL's Role in Facilitating Intercultural Learning, Piotr ROMANOWSKI 71–87

The Order of Emergence of the Morphological Markers of Temporal Expression in the Croatian EFL Learners' Longitudinal Speech Production Data, Mirjana SEMREN, 89–106

Glottodidactics

What Foreign Language Teachers Should Know about Language Attrition, Małgorzata SZUPICA-PYRZANOWSKA, Katarzyna MALESA, 107–121

Linguistics

Basic terminology of eye-tracking research Agnieszka ANDRYCHOWICZ-TROJANOWSKA, 123–132

New Pathways to Terminological Minimum, Marek ŁUKASIK, 133–168

Frazeodydaktyka i frazeotranslacja jako nowe dyscypliny frazeologii stosowanej, Monika SUŁKOWSKA, 169–181

Tytuły w polskojęzycznych opisach przypadków medycznych - wstęp do badań, Magda ŻELAZOWSKA-SOBCZYK, Magdalena ZABIELSKA, 183–202

Book Reviews

Andrzej Kątny (red.), Studia Germanica Gedanensia 37: Kontrastive Linguistik und Interkulturelle Kommunikation. Sprach- und Kulturkontakte. Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk, 2017, 238 S. Joanna PĘDZISZ, 203–206

Linguistic Explorations of Multilingualism

Azamat AKBAROV

Kazakh National University

E-mail: azamatakbar@yahoo.com

Abstract: This paper provides an overview of linguistic studies of multilingualism. In the beginning of this paper, a brief survey on attitude to the phenomenon of multilingualism and linguistic diversity throughout history is given, which shows that multilingualism has actually been natural to most human societies. Despite this fact, multilingual capacities of individuals and societies had generally been neglected in linguistic studies before the second half of the 20th century, with linguists having investigated mainly individual languages as isolated systems. Sociolinguists and linguistic anthropologists were among first people to have realized the importance of avoiding of monolingual prejudices. With recent increased attention towards this phenomenon, multilingualism is today studied and explored in various linguistic disciplines. A large number of terms and fields of research shows that the study is gradually emerging as a new discipline, although the field would benefit from more common terms. Following the definition and delimitation of the basic terms related to multilingualism, perspective for future research is given.

Keywords: multilingualism, diversity, linguistics, communication, bilingualism

1. Multilingualism throughout History

The phenomenon of diversity has held an important part in the reflection of language for a long time. How there are so many languages in the world is a common question. For centuries, the explanation for linguistic diversity has been searched for in mythology and religion, where it is usually connected to the origin of language and the first common language of humankind. Judeo-Christian tradition was dominated by the narrative about the Tower of Babel and the existence of different languages was interpreted as the wrath of the Creator because of human arrogance. The humans unanimously built the Tower to endanger the Creator's undoubted authority. This narrative represents the deeply rooted belief that humankind was monolingual in the beginning, that before the destruction of the Tower, all humans spoke the same language, and that "mixing human language" was God's punishment to humankind. However, though it supposes that one language was common, that narrative does not give an answer to the question of which language was primal, the question that has been occupying human attention and awakening imagination for ages. Attempts to solve this question reach into the distant past. The Greek Historian Herodotus reports that the Egyptian Pharaoh (663–610 B.C.) ordered that two new-born babies be isolated and closed up before they heard a single language. The result was that after two years, the babies said 'becos', the Phrygian word for 'bread'. Similar experiments

were conducted in Europe in the middle ages, as well as in some other parts of the world. For example, the Mughal emperor Akbar (1552–1602) believed that children that are isolated from the world will not speak any language (J. Edwards 1994). The beginnings of systematic scientific explanations for linguistic diversity and theories about the oldest language appear at the beginning of the 18th century. Linguistics has not yet given clear and unambiguous answers to many aspects of this question (R. Bugarski 1997).

The use of different languages was an unavoidable characteristic of specific societies that were in search of mutual contact. It was not possible to communicate with others without multilingual practice: trade and new territory conquest would not be possible, and there was no possibility of cultural effect (R. Franceschini 2009). There is proof of multilingual communication from the distant past. Sumerian documents about ways to learn foreign languages were found, whereby people used clay plates to learn new languages. Any type of communication between different societies required multilingual practice. Other than that, multilingual societies alone have been present since the earliest times of mankind (L. Aronin/ B. Hufeisen 2009). Those societies formed with the migration of population, in which new people on specific territory would meet the domicile population. Multilingual societies also formed with the conquest of new territories and with the creation of the first great empires. One language used to dominate in these empires, but there were empires that acknowledged more languages, like the Achaemenid Empire.

The hitherto found inscriptions from the period of their reign (6th–3rd century BC) bear evidence to the widespread multilingual practice under the reign of the Achaemenid. The content of the stone inscriptions from this period are most often recorded in Old Persian, Elamite, and Akkadian. Some inscriptions are only in Old Persian and Old Egyptian (S.A. Mirbaqari et al. 2004). There are indications that inscriptions in Greek existed from the reign of Darius the Great (550–486 B.C.) in Suez (E. Tucker 2007). Multilingualism was also represented in everyday practice. The Achaemenid Empire stretched from the Ind River to Little Asia and Egypt and it was home to 44% of the human race. No empire before it took up as much territory and was as international as the Achaemenid Empire. Archaeological findings in the capital, Persepolis, show that the international character of the empire strongly stood out and was very reputable. These multinational structures implied the use of different languages and the Persian language was not necessarily imposed on other people. Tucker cites that Elamite and Aramaic were frequently used in the administration, concluding that the linguistic diversity of the Achaemenid Empire was sometimes a threat and an insurmountable obstacle to the Greeks, who at the time were at constant war with the Persians. The Greeks could not decide on which language would be best to learn in order to understand the Persians. On the other hand, the Greeks reinforce their use of the Greek language, so the bigger obstacle preventing the contact of the Greeks and the Persians was the Greeks' attitude towards barbaric people, and their unwillingness to learn foreign languages. Even Herodotus, who showed interest in the Persian language, rarely mentions Persian words (E. Tucker 2007: 774–775). In Iranian tradition, multilingualism was a common phenomenon because foreign

languages were used in the Sasanian Palace (3rd–7th century). There were also palaces during the period after the appearance of Islam that used both Persian and Arabic.

2. Multilingual Prejudices in Linguistics

Iranian tradition is not an exception in relation to the multilingual situation in other societies. In fact, multilingualism is a more frequent phenomenon, while monolingualism represents an exception (S. Romaine 2003, A. Pavlenko 2005). Particularly multilingual areas are the Indian subcontinent and some parts of Africa (C. Kemp 2009, R. Bugarski 1997). Studies show that a monolingual country does not exist, because even in countries with one official language, there are smaller or larger communities whose native language is different (D. Crystal 2007). However, previous linguistic studies have focused on the analysis of certain languages, even when those languages were compared, classified and typologized, whereas multilingualism as a phenomenon was usually described sporadically in those studies. The fact that languages exert mutual influences and that contacts between them exist was previously noticed, but language contacts are not observed in the context of multilingualism. Linguists described changes in the levels of linguistic systems while in isolation, that is when they are separated from the original speakers (S. Romaine 2003). This kind of perspective on multilingualism in linguistic culture is rooted in European history, because standard European languages are viewed as naturally belonging to one nation, which had bounded territory, and modern linguistics was developing in Europe and North America. This was a “one on one” relationship, so forming a new country meant the “invention” of a new standard language. Being a member of a nation meant being a native speaker to the language of that nation and sharing it with other countrymen. Compared to this monolingualistic perspective, multilingualism represents a deviation from the norm, because it is considered a consequence or violation of language order, as it happens during a conquest or migration (P. Auer/ Li Wei 2007). Since the 1960s, multilingualism was treated as a phenomenon of migration from the south to the north of Europe, before the general ability of the members of a certain society to communicate in multiple languages was put in the forefront of linguistic research. Sporadic analyses of early bilingualism in children and studies on languages and contact first appeared, but in those studies as well, bilingual people are seen as an exception rather than a rule (R. Franceschini 2009). In prior studies, bilingualism dominated, and multilingualism was considered a variant. However, these studies were dominant topics and phenomena that were characteristic for monolingual communities and for a better understanding of a speaker who shares a common life space.

Sociolinguistics and Linguistic Anthropology gave a strong incentive to the studying of multilingualism. But this phenomenon still isn't acknowledged completely by formal grammarians, who search for an interior and unchangeable principle in the linguistic ability of a speaker. The main difference between Sociolinguists, Linguistic Anthropologists, and formal grammarians is their definition of a linguistic community. The definition of a linguistic community stems from different perspectives. When analyzing a linguistic community, formal grammarians

start with the assumption that the society they are working in is homogeneous. Chomsky believes that linguistics is a part of cognitive psychology, and that the mission of a linguist is to explore the nature of the human language and mental competences. The studying and description of linguistic competence, according to him, are more scientific than the description of the current performance, that is, the use of language in a specific case (J. Edwards 1994). In order to study these features, linguists must have a person who will adopt a certain language under the condition of clean and uniformed experience, since linguistic theory is interested primarily in the ideal speaker-listener exchange in a homogeneous speaking community. Linguistic communities in which people use more than one language would not be “clean” enough to be an ideal object of research for theoretical linguistics (N. Chomsky 1986). So, only native speakers who grew up in monolingual societies can judge the acceptability of certain words or statements based on their intuition.

Language idealization like this is not accepted by Sociolinguists and Social Anthropologists, who consider that the search for a “clean” and linguistically homogeneous society excludes most, if not all, societies in the world, because all societies that have been systematically studied show a certain amount of linguistic, social and cultural heterogeneity. It would be difficult to find a “clean” enough linguistic society today because of globalization and international communication. Therefore, the formal outlook on language today is considered to be a monolingual prejudice (A. Pavlenko 2005). Sociolinguists and Linguistic Anthropologists apply their knowledge in real societies, rather than searching for ideal and “clean” ones. These scholars would rather apply their knowledge and scientific wisdom to avoid the traditional and incorrect belief that it would be better if we all spoke the same language (A. Duranti 1997).

Linguistic homogeneity is also an ideological construction that is historically rooted in the European history of national languages. It attempts to build a national identity using a common language that will have a single name. Homogeneous linguistic societies never really existed in European societies, because countries even with one standard language were multilingual societies. The creation of the European Union bolstered support for linguistic diversity in European society. But this loyalty was tested when European society started becoming more diverse. It became clear that complex and heterogeneous societies do not function in linguistically homogeneous communities. That is why the multilingual competence in Europe today is highly valued (R. Franceschini 2009). A shift like this in regard to multilingualism directed the attention of scientists to different aspects of multilingualism in European history. The relationship between Latin and national speech had a significant place in this research (J.N. Adams 2003, A. Mullen/ P. James 2013), as did the model of multilingualism and multilingual communication in the Austro-Hungarian empire (R. Rindler-Schjerve/ E. Vetter 2007).

3. Basic Terms in Multilingualism

It is not easy to adequately define a complex term like multilingualism, since different approaches to research and different research traditions do not define multilingualism

the same way. A simple definition would be: Multilingualism represents the capacity of societies, institutions, groups and individuals to use more than one language in real space and time. Multilingualism is the product of basic human ability to communicate in multiple languages (R. Franceschini 2009). In the past two decades, after the appearance of studies on the function of different languages in social communities, the phenomenon of multilingualism became a popular topic in the science of language (J. Edwards 1994, S. Romaine 2003, J. House/ J. Rehbein 2004, P. Auer/ P. Wei 2007, Li. Wei/ M. G. Moyer 2008, L. Aronin/ B. Hufeisen 2009, D. Crystal 2010). This topic has been discussed in general overviews of linguistics (R. Bugarski 2003, D. Crystal 2007), and a growing interest in multilingualism has resulted in the establishment of The *International Association of Multilingualism*, and the launch of *The International Journal of Multilingualism* in 2004. Different aspects of multilingualism are researched under several different linguistic disciplines, such as sociolinguistics, psycholinguistics, neurolinguistics, pragmatic linguistics, applied linguistics, educational linguistics, as well as the application to concrete language study programs (L. Aronin/ B. Hufeisen 2009).

There have been two occurrences that have significantly altered the view on the phenomenon of multilingualism. One is the extinction of a large number of languages due to the expansion of English, French, and Chinese along with other languages; and the other is increased language and cultural diversity in Europe and North America, as a consequence of a large wave of migrations from all over the world.

Regarding the first occurrence, it is important to note that in some parts of the world language diversity is shrinking every day. For example, in Africa it is easier to promote English and French than it is to protect the diversity of language (S. Romaine 2003). Concerning language and cultural diversity in Europe and North America, there is a bigger call for multilingualism because of the need to communicate with migrants from different cultural backgrounds, which has been influenced by events from the near past.¹ From the perspective of multilingualism, immigrants who are expected to use different languages to fulfill the most basic needs are much more interesting to researchers than locals who often refuse to acquire more than one language.

It is necessary to point out the difference in meaning between bilingualism and multilingualism. While bilingualism was a major focus in sociolinguistic study in the second half of the 20th century, multilingualism had only been researched in the context of bilingualism. Recently, the two have traded places, and bilingualism is now more often considered an example of multilingualism (L. Aronin/ B. Hufeisen 2009). These two terms need a clearer separation: most researchers use the term bilingual to refer to people who speak two languages, while multilingual is used for people who speak three or more. As the research expands, we can discern more important

¹ A deficiency in multilingual speakers was recorded after September 11th, 2001 in the USA, at a time when they were actually needed most. The FBI had issued a call for people who speak Arabic, and there were 70,000 applications submitted. However, after these people were interviewed, it was concluded that there were very few of those who can speak both Arabic and English well. Linguists concluded that people in America live in closed communities more than it was previously thought, and how the need for multilingual speakers is much higher. For more, see: Pratt 2002: 1286-1287

differences between bilingual and multilingual people, just as we can see differences between multilingual people who speak a different number of languages (C. Kemp 2009).

The difference between individual and social multilingualism has become an important contemporary field of study. Individual multilingualism refers to the multilingual abilities of each individual speaker. Multilingual speakers show a range of different abilities that are recognized beyond linguistics. For example, they showcase a high level of development of many cognitive features, such as creative thinking and the ability to change perspective. Students who speak two languages achieve better results in cognitive tests than students who only speak one. For students who speak two languages, it is easier to learn a third or fourth language. The creative potential of multilingual individuals can therefore be beneficial to society at large. Multilingualism in an individual is an advantage, while monolingualism is a handicap.

In terms of individual multilingualism, researchers take into account the level of knowledge of the different languages that the speaker uses when determining whether or not they can be called multilingual. During the last century, there have been different definitions of the lower threshold of knowledge that speaker needs to have, in order to be a research subject for the study of multilingualism. But generally, that threshold has been steadily declining. As we take into account a higher number of languages in a speaker, we tolerate a lower threshold of multilingual knowledge. We can compare Bloomfield's understanding of bilingualism as the "initial mastery of both languages" with Haugens', who defines it as "when the speaker of one language can make statements, which are complete and have the same meaning, in another language". The latest research does not require native-like knowledge from the multilingual speaker, as that kind of speaking ability depends mostly on the speaker's age at the time of learning. Today, there is a widespread belief that it is a myth to measure the speakers' knowledge of a language in terms of how native-like it sounds. A person can be considered multilingual if they can use multiple languages without much struggle, and if they are able to switch from one to the other when necessary, independent of whether they know the languages equally well, or the way and age at which they learned it (G. Lüdi 2006)². Researchers today are much more interested in categorizing a complete inventory of all of the languages an individual holds, rather than their abilities. In other words, every language in the system of an individual speaker is a part of that system, and therefore cannot be observed in isolation as the language of a monolingual speaker. The stress is on the speaker and their "colorful language", and not the languages themselves in relation to their system. It is difficult to clearly define the level of knowledge of a certain language in a speaker, and because this also changes with time, testing sometimes only refers to a speaker's ability during a certain period of time. This threshold is most often determined based on the certain needs of the research, because this type of research encompasses different domains and uses a specific approach (C. Kemp 2009).

⁴ Lüdi adds how a Sicilian guest worker, who only learned enough Swiss and German dialect to fight for his life in Switzerland, can be called a bilingual person (even though in a different way), just as a translator working for the European Union who speaks English and French with native-like fluency can be called bilingual.

Social multilingualism refers mainly to languages that are spoken in a specific geographical territory and is a subject of research for sociolinguistics and anthrop linguistics. A problem arises by even trying to define language in such circumstances. It is not always easy to treat different languages as isolated systems with clear boundaries, as has happened in the past. This is easily done on the example of languages which are geographically distanced, or ones that belong in different language families, but in reality the circumstances are much different. Different varieties of language are often times used in the same territory, or sometimes the territories overlap. We can find this scenario in India. Depending on the topic of the research study, not all researchers have the same criteria to determine what constitutes a language or dialect. The criteria for differentiating language from dialect are often uncertain and inconsistent. Generally, if two groups of people speak somewhat differently, but can understand each other, it is a case of two languages. However, even this criterion is not completely certain and unequivocal. For example, speakers of Swedish, Norwegian and Danish language can communicate easily, just like the speakers of the Ex Yugoslavian languages. In these cases, there is an understanding between the formally different languages. On the other hand, there are often cases where speakers of different, distanced dialects of the same language cannot understand each other. Because of this situation, there is a dialect continuum, and it is not always a case of clearly separate languages. Examples of these continuums include one from Norwegian, on the coast of the North Sea, and Bavarian, in Tyrol. A similar situation is that of Slavic languages, and up to a point Romani, where the speakers of two neighboring dialects/languages can understand each other, which is not the case for ones that are separated by other dialects/languages (R. Bugarski 1997, I. Mühlhäuser/ B. Höldke 2002, C. Kemp 2009).

The dialect continuum is a sociolinguistic phenomenon, but in its nature, it is connected to psycholinguistics, because multilingual speakers can view the boundaries between languages differently. Namely, monolingual speakers tend to draw differences between languages, while multilingual speakers view similar languages as the same. The criteria for mutual understanding seem insufficient also in the cases of asymmetrical understanding, where one member of a specific community can understand the other, but not the other way around. An example is the use of standard and non standard language use, and sometimes even two different standard languages. For example, English and French are official languages in Canada, but English speakers often don't understand the French, but the other way around is much rarer. Similar to that, in Great Britain native English speakers are not required to speak Welsh or Scottish, while everyone is expected to speak English.³ In addition, just as it is unclear what a language is, it is not always easy to define a speaker of a certain language, since many communities and their members are so multilingual that the entire concept of a mother tongue becomes problematic (R. Bugarski 1997). Because of all of this, it is hard to make a clear distinction between individual and social multilingualism.

This distinction is not made easier when talking about receptive and productive

³On this, as well as similar examples, see: Romaine 2003: 516–517

multilingualism. One of the possible examples of multilingual communication in the European Union is mentioned by the model of receptive multilingualism (R. Rindler-Schjerve/ E. Vetter 2007). Receptive multilingualism represents the ability a speaker has to understand other languages, but not necessarily to speak them. In contrast, productive multilingualism refers exclusively to the multilingual abilities of an individual speaker and his or her ability to communicate in multiple languages by way of speech and understanding. Receptive multilingualism is mostly related to social contexts, in which speakers each speak their native language while still understanding each other. However, receptive skills are dependent upon the individual speaker, to a certain extent, and are not just tied to social multilingualism.

Given that the multilingual field of research is constantly expanding, we cannot fail to mention the scope and significance of the research that is approached through the perspective of individual language systems and specifically language contact. This research uses, for the most part, knowledge gained through the different levels of linguistic analysis: phonetic-phonological, morphological, syntactic, semantic and lexical. In this field of study, bilingual research is still the most common, with its main goal being to explain how language systems co-exist and function in an individual and social context. It is widely accepted that the two languages spoken by bilingual individuals are very accessible to each other and that the interaction between these two individuals include both words and entire sentences (J.F Kroll/ P.E. Dussias 2013). The most commonly cited terms in this type of research are codeswitching, which usually refers to lexical contact between languages, and interference, which can be lexical as well as grammatical. Lexical interference mainly overlaps with code switching and is more often represented in studies on multilingualism than grammatical interference. The reason for this is that in language contact it is much simpler to notice and describe the lexical influence from one language to another than it is to find the rules of grammatical interference. What code switching and grammatical interference have in common is that they both appear in bilingual interaction, as well as appearing in individual statements. Recently, researchers have concentrated on studying phonology within the framework of lexical research from the perspective of language contact, specifically the intonation in language contact. But this type of research into language contact on the phonetic-phonological level is generally less represented than higher levels of linguistic analysis (P. Muysken 2013). Still, the growing range and significance of the research into language contact and the interference of language systems shows that this field is alive and dynamic.

4. Perspective in the Research on Multilingualism

Since multilingual research has expanded into many different academic fields and scientific disciplines, the terminology on multilingualism is constantly growing. It appears that the growth of interest into multilingualism is leading to change, which could mean that multilingualism is imposing itself as a new linguistic discipline (C. Kemp 2009). However, given the nonconforming approaches and methodologies of observing multilingualism from different perspectives and traditions, there is still no uniform terminology. Based on the selected insight into the research thus far, the

following possible directions and themes of future research should be explored: historical dimensions and roots of multilingualism with the goal of improving understanding of this phenomenon, researching and re-evaluating previous studies, and research that will raise awareness on minority and endangered languages in order to protect them and assure further development. It is also necessary to view the statistical information and legal status of multilingualism in different countries and the use of different languages in international institutions. The relationship between multilingualism and discourse without a doubt offers more space for future research, with an emphasis on the need for more detailed research on multilingualism in individual speakers. Finally, integrating methodology from different subdisciplines will contribute to further development in the study of contact between languages and the interference of language systems.

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A Multilingual Speaker in Global Aviation Communication

Anna P. BOROWSKA

University of Warsaw

E-mail: a.borowska@uw.edu.pl

Abstract: Many flights operate in different countries and aviation communication takes place mainly between non-native speakers of English. Unfortunately, real life professional discourse seems to go beyond its prescribed standardization. Moreover, it still happens that many languages are used simultaneously on the frequency. This paper investigates the matter of multilingual usefulness in global aviation communication. The author presents the current state of affairs and discusses whether or not operational personnel need to know how to speak multiple languages or if it is better to speak only prescribed Aeronautical English. Empirically based research is also presented. What matters in a given context and especially in a particular non-standard or emergency situation is the language used for professional communication, but in the aviation context it is not only the communication between parties involved that really counts. All the users of airspace should understand words uttered by their colleagues present at frequency in order to be able to correct wrong instructions or react in case of distress.

Keywords: multilingualism, global aviation, English, aviation communication

1. Introduction

English was established as an official language of aviation in 1951 by the International Civil Aviation Organization (ICAO), the United Nations agency responsible for air navigation. This action was aimed at improving global aviation communication since every user of airspace is supposed to speak prescribed Aeronautical English. Currently, aeronautical communication takes place mainly between airspace users who are not native speakers of English. Therefore, it is a common practice now to switch into a mother tongue when, for example, flying into domestic airspace or when a mother tongue or a more familiar language than English to a particular airspace user is heard on the frequency. To this end, we can talk about multilingual aviation communication. However, in aeronautical settings it seems to be not only the communication between parties involved that really counts. What matters in the given context and especially in a particular non-standard or emergency situation is the choice of language used for professional communication. For safety reasons, all the users of airspace are required to use English mainly due to the fact that they are supposed to understand words uttered by their colleagues present at frequency in order to be able to correct wrong instructions or react in case of distress when necessary.

2. Global Aviation Communication

During the sixty years after the introduction of English as a language of aviation, the

level of English used for aeronautical communication was not satisfactory. Therefore, March 2011 brought new language proficiency requirements for international aviation communication. The ICAO imposed the new law on all its member states¹. Since that date, mandatory Aeronautical English tests have been introduced for all operational personnel excluding native speakers of English. These tests are to check if a pilot or an air traffic controller easily understands instructions and utterances in Aeronautical English and if they are able to communicate fluently in both routine and non-routine situations, e.g. emergency or distress. Still, the basic aspects of global aeronautical communication are the strictly regulated phraseology and communication procedures that have been developed in order to avoid misunderstandings. Standard phraseology is characterised by short elliptical utterances prescribed for each phase of flight. The ICAO (Doc. 9835, 2010: 6.2.8.4) defines standard phraseology as “the formulaic code made up of specific words that in the context of aviation operations have a precise and singular operational significance”. That is why it is so critical that all pilots and air traffic controllers adhere to communication procedures, which afford multiple occasions to catch errors. One procedural requirement, for instance, is careful “readback” by the pilot of what the controller has said, and “hearback” by the controller. The latter is supposed to listen to the pilot’s readback and catch any readback errors in order to react when necessary. In this way we deal with addressing any misunderstandings in the specific communication loop (Eurocontrol 2006). However, according to S. Cushing (1994: 44), a full readback may be also insufficient to prevent misunderstanding, especially ‘at a foreign airport’ where English, though required for aeronautical communication by international law, is likely otherwise to be a foreign language (more in S. Cushing 1994: 14, 44).

It is crucial that English should be used in commercial aviation where a given language is shared by only some of the occupants of the airspace because the use of the local language may lead to decreased situation awareness if the crew cannot understand the exchange of transmissions around them or, even worse, the instructions from the controller directed at them (D. Estival). Moreover, ‘The English language shall be available, on request from any aircraft station, at all stations on the ground serving designated airports and routes used by international air services’ (ICAO 2001: 5.3). Even for general aviation, all ATC stations must be able to provide service in English if requested by an aircraft (D. Estival, C. Farris & B. Molesworth 2016: 37): “Thus, a default common language in theory ensures a greater ease of communication between controllers and pilots and should lead to increased situation awareness and improved air safety. Nevertheless, there are still a number of issues to be addressed in those multilingual situations.

3. Multilingual aviation settings

The pattern of language use among multilinguals has been studied deeply so far in various contexts (see M. Martin-Jones/ A. Blackledge/ A. Creese 2012). However, the analysis of multilingualism in the aviation context is not popular among researchers and academics, though it seems to be one of the key current issues nowadays. We can

¹ ICAO member states list: <https://www.icao.int/about-icao/Pages/member-states.aspx>

assume that each multilingual speaker and group behaves somewhat regularly in their use of language for various purposes (S. Boyd 1986: 103). But with different interlocutors, and without a given context, it is not possible to provide any valuable language outcome.

D. Gabryś-Barker (2016) suggests that the major aim of multilingualism research should focus on an individual language user and not just on statistically verified models of numerous language users. Moreover, the complexity of individual multilinguality derives not only from the multiplicity of languages known and used. It is also shaped by individual differences such as preferences of language choices and use in different contexts and in different domains. According to D. Gabryś-Barker (2017): “Individual multilinguality is seen as an ability to understand and use two or more languages, in which multilinguals may differ in their preferences for different languages in different contexts and for different functions”. These are in accordance with an individual pilot or controller code-switching. General observations of their language choice in a given multilingual situation have proven that those preferences are more personal than general. It means that if a given pilot feels better communicating in the local language, he or she usually switches to it. But it cannot be said, fortunately, that this is a common practice for all pilots or controllers who find themselves in a similar situation.

Generally, in any multilingual settings, alternation between codes – dialects or languages – is the norm rather than the exception and seems to be a natural phenomenon (R. Mesthrie/ R.M. Bhatt 2008: 150). It seems that being able to communicate in two or more languages may support the communication process, especially when the interlocutor is not fluent in speaking the required language. However, in aeronautical communication there is no place for ‘being not fluent’ in English. Therefore, the global aviation context constitutes another example of multilingual effectiveness. Still we can easily observe air traffic controllers and pilots engage in extensive switching and mixing with the local languages. This phenomenon is called code-switching by the ICAO and refers to the habitual switching back and forth from one language to another of bilingual and multilingual speakers during the course of a conversation (A. Borowska 2017: 212). This issue has been found to be contributory factor to occasional aviation incidents and accidents during the last few decades and thus has been officially regarded as risky communicative behavior. In order to assess any situation during each phase of flight, airspace users have only their microphone and headphones at their disposal. The airspace is divided into sectors that communicate on the same radar frequency. Pilots can therefore increase their situation awareness by listening to other communications on the same frequency. This tells them who is near and whether they encounter any weather conditions that they should know about. Moreover, they may even catch an air traffic controller’s mistake, such as clearing them for the same runway as another airplane, confusing the call signs, etc. (F. Grosjean 2017). Consequently, pilots and controllers speaking in languages other than English deprive English speaking pilots flying in the same airspace of the information they need or feel comfortable with and thus diminishes their situation awareness:

In addition to code-switching phenomena, compliance with Annex 10, Volume II, 5.2.1.2.1, leads, in many parts of the world, to the creation of a bilingual environment in which controllers alternate between their local (usually native) language and the English language, while pilots may choose which of the available languages to use. In these environments, pilots who are proficient only in the English language may be unable to take into account exchanges taking place in the local language with other aircraft in the same airspace (ICAO Doc. 9835, 2010: 3.3.22).

4. Threats of multiple language use on frequency

It has been observed for many years now that there are speakers who feel more comfortable using their mother tongue in aeronautical discourse than using English. Therefore, it is worth pointing to a few sample hazardous situations that illustrate the negative impact of the multilingual approach, so as to prevent similar occurrences in the future. These are as follows:

- a) different languages used in the cockpit and in radiotelephony communications that may cause discrepancies;

In the example presented by S. Cushing (1994: 44), the pilot tells the copilot, in Spanish, to inform the controller that an emergency prevails, but the copilot tells the controller, in English, only that the plane is running out of fuel. In this scenario, an emergency had not been declared nor the need for priority emphasised:

Pilot to copilot (in Spanish): Tell them we are in an emergency.

Copilot to controller (in English): We're running out of fuel.

Pilot to copilot: Digale que estamos en emergencia.

Copilot to pilot: Si, señor, ya le dije.

Copilot to controller (in English): We'll try once again. We're running out of fuel.

Pilot to copilot (in Spanish): I don't know what happened with the runway. I didn't see it.

Copilot to pilot (in Spanish): I didn't see it.

Pilot to copilot (in Spanish): [Advise the controller that] we don't have fuel.

Copilot to controller (in English): Climb and maintain 3,000 and, ah, we're running out of fuel, sir.

Controller to copilot (in English): Is that fine with you and your fuel?

Copilot to controller (in English): I guess so. Thank you very much.

(S. Cushing 1994: 44–45)

The result was a crash because the aircraft ran out of fuel (Cove Neck, New York, 25 January 1990). The proper degree of urgency was not conveyed to the controller. Cushing (1994: 44) points to the possible reasons of the terms used in English by the copilot: "The problem is probably compounded here...by the fact that the language being used is a technical variant of a language other than the speaker's own, leaving him twice removed from vernacular with which he is most familiar". It is believed the Spanish-speaking pilot was "not thoroughly familiar with English and all of the standard international aviation phraseologies, and felt that advising ATC of an acute fuel shortage was sufficient to grant him an immediate landing clearance. Consequently he never literally declared an emergency" (P. Illman 1998: 29 in D. Estival/ C. Farris/ B. Molesworth 2016: 58).

- b) problems with understanding a local controller's dialect (more common for native speakers of English);

American crews tend to have difficulty communicating with controllers in foreign locations as it happened during a final approach into a South American airport when a flight attendant was summoned into the cockpit because the crew could not understand controller's English:

Neither the Captain nor I could understand the instructions of the controller, even after repeated requests to repeat the instructions. For example, the controller would say something, which we thought was possibly a heading of 150 but could have been a flight level. The Captain asked the controller, 'Understand turn to 150 heading?' and still, we could not understand the answer to the question. In all my years of flying all over the world, Africa, Turkey, all over the Middle East, that was the worst English-speaking controller I've ever heard. Not only was his English non-existent, he held the mike too close to his mouth, further disrupting his transmission. Finally, the Captain brought the Flight Attendant into the cockpit because she was Spanish-speaking and maybe that would help. The weather was IMC at the time, and not so comfortable considering the language barrier. Eventually, we got it straightened out, and landed uneventfully (*Callback*, no. 354, June 2009).

The above solution was successful, though the controller's poor English could have caused a serious accident. Such a situation should not have taken place, since the English language is officially prescribed for aeronautical communication. However, the question arises if in similar settings it would be better for safety reasons that a captain could speak Spanish. There are scenarios in which pilots learn basic local expressions as is the case of pilots flying to Korea, China, Japan etc., who learn these basic local phrases for their own safety. On the other hand, it seems reasonable that in similar contexts a multilingual native speaker of English would be more sensitive to linguistic problems non-native speakers might have and the way they pronounce and intonate words. Having been a foreign language learner, one might have experienced similar problems himself. Thus, in similar global contexts, such speaker could be more beneficial than the one who can speak Spanish only.

- c) multilingual chatter on the frequency;

Although Spanish, along with English and French, is one of the three original official languages accepted by the ICAO for aviation regulations, this fact has never aimed at causing potential hazards especially when these languages are used simultaneously for aeronautical communication aims. Nevertheless, conversations between aircraft crews and traffic control in Spain are currently conducted in the common language of both parties, resulting in multilingual chatter over the radio waves (S. Tallantyre 2014). Incidents reports (e.g. presented in *Callback*) provide numerous examples of similar events where multiple language use on the same frequency has been attributed as a contributing factor of an incident or accident. Below we can find two examples:

Example 1

On 25th of May, 2000 a UK-operated Shorts SD330 aircraft waiting for take-off at Paris CDG in normal visibility at night on a taxiway angled in the take-off direction

due to its primary function as an exit for opposite direction landings. The aircraft was given a conditional line up clearance by a controller who had erroneously assumed without checking that it was at the runway threshold. After an aircraft which had just landed had passed, the SD330 began to line up unaware that an MD83 aircraft had just been cleared in French to take off from the full length. As a result, a collision occurred (www.skybrary.aero, 2017). In the incident report (BEA 2000) we can read an interpretation of this event that indicates that the contributory factor of the accident was the use of two languages (English and French) for instructions, so the pilot's situational awareness was hindered by the use of two languages:

2.3.2.2 Shorts Crew

The crew of the Shorts, who were not French-speaking, did not understand the MD 83's clearances to line up then take off. In addition, it was obvious to them that these messages were not addressed to them. The clearance they received, "line up runway 27 and wait, number two", could have warned them. In their position, the expression "number two" could only mean "number two" for takeoff, which implied that there was an aircraft before them. We may note that the terminology used did not oblige them to identify the other aircraft formally, the "number two" in the second part of the message possessing an ambiguity as to whether it was information or a condition associated with the lineup clearance. (...).

Communications with the crew of the MD 83 were made in French, those with the crew of the Shorts in English. The LOC controller cleared the MD 83 to take off and immediately afterwards cleared the Shorts to line up, specifying that it was "number two".

- The configuration of access taxiway 16 made it impossible for the crew of the Shorts to see the upper end of the runway at the time of the line-up.
- The crew of the Shorts did not realise that there was an aircraft taking off from the threshold. They entered the runway at the same time as they were trying to identify the "number one" aircraft.
- The crew of the MD 83 saw the Shorts late and, bearing in mind the speed reached, was unable to avoid a collision.
- The crew of the Shorts saw the MD 83 at the last moment. The use of two languages for radio communications meant that the Shorts crew were not conscious that the MD 83 was going to take off.

We can assume that this incident could have been avoided if the controller's error had been identified by the Shorts, which means that if the controller had instructed the MD83 in English, the Shorts would have easily noticed that MD83 aircraft was cleared to take off and could have immediately reacted by telling the controller about his mistake. These are common practices today especially at busy airports. Here, the lack of ability to understand French by the British crew made this correction impossible. Consequently, the Bureau Enquêtes-Accidents of France recommended that:

4.1.8. in the light of the analysis of this accident and previously acquired experience, the DGAC study calls for the expediency and methods of implementation for the systematic use of the English language for air traffic control at Paris Charles de Gaulle aerodrome, as well as the extension of this measure to other aerodromes with significant international traffic (BEA 2000).

Example 2

In 2012, two aircraft came into conflict over Ibiza, Spain as both aircraft were positioning to final approach. The controller cleared one aircraft to a level where it would be in conflict with the second locally-based aircraft; the aircraft was unaware of the error because communications with the locally-based aircraft (ECJIL) were being conducted in the local language of Spanish, whereas other aircraft (CS-DP) communications were being carried out in English (www.skybrary.aero 2017).

An investigation found that one of the aircraft had passed a procedurally-documented clearance limit without air traffic control clearance or intervention and that situational awareness of its crew had been diminished by communications with the conflicting aircraft being conducted in Spanish rather than English:

All the communications between aircraft CS-DP and the Ibiza approach controller before and after the incident were in English. The communications between the ATC and ECJIL aircraft, however, were in Spanish, except for one exchange that was made in English, at 19:16:23, during the close approach between the two aircraft.

The fact that the ATC did not use English with aircraft EC-JIL while it was providing vector guidance to both to intercept the localizer on the same runway prevented the crew of aircraft CS-DNP from having a clear picture of the approach sequence, since they were unaware that the preceding aircraft in the approach sequence was aircraft EC-JIL, information that was conveyed in Spanish. This lack of a clear situational awareness by the crew of aircraft CS-DNP could have contributed to its crew's misunderstanding of the instruction to cross the LLZ. One of the contributing factors has thus been identified as the use of Spanish in a situation involving an aircraft whose crew did not master this language (Report IN-037/2012, Addenda Bulletin 1/2014).

The Safety Recommendation that was made as a result of the above mentioned incident was that the Spanish Aviation Safety and Security Agency (AESA) would promote the implementation of appropriate actions in order to minimise the problems caused by the use of the Spanish language for aeronautical communication in situations involving crews that do not understand that language. A Safety Recommendation on resolving the “persistent problem” of such language issues was made, noting that a similar recommendation had been made 11 years earlier. Moreover, currently the AESA calls upon all aviation communications to be conveyed in a single language – English (S. Tallantyre 2014):

Given the time elapsed since and in light of the persistent problem, the CIAIAC considers it necessary to issue a new recommendation along the same lines as 25/03 regarding the exclusive use of English in communications:

REC 08/14.

It is recommended that AESA promote the implementation of the necessary actions in order to minimize the problems caused by the use of Spanish in situations involving crews that do not master the language.

(Report IN-037/2012, Addenda Bulletin 1/2014)

5. Conclusion

Following Skybrary (2017), it may be concluded that although nowadays the default language of international aviation worldwide is English, local languages are used concurrently for radiotelephony communications, even in busy and complex operational environments. In the majority of cases, operational personnel still feel more comfortable using their mother tongue (e.g. Spanish, Italian) than using English. Sometimes this practice is 'justified' on a local level by the reasoning that it avoids possible misunderstandings when addressing local specifics and facilitates the speed of the communication process with the native flight crews. However, controllers using both English for communication with international flights and the country's native language for communication with the local crews potentially prevent both crews from achieving the desired level of situational awareness with respect of the other traffic. Even though it seems reasonable to use a more familiar language for both conversation partners for communication purposes, when necessary, the effectiveness hereof works only well at the 'internal' level (e.g. a pilot and an air traffic controller oriented) in the aviation context. When it comes to the 'external level' of communication, namely the one that can be monitored by other airspace users than those being directly involved in the communication process, it does not suffice and does not enable controller's error correction. On the contrary, it may be a contributing factor to incidents and accidents as the history of aviation shows.

Therefore, new regulations have also caused new requirements for multilingual speakers. Multilingual speakers who have easily switched from one language to another and adapted their language according to the audience and topic will have to refrain from such practices. It looks like there is the only aspect of multilingualism that can be positive and useful in global aviation communication nowadays and this is a multilingual native speaker of English alone who is familiar with the linguistic problems facing non-native English speakers. Such a speaker not only becomes a more conscious thinker and listener who can communicate clearly and think creatively, but also gains the most significant benefit of multilingualism: a broader, more global perspective (D. Roitman 2013). The ideal picture of all airspace users speaking all possible languages does not exist, so it has been reasonable and useful to impose one language of aviation, Aeronautical English, in order to ensure the safety of each flight.

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Effects of the Linguistic Context on Identity Relevant Self-Characterization in Bilinguals¹

Zoltán KONDE

University of Debrecen

E-mail: konde.zoltan@arts.unideb.hu

József PÁNTYA

University of Debrecen

E-mail: pantya.jozsef@arts.unideb.hu

Zoltán DÓSA

Babeş-Bolyai University

E-mail: zoltan.dosa@ubbcluj.ro

Tünde POLONYI

University of Debrecen

E-mail: tundepolonyi@gmail.com

Abstract: A survey was conducted among Hungarian-Romanian-English multilinguals (N=237) with the aim of investigating the individual differences in cultural preferences and value priorities. Participants completed questionnaires measuring: (a) the individual level of national identification (Collective Self-Esteem); (b) own-culture preference (Patriotism); (c) ethnocentric proclivity toward other cultures (Generalized Ethnocentrism Scale); and, (d) the relative importance of 10 universal value types (Portrait Values Questionnaire) in three groups. Native (Hungarian) and acquired languages (Romanian, English) were used for filling out questionnaires for the three groups. Linguistic effects appeared on ethnocentrism, patriotism and collective aspects of self-esteem, but the effects were absent on personal aspect of self-esteem and prevailingly on value priorities. Results may indicate a kind of linguistic relativity in identity relevant self-characterization.

Keywords: patriotism, ethnocentrism, cultural identity, linguistic relativity, bilingualism

1. Introduction

“The more languages you speak, the more of a person you are” – as the proverb goes. This idea invokes an “evergreen” dilemma about the interrelationship between language and thought that philosophers, psychologists, linguists and more recently, cognitive neuroscientists have been concerned about for a long time. It has been

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remarked that the language-thought dispute/dilemma is one of the vivid, unresolved controversies in the field of psychology (A. Greenwald 2012).

On the one side of the dilemma, from the universalist point of view, language is supposed to be framed by the abstract, universal categories (space, time, causality) of human cognition that are common for each particular language (see S. Pinker 1994). Semantic distinctions, or any sort of differences between languages, do not affect the way of perceiving the word, interpreting the experiences, assimilating the impressions. Contrary to the universalist account, from a relativist point of view, language has an impact on how we perceive the world around us as well as how we think about our world (see S. Pinker 1994). The strongest version of this idea, usually termed as linguistic determinism, holds, that language is not simply reflected in the surface of the way thoughts are communicated, but rather that language is fundamental to determining cognition, deep into our elementary cognitive mechanisms. In fact, it appears that language variation causes differences in cognition. The refined relativist account—usually referred to as the Sapir-Whorf hypothesis – claims that thought is influenced by socially constructed and mediated concepts and categories of any given language. Any particular language imposes constraints and sets limits quite differently on how we conceptualize our experiences of the world. Consequently, linguistic variations reflect variations in thought, worldviews, and mindsets. The idea of linguistic determinism, proved to be a provocative claim that inclined researchers to reject it. However, the weak Sapir-Whorf hypothesis has been confirmed in many respects (for a review see C. Hardin/ M. R. Banaji 1993, T. Regier et al. 2010). Beyond the early anthropological observations, within- and cross-language studies have demonstrated experimentally a linguistic effect in perception-related behavioural data (when categorizing colours – P. Kay/ W. Kempton 1984), in short and long term memory performance (retention, schematisation – F.C. Bartlett 1932), and in memory reconstruction (E.F. Loftus/ J.C. Palmer 1974). It was also present when estimating memory capacity (N.C. Ellis/ R.A. Hennely 1980, M. Naveh-Benjamin/ T.J. Ayres 1986), in problem solving (E. Hunt/ F. Agnoli 1991), in between-cultural differences in math performance (K.F. Miller/ D.R. Parades 1996), or in social cognition (C. Hoffmann et al. 1986). The primary aim of the present study was not to provide argument or evidence against or in favour of the relativist hypothesis. Instead, we intended to investigate empirically a question that is related to the problem of linguistic relativity which may contribute to a better understanding of the complex interrelationship between language, thought and culture: How would a bilingual person characterise her-/himself using a language different from her/his mother tongue? The linguistic sensitivity of cultural-national self-characterization of bilinguals is the basic problem of the present study.

2. Bilingualism

Bilingualism is a prominent field of research on linguistic influence (e.g. T.K. Au 1983, Y. Takano 1989). Bilinguals do not form homogeneous groups, as they differ in terms of proficiency, method of acquisition, degree of emotional/motivational involvement and context of usage (T. Polonyi/ A. Kovács 2005). Accordingly,

defining bilingualism is extremely difficult, as all these factors should be considered. The definition of F. Grosjean (1992), however, is widely accepted in the field: bilingual people are the ones who need to use two or more languages during their everyday life according to their communicative and socio-cultural needs (orally and/or in writing, or even as a sign language), however, they very often do not speak both languages on the same high level (e.g. F. Grosjean 2008, 2010). Although it is wise to talk about continuity instead of dichotomy in many clustering areas, bilingual people can be classified along various dimensions (C. Bartha 1999):

1. Competence level of the two languages (balanced or dominant bilingualism)
2. Cognitive structure of bilingualism (compound, coordinate or subordinate structure)
3. Time and method of acquisition (early - simultaneous or successive – and late bilingualism; natural or controlled situation of language learning)
4. Presence or absence of support from the respective language community (endogen or exogen bilingualism)
5. Status of the two languages compared to one another (additive versus subtractive bilingualism)
6. Awareness of group membership and cultural identity

Regarding our research, the latter category is of utmost importance. The literature differentiates among bicultural (dual awareness of group membership and dual cultural identity), monocultural (awareness of single group membership and cultural identity), acculturational (awareness of belonging to the majority and taking over its cultural identity) and enculturational bilingualism (ambivalence regarding group membership and identity). In sum, bilingualism and multiculturalism do not necessarily go hand in hand, people may take part in the lives of two or more cultures on different levels. Thus, self-determination is influenced not only by bilingualism by itself, but also by knowing and/or belonging to two or more cultures. The basic question of this research project was whether multilingualism and multiculturalism have an impact on the person's cultural identity as well as on the way he or she sees or perceives his or her own culture.

3. Present study

Instead of the frequently investigated language-cognition interaction, cultural-national self-characterisation of bilinguals was examined. We adopted a quasi-experimental approach. Individual differences in cultural preferences were surveyed by using well-known questionnaires measuring: (a) the individual level of national identification (Collective Self-Esteem, CSE); (b) own-culture preference (Patriotism); and, (c) ethnocentric proclivity toward other cultures (Generalized Ethnocentrism Scale). Furthermore, individual differences in value priorities were also investigated with a questionnaire measuring (d) the relative importance of 10 universal value types (Portrait Values Questionnaire). In order to reveal a possible linguistic sensitivity of self-characterization, the linguistic context of the survey was manipulated. Following a translation protocol, three equivalent linguistic versions of the questionnaires and scales (Hungarian, Romanian, English) were developed. The language of the

questionnaire was manipulated between subjects, and according to the language of the filling the participants were grouped into three groups. All of the participants possessed a linguistic competence in more than one language, and because of multicultural living conditions, they were also well immersed in different cultures. Owing to this, the cross-language comparisons we conducted are supposedly free – at least to some extent – from the issues arising from cultural differences (see C. Hardin/M.R. Banaji 1993, Y. Takano 1989). The Hungarian language was the mother tongue for all of the participants (native language), English was considered as a neutral language, and, in regard to the possibility of ambivalent cultural attachment to the Romanian culture, the Romanian language was termed as majority group language.

As for the hypotheses, by default, a questionnaire or other psychological tool that have been adapted through a well-defined translation protocol into a new language, is expected to work in a similar way in both linguistic contexts. Accordingly, when an appropriate sample size is assured, no contextual (including linguistic) effect, i.e. group differences, should be expected on the values and ratings of the scales. If however, the cultural-national self-characterisation is sensitive to the linguistic (i.e., implicitly cultural-national) context of the data-collection, then a group difference will be expected across language groups in the collective identity relevant measurements (CSE, Ethnocentrism and Patriotism scales) but not necessarily in the personal value questionnaire.

4. Methods

Participants

The participants of the study were secondary school pupils living in Romania. All participants' nationality was Hungarian. They were 16–19 years old (average age: 17,6 years, $SD=0.65$). All participants learned in their mother tongue, i.e. in Hungarian, and they also learned the official language of the country, Romanian (4–5 classes a week), and a foreign language, English (5–6 classes a week). Thus, alongside language learning, they got familiar with the Romanian culture, customs and traditions. The study was carried out in three theoretical high schools in Odorheiu-Secuiesc, Harghita County. We assigned the students into three groups according to the language they filled in the questionnaires.

- Hungarian – 86 (33 boys, 53 girls)
- English – 65 (25 boys, 40 girls)
- Romanian – 86 (34 boys, 52 girls)

Materials

The individual importance of national/cultural group-membership was measured with modified versions of well-known scales. The usual back-translation protocol was followed to adopt each scale from English either to Hungarian or Romanian: first, the scales were translated to the respective language, then they were translated back to the original language by an independent translator. The Hungarian and Romanian scales were finalized by comparing and cross-checking the original and back-translated English versions of the scales.

Measuring collective self-esteem

The *Collective Self-Esteem Scale (CSE)* (R. Luhtanen/ J. Crocker 1992; see also S. Fiske 2003) was used to measure the extent to which participants build their social identity and self-esteem on the identification level with their own cultural group. The CSE scale measures the evaluation of the ingroup, as well as the power this evaluation has in the formation of self-esteem, on 4 subscales, and with each subscale containing 4 items. Items of the *Membership Self-Esteem* subscale measure to what extent an individual considers himself or herself a good and valuable group member (e.g. "I am a worthy member of the Hungarian nation"). Items in the *Private Collective Self-Esteem* subscale capture the level to which somebody appreciates and values his or her own group membership (e.g., "I feel good about the Hungarian nation I belong to"). Items in the *Public Collective Self-Esteem* subscale measure the respondent's opinion about the way others judge his or her group (e.g. "Overall, others have a good opinion about Hungarians"). The *Importance to Identity* subscale measures the personal importance and the role that group membership has in determining the respondent's self-image (e.g., "In general, belonging to the Hungarian nation is an important part of my self-image"). Respondents could indicate the degree to which they agreed or disagreed with each item using a 7-point scale ranging from 1 = "strongly disagree" to 7 = "strongly agree".

Measuring ethnocentrism

The level of ethnocentric proclivity one has towards one's own cultural group can be determined by the 22-item *Generalized Ethnocentrism Scale (GENE)*, (J. W. Neuliep/ J.C. McCroskey 1997, J.W. Neuliep 2002). Ethnocentrism refers to an individual disposition with which a person tends to judge and evaluate the attitudes, values, and behaviours of another group, using the attitudes, values, and behaviours of his or her ingroup as standards. This ethnocentric proclivity is also present in the perception of the outgroup: attitudes, values, and behaviours as well as how the members of the outgroup are perceived to be disparate from the ingroup, and as a consequence, evaluated negatively (J.W. Neuliep 2002). Example items from the scale are, e.g., "My culture should be the role model for other cultures", "I do not trust people who are different", and "I respect the values and customs of other cultures" (the latter one is a reverse-scored item). Respondents were asked to indicate their levels of agreement or disagreement on a 7-point scale ranging from 1 = "strongly disagree" to 7 = "strongly agree". Accordingly, higher scores on this scale refer to a higher ethnocentric proclivity towards one's own cultural group (traditionally, 15 of the 22 items are taken into account when calculating the final scores).

Measuring patriotism

The *Patriotism* scale, measuring the level of national identification, the mere national self-categorization, that is the personal strength of national identity, was adopted from the work of K. Meier-Pesti and E. Kirchler (2003). Patriotism offers another way, in which ingroup-outgroup comparison tendencies and outgroup references are not

present, and as a result, the consequences of patriotism in building national pride do not extend the ingroup (A. Mummendey/ A. Klink/ R. Brown 2001). The original 11-item scale referred to the Austrian national group that was replaced by the Hungarian group. Respondents were asked to indicate their levels of agreement or disagreement on a 7-point scale ranging from 1 = “*strongly disagree*” to 7 = “*strongly agree*”, on items for example: “I identify with Hungarian people”, “I hardly feel attached to the Hungarians” and “It means little to me to be a Hungarian” (the latter two items are reverse-scored).

Measuring personal value priorities

The personal emphases of different universal value types were measured with the shorter version of the Portrait Values Questionnaire (PVQ-21, E. Davidov 2008, S.H. Schwartz 1994, 2003, S.H. Schwartz et al. 2001). Value questionnaires are widely used for investigating factors influencing attitudes and behaviours in cross-cultural settings (e.g. P.W. Schultz/ L. C. Zelezny 1998) or cultural value orientations (e.g. S.H. Schwartz 2007). The PVQ differentiates 10 motivational value types that can be arranged along two bipolar dimensions. One of these two dimensions oppose self-enhancement to self-transcendence, that is, oppose the value types of *power* and *achievement* to the value types of *universalism* and *benevolence*, respectively. The other dimension opposes openness to change to conservation, that is, opposes the value types of *stimulation* and *self-direction* to the value types of *conformity*, *tradition* and *security*. The value type of *hedonism* can be related to an endpoint of both dimensions, as it can be related to both self-enhancement and openness to change (S. H. Schwartz 1994). The 21 items in the PVQ briefly portray different people attaching special importance to a wide variety of things. For instance, one of the items measuring the importance of tradition: “Tradition is important to him/her; She/he tries to follow the customs handed down by her religion or her family.” Respondents have to answer a similar question (“How much like you is this person?”) on a 6-point scale after every 2-sentence description (i.e., portray) ranging from 1 = *not like me at all* to 6 = *very much like me*.

5. Results

Collective self-esteem

First, a reliability analysis was performed. The alpha values we obtained for each subscale indicated a moderate level of reliability (Cronbach’s alphas > 0.63), but of most importance, the reliability level across language groups was approximately the same. A multivariate analysis of variance (MANOVA) was performed with a fixed factor by Group (Hungarian vs. English vs. Romanian) for the CSE subscales (Membership Self-Esteem, Importance to Identity, Private and Public Collective Self-Esteem). A significant main effect of Group was found [Wilks’ lambda = 0.81; F(8, 462) = 6.43; p < 0.001] indicating differences in values between groups. To analyse the group differences, univariate tests were run for each of the subscales. Means on the Membership Self-Esteem, Importance to Identity, Private and Public Collective Self-Esteem subscales across the language groups are displayed in Figure 1 and 2.

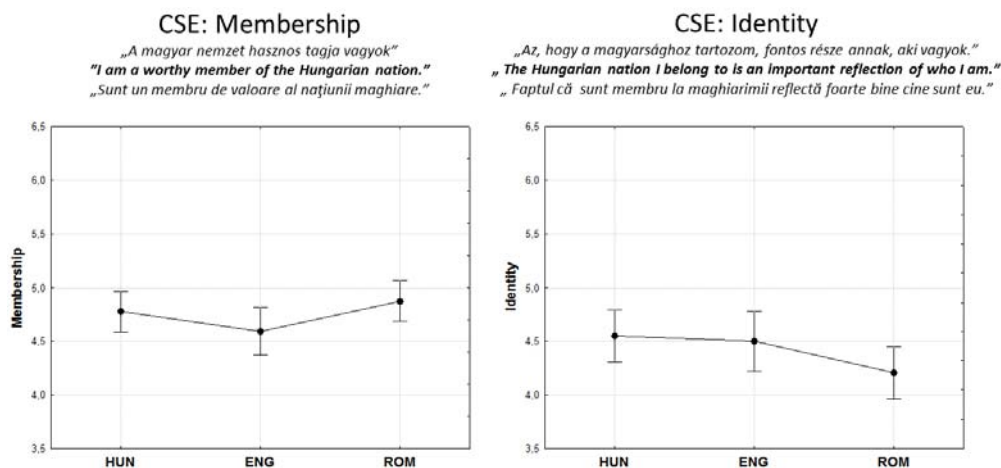


Figure 1. The average level of agreement with items on Membership Self-Esteem, Importance to Identity subscales of CSE in the three language groups (HUN: Hungarian; ENG: English; ROM: Romanian)

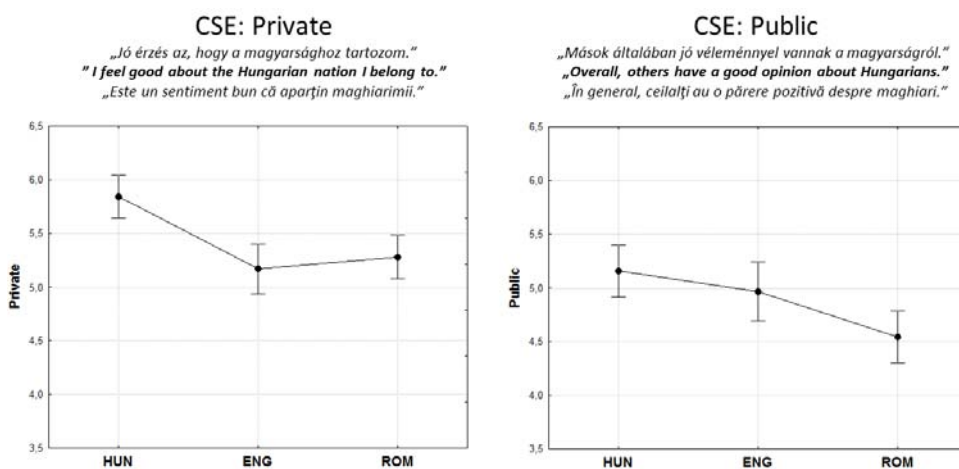


Figure 2. The average level of agreement with items on Private and Public Collective Self-Esteem subscales of CSE in the three language groups (HUN: Hungarian; ENG: English; ROM: Romanian)

In line with the pattern of data displayed on Figure 1, no significant differences were detected between language groups, nor on Membership Self-Esteem [$F(2,234)=1.88$; $p>0.05$], nor on Importance to Identity [$F(2,234)=2.22$; $p>0.05$] subscales. The null effect of Group clearly indicated that the language used on the questionnaire had no impact on the values of the subscales.

At first sight, group differences can be observed on the Private and Public Collective Self-Esteem subscale (Figure 2). In line with the impressions, statistical analyses revealed a significant difference between the groups both on Private

Collective Self-Esteem [$F(2,234)=11.75$; $p<0.001$] and on Public Collective Self-Esteem [$F(2,234)=6.7$; $p<0.001$] subscales. Post-Hoc analyses (Turkey) showed, that on the Private Collective Self-Esteem subscale, the mean of values was higher in the Hungarian groups as compared to the English or Romanian groups [t values > 3.91 ; $p<0.001$]. In slight contrast to this, on the Public Collective Self-Esteem subscale, the mean of the Romanian group was lower than that of the Hungarian [$t=3.59$; $p<0.001$] and English [$t=2.29$; $p<0.001$] group. The mean in the latter was approximately the same as in the Hungarian group [$t=1.04$; $p>0.05$].

In sum, the relatively high scores on each subscale indicated a considerable importance of the group and the group membership in terms of social self-esteem. This was shown in the level of self-evaluation as a member of the social group (Membership Self Esteem), as well as in the designated subjective importance of group membership for participants' identity (Importance to Identity). However, an effect of linguistic manipulation could not be observed on either of between-group comparisons. In contrast a linguistic effect was found in the data of the Private and Public Collective Self-Esteem subscales. The difference between the language groups on these subscales of the CSE implied that the participants' own culture evaluation from a personal point of view (Private CSE) may be enhanced in mother tongue, but the appreciation of group membership (Public CSE) may be attenuated when in a non-native language context an outer, but indefinite point of view (e.g. "others from the majority language group") was provided implicitly. These patterns of results indicated that the linguistic context may afford the respondents an implicit reference of some sort, when expressing perceived appreciations of the group on a scale.

Ethnocentrism and Patriotism

Cronbach's alphas were computed for the Ethnocentrism scale and for the Patriotism scale in each group separately. A high level of internal consistency for the Ethnocentrism scale was observed for the whole sample (0.79) and for each of the language groups (Hungarian: 0.78; English: 0.78; Romanian: 0.80). Following the deletion of an item from the Patriotism scale, the consistency index improved to the required level (0.80) for the whole sample, and it was high for each group as well (Hungarian: 0.87; English: 0.76; Romanian: 0.74). On the Ethnocentrism scale the values varied around the midpoint of the seven-point scale (mean: 3.03). On the Patriotism scale they were plotted out at a higher level (mean: 5.33). Group means on the Ethnocentrism and Patriotism scales across the language groups are displayed in Figure 3.

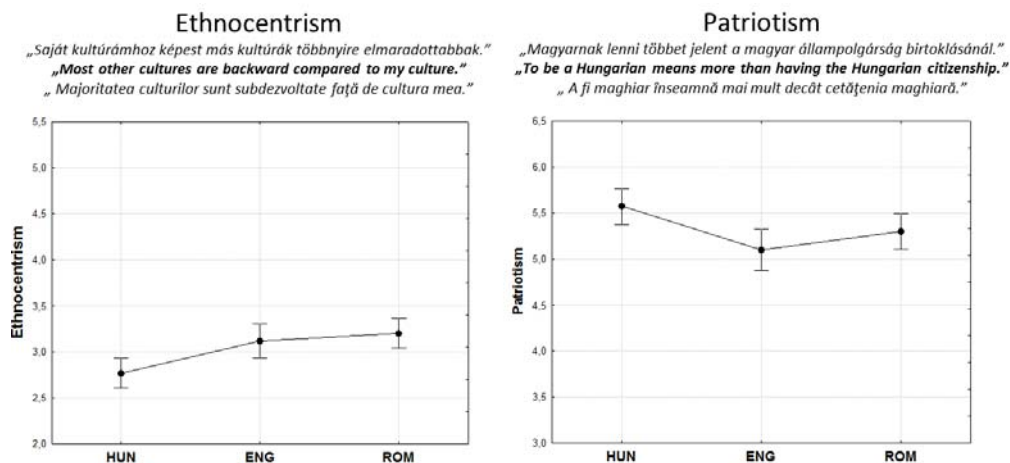


Figure 3. The average level of agreement with items on the Ethnocentrism and Patriotism scales in the three language groups (HUN: Hungarian; ENG: English; ROM: Romanian)

A MANOVA was performed with the fixed factor of Group (Hungarian vs. English vs. Romanian) for the Ethnocentrism and the Patriotism scale. A significant main effect of Group was found [Wilks' lambda = 0.884; $F(4, 466)=7.38$; $p<0.001$]. The group differences were analysed using univariate tests for each test separately. The effect of language (i.e. Group) on the Ethnocentrism scale reached the level of significance [$F(2, 234)=7.6$; $p<0.01$]. A post-hoc analysis revealed that this was due to the lower mean for Hungarian group as compared to English and Romanian groups ($p=0.017$ and 0.01 respectively). The Group effect proved to be significant again on the Patriotism scale [$F(2, 234)=5.14$; $p<0.01$]. The Post-hoc tests revealed that values in the Hungarian group were higher than in the remaining groups ($p<0.01$ and $p=0.05$). No group differences were found between the Romanian and English groups in either of the scales.

In sum, a considerable linguistic effect on the level of participants' own cultural preference had been demonstrated on both scales. On the Patriotism scale, where the cultural preference needs to be expressed without any explicit comparison the scores in the native language group indicated an enhanced patriotic attitude. On the Ethnocentrism scale, where the cultural preference is evaluated with a direct between-cultural comparison, the participants inclined to elevate the preference of the culture of their own over that of others in a non-native language context. These patterns of results may be understood as an indication of elevated cultural preference in mother tongue, or attenuated bias in non-native languages. The observed language context effect on patriotism and ethnocentrism, consistent with the pattern observed on the Private and Public subscales of CSE, indicated that an implicit cultural reference afforded by the non-native linguistic context may lead respondents to overrate or overvalue their own culture (i.e. expressing a more positive attitude).

Portrait Values Questionnaire

Analysing value priorities on a personal level, a relative preference score for each value type was computed in two steps. First, the mean responses to all items of the PVQ as well as to the 10 subscales (values) were calculated for each respondent. Second, value priority scores for all 10 values were computed for each respondent by subtracting the total mean of the PVQ items from the means of the subscales (i.e., the mean scores of values were centered around the mean of all 21 items). As a result, a relative preference index emerged (Mean: 0.053 Min.: -3.19; Max.: 3.48), displaying the relative importance of an individual value as compared to the averaged importance level (represented by 0). The value profile based on the preference scores for the 10 values is portrayed in Figure 4 for the three language groups.

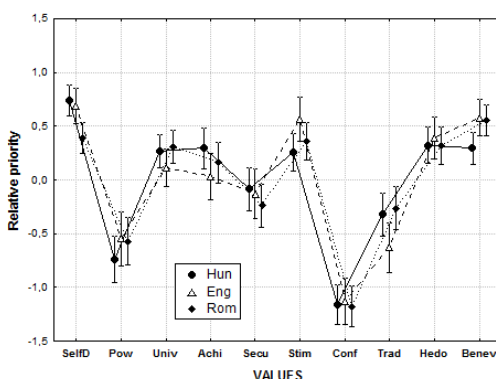


Figure 4. The relative importance of the respective value type (SelfD: self-direction; Pow: power; Univ: universalism; Achi: achievement; Secu: security; Stim: stimulation; Conf: conformity; Trad: tradition; Hedo: hedonism; Benev: benevolence) in the three language groups (HUN: Hungarian; ENG: English; ROM: Romanian)

As Figure 4 illustrates nicely, a moderate variability of the preference scores can be observed along the 10 PVQ values indicating slight individual differences in value priorities. A detailed analyses of the pattern we noticed is beyond the aims of the present article. In order to test the effect of linguistic manipulation, a MANOVA was performed with the fixed factor of Group (Hungarian vs. English vs. Romanian) for each of the PVQ scales. A significant main effect of Group was found [Wilks' lambda = 0.816; $F(20, 450)=2.41$; $p<0.01$] indicating differences in group means. As can be seen in Figure 4, the patterns of scores overlapped almost completely across the three groups. However, a Group effect was found in Self-direction, in Benevolence and in the Tradition scales [F values (2, 234) > 2,03; p 's < 0.001].

In sum, as expected, no linguistic effect appeared on the level of personal values, and almost a complete overlap was found between the value profiles of the three language groups. These pattern of results suggested that the self-characterization on the basis of personal values was supposedly insensitive to the linguistic context. It should be remarked, that one of the values on which group differences emerged,

tradition, has an inherent, collectivistic connotation. From this perspective, the language effect seemed not to be surprising at all.

6. Testing the language comprehension

It seemed reasonable to ask whether the participants in the non-native language groups were able to properly understand the questionnaires they were presented with. The participants were asked to answer two additional, native-language questions at the end of the survey. They were asked to indicate, by using a seven-point scale, to what extent they understood the questions (“not at all” ... “absolutely”), and the extent of the differences in understanding between them and an imaginary native speaker (“no difference” ... “great, great difference”). The results showed that participants in non-native groups did understand the questionnaires at about a “good” level (mean: 5.2), but they were aware that a native speaker would be able to understand the questions better to “some extent” than they did (mean: 4.6).

7. General discussion

In the present study a possible linguistic effect on self-characterization was investigated among bilinguals living in specific multicultural circumstances. Our persons of interest were Hungarians by their ethnic origin, for whom Hungarian was the mother tongue, but who still possessed a comparable linguistic competence in Romanian and English. The students participated in a questionnaire study in which they were asked to indicate numerically the degree of agreement with simple statements by using seven-point scales (ranging from ‘strongly disagree’ to ‘strongly agree’), or to evaluate the extent of their similarity to an imaginary person (ranging from ‘very much like me’ to ‘not like me at all’). Our question was simple and straightforward: what would happen when the language of the questionnaires was different than the respondent’s mother tongue? Should we expect different answers, i.e., differences in scale values, when a Hungarian person responds using English or Romanian? Do answers to questions of a self-characterization questionnaire depend on the language by which we think of ourselves, that is, the language we think by? Intuitively, the answer would be no. However, we supposed that a linguistic context may have an effect on self-characterization in a linguistic version of a questionnaire that contains collective attributes, i.e., that can be interpreted inherently from a linguistic-cultural point of view. For example, characteristics related to a person’s collective-national identity are collective by their very nature. To our hypothesis, identity relevant questions, providing a specific linguistic-cultural perspective, are sensitive to linguistic influences. In order to test this broadly outlined hypotheses we selected questionnaires and scales that are accepted to be measures of aspects of national/cultural identity (Collective Self-Esteem Scale, Patriotism, Ethnocentrism). By contrast, we tested the hypothesized linguistic effect using a personal value scale (PVQ) that deals with personal preferences and priorities, that are not in close relation with national-cultural identity. The questionnaires and scales we used in this study are standardized, widely employed methods, in relation with a variety of research

questions (see J. Kovács et al. 2011, J. Kovács et al. 2013, S. H. Schwartz 2007, P.W. Schultz/ L.C. Zelezny 1998). For our purposes, equivalent linguistic versions of the questionnaires and scales were developed following the protocol. We translated the items into Hungarian or Romanian and then we compared a re-translated version with the original one. Three groups were formed, a native (Hungarian), a neutral (English) and a majority (Romanian) language group. Assuming a shifting in a cultural-linguistic perspective stemming from the language manipulation, differences in scale values were predicted across the language groups eminently in questionnaires that measured cultural-national identity. In contrast, no group difference, i.e., null effect of language manipulation was expected in the personal value questionnaire. This pattern of results were hypothesized to be a demonstration of a linguistic effect on self-characterization.

In line with our expectations, remarkable group differences were obtained in the scale values indicating a linguistic effect. Significant group differences emerged on the majority of the collective-identity related scales, specifically when the native language group was compared with either the neutral, or the majority language group. That was the case for the Public and Private Collective Self-Esteem subscales of the CSE scale. On these scales, when using a preferred, mother tongue for indicating the importance of the group, and the group membership from an inner (private) or an outer (public) point of view, the scale values were higher than in any other language group.

Similar was the case for the Patriotism and Ethnocentrism scales. When expressing the participants personal appreciation of their own group per se (patriotic attitude), or in comparison with other groups (ethnocentric attitude), the mother tongue has an impact, setting the native language group apart from one or both of the other language groups. In a possible explanation two important aspects need to be emphasized. We suspected, as we have mentioned in the previous paragraphs, that the language of the questionnaire response may afford an implicit frame of reference for the evaluation of the self, the own-group and the self-group relations. From a specific cultural-linguistic perspective, the culture of our own group (or the group of our own) may conceivably be the subject of an implicit social comparison (what and how other people or groups may perceive us or the culture of our own?). Such a modified point of view, where the perspective may be shaped by the language may have an effect on how a person perceives and thinks of his/her national/cultural relations and on how she/he expresses her/his agreement with identity relevant statements. This explanation would be in line with social psychological research findings showing that an activated (i.e., more accessible) cultural identity shapes identity-relevant self-characterizations, choices, and decisions (R.A. LeBoeuf/ E. Shafir/ J.B. Bayuk 2010, D. Trafimow/ H.C. Triandis/ S.G. Goto 1991, O. Ybarra/ D. Trafimow 1998). The second aspect of our explanation is that the shifting of the perspective may probably invoke emotional reactions. Whether it may be explicit or implicit, in an emotionally well-saturated context of possible pure cognitive classifications, decisions (“yes, agree”, “yes, like me”) may turn into affective classifications and decisions (“sure, I certainly agree!”, “not at all, I do not agree!”) leading to elevated scale values.

No effect of language manipulation could be observed on CSE Importance to Identity and Membership Self-Esteem subscales. These scales concerned with the collectivistic aspect of self-esteem, but the group-membership and its importance and value was emphasized from a personal point of view („for me it is important ...”). In line with this, it was found that about the same ratings of values occurred in the native and non-native language groups on the data of the Portrait Value Questionnaire, and, with three exceptions, there was not a notable effect of language manipulation on value preferences. The null effect of language manipulation may indicate, when expressing an aspect of the personal identity, or personally respected values, a shift in perspective and therefore, emotional re-priming induced by the linguistic context probably could not play a role. The linguistic context may have an effect only when perceiving, expressing and evaluating collective aspects (i.e., collective identity relevant) of personal values. This explanation may be in line with a variety of demonstrations of enhanced cultural bias (own culture bias, ingroup favoritism, own culture preference) discussed in studies using explicit measures (Y.R. Chen/ J. Brockner/ X.P. Chen 2002, Y.R. Chen/ J. Brockner/ T. Katz 1998) or in implicit attitude research (see Z. Kondé et al. 2011, B.A. Nosek et al. 2007, O. Ogunnaike et al. 2010). The present observations may give support to the supposition that social preferences (including cultural/national bias) may be mediated by emotional processes, and in light of this, we find that this contribution emphasizes the role of language in creating emotional context (e.g. K.D. Kinzler/ E. Dupoux/ E.S. Spelke 2007).

8. Linguistic relativity in identity relevant self-characterization?

In the introductory part of this paper, the issue of linguistic relativity has been mentioned, summarizing the idea that the language, or the linguistic context may have an influencing effect on the way of thinking and the prospect for cognition. Different languages may represent the world in many different ways, therefore available linguistic 'resources' offer both a possibility and at the same time impose a constraint for cognition. In the present research we pursued a similar question: Does possessing a competence to think in the frame of two or more languages lead to different ways of thinking when using one language or the other? Or at least, will using one language change our attitudes or settings toward the world, or ourselves compared to what we have in another language? Observing the group effects that we obtained, we have a good reason to believe that these differences are of significant consequence to the factors we manipulated, i.e. the language of questionnaire response. Consequently, on the basis of the present observations, the linguistic context can be acknowledged as an influential factor of respondents' "questionnaire filling behaviour", when, at least, different aspects of identity are concerned.

However, it would be premature to conclude that the language effect indicated a causal relationship between the linguistic context and the person's self-characterization demonstrating a kind of linguistic relativity. Due to the between-subject design of the present study, there is some chance that the observed group differences reflect differences in participants' original attitudes, opinions toward the

topics surveyed, and it is a matter of attitude differences rather than merely a linguistic effect. Although the sample size was chosen to have enough statistical power, for the time being, we are cautious about drawing inferences. We are preparing a second phase of data collection involving the very same groups of participants. In the repeated, half-year delayed investigation, half of the participants are asked to fill in the same questionnaires while the language of the filling remains the same. For the other half, the language of the filling is changing, either from the mother tongue to either of the non-native languages, or from a foreign language back to the native language. An effect of language shifting in a within-subject comparison is expected to be similar to the result of between-subject comparisons observed in the present study.

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The Dialectics of Hinglish: A Perspective

Nidhi NEMA

Bhopal School of Social Sciences & Affiliated Barkatullah University

E-mail: nidhinema@yahoo.com

Jagtar Kaur CHAWLA

Bhopal School of Social Sciences & Affiliated Barkatullah University

E-mail: jagtar.kaur.chawla@gmail.com

Abstract: In India, the phenomenon of Hinglish has rapidly emerged from being a fashionable style of speech to a significant force instrumental in bringing about a major paradigm shift in social demography. Globalization and economic liberalization has served as catalysts to amplify this uniform communication code, which is currently blurring the linguistic barriers in a country speaking 780 dialects. Hinglish is redefining the cultural conventions in marketing/advertisement, Bollywood, and communication styles present in social media and the Internet. Its claim to be a proper language is substantiated by its acknowledgement on prestigious literary forums. While the concept is welcomed by both the marketplace and the masses as a beneficial symbiotic experience, it has also left the stakeholders of standard language, both Hindi and English, fretting and fuming. Amidst all the celebrations and concerns, the corpus of Hinglish is constantly widening and evolving because it is has been internalized, and not imposed, by the society as its own creation. The language accommodates diversity, lends flexibility, and suits the temperament of modern India. This paper studies how Hinglish has managed to seep into the very fabric of Indian society, restructuring the governing norms and practices. The paper also attempts to reflect how Hinglish is much more than just a language hybrid.

Keywords: Hinglish, English, India, globalisation

1. Introduction

The heterogeneous nature of Indian reality and rich linguistic diversity compels us to be multi-lingual, and switching between two or more languages comes naturally to us. The symbiotic relationship between Hindi and English is the result of the multicultural and multidimensional nature of Indian society and its age-old linguistic habit of juxtaposing two or more dialects together in regular speech, shifting from one discursive context to another. The two languages are so inexorably intertwined with each other through shared history that English predication looks like a natural ending to a Hindi subject and vice versa. This relationship has now gone to a different level as Hindi and English now harmoniously cohabit in a common space called Hinglish.

The emergence of new (socio-linguistic) concepts is preceded by a set of contributory factors and a history of causative circumstances. In order to understand the etymology of any given linguistic variant, it is important to analyze the reasons behind its coming into existence, as well as its usage and scope. In the same way, to

propose an examination of the conceptual framework of this newer field called Hinglish, it is important to unfold the (a) conditions that constituted the groundwork for the emergence of Hinglish (b) the observable, structural properties of Hinglish, and (c) the manner in which the users perceive and respond to Hinglish.

The working of a hybrid language involves restructuring and reshuffling of two or more languages so as to make them mutually intelligible, compatible and accessible to the target users. Code mixing and code switching happen naturally, resulting in an expansion of lexical parameters. Hinglish, a relatively new occurrence in India, negotiates in the spheres of both Hindi and English operating as a beneficiary mediator. It freely borrows from both fields and creates a unique borderline that is flexible, variable and ever expanding. Therefore, its semantic base is constantly in a state of flux, susceptible to latest trends and subjective to its users. The process of meaning making is ongoing, with new phrases and idioms being coined on almost a daily basis, making the field of Hinglish very dynamic. The other contributory factor is the growing range of human experience or knowledge that is directly responsible for the expansion of the domains of reference and conception in terms of physical, psychological, inferential, social and dialectical. Fast changing technology and consumer friendly products such as mobile devices, the Internet, and social media have played a catalytic role in nourishing and expanding the role of this synthesized language.

Colonization marks the beginning of the interface between Hindi and English in India. In a bid to establish their economic and political domination, crossing the language barrier became imperative to the British colonizers. The inclusion of Hindi words in English syntax was necessary for filling the socio-cultural gaps between the colonizers and colonized. It manifested in the form of highly asymmetric code-mixing (mixing of Hindi words in an English sentence) and fragmented use of Hindi used mostly for carrying out administrative and mercantile affairs, haphazard superficial social interactions, and downward communication with servants. Hence words like *sahib/mem sahib, blighty, pundit, mufti, maharajah, nabab, guru, gora, bucksheesh, firinghee*, which have now become a part of the English vocabulary, were originally used by the English with the intent to set the new social hierarchy and demarcate the social status. Examples of British register of that period can be found in Rudyard Kipling's 1892 poem *Gunga Din*.¹

It was "Din! Din! Din!
 You limping lump o' brick-dust, Gunga Din!
 Hi! slippy hitherao!
 Water, get it! Panee lao!
 You squidgy-nosed old idol, Gunga Din!"
 It was "Din! Din! Din!"

¹ The poem is a rhyming narrative from the point of view of an English soldier in India, about an Indian water-bearer (a "Bhishti") who saves the soldier's life but is soon shot and killed. In the final three lines, the soldier regrets the abuse he dealt to Din and admits that Din is the better man of the two for sacrificing his own life to save another. The poem was published as one of the set of martial poems called the Barrack-Room Ballads. (Source: Wikipedia)

You 'eathen, where the mischief 'ave you been?
 You put some juldee in it,
 Or I'll marrow you this minute,
 If you don't fill up my helmet, Gunga Din!" (Kipling 1920)

Imperialism ended in India at the middle of the 20th century, and the rulers took away with them several lexical souvenirs like *Bungalow*, *Avataar*, *Bazaar*, *Bandanna*, *Caravan*, *Dekko*, *Jungle*, *Cooly*, *Kedgerree*, *Mogul*, *Jungle*, *Veranda*, *Shampoo*, *Thug*, *Punch* (as in *Drinks*), *Cheetah*, *Hullabaloo*, *Loot*, *Pukka*, *Yoga*. These words gained acceptance as common parlance in English dictionaries like *Hobson-Jobson*² (H. Yule/ A.C. Burnell 1903). Besides these words, there were other coinages made specifically for the Indian context. Words like *Collector*, *Boxwallah*, *Balcony*, *Charpoy*, *Competition-Wallah*, *Civilian*, *Compound*, *Factory*, *Fetish*, *Indigo*, *VIP*, *First-Class* have had different connotations in Indian English from that of any other dialect of English. Though the British were hated, the sentiments did not extend to their language and even after the departure of the colonizers their language was not just retained but also internalized as the second official language of the country. The English language experienced a decolonization phase in India around the 1970s after the departure of authentic 'Convent' or the All-English medium educational institutes run by English Missionaries and Irish nuns. Though English still held its elite status in the socio-cultural hierarchy, the 'propah Queen's English' witnessed the sneaking in of the dominant vernacular Hindi in its well-protected institutions. The sanctity and decorum of pure English grammar and syntax was being risked outside the campus and switching the codes between Hindi and English was seen as rebel and fashionable. Amit Choudhary's protagonist of his short story 'Prelude to an Autobiography,' who is a by-product of the 'convent,' says, "speaking *pucca* English was slightly ridiculous and was supposed to be goody-goody." (A.R. Gera 2013)³ This was the time when being up-market became synonymous with stiff and 'different' or unrelatable for the anglicized upper class Indian youth. In an attempt to look not-so-English and to stop looking 'exclusivist,' the products of these convent schools started using different permutations and combinations of English with *desi* dialect.

The third phase in Hinglish started in the 1990s with the wave of globalization and augmented privatization in India. As the doors of the gigantic market of India opened for the world, the former witnessed major economic up-turns that played a

² *Hobson-Jobson* is a unique work of maverick scholarship. Compiled in 1886 by two India enthusiasts, it documents the words and phrases that entered English from Arabic, Persian, Indian, and Chinese sources - and vice versa. Described by Salman Rushdie as 'the legendary dictionary of British India' it shows how words of Indian origin were absorbed into the English language and records not only the vocabulary but the culture of the Raj. It encompasses aspects of the history, trade, peoples, and geography of Asia in entries that are at once authoritative and playful. Like the *Oxford English Dictionary*, *Hobson-Jobson* included illustrative quotations that were drawn from a wide range of travel texts, histories, memoirs, and novels, creating a canon of English writing about India. The definitions frequently slip into anecdote, reminiscence, and digression, and they offer intriguing insights into Victorian attitudes to India and its people and customs. (Source: OUP Online)

³ Line taken from Amit Chaudhary's short story 'Prelude to an Autobiography' qtd in Anjali Gera Roy's *The Politics of Hinglish*

significant role in bringing about a major paradigm shift in all the segments of society. Within a short span of time, many changes took place in a cascading fashion: the influx of MNCs, increased outsourcing/insourcing, the IT revolution, the Indian film industry (Bollywood) going global and finding a new audience base in the enlarged NRI group, the boom of satellite television, new and improved FM radio, and an increased demand for Indian professionals abroad. All of these factors not just impacted the economy but also altered the socio-cultural dynamics of Indian society and led to a sort of re-arrangement and realignment of the general mindset. The composite effect of all these factors was a newly defined mass culture, driven largely by a consumer market, possessing its own set of conventions, practices and dialect. Hinglish, being a recent entry and also having gained fair degree of acceptance, became the popular voice of the changed Indian culture. It was conducive to the temperament of the market as well as society. The language quickly gained a wider and deeper currency because:

- The English speaker found it fashionable while the Hindi speaker found it aspirational
- Marketing slogans written in Hinglish gained wider access and stronger acceptance among consumers
- The code mixing and code switching had an instant connection with the youth who found a new text-speak in Hinglish
- It offered an opportunity to experiment with the regular language and make the conversation more vibrant and engaging
- Growing internet usage and social media demanded a common linguistic code

Today, Hinglish is ‘the’ language of the Indian youth and it occupies a space everywhere they are – mobile devices, social networking, the internet, the cinema and other media. This phenomenon, propelled mainly by market forces and fueled by a growing number of internet users, has gained epistemic status. It has become an integral part of the mainstream psyche. No longer regarded as impure or frivolous but rather pragmatic, effective and relevant, Hinglish has captured the imagination of a vast demography like nothing else before and has emerged as the informal voice of India.

2. Indian English and Hinglish

“There is Indian English with its non-standard variety of English reflecting Indian “vernacular” patterns, while Hinglish is a new hybrid,” says Anjali Gera Roy in her article “The Politics of Hinglish” (A.R. Gera 2013). However, in general, the label of Hinglish is used as a cover term for Indian English and its dialectic variations. But for the purpose of this study, we would treat them as separate entities and would consider Hinglish to be an offshoot of Indian English.

Indian English is a vibrant arena of semantics wherein the English has internalized the national specifics of politics, society and culture. Phonological variations depend on the regional or local speeches and accents/stress patterns vary from place to place. This English is quite paradoxical in nature as in it not only preserved the colonial

heritage but also decolonized it by customizing the language to fit into the postcolonial Indian setup. It has helped to remove the tag of 'alien' or foreign from the language and has brought it within the access of the common man. It is more culturally regulated and spiced up with a rich dose of local verbs, connotations and denotations. In order to cater to the multilayered demography of India with its varied and unique conceptual system, English had to undergo certain modifications and enhancements taking it a little bit away from regular British English. Though Indian English works on a proper English base and operates within the framework of prescribed standard grammar, it takes several liberties with the syntactic, lexical and phonetic parameters. The following are a few noteworthy examples:

(1) Literal translation of Hindi sentence/phrase: *Progressive tense in place of indefinite*

Sleep is coming
I'm believing you
She is liking the music
She is here, no?

(2) New coinages for the terms which have no English equivalent:

Votebank (the base of voters), NRI (Non-resident Indian), eve teasing (molesting a girl), tiffin (lunch box), topper (highest scorer), airdash (to rush for an emergency), English-knowing (one who knows English language), matrimonial (an ad for marriage), wheatish (light brown complexion) prepone (opposite of postpone), pass out (complete a course), non-veg (meat) mugging up (cramming)

(3) Different words and word ordering:

He is too good (he is very/extremely good)
We arrived today only (we came today)
He simply won't listen (he would just not listen)
Let's do it tomorrow itself (superfluity for emphasis)

(4) Archaic/Colonial leftovers:

He is out of station (he is out of the town/city)
I'll take your leave (I'll go now)
I beg your pardon (excuse me)
Do the needful (do what is required)

(5) Superfluity:

Discuss *about*; reply *back*; order *for*; meet *with* you

(6) Indianized Expressions:

He is sitting on my head (forcing someone to do something)
It's time you stood on your own feet (to become self dependent)
She is giving me line; I'll take a chance (to try to hit on a person of opposite sex)
That movie was a real time-pass, first class! (to find a movie worth watching)

Hinglish can be defined as a proper blend of Hindi and English with a unique vocabulary and style of its own. As Das prefers to call it, it is a 'pan India's street language' (G. Das 2005) that goes a few steps ahead of Indian English in defying all restrictive parameters as it works on one simple formula, and that is no-formula. Its base can be either Hindi with a smattering of English words or vice versa. The register

is conditional and keeps changing with the person, setting, emotions and situation – formal, informal, serious, humorous- and it yet remains intelligible to the speakers of both the languages. There is limitless scope for experimentation, expansion and a free license to innovation because its semantics are still evolving. Hence, fancy catch phrases, inflectional variants, informal discourses, trendy hook lines, and workable social media speech are all constituted in Hinglish to capture the sensibilities of both language users. Newer concepts are being floated everyday with newer labels to define them. Meaning-making is an ongoing process and media/technology is the chief facilitator in propagation of it. So what qualifies as Hinglish? Here are a few prototypes:

(7) Code switching: switching languages between sentences

I'm going there, *dost se milne ke liye* (I'm going there, to meet my friend)

Could you please wait? *Bas do minute aur!* (could you please wait? Just two more minutes!)

Bahot bore ho rahe hain. Let's go out and have fun! (We're getting bored. Let's go out and have fun!)

(8) Code mixing with English Base: *mixing lexis of Hindi in an English sentence*

He is creating a *tamasha* (he is creating a scene)

Let's do it, *yaar* (let's do it buddy)

You have taken a major *panga!* (You are in a huge mess!)

He is a *pucca* idiot (he is a complete idiot)

(9) Code mixing with Hindi base: *mixing lexis of English in Hindi Sentence*

Mein ticket book *karna chahta hoon* (I want to book/buy a ticket)

Koi problem *hai kya?* (Do you have any problem?)

Please, *rasta dijiye* (Please make way)

Chill *maar yaar!* Don't get all worked up (relax and take it easy)

(10) Chutneyfied compounds: *a word of one language with a prefix or suffix of another*

Uncle*ji*, Aunt*ji*, Sir*ji*, Madam*ji*

Schoolon *mein* Teacheron *ko* *bahot* workload *hai*. (Teachers in schools deal with lot of work)

Don't *Darofy* just *karofy* (don't be afraid, just do it)

He is very *filmy* (he is a film buff/he is dramatic)

Road*in* *kharab* *hain*, driveron *ko* problem *hogi* (roads are damaged, drivers would face problems)

(11) New Connotations: *unique trendy coinages/slang words*

Short-circuit: to lose it

ATM: Auntie-turned-modern

Stadium: bald having fringe hair

Son-stroke: favoritism towards male child

Would-be: fiancé

Hinglish has been stoked by increasing consumerism and commodification. Hinglish has served as a useful tool to seal the deal successfully between various markets *viz* commodity, service, media, journalism, arts/culture, and politics. Listed below are

some of the key role players who are the main contributors to the sustenance and transmission of this new language system.

3. E-Media/ Internet

India saw the renaissance of TV entertainment in the 1990s with the influx of various satellite channels like Star TV, Sony, Zee, Colors and hundreds of other entertainment, news and informative channels that transformed the media landscape totally by substituting the ubiquitous state-owned monopoly Doordarshan. The presence of trans-international media houses became acceptable only when they indigenized their content and language to suit the eclectic temperament of the Indian public. The conversational style of news presentation and panel discussions, TV shows with cross-cultural content, and video jockeys on music channels with a mish-mash jargon rely heavily on Hinglish as the medium of communication. All of these factors not only essentialized Hinglish on TV but also redefined the mass culture.

Television has been a major role player in national integration and holding intact the essence of the multicultural, multilingual, multiethnic society of India. Today this media wields immense power that is both constructive and destructive. In order to maintain its ever-strengthening sway on the viewing population, it is inevitable for e-media to speak the language of the people. Hinglish, having already struck the right chord with the youth, surfaced as a big instrument to make an instant connection and impact.

The TV shows being aired currently on the youth channels like Channel V, Bindass and MTV are interpolated not just in titles but also in character. These TV shows are catering to a hybrid sensibility and culture of a modern consumer who is both shaping and being shaped by market forces that play a stronger role in modifying parochial traditions, introducing new conventions and practices, and defining familial and individual roles. In comparison to any past change, this rapid paradigm shift redefines societal norms everyday in consonance with the newer realities and changing environments. Newer meanings are being coined by the media to give expressions to newer experiences and Hinglish has assumed the role of a stock supplier. The fact that popular English news channels have switched to Hinglish in order to 'recruit more viewers' for their channels is the reflector of the significance of this language. For instance, Republic TV editor-in-chief Arnab Goswami interviewed Uttar Pradesh Chief Minister Yogi Adityanath in Hinglish. "*Bahut bahut congratulations, apne pehle 100 din me jo kiya*" (Congratulations on your achievements in your first 100 days).

The verbal jugglery is seen in all its glory on the revamped FM radio stations where bilingual radio jockeys (RJs) engage in casual, informal verbosity in order to exhibit their proficiency in the linguistic domain of Hinglish. In recent years, these radio jockeys seem to have worked out a nuanced hybrid register of their own which they handle in a smoothly entertaining manner. As Radio Mirchi, one of the famous FM channel goes by the refrain 'mirchi *sunnewale* always *khush*,' the objective of 'fun' is exhibited in every aspect of content and presentation on radio. The sing-song manner of chatter, their personal approach and quirky attitude finds fuller expression

through Hinglish, which is the 'official' language of private radio channels today.

Another source of Hinglish penetration is through the World Wide Web or internet media. Born from the IT revolution, i-media such as informative web sites/channels, social networking sites, blogs and other i-resources, control and manipulate the internet user's world: their lifestyles, choices, actions and language. I-media practices and conventions are essentially offbeat, making the Internet a youth centric domain. On these websites, Hinglish is de-standardized, open, uncensored, creative and effervescent. The relationship of Internet and Hinglish is again mutually reinforcing. The Internet plays a pivotal role in increasing the repertoire of the hybrid language by constantly minting and floating the newer tech-jargon and catchy textual connotations. While in return, Hinglish consolidates the position of the medium as a strong influencer of the present generation. The technological grip is being strengthened by Hinglish, which is working to make the media more and more user friendly.

The technical jargon related to mobile technology like *recharge, top up, missed call, prepaid-postpaid, SMS, caller tune* has also become the basis of the 'hep-lingo,' the abbreviated or condensed style of communication conducted on mobiles, text messages, Facebook and Whatsapp. The introduction of Hinglish as one of the language options for keyboard languages in the latest cell phones and laptops highlights the ever-growing importance of Hinglish. Indian sentiments are being expressed through English alphabets on the mobile phones through transliteration. The conversation slides from Hindi to English and vice versa seamlessly and this type of mixed clipped communication has become increasingly more frequent.

4. Literature

P.C. Verghese (1971: 103) writes,

The Indian social, cultural and linguistic setup has affected the features of English language as used by the Indian creative writers in English, especially the novelists, and 'Indian English' is only a variety of English whose characteristics stems from the life and culture of the people of India.

IWE (Indian Writing in English) is regarded as one of the voices or variants in which India speaks. Every Indian writer invariably carries the baggage of 'Indianness,' which is embedded in his perceptions of reality and socio-cultural dimensions in the way he contextualizes his aesthetic and linguistic principles. All of these are in a way the indexical features of his Indianness that locate him in his native milieu. The vernacular preferences are inevitable and their resonations can be seen through the linguistic interpolations and syntactic experiments. The text of their works is permeated with Indian themes, thought, concerns and imagery, which can be discerned by paying attention to the textuality. Hence, they are largely responsible for the acculturation of English by adapting it to the Indian perspective.

Indian English Literature has liberally borrowed from the rich vernaculars and their variants to recreate the verisimilitude. It has often incorporated the idiomatic expressions and phraseology used in local dialects so as to give an authentic reflection of the complex Indian reality and its equally layered experience. The process of

Indianization of English started from the moment the poetic license got transferred to Indian writers with independence. Thus, R. K. Narayan's⁴ Indian stories were told in a very casual, impartial and simple English interspersed with many Hindi and Tamil words that served to infuse the cultural elements of his class and time. A self-professed writer of Indianized English, he never attempted to write in Anglo-Saxon as it would have obstructed his textual authenticity and honesty. His expressions like 'it is still paining me...' 'I can't mug up...' 'behave like a rowdy...' are all Indianized.

While writing from the point of view of a typical middle class Indian, Nissim Ezekiel⁵ in "Very Indian Poems in Indian English" contained in *Latter Day Psalms* exposed the Indian people's faulty use of language. These poems namely "The Patriot", "The Professor" and "Irani Restaurant Instructions" highlighted in a humorous tone the linguistic errors of Indians while speaking English.

"The Patriot," presented in a very light vein an English that contains all the characteristics of Indianness – use of present continuous instead of indefinite and Hindi word order.

I am standing for peace and non-violence.
 Why world is fighting fighting
 Why all people of world
 Are not following Mahatma Gandhi,
 I am simply not understanding.
 Ancient Indian Wisdom is 100% correct.
 I should say even 200% correct.
 But modern generation is neglecting-
 Too much going for fashion and foreign thing (Ezekiel 1982).

'When Empire wrote back,' as per Salman Rushdie, it reflected the voice of the decolonized group that presented a strong claim on the linguistic space shared by English speakers worldwide. Dealing with the issues of fractured identity and racism, Rushdie employed Hinglish liberally in his 1981 Man Booker Prize winning novel *Midnight's Children*. *Arre Baap, ekdum, nasbandi, phu-a-phut, dhoabn, rakshasha, fauz, jailkhana, badmaash, baap-re-baap, pyar kiya to darna kya, zenana, sarpanch, bhel-puri...* are few of those expressions that appear in the book without Italics. Some critics find it an interesting attempt to situate the story in the authentic setting of independence, while others find it as nothing more than an attempt to exoticize his story telling. In her *Introduction to Rushdie's Midnight's Children: A Book of Critical Readings*, Meenakshi Mukherjee sums up Rushdie's attitude :

'Linguistic risks' that Rushdie took with utter abandon, defining them as 'getting away with the use of the mongrel street language of cities, daring to translate idioms and puns

⁴ R.K. Narayan (10 October 1906 – 13 May 2001), full name Rasipuram Krishnaswami Iyer Narayanaswami, was an Indian writer, best known for his works set in the fictional South Indian town of Malgudi. He is one of three leading figures of early Indian Literature in English alongside Mulk Raj Anand and Raja Rao, and is credited with bringing the genre to the rest of the world.

⁵ Nissim Ezekiel was an Indian Jewish poet, actor, playwright, editor and art-critic. He was a foundational figure in postcolonial India's literary history, specifically for Indian writing in English.

mediated by no apology, no footnote, no glossary' (M. Mukherjee 2003: 10).

Whatever be the critical viewpoint, Rushdie opened up new avenues for the usage of hybrid Hinglish to comprehend the Indian context and sensibility. It is also seen as the subversive approach of the subaltern to assert itself with zing and sting. Hinglish is justified as an apt vehicle for conveying the modern/postmodern experience and carrying off the layered complexity of contemporary society and man. A more modern writer Shobha De's⁶ 'unapologetic' Hinglish seeks a kind of alliance between the very Indian subject matter, be it films, politics or other issues, and her linguistic choice, ie, English. She uses Hindi words in her *pucca* English to provide an extra sharpness that can be conveyed only through Hindi vocabulary. Arundhati Roy's postcolonialism and Upamanyu Chatterjee's postmodernism are underscored by inwardness towards contemporary Indian situation, attitude and voice. They are true Indian writers, writing from within India with a microscopic vision on Indian reality. Their Hinglish reflects the attitude of today's anglicized youth who live rather comfortably homogenizing the two languages continuously. Chatterjee's debut novel *English August: an Indian Story* is in fact a metaphor for the encounter of an upper middle class 'English-knowing' metropolitan man with rather pure 'Hindi-using' interiors. By winning prestigious literary honors such as the Booker and Pulitzer prizes, IWE have substantiated the claim of Indians on English that has been 'reterritorialized' in true sense.

5. Bollywood⁷

In the history of 100 years of Indian cinema, the dynamics of Hindi and English has been subject to various socio-political forces acting upon both languages. The usage of English has invariably served as the signifier of 'Englishness,' a combination of westernized, non-Indian and alien attitude, usually resented or mocked at through villainous, upper-middle class or comical characters. The negative associations with English continued roughly up until 1990s after which Hindi cinema opened up to its own English speaking NRI audience. English could not be seen as the language of outsiders anymore, as it was being spoken by PIOs and natives alike. The changed mood of the nation was reflected through the changed stance of Bollywood towards English, which now attempted to fuse English and Hindi by bringing them out of their water-tight compartments. This merger created new social meanings, and Hinglish became a common space to be inhabited by both Hindi and English.

Today, Bollywood speaks a very colloquial lingo, an informal register in a liberal mix of Hindi and English. But this was not so earlier in the 1960s and 1970s, when

⁶ Shobha Rajadhyaksha, also known as Shobhaa De, is an Indian columnist and novelist. De is best known for her depiction of socialites and sex in her works of fiction, for which she has come to be known as the "Jackie Collins of India". (Source: Wikipedia).

⁷ Bollywood is the sobriquet of the Hindi language film industry, based in Mumbai, India. Bollywood is one of the largest film producers in India and one of the largest centres of film production in the world. It is more formally referred to as Hindi Film cinema. The name "Bollywood" is a portmanteau derived from Bombay (the former name for Mumbai) and Hollywood. Though some deplore the name, arguing that it makes the industry look like a poor cousin to Hollywood, it has its own entry in the Oxford English Dictionary. (Source: Wikipedia)

the villain Ajit would mouth Hinglish dialogues, like *Mona darling, where is the sona?* Or upper middle class heroines like Nadira would spume *shut up and get out, gandhi nail ke keede*. These situations always evoked resentment towards these characters that was directly associated with language and social class. Later in the 1975 blockbuster *Sholay*, when a character named Veeru attempts to commit suicide after failing to impress his beloved's aunt, he slurs in Hinglish under the effect of alcohol producing a very comical effect.

When I dead, police coming, police coming, budhiya going jail, and chakki peeing.. and peeing.. and peeing ... (G.P. Sippy 1975)

(when I die, police is going to arrive, when police arrives, this old hag will go to jail and would labor on the grindstone)

With English occupying a not-so-alien status after the entry of Hinglish on the Indian mindscape, the scenario also changed in Bollywood movies. The predominance of Hinglish in Indian cinema began with songs like *Keh do na keh do na, you are my Sonia* serving as a rough marker of its arrival. After which the invasion of Hinglish was rapid and widespread as it vehemently made its way into the titles, dialogues and lyrics of the movies in a big way. This was initially seen as a bid to woo its diasporic audience post the 1995 blockbuster *Dilwale Dulhania Le Jayenge*, which was a huge blockbuster worldwide. But soon movies resonated with, as Rita Kothari puts it, 'fun-on-Indian-terms.' (R. Kothari 2011) The 'youngistaan' wanted things spiced up the Indian way and hence *Dard-e-disco* or *chance pe dance* was lapped up easily. As the trends, choices and style of the youth changed, so did the songs and titles with contrasted or compromised Hindi and English.

English Vinglish, Dear Zindagi, Apna Sapna Money Money, Jab We Met; Love Aaj Kal; Thoda Pyaar Thoda Magic; Desi Boys; Pyar Mein Twist; Shaadi Ke Side Effects; Shuddh Desi Romance

The 2007 mega hit *Jab We Met* can be dubbed as a total Hinglish movie without any conscious effort to being so. Its title as well as dialogues, such as the one given below, gives the accurate glimpse of the language employed in everyday social participation in India.

Mera record hai aaj tak ka, kabhi train nahi chooti, thank you babaji, mujhe non a/c mein zyada achcha lagta hai par meri family kehti hai ki akeli ladki ko non a/c mein travel nahi karna chahiye! (D. Mehta 2007)

These Hinglish lines between the two main characters reflect the naturalness and ease of conversation that serves as the true representation of present generation's communication style. There is ease in the mish-mash jargon that openly flouts the linguistic norm of either language. Contemporary Bollywood is celebrating Hinglish like never before. It has found a language that offers enough scope for neutrality that is much preferred to bring a diversified audience together on a common viewership level. Here are a few lines from typical Hindi movie songs of today that represent the chequered sentiments of the present generation in an equally chequered language.

1. *Ladki beautiful kar gai chull*⁸ (beautiful chic is such a tease)
2. But *pappu* can't dance *saala...*⁹ (Bloody pappu can't dance)
3. *Tere liye hi toh signal tod tad ke, aaya dilli wali girlfriend chod chad ke...*¹⁰
(For you, I've come here breaking all the traffic signals, breaking off with my Delhi based girlfriend)
4. *Golmaal, golmaal*, everything's gonna be *golmaal...*¹¹ (chaos, everything is gonna be chaos)
5. *Oh Womaniya, aha womaniya...*¹² (the suffix *iya* added to noun woman is merely for Bhojpuri¹³ effect)
6. *Panghat pe aake saiyan, chede kanhaiyan*, and everybody blames it on Radha...¹⁴ (the beloved Kanhaiya comes on the river bank, teases all, and everybody blames it on Radha¹⁵)

Baffled by the pure Hindi text of the script, *Maine azaadi se shaadi kar li hai*, a Delhi based young man in the film *Rang De Basanti* asks, 'who talks like this now?' (R. O. Mehra 2006) This kind of irreverence sums up the attitude of present generation of Bollywood as well as the youth who have become so comfortable in this particular linguistic space that a pure Hindi or, for that matter, pure English line comes across as an anomaly and jarring dissonance.

6. Advertising

Advertising has played a pro-active role in the production and dissemination of Hinglish as the new *lingua franca* of the nation. The surge of MNCs riding the wave of globalization and economic liberalization has made the advertising world ever more competitive and creative. With the infiltration of every new company and the introduction of every new product in the consumer-oriented market, the ad world seeks to seize the attention of the consumer with sharp, crisp and cutting edge advertising campaigns, slogans, tag lines, jingles that keep the target hooked to the ad, if not to the product. Hinglish comes in handy here again. Consider the tag lines of some of these famous ads:

Pepsi – *yehi hai* right choice baby! Aha...(This is the right choice baby)

Maggie- taste *bhi* health *bhi* (taste also, health also)

Snickers- *jab* hunger *machaye shor*, snickers *khol* (when hunger makes noise, open up snickers)

ICICI banks- no *chinta* only money (no tension, only money)

Navratna oil- *thanda thanda* cool cool (*thanda* is Hindi for cool)

⁸ Movie: Kapoor & Sons Since 1921 (2016).

⁹ Movie: Jaane Tu Ya Jaane Na (2008).

¹⁰ Movie: Yeh Jawani Hai Diwani (2013).

¹¹ Movie: Golmaal Returns (2008).

¹² Movie: Gangs of Wasseypur (2012).

¹³ Bhojpuri is one of the dialects of Hindi spoken in north, north-eastern parts of India.

¹⁴ Movie: Student of the Year (2011).

¹⁵ The song is the modern expression of Indian mythological love songs of Krishna-Radha.

Virgin mobiles- think *hatke* (think different)

(Source: All taglines taken from various sources on Internet)

These are just a few of the many ad lines that are visible in videos, audios, posters and prints. It would not be wrong to argue that Hinglish is ‘the rule’ in advertisements. It has emerged as a powerful ‘idea’ that has revolutionized the way marketing is done and ads are conceptualized. It seems to be the best way to make a slogan catchy among the masses. For example, one of the leading brands in dairy products, Amul, owes much of its popularity to its creative marketing team. This marketing team has always been successful in connecting a very topical issue with its product’s quirky tag line achieved through some very ingenious phraseology. Print and e-media is filled with all kinds of ads in Hinglish that are innovative, intelligent, funny, subtle and poignant, sometimes overriding the product itself. The product goes out of the market but the slogans or jingles remain fresh in memory. Embedded deeply into the subconscious, Hinglish plays an important role in re-defining and modifying the mass-culture components and its subsets in a very subtle yet definite manner. One of the recent ads of a famous online store Snapdeal showcases the attitude of ad-world and the viewers towards the much sought after language. It has turned out to be the ‘*dilki deal*,’ for both makers as well as target viewers of the commercials where they can negotiate the salability of the product on the terms that are viable and acceptable to everyone. These mixed up slogans not only add to the brand value of the product but also to the promotion of the Hinglish language.

7. Conclusion

In the times of compulsive social networking, the codes and norms of success have changed. In this age, people seek validation and acceptance to feel normal and secure. The present generation lives by the hashtags, likes and dislikes on the walls/handles of Facebook and Twitter, hung upon the idea of keeping up with what is trending. In order to possess a cool yet swish and swanky vibe, Hinglish offers people symbols of success, relevance and modernity. Keeping up with the times is an important driving force compelling most literate Indians to become users of English, or at least Hinglish which works like a glossy sheen on Hindi or any other native tongue. The fusion that emerges out of this liberal hybrid is intriguing and fascinating to most of the language researchers in India. Despite a considerable increase in its usage, English is still generally regarded as a measure of one’s achievements and success. In a status-riddled society like India, the use of English, and to some extent now Hinglish, spells class, sophistication, upward mobility and higher eminence.

One concern about the shift into greater usage of Hinglish is the purists’ concerns about the ‘dangerous Creolization’ of the language. These language purists worry that ultimately both Hindi and English will go the Creole way, i.e. become pidgin and will be robbed of their original flavor and nature, leaving the byproduct Hinglish behind in circulation. The onslaught of Hinglish at every communication front has left the standard language supporters fuming over the tempering and corruption happening to Hindi and English. Harish Trivedi in his foreword to *Chutnefying English* finds the trend disturbing, as he feels doubtful that a jargon like Creole or Hinglish can

‘facilitate serious engagement of any kind, or expression of any intellectual enquiry or creative conceptualization.’ (R. Kothari and R. Snell 2011: xxiii) To these critics of Hinglish, it is a matter that calls for a necessary debate. Mahesh Bhatt, renowned filmmaker expresses the importance of allegiance to one’s mother tongue saying,

It is only when I spoke my mother’s tongue and understood the poetry of Kaifi Azmi and Faiz, Iqbal and Ghalib that I came into my own. So let’s not reject that legacy. It is the repository of our creativity, and I would be sad to see it go.” (R. Kothari/ R. Snell 2011: 180)

On the other hand, there are the advocates of Hinglish who see it as a ‘celebratory language’ of the nation, a natural development process in coexisting languages. It is the lingo that is functional and all pervasive in present day India. For Tej Bhatia, it works towards ‘optimizing or neutralizing the paradoxical elements of both the languages’ (R. Kothari/ R. Snell 2011: 38). The bilingual individual is able to access his or her vast repertoire of input languages to keep optimizing the linguistic experience by mixing just the right kind and quantity of expressions. This definitely gives the bilingual an edge over a monolingual who does not have this benefit and dwells in mono language system. It is also a fact that languages spoken on a large scale undergo modifications and transformations, and only those languages that elicit flexibility experience longevity. There cannot be a better illustrator of this than English. Rigid languages meet the fate of Latin or Sanskrit. Language that appeals to the heart is spoken most, and as long as it serves the purpose of effective and evocative communication, it stays in circulation. Now whether Hinglish is an attitude, an added style or a permanent register, a marker of identity or just another link in the process of ongoing democratization, is still to be determined.

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Delivering Multilingual Schools – Emergence and Development of Language Beliefs in Immigrant Teachers

Galina PUTJATA

University of Münster

E-mail: putjata@wwu.de

Abstract: “How Come We Don’t Deliver?” asks Elana Shohamy in the title of her paper on imagined multilingual schools and tackles the striking issue in education: the need for a paradigm shift towards a multilingual approach. This paper focuses on the role of immigrant teachers in this process. Based on the sociolinguistic framework of linguistic markets and the pedagogical framework of professionalization, it presents a qualitative study on teachers’ language beliefs. Using linguistic biographies, this study reconstructs how beliefs towards multilingualism emerge and develop under different educational settings. The findings indicate significant deviations in the perception of multilingualism and showcase deep insights into the development of these perceptions over time. The results reveal the importance of socio-political setting and contribute to a reflected understanding of linguistic diversity management in multilingual education and the need for teacher professionalization.

Keywords: multilingual education, immigrant teachers, language biography

1. Multilingual Turn in Education

Multilingualism, how it emerges and develops, depends on various individual and social factors, among others, the ways linguistic diversity is managed within the society (J. Blommaert 1999, J.T. Irvine/ S. Gal 2000, M. Schmid 2010). Strikingly, most European countries are characterized by monolingual norms (S. Gal 2006, C. Hélot/ A. Young 2006, G. Putjata et al. 2016). These monolingual norms affect the linguistic development of individuals and can lead to language rejection or loss (M. Schmid 2010). In addition, empirical data and normative discourse in pedagogy suggest that this approach also leads to underperformance of migrant-induced multilingual students at school. Multilingualism as social reality, impacted by the long history of transnational mobilities, globalization, and recent immigrant influx, have led researchers across the world and across different disciplines (e. g. sociology, linguistics, education) to call for a paradigm shift towards multilingualism (A. Pavlenko/ A. Blackledge 2004, S. Gal 2006, J. Blommaert 2010, P. Stevenson 2011, S. Fürstenau 2016).

Strong arguments from psycholinguistic (J. Cummins 2010, G. Poarch/ E. Bialystok 2017) and socio-political (J. Cummins 2010, C. Baker 2011, O. García 2013) perspectives emphasize the importance of multilingualism. In multilingual education, these arguments have been supported by empirical evidence on the micro-level of classroom and on the meso-level of school development: studies on the use

of multilingual teaching practices (A. Creese/ A. Blackledge 2010, I. Oomen-Welke 2013, O. García/ Li Wei 2014) and the implementation of immigrant languages as part of school's curriculum confirm positive outcomes for multilingual learners themselves as well as their peers.

In spite of these psycholinguistic and socio-political arguments and the existing multilingual methods and strategies of school development, these multilingual educational strategies still lack regular implementation in practice. Research in countries like Germany, Belgium, France, Australia and Greece reveals prevailing monolingual beliefs (A. Gkaintartzi et al. 2013, R. Pulinx/ V. van Avermaet 2015, A. Young 2014, A. Schalley/ S. Eisenclas/ D. Guillemin 2015, S. Fürstenuau 2016, G. Putjata in press a). "How Come We Don't Deliver?" asks Elana Shohamy (E. Shohamy 2006) in the title of her paper on imagined multilingual schools and tackles the critical of issue of: How can language beliefs at school be transformed?

1.1 Immigrant Teachers as Change Agents

A key role in this transformation process has been politically assigned to immigrant teachers as experts in dealing with linguistic and cultural diversity. This perspective has led political actors across the world to call for a more diversified teacher population (CNN Wire Staff 2010, BReg. 2015, R. Ingersoll/ H. May 2016). Until now, little or no evidence has been established that supports this presumption. The present paper investigates language beliefs and their development in immigrant teachers. This paper will begin by presenting the theoretical framework on language beliefs from sociolinguistic and pedagogical perspectives and also provide a brief research overview of the issue. The second part of this paper will focus on a study that reconstructed the development of language beliefs in immigrant teachers based on the methodology of linguistic biographies. The final part of this paper will detail the opportunities and limitations of immigrant teachers as change agents and discuss implications for a multilingual paradigm shift in education.

1.2 Theoretical Framework

This study focuses on language beliefs from a sociolinguistic and pedagogical perspective. From the sociolinguistic perspective, teachers' language beliefs are subject to societal beliefs and reflect the values and practices of the community. J.T. Irvine and S. Gal (2000) argue that prevailing language ideology, based on social and political factors, impacts social institutions such as families, workplaces and care institutions. According to P. Bourdieu (1990), language constitutes a particular form of capital since languages and language varieties have different values within society which correspond to the prevailing hierarchy of societal power relations. A certain way of speaking, i.e. state language or minority language, reflects the origin of a person and their social background. In everyday conversation speakers of a minority variety can subconsciously be perceived as less skilled, while the majority language functions as cultural capital. On the level of the individual speaker, these considerations of usefulness are represented and reflected in beliefs which each speaker holds about the world. Language beliefs can comprise ideas about the role

which particular language competences play in society, how languages are learned and how useful and valuable they are (P. Garrett 2010). These hierarchical differences in language status are socio-politically constructed. The educational system plays a predominant role in this process. Policy makers and teachers share ideas about language use, acting as “ideology brokers” (J. Blommaert 1999) and circulating beliefs about the value of particular linguistics resources, e.g. the competence to use two or more languages in everyday interactions. On the individual level, this is where the minority speakers learn the value of their language. Through teachers’ feedback, the individual realizes which language is considered legitimate in interaction, while deviations such as the use of minority languages can be sanctioned. Thus, teachers produce and reproduce the societal power relations within the hierarchy of languages (P. Bourdieu/ J.-C. Passeron 1998).

From the pedagogical perspective, beliefs constitute one of the three core components of teachers’ professional competence: knowledge, strategies of action and beliefs (J. Baumert/ M. Kunter 2006). Knowledge is described as a cognitive component and is comprised of the information teachers have about a subject. Strategies of action describe the pedagogical dimension of how teachers behaviour towards their students. In contrast to these two components, language beliefs are subjective and thus their nature differs significantly from the content or methodological knowledge. They are affectively loaded and embrace normative and judgmental ideas about learning processes. These ideas are not argument-based and also in research, the term ‘belief’ is still considered a ‘messy construct’ (M. F. Pajares 1992, B. Leutwyler et al. 2014). Studies in educational research conclude that teachers’ knowledge and beliefs shape pedagogical practices and student outcomes (D. Woods 1996, D. Freeman 2001, K. Reusser et al. 2011). However, beliefs are discussed in particular as being resistant to change (F.C. Staub/ E. Stern 2002, L. Hall 2005). For teachers with limited knowledge about multilingual development, the resulting lacunas are filled by bilingual myths, revealing a series of language beliefs (R. Tracy 2008, F. Grosjean 2010). For example, teachers may believe that multilingual students mix languages due to confusion or lacking competence and that multilingualism is harmful for linguistic and cognitive development. These beliefs result in a series of monolingual practices: teachers try to prevent children from speaking family languages among each other on the playground or recommend parents to speak the language of schooling at home (O. Ağırdağ et al. 2014, G. Putjata in press a).

In this conceptual framework, teachers with an immigrant background may constitute a considerable resource. Being persons of authority and members of a respected societal group, immigrant teachers would be able to question the existing language hierarchy in their feedback on migrant languages and represent the legitimacy of migrant languages in everyday interaction. This, however, would require the perception of multilingualism as capital on behalf of the teachers. Until now, the question of immigrant teachers’ perception of multilingualism remained underresearched (but see K. Bräu et al. 2013, D. Lengyel/ L. Rosen 2015, G. Putjata in press b). In order to investigate the actual potential of immigrant teachers

advocating for an educational shift towards multilingualism, a deeper insight into their own multilingual upbringing and their everyday multilingual practices and beliefs is necessary. To capture this multilingual perception and its development, a qualitative study was conducted using the method of linguistic biographies in Israeli teachers with an immigrant background.

2. Research Design and Methodology

The data was gathered during field research in Israel in 2015. This geographic context was selected as the research site as it constitutes a particular interest in light of language and education. Since Israel's foundation, special priority was given to linguistic assimilation, with Hebrew as the only legitimate language: "Ivri, daber Ivrit!" (Hebrew person, speak Hebrew!). This slogan was usual on the dishes given to the new arrivals in the kibbutzim of the communities receiving the immigrants (J. Burteisen 2003). This language policy officially changed in the 1990s, after almost one million people from the Soviet Union and North Africa arrived in Israel (B. Spolsky/ E. Shohamy 1999). For the first time, the Ministry of Education officially declared Israel an immigrant country in need to transform its educational system. This call is revolutionary, as in most countries the educational system tends to preserve its monolingual approach, assimilating immigrant populations into the existing educational system (M. Krüger-Potratz 2009).

In order to cope with the rapid increase in numbers of students and the linguistic diversity present in the classrooms, immigrant teachers were to be integrated into the regular school system. Following the top-down policy on "New immigrant teacher absorption" a program was developed by the Ministries of Education and Absorption that allowed to adjust the teaching diploma to the Israeli system (E. Berger 2001). A few years later, the Ministry underlined the importance to maintain the linguistic heritage of the arrived population. In 1995, an official "New Language Education Policy" was implemented which encouraged newly arriving students to learn Hebrew and maintain family languages at the same time. For example, Hebrew classes were complemented by five weekly hours of Russian language and history, and Russian as a subject could be selected instead of or in addition to other foreign languages (B. Spolsky/ E. Shohamy 1999). This increased the need for teachers who would be able to provide these courses and established further opportunities for teachers' professional integration.

(1) Data Collection: Language Biographies

Data were gathered through narrative in-person interviews focusing on linguistic biographies (R. Franceschini 2002). Interviewees were asked to reflect freely on which languages they speak to whom and how it has changed over time. The selected data collection instrument is language biographies, to enable the researcher's access into the individual speaker's perspective on their linguistic lives. By reconstructing their own linguistic biography, interviewees not only reveal their subjective theories on language acquisition or language use, but also reflect on their perceived role in society, with certain languages becoming an asset or a disadvantage. In doing so, they

make use of the prevailing linguistic hierarchy, where social positions are allocated to specific groups of speakers. Hence, they always position themselves in relation to others (P. Auer/ I. Dirim 2003, I. Oomen-Welke/ T. Pena Schumacher 2005). The focus of this study is to examine this positioning and the construction of particular roles for speakers of different languages in a society and the expression of language perception as negotiated on the linguistic market. Most interviews took place at home or in cafés and lasted from 45 to 120 minutes, allowing the participants to tell their story without being interrupted.

(2) Participants

The participants were recruited in rural and urban areas of Israel through social media and academic networks. The leading criterion was the profession of the participants: they all had to work as teachers in the Israeli education system. Purpose maximum variation sampling was employed during the participant recruitment process. The data corpus consisted of 18 Russian-Hebrew-English speakers who had all immigrated to Israel in the 1990s. External factors commonly experienced by these immigrants were the collapse of the Soviet Union and changes in the language education landscape in Israeli during this time period. At the time of immigration, the participants ages ranged from 2 and 41. Some of the immigrants had already been working in the educational system between 10 and 20 years.

(3) Data Analysis

The biographical interviews were transcribed and coded by three independent Russian and English speaking researchers using the annotation tool Eudico Linguistic Annotator (ELAN, H. Sloetjes/ P. Wittenburg 2008). As the actual language proficiency was not at the core of the study, the analysis focused on content (P. Mayring 2010) and reconstruction of arguments using the documentary interpretation method (A. Nohl 2010). The first step was the content analysis using deductive categorization. Based on P. Bourdieu's theory, language beliefs are expected to appear in topics such as language usefulness for life in general, for the school career and in the discussion of language legitimacy in interaction.

In the second step of the content analysis process, reconstructive methods of formulating and reflecting interpretation were applied. Following the transcription, a detailed formulating interpretation was prepared (R. Bohnsack 2014). Using reflecting interpretation, the interview text was analyzed in its form focusing not only on what is said, but on how it is said: How is a topic elaborated on, and in which framework of orientation is it dealt with? As biographical interviews are a social practice, they were analyzed not as factual experiences but as source of insight into the discursive construction of experience (G. Liebscher/ J. Dailey-O'Cain 2009). In order to uncover meanings in narrative data, particular attention was paid to the construction of arguments as in: „You shouldn't teach two languages at the same time. It hinders them [children], their mind, because you think differently in different languages.”

After having coded all interviews, comparative analysis was applied in order to find patterns between the interviews (A. Nohl 2010). This step enabled the researcher

to identify similarities and differences such as: “If a person came to this country, please speak the regional language [...]. I don’t believe in cultural pluralism” as opposed to “I always compliment Circassians because they speak it and can write. I do it in front of the whole class.” If the coding differed between the three researchers, the issue was resolved in a joint discussion.

3. Findings

The findings indicate significant deviations in immigrant teachers’ language beliefs and reveal deep insights into their development over time. The research findings were coded into three different types of study participants: (3.1) Teachers who had immigrated to Israel at an adult age and were integrated in the school system, having experienced valorization of their linguistic expertise. These teachers perceive migrant-induced multilingualism as capital for themselves and for their students; (3.2) Teachers who had been socialized in the Israeli educational system as children and having experienced a monolingual setting at school, desired to assimilate into Israeli culture and as a result rejected the family language. In their teaching practice, these teachers consider languages other than Hebrew as hindering successful integration; (3.3) Teachers who had immigrated, similarly, at a young age, but have experienced positive reactions towards their multilingual skills at school or ‘turning points’ later in life. These teachers advocate for the use of different languages in everyday teaching practice and perceive multilingualism as capital for their students. These findings will be presented in the following sections, using prototypical examples from the data corpus.

3.1 Professionally Integrated Adult Immigrant Teachers

Teachers who had immigrated to Israel at an adult age with a teaching diploma and who were integrated in the school system (see “New immigrant teacher absorption” in section 2), have experienced valorization of their linguistic expertise.

(1) Positioning on the Linguistic Market of School: Valorization

Larissa (1991, 28 years old) In order to contextualize the examples, they start with the pseudonym of the person, the year of arrival and age at the point of arrival, followed by the translation in English by the author.: The school principal liked a lot that I know the system. By the time, I finished the teacher course and I had an idea of how languages are taught in the West.

Elana (1992, 41 years old): They [schools] were so interested, that today, at this college, they practically kiss the ground I walk on.

During the hiring process Elana and Larissa recall the great demand for multilingual teachers on behalf of their schools. Their pedagogical skills were accepted and cherished. In this description, the participants reveal how they perceived the process of integration: their pedagogical skills, combined with their multilingual skills, were considered an important asset. From a sociological and pedagogical perspective, their skills functioned as capital on the educational market of the host country and became

a source of cherishment and valorization. However, they remember struggling with students' reaction to their accent in the beginning:

Larissa (1991, 28 years old): Children started to laugh. And the principal came to the class and said to them: "If you want to know mathematics, you will have mathematics taught by a Russian."

The interviewees remember being supported by the principal and laughed at by the students. But over the years they have experienced several situations of valorization from colleagues as well as the principal. Through this feedback they realize that being a speaker of an immigrant language does not contradict the fact of being an expert in their field. This positioning occurs not only in private situations but in front of Hebrew speaking students and colleagues. In Bourdieu's terms, migrant-induced multilingualism acquires legitimization on the linguistic market of school and can function as cultural capital.

(2) Biographical Turning Points

Reflecting about further changes in personal language use, the participants recall several turning points when being multilingual became a resource. Larissa remembers how she became aware of her linguistic self-confidence in a discussion with Hebrew speaking colleagues. A similar turning point was reconstructed in Elana's interview. Describing her work at a college, she mentions L. Vygotsky's work, *Language and Thought*, leaves the room where the interview takes place, and comes back with an edition in Hebrew, pointing to her name on the cover page:

Elana (1992, 41 years old): I was scientific leader of the project. The editor didn't speak Russian and only had the English version at hand. Once she calls me and asks: "Listen, I don't get a word, it is just not here" [...]. As I translated it from the Russian original I discovered how bad the English translation is.

Elana was asked for a scientific revision of the translation, because she is an expert in linguistics. She could read the original work in Russian, while the other experts used the translated version. In this feedback scenario, Elana experienced her combined expertise as unique capital and her work as a considerable contribution to the host society. The experienced valorization of their pedagogical skills and the acceptance of Russian language led the participants to develop a positive self-perception as migrant-induced multilinguals.

(3) Multilingualism as Everyday Practice at School

Over the years, the participants of this group have received positive feedback for their work and developed extreme pride of being both an expert in their field and the speaker of an immigrant language. The use of different languages in the school context is perceived as everyday practice. They even explain to the interviewer how important it is to be able to speak family languages for both students and teachers:

Larissa (1991, 28 years old): The Russian part speaks Russian among themselves, Hebrew part in Hebrew and everyone understands. You know, Russian language is for the most of us like slippers. I've lived here for 25 years, most of my life is in Hebrew, but it feels more

comfortable, still, you know. When I am outside, during the recess, I don't want to wear high heels.

Elana (1992, 41 years old): I have two Russian-speaking colleagues at school, one in mathematics and one in biology, we speak Russian among ourselves [...], of course when others are not there, it is just not polite to speak a language others don't understand.

(4) Today's Language Beliefs

This experience with personal multilingualism as important for their professional integration finally results in a positive perception of multilingualism. Besides individual advantages for the students themselves, they consider multilingualism as socially important and stress it as a resource in today's life:

Irina (1991, 25 years old): I always promote languages, because I think that language is a resource. Every language. I always compliment Circassians because they speak it and can write, I do it in front of the whole class.

Elana (1992, 41 years old): Another language is a social mobility, it's social opportunities.

Professional integration and several turning points where the participants experienced a positioning as experts on the linguistic market of school allowed this group to develop a positive perception of migrant-induced multilingualism. This perception is reflected in their current belief in the legitimacy of languages other than the state language.

3.2 Teachers Socialized in a Monolingual Setting as Children

This extremely positive perception of multilingualism as capital differs substantially from the perception that was reconstructed in the next group. These teachers had immigrated to Israel as children and have experienced a monolingual setting at school. It is worth pointing out that this group immigrated at the same time as the first group (early 1990s). But these participants were children or young adults at the time of immigration.

(1) Negative Positioning as a Multilingual Speaker

In their biographies, they remember having received negative feedback on the Russian language:

Jana (1991, 13 years old): I understood quickly from a young age that there isn't anything great about Russian. And sometimes it's just better to keep quiet.

Moshe (1991, 6 years old): Russians were laughed at: "stinky Russian", they checked my sandwich! To see what we were eating, because Russians put pastrami in their sandwiches [...], they beat us [...] *They laughed: „Russian”. When you say to a child, „you are Russian”, it sounds like a curse, ok? What a Russian you are! It's the same as if you say „Nigger.”* Here and further, the quotes in italic were stated in English.

Being beaten, insulted or laughed at as reaction to the Russian language appears in several interviews. These incidents let Russian speakers realize that the language they used to speak is not accepted in the new environment and lets them develop a negative perception of migrant-induced multilingualism. Moshe, for example, narrates how

much he does not identify himself with Russian culture and language. Even his Russian name sounds strange to him today, because he has been Moshe forever. But having pronounced this, he remembers that there was a time when he did use his Russian name:

Moshe (1991, 6 years old): It was in the first grade. I don't remember, how I presented myself before, but this I remember, my mom came and said „His name is Vyacheslav”. What a horrible name. *I felt embarrassed* [...]. I changed the name to Moshe.

(2) Language Rejection

A whole argumentation for identity reconstruction evolves as a consequence in these narrations, with Russian language as the leading criterion:

Moshe (1991, 6 years old): *He is more Russian than me* [...]. *I build myself a level of Russianness, I searched parameters, how to behave. This was in many ways the mirror for me: If this is Russian* [...], *this is how I won't behave.*

Nikita (1990, 10 years old): I didn't want to have any contact to Russians, but it somehow happened [...]. I didn't like it. I would have rather hung around with Israelis. Puberty, you know, we all make mistakes. They had a worse Hebrew than me, they had an accent.

Moshe (1991, 6 years old): *I always said, when I grow up and have a girlfriend, I would never marry a Russian girl. And this is true, today, I am married to an Israeli.*

Their choice of social environment became dependent on language, with Russian being a negative factor. The participants regret having had Russian-speaking contacts and feel the need to explain themselves, presenting these friendships as juvenile mistakes. In contrast, they share how much they appreciated Hebrew-speakers. This desire points out the perception of Hebrew as more prestigious. As a reaction to this feeling, the interviewees started to reposition themselves, eager to acquire the only legitimate capital – Hebrew:

Nikita (1990, 10 years old): In 9th grade I didn't have anything left from my accent except the R and I decided to remove it. I remember my feelings, how I forced myself to speak with a guttural R, I felt like a clown, like a total idiot [...]. Another incident that I remember then, and it was already on purpose: beginning from the 5th and 6th grade, I obsessively watched Israeli children's shows, which kids watched here when they were 5-6 years old. I understood that I was doing this so I could fill the void, to understand humor. Towards the end of 9th grade I was already speaking in Hebrew with no accent. I speak Hebrew on the highest level. Reading, writing, speaking. My Hebrew is better than in the majority of Hebrew-speakers.

Talia (1990, 14 years old): I don't have any big sentiments towards the Russian language. I didn't think that if the poem is not by Pushkin, it's not a real poem. That's why I think it was easier for me to learn Hebrew. Anyway, in a few months I was calmly speaking Hebrew. I entered Israeli society quickly.

This self-imposed ban, described as “obsessive”, reveals the consciousness of the process of blending in. A process that required discipline and feeling like a clown was the price they had to pay in order to become part of the society. But the interviewees summarize that the price was worth it. As a criterion of blending in, the participants

reveal that after a short period of time, no one could tell they were Russian. The pressure to adjust results in the pride of speaking the language better than native speakers. Having had a negative experience with migrant-induced multilingualism, and considering Hebrew to be the only legitimate language in their environment, they perceive integration as linguistic assimilation.

(3) Today's Language Beliefs

Speaking about today's language use at school, these participants underline the importance of the legitimate language and even point to the dangers of bilingual education:

Tova (1990, 13 years old): Language is the worldview, it affects a lot how children think. You shouldn't teach two languages at the same time. It hinders them, their mind, because you think differently in different languages. I want my children to think the way children think in Israel.

Nikita (1990, 10 years old): If a person came to this country, he has a choice; if he wants he can stay in his culture. This means that everyone will look at you sideways, this means that people won't understand you. If you want to enter and blend in, please speak the regional language, learn the local culture, watch local movies... I take this to be the duty of any immigrant. He has no right to cry if he is not given something. I don't believe in cultural pluralism.

In the linguistic market of school, the migrant-induced multilingualism does not constitute a capital or can even be the reason for bad positioning. Following this experience, the participants start to value the legitimate language which, by consequence, means to devalue other languages. It is seen as hindering in the process of integration into monolingual Israeli society. The developed language belief towards multilingualism in this setting is negative, which is finally reflected in the current pedagogical language belief of these immigrant teachers.

3.3 Teachers Socialized in a Multilingual Educational Setting

A different picture arises in teachers who similarly had immigrated at a young age, but have experienced a positive reaction towards migrant-induced multilingualism at school or "turning points" later in life.

(1) Multilingualism as Capital in School Career

Kostia (1991, 2 years old): We read Pushkin, I remember, we read poems and we learned them by heart. I liked it, I recited them at home in front of my parents. I like it, when the others see, how good I am at something „Look, I know Pushkin and poems and stuff“. I knew it all by heart.

In his last remark, the interviewee reveals his positive self-perception as a speaker of an immigrant language. He considers knowing Pushkin by heart as something he can be proud of. Other interviewees point to immigrant languages as capital in their school career:

Jana (1991, 13 years old): I had Russian for final exam. We learned the language and the literature; it was very difficult, on the highest level. I liked it a lot. I had the highest mark in it, it was very important to me.

Looking back at their school days, the participants name Russian alongside French, Arabic or Spanish as important languages:

Olga (1991, 11 years old): In Israel, popular languages are Arabic, French and Russian.

Julia (1990, 1 year old): English and Russian. I know languages well, I know Spanish too, I understand quickly.

These interviewees have apparently not experienced a negative reaction to migrant-induced multilingualism. In contrast to the previous group, which is extremely proud of having learned Hebrew very fast and emphasizes that they never felt Russian, these interviewees are proud of the skills they have: being multilingual in Russian, Hebrew and other socially accepted and prestigious languages. Compared to the first group of participants, in these statements there is no decision-making or rejection of Russian. The idea of constructing a new identity through a name change or choice of friends is not mentioned. Questions concerning language norms at school seem strange:

Kostia (1991, 2 years old): Whatever they spoke, I answered, sometime like this sometime like that. The way one of us started, the other would just pick up.

They do not understand the question or do not remember, which suggests that during their socialization the topic of language selection was not a concern at school. When answering the question on how peers and teachers reacted to languages other than the state language, they say:

Julia (1990, 1 year old): I don't remember, it was ok.

Kostia (1991, 2 years old): Not that... nothing special. It was the same like it was in Hebrew, if you are chatting, in Hebrew, in English or in Russian, the teacher doesn't like it.

Even when the question is repeated on several occasions, e.g. what languages were spoken during recess, the same pattern appears. The interviewees do not understand why the question is asked and state what they perceived as normal – that there was no rule for what students are supposed or not supposed to speak.

(2) Today's Language Belief: Multilingualism as Capital

For this last group of study participants, their experience with language use was different and therefore impacted the developed belief about multilingualism:

Natalia (1990, 2 years old): You need to know this and this, you need to have that and that.

Kostia (1991, 2 years old): I pick the best from there and from here. We became so successful because we grew up with all this. I don't regret to have grown up speaking Russian.

This development of the positive self-perception as belonging to different languages can be reconstructed through the interviewees' line of argumentation. The way they

stated their idea of belonging reflects their perception of what S. Hall (1990) calls "hybrid identity" as an everyday matter. They not only feel that they can speak languages other than Hebrew and be Israeli at the same time, but the idea of a hybrid identity is seen as the only right way to exist and considered the foundation of their "successful" development. This positive experience finally leads to a positive perception of multilingualism for themselves and for society in general:

Julia (1991, 1 year old): It is always a plus, there are many Russians in Israel, and it is good for the brain, to know two languages.

Natalia (1990, 1 year old): Russian language helps me a lot at work. It is always a help. I feel that I can help the others more easily. I think the more languages you know, the better.

Kostia (1991, 2 years old): [Speaking of a particular classmate] She speaks Russian so well. Better than I do. It is so beautiful. I think, every other language is good. [Speaking of different classmate] She is clever, but she doesn't speak Russian.

This last statement reveals the prevailing language belief in these immigrant teachers. They perceive migrant-induced multilingualism as capital for children and for the society in general. This perception reflects the participants' own school biography. Having experienced use of migrant languages as everyday praxis, they reproduce this belief in their current professional situation. However, this reconstructed perception is not a fixed concept, but rather subject to change. Participants who have experienced a monolingual setting at school, but a valorization of migrant-induced multilingualism later in life, reveal a change in language beliefs:

Olga (1991, 11 years old): I got used to always feeling slightly second-rate. This is normal. You understand that you are less rich, that you are not so smart, that you have less opportunities. And you submit to this, because that's life. But here you start to get a feeling, you see, that you are regarded with respect. And they say, listen Chekhov wrote in Russian, and you can read it. And all of a sudden you understand that someone is jealous of YOU, and your whole worldview changes.

Jana (1991, 13 years old): I spent so many years trying to write and learn Hebrew [...]. And I began to appreciate some things differently for myself. What was I supposed to? What was it all for? Was it necessary and was it right? I need to find some kind of middle, to remain Russian, to speak Russian, this doesn't make me less of an Israeli.

These participants experienced the monolingual context in their own school setting. After having gotten used to feeling inferior and having to decide between languages, at a certain point they experienced a valorization of what they learned to initially hide. They realized over time that migrant-induced multilingualism does not need to be a hindrance, but can be a source of respect. The valorization appears in front of non-migrant-speaking students and makes them "be jealous of you". This shift in perception led them to question the pre-existing language beliefs and develop a new perception of multilingualism as a capital.

3.4 Limitations: Stated Teaching Practice

As presented in the previous section, language beliefs are subject to transformation. While many immigrant teachers reproduce the experienced monolingual approach,

which sets limitations to their function as change agents for the multilingual perspective, this perception is not fixed and stable. It can develop into a perception of migrant-induced multilingualism as a capital. This change, however, requires a change in societal feedback, as was reconstructed in language-biographical turning points in which the interviewees experienced positive changes in societal attitudes towards migrant-induced multilingualism.

However, this perception is not reflected in their everyday teaching practice – in the strategies of action. Asked about the use of languages in everyday school life, immigrant teachers reveal a monolingual approach in class, including separate use of two languages:

Elana (1992, 41 years old): I teach literature in Hebrew. In Russian we speak Russian, but otherwise, of course, in Hebrew., No language develops well, whether Russian nor nothing if you mix them all the time. It is called semi-lingualism and this is dangerous.

Shaul (2000, 21 years old): I should, I am convinced that I should do it in Hebrew. It will be hard for them to learn Hebrew because of softies like me.

Shaul admits to switching to languages other than Hebrew when explaining new material. But at the same time, he doubts the legitimacy and the effectiveness of this teaching practice. Also other teachers who show valorization of multilingualism on the individual and societal level reveal insecurity when speaking about actual language use in everyday teaching. These findings suggest that additional research and discussion is necessary on the need for the inclusion of multilingual practices in professional teacher training.

4. Conclusion

While this study relates to a specific historical and national context, the findings are yet crucial in the light of current migration patterns and contribute to a reflected understanding of linguistic diversity management which supports a paradigm shift in the educational approach towards multilingualism. Immigrant teachers can constitute a considerable resource in this transformation process, giving an example of and advocating for multilingualism. However, the perception of language as capital strongly depends on their own experience with migrant-induced multilingualism. The immigrant background does not per se result in multilingual competences and existing multilingual competences do not automatically lead to a perception of multilingualism as an asset. As reconstructed in immigrant teachers' biographies, this development is subject to socio-political contexts and the prevailing language ideology in society as it is reflected on the linguistic market of school. When multilingualism is included as an asset for learning processes and an academic career, teachers reproduce this belief in their daily professional practice. For teachers who had immigrated as adults, the development of language beliefs strongly depends on how immigrant languages are assigned in the labor and education market. Opportunity for professional integration, based on acceptance of pedagogical and linguistic skills, allows for an emergence of perception of multilingualism as capital. Similarly, in teachers who have been socialized in the school system as children and in their youth, the societal management

of multilingualism also shapes their current language beliefs. Teachers who have experienced multilingualism as legitimate in everyday interaction and as actual capital for the academic or professional career, consider migrant-induced multilingualism a significant asset for their students and for society as a whole. In a setting where only the state language is accepted, participants develop language beliefs that reproduce multilingualism as a deviation from the norm and consider languages other than Hebrew irrelevant or even hindering.

These beliefs, however, are not stable and fixed concepts but rather fluent and open to transformation, as findings on biographical turning points illustrate. These findings open a further question for pedagogical research and teacher education training: How can these turning points, which offer a rich array of reflexive moments, be examined and made relevant for all participants in teacher training programs? Finally, the study results underline the importance of professional training and valorization of immigrant teachers to open a further question on the importance of methodological professionalization in multilingual teaching practices.

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CLIL's Role in Facilitating Intercultural Learning

Piotr ROMANOWSKI

University of Warsaw

E-mail: p.romanowski@uw.edu.pl

Abstract: Alongside the globalisation phenomenon, many European countries have already situated their educational practice in existing multilingual contexts. The multilingualism policies of the European Union provided an ideal backdrop to the development of integrative approaches such as Content and Language Integrated Learning (CLIL) and, as a result, the term CLIL was coined in 1996 through sustained interest and pedagogical activity in the field of bilingual education across Europe. CLIL environments can also facilitate the promotion of intercultural communicative competence as described in the Common European Framework of Reference for Languages. In addition, as culture seems to be one of the five dimensions of CLIL provision, it is essential to discuss and consider the incorporation of an intercultural perspective in CLIL. The integrative nature of CLIL gives an opportunity for a simultaneous combination of foreign language learning, content subject learning and intercultural learning.

Keywords: CLIL, bilingual education, intercultural learning, intercultural competence

1. Defining CLIL

The teaching of certain content subjects in a foreign, regional or minority language has existed in European schools for a very long time. Initially, back in the 1950s and 1960s this type of provision was mainly available in regions linguistically distinctive, i.e. close to national borders or where two languages are used. It thus involved very limited groups of students living in somewhat unusual linguistic or social contexts. Obviously, one might assume that the main objective was to turn them into bilingual speakers who could acquire proficiency in languages comparable to that of native speakers (K. Papaja 2014). In the following decades the development of this provision has been influenced in particular by the Canadian experiment with immersion teaching. It originated as a result of efforts made by the English-speaking parents from the province of Quebec who considered that proficiency in French to be crucial in a French-speaking context. They hence sought to offer their children education in this language that would lead them to acquire significant linguistic skills. Programmes for immersion teaching have been enormously successful in Canada (Y. Ruiz de Zarobe/ R.M. Jiménez Catalán 2009, D. Marsh/ G. Langé 2000). While it became instantly obvious that the Canadian experience was not directly transferable, it was nevertheless valuable in encouraging experimental activity in this matter in Europe as well (D. Wolff 2002). Immersion teaching may take a form of 'early' or 'late' provision depending on the age of the learners for whom it is intended. It may additionally be

considered ‘total’ if the entire curriculum is offered in the target language, or ‘partial’ if the language of instruction is used for the teaching of just selected subjects. These different approaches are a reflection of the rich variety of linguistic and educational environments, as well as the varied ambitions and aims of pupils or their parents and the education authorities (K. Papaja 2014).

CLIL (Content and Language Integrated Learning) as such started to become the most widely used term for this kind of provision during the 1990s. It is the platform for an innovative methodological approach of far broader scope than language teaching. Accordingly the CLIL methodological approach is intended for the teaching of content subjects through the medium of a foreign language. It seeks to foster the integrated learning of languages and other areas of curricular content (D. Wolff 2002, P. Mehisto/ D. Marsh /M. J. Frigols 2008). The main premise is that a foreign language is best learnt by centring on the transmitted content taken from school subjects, e.g. Mathematics, Geography, Biology, Physics, Chemistry, etc. As such, it can be stated that CLIL referred to the promotion of innovative methods and, in particular, to the teaching of classes in a foreign language for disciplines other than languages, providing bilingual teaching. Following the same line of reasoning, it should be openly declared that CLIL has been very explicit about delineating that Learning involves the Integration of both Content and Language, i.e. learning of any content must involve the learning of the language associated with it. At the level of schooling, successful education in either a first or additional language requires from the learners to be equipped with the language for thinking about the content. When learning through CLIL, where an additional language is used, language-supportive resources, methods and activities are actively and coherently used to enable learners the use of language purposefully. This support acts as a form of scaffolding helping learners to effectively process information, negotiate understanding, and co-construct knowledge (P. Mehisto/ D. Marsh/ M.J. Frigols 2008). Therefore, the underlying principle of CLIL refers to the belief that learners should be more effectively prepared for the multilingual and cultural requirements of diversified culturally, ethnically and linguistically Europe. It is probably interesting to note that CLIL is being realised in more than 20 European countries (D. Marsh/ D. Wolff 2007, C. Dalton-Puffer 2011).

Considering the fact that English has become, on one hand, the language of science and academic research and, on the other hand, an obligatory subject in all schools, the most logical decision would be to combine the two achievements so that a learner could take advantage of them simultaneously. This is the core of CLIL also labeled as a dual-focused educational approach in which an additional language is used for the learning and teaching of content and language with the objective of promoting both content and language mastery to pre-defined levels (D. Marsh et al. 2010). It is essential to highlight that the additional language is not supposed to be the only medium of instruction and thus, it should be used interchangeably with the mother tongue. Its frequency of use will largely depend on its level of advancement among teachers and students as well as the complexity of discussed issues. That is why integrating language and non-language content has been referred to as the hallmark of all forms of bilingual education (J. Cenoz/ F. Genesee 1998).

For M. Byram (2010), the only way to go beyond the constraints faced by teachers and learners alike in achieving the intercultural dimension of language teaching and learning is to seek to realise them through CLIL curriculum models.

Although some similarities can be drawn between CLIL and other content-language theories and practices such as CBT or immersion programmes, Coyle argues that its discriminating factor is the planned pedagogic integration of contextualized content, cognition, communication and culture into teaching and learning practice (D. Coyle et al. 2010).

CLIL describes the teaching and learning of content subjects through the medium of an additional language. This model is based on the symbiosis between communication, content, cognition and culture, within specific contexts (D. Coyle et al. 2010) – although it is important to establish that in a CLIL approach, both the language and content have equal importance and, while the focus on one or the other will shift to meet the particular knowledge, skills and understanding being taught and learnt, the two aspects remain interdependent and have parity (D. Marsh/ G. Langé 1999).

The content matter in a CLIL paradigm does not have to equate to predefined curriculum subjects. What matters is that both language and content are developed for a purpose which is authentic and relevant to the particular context in which it is implemented. However, humanities are often perceived as the best content subject areas for CLIL implementation, and citizenship education is often presented as an ideal vehicle for content-language integrated models of curriculum, through the way in which they already offer opportunities for reflection on otherness and differing perspectives (M. Byram 2010, D. Wolff 2002). At the same time technological and scientific subject content should not be disregarded, as these will often provide less ambiguous concepts as well as a strong potential for instrumental motivation.

Last but not least, CLIL is a paradigm in language education advocated by some researchers as a holistic approach which engages students intellectually and cognitively in both language and content and which may, therefore, have an impact on mental activities. It is claimed to promote cultural literacy and fluency in the target language while students apply prior knowledge and use cognitive skills. The use of real-world topics respecting foreign viewpoints reinforces the potential for combining language and intercultural learning. The importance of this approach lies in the fact that learning contents in another language can affect our conceptual mapping, modify the way we think, and, in addition, broaden our thinking horizon (D. Marsh 2012). CLIL is an integrated dual-focused approach to FL teaching that could easily include the cultural dimension in order to provide a more comprehensive and pluralistic view of foreign cultures. L. Blanton (1992) contends that only content-oriented curricula can help college students develop “the deep literacy on which their academic success depends”. In the same vein, D. Wolff (2007) sustains that the educational objective of intercultural competence may be best implemented within CLIL approaches. It could be argued that the potential of CLIL contexts for enhancing intercultural competence seems to be high since this framework allows teachers to deal with topics linked to the construction of people's cultural identity. Hence, the integrative nature of CLIL

classes provides an opportunity for taking not only a dual-focused but a triple-focused approach: simultaneously combining foreign language learning, content subject and intercultural learning.

From an intercultural perspective, the topics selected for CLIL programs might allow students to explore and to ponder on cultural topics self-reflexively. The topics organizing the syllabus in CLIL contexts seem to be ideal for introducing and exploring cultural issues connected to the themes. Moreover, as one of the aims of this pedagogical approach is to develop students' critical thinking, it could promote an awareness of worldwide problems and consequently contribute to intercultural competence.

2. Defining intercultural communicative competence and its components

Intercultural communicative competence has been the focus of a number of studies since the 1960s when the term was introduced by researchers interested in overseas technical assistants and by Peace Corps volunteers (G.H. Gardner 1962, B.F. Hoselitz 1954). It has become of interest for studies with such diverse conceptual themes as immigrant acculturation, culture shock, cross-cultural training, social change, international management, and foreign student advising. Hence, it has been referred to by means of alternative names such as cross-cultural adjustment, intercultural adaptation, intercultural understanding, overseas success, personal growth/adjustment, cross-cultural effectiveness, and satisfaction with overseas experience. In the last two decades, however, there has been a growing consensus on how to define it. Finally, it has been agreed that intercultural communicative competence involves knowledge, motivation, and skills to interact effectively and appropriately with members of different cultures (G.H. Gardner 1962).

Consequently, intercultural communicative competence entails the use of language that is proper in a given cultural context, and of actions that meet the expectations and demands of intercultural communicators who act in a culture-specific situation. As a result, effective intercultural interactants must recognize constraints imposed on their behaviour by different sets of rules (L. Lee 1979), avoid violating them with improper (e.g. impolite, abrasive, or bizarre) behaviours (H. Getter/ J.K. Nowinski 1981), and enact communication behaviours in a proper (e.g., clear, truthful, considerate, responsive) manner (R.R. Allen/ B.S. Wood 1978). Effectiveness and appropriateness combine to influence the quality of the interaction. They are also used as the two criteria evaluating a communication success.

Following the findings of such prominent researchers as M.R. Hammer, W.B. Gudykunst, and R.L. Wiseman (1978), M.J. Bennett (1993), S. Ting-Toomey's (1994), G.-M. Chen and W.J. Starosta (2000), B. Spitzberg (2000), W. Fritz, A. Moellenberg, and G.-M. Chen (2003), two basic assumptions have been made with regards to the dimensions of intercultural communicative competence. Firstly, the role of extra-linguistic determinants of intercultural communicative competence tends to be even more important than of the verbal language in a communication success of intercultural communicators. Secondly, intercultural sensitivity has been assigned the role of its essential non-verbal component and skill determining a proper development

of other communication skills. M.J. Bennett (1993) considers intercultural sensitivity as the main variable accounting for a communication success of intercultural communicators. He understands it as the ability to be aware of other cultures and to accept the differences resulting from them. Based on his observations that if individuals are taught how to confront cultural differences by becoming more sophisticated and sensitive to them, they may predict at least some of them and diminish their misunderstandings and failures.

Also, for G.-M. Chen and W.J. Starosta (2000) intercultural sensitivity is a basic dimension of intercultural communicative competence. It is an ability to understand similarities and differences of other cultures, which embraces a person's emotional desire to acknowledge, appreciate, and accept cultural differences, his/her multiple perspectives on an event or behaviour, his/her recognition of his/her own cultural values and those of others as well as his/her empathy and ability to adjust to different ways of communicating.

In a more recent approach to intercultural sensitivity W. Fritz and A. Moellenberg, G.-M. Chen (2003) have concurrently isolated intercultural awareness and intercultural adroitness as equal and additional constituents of intercultural communicative competence. Intercultural communicative competence is an umbrella concept that consists of a person's cognitive, affective, and behavioural abilities in the process of intercultural communication. Intercultural awareness is the cognitive dimension of intercultural communicative competence, intercultural adroitness acts as a behavioural aspect and ultimately, intercultural sensitivity performs the role of affective aspect of intercultural communicative competence.

For the purpose of the present work and its research findings, special attention should be paid to the aforementioned intercultural sensitivity, which has been largely discussed in The Developmental Model of Intercultural Sensitivity (DMIS), created by M.J. Bennett (1993). It constitutes a framework explaining the experience of people who were observed in intercultural workshops, classes, exchanges, and graduate programs. Based on the conducted observations M.J. Bennett (1993) assigned intercultural sensitivity the crucial role in determining an intercultural speaker's level of intercultural communicative competence. During his studies it appeared that learners confronted cultural difference in some predictable ways as they acquired more intercultural competence. Employing concepts from cognitive psychology and constructivism, he organized these observations into six stages of increasing sensitivity to cultural difference. The underlying assumption of the model is that as one's experience of cultural difference becomes more sophisticated, their competence in intercultural relations potentially increases. Bennett assumed that each stage was indicative of a particular worldview structure, and that certain kinds of cognitive processing, attitudes, and behaviours would typically be associated with each such configuration of worldview.

The first three DMIS stages are ethnocentric, meaning that a person's own culture is experienced as central to reality to some extent. In Denial, one's own culture is experienced as the only real one, and consideration of other cultures is avoided by maintaining psychological and/or physical isolation from differences. In Defense,

one's own culture (or an adopted culture) is experienced as the only good one, and cultural difference is denigrated. In Minimization, elements of one's own cultural worldview are experienced as universal, so that despite acceptable surface differences with other cultures, deep down those cultures are seen as essentially similar to one's own.

The second three DMIS stages are ethnorelative, meaning that our own culture is experienced in the context of other cultures. In Acceptance, other cultures are experienced as equally complex but different constructions of reality. In Adaptation, one attains the ability to shift perspective in and out of another cultural worldview; thus, their experience potentially includes the different cultural experience of someone from another culture. In Integration, a person's experience of self is expanded to include the movement in and out of different cultural worldviews.

In general, it must be emphasized that the ethnocentric stages can be seen as ways of avoiding cultural difference, either by denying its existence, by raising defenses against it, or by minimizing its importance. The ethnorelative stages are ways of seeking cultural difference, either by accepting its importance, by adapting a speaker's perspective to take it into account, or by integrating the whole concept into a definition of one's identity.

B. Spitzberg and W. Cupach (1984) isolated three such factors contributing to a speaker's becoming consciously and consistently competent in intercultural interactions: knowledge, motivation, and skills. The likelihood to act as a competent intercultural communicator significantly diminishes when any of them is either absent or poorly performed. Knowledge refers to the speaker's awareness or understanding of requisite information and actions at the criss-cross of cultures. A knowledgeable communicator possesses information about the people, the communication rules, the context, and the normative expectations governing the interaction with the interlocutors from another culture. Without it, s/he will invariably make misattributions, choose incorrect communication strategies, violate rules of etiquette, or cause the loss of face for self or other. Furthermore, s/he may not be able to correctly ascribe the reasons for communication erroneous behaviours and remedy them. To obtain the needed knowledge, speakers need to be not only sensitive to their interlocutors' feedback but also cognitively flexible to accommodate that feedback (C.R. Berger 1979, W.B. Gudykunst 1992). Thus, the knowledge component of intercultural communicative competence entails both the body of information necessary to interact appropriately and effectively as well as the cognitive schemata or orientations to facilitate the acquisition of such information. In terms of the necessary information, researchers have found a positive correlation between intercultural communicative competence and awareness of the other culture (R.L. Wiseman/ M. Hammer/ N. Nishida 1989) and self-awareness (W.B. Gudykunst/ S.M. Yang/ N. Nishida 1987). They increase the intercultural communicator's understanding of others and of self, which, in turn, facilitates his/her making accurate predictions and attributions. Favourable cognitive orientations have been found in terms of open-mindedness (P.S. Adler 1975), non-judgmentalness (B.D. Ruben 1976), self-monitoring ability (M. Snyder 1987), problem-solving ability (R.W. Brislin 1981)

and cognitive complexity (R.L. Wiseman/ H. Abe 1985). All of them facilitate perspective-taking and adaptation to new information.

Skills refer to the actual performance or the communicative behaviours felt to be effective and appropriate in the communication context. For B. Spitzberg (2000), skills must be repeatable and goal-oriented. If a communicator accidentally produces a behaviour that is perceived as competent, this would not be adequate, since s/he may not be able to replicate the same behaviour with the same effect. S/he needs to be able to perform the script fluently and with cause (i.e. an appropriate rationale for its performance).

The final skill component of intercultural communicative competence reflects the behaviours necessary to interact appropriately and effectively with members of different cultures. Researchers have discovered several behaviours that are positively correlated with intercultural communicative competence. They are: mindfulness (W.B. Gudykunst 1992), intercultural adroitness (G.-M. Chen/ W.J. Starosta 2000), interaction involvement (D.J. Cegala 1984), recognition of nonverbal messages (J.W. Anderson 1994), appropriate self-disclosure (H.Z. Li 1999), behavioural flexibility (A.P. Bochner/ C. Kelly 1974), interaction management (J.M. Wiemann 1977), identity maintenance (S. Ting-Toomey 1994), uncertainty reduction strategies (J.A. Sanders/ R.L. Wiseman 1993), appropriate display of respect (B.D. Ruben 1976), immediacy skills (P.G. Benson 1978), ability to establish interpersonal relationships (M.R. Hammer 1987), and expressing clarity and face support (M.S. Kim 1993). They allow for adaptive, flexible, and supportive communication.

3. Defining intercultural learning

D. Marsh et al. (2001) deem culture to be one of the five dimensions of CLIL. B. Rozas (2009) also underscores culture as one of the dimensions of CLIL, consisting of 'building intercultural knowledge and understanding, developing intercultural communication skills, learning about specific neighbouring countries/regions and/or minority groups, and introducing the wider cultural context'. Following M. Byram, B. Gribkova, and H. Starkey (2002), Intercultural Communicative Competence (ICC) can be defined as a whole made up of: (a) knowledge about other peoples and cultures and about the processes underlying human interaction, including how we perceive the interlocutor, the representation social groups have of other communities and how this affects the communication process; (b) attitudes such as respect, tolerance and empathy; (c) the intercultural skill of interpreting and making connections, interpreting a cultural event or fact in the light of the target culture's meanings attached to it and relating it to an event or fact from one's own culture with a comparable degree of significance; (d) the skill of discovery and interaction, the discovery of alien cultural elements and meanings and their operationalisation under the constraints of real-time communication; and (e) critical cultural awareness, the reflection on one's own and the other cultural practices and beliefs from an informed and critical perspective and the understanding that neither of these cultures is superior to the other. In addition, further elements can be added to these in a wider ICC framework: (1) the understanding of the relevance of identity (M. Byram/ G. Zarate

1995); (2) the skill to solve intercultural conflicts and problems which result from differences (M. Meyer 1991) and the skills of negotiation, mediation and diplomacy (J. Corbett 2003); (3) the capacity to shift the frame of reference, cultural versatility and flexibility (M. Meyer 1991); (4) action-taking (M. Byram et al. 2009), the possibility of reacting and taking action in intercultural contact situations; and (5) bridging the gap and the culture of third places (C. Kramsch 1993), the creation of a new cultural place which is neither one's own nor the foreign culture(s) but a place where they meet. The first step towards the incorporation of an intercultural perspective in CLIL, perhaps even prior to the encounter with otherness, is self-knowledge in order to build the links for intercultural understanding. In this sense, CLIL helps to explore learners' 'dominant symbol systems'.

Intercultural education is defined as 'learning to react in non-ego/ethno/sociocentric ways to certain aspects of societies different from one's own, or to "unknown" cultures' (J.P. Beacco et al. 2010). For them, the increasing diversity in classrooms around the world is acknowledged as both a challenge and an opportunity for intercultural teaching, and also as an imperative for more to be achieved in terms of policy development and implementation. The integration of intercultural education in the curriculum is dependent on the context in which it is to be applied. In order to achieve this integration, 'existing curricula may have to be modified substantially - but without abandoning the aims of the previous curriculum'.

According to J.P. Beacco et al. (2010), Intercultural Competence 'makes it easier to understand otherness, to make cognitive and affective connections between past and new experiences of otherness, mediate between members of two (or more) social groups and their cultures, and question the assumptions of one's own cultural group and environment'. The wider role of educational institutions in providing opportunities for learners to develop intercultural knowledge, skills and attitudes is therefore central. Indeed, a focus on intercultural understanding is possible at all levels of the curriculum, but should not be the sole remit of language teachers. As the teaching and learning of intercultural issues has now become a necessity, even if only for instrumental purposes, the teaching of critical intercultural skills is not only a desired outcome that educational institutions should strive for in their learners, it is a duty they have to fulfil if indeed the role of teachers is to develop global citizens (L. Aktor/ K. Risager 2001).

M. Hennebry (2014) also argues that cultural knowledge has taken a lesser role in ICC approaches, yet it should play a greater role if that knowledge is necessary in order to develop and acquire a higher level of intercultural communicative competence, namely the ability to reflect critically on one's own culture as well as the culture of others. This need for criticality is also acknowledged by M. Byram (1997). Integrating the two approaches, M. Hennebry (2014) argues, could lead to a more effective model than either of the approaches taken separately.

The seminal model for intercultural communicative competence proposed by M. Byram (1997) established a set of required knowledge, skills and attitudes: *savoirs*, *savoir-faire*, and *savoir-etre*. Many interpretations of this model have followed; for instance, D. Lussier (2007) used the knowledge / know-how / being terms.

A.E. Fantini (2000) further added awareness and language proficiency to define the concept of the intercultural speaker, and provided a wide range of attitudinal attributes learners should acquire or possess in order to achieve intercultural communication competence: in particular, empathy as a conscious and active willingness and ability to change one's viewpoint. It can be argued that this particular attitudinal attribute is a key one, therefore, that teachers should aim to facilitate it in order to achieve intercultural communicative competence for their learners. It must be noted however that Intercultural Competence is a process rather than an acquired attribute (M. Byram/ B. Gribkova/ H. Starkey 2002).

In developing students' intercultural awareness and understanding, their understanding of own culture is essential in evaluating similarities and differences, which is at the heart of teaching and learning of culture. There is also evidence that learners can benefit from reflecting on their own culture and on taking an alternative stance when doing so, before investigating a particular aspect of another culture. The concept of 'intercultural speaker' involves both the competences of interaction and of mediation between one's own perceptions and those of others (M. Byram 2010). It is the ability to constantly shift between one's own culture and another, and in doing so of being able to have different perspectives, which represents intercultural competence. Many contend that a content-based approach to language learning offers the learners opportunities to evaluate similarities and differences with their own language and culture, thus developing intercultural awareness and competence (D. Coyle et al. 2010). H. Starkey (2007) however warns of the dangers of presenting the other culture as overly and stereotypically different to learners' own. Whilst intercultural competence can sometimes be viewed as overly simplistic in their representation of otherness, and in particular in the way in which other cultures can be narrowly represented in existing materials such as textbooks, it can be argued that teaching towards intercultural competence goals is a more 'holistic' approach to language learning than communicative models. As long as the critical approach to cultural awareness is applied, it could also be argued that simplification and selectiveness are a necessary part of teaching, in order to ensure accessibility to learners (C. Brumfit 2001).

4. Defining the relationship between CLIL and intercultural learning

It is argued that CLIL models can foster the improvement of learners' linguistic competence. In order to achieve successful content and learning integration, general education theories - steeped in the influence of socio-cultural constructivist theorists of Piaget and Vygotsky - must be considered along theories in Second Language Acquisition (D. Coyle et al. 2010). Indeed, although most of the research is based on the benefits of CLIL models resulting from the field of SLA, some of the key benefits include increased exposure to the target language, and the opportunity for learners to develop linguistic skills in a more naturalistic environment, as reported from a range of empirical studies (C. Dalton-Puffer 2011, C. Dalton-Puffer/ T. Nikula 2006, C. Dalton-Puffer/ U. Smit 2007).

However, it is also important to note that there is to date still insufficient evidence that CLIL approaches provide learners with improved performance in aspects of target language learning. In particular, T. Mughan (1998) argues that the development of intercultural skills is dependent on the level of linguistic proficiency of the learners, and contends that not only may a higher level of linguistic competence be necessary for learners to access certain aspects of the target culture, but also that the integration of culture with language learning may slow down the linguistic development processes. However, many also contend that there is no need for learners to have acquired advanced levels of linguistic competence in order to be able to access intercultural learning (S. Duffy/ J. Mayes 2001).

Regardless of the choice of stance taken when considering the potential benefits of CLIL models on learners' linguistic competence, it is important to situate a chosen CLIL model within a cognitive and knowledge framework, and to acknowledge that learners' linguistic competence is likely to be less developed than their cognitive skills (D. Coyle et al. 2010).

Language acquisition involves the development of cognitive processes. In addition, the level of cognitive challenge is essential for successful learning (C. Dalton-Puffer 2011; C. Dalton-Puffer/ U. Smit 2007). One of the key benefits of CLIL approaches is to provide learners with opportunities to develop their cognitive competence through processes of conceptualisation (D. Marsh/ G. Langé 2000). However, whilst there is a need to provide learners with sufficient cognitive challenge, and while CLIL models will often provide this for learners at an age-appropriate level, linguistic progression needs to be scaffolded to avoid demotivation.

In the same way as it is important to challenge learners, it is also essential to ensure that the learning environment is one which promotes the early use of language learnt, regardless of proficiency or accuracy levels, as successful communication is not necessarily reliant on either of these traditionally accepted standards of 'successful' language learning.

For A.T.S. Campos (2009), CLIL methodology may prove more successful in developing students' cultural understanding than snippets of explicit cultural teaching. Although the role of all curriculum subjects is acknowledged as contributing to the development of learners' own culture, CLIL classes offer the 'added dimension' of interculturality by offering differing perspective on a wide range of topics. In addition to this, CLIL models also offer learners the opportunity to address a wide range of diverse cultures. Developing a learner's intercultural competence by giving them the required tools to approach a wide range of other cultures successfully and confidently goes beyond their knowledge, understanding and skills in dealing with a set, single target culture. For K. Arens (2010), the scope of intercultural learning can describe such competencies in the plural, as 'a set of interlocking cultural literacies' which must serve to move the purpose of the curriculum beyond the linguistic and towards the cultural.

However, I.A. El-Hussari (2007) also suggests that the complex make-up of a wide range of potentially differing sets of beliefs within the four walls of a classroom poses a challenge when attempting to develop intercultural understanding. This view

that language classrooms can offer a poor environment for cultural immersion experiences is widespread, and in order to make intercultural learning possible in the language classroom, we must reflect on learners' experiences and the depth of their engagement with language and culture.

The prerequisites for intercultural learning seem fulfilled in CLIL contexts and, thus, a number of researchers suggest that the potential for intercultural learning processes in CLIL is particularly high (S. Breidbach 2007). The ascribed intercultural potential of CLIL can be seen in connection with its engagement with topics that contribute to the formation of the cultural identity of people. It may well be argued that all school subjects – regardless of their CLIL or non-CLIL nature – serve as building blocks in the learners' process of growing into a culture, i.e. enculturation process. In CLIL classes, however, an added dimension can be introduced: the intercultural one. In addition to approaching a culturally loaded topic from one's own cultural perspective, a foreign perspective can easily be accessed and (re)constructed.

It is the foreign language which may serve as an initial stepping stone to open a learner's eyes to a foreign perspective. In CLIL contexts, it is not only the linguistic level that enables the initiation of intercultural learning processes. In trying to create a rich CLIL learning environment, it seems almost logical to resort to authentic materials in the target language which are taken from respective foreign cultural contexts. In addition, the digital world offers ample opportunities to access such authentic materials for CLIL-subject purposes. Foreign textbooks, i.e. "target culture" textbooks, may serve as additional points of reference. Additionally, using a foreign language should trigger and support the efforts to draw on foreign cultural examples to work on content subject matter.

Authentic materials, foreign textbooks and foreign cultural examples can all be utilised in an intercultural learning process: they can be used to develop an understanding and reconstruction of a foreign perspective on a particular topic. To make this an intercultural endeavour, however, it is necessary to accompany these foreign cultural insights with an awareness of one's own cultural perspective. In turn, these perspectives are brought together in a process that does not lead to a decision for or against either of them but rather to an integration of both. As such, it becomes possible to shift and mediate between the different perspectives (L. Skopinskaja 2003). She claims that in acquiring knowledge about and reflecting on the target language culture, students need to be encouraged not simply to observe similarities and differences between the two cultures, but they should also analyse them from the viewpoint of the others and try to establish a relationship between their own and other systems (M. Byram 1997). This "perspective consciousness", or the ability to "decentre", or establishing "a sphere of interculturality", is the precondition for successful intercultural communication as well as understanding other cultures. Relativising cultural perspectives and the ability to shift between them can be seen as a key element in intercultural learning and development of intercultural competence (M.J. Bennett 1993).

The high intercultural potential of CLIL classes is strongly connected with the learning environment that is created in practice. CLIL teaching may open doors to a

student-centered, function-focused, task-oriented, authentic and constructivist classroom. It may even serve as a means of promoting learner autonomy.

5. Conclusion

It is paramount to emphasise that the relationship between CLIL, plurilingualism, foreign language learning and ICC in this context does not aim at acculturation. ICC endeavours to endow individuals with the knowledge, attitudes and skills required to meet and enjoy otherness in all its manifestations, not just restricting learners' scope to a specific target community of a particular language.

Important factors in the concept of intercultural competence are the assumptions that learning a foreign language creates greater awareness of the mother tongue and its influence on thinking, widens learners' worldview and favours some type of cognitive change. As a result, attitudes of respect for personal and cultural identities are likely to emerge, showing the potential of CLIL and language learning for fighting against racism and xenophobia. ICC should then be intrinsic to CLIL as it has the potential to add value to the regular curriculum through intercultural teaching which includes self and otherness and curricular linking for interactivity and reflectivity.

In sum, CLIL is said to pave the way for fundamental aspects such as intercultural knowledge, understanding and attitudes. However, further key factors such as intercultural skills, critical cultural awareness and action-taking are not so clearly apparent. Intercultural competence equips individuals to manage their relationships with others but, in spite of being closely linked to plurilingualism, ICC does not automatically develop out of language teaching. Mere exposure to otherness may not yield this unbiased and non-ethnocentric perspective without explicit intercultural teaching and methodology.

Fostering intercultural communicative competence is one of the challenges facing education in the globalised world of the 21st century. The integrative nature of CLIL classes provides an opportunity for taking not only a dual-focused but a triple-focused approach: simultaneously combining foreign language learning, content subject learning and intercultural learning. CLIL environments can be designed to promote intercultural communicative competence as described in the Common European Framework of Reference for Languages.

To enable and facilitate intercultural learning processes various measures can be taken. First, CLIL curriculum designers, authors of CLIL textbooks and materials, CLIL teacher trainers, and CLIL teachers and learners, as the architects of rich CLIL environments, would need to develop an increased awareness of the intercultural potential within CLIL contexts. Secondly, learning materials can be analysed from an intercultural viewpoint by extracting similarities, differences and the author's perspective. As well, the use of modern, student-centred paradigms of teaching methodologies that foster task and project work, authenticity, and real world orientation can provide ample opportunities for intercultural learning in CLIL contexts.

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The Order of Emergence of the Morphological Markers of Temporal Expression in the Croatian EFL Learners' Longitudinal Speech Production Data

Mirjana SEMREN

University of Split

E-mail: mdukic@ffst.hr

Abstract: This study addresses the acquisition of the morphological markers of temporal expression in the interlanguage of Croatian primary school learners of English as a foreign language (EFL). The acquisition of morphological markers was documented regarding the order of emergence of nine grammatical morphemes. The emergence of these morphemes was examined following the *obligatory occasion analysis* (R. Brown 1973) which identified the obligatory contexts for each morpheme and the number of their correct suppliance. The order of emergence was obtained by the *group score method* (H.C. Dulay/ M.K. Burt 1974) according to which the morphemes were ranked in decreasing order of accuracy. Additionally, the study documented the order of emergence of four verb tenses. The data collection period comprised three generations of Grade 8 learners thus yielding a total of 56 transcribed recordings. The learners' language samples were gathered via task-based activities. Although the findings displayed discrepancies in the ranking orders obtained for different generations of Grade 8 learners, the Spearman rank order correlations suggest that there seems to be a homogeneous order of emergence across three generations of the eighth graders. The results revealed not only that *Present Continuous* emerged after *Simple Present* but also showed that *Present Perfect* emerged after *Simple Past*.

Keywords: morphological markers, order of emergence, grammatical morphemes, verb tenses, obligatory occasion analysis

1. Introduction

The expression of temporality has proven to be an interesting area of study in the field of second language acquisition (SLA) not only because it is a fundamental category of human experience and cognition" (W. Klein et al. 1988: 73) but also because all human languages possess a rich variety of linguistic devices to convey it. The research in second language temporal expression originated from the morpheme-order studies in the 1970s which laid the foundation for further studies of the acquisition of tense-aspect morphology and its related temporal semantics. These studies were associated with two different linguistic traditions: the European and the North American tradition. Since the two traditions overlap as they both investigate the morphological means of temporal expression, the present study hopes to provide additional findings related to the emergent use not only of the morphological markers but also of the verb tenses in the developing interlanguages of the Croatian EFL learners. The first part of this paper provides a theoretical background for the study and is accompanied by an

overview of the previous research whereas the obtained results are revealed in the final part of the paper.

2. Theoretical background

The history of research in the emergent tense-aspect system can be traced back to the studies known as the *morpheme order studies* in the 1970s. The starting point for the order of morpheme acquisition studies was a longitudinal study by W. Brown (1973) who inquired about the order of acquisition of 14 morphemes in the speech production of three American preschool children learning English as their first language (L1). His groundbreaking contribution in the field of L1 research was the concept of suppliance in obligatory context (SOC) which identified obligatory context “as a kind of test item which the child passes by supplying the required morpheme or fails by supplying none or one that are not correct” (W. Brown 1973: 255). As claimed by W. Brown (1973: 272), if the child was able to supply a morpheme at the 90% accuracy level in three consecutive recordings, that morpheme was considered to be acquired which led him to conclude that the order of acquisition was “amazingly constant across three unacquainted American children”.

Partially replicating the research design introduced by W. Brown (1973), J. de Villiers and P. de Villiers (1973) undertook a cross-sectional study based on the spontaneous L1 speech data of 21 English speaking children. Namely, they refuted a 90% accuracy threshold imposed by W. Brown (1973) only to rank the morphemes according to the accuracy with which they were scored. The results of their study correlated significantly with W. Brown’s (1973) results according to which the present participle was the first temporal morpheme to appear, the past irregular preceded the past regular which, in turn, was followed by the third person singular *-s*. Moreover, the order of emergence of *Present Perfect* and *Past Perfect* in both studies was not ranked due to the lack in the suppliance of the morphemes constituting these tenses. The findings from Brown’s study (1973) supported by the findings of J. de Villiers and P. de Villiers’s study (1973) launched many future morpheme order studies from the perspective of second language (L2) acquisition.

A number of cross-sectional studies of L2 morpheme ordering revealed the same order for both children (H.C. Dulay/ M.K. Burt 1973) and adults (N. Bailey et al. 1974): *-ing*, irregular past, third person singular *-s*. Later studies of L2 acquisition which investigated the order of both the past irregular and the past regular displayed some variation in their rank order. In some studies, the past regular preceded the past irregular (H.C. Dulay/ M.K. Burt 1974, J. Barrot/ K. de Leon 2014) whereas in other studies, the past irregular was placed before the past regular (S. Krashen 1977). D. Larsen-Freeman (1975) found even greater variation in terms of past regular versus past irregular ordering across various elicitation tasks among different L1 backgrounds. Longitudinal studies of L2 morpheme ordering supported the irregular-before-regular order (K. Hakuta 1974, R. Dietrich et al. 1995). The overall results of these studies also pointed to other salient commonalities; the copula *be* preceded the auxiliary *be* (H.C. Dulay/ M.K. Burt 1973, N. Bailey et al. 1974, F. Behjat/ F. Sadighi

2011) and additionally, both morphemes were ranked at the top along with the present participle (P. Widiatmoko 2008, U. F. Ibáñez 2013).

In the late 1970s, morpheme order research which accumulated a fair amount of evidence supporting the notion of “remarkably regular order of accuracy for English grammatical morphemes” (R. Ellis/ G. Barkhuizen 2005: 74) became more intrigued by diverse determinants accounting for L2 acquisition order (e.g. the learner’s L1, the learner’s age, the influence of different elicitation instruments, the effect of instruction). The shift in focus from the acquisition of morphology as form towards the acquisition of L2 temporal semantics began in the 1980s with the seminal studies of both European and American researchers.

European researchers (the meaning-oriented approach) investigated interplay of several means of temporal expression including pragmatic, lexical and morphological devices whereas American researchers (the form-oriented approach) primarily focused on the emergence of verbal morphology (K. Bardovi-Harlig 1999). European researchers opposed to the dominance of American grammar-oriented second language acquisition research, embedded their morphological emergence studies within the European Science Foundation Project-ESFP (R. Dietrich et al.1995). Therefore, the study findings to be presented onwards exclusively address the acquisition of the morphological markings of temporality being the reference point of both traditions.

The ESF longitudinal studies investigated the acquisition of morphological form in the tense-aspect system of both Romance and Germanic languages. In a longitudinal study of L1 Italian girls acquiring English verbal morphology, W. Klein (1995) reported the following order of emergence: third person singular *-s*, present tense copula, past irregular, present participle, *Present Perfect*, past regular, *shall/will*, *Past Perfect*. Additional longitudinal studies of the acquisition of English tense-aspect morphology were conducted by K. Bardovi-Harlig (1997, 2000) who reported similar results according to which the first to emerge is *Simple Past* followed by *Past Progressive*, *Present Perfect* and, finally, *Past Perfect*. Moreover, the order outlined in N. Bailey’s (1987) cross-sectional study supported the previous findings that *Simple Past* precedes *Past Progressive*.

The ESF studies, along with other studies inquiring about the acquisition of tense-aspect morphological markers have identified four general properties regarding the emergence of verbal morphology (K. Bardovi-Harlig 2000). First, the acquisition of temporal expression is slow, gradual and continuous. Second, when a particular morpheme first appears it tends to be overused. Third, irregular morphology precedes regular morphology and fourth, verb with a verbal suffix seems to be acquired before the auxiliary verb in cases when the target form is comprised of an auxiliary and the verb with a verbal suffix.

The study of emergent systems of temporality has predominantly concentrated on the tense-aspect morphology referring to the past due to the fact that it occurs relatively early in interlanguage development and can be observed for majority of learners (K. Bardovi-Harlig 2000). However, the expression of futurity became the scope of a more recent study (K. Bardovi-Harlig 2004). Therefore, this study strives

to bring closer the acquisition of not only the morphological markers referring to the expression of the past but of those markers referring to the expression of the present within the framework of the current analysis which, as previously indicated, opens with the acquisition of grammatical morphemes. Hopefully, a more insightful view into the order of emergence of multiple temporal expressions, past versus present, in the speech production of Croatian EFL learners might be revealed.

3. Aims

The present study attempted to answer the following research questions:

1. RQ1 What is the frequency of obligatory and correct suppliance in the use of morphological markers in the speech production of three groups of Croatian Grade 8 primary school learners during three years of research? How is the suppliance in obligatory contexts distributed across three groups of learners?
2. RQ2 What is the order of the emergence of morphological markers for each group of Grade 8 learners? What are the differences/similarities in the obtained orders of the emergence of morphological markers across three groups of Grade 8 learners ?
3. RQ3 What is the order of the emergence of verb tenses in the interlanguage of Grade 8 learners?

4. Methodology

The following subsections summarize the methodology used to carry out the research.

4.1 Participants

A total number of 281 Grade 8 learners pertaining to three different generations, i.e. groups of Croatian EFL learners took part in this study over the course of three years of research. There were 86 learners participating in the first year (2008/2009), 116 learners in the second year (2009/2010) and 79 learners in the third year of research (2010/2011). All the participants had started their EFL study in the first grade since English is a compulsory school subject in Croatia. In accordance with the Creational national curriculum (Croatian Ministry of Science, Education and Sports 2011), Grade 8 learners completing primary school education are expected to reach CEFR A2 level (Council of Europe 2001).

Grade 8 learners were drawn from 5 primary schools. Two criteria for choosing the schools were applied. Firstly, the school in which the author was a former English language teacher, and secondly, those schools in which the author's fellow colleagues teach English as a foreign language. In both situations, not only the school headmaster and the learners but also the learners' parents were informed about the scope of the study and the data collection procedure. Finally, parental consent was provided orally during teacher-parent meetings.

4.2 Sample

During the observation period, 56 tape recorded samples of parts of EFL classroom dialogue were obtained (22 recordings in the first year, 21 recordings in the second

year and 13 in the last year of research). The duration of each recording was approximately 15 minutes.

A predetermined plan established a longitudinal study for collecting oral samples including three sampling periods in each school year, i.e. the beginning, the middle part and the ending of a school year. These samples, however, were widely spaced in each year of research owing to unforeseen situations (e.g. school closed due to weather, insufficient number of learners due to illness). Furthermore, 2 out of 7 recordings accumulated at the end of the third year of research were accidentally erased from the tape recorder whereas the remaining 5 recordings were excluded from the sample partially due to their low quality and partially due to a substitute teacher not willing to participate in this study. As a result, as previously mentioned, only 13 recordings were obtained during the third year of the research study.

The classroom recording data were gathered by the English language teachers with the author taking notes on the learners' verbal production during the recording sessions. In this manner, accurate recordings of everything that was said were attained. Upon each recording session, the oral data were transcribed and checked against the tape recordings. For the purpose of this research, the author had developed her own notation symbols according to the guidelines provided by the transcription literature (J.A. Edwards 2001).

4.3 Instrument

The recorded samples cover different types of task-based activities (e.g. problem-solving activities, discussions, role-plays, activities starting with the same type of question, guessing games, stories) most of which were tailored from the research literature (P. Ur 1992, M. Parrot 1993, J. Harmer 2007). Some of the communicative activities were designed by the author while a smaller portion of these activities were designed from suggestions found on the Internet.

The content of these activities was revealed prior to the beginning of each recording session. As a result, the learners' speech production was entirely up to them, thus representing their authentic and spontaneous language use. However, whenever the learners refused participating in a preplanned communicative activity, commonly due to lack of their interest, they were given the opportunity to choose a more appealing activity since participation in this study was voluntary.

4.4. Selection and coding

Nine morphological markers were selected in the transcribed samples of the learners' speech production data. The selected markers, frequently targeted in the morpheme acquisition literature, referred to the following morphemes: third person singular *-s*, auxiliary verb *be*, present participle *-ing*, past regular *-ed*, past irregular, auxiliary verb *have*, past participle *-en*, present tense copula *be* (*am, are, is*) and past tense copula *be* (*was, were*). The use of nine morphemes demonstrate the examples found in the transcripts:

- third person singular *-s*
It costs three thousand kunas.

- auxiliary verb *be*
She thinks that he *is* cheating her.
- present participle *-ing*
Get out of here! I'm *watching* TV.
- past regular *-ed*
You need to hear what *happened* in school.
- past irregular
He *went* to the casino and then he *spent* a lot of money.
- auxiliary verb *have*
Have you ever been to a mall or a shopping centre?
- past participle *-en*
Have you ever *taken* money from your parents's wallet?
- present tense copula *be (am, are, is)*
My first problem *is* about TV.
- past tense copula *be (was, were)*
They *were* together in the room.

In addition, these morphemes were joined together to form four tenses: *Simple Present*, *Present Continuous*, *Simple Past* and *Present Perfect*. *Simple Present* was identified by the use of the third person singular and the present tense copula *be* while *Present Continuous* by the use of the auxiliary verb *be* and the present participle. *Simple Past* was identified by the use of the past regular, the past irregular and the past tense copula *be*. Finally, *Present Perfect* was identified by the use of the auxiliary verb *have* and the past participle.

The selected morphemes were examined with regard to their suppliance in obligatory context (R. Brown 1973). Although the SOC measure identified three different occurrences of morphemes in obligatory occasions, the markers expressing temporality in this study were only distinguished with regard to their obligatory and correct suppliance. The idea of slightly modifying the research method arose from the suggestions initiated by other researchers, i.e. D. Larsen-Freeman (1975) and K. Bardovi-Harlig (2000) who challenged the validity of the previous morpheme order findings.

Obligatory suppliance (OS) was identified as the occurrence of morphological markers in a context which required the presence of a particular morpheme. Correct suppliance (CS) of certain marker was identified as its occurrence in both the correct form and context. Obligatory and correct suppliance was coded for each marker. Obligatory suppliance was coded by counting the number of obligatory occasions for an individual morpheme with the correct suppliance being coded by counting the number of correct occurrences for the same morpheme. In the example *I went to shopping yesterday and I buy er some great er...yellow trousers*, there were two obligatory contexts for the suppliance of the past irregular (*went*, *bought*). However, the occurrence of this marker was correctly supplied only once (*went*). Therefore, the occurrence of the past irregular was coded as two obligatory suppliances and one correct suppliance.

Both obligatory and correct supplings of the morphemes were coded for each learner in all the transcribed recordings across three years of research. A modified coding table originally developed by D. Larsen-Freeman (1975) was used in this study.

5. Data analysis

All the coded data were entered into Microsoft EXCEL spreadsheet tables for farther analyses. The statistical analyses were performed via SPSS programme package for Windows 17.0.

The analysis of the frequency of obligatory and correct supplings in the use of morphological markers (RQ1) was based on the total number of their obligatory and correct occurrences. The total number of obligatory suppliance was determined by summing all coded obligatory occasions for a particular morpheme; the total number of correct suppliance was determined likewise, namely by summing all coded correct instances for that morpheme. The analysis was conducted in all the transcripts across three groups of learners.

The order of emergence of morphological markers (first part of RQ2) was established according to their accuracy scores. For each morpheme an accuracy score was calculated by the *group score method* (H.C. Dulay/ M.K. Burt 1974). The rank ordering method applied in this study was the one introduced by J. de Villiers and P. de Villiers (1973) who simply ranked the morphemes on the basis of the obtained accuracy scores. The reason for applying a slightly diverse ranking order method was to enable the comparison of the obtained findings with the results of the previous morpheme order studies. Furthermore, the *group means method* (H.C. Dulay/ M.K. Burt 1974) was additionally applied when determining the order of the emergence of morphological markers so as to reduce the effect of variability.

The comparison of the emergence orders of morphological markers as a prerequisite for determining their differences/similarities (second part of RQ2) across three groups of learners was performed by Spearman rank order correlations. The comparison was conducted only on the orders of emergence obtained by the group score method since it was the primary method of data analysis. Moreover, the same type of correlation was applied to compare the emergence orders obtained by both methods so as to verify the stability and validity of the attained results.

Due to a relatively small sample, the order of the emergence of verb tenses (RQ3) was determined by gathering the data on both obligatory and correct supplings of the markers forming the tenses across three groups of Grade 8 learners into one sufficiently large sample size. Only the group score method was applied when establishing the emergent order of tenses.

6. Results

The results of the study findings are reported following the research questions.

6.1. Results on the suppliance and distribution of obligatory and correct occurrences in the use of morphological markers

Grade 8 learners	OS f (%)	CS f (%)	TOTAL
Group 1	2352 (58%)	1728 (42%)	4080 (100%)
Group 2	2461 (59%)	1686 (41%)	4147 (100%)
Group 3	829 (57%)	624 (43%)	1453 (100%)

Table 1. Frequency of obligatory and correct suppliances of morphological markers across three groups of Grade 8 learners (general data).

The findings from Table 1 do not point to major disparities in the frequency of obligatory and correct suppliances in the use of morphological markers across three groups of Grade 8 learners (first part of RQ1) despite roughly half the number of the obtained recordings in the third year of research when compared to the two previous years (see subsection 3.2). Namely, the obligatory suppliance of morphological markers for the first group differed by only 1% when compared to both the second and the third group. The second group, however, differed by 2% in comparison to the third group regarding the frequency of obligatory suppliance of the morphological markers. Furthermore, no greater differences in the correct suppliance of morphological markers were found across the three groups of learners. The third group of Grade 8 learners appears to have correctly supplied the markers most frequently (43%). These learners provided by 2% more correct suppliance in the use of morphological markers than the second group (41%) and by 1% more in regard to the first group (42%).

Since the results in Table 1 only partially account for the suppliance of morphological markers as they manifest general data, a more detailed insight into the frequency of their suppliance is gained by examining the distribution of obligatory and correct occurrences for each morpheme under study. The results on the distribution of obligatory and correct suppliances are revealed in Table 2 (second part of RQ1). However, these results will be examined only regarding the distribution of correct suppliance in the use of morphological markers due to several reasons which made the distribution of obligatory suppliance quite difficult to investigate. These detailed reasons will be discussed later.

Marker	Grade 8 learners					
	Group 1		Group 2		Group 3	
	OS f (%)	CS f (%)	OS f (%)	CS f (%)	OS f (%)	CS f (%)
-s	157 (7%)	110 (6%)	198 (8%)	113 (7%)	82 (10%)	42 (7%)

auxiliary verb <i>be</i>	24 (1%)	19 (1%)	60 (2%)	44 (3%)	20 (2%)	14 (2%)
<i>-ing</i>	24 (1%)	19 (1%)	60 (2%)	40 (2%)	20 (2%)	16 (3%)
<i>past regular (-ed)</i>	289 (12%)	181 (10%)	324 (13%)	164 (10%)	71 (9%)	37 (6%)
<i>past irregular</i>	869 (37%)	580 (34%)	958 (39%)	577 (34%)	232 (28%)	145 (23%)
auxiliary verb <i>have</i>	152 (6%)	107 (6%)	9 (0%)	2 (0%)	8 (1%)	3 (0%)
<i>-en</i>	152 (6%)	93 (5%)	9 (0%)	2 (0%)	8 (1%)	5 (1%)
<i>be (am, are, is)</i>	335 (14%)	321 (19%)	506 (21%)	477 (28%)	255 (31%)	253 (41%)
<i>be (was, were)</i>	350 (15%)	298 (17%)	337 (14%)	267 (16%)	133 (16%)	109 (17%)

Table 2. Distribution of obligatory and correct supplience of morphological markers across three groups of Grade 8 learners.

The two most frequently supplied markers regarding their correct use across three different generations of Grade 8 learners are the past irregular and the present tense copula *be* (Table 2). First in frequency of the correct supplience for both the first and the second group is the past irregular which is equally distributed between the two generations (34%). However, the first in frequency for the third group is the present tense copula *be* accounting for 41% of its correct supplience. Second in frequency across the first and the second generation of Grade 8 learners is the correct supplience of the present tense copula *be* occurring by 9% more frequently among the learners of the second generation (19% for the first group, 28% for the second group). Furthermore, the third in frequency is the past tense copula *be* exhibiting 17% of the correct supplience for the first and the third group whereas the second group correctly supplied the same marker slightly lower (16%).

It is interesting to point out that the frequency of correct supplience for the past regular follows the same pattern of occurrence as observed in the supplience of the past irregular among Grade 8 learners of the first and the second group. Namely, both groups correctly supplied the past regular by 10% while the third group provided only 6% of its correct supplience.

When observing the frequency of correct supplience for the third person singular, it can be stated that its use was almost equally distributed across all three generations of Grade 8 learners (6% for the first group, 7% for both the second and the third group). Moreover, the correct supplience of this marker even more frequently occurs than the correct supplience of either the auxiliary verb *be* or the present participle across all three generations of Grade 8 learners.

Although the frequency of correct supplience in the use of component parts

constituting *Present Continuous* is equally distributed among the first group of Grade 8 learners and reaches 1% for both markers, these learners show the lowest frequency in the correct suppliance of the auxiliary verb *be* and the present participle with regard to the other two groups. Namely, while the second group of the eighth graders correctly supplied the auxiliary verb *be* by 3% and the present participle by 2%, the frequency of correct suppliance for the third group is reversed (2% of the correct suppliance for the auxiliary verb *be*, 3% for the present participle).

In view of the occurrence of morphological markers forming *Present Perfect*, it can be stated that only Grade 8 learners of the first group provided correct suppliance for both the auxiliary verb *have* and the past participle (6% for the auxiliary verb *have*, 5% for the past participle). In the speech production of the second and the third generation no suppliance in the use of these markers has been recorded. The only exception is found among the third group of Grade 8 learners accounting for 1% of the correct suppliance in the use of the past participle which is most probably due to incorrect coding since the past participle and the past irregular frequently overlap in form.

6.2. Results on the orders of the emergence of morphological markers

Based on the data in Table 2, the orders of the emergence of morphological markers for each group of Grade 8 learners (first part of RQ2) were determined. The obtained orders are reported in separate tables. Correlations between the orders of the emergence of morphological markers for both methods are portrayed under each table. Following these results are the correlations revealing the differences/similarities in the obtained orders across three groups of Grade 8 learners (second part of RQ2).

Method/Rank Marker	Group means method (%)	Rank	Group score method (%)	Rank
–s	69.9	6	70.1	6
auxiliary verb <i>be</i>	83.3	2	79.2	3
–ing	75.0	5	79.2	3
past regular (–ed)	58.6	9	62.6	8
past irregular	63.5	8	66.7	7
auxiliary verb <i>have</i>	77.9	4	70.4	5
past participle (–en)	63.7	7	61.2	9
<i>be (am, are, is)</i>	96.2	1	95.8	1
<i>be (was, were)</i>	83.3	2	85.1	2

Table 3. Order of emergence of morphological markers for the first group Of Grade 8 learners; $r_{gs, gm81}=0.9$; $p < .05$, $p < .01$.

The two highest accuracy scores attained for the first group of Grade 8 learners were the present tense copula *be* (95.8%) and the past tense copula *be* (85.1%) (Table 3). In the case of emergence of the markers constituting *Present Continuous* among these learners, it cannot be claimed with certainty which of the two morphemes, the auxiliary verb *be* or the present participle, emerged earlier since both of them reached the same accuracy score (79.2%).

However, according to the group means method, which was a secondary research method of this study, it can be stated that the auxiliary verb *be* seems to have emerged prior to the present participle. Namely, the first generation of Grade 8 learners displayed an accuracy score of 83.3% for the auxiliary verb *be* and an accuracy score of 75% for the present participle. Additionally, examining the use of the present participle and the third person singular in the verbal behaviour of the first generation, it appears that the emergence of the present participle with an accuracy score of 79.2% preceded the emergence of the third person singular which resulted with 9.1% lower accuracy score.

Furthermore, the first group of learners yielded a slightly higher accuracy score in the use of the past irregular (66.7%) with regard to the score obtained for the past regular (62.6%) thus providing the past irregular with a higher rank of emergence. In view of the emergence of *Present Perfect*, the auxiliary verb *have* was ranked the fifth (70.4%) whereas the past participle was ranked last due to the lowest accuracy score (61.2%). In conclusion, Grade 8 learners of the first group exhibited emergent use of present tense copula *be*, past tense copula *be*, auxiliary verb *be*, present participle, auxiliary verb *have*, *-s*, past irregular, past regular, past participle, in that order.

Method/Rank Marker	Group means method (%)	Rank	Group score method (%)	Rank
<i>-s</i>	62.3	6	57.1	6
auxiliary verb <i>be</i>	79.4	2	73.3	3
<i>-ing</i>	68.8	4	66.7	4
past regular (<i>-ed</i>)	56.5	7	50.6	7
past irregular	65.5	5	60.2	5
auxiliary verb <i>have</i>				
past participle (<i>-en</i>)				
<i>be (am, are, is)</i>	93.8	1	94.3	1
<i>be (was, were)</i>	74.2	3	79.2	2

Table 4. Order of emergence of morphological markers for the second group of Grade 8 learners; $r_{gs, gm82}=0.9$; $p < .05$, $p < .01$.

Similarly to the learners of the first group, the second group of Grade 8 learners (Table 4) generated the highest accuracy scores for two markers. The present tense copula *be* emerged as first since it was used accurately 94.3% of the time while the past tense copula *be* emerged in second due to an accuracy score differing from the former morpheme by 15.1% (79.2% for the past tense copula *be*).

The second generation, furthermore, disclosed antecedent emergence in the use of the auxiliary verb *be* in comparison to the emergence of the present participle. Namely, the accuracy score for the auxiliary verb *be* was 73.3% whilst for *-ing* 66.7%. Moreover, the present participle emerged before *-s* which, analogously to the first generation of Grade 8 learners (Table 3), was positioned the sixth in rank. However, the accuracy score attained for the third person singular *-s* within the second generation was 13% lower regarding the score for the same marker attained among the first generation of Grade 8 learners (Table 3) (70.1% for the first group, 57.1% for the second group).

Also, the past irregular was higher in rank (positioned the fifth), thus emerging earlier when compared to the past regular owing to its 60.2% score whereas the latter marker with 50.6% in accuracy was lower in rank (positioned the seventh). With respect to the emergence of two markers in the use of *Present Perfect*, no results were obtained due to the lack of their supplience in the classroom talk of the second generation of learners (Table 2). Finally, the second group of Grade 8 learners unveiled the following order of emergence: present tense copula *be*, past tense copula *be*, auxiliary verb *be*, present participle, past irregular, third person singular *-s* and past regular.

Method/ Rank Marker	Group means method (%)	Rank	Group score method (%)	Rank
<i>-s</i>	53.8	5	51.2	7
auxiliary verb <i>be</i>	87.5	2	70.0	4
<i>-ing</i>	87.5	2	80.0	3
past regular (<i>-ed</i>)	40.9	7	52.1	6
past irregular	51.1	6	62.5	5
auxiliary verb <i>have</i>				
past participle (<i>-en</i>)				
<i>be (am, are, is)</i>	99.6	1	99.2	1
<i>be (was, were)</i>	83.2	4	82.0	2

Table 5. Order of emergence of morphological markers for the third group of Grade 8 learners; $r_{gs, gm83}=0.8$; $p<.05$, $p<.01$.

As with the previous generations of Grade 8 learners, the third generation (Table 5) most accurately used the present and the past tense copula *be*. These markers, thus, emerged first and second in the speech production of this group exhibiting almost 100% in accuracy for the present tense copula *be* with a considerably lower score in accuracy attained for the past tense copula *be* (82%).

Surprisingly, unlike the first and the second group, Grade 8 learners of the last group demonstrated earlier emergent use of the present participle over the auxiliary verb *be*. Namely, the use of the present participle exceeded by 10% in accuracy the use of the auxiliary verb *be* (80% for the present participle, 70% for the auxiliary verb *be*). However, regarding the use of *-ing* and *-s*, this group of learners seems to follow the same order of emergence as the learners of both previous generations. Being positioned third, the present participle manifested prior emergent use when compared to the third person singular *-s* which was positioned seventh due to the 51.2% accuracy score.

What is more, the results from the above table indicate that emergent use of the past regular occurs after the past irregular because of the lower accuracy score for the former marker (52.1%) when compared to the score of the latter morpheme (62.5%). Also, the results on the order of emergence of two markers forming *Present Perfect* resemble the results obtained for the previous generation (Table 4). Namely, no ranking order was determined for these morphemes due to the absence of examples of their use among the learners of the third group. To sum, the markers used among Grade 8 learners of the third group emerged in the following order: present tense copula *be*, past tense copula *be*, present participle, auxiliary verb *be*, past irregular, past regular and third person singular *-s*.

The correlations of orders of the emergence of morphological markers obtained by both methods are remarkably high, as indicated by the Spearman correlation coefficients. Namely, the orders of emergence correlated significantly at the .01 level ($r=0.9$ for both first and second group) and at the .05 level ($r=0.8$ for the third group). Moreover, the orders of the emergence of morphological markers obtained only by the group score method between the first and the second group of Grade 8 learners reached statistical significance at the .01 level ($r=0.96$), between the first and the third group at the 0.1 level ($r=0.88$) and, finally, between the second and the third group at the .01 level ($r=0.93$). These results indicate that there is a similar order of the emergence of morphological markers across three groups of Grade 8 learners.

6.3 Results on the order of the emergence of verb tenses

Due to statistically insignificant correlations in the obtained orders of the emergence of tenses between different groups of Grade 8 learners, the order of emergence of verb tenses (RQ3) was established for a larger sample size (see subsection 3.5).

Tense	Method/Rank	Group score method (%)	Rank
	<i>Simple Present</i>	85.8	1
	<i>Present Continuous</i>	73.1	2
	<i>Simple Past</i>	66.2	3
	<i>Present Perfect</i>	62.7	4

Table 6. Order of emergence of verb tenses across three groups of Grade 8 learners

The first tense to emerge in the interlanguage of Grade 8 learners is *Simple Present* with the highest accuracy score (85.8%) (Table 6). The pattern of high accuracy score (73.1%) persists also for *Present Continuous* whereas the two remaining tenses, *Simple Past* and *Present Perfect*, marked lower scores. Namely, both *Simple Past* and *Present Perfect* exhibited approximately a 21% lower score when compared to the score obtained for the tense positioned first (by 19.6% lower score for *Simple Past* and by 23.1% for *Present Perfect*) and by 9% lower in comparison to the accuracy score attained for the tense positioned second in rank (by 6.9% lower score for *Simple Past* and by 10.4% for *Present Perfect*). Thus, the resulting order of the emergence of tenses across three different groups of the eighth graders is: *Simple Present*, *Present Continuous*, *Simple Past* and *Present Perfect*.

7. Discussion

The results are discussed in accordance with the study questions in the subsections that follow.

7.1. Suppliance and distribution of obligatory and correct occurrences in the use of morphological markers

As stated earlier in subsection 5.1, the distribution of the obligatory suppliance of morphological markers was more challenging to examine due to the influence of diverse factors. First, the number of learners in each year of research varied which seems to have effected obligatory suppliance of morphological markers over the observation period. Namely, more learners most probably presupposes more obligatory contexts thus making obligatory suppliance of morphological markers unequally distributed across the three groups of learners. Second, it occasionally occurred that the samples of EFL classroom dialogue originated from the same few learners whose speech production prevailed throughout the entire recording session although it was another learner's turn to speak. In these situations the learner's speech performance might have abounded with more obligatory suppliance in the use of a particular marker over the obligatory suppliance of another one. Furthermore, in situations when the selection of communicative activity was entirely up to the learners since their participation in this study was non-mandatory (see subsection 3.3), the type of the activity might have affected the suppliance of markers in obligatory contexts as

some of the task-based activities promoted more frequent suppliance of only a few morphemes. For instance, the activity always starting with the same question exclusively focused on the use of the past regular and the past irregular thus resulting in more obligatory suppliance in their use. Third, the length of recordings, although set at approximately 15 minutes, varied since the learners were allowed to extend their speech production until reaching a communicative goal which, most probably, caused differences in the frequency of obligatory suppliance in the use of markers across three groups of Grade 8 learners.

7.2. Order of the emergence of morphological markers

When comparing the results on the suppliance of the morphological markers (Table 2) with the orders of emergence obtained for three groups of Grade 8 learners (Table 3, Table 4, Table 5), it appears that although the first in frequency of the correct suppliance, surprisingly, the past irregular wasn't ranked the first neither among the first nor the second group. The first to emerge for both groups, however, was the present tense copula *be* which was the second in frequency of the correct suppliance. Following this marker is the past tense copula *be* occupying the second position in the ranking order of both the first and the second group with even lower percentage of the correct suppliance when compared to the past irregular and the present tense copula *be*. Regardless of these results, the third group, interestingly, displayed reverse results. The last generation of Grade 8 learners exhibited the highest percentage of the correct suppliance for the present tense copula *be* which accordingly was ranked first. Since the copula *be* indicating both the present and the past ranked the first and the second at the top across all three groups thus emerging prior to auxiliary *be* which was subsequently followed by the present participle, it might be suggested that these results coincide with the morpheme ordering studies (H.C. Dulay/ M.K. Burt 1973/ N. Bailey et al. 1974, P. Widiatmoko 2008, U.F. Ibáñez 2013).

Similarly to the previous morpheme order findings related not only to L1 acquisition (R. Brown 1973, J. de Villiers/ P. de Villiers 1973) but also to L2 acquisition (H.C. Dulay/ M.K. Burt 1973, N. Bailey et al. 1974, W. Klein 1995), it seems that all generations of Grade 8 learners acquire *-ing* prior to *-s*. Namely, the present participle emerged as third among both the first (Table 3) and the third group (Table 5) and as fourth among the second group (Table 4) of Grade 8 learners whereas *-s* emerged as sixth in both the first (Table 3) and the second group (Table 4) of the eighth graders, i.e. the seventh in the last group (Table 5). Furthermore, all three Grade 8 generations unanimously confirmed that the past irregular emerges before the past regular and thus supported the third principle regarding the acquisition of tense-aspect morphology expressing temporality (K. Bardovi-Harlig 2000).

In view of the order of emergence of the markers constituting compound verb tenses, *Present Continuous* and *Present Perfect*, the results were inconclusive. Even though the emergent use of the markers forming *Present Continuous* by the third group of Grade 8 learners (Table 5) began with the present participle subsequently followed by the auxiliary verb thus complying with the fourth principle of tense-aspect morphological acquisition of temporality (K. Bardovi-Harlig 2000), the same does not

apply for the second group (Table 4). Besides, the same pattern of emergence as the one shown by the second Grade 8 generation in the use of these markers was found among the first generation (Table 3); namely that the auxiliary verb emerges before the present participle when observed by the group means method due to the same ranking order obtained by the group score method.

Unlike the second and the third group of Grade 8 learners, only the first group supplied the morphemes forming *Present Perfect* (Table 2). The only exception found was a strikingly low amount of correct suppliance in the use of the past participle (1%) displayed by the third generation of Grade 8 learners, which most probably was the product of incorrect coding owing to, in most cases, the resemblance in form with the past irregular. Since the auxiliary verb *have* emerged before the past participle in the verbal production of the first generation (Table 3), it might be observed that these learners do not favour the principle according to which the verb with verbal suffix precedes the acquisition of the auxiliary verb (K. Bardovi-Harlig 2000). However, these findings should be interpreted with caution seeing that no ranking orders were provided or the remaining groups (Table 4 and Table 5). In summary, despite all the previously stated discrepancies in the ranking orders of the selected morphemes, it statistically seems that there is a similar order of the emergence of morphological markers across three groups of Grade 8 learners as indicated by the Spearman rank order correlations.

7.3. Order of the emergence of verb tenses

According to the obtained findings (Table 6) it might be claimed that the first temporal morphology in the interlanguage of Croatian Grade 8 learners across all generations marks the use of *Simple Present* prior to the emergent use of *Present Continuous*. Furthermore, *Present Continuous* seems to be the first compound tense to emerge. The emergence of *Present Perfect* appears to depend on the prior emergence of *Simple Past* which is in accordance with the results of the previous empirical studies (K. Bardovi-Harlig 1997, 2000).

8. Conclusion

The aim of this study was to document the acquisition of temporal expression examining the patterns of emergent use of both grammatical morphemes and verb tenses in the speech production across three generations of Croatian Grade 8 learners of English. The study findings have pointed to several conclusions.

Although the order of emergence of the morphological markers expressing temporality across all groups of Grade 8 learners seems to be uniform from the statistical point of view, however, there appears to be variability in the ranking orders of these morphemes when investigating three groups of learners separately. This interlanguage variability is of no surprise since it was, very likely, caused by many different, yet, related factors. The suppliance of markers was determined, on the one hand, by the number of learners and by the type of elicitation task on the other hand, both of which varied. Namely, in each generation there seemed to be a few learners more speech productive than their colleagues thus resulting with more frequent

suppliance in the use of particular markers of temporality the choice of which most probably depended on their learning style along with some other affective components (motivation, self-esteem, risk-taking). In some situations, furthermore, the selection of communicative activities reflected the learners' interests thus presumably effecting the frequency of suppliance of the morphemes since particular activities elicited the use of specific markers of temporality. In the light of these findings, it might be concluded that the acquisition of target-like tense-aspect markers should be expanded to include the impact of turn-taking, the influence of affective factors and the type of the elicitation task on the order of emergent use of the grammatical morphemes. Additionally, the research could also be expanded to include different proficiency levels within each group gathering a smaller sample of learners which might presumably provide more reliable results on the ranking orders of the grammatical morphemes.

Despite having determined the orders of emergence for both morphological markers and verb tenses which were conditioned by the parameters set forth in the current study, i.e. their selection, it needs to be emphasised that these orders do not suggest that the acquisition of L2 English verbal morphology is over. It rather reveals a stage in interlanguage development, in this case, of L1 learners of Croatian who slowly approximate towards L2 English. In order to fully understand how the process of acquisition evolves, a much wider range of tense-aspect morphology expressing the present-past-future-time should be included in further research or, possibly, the acquisition of verbal morphology with temporal reference should be investigated separately.

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What Foreign Language Teachers Should Know about Language Attrition

Małgorzata SZUPICA-PYRZANOWSKA

University of Warsaw

E-mail: m.szupica-pyrz@uw.edu.pl

Katarzyna MALESA

University of Warsaw

E-mail: k.malesa@uw.edu.pl

Abstract: The long-term goal of foreign language (FL) learners is to reach communicative competence. The objective of language teachers is to assist and support learners in accomplishing this goal. However, the task may be challenging, especially, when considering foreign language taught in the context of instructed learning. The advent of new technologies, the emergence of learner-centered teaching, and the emphasis on authentic language do not always warrant a desirable outcome. Foreign language learners often reach a plateau and do not progress as expected. Loss of non-native language skills in the L1 environment, e.g. loss of foreign languages learned at school, is a fact. Foreign language learners may be prone to attrition due to insufficient input, low frequency of language use outside the classroom or lack of adequate motivation. Therefore, it is imperative to raise FL teachers' awareness and draw their attention to the problem of language loss occurring in a formal context. Teachers should not only facilitate language learning but also prevent language forgetting which, if prolonged, may cease development and lead to attrition. By drawing attention to FL attrition, we aspire to bridge the gap between linguistic research and language classroom pedagogy. The aim of the current paper is to identify and discuss some of the instructional, cognitive, and personal factors contributing to foreign language attrition. Practical implications are discussed that could not only improve language teaching, but also influence more efficient, attrition-free curriculum design.

Keywords: foreign language attrition, memory, attention, instructional considerations, FL learner autonomy, FL teachers

1. Introduction

The process of language attrition has been studied extensively in the context of first and second language acquisition (M.S. Schmid/ T.H. Mehotcheva 2012, H. Seliger/ R. Vago 1991). However, still not enough attention is given to the attrition of foreign languages taught formally. As counterintuitive as it may appear, the formal context in which foreign languages are taught may be the source of language loss. Many learners who studied foreign languages in (junior) high school or college, lost the ability to hold a meaningful conversation with a native speaker once they graduated or completed a course and were no longer exposed to the language they had studied formally (T. Reilly 1988). In extreme cases, the retained knowledge is receptive only. For many learners, however, the onset of attrition could have occurred while they were

still in school and, thus, in the context of (active) learning. Large classrooms, lack of group homogeneity, insufficient input, low frequency of language use, and non-authentic language – all this could potentially trigger foreign language loss while the language is being acquired. In the paper, we address classroom-related and cognitive aspects potentially detrimental to the process of language learning and possibly contributing to foreign language attrition: the intensity of instruction, instructional considerations, learner profile, developmental considerations, attention span, memory, learner autonomy, and learner's attitude towards foreign language learning.

1. What is attrition?

Everything that is acquired could be potentially lost. Languages are lost under different circumstances. A pathological language loss, whether temporary or permanent, can occur after a traumatic brain injury or can be stroke-related, whereas non-pathological language loss occurring in healthy individuals is triggered by a language disuse (or insufficient language use) and is maintained once the language disuse is prolonged. Major features of non-pathological attrition, the scope of the present inquiry, include the following: shrinking phonetic inventories, simpler phonetic rules, inadequate grammatical flexibility, smaller lexical repertoires or lack of automaticity in the overall language use (J. Holmes 2008)

Thus far, the non-pathological language loss has been reported in three different contexts :1. An immigrant who is a speaker of the language not spoken natively in the new country of residence and who slowly loses his native language; 2. A speaker of a language who lives in a place where a different language is considered more prestigious or sought-after. 3. A learner who studied a language at school and who loses the language owing to the lack of opportunity to practice it outside classroom (T. Reilly, 1988). Recently, M. Szupica-Pyrzanowska and K. Malesa (2017) identified a yet different group whose language competence is potentially susceptible to language loss, foreign language teachers. The preliminary results obtained in the study indicated that: a. the level of language attrition awareness among FL teachers is low, b. FL teachers are more likely to relate attrition to their students' rather than to their own language skills, c. FL teachers who teach very young learners are more prone to attrition than FL teachers whose students are teenagers and adults, d. those who teach young FL learners report to be less motivated to maintain their language skills on a regular basis. In a similar vein, T.M. Włosowicz (2017) tested 39 non-native foreign language teachers to 1. determine how they prevent their language loss, 2. evaluate their attitude towards correctness, and 3. identify language domains which are more prone to attrition. The participants were asked to complete a grammar/vocabulary test and fill out a detailed questionnaire. Also, the participants were asked to assess the difficulty of different grammar components included in the test. Overall, the results indicate that many FL teachers tend to consider fluency to be more important than accuracy, they have no time to work towards maintaining or improving their language skills, they admit to forgetting both grammar and vocabulary once they graduate, they are not always certain whether what they have said or written in English is correct, and clearly some teachers believe that they became less fluent in English in the course

of their work. Moreover, the participants reported on using different language maintenance strategies so as to preserve their language skills. The most frequently used were the following: reading books/magazines/newspapers in English, seeking opportunities to interact with native speakers, listening to English radio programs, chatting online with English speakers, watching movies, and doing exercises from textbooks for advanced students. In addition, it was observed that foreign language teaching can be a potential source of language attrition because FL teachers need to simplify their own language for the sake of their students, and they are exposed to a myriad of errors made by their students on a regular basis.

In the present paper, our main interest lies in one of the aforementioned instances of attrition, namely a foreign language student who learns a non-native language in a formal context. Contrary to common sense, the quality of formal FL learning in many state schools does not always guarantee a successful target-like production or does not promote acquisition. Students are not only heterogeneous in their aptitude and achievements but also in their need to practice language outside classroom and work towards maintaining their FL knowledge. Therefore, they may experience attrition in different ways. Numerous factors could potentially contribute to this state of affairs. In large mixed-ability language classrooms weak students can easily go unnoticed and their language needs may not be adequately addressed. Lack of necessary exposure to the target language and insufficient practice may foster speaking anxiety and ultimately may lead to a negative attitude towards the foreign language studied. In such an environment weak students become withdrawn and do not progress as expected. So, either they do not learn enough or they make progress at a very slow pace. And if the language is not rehearsed, it is not retained and begins to diminish. Even good students when not motivated and encouraged may potentially find themselves on the verge of language loss, regress, begin to lose what they learned previously and subsequently reach the phase where their language achievements are modest. FL learners may fluctuate on a developmental continuum going back and forth between intermediate stages shifting either toward the source or the target language. All of this leads to the conclusion that in the formal context FL students may not always have the opportunity to use the language they learn as much as necessary.

2. Instructional considerations

T. Reilly (1988) pointed that “curriculum design and instructional methods in foreign language teaching are different if the aim is to foster language rather than just to achieve a certain level of competence as the result of taking the class” (p.2). This is the educational reality repeatedly observed in many Polish state schools in which foreign language classes promote the ability to take and pass a language test rather than the ability to freely communicate in a non-native language. Consequently, the majority of learners who are many years post-onset lacks basic FL communicative skills. The reasons are twofold: either an insufficient progress made by learners or a regress sufficient enough to lose one’s language skills. FL teachers ought to be vigilant and pay close attention to those students who either abruptly or gradually shift in their

language use and begin to lag behind their peers. The insufficient progress may be represented by low grades, an abrupt student's withdrawal, a lack of participation and commitment to class or even a negative attitude toward the language being learned. The lack of progress may be a prerequisite to language attrition. We argue that attrition is a process and as such proceeds in stages which result in different degrees of language loss. M. Szupica-Pyrzanowska and K. Malesa (2017) propose three intermediate phases in the process leading from a certain stage of acquisition to attrition: stagnation, plateau, and regression. Stagnation is understood as language inertia during which there is no (sufficient) contact with the target foreign language. Extended stagnation results in a plateau, a phase of limited variation where hardly any new material is added to the learner's language repertoire. During the plateau period, language development slows down considerably and may come to a halt. If sustained, plateau may turn into a full-fledged regression which over time develops into attrition. This three-phase process is, to a certain extent, reversible if the conditions for language enhancement are favorable.

Moreover, not all language skills are equally prone to being lost. By the same token, not all learners will show the same pattern of decline across different skills. Productive skills (e.g., speaking and writing) are known to be less resistant to attrition than receptive ones (e.g., listening and reading). Consequently, language curricula based on oral skills foster language maintenance at the same time. However, language curricula should target not only productive skills but comprehension and writing as well. In contrast to encoding spoken language, decoding the written language does not have to be instantaneous. The reader can decode the text at his own pace and revisit it for better understanding which in a long run teaches learners diligence, promotes self-instruction, and the need for reexamination (T. Reilly 1988).

Furthermore, receptive skills are acquired prior to productive skills (S. Lamb 1999). The reception-before-production pattern is observed in different populations: children acquiring their native tongue or young and adult second/foreign language learners. In all groups the same pattern has been observed, understanding of complex syntactic structures preceded their production while comprehension of less frequently used lexical items occurred prior to their application in the course of language acquisition and often remained long after instruction was interrupted. This is important for language pedagogy. Receptive abilities should never be taken for granted and marginalized in language classrooms because: 1. Students whose language curricula target primarily productive skills may decline more rapidly or their attrition may be more extensive than those students whose language instruction also emphasizes receptive skills (e.g., comprehension, writing); 2. Auditory systems supervise articulatory outcome; 3. The receptive system controls production. 4. Receptive repertoires are bigger than productive ones; on average, people have bigger lexicons for comprehension than for production. In addition, early studies on foreign language attrition indicated that language disuse during summer vacation did not affect students' understanding of grammar and lexicon (G. Scherer 1957, P.C. Smythe/ G.C. Jutras/ J.R. Bramwell/ R.C. Gardner 1973). Unlike comprehension,

language production diminished significantly after a summer vacation period as it had been reflected in shorter utterances and more frequent errors (A.D. Cohen 1974).

Finally, we will illustrate the importance of balanced skill development (including productive and receptive skills) with the example of lexical acquisition. Forgetting is a natural part of learning. Both students and teachers are aware of that fact. Nonetheless, it is worth noticing that words known only receptively are more likely to be forgotten than the words that students know productively. That is why teachers should provide students with multiple exposure to any new utterance in the course of FL lessons. Previous research indicates that in order to learn a word, one needs to meaningfully repeat it between 5 and 20 times (N. Schmitt 2007). If students do not practice retrieving newly acquired lexical items and if lexical recycling is neglected, the utterances or lexical items will be forgotten or not easily used in spontaneous production. Accordingly, lexical recycling is an inherent part of vocabulary practice in the FL classroom (N. Schmitt 2007). Frequency and recency of lexical use as well as a contextualized presentation of words prevent lexical attrition.

Identification of attrition may not always be easy and may be mistaken for chunked learning. Likewise, identification of the processes that precede attrition (e.g., stagnation, plateau, regression) may also be difficult. For instance, in a classic study K. Hakuta (1974) presented the case of Uguisu, a Japanese child learning English who was able to correctly utter the following Yes-No questions: *Do you know? Do you have coffee? Do you want this one?* The aforementioned examples appeared to be well-formed and thus suggested that the learner had mastered the syntactic structure including inversion and do-support. However, when she started learning Wh-questions an interesting pattern emerged in her speech production: *What do you doing, this boy?* (meaning “What is this boy doing?”), *What do you do it, this froggie?* (meaning “What is this froggie doing?”), *What do you doing?* (meaning “What are you doing?”), *What do you do drinking, her?* (meaning “What is she drinking?”). On the surface, it seemed that Uguisu regressed and extended the Simple Present tense structure to the Present Progressive tense. Further, she seemed to have *unlearned* what she had apparently known earlier. On closer inspection, however, it became evident that what previously appeared correct was simply correct by chance. This stage of Uguisu’s language development is known as chunked learning. The term refers to a strategy used by non-native speakers occurring at a certain stage of lexical/syntactic development at which a single unparsed element is used of what may otherwise be considered two or more elements by a native speaker. Uguisu did not use *do you* as an element of Yes-No questions but simply learned it as a chunk which might have been used frequently in her language environment. Such non-target syntactic structures are pre-fabricated, ready-made patterns which will eventually be “unpacked” into its components of *do* and *you*. Although to the untrained ear/eye such a process may appear to resemble regression, this is in fact U-shaped learning masked as regression. U-shaped learning is a natural phase of cognitive development which includes an initial, temporary, accidental target-like production followed by an erroneous phase and a recovery manifested as correct forms. The ramifications of U-shaped learning extend beyond Uguisu and the Japanese language and could be

observed in other populations representing different L1s. In Uguisu's case, like in the case of many foreign language students, the target performance ultimately recovers and stabilizes. A prerequisite to an adequate treatment of attrition is an appropriate identification of different phenomena taking place in the classroom. Teachers ought to be able to distinguish between U-shaped learning and early symptoms of pre-attrition phases (e.g., stagnation, plateau, regression) and should not be lost, in what appears to be, the maze of choices.

3. The intensity of instruction

Not only the prolonged exposure to the language being studied leads to proficiency and desirable outcomes, but also the intensity with which language is learned. Early research shows that students enrolled in a one-year intense course of French outperformed those who had the same number of hours and studied the language over the course of two years, but less intensively (H.H. Stern 1976). Further, intensive language classes are said to be more conducive to language retention (H.P. Edwards 1976).

R. Serrano (2012) comprehensively reviewed studies whose results suggested that time distribution is an important factor in successful language acquisition. Clustering the hours of language teaching/learning rather than stretching them over time proved beneficial for learners. L. Collins et al. (2012) pointed that in intensive courses language success depends on the time dedicated to studying. Specifically, two time-related factors are significant, its distribution and quality. Further, L. Collins /J. White (2012) investigated the influence of intense language courses on various aspects of proficiency in a longitudinal study. They inquired whether individual L2 differences at the outset of the study would be sustained throughout the intensive course or whether the elimination of the intensity factor would allow those students who initially lagged behind their more proficient counterparts to accelerate and catch up. It turned out that half-way through the intensive course the less fluent students began to reduce the difference in proficiency while at the end of the program both groups showed comparable levels of knowledge on some of the tasks. Overall, the study reveals that at the early stages of acquisition intensive L2 courses may diminish the role of individual differences among beginner learners (e.g., language aptitude) in the formal learning environment. Without a doubt, intensity alone may not suffice to assure a desirable learning outcome. L. Collins et al. (2012) emphasize the need for attention to those aspects of input which learners find particularly difficult.

In the context of second language acquisition, J. Netten/ C. Germain (2000) identified intensity as a three-fold concept including: 1. a *concentration* of teaching time related to a particular scheduling arrangement that permits a sequence of language classes; 2. an *increase* in teaching time; 3. *reorientation of the curriculum*, itself a complex notion including condensing and enriching of the regular curriculum as well as the use of an interactive approach. The notion of enrichment of the previously used language curriculum is especially relevant to the issue of language loss. The enrichment is understood in terms of significant changes in the content of a curriculum particularly regarding a more detailed presentation, an in-depth thorough

examination of topics discussed in language classes, a theme-based method incorporating students' interests, and an *integrated* approach to language teaching that includes elements from different subject areas (e.g., science, humanities). In order to enrich language curricula, J. Netten/ C. Germain do not only suggest a series of related connecting language activities that provide enough material for the extended class time that goes beyond the 45-minute periods usually dedicated to language instruction in many schools, but they also stress the importance of a predominant use of foreign language in authentic situations. To be successful students must use language actively in genuinely authentic communicative situations. Intensity could be further enhanced by an interactive pedagogy and projects. It has to be emphasized that all of this is done to achieve a linguistic goal and foster communication in a foreign language. Such an intense pedagogical approach enables learners to use the language frequently, to practice complex structures, and to expand on one's cognitive (e.g., analysis, synthesis, making inferences, drawing conclusions, hypothesis testing), personal (e.g., independence, self-confidence, responsibility), social (e.g., accepting different points of view, the ability to cooperate) and organizational skills (e.g., planning work, using references). Students who learn languages intensively are more cognitively engaged in the process of acquisition than those involved in language learning that is less intense. For our purposes here we stress that intense foreign language courses foster acquisition and, thus, prevent attrition.

4. Attention (span)

Constant attention to stimuli is necessary for long-term retention of learning material (T.H. Carr/ T. Curran 1994). Attention is a three-part construct including: 1. alertness understood as a general eagerness to manage arriving information; 2. orientation or the management of attentional resources to different stimulus types; 3. detection that relates to the perceptive registration and acknowledgment of different stimuli (M.I. Posner 1992, R.S. Tomlin/ V. Villa 1994). R.S. Tomlin/ V. Villa maintain that of the three components, detection alone is necessary for input processing as well as learning. By the same token, alertness and orientation only increase the likelihood that detection will take place, but are not as imperative. How do we make use of attention? Two features of attention are crucial in the process of learning: its limited capacity and selectivity. There is no consensus regarding the exact nature of selectivity, consequently two opposing views dominate the field, "early selection" and "late selection". Under the first view, there is a *filter* or *bottleneck* that preselects stimuli and permits only certain stimuli to be processed. The second approach assumes that all stimuli are processed at the same time; the selection part occurs later. Distribution of attention is a laborious process as we rarely perform just one task at the time. Numerous stimuli usually compete for our attention. Even though attention is of limited capacity and its allocation effortful, it changes as a function of arousal (D. Kahneman 1973, R.P. Leow/ M.A. Bowles 2005). What it means in practice is that learners can perform two tasks simultaneously as long as there is a sufficient level of arousal and a manageable level of task demands. Paying attention to two tasks concurrently is possible once we presume that there are multiple pools of attentional

resources (parallel processing) rather than just one (serial processing). The level of challenge associated with performing two tasks at the same time is determined by the number of pools from which attentional resources are drawn. It would be harder to successfully perform two tasks drawn from the same pool (e.g., two linguistic tasks – having a conversation and drafting an essay) than to do two tasks drawn from different pools (e.g., riding a bike and singing) (C.D. Wickens 1980, 1984, 1989). Yet, C.D. Wickens states that two different tasks performed simultaneously can be done effectively under one condition – when one of them has become automatized. Automaticity is essential for a proficient language use.

From a pedagogical point of view, learning requires attention, without it no learning will ever take place, and no teaching will ever be effective. Language learning cannot take place if students are distracted and not fully engaged. Capturing students' attention proves to be a challenge even for seasoned teachers. In order to energize students and help them listen actively, it is necessary to break up a lesson. No matter how good the speaker is, listening attentively can be challenging because the average attention span diminishes at 10–15 minutes into lesson. Learning a language requires not only attention but interaction as well. Breaking up lessons give students an opportunity to interact with their peers and gives the teacher a chance to monitor students' comprehension. Lesson segmentation may allow students to reflect on what they were exposed to, to see how much they actually absorbed, and to work toward developing metacognition. Consequently, students are more likely to hold themselves accountable for their learning and realize what they can do with the material they perceived auditorily. All of this promotes active listening. Language learners' recall of information is poor when they listen passively. If this is done routinely it may lead to stagnation and lack of development. Students who get stuck in their language development and do not grow as FL speakers may soon begin to attrite.

5. Memory

It is said that a healthy brain does not really “lose” anything; rather the previously acquired knowledge which is accessed sporadically, if ever, may become less available and its retrieval more effortful. Language learning involves various cognitive processes, one of which is memory. If memory is one of the cognitive ingredients active in language acquisition, then it is undoubtedly linked to the processes of language attrition and forgetting. Different memory types are conducive to foreign language learning: rote, working or long-term memory. Rote memorization is based on repetition and routine and as such it does not require reference to the meaning, context or association. Working-memory refers to the ability to manipulate information one is presently aware of or thinking about (e.g., remembering a phone number for the time it takes to dial it or a multi-stage calculation done in our head). It is brief and of limited capacity. Its duration and capacity can be increased by practice and chunking (e.g., grouping discrete elements into larger units). Students' long term-memory should be every language teacher's goal. A transfer from short-term to long-term memory is preceded by encoding and meaningfully combining the new

information with existing one. Once this is done, the information is stored and consolidated in long term-memory. It does not mean, though, that the information committed to the long term memory will always be easily accessed. For that it is necessary to retrieve the stored information. If the information is not accessed frequently enough its retrieval becomes increasingly challenging and less automatic. Retrieval problems are responsible for forgetting. The goal of language acquisition is reaching (native-like) competence in the target language. Learners have to know different mnemonic strategies so as to facilitate foreign language learning and to commit linguistic knowledge to their long-term memory. Foreign language teachers have to be aware of the role memory plays in language learning and design curricula to enhance students' memory for foreign language. To do so, one has to transfer linguistic knowledge – like any other knowledge – to long-term memory. Understanding the role of memory and forgetting is a prerequisite to understanding language attrition.

Working memory is limited and “fractioned” in a sense that it does not constitute a single entity but rather consists of different components (P. Shekan 2015). These include a central executive and phonological systems (for auditory processing), as well as visual spatial buffer systems. Attentive listening and intense exposure to the target language, although desirable in the context of foreign language learning, may strain students' working memory capacity. In general, foreign/second language interaction requires working memory operations and planning. Speech is, by nature, instantaneous and thus difficult as it happens in real time. While speaking we have to use our resources and knowledge of different language areas in a split second. In particular, we have to access and retrieve appropriate lexis, use correct morphological and syntactic structures, comply with relevant phonetic rules, be context appropriate. Finally, we have to constantly monitor the outcome, be listener-friendly, and organize our thoughts in a coherent way so as to convey what we intended to communicate. The task effortless in L1 acquisition is tedious and becomes a strain in a L2/ FL language. Undeniably, working memory is an asset in a foreign language classroom. Though, it is prone to variation. Proponents of capacity hypothesis, M.A. Just/P.A. Carpenter (1992) investigated the way working memory capacity burdens language learners' comprehension. Under this view, storage (the repository from which information is retrieved) and processing (managing) of language material are facilitated by activation. The level of activation available in working memory varies among language learners. Individual differences in working memory capacity explain both qualitative and quantitative differences in various components of language comprehension (e.g. syntactic ambiguity). The larger working memory capacity, the better one's ability to distinguish between different meanings and numerous renderings.

In the present paper we argue that it is necessary to concentrate on working memory because of its significant influence on language acquisition, language processing, speech production, and interaction analysis. With regard to language, working memory is important for: language input (e.g., its parsing and semantic analysis), language output (e.g., accessing of lexical, syntactic, and morphological

information, sentence building), resolving problems related to input and output processing, planning and analysis. In order to enhance students' working memory foreign language teachers are advised to implement different tasks, for instance narrative storytelling, event sequencing, and repetition (Z. Wang 2014, Z. Wang/P. Shekan 2014). Understanding working memory-based limitations is crucial for language pedagogy. A successful use of resources needed for working memory warrants successful interaction. It is argued that interaction contains most of what is needed to support language development. Sustaining language development promotes acquisition and, in a way, prevents attrition.

6. Learner profile (developmental considerations)

Language classrooms do not constitute homogenous populations. Students differ in terms of their commitment, strategies used to deal with anxiety, levels of speaking anxiety, diligence, effort put into learning or a linguistic inclination known as language aptitude among others. Therefore, they differently succeed in being fluent speakers. Language learners of different age pose different challenges and represent different success rates. Adult language learners whose onset of foreign language learning occurred post puberty or later in life, are more likely to transfer their knowledge of native language. Their first language may interfere with the new one. For that reason language curricula have to be custom-made, designed for the population taught. For example, L1 Polish learners of English may struggle with the English phonetic system (e.g. vocalic length, interdental consonants, rhotic "r"), syntactic mechanisms (e.g., inversion), morphosyntactic rules (e.g., the third person singular indicating subject-verb agreement), semantic aspects (e.g., reciprocals *teach-learn*, *borrow-lend*), pragmatic rules (e.g., incorrect speech acts, extension, erroneous understanding of veiled requests)

In our discussion of language attrition certain developmental considerations, such as learner types, have to be briefly addressed. Needless to say adult language learners differ in many respects from their younger counterparts. They approach the language learning process with different expectations and motivation. Adults seem better equipped to the process of language acquisition. They use personal experience as a resource and tool and are often self-directed. Unlike youth, adults have good analytical, problem-solving, as well as metacognitive and metalinguistic skills. Also, they more rapidly grasp abstract notions. However, adult language learners are known for their initial advantages and short-lived gains only while children reach and maintain ultimate attainment as a result of prolonged and intensive exposure. Children have better phonology but older language learners often achieve better L2 syntax (M. Long 1990). Foreign language programs that capitalize on the aforementioned developmental differences do not only facilitate acquisition but also help prevent attrition.

7. Learner Autonomy

Language retention is warranted in a less direct way by fostering student autonomy,

by sparking student's interest in the language and its corresponding culture, and by making them understand that the knowledge gained in language classes must be practiced outside. FL learners have to realize how much depends on them because they ultimately have to make the executive decision of whether and how to use the language outside classroom.

Fostering learner autonomy requires an individual approach to each learner and involves teacher's assistance in the development of an individual learning style. The development of student autonomy is based on teacher-learner interaction and cooperation during which they consult decisions concerning the didactic process, they negotiate goals to be achieved by the learner as well as learning types, and they share responsibility for the didactic process. In this sense, the roles of teacher and learner are complementary. The autonomous approach to studying is reflected in students' learning styles and strategies including metacognitive, cognitive, and socioaffective (J.M. O'Malley/ A.U. Chamot 1990 in K. Drożdżał-Szelest 1997: 38). Metacognitive strategies are related to the organization of the learning process and include functional planning, directed attention, selective attention, self-management, self-monitoring, delayed production as well as self-evaluation. Cognitive strategies which are connected with memorization, more effective understanding and language production comprise: repetition, grouping, imagery, deduction, transfer, elaboration, inferencing, note taking, resourcing, translation, recombination,, auditory representation, and contextualization. Finally, socioaffective strategies relate to cooperation with other native speakers as well as with other learners of the foreign language, e.g. questions for clarification and self-talk. All types of learning strategies do not only play an important role in the process of learning, but are also crucial preventive measures against attrition.

Students apply different strategies in the process of language acquisition, depending on their learning preferences, individual goals, and needs. The need to apply individual learning strategies was confirmed by the teachers who had been asked to list the most important qualities of a good language learner (J. Moon 2005: 164). According to them, a successful language learner is someone who takes risks, who is motivated to learn English, creative, well-organized, focused, inquisitive, confident, keen to communicate. Also, this is someone who does not give up easily, eagerly participates in in-class activities, corrects his/her own mistakes, seizes every opportunity to use English and is willing to plan and review his/her work. One of the aforementioned qualities is particularly important in language attrition prevention, namely one's inclination to seize every opportunity to practice the language studied. The role of a teacher in fostering learner autonomy is to introduce learning strategies to the learners, to support their motivation, to learn the language and to encourage them to look for the opportunities to use the foreign language actively. On the other hand, the students' role is to develop their own learning styles and to apply appropriate learning strategies, so as to actively use the language, not only during a language course. We have to emphasize that attempts to promote learner autonomy may work with a different degree of success in different age groups.

Teachers who foster learner autonomy redefine their role in a language classroom,

share some responsibility with students, and assist learners in the learning process through tasks promoting learner autonomy (e.g., introspecting and retrospecting self-reports, diaries and evaluation sheets). Autonomous students initiate learning which they view as a constructive process that includes actively seeking opportunities to learn. Unfortunately, teachers cannot teach their students how to be autonomous. What they can do instead is to create an environment in which learners will not be afraid to speak the language they study, in which they will be eager to take the necessary risk in order to test and reject hypotheses and rules that do not hold.

In like manner, many FL teachers are FL learners who just like their students need to constantly maintain and develop their language skills. Thus, teachers should not only support their students on the way to autonomy but they also have to develop their own autonomy and apply their individual learning strategies. As argued previously, foreign language teachers' linguistic skills are not immune to attrition. Consequently, they should take steps so as not to let their language skills attrite, act according to their individual learning styles to develop autonomy and take steps to improve or maintain their linguistic skills.

8. Positive attitude

The success in language learning relies on learners' attitude towards the world and learning. The more tolerant approach to the target language and its culture the more likely they are to be committed to the task of learning it. Language learning if not appreciated can easily turn into a struggle similar to the one experienced by those who treat any learning activity as an imposition. Positive attitude should be fostered in a language class. Positive attitude toward the language studied should extend beyond formal setting and continue long after the formal acquisition ends. The notion of positive attitude should be extended to learners' willingness to communicate in the target language beyond classroom, to their eagerness to take the necessary risk to strike a conversation with a native speaker, communicate on their own, and to provoke linguistic situations in which they may practice the language. Ultimately, this is how they learn to trust their language skills.

Indeed, different personal factors have been found to correlate with successful non-native language acquisition, for instance high tolerance for lexical and syntactic ambiguity, extrovert character traits, eagerness to leave one's comfort zone and confront one's language skills in the target linguistic environment (T. Reilly 1988). In the US, non-English speaking children learning English who seized every opportunity to communicate with native speakers and practice the skills acquired and those who had a friendly attitude toward native speakers learned the language easier and faster (L. Wong-Fillmore 1985).

9. Conclusion

Language attrition is a "powerful force". Formal context of foreign language learning and teaching is not immune to attrition. By understanding attrition, we do not only learn how to prevent it, but we hope to improve the process of foreign language

teaching as well. FL teachers who are aware of attrition would be able to recognize its early symptoms and apply relevant preventive measures against language loss. On the other hand, FL learners familiar with the phenomenon in question would be further motivated to fully cooperate with the language teacher.

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Basic terminology of eye-tracking research

Agnieszka ANDRYCHOWICZ-TROJANOWSKA

Uniwersytet Warszawski/ University of Warsaw

E-mail: a.andrychowicz@uw.edu.pl

Abstract:

The article is aimed at making the reader familiar with the basics of eye tracking as well as its terminology and at making them aware of the fact that eye-tracking supported linguistic and glottodidactic research, being conducted in Poland, is getting more and more popular. The article gives basic information about eye tracking and two most crucial eye movements, i.e. fixations and saccades. It also lists the most important academic research centers in Poland that conduct linguistic research with the help of eye tracking. The next, and the most important, part of the article is a short characteristics of the chosen eye-tracking parameters that are commonly used in different types of eye-tracking data analysis. They were chosen on the basis of the author's own research experience in the field of experimental eye-tracking glottodidactics.

Keywords:

eye tracking, fixation, saccade, AOI, glottodidactics, terminology

1. Introduction

Technological development and its achievements that have been observed for a few decades is now present not only in such branches of science as medicine, physics, chemistry etc. Finally, also linguists can use the most advanced devices enriching their research with the newest applications. The example of a technologically advanced device that is more and more often present in the linguistic studies is an eye tracker that measures eye movements.

The use of eye tracking in glottodidactics was described in some of my previous papers (see for example A. Andrychowicz-Trojanowska 2016). The following article is a continuation of the theme, however, this time its goal is not to present the results of the research but to make the reader more familiar with eye tracking, eye-tracking terminology and eye-tracking parameters, especially those that are useful in linguistic and glottodidactic research. To do it, eye tracking itself will be briefly characterized, fixations and saccades (the most important eye movements) will be presented, basic linguistic academic research centers that use eye tracking will be listed, and, finally, the most important and useful eye-tracking parameters will be shortly characterized.

2. Eye tracking in a nutshell

The interest in human's eye and eye movements has a very long history but only since the mid-1970s it has become possible to really follow it and check it. The real

breakthrough in that type of research was started by the development of eye-tracking methodology and eye-tracking tools which are now widely used in different branches of human activity. Eye trackers are present in such areas as neuroscience, psychology, psychiatry and psycholinguistics, usability, industrial engineering, human factors and ergonomics, marketing (market research), advertising, computer science, gaze based interaction etc. (A. Duchowski 2007) and they help to understand such activities as reading, scanning, visual stimuli processing (L. Lorigo et al. 2008), cognitive load etc.

Eye movements are the human behaviour that occurs on average three times per second, it is an indicator of the information which is being received at the particular moment by the subject (P. Soluch/ A. Tarnowski 2013). Eye tracking allows to observe and analyse the way the person looks at the object, so it may be possible to see in details what is at the central direction of gaze as well as to follow along the path of the visual attention of the observer (A. Duchowski 2007: 3). Eye tracking is based on an eye/mind hypothesis by M.A. Just and P.A. Carpenter (1976) saying that the area of interest is indicated by the location of a fixation (when looking at a visual display and completing a task) as well as on the assumption that the easiness or difficulty of the display to be processed influences the duration of fixations and the pattern of eye movements (J.A. Renshaw et al. 2004).

There are two basic eye movements, i.e. *fixations* and *saccades*. Fixations stabilize the retina over an object of interest which is stationary (A. Duchowski 2007: 46). They are the focuses of our eyes on a particular scene lasting for approximately 200–300 milliseconds. Saccades are rapid eye movements occurring between fixations and lasting, depending on a source, 40–50 milliseconds (L. Lorigo et al. 2008) or 30–80 ms (K. Holmqvist et al. 2011). They reposition the fovea to a new location (A. Duchowski 2007). During a saccade the eyes are moving very fast (the velocity can be even 500° per second) and because of that no new information is obtained during a saccade (K. Rayner 1998). However, during the fixation the eye is not completely still – there are three types of *micro-movements* that it does when fixating: *tremor* (also called *nystagmus*; it is a small movement of c.a. 90 Hz frequency whose role is not clear), *drifts* (slow movements that take an eye away from the fixation center), *microsaccades* (they quickly bring the eye back to its original position) (K. Holmqvist et al. 2011: 22–23, see also S. Martinez-Conde et al. 2004, K. Rayner 1998). Saccades hardly ever take the shortest possible path between two fixations and that is why they can be of several shapes and curvatures (K. Holmqvist et al. 2011). More saccades are the indicator of more searching (J.H. Goldberg/ X. Kotval 1999). What is more, one should realize that there are some other eye movements that should be distinguished from saccades, i.e. *pursuit*, *vergence* and *vestibular eye movements*. When one's eyes follow a moving target, the *pursuit eye movements* occur; when one moves their eyes inward, toward each other to fixate on an object, *vergence eye movements* occur; when one rotates their eyes in order to compensate for body movements (including head movements) as to maintain the same direction of vision, *vestibular eye movements* occur (K. Rayner 1998: 373).

K. Rayner (1998: 372) distinguishes three eras of eye movement research. According to him the first era was begun by Louis E. Javal in 1879 by his observations

about the role of eye movements in reading and lasted until about 1920. At that time the interest was put on such issues as saccadic suppression, saccade latency, the size of perceptual span. Then the second era came, coinciding with the behaviorist movement in experimental psychology. In this era the works of G.T. Buswell (in 1935) on scene perception and of M.A. Tinker (in 1946) on reading occurred. Unfortunately, between the late 1950s and the mid-1970s almost no research on eye movements was held. The mid-1970s is the beginning of the third and the most important era lasting till today. Since then the large improvements in the eye movement recording system have been made owing to which the measurements are more and more accurate and more easily obtained. It also became possible to interface eye-tracking systems with laboratory computers and, as a consequence, collect and analyze large amounts of data.

Eye trackers are advanced physiological systems of measurements (K. Holmqvist et al. 2011: 11), they track and record the position of where the eye is looking at and in what order. That allows to identify the areas which are brought to the participant's attention. The eye tracker sends the processed images to a computer with which it is integrated, and the software analyses the data to present the results in an effective way (<http://www.neurodevice.pl/en/services/eye-tracking>).

Nowadays eye trackers that are very often used are the video-based ones that have an infrared illumination and an eye video camera. Usually for head-mounted eye trackers there is also an additional scene camera (K. Holmqvist et al. 2011). Tracking is possible because reflections on the surface of participant's eyes are created by infrared light sources (it is called the corneal reflection) and the location of that reflection is then compared by the system to the location of their pupil (as the participant moves their eyes, the location of the corneal reflection relative to the pupil changes) (T. Tullis/ B. Albert 2013: 166).

Taking into consideration all the differences between the devices (for example the position of cameras, the position of illuminations, the type of produced data, the way the output can be analyzed) there can be distinguished three types of eye trackers: (1) the most popular *static eye trackers* that put the illumination and eye camera in front of the participant, on the table. *Tower-mounted* static eye trackers are in a close contact with the participant (they restrain head movements). *Remote* static eye trackers are not attached to the head (or there is very little attachment) - usually the stimuli are presented on the computer monitor; (2) *head-mounted eye trackers* that put illuminations and cameras on the participant's head (they are mounted on a helmet, cap or a pair of glasses). A scene camera records the stimulus, i.e. the scene of view; (3) head-mounted eye trackers equipped with a *head-tracker* that calculates the position of the head in space (K. Holmqvist et al. 2011: 51).

3. Eye tracking in linguistic research

Except for the areas of human activity listed above, eye tracking is more and more often used in linguistics (see S. Grucza 2011). In Poland there are a few academic centers that conduct the linguistic research with the help of eye-tracking methodology, for example Adam Mickiewicz University, Faculty of English (see for example

A. Chmiel/ I. Mazur 2013 etc.) and Warsaw University. At the Faculty of Applied Linguistics of Warsaw University there are two centers worth mentioning: AVT Lab (see for example A. Szarkowska et al. 2013) and LELO (Laboratorium Eksperymentalnej Lingwistyki Okulograficznej – Eye-Tracking Experimental Linguistics Laboratory) (see for example S. Grucza/ M. Płużyczka/ J. Zając 2013, S. Grucza/ M. Płużyczka/ P. Soluch 2014, S. Grucza 2013, M. Płużyczka 2013, 2015, A. Kudłaj et al. 2014, A. Bonek 2016, A. Andrychowicz-Trojanowska 2015, 2016, see also lelo.uw.edu.pl). LELO is the first laboratory of that type in Poland. It is aimed at carrying out research in the field of linguistics but with the support of eye tracking. The goal is to verify and complement by eye-tracking methodology the previous findings of translation studies and glottodidactics (S. Grucza/ M. Płużyczka/ J. Zając 2013: 8).

Because of the fact that eye tracking is still not too popular in the field of foreign language teaching and learning (i.e. glottodidactics) in Poland I have been calling this new way of supporting that type of research as *experimental eye-tracking glottodidactics* (however, the first one to use the name *eye-tracking glottodidactics* (Polish *glottodydaktyka okulograficzna*) was S. Grucza – see, for example, S. Grucza 2016). It should be said that some of the projects are conducted by Eye-Tracking Laboratory at SWPS University of Social Sciences and Humanities, Faculty of Psychology at Warsaw University and Laboratory HD at Faculty of Social Sciences of the John Paul II Catholic University of Lublin.

In the analysis of the results recorded by the eye tracker a researcher can use some particular parameters out of a big variety of them. The eye-tracking parameters used are different depending on the character and the aim of the study. For example, M. Płużyczka (2015) in her eye-tracking sight translation research, based her analysis on the following parameters (their names are typical for SMI RED eye trackers and may vary from the names used by different producers in other eye trackers in the same context): total reading time, dwell time, fixation count, revisits, average fixation, pupil dilation. She also used graphic representations, i.e. heat maps and scan paths. On the other hand, I. Krejtz, A. Szarkowska, K. Krejtz (2013) in their eye-tracking audiovisual research chose the following: subject hit count, number of fixations, fixation time percent, first fixation duration, transition matrix. I, in my English textbook analysis, chose, among others, subject hit count, revisits average, fixation count average, fixation time average, fixation count total, fixation time total, dwell time, transition matrix, AOI sequence chart.

It is important to realise that different stimuli and different aim of research require different sets of parameters to be analysed. The software gives a lot of them so it is the researcher that should choose the most proper and the most effective ones. In case of my research it cannot be forgotten that the contemporary textbook of English that is used in the Polish secondary schools consists of the text part and graphic part. Both of them are strictly related – the graphic part includes, among others, illustrations that are a kind of stimulating material for students, very often related to the main text. As such they are integrated and should not be analysed separately. Because of that they differ from the stimuli of a sight translation research and also from the audiovisual

stimuli. The last one is, on one hand, similar, because it also comprises of the text (in the form of subtitles) and the picture, but, on the other hand, they differ because of the motion of the picture and the sound which is an integral part of the film.

Still there is not so much research combining text and picture, although it is changing. A lot of interest has been put on either reading or looking at pictures (K. Rayner 1978, 1998), but not much on the situation when the text and pictures are integrated in the comprehension process (K. Rayner et al. 2001). It is surprising because people are still surrounded by that type of combined information (S.A. Duffy 1992). The greatest example of that, except for newspapers, subtitled movies etc., are textbooks, for example English ones used at Polish secondary schools.

4. Common eye-tracking metrics in glottodidactic research

On the basis of the experience out of my research and the analysis of the collected data, as well as the character of the stimuli, the set of useful eye-tracking parameters that seem to be of most research value in that type of (glottodidactic) research can be listed. The suggested set of the parameters is as follows (all of them will be further described in this chapter): subject hit count, revisits, fixation duration, fixation count, saccade count, dwell time, spatial density, transition matrix, blink rate and pupil size, scan paths, heat maps and AOI sequence charts (all these names are used in SMI RED eye-tracking systems and the parameters they name can be called in a different way in eye tracking software of other producers). It should also be said that such parameters as fixation duration, first fixation duration, dwell time, total dwell time are called position duration measures because they all are related to how long the gaze of a participant stays within a position (K. Holmqvist et al. 2011). It needs to be emphasized that all eye-tracking data is either for one participant or for more than one participant. It is the researcher who sets the number of participants the data is given for.

To describe the parameters further it is necessary to introduce an area of interest (AOI) as the majority of the parameters is given by the software for the particular areas of interest. AOIs are the regions in the stimulus that the researcher is especially interested in gathering data about (K. Holmqvist et al. 2011: 187); as such they are chosen by the researcher and can be changed and/or selected during the analysis of the data. They are also used to include or exclude some parts of the stimulus from the further analysis (for example, if a stimulus is a box of cornflakes, AOIs can be the producer's logo and date of expiry).

The parameter it is worth starting the analysis with is a subject hit count (also called *hit ratio*), i.e. the information (counts and/or percentage) how many participants out of the selected ones looked at least once at the particular area of interest. In other words, it is the number of participants that saw a particular AOI (T. Tullis/ B. Albert 2013). On the basis of subject hit count it can be noticed which AOIs were not looked at.

Revisits (also called *returns*) are defined as a transition to an AOI that has already been visited (K. Holmqvist et al. 2011), they are the second and more glance at the previously viewed object (AOIs). To be more specific, they are the sum of all participant's glances at the particular AOI minus 1 (i.e. minus the very first glance

which is the first visit).

One of the most used eye-tracking measures is fixation duration (also called fixation time), i.e. duration of a particular fixation. It is believed that the longer fixation, the more time is spent on interpreting (J.H. Goldberg/ X. Kotval 1999) and that means the more complicated it (i.e. object) was for a reader (M. Płużyczka 2015). It is also said that the longer fixation duration, the most problematic perception of the fixated object (J.A. Renshaw et al. 2004, see also M. Płużyczka 2015) as the length of this parameter indicates difficulty or easiness of extracting information (M.A. Just/ P.A. Carpenter 1976). Fixation duration parameter may be further divided into fixation time average, first fixation duration, gaze duration (AOI fixations, sum of fixations). Fixation time average is a sum of fixation durations of all subjects divided by their number. First fixation duration in an AOI (also called FFD), though, reflects the time taken for recognition and identification on a part of the stimulus image, which are fast processes (K. Holmqvist et al. 2011).

Fixation count is a number of fixations in a trial and is correlated to total dwell time (K. Holmqvist et al. 2011). It is said to be the most often used parameter in eye-tracking research (R.J.K. Jacob/ K.S. Karn 2003). The higher number of fixations (overall fixations), the poorer search capacity of a participant or the poorer structure of the stimuli. That means that if the informativeness of the stimuli is high (in other words, the structure of the stimuli helps the process of information search), the number of fixations decreases (J. Grobelny et al. 2006). On the other hand, more fixations on a particular AOI may indicate that the AOI is more important and/or more noticeable to the participant than the others (A. Poole et al. 2004). The parameter can be used as an indicator of semantic importance of a piece of stimulus (in scene perception search, for example, it was proved that on semantically informative areas there were significantly more fixations), search efficiency and difficulty (it is thought the parameter is negatively correlated with efficiency of search), experience (it is proved that in their area of experience experts have fewer fixations), memory build-up, properties of words in reading (long composite words or unfamiliar words have more fixations), dysfunctions (dyslexic readers in general make more fixations), age, sex etc. (K. Holmqvist et al. 2011).

Saccade count is defined as a number of saccades in a trial. The number of saccades is strictly related to the spatial organization of information in the stimuli, i.e. the poorer organization, the more saccades (J. Grobelny et al. 2006).

Dwell time (also called *gaze duration*) is understood as one visit (from entry to exit) in an AOI and is a sum of all fixations and saccades in a particular AOI (K. Holmqvist et al. 2011). In other words, it is the total amount of time spent looking within a particular AOI (T. Tullis/ B. Albert 2013). Dwells can be calculated only if the AOIs were set for the stimulus (that differs dwells from fixations which can be calculated even if there are no AOIs for the stimuli) (K. Holmqvist et al. 2011). Dwell time is used to check the participant's interest in an object or to check its level of informativeness. A higher dwell time may also be an indicator of uncertainty and poorer awareness of situation, of difficulty in extracting information from a display. In the eye-tracking research of reading processes longer dwell time is related to less

frequent words. Dwell time is also a key-parameter in gaze-based interaction with computers as it is the most important criterion for activating the button function on the screen. The sum of all dwell times in the particular AOI over a trial is called *total dwell time* (K. Holmqvist et al. 2011).

Spatial density is a spatial distribution of gaze-point samples covering a stimulus. If spatial density is smaller, the search is more direct (J.H. Goldberg/ X. Kotval 1999). Fixation spatial density shows if the search was focused and efficient (evenly spread fixations indicate inefficient and widespread search) (L. Cowen et al. 2002). The given parameter is useful in case of the research aimed at analyzing spatial distribution of the stimuli etc.

The frequency of eye movement transitions between the AOIs can be shown in the form of transition matrix (it is a table showing the number of transitions to and from each AOI). Frequent transitions are an indicator of inefficient scanning accompanied by extensive search (J.H. Goldberg/ X. Kotval 1999).

There are also two parameters that are the indicators of cognitive load, i.e. blink rate and pupil size (also called *pupil dilation*, *pupil diameter*). It is assumed that a lower blink rate indicates a higher workload, whereas a higher blink rate may be related to fatigue (A. Poole/ L.J. Ball 2006). In case of pupil diameter, larger pupils may be an indicator of more cognitive effort, although both these parameters may be caused by some other factors (A. Poole/ L.J. Ball 2006). That is why they are not so often used in eye-tracking analysis.

All the above listed and described parameters are only a few out of many that are generated by the software. However, all of them are related to fixations and saccades, i.e. the most basic eye movements. Except for the numerical data the examples of which were shown, the software gives some representations in a graphic form. i.e. scan paths, heat maps, AOI sequence charts and different graphs. Scan paths (also *scan paths*, *scan patterns*, *search patterns*, *scan sequences*, *gaze sequences*, *fixation tracks*, *eye-movement patterns*) are visualizations of “routes of oculomotor events through space within a certain timespan” (K. Holmqvist et al. 2011: 254) – they show how the eye moves through space. Originally they were a concept by D. Noton and L. Stark who referred a scan path to a fixed path, characteristic to a particular participant and viewing pattern (K. Holmqvist et al. 2011, see also A. Duchowski 2007). Scan paths describe a complete saccade-fixate-saccade sequence (Poole, Ball 2006). The length of a scan path is given in pixels and is the sum of the distances between the gaze-point samples (J.H. Goldberg/ X. Kotval 1999). As such a scan path for an individual participant is a graphic representation of all the fixations and saccades on the stimuli, one after another (M. Płużyczka 2015), so it is possible to see what the visual activity of the participant was. However, in case the amount of data visualized is big (for example when the experiment is long or the task is complicated), scan paths become visually cluttered and hard to read. Heat maps are an example of attention maps. They show the distribution of gaze points and fixations. In other words, they visualize eye-tracking data in a quick and very intuitive way – parts of the stimulus with many fixations or data samples are shown with warm colours (red) and those with few or none – with colder colours (blue) (K. Holmqvist et al. 2011). Heat maps

are very attractive representations but one should be really carefully when drawing conclusions on the basis of them as they only show where the participants look but don't explain why they do it (K. Holmqvist et al. 2011). They also don't give any temporal information about fixations (M. Raschke et al. 2014). AOI sequence chart, though, helps to visualize the sight activity of participants in time – it shows temporal order at which the AOIs were looked at (were hit) by the participant, i.e. it shows the order in which AOIs are fixated. It gives the researcher information about the relative prominence of every AOI within the task (T. Tullis/ B. Albert 2013).

5. Conclusions

In 1596 Du Laurens, a French anatomist and medical scientist, said the eyes are windows of the mind (R.P.G. van Gompel et al. 2007). Not so long ago were eye movements associated only with physiology, but nowadays they are believed to be a precise mapping of cognitive processes and external stimuli of visual nature interactions (P. Soluch/ A. Tarnowski 2013) and indicators of some brain processes. Eye movements are the reflection of language processing as well (P. Soluch/ A. Tarnowski 2013). It is a fact that eye movements reveal much information about the way mind and brain work (R.P.G. van Gompel et al. 2007).

Because of the growing awareness of the role of eye movements, eye tracking is getting more and more popular although it is not new. Only lately has it become used in the field of linguistics and translation studies although the history of contemporary eye-tracking research starts in the mid-1970s. As it is based on the eye movements, it helps to verify and complement the previous findings, but it also gives more possibilities of conducting a very useful and interesting experiments in the field of linguistics based on empirical research.

The aim of the article was to give a brief description of the most common, and at the same time the most useful, eye-tracking parameters that can be used in any type of eye-tracking research. The reason to do this was my own research project based on eye-tracking methodology and the wish to make the whole concept of eye-tracking research easier to understand and more popular in a linguistic society.

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New Pathways to Terminological Minimum

Marek ŁUKASIK

Pomeranian University in Słupsk

E-mail: marek.lukasik@apsl.edu.pl

Abstract: It is widely accepted that terminological minimum is a practical means used for the selection of specialist vocabulary to be taught at various proficiency levels in LSP courses. This popular understanding of the notion renders it similar to the concept of lexical minimum; from the didactic perspective, the two notions seem to largely overlap, being in fact vocabulary lists based mainly on the frequency parameter. However, this picture has largely obscured the true ontological status of the two concepts, and it was not until only recently that the notion of lexical minimum was defined in a more comprehensive way, bringing to light some of its most salient characteristics. Likewise, it seems necessary to re-define the notion of the terminological minimum, if only on account of the specific nature of the lexical unit included in them, i.e. the term. The current paper attempts to elucidate the notion in question and to provide a methodological framework for the compilation of a modern terminological minimum.

Keywords: corpus methodology, lexical competence, lexical minimum, LSP, minimum vocabulary, metalexigraphy, terminology, terminography

1.

In professional settings where the transfer of specialist information depends on specialised texts, the knowledge of terminology is of great importance. This stems from the fact that in a natural-language communication act specialised texts are the fundamental exponents of specialised knowledge, while individual terms in such texts can be regarded as signs denoting individual concepts, i.e. chunks of specialised knowledge. In some exceptional contexts, even one term can be treated as a complete text. From this perspective, the entirety of terms in a specialist text constitute its conceptual backbone.

From the sociolinguistic perspective, it is important to emphasise that knowledge of lexis can be a threshold for becoming a member of a discourse community (P. Mamet 2002: 144–145). Accordingly, the significance of terminology tools cannot be underestimated in the contemporary world, with ever more specialised fields and subfields of human activity emerging and developing their own code of communication. International specialist communication as well as the didactic process require the establishment of a solid conceptual and terminological base in order to avoid distortion of specialist knowledge and ensure uninterrupted flow of information.

Moreover, most translation tasks commissioned worldwide concern specialised (i.e. non-literary) texts; this observation equally concerns big organisations, such as the UN, WTO, WHO, NATO or the EU (see e.g. D. Cao/ X. Zhao 2008). Also, new translation areas, such as those connected with software localisation, require the expansion of the translator's terminological competence – a state of affairs that directly affects translator education. According to D. Gouadec, translation training is nowadays far more specialised than it used to be, with graduates entering the translation market aiming straight away “for more high-end of the market (both in terms of domain and in terms of IT skills needed)”, not “just translation” (D. Gouadec 2010: 148). The increase in the use of computer-assisted translation software, which often includes terminology management tools, and development of automated (machine) translation increase the role of terminology resources even further.

On a local scale, recent years have seen an increased emphasis on vocational training put by the Polish Ministry of Education, with numerous vocational courses reopening after years of stagnation and new vocational exams announced.¹ The school year of 2014/2015 was even dubbed the “Year of Professionals” and the Ministry has since organised various conferences devoted to vocational education. As of the school year of 2017/2018, a new vocational schooling scheme has been introduced, with a new type of two-level vocational school established. Parallel to an already existing secondary technical school, such schools educate future professionals.

One important constituent of the vocational training curriculum in Poland, common to all professions, is foreign vocational language course². Practically speaking, the Ministry³ has named as many as 209 professions, which represent roughly 70 different specialised areas, viz. also specialised languages⁴. Yet, there has been glaring scarcity of educational language materials, such as LSP textbooks/coursebooks, workbooks, specialised learner's dictionaries, etc. (in most languages), while the market has been slow to meet the demand (M. Pławska 2016: 7). One of the underlying reasons, important from the perspective of the present paper, might be the lack of resources for such materials, including structured (level-graded) collections of authentic primary texts, i.e. specialised corpora, vocabulary sets, specialised dictionaries, encyclopaedia, etc.

It seems that appropriately compiled terminological minimums could close the existing gap in graded specialised lexical resources, which are necessary in most, if not all, areas and contexts mentioned above. On top of its function as a lexical educational resource or a benchmark for the assessment of lexical proficiency at a certain level, terminological minimum is also a cognitive control tool as well as an

¹ Regulation of the Minister of Education, dated 17th February 2012 on Core Curriculum in Vocational Training, Journal of Laws (Dz.U.) item 184.

² Maintained in the new curriculum for the new scheme of vocational training (see: <http://men.gov.pl/wp-content/uploads/2017/03/pelna-tresc-rozporzadzenia-1.pdf>, [Accessed: 8.10.2017].

³ Regulation of the Minister of Education, dated 13th December 2016 on the Classification of professions in vocational education, Journal of Laws (Dz.U.) item 2094.

⁴ According to a preliminary study undertaken by the Author of this paper.

important instrument in terminology management, terminology standardisation and development of modern digital terminology solutions.

Therefore this paper attempts to capture the major characteristics of terminological minimum (TM) understood as a multilayered construct, representing certain cognitive capacity, conceptual construct, a terminological resource and a (glotto)didactic means. Since TM shares some characteristics with lexical minimum (LM), the discussion starts with some important considerations referring to the latter term. Then, an attempt is made to encapsulate the notion of TM, and to present some of its most general attributes, considered in light of two different approaches to terminology. These considerations constitute a point of departure for the elaboration of TM design criteria and construction methods. Finally, the paper expounds on some specific features of TM as a resource/ reference work, and offers an outlook of the role and shape of TM in the digital age.

2.

While researching the concept of TM, the author has naturally come across the notion of LM. A thorough analysis has revealed that a number of issues inherent to LM are shared by TM, mainly because the two notions traditionally have a common denominator of being graded (i.e. level-based) vocabulary lists selected on the basis of some criteria, usually quantitative ones. Therefore, the author first focussed on a much broader term of LM, with respective findings presented in his previous paper (M. Łukasik 2017b). Those results have provided some significant insights into the nature of lexical resources that can prove useful for the current considerations on TM. In order to maintain a continuity of reasoning and expand essential points of the general discussion on the notion of LM and TM, some of the most important conclusions from the previous study, supplemented with a few additional comments, are briefly presented below.

2.1.

It first needs to be noted that the two terms, i.e. ‘lexical minimum’ and ‘terminological minimum’, seem to be more prevalent in the Slavic language area⁵, compared to English-writing scholars, who prefer other expressions, such as ‘core vocabulary/terminology’, ‘elementary vocabulary/terminology’, ‘basic vocabulary/terminology’, ‘minimum vocabulary/terminology’ or ‘core vocabulary/terminology’, each possibly exhibiting some degree of divergence from another. Equivalent terms are also found across other languages e.g. in German (‘terminologische Mindestwortschatz’, ‘Basiswortschatz’, ‘Minimal-/Mindestwortschatz’, ‘Grundwortschatz’, ‘zentrale Wortschatz’, among other proposals) or in French (‘vocabulaire essentiel’, ‘vocabulaire fondamental’) (see e.g. A. Dörre 2010, P. Kühn 1979, 1991, U. Schnörch 2002). In the present paper the terms of ‘lexical minimum’ and ‘terminological minimum’ will be used throughout.

⁵ Cf. the respective Russian terms ‘Лексический минимум’ (*Leksičeskij minimum*) and ‘Терминологический минимум’ (*Terminologičeskij minimum*).

2.2.

For some scholars, LM is a broader concept, subsuming the notion of TM. This overarching nature of LM is reflected in Kühn's words: „Grundwortschatz, ist ein inflationärer Begriff [...]” (P. Kühn 1991: 1358). Granted, if the entire lexical richness of a natural language is taken into account (i.e. its horizontal and vertical variation, including all specialised languages and their variants) when compiling an LM, then, naturally, the notion can be seen as encompassing TM⁶ (LM>TM). This might be one of the reasons why some authors use the term ‘lexical minimum’ in works that in fact present specialised lexis (see e.g. the *Lexical minimum of general technical English for students of engineering* (O.L. Yaroshenko 2014: 104) or *Professional Lexical Minimum for Customs Students* (E.Ju. Gordeeva 2015))⁷.

It needs be emphasised, however, that on consistency grounds, only in some cases should the term ‘lexical minimum’ stand for the term ‘terminological minimum’. Such substitution is principally possible in two cases: (1) where the choice of vocabulary is not restricted to terms, and also includes other lexical units found in specialist texts, (2) if the primary function of the reference work does not include standardisation or no terminological goal is attempted. However, if the lexical units included are terms proper⁸ or where normative nature (status) of a set of lexical units is to be established by way of the minimum, the term ‘terminological minimum’ is preferable (for more detailed considerations see below).

2.3.

Contemplating the notion of ‘minimum vocabulary’, which is often equated with the concept of LM⁹, it primarily needs to be considered in its most fundamental meaning, namely that of a lexical competence, or indeed the mental lexicon of an individual. This conclusion stems from the fact that vocabulary as such belongs to the realm of language, i.e. an inherent property of a human being (F. Grucza 1983: 296–297, 301–302). Depending on the language skills that interlocutors use, it is possible to differentiate between passive (for text reception) and active (for text production) minimum vocabulary. The qualifier ‘minimum’ refers here to a certain level of lexical competence allowing an uninterrupted transfer of information between speakers at a certain proficiency level. However, in spite of the fact that such lexical competence level is by convention gradable (i.e. elementary, intermediate, advanced), its evaluation will always be relative; it can only be measured against the competence of other individuals or groups of individuals. Practically speaking, the only viable

⁶ Regardless of the precision of the definition of specialised lexis (terminology), which, by convention, a TM is supposed to present.

⁷ The term ‘vocabulary’, and in particular ‘basic vocabulary’, is also frequently used for specialised vocabulary sets (e.g. *Grundwortschatz für Pflegeberufe*, R. Strack 2015), alongside the term ‘basic terminology’ or ‘basic concepts’ (e.g. *Glossary of basic terminology on disaster risk reduction*, UNESCO).

⁸ According to the traditional definition of the term (cf. H. Felber/ G. Budin 1994: 26).

⁹ At least in one of its meanings.

manner to undertake such assessment is through speakers' language exponents, i.e. texts. It might therefore be easier to evaluate active rather than passive vocabulary (competence) of an individual. Also, it is not (and will probably never be) possible to study/ evaluate an entire cognitive capacity, such as the lexical competence, of a person.

Despite the fact that the competence is hardly quantifiable, statistics has been used to correlate the number of internalised word stock and the amount of text understood by its readers (D. Hirsh/ P. Nation 1992, A. Dörre 2010: 20ff).

2.4.

One of the fundamental assumptions that is relevant to both LM and TM is that neither should be mistaken for the frequency dictionary. Although there is some degree of correspondence between the notions of LM/TM (understood as a specific type of reference work) and a frequency dictionary, that is the quantitative element behind the linguistic data, the major point of divergence lies in the fact that the latter is designed to inform about the frequency of words (or other linguistic units/ phenomena), while in the case of the former frequency data of lexical units are used at the initial stage of lemma selection procedure, at least according to the prevailing approach to LM/TM compilation. Another difference is that qualitative lemma selection procedure belongs more to LM/TM than the frequency dictionary design. Any frequency dictionary that presents other types of data beyond statistical ones should be considered a hybrid lexicographic work.

Another term worth delineating here is that of the 'minimum dictionary', which refers to a lexicographical work that represents LM¹⁰. As a matter of fact, the two terms have often been used interchangeably with regard to a reference work that includes a selection of vocabulary. From an ontological perspective, it could be said that LM is the content of a minimum dictionary, the latter featuring a lexicographical structure, sometimes equipped with supplementary materials, in particular useful indexes (e.g. *Słownik minimum języka polskiego* (see: H. Zgólkowa 2013). Yet, an extended lexicographic structure has also been found in lexical minimums (e.g. *Lexical minimum of English for Bulgarian Learners* (see: A.Ī. Danchev et al. 1982), and therefore no definite borderline can be drawn between the two terms.

Contrary to its primary function outlined above, the concept of 'minimum dictionary' has often been used as a badge of a frequency dictionary (see e.g. *Častotnyj anglo-russkij fizičeskij slovar'-minimum* (see: P. Alekseev et al. 1996), which supports my contention that the notions of LM/TM are predominantly seen either as frequency or frequency-based reference works (cf. definition of basic vocabulary in the *Dictionary of Lexicography*, R.R.K. Hartmann/ G. James 2002: 13). P.M. Alekseev (2005) seems to confirm this observation, at least in relation to the use of statistics in the choice of language material in glottodidactics and creation of minimum vocabularies. The scholar writes:

¹⁰ In yet a different approach, it is the didactic dictionary that is designed to present terminological minimum, or at least the most frequently used terms (S. Gajda 1990: 120).

It has been demonstrated that practically all selection criteria [for the choice of language material] are statistically based. Creation of basic vocabularies and dictionary minimums enters the sphere of class-room statistical lexicography, an important part of it being formed by bilingual, multilingual and semantic frequency dictionaries [...] (P.M. Alekseev 2005: 320).

Yet, despite an extended set of (ever more specific) statistical methods used in lexical studies, such as dispersion and distribution across corpus/ corpora (V. Brezina/ D. Gablasowa 2013: 3), it has been assumed that the qualitative element should in most instances be taken into account in the process of LM/TM construction, in so far as quantitative criteria alone cannot account for some qualitative variables, such as the communicative/ pragmatic aim¹¹.

Alternatively, it may well be that it is impossible to draw a definite demarcation line between the various terms/ concepts discussed above. This stance can be supported by a claim put forward by P.A. Fuertes-Olivera that regardless of their names, all reference works are ontologically the same; they all strive at satisfying user needs by way of utilising various technologies and innovations that can help the users access the lexicographic data they need, while the differences between individual works stem from the fact that there are different users in different situations (P.A. Fuertes-Olivera 2014: 28).

2.5.

Among the qualitative criteria for LM lemma selection one can list: the ease of learning, stylistic/ emotional neutrality, pragmatic relevance, usefulness, informative/ communicative value, word formation productivity, etc. (see F. Charalabopoulou et al. 2017, H. Kaczmarek 2006: 29, M. West 1953: IX-X). Appealing as the criteria might seem, they have not been clearly defined (if at all) and lack the necessary methodological principles¹²; there are hardly any guidelines as to how to apply them in specific projects. Accordingly, one needs to bear in mind that qualitative methods are inherently subjective and possibly intuitive.

2.6.

Construction of a reference work such as LM should follow a predefined chain of lexicographic activities, including design, user and usage study, corpus compilation, data extraction, database creation, writing of entries, proofreading, marketing, etc. One of the most fundamental variables that influences the design phase as well as any future corrections to the work are the users: their knowledge, skills, needs, and the tasks they will use LMs for. Practically speaking, it is necessary to undertake user studies and define a catalogue of universal user needs for specific user types. The principles to follow are derived from the Function Theory of Lexicography, as

¹¹ In fact, the mere fact of choosing specific statistical measures or setting a threshold on the lexical set to be presented may amount to a qualitative compilation element.

¹² One example relates to the vague notion of ‘usefulness’, which is either not defined at all or relates to a wide range of communicative or glottodidactic goals a TM is supposed to help achieve (see E. Jendrych 2012).

outlined by H. Bergenholtz and S. Tarp (H. Bergenholtz/ S. Tarp 2002, S. Tarp 2008, see also S. Tarp 2008: 168, P.A. Fuertes-Olivera/ S. Tarp 2014: 48-50).

2.7.

One of the major conclusions regarding the LM compilation criteria is that such reference tools should be based on authentic language samples, i.e. representative corpora. Representativeness is an all-important prerequisite here; the quality of any LM will be as good as the quality of the primary sources it is based on. However, despite a wide-ranging discussion on the issue of representativeness, few corpora can be considered representative. Moreover, representativeness is a relative feature, mainly because there are no objective ways to balance a corpus or measure the quality in question (T. McEnery/ R. Xiao/ Y. Tono 2006: 21). Also, practical implementation of the feature will depend on the horizontal and vertical characteristics of language units to be extracted from a corpus. Definitely, compilation of any reference tools, including LM or TM, on the basis of other reference materials, such as coursebooks/ textbooks, e-learning courses, etc., as suggested by some authors (e.g. E. Jendrych 2009b: 130, J. Tomaszczyk 2012: 47), is an erroneous method, unless some specific aim is attempted (e.g. comparison of the lexical scope in textbooks¹³) or the sources are used as secondary, i.e. supplementary¹⁴. Such secondary sources present an already selected material, often graded according to conventional proficiency levels, therefore considerably limiting the representativeness of the resources, and effectively LM/TM based on them. Often, the selection criteria in such sources remain unknown.

2.8.

Summarising the above considerations, it is worth emphasising that LM should be seen as a multidimensional concept. Its primary definition encompasses the following meanings: a) a language competence of an individual, i.e. their lexical competence (LM as a cognitive capacity), b) a relative measure tool of an individual's lexical competence (LM as a cognitive benchmark and – when externalised – a diagnostic tool, i.e. a testing device), c) a graded lexical resource for development of learning and/or teaching materials (LM as a general educational resource), d) an educational reference in its own right (LM as a specific educational resource, e.g. a self study material).

LM as a specific source or reference work is not a homogeneous entity. Its content will vary both horizontally and vertically, reflecting the conceptual and lexical complexity as well as pragmatic/ communicative value of lexical units presented. Richness of the structure and content of LM as a specific reference work can be a basis for their extended typology (P. Kühn 1991: 1358–1359). One important design prerequisite is that the structure of LM should be kept simple and the resource itself should not develop into an all-in-one dictionary. This simplicity calls for even more

¹³ Admittedly, it would be a far-fetched goal for any LM/TM.

¹⁴ Some exception from this rule might be employment of frequency dictionaries, provided that (a) the coverage is compatible with the scope of projected LM/TM, (b) robust quantitative methods have been applied for its compilation.

rigid compilation procedure. It is proposed that in most cases LM could take a form of a modern database, accessible online or becoming part of other lingware, whose content could be displayed at user's request and according to their current needs. The design of the database should also be subjected to rigid compilation procedures. As P. Hanks points out, the absence of space constraints (in modern electronic environment) calls for more, not less intellectual discipline in the selection and arrangement of information (P. Hanks 2003: 164).

3.

Following on the discussion on LM, it first needs to be emphasised that TM should primarily be seen as a specific lexical competence of a person. However, from the ontological perspective, it might be difficult to differentiate between LM and TM, mainly due to the difficulties in defining the operational unit in each case. If LM is considered a wider concept, then all internalised lexical units comprising the lexical competence of an individual are taken into account. If it is necessary to differentiate between general language lexical competence and specialised language lexical competence, then one should first define specialised language lexical units. Such differentiation is of utmost importance where is considered TM as a subset of the entire lexical competence.

If linguists cannot fully agree on a nature of word as such, then it is even more difficult to find a universal definition of a specialised-language vocabulary unit. Similarly to other linguistic units, specialised lexis does not form a homogeneous category, and scholars traditionally differentiate between various types of specialised vocabulary. The notion central to this discussion is that of the term.

3.1.

Traditionally, term is seen as a sign that is permanently linked to a distinctive concept or a group of concepts (H. Felber/ G. Budin 1994: 26). Among the most salient characteristics of terms is standardisation (terms should be conventional units)¹⁵ and univocity (terminology should follow the one term—one concept rule). The traditional (Vienna school) approach to terminology assumes that a clear delineation between concepts is possible on the basis of comparison of concept characteristics, which are derived from introspection. The identification of terms is therefore connected with precisely defining the concept. The obvious problem (and a basis for criticism) is seen in the accessibility of the mental (conceptual) layer, the reliability of its observation and presentation as well as the high degree of subjectivity, even in cases where a field specialist is involved (cf. R. Temmerman 2000: 45).

In the traditional approach to terminology, lexical units that fail to follow the prerequisites outlined above, cannot be considered terms proper. In particular, any non-standardised units or synonymous expressions will be labelled non-preferred (or even forbidden). Figurative language and connotative language are disregarded in traditional approach to terminology (R. Temmerman 1997: 54–55).

¹⁵ As a matter of fact, it is seen as the fundamental aim of terminology.

Adoption of the above presented view of terminology narrows the catalogue of lexical units considered in TM to terms. An issue requiring further discussion is the design of an evaluation tool to measure lexical competence in such a limited scope.

3.2.

The traditional approach to terminology has seen a growing criticism over the years, mainly on account of its prescriptive nature, including the imposed link between concept and term and the overemphasis on standardisation. Standardisation and univocity have been deemed unrealistic in natural language professional communication (cf. V. Tsakona 2007: 122). It has been stressed that terms should be analysed before concepts in their natural environment, i.e. in texts. J.C. Sager stresses that terms are not context-independent entities, and the meaning of terms can change, depending on the communicative intention of the text (or in fact that of the sender's), which can be transmitted at various textual levels (J.C. Sager 1990: 101). Accordingly, the link between concept and term can in fact only be reconstructed as an approximation, even if standardisation procedures have rendered some concept-term pairs relatively stable. Admittedly, the link in the minds of individuals is not only highly idiosyncratic, but also hardly identifiable.

Clearly, the new approach allows for a wider catalogue of units to be considered potential headwords in TM. In fact, specialised vocabulary in its entirety should be taken into account, provided that such selection meets the needs of users. Accordingly, along with standardised terms and nomenclature names, representing the conventional part the lexicon, also other lexical units that have yet to be standardised (such as pre-terms), general scientific/ technical words, hypoterms (general-language units occurring in specialised texts) or units emerging from natural professional communication, such as professionalisms or slang¹⁶ – are all seen equally part of the specialised lexicon and are recognised on a par with standardised terms. Moreover, regarded as natural language communication phenomena, lexical units resulting from polysemy and homonymy as well as abbreviated forms are also taken into account.

From such a wide lexical perspective, it is more difficult to set clear boundaries as to what should count as a TM operational unit. Definitely, according to the latest views on terminology, the expression 'term' subsumes most of the types of specialised vocabulary outlined in the preceding paragraph. This in turn brings it closer to a common (=non-specialised) explication of the notion, presented e.g. in general language dictionaries. For example, according to the *Oxford English Dictionary* term is "A word or phrase used to describe a thing or to express a concept, especially in a particular kind of language or branch of study." (Oxford English Dictionary Online). For such a broad set of lexical units, an overarching synonymous expression 'specialised vocabulary/ lexical unit' can be introduced.

¹⁶ It has been argued that such units (i.e. professionalisms and slang units) are highly valuable in professional communication and their information-carrying and communicative potential is equal to that of terms, despite their limited scope of use (see M. Łukasik 2017a: 311).

3.3

The lexical considerations presented above call for at least two different approaches to, and two different types of, terminological minimum: a prescriptive and a descriptive one (Fig. 1).

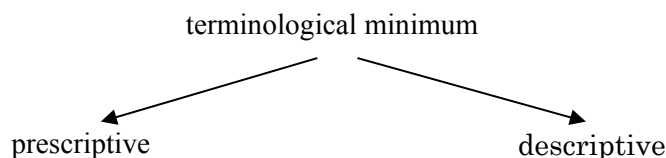


Fig. 1 Fundamental types of terminological minimum.

(i) From the perspective of the prescriptive (traditional) approach to terminology, the base for considering units of TM is the terminological lexicon¹⁷ of a domain/ field, and more specifically formally standardised terms. Accordingly, TM can be defined as a specific lexical competence, an evaluation measure, a terminological tool, a resource or a reference work covering base terms (and hence core concepts) of a domain/ field. As a lexical competence of an individual, TM may help distinguish language speakers with an appropriate conceptual-linguistic core knowledge characteristic of the domain/ field and its LSP, while TM as an evaluation measure can help assess such competence. However, due to a highly individual nature of knowledge, it must be emphasised that any thresholds set cannot be seen as absolute or objective. Presenting core concepts, TM is specifically useful as a tool in preventing undesired and unsubstantiated transgressions beyond the cognitive basis of a domain/ field¹⁸, simultaneously constituting an authoritative and prescriptive resource for various didactic uses, terminological applications, and beyond. For example, S.E. Wright and G. Budin (1997) suggest that standardised terminology ensures that legal regulations are enforced according to the “letter of the law”, while “adherence to the sense of specified terms in technical and legal contexts is designed to guard public health and safety, provide liability protection, and even guarantee human rights under the law”. In a similar vein, chemical nomenclatures provide systems for naming compounds, and are designed to “eliminate proliferation of conflicting names and to enable scientists to understand and benefit from each other’s work” (S.E. Wright/ G. Budin 1997: 329).

(ii) From the perspective of socio-cognitive approach to terminology, it is necessary to assume a wider base for distinguishing TM, namely all content-carrying lexical units found in specialised texts, in particular those pertaining to a domain/ field. The point of discussion is therefore shifted from the definition and status of terminological units (i.e. their conceptual/terminological value or preference over

¹⁷ In the narrow sense of the notion.

¹⁸ For example, G. Bedny strongly emphasises the cognitive role of basic terminology in psychology. The scholar claims that “The success of any theoretical and applied research in psychology, as in any science, largely depends on the proper use of basic terminology and fundamental concepts underlying the theory.” (G. Bedny 2015: 75).

other units) to the communicative/ informative value of lexical units found in specialist communication. TM can therefore be defined as a lexical competence of an individual, a specific evaluation tool, a lexical resource and a reference work, representing a selection of specialised vocabulary of a domain/ field. The selection, however, will depend on the final communicative/ (glotto)didactic goal and will reflect usage rather than norm. If constructed correctly, such a reference work can also illustrate the mainstream theoretical and practical approach to a subject-matter considered, even in fields where the conceptual basis is still being discussed. By its nature, the type of TM defined here is capable of reflecting global conceptual, linguistic and textual characteristics of an LSP (such 'registration' role cannot be attributed to prescriptive TM). One of the major imperatives that needs to be observed is that the lexis selected for TM must not distort professional knowledge¹⁹.

As a resource, TM is used as a basis for the development of (glotto)didactic materials (textbooks, course contents, etc.), lexicographic works (descriptive dictionaries, minimum dictionaries, thesauri, etc.), and terminological tools (terminological databases), among other applications.

As a glottodidactic tool, TM is aimed at increasing language competence of speakers in various professional situations. It is most frequently used where LSP is taught, i.e. vocational school, technical secondary schools, corporate language courses, language courses at university level, etc. Yet, it needs to be noted that the glottodidactic role of TM cannot parallel that of LM's, mainly due to the limited scope of lexical units presented in the former. Among its glottodidactic uses, TMs also act as testing means, lexical reference works for use in the classroom (resembling glossaries at the back of a textbook), and self-study materials.

Compared to the prescriptive type, the TM model discussed in this section can be regarded as descriptive, in so far as no standardisation or authoritative goal is attempted. However, with the accuracy of information and specialised knowledge validity maintained, descriptive TMs can also safeguard against knowledge distortion. Undoubtedly, both TM types are dynamic in that they remain open to new items – a feature naturally associated with the development of knowledge/ language. It is also worth noting that the clear (idealised) demarcation line drawn between the two models of TM serves only to conceptualise the issues connected with a rich variety of specialised lexis and general design/construction criteria as well as TM functions vis-à-vis users' needs. Since description and prescription do not have to be mutually exclusive opposites, hybrid TM models are also possible. In particular, TM as a specific reference work or a resource can be modified at macro-, medio- or microstructural level so as to feature both elements (cf. similar solutions in specialised lexicography; N. Guy 2002: 263).

¹⁹ The choice of appropriate sources and the selection procedure are therefore the all-important phases in TM construction. With many competing theories and methodologies, it might be challenging to go beyond frequency parameters (see below).

4.

The quality of any reference work is dependent on all the decisions and steps that precede its release. Accordingly, it is necessary to detail the mechanisms that lead to the creation of a reliable TM²⁰.

S. Gruzca (2004) suggests a universal compilation procedure for terminological minimum. The scholar outlines three general construction stages: 1) Establishment of a list of entries of most frequent terms, 2) Verification and ordering of the terminological material gathered, 3) Addition of missing terms (S. Gruzca 2004: 256).

Although the procedure in its original form is mainly applicable to a descriptive TM, replacement of the frequency parameter for the standardisation requirement, can render the proposal equally useful for the prescriptive TM.

The proposal delineated above may seem simple, yet, it in fact requires a greater number of steps and consideration of a number of specific variables. For example, before any extraction of lexical units (terminology) can take place, a lexicographer/terminographer first needs to identify global and specific design criteria²¹ of the final product as well as all partial tasks connected with its construction, such as identification of universal users' needs or compilation of a quality text corpus. Most importantly, the extraction, verification/ ordering and supplementation processes need to be specified in a clear and methodologically unequivocal manner so as to prevent any erroneous solutions that could negatively influence the quality of the final product. These issues will be discussed below.

4.1.

Since the dominant role of TM as an externalised entity is that of a resource and a reference work, it seems that the design procedure used in specialised lexicography can also be applied in a TM project. The major design elements can be shortlisted to the following points:

- the area/ subject field/ domain to be taken into account, its level of development;
- characteristics of the specialised language (and hence lexis) developed within the area/ subject field/ domain (e.g. primary or secondary or no terminological system; standardisation level; culture-dependent/ culture-independent terminology, etc.);
- potential users and their needs (defining the function on a future TM);
- type of TM to be compiled (e.g. prescriptive/ descriptive);
- availability (and types) of resources for a TM project;
- evaluation of secondary sources (terminographic analysis);

²⁰ Unless specified otherwise, the following discussion will concern TM as a specific resource or reference work.

²¹ My understanding of 'design criteria' is in line with the explanation of the notion provided by E. Debus-Gregor and U. Heid (2013: 1002). According to the scholar, the design criteria are any theoretical and practical aspects that need to be considered in the conception of a TM.

- conceptual continuity to be reflected (vertical and horizontal concept characteristics; level of concept granularity to be presented);
- lexical items inclusion/ exclusion criteria;
- corpus compilation procedure;
- lexical items extraction and verification methods;
- lemma stock complement criteria/ methods;
- data management;
- macro- and microstructure of TM (tailored to the needs of users);
- distribution of the product (e.g. marketing strategies);
- use and user feedback processing.

The foregoing paragraphs discuss some of the variables that need to be addressed in the course of TM design and compilation.

4.2.

Contemporary world has achieved a level of development and degree of specialisation that has never been seen before. These advancements have naturally been reflected in specialised languages, in particular in their lexical layer. Yet, a specific dichotomy can be observed; the most advanced nations and/or languages²² develop more extensive and precise lexical (terminological) systems. Such systems are called primary (=primary terminological systems), as opposed to secondary systems (=secondary terminological systems), which usually borrow concepts/ terms from the former. From the perspective of terminological studies, primary systems usually act as a source of highest quality specialist knowledge and as a specific benchmark against which secondary systems are evaluated. To construct a reliable resource, such as a TM, it may be necessary to examine the nature of a particular system and trace back the origins of both terms and their concepts/ meanings. Needless to say, the boundaries between fields/ domains, and hence their lexical systems, are usually blurred and/or overlapping, not least because (a) it is inherently difficult to distinguish between various realms of research (D.S. Giannoni 2010: 21), and (b) an even greater number of human endeavours are (purported to be) interdisciplinary. This brings to light a question of the thematic scope of primary and secondary texts for TM lexical excerption (see Sections 4.4. and 4.5. for further discussion).

Another issue worth considering is the proportions of various types of lexical units found in specific LSPs, such as between terms and nomenclature names, standardised and non-standardised units, as well as other lexical items found in specialised texts, such as abbreviations. Since some LSP lexicons are highly conventionalised (cf. the lexicon of chemistry), and others are rather far from standardised (cf. the lexicon of linguistics), it may not be feasible to undertake construction of certain TM types in a specific field/ discipline, such as a prescriptive TM in the field of linguistics.

²² The term ‘most advanced languages’ refers here to lingua francas of international professional communication/ knowledge transfer. Despite their worldwide range, such languages may also exhibit a degree of divergence across various (groups of) users.

Finally, conceptual systems of some fields/domains may be specific to a particular (lingo)cultural area or even limited to a geographical region, giving rise to e.g. culture-dependent terms (e.g. legal terms) or lexical/ terminological regionalisms (e.g. terms referring to crafts unique to a cultural minority). This poses a problem of conceptual system comparability in both intra- and interlingual plane, which, in particular, may influence the construction of bi- and multilingual TMs. Contrary to popular view, non-compatibility of conceptual systems can also be observed in culture-independent fields/domains, such as science or technology. G. Bedny (2015: 75) stresses that scientific terms may have different meanings in different languages and may vary from author to author. He discusses the terminological problems in the field of psychology, and more precisely its activity theory (AT), and demonstrates that the AT terminology, which was developed in a very specific sociocultural context in Russia, poses great interpretation and translation problems, in particular in/ into English (G. Bedny 2015: 75, 92–93). In technical fields, variation across technical vocabulary may stem from the development of local technical culture and the influence of local brand names which later become terms proper (e.g. flex).

Depending on the function of TM, all the variables discussed above will influence the choice of primary sources as well as vocabulary selection criteria (see below).

4.3.

As has been mentioned in the Introduction (see Section 1 (f)), user studies are at the heart of any lexicographic compilation and influence the final shape of any reference work. As H.K. Simonsen asserts, “the degree of success of any product is heavily dependent on the underlying end-user research conducted”, while “the qualifications and situation of the end-user govern any production process” (H.K. Simonsen 2000: 93). Besides user characteristics (their general knowledge, level of expertise, language proficiency, etc.), also knowledge-related (factual knowledge expansion/ verification), communication-related (text production/ text reception) as well as extralexigraphic user needs should ought to be researched (cf. S. Tarp 2008).

4.3.1.

If TM is to assume a prescriptive terminological role, the primary addressees of the work will be experienced professionals in specific fields, governmental (and other official) bodies, terminologists, linguists (including cognitive linguists), NLP specialists, information science experts, lexicographers (terminographers), translators and possibly educators. Also specialists from related fields can significantly benefit from such TM type, mainly because of its concept defining nature.

If TM is to assume a descriptive role, a catalogue of users widens significantly and includes all groups of LSP users, i.e. specialists, semi-specialists and non-specialists.

In the hands of field professionals, descriptive TM will most likely serve as a resource and reference work, mainly for elaboration of other reference works, such as dictionaries, textbooks and other didactic means (such as e-learning courses, testing tools, etc.), as well as a benchmark for evaluation purposes (e.g. of employees). It

might also be used as a resource for future standardisation of terms; in this way a specific feedback occurs between the two types of TM discussed in this paper.

Definitely, the most numerous group of descriptive TM users is constituted by semi-specialists and non-specialists, and in particular by LSP educators and learners, students of a variety of fields, translators, specialists of other (often related) fields, technical writers, etc. In the area of education, descriptive TM will come in two flavours, depending on the skills developed by their users, namely active and passive (see Section 2.3.). Yet, beyond the most commonly recognised function as a didactic tool, descriptive TM can be a subject-matter guide.

4.3.2.

An example of TM user studies comes from E. Jendrych, who has elaborated on potential addressees of a glottodidactic TM for Business English. The researcher lists the following groups of users along with projected TM functions (E. Jendrych 2009b: 127):

- students (TM used for revision of lexical material, and as self-evaluation tool and a resource for bridging knowledge gaps);
- textbook authors (TM as a benchmark for authors of Business English textbooks and e-learning courses);
- teachers (TM used for the assessment of the degree of specialised vocabulary acquisition by students, and for evaluation of the effectiveness of teaching methods and achieved progress measured by the level of lexical proficiency),
- examiners (TM used for testing language proficiency in the scope of specialised vocabulary);
- employers (TM used for the assessment of language proficiency of interviewees/ employees (e.g. when commissioning a task requiring appropriate level of business language);
- linguists (TM used for determining the level of terminologisation of didactic texts, and for evaluation of textbooks/ e-learning courses).

Expanding her studies, E. Jendrych also has also explored in detail the student group, referring to their professional experience and subject-matter knowledge. According to her studies (2009a: 85–86), student users comprise:

- regular students of economics, finance, and administration, with little professional experience/knowledge;
- extramural students majoring in the above-listed fields, exhibiting considerable professional knowledge;
- students and graduates of language and linguistics departments, who wish to specialise in business English, but who have no knowledge about business;
- participants of closed (corporate) and open Business English courses, who possess various levels of knowledge and professional experience.

It is worth emphasising that the user studies undertaken by the along with a TM usefulness survey (E. Jendrych 2012) are an example of good practice in the area of TM construction.

It seems that in order to define student/ learner characteristics, it is necessary to consider users’:

- language level;
- general knowledge;
- professional experience;
- prior education (i.e. experience with educational materials, setting, etc.);
- learning strategies/ styles;
- motivation;
- specific needs;
- interests.

Undoubtedly, when designing TM as a didactic tool, it is also necessary to take account of the general premises of an LSP curriculum as well as specific variables arising from course objectives, such as: (a) abilities to be acquired for successful communication in occupational settings, (b) proportion between content language acquisition vs. general language acquisition, (c) group characteristics (heterogeneous vs. homogeneous learner group), (d) [possibility of] materials development (K. Gatehouse 2001).

4.3.3.

As a matter of fact, the multitude of variables that define users, their needs, and reference work consultation situations, as outlined in the Function Theory of Lexicography (see above), render any strict user division (e.g. into experts, semi-experts, and non-experts) provisional and somewhat artificial. In fact, the rich list of varied user characteristics results in a diverse array of TM types, some probably of a hybrid nature.

4.4.

Coverage in a TM is a relative matter. Not only is it hardly possible to determine someone’s lexical competence, but it is also difficult to set lexical boundaries in cases where TM is seen as a testing tool, a resource or an educational means. The basic assumption that has to be made is that it is virtually impossible to set any quantitative threshold (or frame) regarding the number of units to be considered/ included in a minimum (see Section 4.9.2.). This is consequent upon the impossibility of establishing conceptual/ terminological boundaries of individual fields/ disciplines as a result of different concept (term) vertical and horizontal characteristics and the interdisciplinarity of modern human endeavours. In some cases it might not even be possible to isolate a leading field/ domain, as disciplines themselves are often remarkably heterogeneous or even internally divided and “the existence of a discipline does not always imply that there is acceptance of an agreed set of problems, objects, practices, theories or methods, not even a shared language or common institutional forms” (A. Barry/ G. Born 2013: 9–10). Therefore, the division into fields/ domains/ disciplines/ etc. is in fact a matter of convention. Accordingly, it might be necessary to use some extralinguistic measures, such as external or internal classification systems, textbook thematic divisions, encyclopaedic coverage of a field, etc. for pre-

selection of texts and text types. Conveniently, specialised texts exhibit certain field-specific characteristics that allow automatic text clustering (see e.g. CLARIN-PL WebStyEn service²³), which might be particularly useful during corpus compilation and text verification.

As has been mentioned above, the frequency parameter is of limited applicability when specifying TM lemma stock, and could possibly only be employed for statistical purposes, yet only where term extraction concerns an extensive set of text and text types of a particular LSP. From this perspective, coverage is understood as a degree to which core concepts of a field/ domain have been represented in a TM, also in cases where some form of lexical material grading is envisaged.

On the microscale, coverage is understood as the completeness of semantic (sub)fields and/or of semantic neighbourhood represented by the lexical units included in a TM. Such completeness is of paramount importance in TMs, since the semantic networks between terms constitute a conceptual backbone of a terminological set, indispensable for the full understanding of any given term. For example, the notion of atom is bound semantically with such notions as electron, neutron, proton, nucleus, chemical element, atomic number, valence electron, electron configuration, electron shell, electron subshells, orbital, mass number, quantum number, excited state, ground state, radical, periodic law, Hund's rules, and Pauli exclusion principle (T. Michta 2009: 109–110). Any term from the above list is linked to (an)other term(s) through semantic attraction, and cannot be fully understood in isolation from its neighbours. Consequently, the use of frequency or rank lists only must be deemed as highly misguided term extraction methods, and if used, should merely constitute the initial step, obligatorily followed by term verification and supplementation on the basis of semantic/ conceptual analysis. Such semantic analyses can currently be performed either manually, through analysis of contexts and verification with external reference works, or automatically, often during term extraction processes when semantic relations between terms are also reconstructed (A. Panchenko 2012, cf. N. Lagutina et al. 2015).

Significantly, when considering the coverage of TM in general terms, a key rule to follow is to maintain conceptual continuity of the lexical set included. This prerequisite will also be applicable to the TM unit inclusion criteria.

4.5.

The quality of any TM as a specific resource or a reference work will predominantly depend on three elements: (i) choice of primary texts for extraction of lexical units, (ii) the selection criteria that will allow the choice of required units and will filter out units that do not conform to a current TM project requirements, and (iii) extraction methods (i.e. their efficiency/ precision). This section discusses primary text selection criteria, with the other two issues referred to in the following sections.

Generally, the choice of primary texts will be governed by different criteria, depending on the TM type.

²³ <http://ws.clarin-pl.eu/webstyen.shtml> [Accessed: 1.12.2017].

The primary quality of sources selected for a prescriptive TM is their authoritative nature with relation to the terminology set presented. Hence, terminological standards, dictionaries presenting standardised terms, term banks, electronic terminology collections (databases), etc.²⁴ The catalogue of sources is closed and therefore no additional studies are necessary to certify their quality, besides the attestation of their origin (i.e. the publishing institution (usually a standardising body)). If standardised sources are available, the issue of representativeness is irrelevant, as the standardised vocabulary sets already represent an approved selection. Where such sources are unavailable, then some other high quality texts need to be included, with their selection verified by a subject specialist (R. Dubuc/ A. Lauriston 1997: 87). Possibly, inclusion of other non-standardised and/or unverified sources will have detrimental effect on the realisation of the principal function of a prescriptive TM, i.e. that of a cognitive/ terminological standard. Admittedly, the fuzzy notion of ‘quality’ as well as experts’ own subjective decisions may render the entire concept of a prescriptive TM unfeasible in some domains of human activity.

In case of the descriptive TM the list of primary sources is considerably wider, and besides the sources presenting standardised terminology, it also includes original research papers, monographs, textbooks, handbooks, service manuals, technical documentation, etc. In such works usage rather than normative nature of units is of primary importance, and therefore – contrary to the prescriptive TM text selection criteria – any publications of reference nature, such as dictionaries, glossaries, lexicons and other vocabulary lists, should be used solely for cross-checking the completeness of a selection and supplementation of missing terms.

The very notion of a descriptive reference work calls for the representation of a specialised language in its entirety, while the feature most sought for in the representativeness of the text collection, which manifests itself in an appropriate corpus balance (choice of text types and/ or text genres in their natural proportions) and sampling (choice of texts excerpts). In practical terms, it is necessary to establish such natural text proportions in the domain under consideration. It needs to be emphasised that the corpus should by no means consist of a subjective (and often too narrow) selection of texts of secondary nature, such as textbooks, encyclopaedias, dictionaries, etc., mainly because the sources already exhibit a selection made by their respective original authors (cf. E. Jendrych 2009a: 8), and hence constitute secondary or even tertiary selection. This rule must be observed in order to maintain corpus, and therefore TM, representativeness²⁵.

²⁴ Despite the fact that these works are referred to as secondary sources, whose role should mainly be limited to “countercheck” the already chosen set of lexical items, it is argued that in the case of a prescriptive TM, such reference works, provided they present standardised terminology, constitute the primary resources. It is the vocabulary selection procedure that would be of utmost importance in such collections.

²⁵ Even in cases where primary sources in a given language are hardly available (see J. Tomaszczyk 2012: 47). In such cases, construction of a descriptive TM is either impossible or less specialist sources need to be allowed, such as popular science texts for semi- or non-

J. Pearson (1998: 60), referring to a corpus design for a terminological study, lists the features that the texts to be included in the corpus need to possess in order to be of proper value for the project. According to the scholar, the texts should be: (a) written (as spoken texts have to be transcribed, which may lead to deformation of professional message), (b) published (this will validate the reliability of the material, especially if the publishing house ranks high), (c) produced by an acknowledged individual or institution, (d) factual (i.e. representing what is known to exist, or believed to exist).

The proposal seems to be universal in that it can be applied in projects where the compilation/ use of corpora is envisaged or not (cf. source selection for prescriptive vs. descriptive TM). In any case, the 'proper value' can refer to a whole range of variables, conceptual, linguistic, terminological, pragmatic, etc. In fact, the suggested functions of a TM act as a terminographic filter for appropriate text selection (cf. M. Łukasik 2005: 156). For example, in term extraction methods, the source texts should exhibit high level of terminologisation (understood as a relatively high number of terms compared to the number of all tokens in a given text/ corpus). Yet, some highly technical texts may be lexically poor (i.e. exhibiting few unique terms), which stems from the terminological consistency rule (i.e. avoidance of synonymous expressions and thus frequent repetition of terms). M. Gotti gives an example of Russian theoretical mechanics, where as few as 480 words form up to 91% of texts in the discipline (M. Gotti 2005: 34). The scholar adds that in such disciplines, the type-to-token ratio (TTR) may be very low, ranging between 0.043 and 0.135 (ibid.). Accordingly, the degree of terminologisation, based on frequency measures, cannot be the only parameter behind text selection criteria, if only on account of the varied vertical and horizontal characteristics across terms. Yet, quantitative matters, including the corpus size, are all-important prerequisites in automatic term recognition (see Section 4.8.).

Currently, more and more texts are obtained from the Internet, some of which with the use of automatic corpus compilation software (e.g. BootCaT online service or WebBootCaT module in the Sketch Engine). This calls for more rigid quality check (e.g. at the level of seed or URL selection); online texts may be linguistically highly idiosyncratic, poorly written, may present unsubstantiated proposals or may be faulty translations of other original works. Also, texts presenting new ideas in a field should be treated with caution as new concepts may be vague and named only tentatively, often with the use of sometimes erroneous analogies, metaphor or transferred meaning (W. Lange 1995: 416). Unless a specific aim is attempted, e.g. a study of neologisms, such texts should be discarded, in particular as sources for a TM.

4.6.

As has been mentioned above, secondary sources are used for verification of term candidates and supplementation of missing terms in TMs. Among the most universally cited resources are encyclopaedias, specialised lexicons/ glossaries/

experts. Alternatively, sources in other languages, in particular those, in which the terminology of a field is more developed (i.e. representing the primary terminological system), could be included, yet the descriptive status of a TM is thus extended beyond a particular national LSP.

dictionaries, terminological databases/ banks, thesauri and TMs in other languages, in particular in a language representing the primary terminological system. Equally useful are monographs, textbooks, documents, etc. not included among the primary sources. The catalogue of such works depends on the specificity of a field/ domain, prevalent publishing tradition, preferred professional communication setting, etc.

It is of utmost importance to attest quality of such reference works. Regarding terminological dictionaries, quality refers to the terminological coverage of a field/ (sub)discipline. Yet, such coverage should be evaluated by means of both quantitative and conceptual measures against the benchmark set by other, more comprehensive works, specialised thesauri or specialised corpora. Such studies are necessary in light of an extensive heterogeneity of specialised reference works. G. Norman notices that “a very significant proportion of the items contained in scientific dictionaries of terms are not nomenclatural items, but rather non-formalized field-specific lexis” (N. Guy 2002: 268). Accordingly, such works cannot be used for terminological verification indiscriminately.

Decisions concerning the choice of secondary sources can be supported by extensive terminographic analyses or professional reviews. Results of terminographic analysis can provide a global evaluation of terminographic practice in a given scope, along with assessment of individual works (see, e.g. M. Łukasik 2007, 2015)²⁶. Otherwise, TM authors should seek opinions of professional terminologists or field experts.

4.7.

Despite reservations presented by some scholars (see below), an electronic specialised corpus seems to be a well-suited source for the extraction of terms and other data necessary for the compilation of most TM types of descriptive, and in individual cases, also of prescriptive nature (cf. A. Dörre 2010: 103ff). However, specialised corpora are scarce and only a few are widely available (see M. Weisser 2017). Moreover, most of such corpora will be made accessible through a website interface, and therefore thorough quantitative studies may not be possible. Also, most specialised corpora offer a narrow selection of texts in specific subject fields/ domains (e.g. the GENIA corpus²⁷ in clinical biology or even the PERC corpus²⁸ incorporating texts from 22 domains). These confinements render such corpora of limited applicability as primary TM sources.

It may therefore be necessary to compile a project-specific specialised corpus. Its usefulness, however, will largely depend on a number of decisions made at the design, text gathering, corpus construction, and data extraction stages.

(i) It first has to be borne in mind that for a special purpose corpus, one “cannot simply adopt the criteria used to design LGP corpora” (L. Bowker/ J. Pearson 2002:

²⁶ Interestingly enough, by entering a given terminographic market, TMs themselves become an object of terminographic analysis, global and/or detailed (see M. Łukasik 2012).

²⁷ GENIA Corpus Website: URL: <http://www.geniaproject.org/> [Accessed: 1.12.2017].

²⁸ PERC Corpus Website: URL: <https://scn.jkn21.com/~percinfo/> [Accessed 1.12.2017].

45). Therefore, such corpus parameters as representativeness, balance, size, etc. are viewed differently in specialised corpus projects.

One of the corpus features/ qualities that needs to be considered at the design stage is representativeness. Its importance is underlined by A. Kilgarriff, who claims that the “quality of the frequency list, and thus the validity of all that follows, is premised on the composition and representativeness of the corpora” (A. Kilgarriff 1997: 136).

D. Biber provides an overarching definition of representativeness, emphasising that it is “the extent to which a sample includes the full variability in a population” (D. Biber 1993: 243). In other words, a text corpus (=sample) is representative if it exhibits features (e.g. linguistic ones) found in a general pool of texts considered (=population)²⁹. Moreover, representativeness may concern any linguistic (such as text type/ genre, lexical or grammatical features (e.g. degree of terminologisation), pragmatic/ situational parameters, etc.) or extralinguistic feature, such as demographic parameters or density of encyclopaedic information.

Taking text type/ genre as an illustrative example, it needs to be noted that a corpus is said to be representative as regards text type/ genre if it reflects the real (authentic) text proportions and textual features found in a generalised population of such texts. To achieve representativeness in this case, various text types/ genres are sampled and, ideally, constitute a corpus in their natural proportions. One issue that arises here is lack of comprehensive text type/ genre analyses in general and specialised languages. Viewed from this perspective, representativeness is a relative measure and indeed some form of approximation. Therefore, some scholars rightly point out that statistically speaking a corpus is representative only of the texts it is composed of; a corpus of abstracts of medical papers will be representative of these very abstracts of medical papers, and only if it has been compiled according to strict corpus compilation methods, e.g. in the area of corpus sampling.

Accordingly, the unattainability of corpus representativeness is probably more pronounced in specialised-text corpora, in which only a selection of texts is considered (cf. Ch. Enguehard 2005: 972). Some scholars have therefore put forward solutions that could bring closer the ideal of representativeness. In particular, two such proposals can bring about interesting results in the area of higher corpus quality, namely the parameter of corpus closure/saturation and a cyclic corpus compilation procedure.

Corpus “closure/saturation for a particular linguistic feature (e.g. size of lexicon) of a variety of language (e.g. computer manuals) means that the feature appears to be finite or is subject to a very limited variation beyond a certain point [of corpus size]. To measure the saturation of a corpus, the corpus is first divided into segments of equal size based on its tokens. The corpus is said to be saturated at the lexical level if each addition of a new segment yields approximately the same number of new lexical items as the previous segment [...]” (T. McEnery/ R. Xiao/ Y. Tono 2006: 16). It seems that the parameter can also be successfully applied to account for features important

²⁹ An explanation provided in this paper is a simplified version of in-depth considerations provided by D. Biber (1993).

from the perspective of a particular study, such as the degree of corpus terminologisation in the compilation of a specialised corpus (J. Pearson 1998: 45; for the application of corpus closure/ saturation parameter see R. Shams/ A. Elsayed/ Q.M-Z. Akter 2010: 71–72).

A direct consequence of the application of corpus saturation/ closure parameter is the relativisation of the corpus size parameter. Construction of large corpora need not be the primary goal in specialised projects. However, appropriate corpus size may play a role in registering low-frequency items/ language phenomena. Furthermore, automatic term extraction processes require corpora of considerable size to allow statistics-based algorithms to run properly (cf. C. Fantinuoli 2006: 173).

One of the compilation methods said to account for corpus representativeness is a cyclic corpus compilation procedure, whereby the corpus is built/ extended in several steps. In such a scheme, a design stage is followed by addition of an appropriate body of texts, i.e. such that is in line with the design criteria. The corpus is then tested, design criteria verified against the research/ practical objective, new texts – fulfilling the changed set of parameters – are added to the corpus, and the process repeats (D. Biber 1993: 255–256). This method allows progressive approximation to the desired threshold of resource acceptability for a particular use. Clearly, almost any feature can be parametrised in this approach. When combined with the notion of corpus closure/ saturation, the procedure may be a robust approach to follow. Yet, the final quality depends on the verification methods applied, and probably also on the type of data obtained from the corpus (some data may be difficult to evaluate/ quantify). Moreover, some researches may, possibly unwittingly, make an incorrect choice of the features analysed or adjust the compilation criteria in order to collect texts that will prove their hypotheses.

An important element of corpus methodology is annotation, i.e. an additional descriptive layer of metadata added to a text or text collection, such as part-of-speech, semantic, prosodic, etc. tagging and/or corpus mark-up, that allows more extensive corpus studies. Despite reservations voiced by some scholars that annotation invalidates corpus authenticity (J. Sinclair 2004: 191) and hinders objective analyses (J. Sinclair 2003: 83–84, 2007: 26), addition of such metadata is regarded as advantageous in most studies (T. McEnery 2003: 454–455), in particular for automatic term extraction methods, automatic lexicon generation, among other applications in natural language processing (T. McEnery/ A. Wilson 1996/2001: 142). Nowadays the accuracy of automatic taggers (part-of-speech, semantic, etc.) is relatively high (minimum 90%) and acceptable for most LSP projects (P. Rayson/ D. Archer/ S. Piao/ T. McEnery 2004: 7, Ch.D. Manning 2011: 171).

Depending on the predominant function of the TM, the choice of texts will vary accordingly. Admittedly, the most comprehensive collection will be required in a descriptive TM to be used as a resource. Since TM is supposed to present a selection of specialised lexis of a particular specialised language, in most cases compilation of a monolingual specialised corpus will be envisaged. If a bi- or multilingual TM is planned, a comparable bi- or multilingual corpus should be constructed in order to provide for consistency at the conceptual/ terminological level across texts in various

languages. Comparable monolingual corpus will be used in the study of culture-dependent (or anisomorphic) terminological sets/ systems, such as the legal one. Creation of comparable corpora is in particular important, since, to date, terminological resources based on the description of the concept systems have long neglected the use of terms in context, while it is the context that reveals the syntagmatic behaviour of terms, which – next to systemic term analysis – can help in choosing terminological equivalents (J. Pimentel 2015: 427).

(ii) Despite the large popularity of corpus-based studies and corpus applications in lexicography, some objections to the method have also been voiced. In particular, scholars developing the ‘Function Theory of Lexicography’ denounce the ‘corpus-only’ approach to lexicography as ‘misguided’, and advocate the use of a variety of sources for the compilation of specialised dictionaries (P. Fuertes-Olivera 2014: 29–30). They claim that corpora are predominantly used for secondary lexicographic tasks, such as attaching frequencies to some lemmas, crafting examples or indicating language patterns. Meanwhile, the most essential tasks in specialised dictionary-making, such as defining, attachment of grammatical data and translated texts, adding cultural remarks or offering proscriptive remarks require the use of other sources and “can only be done if an expert and a lexicographer are working side by side” (ibid.). In this light, corpora are seen as auxiliary rather than primary sources.

(iii) All things considered, it seems safe to claim that an electronic corpus constitutes a relatively reliable tool to extract the required data, especially for a descriptive TM. One way of approaching the problems associated with corpora, such as its size or representativeness³⁰, is to approach such parameters from a relative perspective and define separately for each specific project. Accordingly, corpus design stage should never be omitted, while steps should be taken to develop the most reliable methods for its construction.

4.8.

Parallel to the discussion on the sources for TM, another widely debated issue concerns the inclusion criteria of lexical units. First and foremost, any discussion should start with the acknowledgement of the dual nature of specialised vocabulary units, namely that of a sign of a concept (defined more or less precisely), and that of a linguistic unit. This assumption points to the possible selection criteria of lexical units to TM as a specific resource and reference work.

In light of the definitions of the two fundamental types of TM considered in this paper, the two groups of lexical units taken into account are: a) standardised terms, in

³⁰ The notion of representativeness is nevertheless a convenient guide when it is necessary to ensure a certain standard of a corpus. Yet, to fulfil its role, the parameter should possibly be seen as a guideline rather than a strict parameter and a goal in itself.

the case of a prescriptive TM, b) all units characteristic of specialised texts considered, in the case of a descriptive TM³¹.

(i) Selection of prescriptive TM units does not pose significant challenges because all standardised units constitute the basis for headword list in such TMs. Extraction of standardised terms amounts to inclusion of selected terms from various authoritative sources (e.g. documents, terminological databases or online lists of items approved of specific committees). This in particular concerns terminological standards, which usually present only a selection of the entire standardised terminology pool. In all other cases where the so-called informal (i.e. usage based) standardisation is claimed, only descriptive TM can be considered.

In the case of a descriptive TM, additional selection criteria can be imposed, depending in the specific function (and hence type) of a TM, and may include such variables as frequency, grammatical category, type of terminological unit (e.g. terms v. nomenclature names), word/ term formation potential, etc. It is also possible to envisage a TM of general scientific/ technical vocabulary, listing lexical units considered either as universal or interdisciplinary terms (found in many specialist fields/ domain, not specific to one particular field/ domain) or as hypoterms³² (general language words used in specialist texts, such as researcher, study or result).

(ii) Extraction of specialised lexical units from a corpus brings to light a number of issues, in particular connected with the determination of term candidates and delineation of term boundaries. It has been proposed that the criterion which determines whether a particular lexical item is a term or a (general language) word is the nature of its conceptual reference within the discipline concerned, i.e. general (referring to general knowledge) or special (referring to specialist knowledge) (J.M Pugh/ J.C. Sager 2004: 1924). Others have suggested a list of features of a term that should help differentiate the term from general words. The most frequently-cited characteristics include univocity, lack of expressive-emotional load, strong lexical and morphological correlations, conventionality and meaning independence (see e.g. A. Reformatskij 1959, S. Czerni 1977: 18, J. Lukszyn 2005: 45). There are, however, several problems involved with such propositions, mainly stemming from a considerable degree of subjective assessment regarding both the reference between a lexical item and human knowledge and the features that terms are purported to exhibit. Any such verification procedures are also rather difficult to apply in a modern corpus-based approach.

In view of the proponents of the most recent (i.e. sociocognitive) approach to terminology, terms primarily exist in texts, and therefore any extraction of terms should start with specialised texts (S.E. Wright 1997: 13). It is claimed that texts themselves offer the necessary context that makes it possible to reconstruct the

³¹ Plainly against the prevailing trend of focussing on nouns and noun phrases only, as advocated in the traditional approach to terminology, modern terminologists and terminographers acknowledge a wider range of lexical categories in terminological studies, namely verbs, adjectives and adverbs, among other categories (J. Pimentel 2015: 428, N. Guy 2002: 259, M.-C. L'Homme 2003: 403–404).

³² Also called sub-technical vocabulary, a term coined by Ronayne Cowan (L. Trimble 1985: 128).

linguistic and semantic/ conceptual features of a term. This point is emphasised by R. Dubuc and A. Lauriston:

It is the presence of conceptual features relevant to the term that determines the extent of the context. The context thus plays a double role: it first provides living proof that the term is used in the field of reference and then allows a conceptual content to be associated with the term being studied. The second role is the more important. It makes it possible to determine the specific relationship between a term and its subject field through concept identification (R. Dubuc/ A. Lauriston 1997 :81).

Accordingly, the whole process proceeds in a semasiological—onomasiological manner; terms, or term candidates, are extracted from authentic text collections (corpora), then their conceptual value (meaning/ position in a conceptual system) as well as linguistic and pragmatic relevance is determined and the list is verified (= non-terms or terms not complying with a particular TM project are removed from the list) according to term inclusion/exclusion criteria. The list is later supplemented on the basis of refined primary sources (see cyclic compilation procedure of a corpus) or secondary sources (textbooks, encyclopaedias, dictionaries, etc.). The assistance of field specialists is also highly recommended at this stage, while the methods applied are mainly based on frame semantics (J. Pimentel 2015). Alternatively, the core-periphery paradigm can be applied to evaluate the prototypicality of terms. Most importantly, the inclusion/exclusion criteria should reflect potential users' needs (linguistic, conceptual, pragmatic), and therefore the function of TM.

(iii) One of the practices that can ensure a greater degree of objectivity in the process of term extraction is to use automatic term identification/ recognition/ extraction tools. Such tools use a number of statistical and/or linguistic methods (e.g. part-of-speech patterns³³) to extract term candidates (L. Bowker 2003: 60). Admittedly, one of the prerequisites for using statistical methods is their language-independent character (Ch. Enguehard 2005: 971). However, simple frequency-based corpus tools, such as plain frequency/rank lists or n-gram lists do not suffice in the case of LSP texts and terms, and are considered unsystematic approach (H. Bergenholtz/ S. Tarp 1995: 88). Not only does specialised lexis come in a variety of types, but it also represents different conceptual paradigms. Frequency lists alone cannot account for the inevitable dispersion of conceptually-bound units in specialised texts (see above)³⁴. Moreover, high-frequency units usually exhibit greater ambiguity (cf. A. Östling 1991: 194).

Automatic term recognition and extraction has recently seen a considerable progress. This is also a result of more robust algorithms in the extraction of conceptual relations from texts. It seems that providing a wider context is indispensable in term

³³ In fact, part-of-speech annotation is used to statistically extract syntagmatic term schemata.

³⁴ This is one of the major differences between lexical minimum and terminological minimum; in the design and composition of the former, frequency can play an important role, even if frequency-based vocabulary lists need to be supplemented with secondary selection items (see e.g. M. Warchał 2013: 495).

processing tasks, also at a cognitive level. The contextual frame may, however, vary, depending on the degree of scattering of semantic information.

Also, in automatic term extraction, two salient parameters are taken into account, namely unithood and termhood. Unithood can be defined as the degree of strength or stability of syntagmatic combinations or collocations of a term candidate, while termhood is a degree to which a linguistic unit (i.e. term candidate) is related to domain-specific concepts. The latter can be estimated through term frequency and the so-called bias of frequency³⁵, which improves the precision rate (K. Kageura/ B. Umino 1996).

As has been mentioned above, particularly promising results in term extraction are achieved when statistical methods, such as association measures, are coupled with linguistic filters, such recurrent part-of-speech patterns identification. Most tools, however, are language-dependent; even if methods for ranking term candidates are universal, grammar rules used for selecting terminology concepts from texts differ across languages (it is necessary to develop the so-called extraction grammar, which is language-specific; M. Marciniak/ A. Mykowiecka/ P. Rychlik 2016: 2278). New methods are also being developed to account for the phenomenon of nested terms (terms within terms), which pose a specific problem in highly inflected languages, such as Polish (M. Marciniak/ A. Mykowiecka 2014)³⁶.

(iv) Extraction of specialised lexical units needs to take a view of the type of such units, derived from a combination of such variables as: textual (e.g. distribution across texts; genre-specific variations), and/or linguistic (e.g. part of speech), and/or terminological (e.g. culture-dependent/ culture-independent terms), on top of their cognitive value (e.g. degree of concept granularity represented by a term/ set of terms) and pragmatic significance (e.g. context-dependent term use). Accordingly, in automatic term recognition, evaluation of term candidates is the key procedure necessary to ensure extraction quality. Such evaluation can be performed automatically or manually by an expert.

Evaluation based on experts/ terminologists is by far the easiest to implement and process. However, such experts need to have access to modern tools, such as comprehensive specialised corpora and other machine-readable terminological and linguistic (re)sources to observe different occurrences of a term.

The most common approaches to manual evaluation of term candidates extracted automatically are based on (i) comparison with a reference list, and (ii) judgement of an expert/ terminologist. There are several issues connected with either method.

In case of the former, it has to be noted that:

(1) terms often vary on a linguistic plane (i.e. have different linguistic form) and such variations are not usually included in reference lists (e.g. such lists usually provide only one form of a term and do not include spelling variations, not to mention synonymous expressions); moreover, context-dependent terminological variation is

³⁵ i.e. inverse document frequency which points to words that occur rarely and tend to be omitted from a number of other texts.

³⁶ See TermoPL project: URL: <http://zil.ipipan.waw.pl/TermoPL> [Accessed: 20.11.2017].

usually not considered (i.e. situations in which a lexical unit may be considered term in one context, and a general-language word in another context);

(2) the reference lists, even if they are based on pre-established set of terms (e.g. a terminology bank) or a special corpus-based list drafted by terminologists, can be far from complete. Term candidates for descriptive TM can be evaluated against terminological registers, i.e. published lists of (presumably) all terms found in a particular LSP within a defined time period (usually a year). Unfortunately, such resources are scarce, difficult to obtain and usually outdated.

Above all, however, expert opinions may differ, and hence more extensive panels of specialists would need to participate in the evaluation process. Undeniably, such process is time consuming and costly, and still not devoid of subjectivism. Therefore, automatic term candidate evaluation is advocated.

(v) Among other important sources that could be incorporated in term candidates evaluation are thesauri, ontologies, including prototypical ontology representations (K. Ahmad/ L. Gillam 2002: 4), and semantic networks. These resources are significant tools in knowledge representation, and therefore are primarily used in information retrieval systems and word sense disambiguation, among other NLP applications. In particular, ontologies and semantic networks have been used in word sense disambiguation (for Princeton's WordNet see X. Li/ S. Szpakowicz/ S. Matwin 1995; for Polish SłowoSieć, also known as plWordNet³⁷, see P. Kędzia/ M. Piasecki/ M.J. Orlińska 2015), including in specialised domains (R. Prokofyev et al. 2013), while thesauri have been employed in document indexing and searching, identification of terms, and presentation of semantic content. Term extraction/ recognition and validation is a by-product of such extensive systems.

On a final note, evaluation procedures will to some extent depend on the future use of the terms extracted, whether for indexation, thesaurus design, improvement of automatic translation systems, semantic disambiguation, etc. (Ch. Enguehard 2005: 972) Consequently, each specific type of TM will possibly require a separate set of evaluation criteria.

4.9.

4.9.1.

Since TMs are specific terminographic works, they share some characteristics with other dictionaries, for example structure (i.e. macro-, medio-, and microstructure) or design criteria. The structure of TM as a resource or a reference work will depend on a number of variables elaborated on at the design stage. Yet, as has been mentioned in the introductory part of this paper, the structure of LM/TM should be kept simple, rather than become universal. There have been some proposals for the minimum set of data in a terminological work. H. Felber and G. Budin suggest that such entry should encompass (a) indication of the subject field, (b) language code, (c) terminological unit, (d) source, (e) usage notes, (f) concept description/ context (H. Felber/ G. Budin 1994: 188). Other scholars limit a minimum entry to (a) an

³⁷ <http://plwordnet.pwr.wroc.pl/wordnet/> [Accessed: 1.12.2017].

indication of the subject field, (b) the term itself, and (c) the [indication of] source of the term (F. Mayer 2013: 1466). From the perspective of a correctly compiled TM, a minimum entry consists of (a) the term, and (b) an indication of the sources, possibly in a form of a collective bibliography. From the terminographic perspective, in a work such as TM, the mere fact of inclusion of a lexical unit in a lemma list is highly informative, since it proves the value of the unit for use as a representation of a quantum of specialist knowledge. An additional indication of a subject field (or subfield) should be included in reference works encompassing a choice of vocabulary units from a macrofield or a number of related fields. In a descriptive TM, linguistic variants, synonyms as well as syntagmatic neighbourhood of the entry term should be provided for. Moreover, disambiguation notes, short descriptions, frequency count and terminological notes are other optional elements of an entry. In bi- and multilingual TMs, language equivalents are the obvious elements of the microstructure, while language indexes are the important elements of the outside matter.

The difference between a TM with a minimum set of microstructural elements and a terminological register lies in the fact that the latter either catalogues all terms of a specific specialist field or new terms in a field within a specified time period, while the former always presents a selection of vocabulary (following a rigorous and scientific compilation method).

4.9.2.

Considerations regarding the nature of specialised vocabulary and the functions of TM, as presented throughout this paper, prove that any attempt to (pre)define the number of lexical units to be included in a TM must be viewed as futile. This state of affairs primarily results from the non-quantifiable nature of human competence, including the lexical one. Also, it is impossible to definitely and accurately measure lexical stock of an LSP, since the feature that primarily determines the number of headwords in a TM is the conceptual integrity of the field/ domain/ subdomain to be represented in the work. Omission of terms that are semantically/ ontologically/ conceptually related within the same field/ domain must be considered a methodological error. Therefore, if any figures regarding the number of TM entries are provided, they can be used for comparative studies (i.e. used to relate the sizes of various TMs) or as a marketing tool.

4.9.3.

One of the most important (and marketable) features of modern terminological resources, including TM, is their currency (up-to-dateness). This stems from the need to reflect (codify) rapid developments in the majority of fields, and the resulting discoveries and changes in theoretical paradigms and practical solutions. From the practical perspective, the currency of any terminographic work is relative and highly dependent on the up-to-dateness of the primary sources as well as compilation techniques (traditional vs. electronic online resource). For a TM to retain its high value, it needs to be updated regularly, which calls for an electronic form of the

reference work, with a potential of distant (online) updates. The financial aspect of a TM project is probably a decisive factor in long-term TM management.

4.9.4.

In discussions on the shape of TM as a didactic means, it is suggested that the vocabulary included in such work should represent a B2/C1 language level (E. Jendrych 2009a: 126, O.L. Yaroshenko 2014: 104). Evidently, scholars focus only on the language proficiency level, somewhat disregarding the conceptual side of terms. While it is true that in order to comprehend/ discuss (specialised) professional matters, it is necessary to attain a certain level of general-language proficiency (e.g. to be able to understand/ formulate meaningful text structures/ grammatical constructions/ pragmatic frames, etc.), it is worth emphasising that any vocabulary grading is conventional and only partially corresponds to language proficiency. For one thing, vocabulary is only one element of the entirety of means/ skills constituting the human language, and for another, terminology represents a specific subcategory of lexical means, in so far as it reflects more precisely the cognitive side of terms (i.e. concepts/ units of understanding). In fact, the choice of terms on the basis of specific-level conceptual hierarchy and/or a prototypical differentiation, supported by frequency counts and appropriate dispersion (range) measures, possibly constitute the major axis of the compilation method. In educational contexts, the overarching goal of TM consists in enabling users to achieve a higher level of specialised language proficiency, while the final aim is to develop student autonomy, so that they can further develop their own specialised/ professional competence on the basis of unabridged materials³⁸.

4.9.5.

As has already been hinted, similarly to general language lexical minimums, or core vocabularies, terminological minimums have a great potential of being used in NLP applications, including machine translation (H. Lehmann 1991, A. Östling 1991). To this end, the resource needs to assume a machine-processable form.

The importance of computerised terminography have long been recognised, mainly in light of a vast vocabulary stock to be dealt with by terminologists (H. Felber 1982: 322). It has been demonstrated in many parts of this paper that the modern TM should become a specific piece of software, with the terminological data stored in a database or generated on the fly. In fact, the software could become an independent tool, integrating most, if not all, of the above automatic systems, such as automatic corpus creation, term extraction, and verification/ selection, and, in particular, the functionality of generating TMs according to user-specified criteria. In the glottodidactic context, for example, electronic TMs could provide the educators and learners with statistical data, various types of terms extracted from the corpora, disambiguation notes/ contexts, collocations, foreign language equivalents, etc., on top of their ability to generate lexical educational materials, graded tests, self-study

³⁸ In such cases, TM resembles defining vocabulary used in learner's dictionaries.

materials Moreover, modern digital world requires that such database should be interconnected with other similar resources, including databases, term banks, dictionary systems, etc. Similarly to a lexical minimum, TM could be a stand-alone downloadable (with remote access to the database or automatic retrieval system), accessible online or be part of other lingware, such as translation or terminology management systems.

5.

Although the notion of terminological minimum is predominantly associated with an educational tool, this paper has attempted to demonstrate that the concept should be viewed from a much wider perspective and discussed from a variety of angles. From the ontological perspective, TM is primarily a specific lexical competence of a person. As a specific tool, TM is viewed as a terminological resource and a teaching/ learning aid. Accordingly, theoretical and practical (methodological) discussions related to TM should involve findings of several fields, including (cognitive) linguistics, quantitative linguistics, glottodidactics, terminology, information/ computer science, etc.

TM as a terminological resource can play a significant role in maintaining conceptual integrity of a field/domain, mainly through presentation of base terms extracted on the basis of the strongest conceptual/ semantic relations binding the concepts/terms in question. Such a resource will become a valuable tool in terminology standardisation, translation, as well as a basis for LSP materials development.

TM as a specific glottodidactic means aids specialised vocabulary teaching/ learning process, parallel to its function as a standard-setting and testing tool. In fact, TM should be the first resort lexical reference work in LSP courses.

TM for communication purposes could/ should also include LGP units to enable uninterrupted flow of information (in fact, each LSP text includes some percentage of general-language and/or general-technical/scientific set of vocabulary). Alternatively, it could be advocated that in certain uses/ contexts, such as in various communications settings and in LSP courses (especially where foreign language instruction is in place), LM and TM could be combined.

In the digital age, the only practical shape for TM is a specific type of lingware, possibly incorporated in other tools, such as electronic didactic platforms or translation software. It could also be available as a downloadable and/or an online resource. In its simplest form, TM takes a shape of a continually updated database, from which data chunks can be obtained for a number of purposes. An advanced variety envisages an automatically created TM database, designed according to user-defined criteria, offering a number of different output data for a variety of purposes (e.g. terminological resources, self-study materials, etc.). Such model will most likely be descriptive in its nature, unless it is also connected to other standardised databases.

The above proposals are not guided by wishful thinking of the author – the technology and methodology are out there, waiting to be combined in a useful end-product for a growing number of prospective users and uses.

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Frazeodydaktyka i frazeotranslacja jako nowe dyscypliny frazeologii stosowanej

Praseodidactics and phraseotranslation: new disciplines in applied phraseology

Monika SUŁKOWSKA

Uniwersytet Śląski w Katowicach/ University of Silesia in Katowice

E-mail: monika.sulkowska@us.edu.pl

Abstract: The major task of this paper is the implementation of new emerging phraseological disciplines, such as phraseodidactics and phraseotranslation. The author discusses the attempt to specify and deploy those new disciplines. Taking into account a wide range of phraseological phenomena in all natural languages and the need to implement effective glottodidactics and translation, the development of phraseological didactics and phraseological translation may appear to be useful and of high importance.

Keywords : phraseology, phraseodidactics, phraseotranslation.

1. Wstęp

Frazeologia jako nauka o utrwalonych strukturach polileksykalnych ma już długą i bogatą historię. Współczesna rzeczywistość pokazuje jednak nowe potrzeby i wyzwania, które stoją przed szeroko pojętą nauką o zasobie frazeologicznym różnych języków. Zagadnienia ta wymagają bardzo często badań interdyscyplinarnych, ponieważ nie można rozwiązać ich w sposób wyczerpujący na gruncie jednej tylko dziedziny badawczej.

Bardzo ważną kwestią we współczesnym świecie jest skuteczna dydaktyka języków obcych oraz ich sprawny, międzyjęzykowy przekład. W obydwu wypadkach rodzą się istotne problemy w zakresie frazeologii. Jest ona zwykle bardzo kłopotliwa w nauczaniu i uczeniu się języków obcych, a także w procesach przekładu. W związku z powyższym zasadne wydaje się powołanie nowych dziedzin interdyscyplinarnych: frazeodydaktyki i frazeotranslacji, które pozwalam sobie postulować w niniejszym tekście.

2. Cele i problemy frazeodydaktyki

Frazeodydaktyka, nazywana również dydaktyką frazeologii, jest kształtującą się dopiero dyscypliną z obszaru językoznawstwa stosowanego, która z jednej strony opiera się na wiedzy oraz doświadczeniach językoznawstwa, w tym frazeologii, a z drugiej wykorzystuje badania m.in. z zakresu dydaktyki ogólnej, neurolingwistyki i psycholingwistyki (cf. p.ex. M. Sułkowska 2013a, I. González Rey 2014).

Termin *frazeodydaktyka* pojawił się na przełomie XX i XXI w., głównie w pracach niemieckich frazeologów (cf. P. Kühn 1985, 1987, 1992, S. Ettinger 1998, R. Hessky 1992, H.H.Lüger 1997, H.H. Lüger/ M. Lorenz Bourjot 2001). Obecnie frazeodydaktyka rozwija się nadal przede wszystkim za sprawą niemieckich badaczy oraz hiszpańskiego ośrodka naukowego w Santiago de Compostela (cf. S.Ettinger 2011, 2012, 2013, 2014, I. González Rey 2011, 2012, 2014), a także za sprawą skromnego udziału piszącej te słowa (cf. M.Sułkowska 2009a, 2009b, 2010, 2011, 2013a, 2014, 2016).

Głównym celem frazeodydaktyki jest rozwijanie biernych i czynnych kompetencji frazeologicznych w języku ojczystym oraz przede wszystkim w językach obcych, w których ta sfera na ogół powoduje najwięcej trudności. Poniższy schemat przedstawia ramowo główne założenia oraz obszary działania frazeodydaktyki.

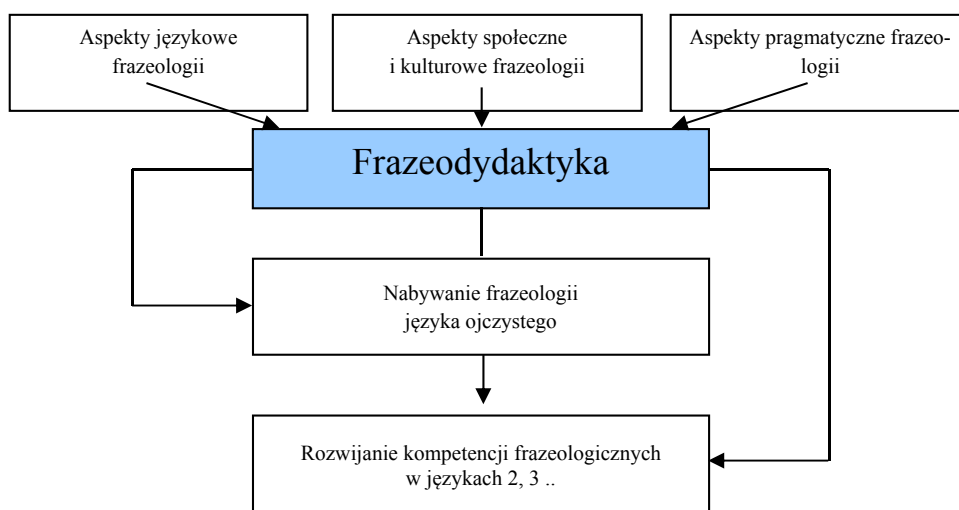


Fig. 1. Cele i obszary działania frazeodydaktyki.

Rozwijanie oraz doskonalenie biernych i czynnych kompetencji frazeologicznych u osób aspirujących do bardzo dobrej znajomości języków obcych jest zadaniem bardzo ważnym i aktualnym we współczesnej glottodydaktyce, ale wbrew tym potrzebom, nie jest to praktyka zbyt popularna. Frazeologia bywa ciągle interpretowana jako pewien naddatek plasujący się ponad podstawowymi kompetencjami językowymi, w związku z czym bywa traktowana dość marginalnie w procesach glottodydaktycznych.

Zakres współczesnej frazeologii znacznie się zwiększył w porównaniu z tym, czym frazeologia zajmowała się na początku swoich badań. Obecnie obejmuje ona swym zasięgiem nie tylko tradycyjne frazeologizmy, idiomy, sentencje czy przysłowia, ale także różnego rodzaju związki i połączenia językowe, które są odtwarzane, a nie tworzone doraźnie przez użytkowników języka w aktach mowy. Są to zatem przeróżne kolokacje, terminy specjalistyczne, wskaźniki frazeologiczne itp. Taka koncepcja frazeologii sprawia, że przedmiot jej badań jest szeroki i obejmuje spory procent wszystkich naszych wypowiedzi.

W konsekwencji frazeodydaktyka staje się również istotnym obszarem w kształceniu językowym, zwłaszcza że kompetencje frazeologiczne wymagają zintegrowania różnych kompetencji językowych, komunikacyjnych, a także pozalingwistycznych. Ramowo przedstawia to poniższy schemat.

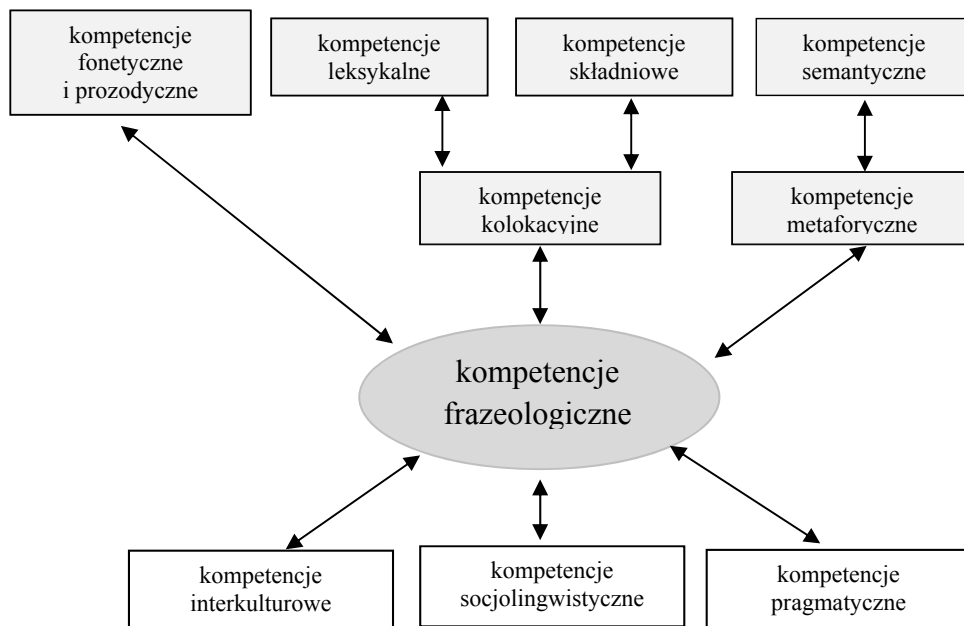


Fig. 2. Korelacja kompetencji frazeologicznych oraz innych kompetencji komunikacyjnych, językowych i pozajęzykowych.

Współczesne koncepcje nauczania i uczenia się języków obcych, ukierunkowane przede wszystkim na kompetencję komunikacyjną i umiejętność porozumiewania się, przypisują dużą rolę nauczaniu słownictwa. Komponent leksykalny z tej perspektywy pozostaje właściwie centralnym elementem języka, dlatego też w ostatnich czasach studia nad słownictwem rozwijają się bardzo intensywnie. Jednostki leksykalne opisywane są z punktu widzenia słowotwórczego, znaczeniowego, a także z punktu widzenia ich kolokacji, czyli możliwości ich występowania z innymi jednostkami leksykalnymi. Zwłaszcza ten ostatni aspekt pozostaje bardzo istotny dla procesu nauczania i uczenia się języka obcego, gdyż wiele błędów w komunikacji w języku wyuczonym wynika z niewłaściwego stosowania reguł kolokacyjnych, a jest to najczęściej efektem przenoszenia tych reguł z języka ojczystego. Stąd też istotna rola przyswajania nie tylko samego leksemu, ale zarazem kontekstów jego użycia, które ilustrują działające w danym przypadku reguły kolokacyjne. W obrębie zasobu leksykalnego każdego języka znaczącą rolę odgrywają utrwalone struktury wielowyrazowe. Jednostki te są zwykle kłopotliwe dla uczących się języka obcego, ponieważ, jak podkreśla to np. G. Gross (1996), użytkownik języka obcego bardzo często nie może zrozumieć ich globalnego sensu, pomimo że rozumie znaczenie wszystkich ich komponentów. W tym zakresie najbardziej problematyczne okazują się struktury o znaczeniach idiomatycznych.

Problem przyswajania związków idiomatycznych w procesie uczenia się języka obcego badany był np. przez E. Kellermana (1983). Wyniki jego eksperymentów pokazują, że uczący się niechętnie przenoszą idiomy swojego ojczystego języka do języka obcego, uważając je za konstrukcje typowe tylko dla jednego języka i przez to nie nadające się do przenoszenia. Działa tu postulowana przez E. Kellermana (ibidem) reguła psycholingwistycznego nacechowania, która warunkuje przenoszenie konstrukcji języka ojczystego do języka przyswajanego. Konstrukcje psychologicznie nacechowane są odbierane przez uczącego się jako wyjątkowe, nieregularne lub w jakiś sposób niezwykle, dlatego są postrzegane jako specyficzne dla L1 i w efekcie są niechętnie transponowane do L2. Ich przeciwieństwem są konstrukcje neutralne, które są w konsekwencji często kalkowane w języku obcym. Proces ten nazywany jest transferabilnością. Jest on odwrotnie proporcjonalny do stopnia nacechowania danej konstrukcji. Psycholingwistyczne nacechowanie jest jednak indywidualnie odbierane przez każdego uczącego się, zależy od jego językowego doświadczenia, świadomości i kultury, stąd obserwować można dość istotne różnice w transferabilności dokonywanej przez poszczególne osoby. Pewnym obiektywnym wyznacznikiem może być tutaj postulowane już wcześniej przez L. Selinkera (1969) kryterium częstotliwości: im struktura częstsza w języku ojczystym ucznia, tym większe prawdopodobieństwo przeniesienia jej do przyswajanego języka obcego.

L. Zaręba (2004) pokazuje trudności, które napotyka uczący się w zakresie obcej frazeologii. W syntetycznym ujęciu trudności te są następujące:

- rozbudowana forma zleksykalizowanej struktury wielowyrazowej, która składa się z kilku rozdzielnych elementów;
- nieregularności w zakresie składni i ciągłości leksykalnej;
- częsty brak motywacji pozajęzykowej;
- konieczność zapamiętania rozbudowanego *signifiant* o bardzo arbitralnym *signifié*.

Według Europejskiego Systemu Opisu Kształcenia Językowego, pewne podstawowe, utrwalone struktury powinny pojawiać się już na poziomie A, zwłaszcza A2 (według europejskiej skali biegłości językowej). Natomiast pełne i świadome używanie związków idiomatycznych oraz przysłów charakteryzuje poziom C. Oznacza to zatem potrzebę wprowadzania najprostszych struktur frazeologicznych już na początku procesu przyswajania języka obcego. Potrzeba ta jednak wyraźnie wzrasta na poziomie zaawansowanym, na którym kształcenie w zakresie frazeologii powinno być już ukierunkowane i bardziej świadome.

Ukierunkowane nauczanie frazeologii nie ma jednak w europejskich programach kształcenia zbyt bogatej tradycji. Poza tym nie naucza się właściwie frazeologii ojczystej. Wyjątek stanowią tutaj niektóre kierunki filologiczne studiów wyższych w Rosji, gdzie frazeologia ojczysta bywa nauczana jako odrębna dziedzina. Podobne praktyki obserwuje się też np. we Francji, na Uniwersytecie Rennes 2, gdzie w programie studiów jest kurs frazeologii, oraz w Hiszpanii, gdzie takie kursy bywają przewidziane dla doktorantów, a więc w kształceniu trzeciego cyklu (cf. I. González Rey 2007).

Niemniej jednak, studia wyższe filologiczne, zwłaszcza filologie obce, zazwyczaj

nie przewidują w swoich programach odrębnych kursów poświęconych frazeologii, zarówno praktycznej, jak i teoretycznej. Przystawianie zasobu frazeologicznego przez przyszłych specjalistów z danego języka odbywa się zwykle w sposób mało świadomy na zajęciach z praktycznej nauki języka kierunkowego. Wiedza teoretyczna z zakresu frazeologii bywa zaś przekazywana w różnym stopniu, nierzadko dość fragmentarycznie, na zajęciach oraz seminariach specjalizacyjnych z językoznawstwa. Wszystko to sprawia, iż niestety dość często absolwenci neofilologii, a więc przyszli nauczyciele języków obcych bądź tłumacze, nie mają zbyt dużej wiedzy teoretycznej ani też dużych umiejętności praktycznych w dziedzinie frazeologii.

Problem przyswajania frazeologii oraz jej nauczania sprowadza się także do problemu odpowiednich materiałów niezbędnych w tym procesie. Na rynku dostępne są różnego typu słowniki frazeologiczne, ale już np. opracowania z ćwiczeniami frazeologicznymi należą do rzadkości. Być może skąpa oferta dydaktyczna wynika z faktu, iż ciągle brakuje opracowań frekwencyjnych dotyczących frazeologii. Listy frekwencyjne grupujące związki różnych typów pod względem częstości ich użycia w różnych językach są narzędziem wręcz koniecznym przy opracowywaniu rzetelnych materiałów dydaktycznych z zakresu frazeologii.

2. Założenia i problematyka badawcza frazeotranslacji

Frazeotranslacja, postulowana w niniejszym tekście, nie ma jeszcze podwalin teoretycznych ani wydzielonej tradycji. Ale są przesłanki, aby mogła stać się nową, zintegrowaną dyscypliną badawczą. (Cf. M.Sułkowska: 2009c, 2013a,b, 2016, 2017). Praktycy i teoretycy przekładu wiedzą doskonale, że utrwalone w językach naturalnych struktury wielowyrzowe stanowią poważne wyzwanie w procesach przekładu i bywają znaczną trudnością nawet dla zawodowych tłumaczy.

Postulowana frazeotranslacja ma charakter interdyscyplinarny. Łączy frazeologię, współcześnie rozumianą szeroko, z translatoryką jako nauką o różnych typach przekładu międzyjęzykowego. Frazeotranslacja wykorzystuje zdobycze językoznawstwa kontrastywnego oraz językoznawstwa stosowanego, w tym przede wszystkim wspomnianej już frazeodydaktyki. Integrację i korelację różnych dyscyplin naukowych w obrębie frazeotranslacji przedstawia poniższy schemat.

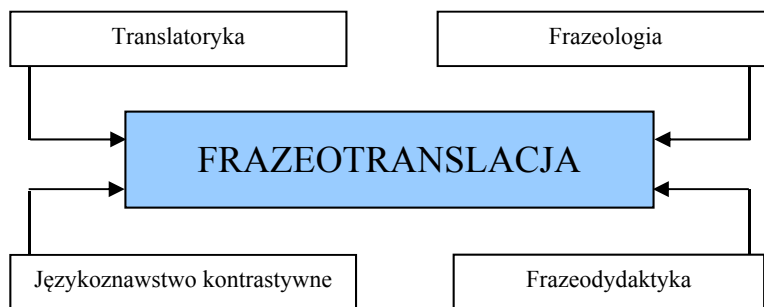


Fig. 3. Integracja i korelacja różnych dyscyplin naukowych w obrębie frazeotranslacji.

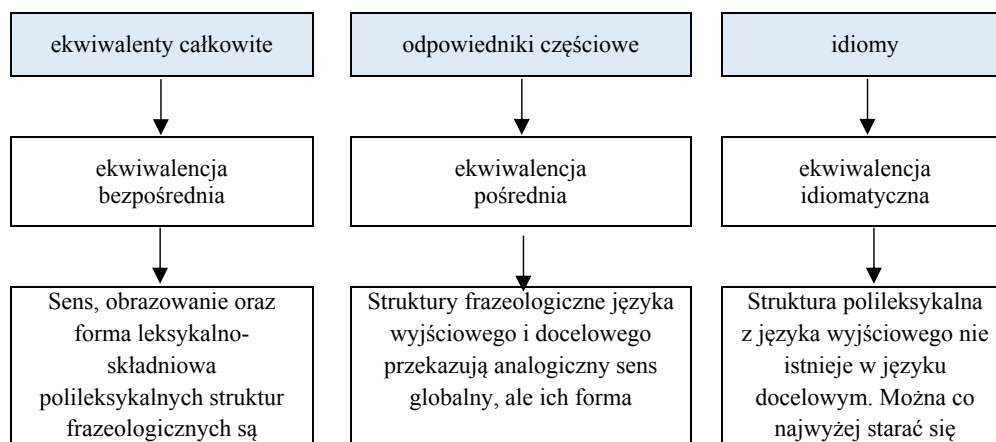
Językoznawstwo kontrastywne i jego zdobywcze naukowe były i są od dawna wykorzystywane we frazeologii porównawczej. Analizy porównawcze konwencjonalnie rozumianych związków frazeologicznych w różnych językach mają już długą i bogatą tradycję, a w ostatnich latach zwiększone zainteresowanie w tym zakresie wzbudzają np. kolokacje lub wielowyrazowe terminy specjalistyczne (cf. np. S. Bąba 1998, 2003, 2008, W. Mieder 2009). Różnorodne badania potwierdzają, że struktury frazeologiczne są grupą bardzo zróżnicowaną, a ich międzyjęzykowa ekwiwalencja ma charakter skalarny. Część struktur ma dobre ekwiwalenty w innych językach naturalnych. Są jednak i takie struktury, które nie mają bezpośrednich odpowiedników w innych językach i w konsekwencji są to elementy bardzo trudno przekładalne.

Biorąc pod uwagę gradualność ekwiwalencji, należy także wymienić grupę pośrednią, w praktyce najliczniejszą. W tej grupie odnajdujemy struktury, które właściwie mają swoje odpowiedniki w innym języku naturalnym, ale nie są to odpowiedniki całkowicie ekwiwalentne w każdym wymiarze.

W perspektywie kontrastywnej można zatem mówić o trzech zasadniczych grupach struktur frazeologicznych. Są to (cf. M. Sułkowska 2003):

- ekwiwalenty całkowite (homologi) – związki o podobnej budowie leksykalno-gramatycznej oraz tożsamym obrazowaniu w różnych językach. Np. *avoir les mains liées* (fr.) i *mieć związane ręce* (pol.);
- odpowiedniki częściowe – związki różniące się pod względem obrazowania oraz struktury leksykalno-gramatycznej, ale zachowujące frazeologiczno-idiomatyczny charakter w obydwu traktowanych językach. Np. *lever le pied* (fr.), *dać nogę* (pol.);
- idiomy – związki charakterystyczne tylko dla jednego z analizowanych języków. Nie mają one adekwatnych odpowiedników w drugim języku. W konsekwencji ich przekład nigdy nie jest bezpośredni i zwykle wymaga zastosowania specyficznych strategii translacyjnych. Np. *avoir un cheveu sur la langue* – idiom francuski, *poszło mu w pięty* – idiom polski.

Podział struktur frazeologicznych wraz z przyporządkowanymi im typami ekwiwalencji międzyjęzykowej przedstawia poniższy schemat.



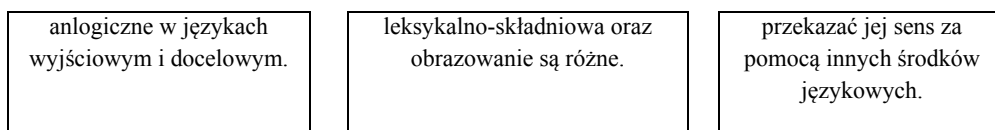
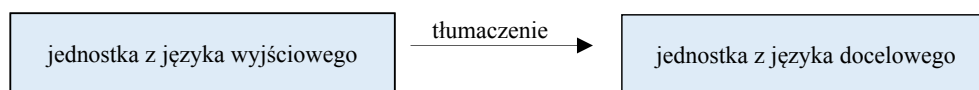


Fig. 4: Podział struktur frazeologicznych wraz z przyporządkowanymi im typami międzyjęzykowej ekwiwalencji.

W przekładownawstwie (cf. H. Lebidziński 1981) można mówić o dwóch podstawowych metodach tłumaczenia. Są to: (a) metoda lingwistyczna – oparta na relacji pomiędzy strukturami językowymi w L1 i L2, (b) metoda odwołująca się do treści – która wykorzystuje referencję pozajęzykową.

Ich funkcjonowanie wizualnie przedstawia poniższy schemat.

Metoda lingwistyczna:



Metoda odwołująca się do treści:

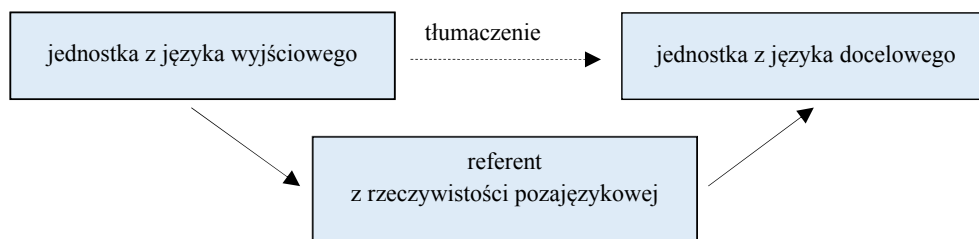


Fig. 5: Podstawowy podział metod tłumaczenia.

Jeżeli chodzi o tłumaczenie struktur frazeologicznych, to metoda lingwistyczna jest możliwa do zastosowania co najwyżej w przypadku ekwiwalentów całkowitych. Natomiast we wszystkich pozostałych przypadkach należy posługiwać się metodą odwołującą się do treści.

Tłumaczenie frazeologii jest dotychczas bardzo rzadko traktowane oddzielnie na gruncie translatoryki, choć obserwacja pracy tłumaczy pokazuje, że w praktyce miały one w tym zakresie spore trudności.

C.M. Xatara (2002) twierdzi, że tłumaczenie literalne we frazeologii jest możliwe wtedy, gdy frazeologizm z języka wyjściowego konceptualizuje się w identyczną strukturę w języku docelowym. Mamy wtedy do czynienia z sytuacją, w której zachowane zostają te same elementy leksykalne oraz taka sama struktura gramatyczna i składniowa, a także wywołany zostaje ten sam efekt komunikacyjny i ekspresywny. Niemniej jednak na gruncie frazeologii zdecydowanie częstsze jest tłumaczenie nie-literalne, konieczne np. w przypadku struktur idiomatycznych lub związków, które nie mają bezpośrednich ekwiwalentów w innym języku. W tej sytuacji można wyróżnić trzy możliwe przypadki:

- Frazeologizm z języka wyjściowego tłumaczy się za pomocą podobnego lecz nie identycznego frazeologizmu w języku docelowym.
- Frazeologizm z języka wyjściowego tłumaczy się za pomocą całkiem innej struktury wyrazowej.
- Frazeologizm z języka wyjściowego tłumaczy się za pomocą parafrazy.

M. Moldoveanu (2001) wskazuje trzy różne możliwości transferu międzyjęzykowego struktur metaforycznych wykorzystywanych we frazeologii. Są one następujące:

- Ekwiwalent w języku docelowym jest luźnym połączeniem wyrazowym; w konsekwencji metafora z języka wyjściowego zanika.
- Ekwiwalent w języku docelowym zawiera metaforę zleksykalizowaną pochodzącą z tej samej domeny semantycznej co w języku wyjściowym; jest to sytuacja dość częsta w przekładzie języków europejskich lub dość bliskich pod względem socjokulturowym.
- Ekwiwalent zawiera metaforę zleksykalizowaną, ale domeny semantyczne w języku wyjściowym i docelowym są różne.

Transfer międzyjęzykowy frazeologizmów bazujących na metaforze implikuje konieczność stosowania różnych zabiegów językowych, takich jak np. różne reorganizacje gramatyczne i składniowe, interwencje na poziomie stylistycznym, a nawet modyfikacje semantyczne i pragmatyczne.

We frazeologii obserwuje się gradację skali skostnienia i utrwalenia językowego: z jednej strony tej skali sytuują się struktury o najwyższym poziomie sfrazeologizowania, a oddalając się sukcesywnie od tego bieguna, dochodzimy do struktur o coraz to mniejszym stopniu nieregularności i utrwalenia. Zależność tę dobrze ilustruje poniższy schemat.

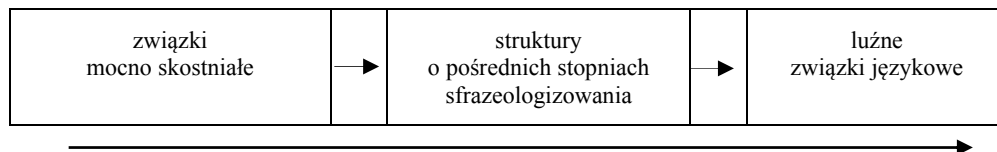


Fig. 6. Gradualny charakter frazeologii.

Wbrew oczekiwaniom całkowite sfrazeologizowanie nie stanowi aż tak dużego problemu w przekładzie. W tym wypadku należy jedynie znać określoną grupę ekwiwalentów i traktować wielowyrazowe struktury właściwie podobnie do pojedynczych leksemów. Natomiast tłumaczenie struktur o pośrednich stopniach sfrazeologizowania, takich jak np. różnego typu utwalone kolokacje czy polileksykalne terminy specjalistyczne, jest już zadaniem znacznie trudniejszym, zwłaszcza że dochodzi tu jeszcze kwestia właściwego rozpoznania i wydzielenia takiej struktury w języku wyjściowym.

Odpowiedzialność tłumaczy we frazeologii jest bardzo duża: po pierwsze muszą oni poprawnie odkodować sfrazeologizowane struktury w języku wyjściowym, a po drugie, muszą dokonać ich właściwego transferu do języka docelowego. Sprawni tłumacze powinni radzić sobie z rozległymi problemami frazeologii, wśród których wymienić należy przede wszystkim:

- poprawne rozpoznanie utrwalonej struktury wielowyrazowej w języku wyjściowym ;
- właściwe odkodowanie sensu takiej struktury i jej ewentualnych konotacji kulturowych oraz pragmatycznych ;
- wybór i zastosowanie odpowiedniej w danym wypadku strategii frazeotranslacyjnej ;
- dobór właściwego ekwiwalentu w języku docelowym.

Rozległe zadania tłumaczy na gruncie frazeologii, a także obserwacja problemów, jakie napotykają oni w praktyce bez wątpienia uzasadniają konieczność ukonstytuowania i rozwoju frazeotranslacji jako ważnej dziedziny w obrębie ogólnej, interdyscyplinarnie rozumianej translatoryki.

Każdy przekład międzyjęzykowy stwarza ciągle i regularne problemy z powodu różnic w kategoryzacji i gramatyczności języków, ale trudności te jeszcze się pomnażają w tłumaczeniu szeroko pojętej frazeologii. W tym przypadku dochodzi jeszcze wymiar idiomatyczny, procesy tropiczne, synteza oraz globalizacja semantyczna i składniowa, które nie są ani regularne, ani ewidentne w różnych kodach językowych.

3. Frazeodydaktyka i frazeotranslacja jako wyzwania współczesnej frazeologii stosowanej

Trudno wyobrazić sobie skuteczną frazeotranslację bez poprzedzającej ją, efektywnej frazeodydaktyki. W takiej perspektywie obydwie dyscypliny są komplementarne. Obydwie stanowią też zintegrowane dziedziny badawcze użyteczne dla zaawansowanej glottodydaktyki oraz specjalistycznej translatoryki. J.-P. Colson (1992, 1995) z Instytutu Marie Haps w Brukseli, zajmującego się kształceniem tłumaczy ze specjalnym zwróceniem uwagi na frazeologię, proponuje kilka ścieżek dydaktycznych możliwych do stosowania w dydaktyce frazeotranslacji. Proponowana strategia frazeodydaktyczna składa się z następujących etapów:

Wyodrębnienie frazeologizmów. Jest to pierwszy etap, który ma na celu uwrażliwienie na frazeologię. Uczący się mają za zadanie zaznaczyć w tekście do tłumaczenia wszystkie struktury charakterystyczne dla tego języka, co powoduje zwrócenie ich szczególnej uwagi na ewentualne utrwalone i nieregularne związki wyrazowe lub użycia idiomatyczne.

Analiza semantyczna. W następnym etapie działań, wydzielone frazeologizmy stają się przedmiotem analizy z punktu widzenia ich znaczenia. Ten etap może być wzbogacony przez różnego rodzaju ćwiczenia z zakresu synonimów, antonimów i pól semantycznych.

Analiza kontekstowa i makrostrukturalna. W trzecim etapie przyszły tłumacz powinien dokonać analizy frazeologizmów w kontekście językowym i pozajęzykowym. Ten etap jest bardzo ważny zwłaszcza w przypadku związków idiomatycznych.

Podejście teoretyczno-modularne. Jest również rzeczą istotną, aby wzbogacić proces rozwijania kompetencji frazeologicznych poprzez tzw. podejście modularne. Przyszły tłumacz powinien np. gromadzić sobie własny indeks struktur pogrupowanych tematycznie. Kolokacje i wyrażenia idiomatyczne powinny zajmować w nim miejsce szczególne, a ich użycia powinny być ilustrowane przykładami.

Ciekawe ćwiczenie frazeodydaktyczne, użyteczne w procesie kształcenia frazeotranslacji, proponuje także S.Mejri (2011). Wprowadza on pojęcie *pokrycia frazeologicznego* (*couverture phraséologique*), które odnosi przede wszystkim do frazeologii tekstów specjalistycznych. *Pokrycie frazeologiczne* tekstu to stosunek sfrazeologizowanych struktur i kolokacji do ogólnej liczby leksemów w tym tekście. Koncepcja *pokrycia frazeologicznego* wydaje się interesująca z punktu widzenia dydaktyki frazeotranslacji, ponieważ można ją wykorzystać w ćwiczeniach polegających na porównywaniu *pokrycia frazeologicznego* tekstów w języku wyjściowym i docelowym.

Można podzielić ogólne *pokrycie frazeologiczne* na podtypy uwzględniające np. tylko kolokacje, terminy specjalistyczne, czy idiomy. Analizy kontrastywne bazujące na koncepcji *pokrycia frazeologicznego*, choć z pozoru dość banalne, mogą uwrażliwiać przyszłych tłumaczy na kwestię frazeotranslacji, a także być okazją do obserwacji funkcjonowania frazeologii w różnych kodach językowych. Uczący się mogą zaobserwować bezpośrednio zmiany w tekstach będące konsekwencją przekładu sfery frazeologicznej, a także nabyć nawyk wykorzystywania struktur frazeologicznych w swoich własnych przekładach.

W dydaktyce frazeologicznej J.-P. Colson (1992,1995) zwraca także uwagę na bardzo istotną rolę szeroko pojętego kontekstu, który ważny jest w przyszłej pracy tłumacza, natomiast L. Wéry (2000) podkreśla zalety dokumentów autentycznych. Dokumenty autentyczne, zwłaszcza te pochodzące ze środków masowego przekazu, jak np. tytuły prasowe, fragmenty filmów, slogany reklamowe, mogą być bardzo dobrym źródłem struktur frazeologicznych, a ich wprowadzenie do procesów kształcenia językowego może być bardzo użyteczne, również jeśli chodzi o rozwijanie produktywnych kompetencji frazeologicznych, tak ważnych u tłumaczy języków.

Nabywanie kompetencji frazeologicznych w języku obcym, zwłaszcza tych na poziomie produkcji, to proces względnie powolny, który wymaga sporo wysiłku i zaangażowania, zarówno ze strony uczącego się, jak i jego nauczyciela. Nabycie tych kompetencji jest jednak niezbędne w przypadku aspirowania do pełnej znajomości języka obcego, a taka wymagana jest bez wątpienia u różnego typu tłumaczy.

Współczesna frazeologia stosowana ma zatem przed sobą spore, nowe wyzwania. Może im sprostać, korzystając z niewątpliwych, dotychczasowych zdobyczy frazeologii ogólnej i porównawczej, a także otwierając się na inne dziedziny nauk, których wiedza może wspomóc nowe badania. Frazeodydaktyka i frazeotranslacja rozumiane w ten sposób mają zatem szanse na rozwój i obiecujące wyniki badań.

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Tytuły w polskojęzycznych opisach przypadków medycznych - wstęp do badań

Titles of medical case reports in Polish – a preliminary study

Magda ŻELAZOWSKA-SOBCZYK

Uniwersytet Warszawski/ University of Warsaw

E-mail: magda.zelazowska@student.uw.edu.pl

Magdalena ZABIELSKA

Uniwersytet im. Adama Mickiewicza/ A. Mickiewicz University

E-mail: mzabielska@wa.amu.edu.pl

Abstract: While titles in scientific journals in general have attracted considerable interest, titles in medical research seem not to have been examined quite extensively. In these few studies, attention has been paid primarily to the form and length of titles as well as to their content. What is also emphasised is the need for discussion and further research on the topic in order to establish consistent guidelines regarding the formulation of clear and precise titles, which would aid journal editors, authors and readers. This paper constitutes an attempt to examine practices of formulating titles in medical case reports in Polish, following the study of F. Salager-Meyer et al. (2013a), in which title length, structure and content were considered as well.

Keywords: title, research article, case report, Polish, English

1. Wstęp

Znaczenie tytułu nadawanego artykułowi naukowemu jest zdecydowanie większe niż miejsce, jakie zajmuje on w publikacji proporcjonalnie do całego tekstu. Tytuły publikacji fachowych, standardowe pole eksploracji dla elektronicznych narzędzi wyszukiwania, to również sposób zwrócenia uwagi na naukowe dokonania badacza, za którym mogą iść tak bardzo pożądane cytowania, przyczyniające się do budowania pozycji naukowej badacza. W tym kontekście tytuły zyskują nowe znaczenie. Pomimo dużego zainteresowania formułowaniem tytułów w artykułach naukowych wydaje się, iż tematyka ta w kontekście medycznym nie była dotychczas podejmowana przez wielu badaczy. W tych nielicznych badaniach powtarzające się analizowane wątki to zarówno forma i długość tytułów, jak i ich treść. Podkreśla się także potrzebę dyskusji i kolejnych badań, które posłużyłyby wypracowaniu jednolitych zasad tworzenia jasnych i precyzyjnych tytułów, z korzyścią dla redaktorów czasopism, autorów i czytelników. Niniejsza praca to próba zbadania praktyk formułowania tytułów w polskojęzycznych medycznych opisach przypadku. Autorki dokonały również przeglądu literatury dotyczącej tytułów, zarówno ogólnie w artykułach naukowych oraz w kontekście medycznym, w obydwu przypadkach w odniesieniu do ich formy,

funkcji, klasyfikacji, aspektów problematycznych, jak i zaleceń dotyczących ich formułowania. Następnie przeprowadzono badanie analogiczne do F. Salager-Meyer, M. Angeles Alcaraz Ariza i M.L. Briceño (2013), w którym również wzięto pod uwagę długość, strukturę oraz treść badanych tytułów. Dane stanowiły tu tytuły 640 opisów przypadków z 16 polskich specjalistycznych czasopism medycznych (po jednym z głównych dziedzin medycyny za lata 2012–2016).

2. Przegląd literatury dotyczącej tytułów w publikacjach naukowych

O ile tematyka formułowania tytułów w tekście naukowym z dziedziny medycyny, również na gruncie polskim, dotychczas nie cieszyła się dużym zainteresowaniem badaczy, o tyle w kontekście tekstu naukowego ogólnie w badaniach anglojęzycznych mówi się już o tzw. „titleology” (A. Baicchi 2003 w V. Soler 2011: 124), czyli swego rodzaju działu badań poświęconemu tytułom. Odnosząc się do funkcji tytułów, badacze zwracają uwagę na szereg aspektów: są one znaczącym elementem w publikacji (J. Swales 1990), pierwszym punktem styczności czytelnika z tekstem (P.F. Kotur 2002: 23, S. Brkic/ M. Vucenovic/ Z. Dokic 2003: 207), zapraszającym do lektury (K.R. Pereira 2016: 394), a także elementem organizującym następującą po nim treść (J. Hartley/ L. Betts 2007: 2335). Dodatkowo są one elementem krytycznym dla funkcjonowania narzędzi wyszukiwania w Internecie (J.C. Hays 2010: 101). Obserwacje te odnoszą się zatem nie tylko do oczywistej informacyjnej funkcji tytułów, także w dobie Internetu, ale również do funkcji spajającej całość publikacji i świadczącej o jego spójności, używając metafory M.A.K. Halliday’a (1970), pewnego rodzaju wieżaka, na którym zawieszony jest komunikat tekstu (M.A.K. Halliday użył jej w kontekście tzw. perspektywy pragmatycznej obieranej w tekście).

Dostępna literatura dotycząca tytułów fachowych publikacji naukowych podejmuje tematykę ich formy i funkcji (na podstawie różnego rodzaju danych) oraz klasyfikacji, które z kolei mają służyć tworzeniu zaleceń ich formułowania, jak również omawia aspekty problematyczne, tj. kiedy owe zalecenia nie są stosowane.

2.1. Forma i klasyfikacje

W odniesieniu do klasyfikacji, F. Salager-Meyer i M. Alcaraz Ariza (2013a: 264) proponują zestaw kategorii tytułów opartych na formie i funkcji:

- czasownikowe vs. rzeczownikowe; czasownikowe to tytuły „informacyjne, twierdzące” (R. Smith 2000: 915, R.A. Rosner 1990: 108), zawierające czasownik aktywny wraz z pełnym zdaniem, przekazującym zazwyczaj wyniki lub konkluzje badania, np. „Fibrates help lower LDL”; tytuły rzeczownikowe, „wskazujące”, nie zawierające odmienionego czasownika, np. „Help of fibrates in LDL lowering”;
- tytuły „tematyczne”, np. „Papilliferous carcinoma of the thyroid gland”;
- tytuły przyciągające uwagę, tj. „Wired bladder in a cordless era”;
- tytuły–pytania, np. „Seizure or syncope? A channelopathy with cardiac and cerebral manifestation”;

- tytuły wymieniające procedury badawcze, tj. zawierające informacje o celach, metodach i/ lub wynikach, np. „Case of recovery from taking a large quantity of tincture of opium”.

Nieco bardziej szczegółową kategoryzację proponuje J. Hartley (2007a: 96–98). R.A. Goodman, S.B. Thacker i P.Z. Siegel (2001) z kolei prezentują klasyfikację ze względu na treść. P.Z. Siegel et al. (2006), analizując artykuły z recenzowanych czasopism medycznych pokazują, iż na 420 tytułów 40% dotyczyło się tematu, 33% opisywało metody, 18% wyniki a dane tylko 2%. Autorzy dodają również, iż nieliczne czasopisma wymagają w tytule informacji o metodzie (*BMJ, The Lancet online*, w F. Salager-Meyer i M. Angeles Alcaraz Ariza 2013a).

2.2. Zalecenia w kwestii formułowania tytułów

Mając na uwadze typy tytułów, inne badania formułują swego rodzaju zalecenia co do ich zawartości, oraz, przynajmniej częściowo, formy. Większość dostępnych publikacji wskazuje na konieczność precyzyjności przekazu w tytule. Innymi słowy, tytuł powinien być: dokładny, precyzyjny (M. Zeiger 1991, S. Brkic/ M. Vucenovic/ Z. Dokic 2003: 207), jednoznaczny (M. Zeiger 1991, C. Mack 2012, R.A. Rison/ M.R. Kidd/ C.A. Koch 2013), konkretny, szczegółowy (M. Zeiger 1991, S. Brkic/ M. Vucenovic/ Z. Dokic 2003: 207), wyczerpujący (M. Zeiger 1991), a co za tym idzie, pod względem formy bez niejasnych skrótów, skrótowców (P.F. Kotur 2002: 23, S. Brkic/ M. Vucenovic/ Z. Dokic 2003: 207, wytyczne *AMA – American Medical Association* w J.C. Hays 2010: 102, C. Mack 2012, K.R. Pereira 2016) oraz bez terminologii technicznej czy żargonu (S. Brkic/ M. Vucenovic/ Z. Dokic 2003: 207, C. Mack 2012, A.Y. Gasparyan i in. 2011: 1411). Po drugie, tytuł powinien być opisowy (R.A. Rison/ M.R. Kidd/ C.A. Koch 2013), ale nie deklaratywny (wytyczne *NEJM – New England Journal of Medicine* w S. Brkic/ M. Vucenovic/ Z. Dokic 2003: 207), wskazujący na konkretną treść i bogaty w informacje (również o wynikach) (S. Brkic/ M. Vucenovic/ Z. Dokic 2003: 207). Po trzecie powinien być zwięzły (M. Zeiger 1991, wytyczne *NEJM* w S. Brkic/ M. Vucenovic/ Z. Dokic 2003: 207, P.F. Kotur 2002: 23, wytyczne *AMA* w J.C. Hays 2010: 102, C. Mack 2012, A.Y. Gasparyan i in. 2011: 1411, K.R. Pereira 2016). Kolejne zalecenia prezentowane w publikacjach odwołują się do funkcji, jakie powinny pełnić tytuły, będąc pochodną ich treści i formy. Powinny one zawierać główną myśl/ temat pracy (M. Zeiger 1991, P.F. Kotur 2002: 23, S. Brkic/ M. Vucenovic/ Z. Dokic 2003: 207, G. Lewison/ J. Hartley 2005: 341, J. Hartley 2007b: 148, J.C. Hays 2010, C. Mack 2012, K.R. Pereira 2016), ale nie wyniki (C. Mack 2012, por. S. Brkic/ M. Vucenovic/ Z. Dokic 2003: 207). Ich zadaniem powinno być również zwrócenie uwagi czytelnika (P.F. Kotur 2002: 23, S. Brkic/ M. Vucenovic/ Z. Dokic 2003: 207, J. Hartley 2005, G. Lewison/ J. Hartley 2005: 341, J. Hartley 2007b: 148, C. Ortega-Loubon/ R. Correa-Márquez 2014: 91).

2.3. Problemy towarzyszące formułowaniu tytułów

Kolejnym zagadnieniem podejmowanym przez badaczy zajmujących się tytułami są problemy związane z ich formułowaniem i efektem uzyskanym na skutek zastosowa-

nych środków językowych. W tym kontekście można wspomnieć tzw. „titular colonicity” (ang. *colon* – średnik) – tytuły tzw. ‘zawieszono’ na skutek zastosowania średnika a później podtytułu, który stanowi, według badaczy, „epidemię” wśród tekstów naukowych (J. Hartley 2005), polegającą na coraz dłuższych tytułach. Dlatego też szereg publikacji odradza używanie podtytułów (S. Brkic/ M. Vucenovic/ Z. Dokic 2003: 207), jak również dodawania informacji o typie publikacji np. tj.: „przegląd badań”, „opis przypadku” itp. (A.Y. Gasparyan i in. 2011: 1411). B. Budgell (2008: 200) oraz R.A. Agha i in. (2016) z kolei proponują umieszczanie nazwy gatunku w tytule. W kwestii formy zaleca się również stosowanie nominalizacji i używanie rzeczowników odczasownikowych oraz podkreślenie obecności aktora, agensa (J.M. Williams 2009), inaczej prezentowana przez autora procedura może być niejasna (J.C. Hays 2010: 101). Kontynuując wątek formy tytułu, szereg badań potwierdza zależność między stosowaniem dwukropka a zwiększoną cytowalnością. Wynik ten można tłumaczyć zwiększonymi możliwościami wyszukania artykułu (J. Hartley 2007b: 148, S.J. Jacques/ N.J. Sebire 2010 w A.Y. Gasparyan i in. 2011: 1411). Owego poglądu nie podziela J.C. Hays (2010).

2.4. Korelacje, ujęcia, języki i dyscypliny

Poruszając się nadal w tematyce literatury dotyczącej tytułów, bez uwzględniania jednak wskazówek co do ich formułowania, istnieje szereg badań wskazujących na pewne korelacje lub zastosowanie konkretnych ujęć badawczych. S.J. Jacques i N.J. Sebire (2010) zbadali zależność między pewnymi cechami tytułów a ich cytowalnością, konkludując, iż dłuższe tytuły są bardziej szczegółowe i zawierają słowa kluczowe, akronimy, dwie frazy lub dwa zdania.

W kontekście ujęć badawczych, wyżej wspomniane badania F. Salager-Meyer i M. Alcaraz Ariza (2013a, b) oraz F. Salager-Meyer, M. Ángeles Alcaraz Ariza i M.L. Briceño (2013) stanowią przykłady zastosowania ujęcia historycznego. Autorki wykazały, iż generalnie brak wyraźnych twierdzeń w tytułach opisów przypadku jest konsekwencją ich treści, tj. opisów jednostkowych przypadków (F. Salager-Meyer/ M. Alcaraz Ariza 2013a). Wskazały także na kierunek rozwoju tytułów opisów przypadku, tj. zwiększającą się długość, złożoność składniową, bogactwo semantyczne oraz różnorodność typów (F. Salager-Meyer/ M. Alcaraz Ariza 2013b).

Odrębną grupę badań stanowią porównania tytułów w odniesieniu do różnych dyscyplin lub języków. I. Busch-Lauer (2000) wykazała, iż tytuły w języku angielskim są proste a w języku niemieckim bardziej złożone, zawierające podtytuł; tytuły publikacji medycznych są dłuższe, precyzyjne i bogate w informacje, w publikacjach językoznawczych z kolei krótsze, niejasne, abstrakcyjne, chwytliwe oraz odzwierciedlające indywidualny styl (I. Busch-Lauer 2000). G. Lewison i J. Hartley (2005) wskazują na fakt, iż liczba tytułów z dwukropkiem zwiększyła się, jednak liczby te są różne dla poszczególnych dziedzin. Średnia liczba słów w tytułach ogólnie to 15.48 w medycynie, 14.98 w naukach przyrodniczych, 10.89 w naukach społecznych i 7.98 w językoznawstwie (V. Soler 2007). W kontekście medycznym wyłącznie, N.W. Godman (2000) zbadał czasowniki aktywne w klinicznych opisach przypadku i stwierdził, iż tytuły mogą być wskazujące lub informujące, odpowiednio „Newbetalol in the

treatment of tachycardias” lub „Newbetalol prevents tachycardias” (por. wyżej wspomnianą klasyfikację F. Salager-Meyer i M. Alcaraz Ariza 2013a). Nadmieniał również, iż tytuły informujące stają się coraz bardziej popularne. W medycznych artykułach naukowych z kolei średnia długość tytułu to 10.9 słów, 99% tytułów zawiera grupy rzeczownikowe, 98% jest bez podtytułów, 68% z użyciem fraz przyimkowych opisujących rzeczownik (Y. Wang/ Y. Bai 2007). Warto też wskazać publikacje dotyczące formy tekstów medycznych z uwzględnieniem kwestii tytułów: P.F. Kotur (2002), S. Brkic/ M. Vucenovic/ Z. Dokic (2003), G. Lewison/ J. Hartley (2005), J. Hartley (2007b), A.Y. Gasparyan i in. (2011) oraz K.R. Pereira (2016).

Ostatni dział literatury dotyczącej tytułów artykułów medycznych jest adresowany do rodzimych użytkowników języka chińskiego (X.J. An/ R.Z. Zhang 1994; Y.Z. Xu 1996; J.W. Ma/ X.W. Wang 1997; J.Q. Jiang 2000; P. Duan/ W.P. Gu 2002; H.M. Leng/ J.X. Guo 2003; Z.L. Xue 2003; S.L. Yao/ D.W. Wu/ S.H. Zhang 2004).

3. Tytuły w polskojęzycznych opisach przypadku – badanie

3.1. Etapy analizy materiału badawczego

Na wstępie warto podkreślić, iż przeprowadzone badanie jest w pewnym stopniu replikacją badań F. Salager-Meyer, M. Ángeles Alcaraz Ariza i M.L. Briceño (2013), jednak autorki uzupełniły je o kilka własnych elementów oraz kryteriów analizy w celu wzbogacenia wyników i uzyskania szerszego spektrum zastosowania ich w praktyce lub późniejszego uzupełnienia badania.

Analiza materiału badawczego podzielona została na kilka etapów. Pierwszym z nich był przegląd listy czasopism punktowanych *Ministerstwa Nauki i Szkolnictwa Wyższego*¹ (dalej MNiSW) oraz zasobów internetowych w celu znalezienia jednego multidyscyplinarnego czasopisma, publikującego artykuły z różnych dziedzin medycyny (np. w języku angielskim jest to *British Medical Journal* lub *The Lancet* itp.). Na rynku polskojęzycznym takie czasopismo nie jest dostępne, gdyż wszystkie periodyki naukowe są powiązane z poszczególnymi dziedzinami medycyny. Kolejnym krokiem było wyszukiwanie czasopism naukowych według dziedziny poprzez wyszukiwarkę *ARIANTA – Naukowe i branżowe polskie czasopisma elektroniczne*. Podstawowym kryterium wyszukiwania była punktacja MNiSW, nie mniejsza niż 5 punktów. Z listy czasopism wybierano te, które (1) posiadały wskaźnik MNiSW powyżej 5, (2) publikowane były w języku polskim, (3) posiadały dostęp internetowy do zasobów za lata 2012–2016, (4) publikowały opisy przypadków, przynajmniej po jednym w każdym roku. Z tak wyselekcjonowanej listy dalej wybrano czasopisma z najwyższą liczbą punktów MNiSW za rok 2016. Przy selekcji czasopism pojawiły się trudności w wyborze odpowiedniego czasopisma z danej dziedziny: (1) brak czasopisma w języku polskim (na podstawie analizy wydawanych numerów, zauważyć można, iż wiele czasopism polskojęzycznych, publikujących artykuły w języku polskim, w ciągu kilku ostatnich lat zmieniło profil publikacji, nastawiając się na język angielski,

¹ <http://www.nauka.gov.pl/ujednolicony-wykaz-czasopism-naukowych/wykaz-czasopism-naukowych-zawierajacy-historie-czasopisma-z-publikowanych-wykazow-za-lata-2013-2016.html> (dostęp: 12.02.2017).

zyskując tym samym większy prestiż i w niektórych przypadkach nawet wskaźnik Impact Factor), (2) czasopisma posiadały niższą punktację MNiSW niż przyjęty wskaźnik 5 punktów, dlatego wybór czasopism był ograniczony, (3) czasopisma powtarzały się przy wyborze różnych dziedzin, np. ginekologia i położnictwo, ze względu na przybliżony profil tematyczny, (4) czasopisma nie posiadały lub posiadały ograniczony dostęp do zasobów elektronicznych, tj. tylko do wybranych artykułów. W związku z obszerną liczbą czasopism znajdujących się w bazie *ARIANTA* i na liście B czasopism punktowanych MNiSW, zdecydowano o wyborze czasopism tylko z poszczególnych dziedzin, które spełniały powyższe kryteria. Wyboru dziedzin dokonano na podstawie listy zaproponowanej przez wyszukiwarkę *ARIANTA* oraz wykazu specjalności lekarskich i lekarsko-dentystycznych, opracowanego przez Ministerstwo Zdrowia². Na podstawie obszernej analizy materiału i zasobów elektronicznych wybrano 16 czasopism w języku polskim z takich dziedzin jak: anestezjologia, chirurgia, choroby układu krążenia (kardiologia), choroby układu trawienia, choroby zakaźne, dermatologia, endokrynologia, ginekologia, laryngologia, neurologia, okulistyka, onkologia, pediatria i psychiatria. Autorki są w pełni świadome, jakie ograniczenia niesie za sobą niniejsze badanie, zawiązując materiał tylko do wybranych, a nie wszystkich głównych specjalności w medycynie, oraz skupiając się tylko na kilkudziesięciu czasopismach z długiej listy wszystkich periodyków. Tym samym autorki podkreślają, iż zebrany materiał badawczy nie jest całkowicie reprezentatywny dla całej medycyny i przedstawia tylko wybraną próbkę tekstów. Otwiera to jednak pole do dalszych badań na większym korpusie tekstów medycznych, a w szczególności ich mikrogatunku – opisach przypadków.

Kolejnym etapem po wyborze czasopism był przegląd zasobów internetowych (stron internetowych poszczególnych czasopism) i wybranie tytułów wszystkich opisów przypadków w języku polskim, opublikowanych w każdym numerze czasopisma w latach 2012–2016. W tym miejscu ograniczeniem badania była nieregularność publikowania opisów przypadków: (1) niekiedy nie były one publikowane w każdym numerze lub nawet w danym roku, (2) w zależności od czasopisma publikowana była różna liczba opisów przypadków w danym numerze i roku (widać znaczne różnice pomiędzy niektórymi czasopismami, np. *Klinika Oczna* – 69 opisów w okresie 5 lat, podczas gdy w *Neurologii Dziecięcej* opublikowano tylko 13).

Po zgromadzeniu wszystkich tytułów opisów przypadków z 16 wybranych czasopism dokonano ich analizy. Łącznie przeanalizowano tytuły 640 opisów przypadków w języku polskim, opublikowanych w latach 2012–2016. Analiza przebiegała dwuetapowo. Pierwszym etapem była analiza ilościowa z wykorzystaniem wcześniej przygotowanego korpusu ze zgromadzonych tytułów przy pomocy programu *AntConc*. Podczas tej analizy wyszukano ilościowe parametry badanych tekstów: liczbę i kontekst (miejsce) występowania fraz „opis przypadku”, „studium przypadku”, „analiza

² http://www2.mz.gov.pl/wwwfiles/ma_struktura/docs/zalaczniki14_rozpo_23052006.pdf (dostęp: 07.04.2017).

przypadku”, „prezentacja przypadku” oraz inne warianty fraz ze słowem „przypadek”³ i „trudności diagnostyczne”, które to wydzielono na podstawie wcześniejszej obserwacji tekstów (widać wyraźną frekwencję wstępowania); częstość zastosowania dwukropka, przecinka lub kropki oraz frekwencję użycia myślnika, który to jest dominującym znakiem w opisach przypadków. Skupiono się także na jednym dodatkowym aspekcie pozagramatycznym – wyszukaniu frazy „pacjent”, „pacjentka” lub „przypadek” – określające podmiot opisu – osobę. Drugim etapem badania była analiza jakościowa tytułów opisów przypadków dokonana ręcznie przy pomocy tabeli w programie *Excel*. Przy badaniu materiału zwracano uwagę na: (1) rodzaj tytułu – czy jest on tematyczny, pytający lub przyciągający uwagę, (2) co jest głównym przedmiotem badania (czy podana jest metoda leczenia lub procedura operacyjna, czy opisane jest tylko schorzenie), (3) czy są to tytuły czasownikowe czy rzeczownikowe, (4) czy tytuły są proste czy złożone (czy zawierają złożone rzeczowniki i przymiotniki), (5) jak długie są te tytuły (liczba wyrazów), (6) ile tytułów wskazuje na wiek lub inną charakterystykę pacjenta, (7) ile na rzadkość badania (np. „rzadki”, „nietypowy”), (8) czy tytuły zawierają eponimy, oraz (9) czy są inne dodatkowe cechy, wyróżniające dany tytuł.

Poniżej przedstawione zostaną wyniki uzyskane w drodze analizy ilościowej i jakościowej korpusu tekstów (tytułów opisów przypadków).

3.2. Wyniki

Pierwszym kryterium, na które zwrócono uwagę w badaniu była długość tytułów. Średnia długość tytułów wyniosła 11 wyrazów. Najdłuższy tytuł zawierał 28 słów, a najkrótszy – 2. W badaniu F. Salager-Meyer, M. Ángeles Alcaraz Ariza i M.L. Briceño (2013), w tytułach angielskich średnia wartość tytułów wynosiła 9,7 – wynika z tego więc, że tytuły polskich opisów były dłuższe. Poniżej przedstawione zostały przykłady obrazujące ww. zależności.

- *Czy zawsze unikać stymulacji komorowej? Skuteczność sekwencyjnej stymulacji dwujamowej w redukcji istotnego gradientu w drodze odpływu lewej komory i objawów klinicznych u chorego z kardiomiopatią przerostową zawężającą.* (Kardiologia Polska)
- *Liszaj kolczysty.* (Przegląd Dermatologiczny)

Kolejną analizowaną cechą był rodzaj tytułów. W korpusie tekstów, w odróżnieniu od badania F. Salager-Meyer, M. Ángeles Alcaraz Ariza i M.L. Briceño (2013), nie występowały tytuły czasownikowe, jednak posiadały one różnorodne konstrukcje zastępcze, m.in.:

- *Mięśniaki gładkokomórkowe skóry imitujące keloidy.* (Dermatologia Polska)

³ Ze względu na ograniczenia programu *AntConc*, który wyszukuje dokładne frazy, wyszukano także formy „przypadku” i „przypadków”, co dało rzetelniejsze wyniki w postaci innych fraz, np. „opis dwóch przypadków”.

- *Zespół wad wrodzonych ze złożoną wadą serca i zaburzeniami krzepnięcia sugerujący spektrum oczno-uszno-kręgowo – opis przypadku.* (Pediatria Polska)

Wszystkie analizowane tytuły były rzeczownikowe oraz tematyczne, np.:

- *Duża objawowa torbiel okołosierdziowa.* (Kardiologia Polska)
- *Zespół Bartha – opis przypadku.* (Neurologia Dziecięca)
- *Zespół Goodpasture’a wyzwaniem diagnostycznym i terapeutycznym dla lekarza kardiologa.* (Folia Cardiologica)
- *Rak z komórek Merkla.* (Klinika Oczna)

Występowały również tytuły dotyczące procedury badawczej, w tym zastosowanego leczenia operacyjnego i farmaceutycznego oraz pozytywnych i negatywnych wyników leczenia itp., m.in.:

- *Implantacja stentu do lewej tętnicy płucnej monitorowana angiografią rotacyjną z trójwymiarową rekonstrukcją.* (Folia Cardiologica)⁴
- *Znieczulenie ogólne do cholecysektomii laparoskopowej w trybie pilnym u pacjenta obciążonego przewlekłą niezdiagnozowaną przed laty pourazową przepukliną przeponową – opis przypadku.* (Anestezjologia i Ratownictwo)
- *Cystektomia z wytworzeniem zastępczego pęcherza jelitowego u pacjenta z ektopią nerki prawej.* (Chirurgia Polska)
- *Ciężkie zatrucie salicylanami u 7-letniej dziewczynki leczonej z powodu świerzb maścią salicylową.* (Pediatria Polska)
- *Zator tętnicy kręzkowej górnej skutecznie leczony metodami wewnątrznaczyniowymi – opis przypadku.* (Chirurgia Polska)
- *Nieprawidłowe odejście gałęzi prawej tętnicy płucnej od aorty zstępującej. Opis pomysłnego przebiegu leczenia.* (Kardiologia Polska)
- *Ziarniniak Wegenera – trafna diagnostyka i szybkie rozpoznanie w Oddziale Laryngologii Szpitala Powiatowego.* (Otorinolaryngologia)
- *Opryszczkowate zapalenie skóry błędnie rozpoznane i leczone jako grzybica skóry gładkiej.* (Przegląd Dermatologiczny)
- *Skuteczne leczenie zapalenia siatkówki i nerwu wzrokowego pozagąłkowym podaniem gancyklowiru u dziecka po autologicznym przeszczepie szpiku z zastosowaniem treosulfanu.* (Klinika Oczna)

Dwoma ostatnimi rodzajami tytułów występującymi w medycznych opisach przypadków w języku polskim były te przyciągające uwagę czytelnika (a) i tytuły w formie pytania (b). Poniżej przedstawiono ich przykłady:

(a)

- *Padaczka arytmiczna, czyli zaskakująca historia pewnej padaczki.* (Kardiologia Polska)
- *Kiedy znika pół twarzy... – zespół Parry’ego-Romberga, opis przypadku.* (Neurologia Polska)
- *Nastolatek traci przytomność na ulicy.* (Folia Cardiologica)

⁴ W tym przypadku cały tytuł jest opisem procedury badawczej.

- *Erythema ab igne – jako efekt uboczny pracy w kwiaciarni – opis przypadku i przegląd literatury.* (Przegląd Kardiologiczny)
- *Dowody, preferencje, rekomendacje. Manowce medycyny faktów — prezentacja przypadku chorego na raka gruczołowego płuca.* (Nowotwory)
- *Kardiomiopatia restrykcyjna – historia ze szczęśliwym zakończeniem.* (Pediatria Polska)

(b)

- *Kwasica mleczanowa z $pH < 6,8$ – zatrucie alkoholem niespożywczym czy kwasica towarzysząca leczeniu metforminą? Opis przypadku.* (Anestezjologia i Ratownictwo)
- *Dermatomyositis – zespół paraneoplastyczny czerniaka złośliwego czy przypadkowe współistnienie?* (Przegląd Dermatologiczny)
- *Szczepić czy nie szczepić dzieci przeciw pneumokokom? – opis kilku przypadków inwazyjnej choroby pneumokokowej (ICHp).* (Pediatria Polska)

W tytułach zazwyczaj określany jest także narząd objęty chorobą, np.:

- *Zaciskające zapalenie osierdzia jako powikłanie wirusowej infekcji dróg oddechowych.* (Kardiologia Polska)
- *Zaburzenia funkcji przysadki i podwzgórza w wyniku późno rozpoznanego wodogłowia u 7-letniego chłopca – opis przypadku.* (Endokrynologia Pediatria)
- *Cewkowo-śródmieższowe zapalenie nerek i błony naczyniowej – opis przypadku.* (Klinika Oczna)
- *Równoczesne przerzuty raka nerki do trzustki i tarczycy — opis przypadku i przegląd piśmiennictwa.* (Nowotwory)

W tytułach polskojęzycznych, oprócz określenia procedury badawczej i wyniku leczenia (jak powyżej), pojawia się także wyjaśnienie pojęcia poprzez np. podanie innej polskiej lub obcojęzycznej nazwy:

- *Problemy kardiologiczne u dziecka z zespołem monosomii 5p, zwanym zespołem kociego płaczu (cridu chat syndrome).* (Pediatria Polska)
- *Sudden unexplained nocturnal death syndrome (SUNDS), czyli zespół Brugadów.* (Folia Cardiologica)

Warto także przyrzeć się najczęściej występującym w tytułach jednostkom. Jak wynika z listy frekwencyjnej wygenerowanej z korpusu tekstów, stworzonego z 640 tytułów opisów przypadków, najczęściej występującymi, oprócz przyimków, słowami są: „opis”, „przypadku”/ „przypadków”, „zespół”/ „zespołu”, „przebieg”, „przegląd”, „piśmiennictwa”, „zapalenie”, „pacjenta”/ „pacjentki”, „letniej”/ „letniego”, „trudności”, „dziewczynki”/ „chłopca”, „chorego”/ „chorej” itp. W związku z tym zbadano kolokacje i liczbę występowania najczęściej pojawiających się w korpusie jednostek i uzyskano wyniki przedstawione w dalszej części pracy.

Najczęściej pojawiającą się frazą jest „opis przypadku”. Analiza ilościowa fraz „przypadku”⁵ i „przypadków” pokazuje, iż wyrażenia „opis przypadku”/ „przypadków”, „analiza przypadku/ przypadków”, „studium przypadku/ przypadków”, „prezentacja przypadku” wystąpiły w 316 tytułach, co stanowi prawie 50% wszystkich badanych tytułów (49,38%). Wyrażenie „opis przypadku” pojawia się na końcu tytułu po myślniku (c) (poniżej), ewentualnie po kropce (d), rzadko po dwukropku (e), w jednym artykule w nawiasie na końcu po tytule (f). W odróżnieniu od badania F. Salager-Meyer, M. Ángeles Alcaraz Ariza i M.L. Briceño (2013), w korpusie polskojęzycznym frazę tę rzadziej spotyka się na początku tytułu (g). „Opis przypadku” czasami zastępowany jest wyrażeniami „studium przypadku”, „analiza przypadku”, „przedstawienie przypadku”, w jednym tytule „opis pacjenta” (h) itp. Warto tu także wspomnieć, iż „studium przypadków” stosowane jest częściej w opisach przypadków w psychologii i psychiatrii (i), np. w czasopiśmie *Psychiatria Polska*. Dodatkowo warto zauważyć, iż występowały tu także inne formy (j). Poniżej przedstawione zostały przykładowe tytuły, w których występują ww. jednostki.

(c)

- *Choroba von Willebranda z punktu widzenia położnika – opis przypadków.* (Ginekologia i Położnictwo)
- *Jednostronny obrzęk tarczy nerwu wzrokowego jako pierwszy objaw toksoplazmozy ocznej – analiza przypadku.* (Klinika Oczna)
- *Wykorzystanie wirtualnej bronchoskopii w nowoczesnej diagnostyce dróg oddechowych u dzieci – opis wybranych przypadków.* (Pediatria Polska)

(d)

- *Limbiczne zapalenie mózgu z obecnością przeciwciał anti-LGII u 3-letniego chłopca. Przedstawienie przypadku.* (Neurologia Dziecięca)

(e)

- *Choroba Kikuchi i Fujimoto: opis dwóch nowych polskich przypadków i aktualny przegląd piśmiennictwa.* (Acta Haematologia Polonica)

(f)

- *Alergia czy zespół hyper-IgE – trudności diagnostyczne (opis przypadku).* (Pediatria Polska)

(g)

- *Opis przypadku 15-letniej dziewczynki z zespołem Aperta.* (Neurologia Polska)
- *Opis przypadku olbrzymiej torbieli wątroby zaopatrzonej sposobem laparoskopowym.* (Gastroenterologia Polska)

(h)

- *Analiza przypadków obustronnego czerniaka błony naczyniowej w materiale własnym i przegląd piśmiennictwa.* (Klinika Oczna)

⁵ Uzyskano 265 wyników wyszukiwania, które dotyczą fraz ze słowem „przypadku”, jednakże 3 wyszukiwania nie odnoszą się do frazy „opis przypadku” lub fraz pochodnych, ale do określenia konkretnego przypadku, czyli pacjenta – „w przypadku bardzo trudnej intubacji”, „metody postępowania w ich przypadku” oraz „postępowanie w przypadku”.

- *Subiektywne i obiektywne zjawiska akustyczne w przebiegu czynnościowych zaburzeń układu ruchowego narządu żucia – analiza przypadku.* (Otorynolaryngologia)
 - *Nagle zatrzymanie krążenia u młodej osoby dorosłej — studium przypadku.* (Folia Cardiologica)
 - *Polipoidalnawaskulopatia naczyńnkowa z samoistną regresją zmian poddołkowych – opis pacjenta.* (Klinika Oczna)
- (i)
- *Zaburzenia emocjonalne u pacjentów z uszkodzeniem mózdzku – studium przypadków.* (Psychiatria Polska)
- (j)
- *Przypadek równoczesnego występowania wrodzonego rozwarstwienia siatkówki sprzężonego z chromosomem X – w jednym oku, i błony podsiatkówkowej – w drugim oku, u dwóch członków tej samej rodziny.* (Klinika Oczna)
 - *Heterogenność zespołu Guillaina-Barrégo na przykładzie opisu przypadków.* (Pediatria Polska)

Przechodząc do dalszych rozważań, warto zauważyć, iż oprócz wyżej wymienionych wyrażeń, w tytułach medycznych opisów przypadków występują również inne jednostki określające trudności diagnostyczne (k), obserwacje własne autorów (l), typ pracy, np. przegląd dostępnego piśmiennictwa (m), wiek pacjenta (n) oraz rzadkość i nietypowość opisywanego schorzenia (o). Wspomniane tendencje mogą zobrazować poniższe przykłady.

- (k)
- *Atypowa postać zespołu tako-tsubo związanego z migotaniem przedsionków w zespole Wolffa-Parkinsona-White'a powikłanego nagłym zatrzymaniem krążenia: trudności diagnostyczne.* (Kardiologia Polska)
 - *Nawracające zapalenie chrząstek – problem diagnostyczny.* (Przegląd Dermatologiczny)
 - *Trudności w rozpoznaniu tyrozydemii typu 1 z perspektywy onkologa – opis przypadku.* (Pediatria Polska)
 - *Trudna droga do rozpoznania otępienia z ciałami Lewy'ego. Opis przypadku.* (Psychiatria Polska)
 - *Skrzepliny wewnątrzsercowe w zatorowości płucnej a priori niewysokiego ryzyka: dylematy terapeutyczne.* (Kardiologia Polska)
 - *Dodatkowa masa na elektrodzie wewnątrzsercowej — wrażliwości diagnostyczne i wybór postępowania leczniczego.* (Kardiologia Polska)
 - *Resekcja żołądka z nagłych wskazań z przezroczorową resekcją przełyku: trudna decyzja podczas dyżuru.* (Nowotwory)
 - *Trudny technicznie, ważny diagnostycznie – ekson ORF15 genu RPGR w zwyrodnieniu barwnikowym siatkówki.* (Klinika Oczna)
- (l)
- *Dysplazja kampomeliczna i zespół odwrócenia płci – sześćioletnia obserwacja.* (Endokrynologia Pediatryczna)
 - *Wrodzony nowotwór łagodny nabłonka barwnikowego siatkówki typu hamartoma – długoterminowa obserwacja przypadku klinicznego.* (Klinika Oczna)

- *Leczenie hybrydowe noworodka z przerwany łukiem aorty i przeciwwskazaniami do krążenia pozaustrojowego: opis przypadku z uwzględnieniem 1,5-roczej obserwacji.* (Kardiologia Polska)
- (m)
- *Dacrocystorhinostomia w leczeniu niskiego zwężenia przewodu nosowo-lzowego – opis przypadku i przegląd piśmiennictwa.* (Otorynolaryngologia)
 - *Przepuklina Morgagniego. Przegląd piśmiennictwa w oparciu o opis przypadku.* (Gastroenterologia Polska)
 - *Rzadko występująca genodermatoza (acral peeling skin syndrome) – opis przypadku. Przegląd piśmiennictwa dotyczącego odmiany ograniczonej i uogólnionej.* (Przegląd Dermatologiczny)

W przypadku przykładów w (k) (powyżej), warto tu dodać, że najczęściej stosowane są wyrażenia tj. „trudności diagnostyczne”, „problem diagnostyczny”; „dylematy terapeutyczne”, „trudna droga w rozpoznaniu” itp. pojawiają się rzadko. Co się tyczy grupy przykładów (m) (powyżej), wyrażenia „przegląd piśmiennictwa” i podobne występują najczęściej po słowach „opis przypadku”. Zwykle pojawia się „przegląd piśmiennictwa”, rzadziej „przegląd literatury”. „Przegląd piśmiennictwa” łączy się z przymiotnikami, które określają jego typ: „systematyczny”, „krótki”, „aktualny” itp. W jednym przypadku doprecyzowany jest zakres „przeglądu literatury”.

Określenie wieku pacjenta występuje w 70 tytułach (tj. 11%) (n), a ma to miejsce głównie w czasopismach pediatrycznych, m.in. *Pediatrics Polska*. Najczęściej stosowane wyrażenie w tytułach przy określaniu wieku zawiera przyimek „u”, np. „u 2-letniej dziewczynki”, „u 18-letniej⁶ chorej” itp.

- (n)
- *Zespół naczynek gumiatych u 2-letniej dziewczynki.* (Neurologia Polska)
 - *Czteromiesięczne niemowlę z zapaleniem mięśnia sercowego i zespołem Blanda, White'a i Garlanda – trudne rozpoznanie.* (Pediatrics Polska)
 - *Postać twardzinopodobna porfirii skórnej późnej u 64-letniej kobiety.* (Przegląd Dermatologiczny)
 - *Pacjentka w wieku 63 lat z mnogimi przetokami między krążeniem wieńcowym i płucnym.* (Kardiologia Polska)

W tym miejscu warto również wspomnieć o samym określeniu „przypadku”, w rozumieniu pacjenta, będącego ‘przedmiotem’ opisu przypadku. Powyżej omówione zostało zagadnienie wieku, natomiast interesującym jest także sposób przedstawienia pacjenta. Stosowane są do tego takie wyrażenia jak (według frekwencji): „pacjentka”/ „pacjentki”⁷, „pacjent”/ „pacjenta”, „chorego”/ „chorej”, „dziewczynki”/ „chłopca”,

⁶ W jednym z etapów analizy ilościowej uzyskano 4 wyniki wyszukiwania „letnia”, z czego 2 dotyczą obserwacji, a nie pacjentki, tj. „obserwacja dwuletnia” oraz „obserwacja 3-letnia”; i 35 wyników wyszukania „letniej”, jednak jeden wynik odnosi się do obserwacji, tj. „w obserwacji dwuletniej”.

⁷ Najczęściej w formach „u pacjenta”, „u chłopca” itd.

„dziecka” oraz „kobiety”/ „mężczyzny” (o). Występują tu także inne, rzadziej stosowane określenia pacjenta (p).

(o)

- *Długotrwała pancytopenia po chemioterapii jako objaw demaskujący chorobę Gauchera u pacjentki z rakiem płuca.* (Acta Haematologica Polonica)
- *Cukrzyca typu HNF1A MODY u 14-letniej dziewczynki z otyłością.* (Pediatria Polska)
- *Nabyty inhibitor czynnika VIII w przebiegu raka prostaty u 71-letniego mężczyzny – opis przypadku.* (Acta Haematologica Polonica)

(p)

- *Zachowawcze leczenie ciąży szyjkowej u pierworódki – opis przypadku.* (Ginekologia i Położnictwo)
- *Choroba Gravesa-Basedowa i myasthenia gravis u nastolatki – trudności diagnostyczne.* (Endokrynologia Pediatria)

Warto tu również przytoczyć inne, niebezpośrednie określenia pacjenta, tj.:

- *Złośliwa osteopetroza niemowlęca – opis przypadku.* (Pediatria Polska)
- *Łagodne ostre dziecięce zapalenie mięśni – opis przypadku.* (Pediatria Polska)

W poniższych przykładach w zauważyć możemy podkreślenie innowacyjności samego opisu, badania, nietypowości opisywanego schorzenia lub metody leczenia/procedury badawczej.

- *TRALI, nadal rzadko rozpoznawane, a jeszcze rzadziej zgłaszane powikłanie poprzetoczeniowe – opis przypadku i przegląd piśmiennictwa.* (Anestezjologia i Ratownictwo)
- *Rzadka postać zespołu Lyncha z trzema synchronicznymi, o podobnym zaawansowaniu, ogniskami gruczolakoraka okrężnicy.* (Chirurgia Polska)
- *Pierwsza w Polsce implantacja pompy LENUS pro® u pacjenta z tętniczym nadciśnieniem płucnym.* (Kardiologia Polska)
- *Typowe nietypowe objawy procesu infekcyjnego związanego z układem stymulującym. Znaczenie pozytonowej tomografii emisyjnej w diagnostyce i ustaleniu postępowania.* (Kardiologia Polska)
- *Walka z powikłaniami elektroterapii — dlaczego wciąż jest taka trudna? Analiza dwóch złożonych przypadków klinicznych.* (Kardiologia Polska)
- *Rzadki przypadek metalicznego ciała obcego w uchu środkowym – opis przypadku.* (Otorynolaryngologia)
- *Nowa metoda manualnej terapii krtani w rehabilitacji zaburzeń czynnościowych głosu.* (Otorynolaryngologia)
- *Czteropłatkowa zastawka aortalna — rzadki wariant anatomiczny u 70-letniej pacjentki z objawami niewydolności serca.* (Folia Cardiologica)
- *Niezwykły przypadek współistnienia łuszczycy z liszajem płaskim.* (Przegląd Dermatologiczny)
- *Wrodzona wielohormonalna niedoczynność przysadki – choroba wciąż późno rozpoznawana. Opis przypadków.* (Endokrynologia Polska)

- *Dziobata keratoliza – łagodna, często nierozpoznawana infekcyjna choroba skóry stóp.* (Przegląd Dermatologiczny)
- *Neurologiczne manifestacje niektórych wrodzonych zaburzeń metabolicznych – typowe sytuacje kliniczne.* (Neurologia Dziecięca)

W tytułach pojawiały się także inne wyrażenia, których frekwencja nie jest wysoka. Określają one typ procedury badawczej/ etapy badania (tu: „propozycja algorytmu...”), przyciągają uwagę czytelnika („im więcej szukamy, tym więcej widzimy”), opisują zalecenia („warto o niej pamiętać”), zwracają się do odbiorcy („zanim rozpoznasz... zbadaj”) oraz przekazują opinie („kontrowersje”).

- *Dyskwalifikacja dawcy komórek krwiotwórczych w trakcie chemioterapii wysokodawkowanej u biorcy przygotowywanego do transplantacji: **propozycja algorytmu postępowania ratunkowego.*** (Acta Haematologica Polonica)
- *Ciężka dysfunkcja prawego serca niejasnego pochodzenia u 74-letniej chorej — **im więcej szukamy, tym więcej widzimy.*** (Folia Cardiologica)
- *Cukrzyca monogenowa MODY 2 – **warto o niej pamiętać** – opisy przypadków.* (Endokrynologia Pediatria)
- *Zanim **rozpoznasz** u pacjenta zaburzenie konwersyjne, **dokładnie zbadaj** jego stan somatyczny i neurologiczny. Opis przypadku.* (Psychiatria Polska)
- ***Kontrowersje** wokół rozpoznania toczenia rumieniowatego indukowanego lekami anti-TNF- α u pacjentki leczonej z powodu łuszczycy.* (Przegląd Dermatologiczny)

Oprócz wyżej wymienionych informacji, tytuły medycznych opisów przypadków przekazują także inne dane, tj. informacje o klinice (r), objawach lub ich braku (s), przyczynę choroby (t) i inne.

(r)

- *Zakrzepica zatok żylnych mózgowia u dzieci – analiza przypadków klinicznych 5 dzieci hospitalizowanych **w Klinice Neurologii Dziecięcej w Rzeszowie.*** (Neurologia Dziecięca)

(s)

- ***Bezobjawowy śluzak lewego przedsionka.*** (Folia Cardiologica)
- ***Zmiany paznokciowe jako główna manifestacja liszaja łśniącego.*** (Przegląd Dermatologiczny)
- ***Wrzodzące zapalenie jelita grubego u 2-letniego dziecka.*** (Pediatria Polska)
- ***Wytrzeszcz gałki ocznej jako pierwszy objaw rozsianej postaci raka drobnokomórkowego płuc.*** (Klinika Oczna)

(t)

- ***Dziedziczna neuropatia nerwu wzrokowego Lebera – opis dwóch przypadków.*** (Klinika Oczna)
- *Zespół Kleefstra z **wrodzoną niedoczynnością tarczycy** u 4-letniej dziewczynki.* (Endokrynologia Pediatria)

Warto przyjrzeć się również warstwie gramatycznej i leksykalnej tytułów. Zauważalne jest tu powszechne występowanie rzeczowników i przymiotników złożonych. Zastosowanie takiej grupy środków językowych nie tylko umożliwia sformułowanie

dokładnego, nie pozostawiającego wątpliwości po stronie czytelnika, opisu lokalizacji choroby, objawów, metod leczenia itp., ale również wyrażenie go w porównywalnie krótszej formie niż przy użyciu fraz przyimkowych ze spójnikami.

- *Późne powikłania sercowo-naczyniowe i oskrzelowo-płucne u chorej leczonej wysokimi dawkami radioterapii z powodu chłoniaka Hodgkina.* (Kardiologia Polska)
- *Żółdkowo-jelitowo-trzustkowy rak neuroendokryny w postaci krwotocznej torbieli trzustki.* (Gastroenterologia Polska)
- *Zespół sromowo-pochwowo-dziąsłowy – opis przypadku.* (Przegląd Dermatologiczny)
- *Obustronny otoczkowiak współistniejący synchronicznie z gruczolakotorbielakowłóknikiem surowicznym jajnika lewego – opis przypadku.* (Ginekologia i Położnictwo)

Występują tu również liczne przymiotniki (w celu dokładności opisu; jak wyżej) określające lokalizację choroby, m.in. „obustronny”, „lewy”; stopień i rozmiar, np. „olbrzymi”, stadium choroby, np. „wczesny” itp.

- *Cystektomia z wytworzeniem zastępczego pęcherza jelitowego u pacjenta z ektopią nerki prawej.* (Chirurgia Polska)
- *Olbrzymi torbielakogruczolak śluzowy jajnika u 74-letniej pacjentki – opis przypadku.* (Ginekologia i Położnictwo)
- *Wczesna, bezobjawowa zakrzepica elektrody układu stymulującego skutecznie leczona zachowawczo.* (Kardiologia Polska)
- *Masywna hemoliza wewnątrznaczyniowa po interwencyjnym leczeniu ubytku w przegrodzie międzyprzedsionkowej.* (Kardiologia Polska)

Przyglądając się warstwie terminologicznej, warto zauważyć, że w tytułach medycznych opisów przypadków występują często eponimy (u), powstałe od odkrywców danej choroby oraz toponimy (w) (od miejsc/ nazw geograficznych). Występują tu także nieliczne nazwy, utworzone na drodze skojarzeń od zwierząt (x). Tendencje te uwarunkowane są jednak specyfiką języka medycznego, którego nieodłącznym elementem są nazwy eponimiczne i podobne, m.in.:

(u)

- *Zespół Mayer-Rokitansky-Küster-Hauser jako przykład anomalii rozwojowych przewodów Müllera – opis różnych wariantów zespołu u pięciu dziewcząt.* (Endokrynologia Pediatria)
- *Zespół Ladda rozpoznany u 15-letniego chłopca – opis przypadku.* (Pediatria Polska)
- *Choroba Huntingtona zaburzeniem neurologicznym czy psychiatrycznym? Opis przypadku.* (Psychiatria Polska)
- *Rozległa choroba Bowena twarzy – leczenie skojarzone.* (Przegląd Dermatologiczny)

(w)

- *Nawracające zapalenie płucnej jako wiodący objaw rodzinnej gorączki śródziemnomorskiej.* (Pediatria Polska)
- *Syndrom jerozolimski – opis przypadku.* (Psychiatria Polska)

(x)

- *Zespół pawiana*⁸. *Symetryczna, wyprzeniowa i zgięciowa osutka wywołana lekiem.* (Przegląd Dermatologiczny)

Kolejnym elementem wartym uwagi są łączniki zdaniowe, które wprowadzają nowe pojęcia lub, jak sama nazwa wskazuje, łączą zdania. Najczęściej funkcję tę pełnią spójniki i przyimki.

- *Asymetria stawu szczytowo-obrotowego jako jedna z ewentualnych przyczyn zawrotów głowy.* (Otorynolaryngologia)
- *Kwasica ketonowa a „ostry brzuch” w świeżo rozpoznanej cukrzycy typu I u dziecka – opis przypadku.* (Endokrynologia Pediatria)
- *Zespół Prader-Willi – diagnostyka i leczenie.* (Endokrynologia Pediatria)
- *17-letnia pacjentka z chorobą trzewną, autoimmunologicznym zapaleniem wątroby i toczniem rumieniowatym układowym – opis przypadku.* (Pediatria Polska)
- *Dziewięć lat przeżycie ogólne w miejscowo zaawansowanej, następnie uogólnionej postaci niedrobnokomórkowego raka płuca. Opis przypadku.* (Nowotwory)
- *Afazja sensomotoryczna jako powikłanie zapalenia opon mózgowo-rdzeniowych i mózgu o etiologii Streptococcus pyogenes u 12-letniej dziewczynki.* (Pediatria Polska)

Podobnie do badania F. Salager-Meyer, M. Ángeles Alcaraz Ariza i M.L. Briceño (2013) w niniejszym badaniu autorki przyjrzały się również znakom interpunkcyjnym. W wyżej wspomnianej pracy, w tytułach anglojęzycznych najczęściej występowały dwukropki, które wprowadzały nowe zagadnienia, wyjaśnienie, procedurę badawczą itd. Natomiast w tytułach polskich najczęściej występują myślniki, które z kolei wprowadzają frazę „opis przypadku” lub inne wyjaśnienie; czasem funkcję taką pełni również dwukropek, rzadziej kropka. Zaobserwowano tu także cudzysłowy, określające pojęcia niespecjalistyczne lub łagodzące wypowiedź.

- *Qutenza - Kapsaicyna 8% plaster – terapia bólu neuropatycznego: opisy przypadków – własne obserwacje.* (Anestezjologia i Ratownictwo)
- *Infekcyjne zapalenie wsierdza u chorego z wszczepionym układem stymulującym skutecznie leczone antybiotykami: obserwacja dwuletnia.* (Kardiologia Polska)
- *Zespół pawiana. Symetryczna, wyprzeniowa i zgięciowa osutka wywołana lekiem.* (Przegląd Dermatologiczny)
- *Idiopatyczne, obu stronnie zapalenie błony naczyniowej – efektywność steroidoterapii ogólnej oraz iniekcji doszkliskowej dexamethazonu. Opis przypadku.* (Klinika Oczna)

⁸ „Nazwa związana z podobieństwem zmian rumieniowych do wyglądu modzeli siedzeniowych u samic pawianów” (J. Maj; prezentacja multimedialna; dostęp: 27.03.2018).

- „*Ostry brzuch*” u dziecka z ostrą białaczką limfoblastyczną jako powikłanie chemioterapii indukcyjnej – opis przypadku. (Pediatria Polska)

Kończąc rozważania nad tytułami w polskojęzycznych opisach przypadków warto wspomnieć, iż autorki analizowały tylko niektóre aspekty gramatyczno-lingwistyczno-składniowe. Tworzy to pole do podjęcia dalszych badań w zakresie tendencji w tytułach, zarówno w języku polskim w zakresie medycyny, jak i w ujęciu komparatystycznym w innych językach/ czasopismach/ typach tekstów medycznych i innych.

4. Uwagi końcowe

Podsumowując rozważania nad polskojęzycznymi tytułami medycznych opisów przypadków, opublikowanych w latach 2012–2016, w porównaniu z badaniem F. Salager-Meyer, M. Ángeles Alcaraz Ariza i M.L. Briceño (2013), można sformułować następujące wnioski:

- Tytuły polskojęzyczne są nieznacznie dłuższe (11 słów) od tych w języku angielskim (9,7 słów) oraz porównywalne z artykułami naukowymi (10,9 słów) według badania Y. Wang/ Y. Bai (2007).
- Wszystkie analizowane tytuły miały charakter rzeczownikowy i tematyczny. W badanym korpusie nie pojawiały się tytuły czasownikowe, które występowały w opisach w języku angielskim, ale w polskich z kolei występowały różne konstrukcje zastępcze, np. imiesłowy. Pojawiały się także tytuły w formie pytania i te przyciągające uwagę (m.in. zawierające metafory).
- Tytuły w języku polskim przekazywały takie informacje jak: procedura badawcza, zastosowane leczenie i jego rezultat, opis narządu objętego chorobą, lokalizację, doprecyzowanie nazwy (ekwiwalenty obcojęzyczne, wyjaśnienia), przyczynę choroby itp.
- Analiza ilościowa wykazała, iż najczęściej występowały takie wyrażenia, przekazujące informację jak: „opis przypadku/ przypadków” i inne zamienniki (np. „studium przypadku” – głównie w psychologii; celem było określenie typu pracy; występowały w różnych miejscach) oraz „przegląd piśmiennictwa” (jeden z etapów badania/ typ pracy).
- Pojawiały się tu także wyrazy odnoszące się do pacjenta oraz jego wieku, rzadkości zagadnienia, trudności diagnostycznych i terapeutycznych, obserwacje własne autorów itp.
- Rzadko występowały też różne inne wyrażenia, np. zalecenia w formie bezpośredniego zwrotu do czytelnika. Tytuły przekazują także informacje o klinice (jednostce medycznej), objawach choroby itp.
- Na płaszczyźnie gramatycznej zauważono zastosowanie rzeczowników i przymiotników złożonych w celu uzyskania dokładności opisu jak i krótszej formy, przymiotników do określenia lokalizacji, stadium choroby itp., łączników zdaniowych (głównie spójników i przyimków) oraz znaków interpunkcyjnych (myślniki, rzadziej dwukropki, kropki i cudzysłowy).

- Pojawiały się również eponimy, toponimy oraz nazwy utworzone od zwierząt na drodze skojarzeń. Wynika to jednak ze specyfiki języka medycyny.

Głównym wnioskiem płynącym z powyższych rozważań jest to, iż tytuły medycznych opisów przypadków w języku polskim (niniejsze badanie) i angielskim (prace F. Salager-Meyer i M. Ángeles Alcaraz Ariza 2013a, b oraz F. Salager-Meyer, M. Ángeles Alcaraz Ariza i M.L. Briceño 2013), mają podobne cechy na płaszczyźnie gramatycznej, leksykalnej i strukturalnej, a nieznaczne różnice spowodowane są przez specyfikę danego języka.

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Andrzej Kałny (red.), *Studia Germanica Gedanensia 37: Kontrastive Linguistik und Interkulturelle Kommunikation. Sprach- und Kulturkontakte*. Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk, 2017, 238 S.

Dem 37. Band der Fachzeitschrift *Studia Germanica Gedanensia* liegt ein besonderes Thema zu Grunde, nämlich Sprach- und Kulturkontakte. Der Band umfasst 10 Beiträge, in denen Fragen der kontrastiven Linguistik und der interkulturellen Kommunikation behandelt werden, 3 beachtenswerte Selbstporträts der Germanisten und 5 Berichte und Rezensionen. Die Autoren erörtern in ihren Beiträgen Fragen, mit denen vergleichend und kontrastierend gleiche Phänomene, jedoch in unterschiedlichen Sprachen, in Relation gesetzt werden. Das Ziel der Zeitschrift, den interdisziplinären und fachübergreifenden Gedankenaustausch der Literatur-, Kultur-, Translationswissenschaftler sowie der Linguisten und Fremdsprachenmethodiker zu ermöglichen, gilt als eine ehrgeizige Herausforderung, der die Beiträgerinnen und Beiträger dank ihrer höchstinteressanten Überlegungen gewachsen sind.

Im Beitrag *Kulturspezifik und Übersetzbarkeit. Kontextualisierung von Phrasemen bei Günter Grass* beschäftigt sich Heinz-Helmut Lüger mit den Übersetzungsproblemen der Phraseme. Im Mittelpunkt der Analyse befindet sich der Roman *Ein weites Feld* von Günter Grass, den, wie der Autor feststellt, „de[r] spielerisch[e] Phrasengebrauch“ (S. 12) auszeichnet. In der Konfrontation mit dem Problem der (Un-)Übersetzbarkeit berücksichtigt der Autor noch den kulturspezifischen Kontext des Ausgangstextes. Heinz-Helmut Lüger setzt sich mit den Übersetzungsverfahren kritisch auseinander, die in der französischen und italienischen Übersetzungen des Romans angeboten werden, begründet sie plakativ und weist dadurch auf gewisse Übersetzungsprobleme hin, wie semantische Verschiebungen (S. 15–17) oder Bedeutungsverlust und Kompensationsversuche (S. 17–20). Allerdings zielt der Autor des Beitrags nicht darauf ab, die Leistung der Übersetzer in Frage zu stellen (S. 24), sondern zu zeigen, wie anspruchsvoll „eine phraseostilistische Kreativität“ (S. 7) von Günter Grass ist.

In der *Rezension des literarischen Schaffens und der gesellschaftlich-politischen Tätigkeit des Schriftstellers Günter Grass*, die der Publikation "Verleihung des Titels Doktor honoris causa der Universität Danzig an Günter Grass" (Gdańsk 2000) entnommen wurde, hebt hingegen Stefan H. Kaszyński die Bedeutung des künstlerischen Werkes von Günter Grass hervor und stellt das Engagement des Schriftstellers dar, der die Fragen seiner Generation, der gesellschaftlichen Gerechtigkeit, des Umweltbewusstseins, der Solidarität mit der Dritten Welt zu beantworten versucht (S. 27–29).

Helmut Glück betitelt enigmatisch seinen Beitrag *Sachtemang mit dit Kiezdeutsche*. Erst mit dem Untertitel *Heike Wieses Thesen über Jugendsprache gründen sich auf Sozialarbeit, haben aber keinen Halt in der Linguistik* verweist der Autor auf die

Frage des ontologischen Status „eine[r] Erscheinungsform des Deutschen, die bei Jugendlichen aus Zuwandererfamilien in großen Städten beobachtet wurde“ (S. 31). Die Potsdamer Germanistin Heike Wiese nannte sie „Kiezdeutsch“. Der Autor des Beitrags präsentiert seine Ausführungen mit dem Ziel, den Erkenntniswert der Untersuchungen von Heike Wiese kritisch zu hinterfragen und neues Licht auf das Phänomen „Kiezdeutsch“ zu werfen. Demzufolge sorgt Helmut Glück für das diskursive Kontinuum, in dem unterschiedliche Varietäten der deutschen Sprache thematisiert werden.

Marina Höfinghoff nimmt in ihrem Beitrag *Über den Nominalstil philosophischer Sprache am Beispiel ukrainisch-, polnisch- und deutschsprachiger Texte* kaum untersuchte philosophische Fachtexte in den Blick. Zum Fokus der Ausführungen werden Substantive (S. 38–40), Funktionen von Pronomen (S. 40–43), Adjektive (S. 43–44), Substantivierungen (S. 45–46) sowie Genus und Numerus (S. 46–47). Anhand dessen bestimmt die Autorin des Beitrags typologische Besonderheiten der philosophischen Texte, die ihren Nominalstil ausmachen.

Das Wesen der Werbekommunikation wird im Beitrag *Theoretische Grundlagen einer kontrastiven Untersuchung deutscher und ukrainischer Werbeslogans* von Olesia Leschenko thematisiert. Zum Gegenstand ihrer kontrastiven Untersuchung werden deutsche und ukrainische Werbeslogans, die die Autorin analytisch greifbar macht. Fesselnd wirkt die Profilierung der Analyse aus der strukturlinguistischen und kommunikativ-pragmatischen Sicht. Als Erkenntniswert der in diesem Beitrag präsentierten Ausführungen gilt ohne Zweifel das vorgeschlagene Analysemodell (S. 59), dessen Gültigkeit die Autorin vor dem Hintergrund der im letzten Teil des Beitrags dargestellten Ergebnisse der Analyse nachweist (S. 59–60). Olesia Leschenko kommt zum Schluss, dass das Analysemodell als ein methodologisches Instrumentarium betrachtet werden kann, das sich zum Ziel setzt, „nicht nur die ‘äußerlichen’ Merkmale von Slogans zu analysieren, sondern durch Strategien und Taktiken deren gesellschaftlichen Bezug zu erforschen“ (S. 60).

Im Beitrag *Der Relativsatz im Sprachkontrast* von Frank Kostrzewa stehen linguistische Realisierungen des Relativsatzes im Deutschen, Koreanischen, Japanischen und Chinesischen im Mittelpunkt. Die Überlegungen des Autors zielen darauf ab, auf Grund der Untersuchung vergleichend und kontrastiv Besonderheiten der Satzstrukturen in den analysierten Sprachen hervorzuheben.

In ihrem Beitrag *Bezeichnungen für bekannte Personen als Komponenten deutscher und polnischer Eigennamen* geht Marcelina Kałasznik den Fragen der Klassifizierung und Funktion der Bezeichnungen für bekannte Personen nach. Bezeichnungen als Bestandteile von Eigennamen befinden sich im Fokus des Interesses der Autorin. Lobenswert ist hier die vorgeschlagene Typologie der Eigennamen, die auf das Kriterium des Bezeichneten zurückgeht (S. 74–80), und eine detaillierte Darstellung der Spezifik jeder Gruppe der Bezeichnungen. Die angeführten hochinteressanten Beispiele illustrieren hingegen ein breites Spektrum der Funktionen, die den Bezeichnungen zugeschrieben werden können.

Der Beitrag *Die Rolle der Informationsstruktur beim Passiverwerb* von Anna Jeremkiewicz-Kwiatkowska fokussiert den Erwerbprozess des deutschen Passivs von

polnischen Deutschlerner/innen. Ihr Augenmerk richtet die Autorin auf die Schwierigkeiten und Herausforderungen wie z.B. eine stilistische und kommunikative Funktion der Passivkonstruktionen, Unterschiede im Gebrauch des Passivs, die Aspektkategorie des Verbs im Polnischen oder die Fähigkeit zur Formenbildung (S. 86–90), die im Lernprozess bewältigt werden müssen. In ihrem Beitrag basiert die Autorin auf der eingehenden Analyse der originellen Kontroll- und Semesterarbeiten von Germanistikstudenten/innen, auf deren Grund Probleme im Erwerbprozess des deutschen Passivs veranschaulicht werden. Ohne Zweifel haben die Ausführungen der Autorin des Beitrags einen besonderen Wert für die methodische Herangehensweise im DaF-Unterricht, worauf die Autorin in abschließenden Bemerkungen hindeutet (S. 94–95).

Auf die Frage der Passivparaphrasen geht auch Andrzej Kątny in seinem Beitrag *Agensabsorbierende Konstruktionen im Deutschen und Polnischen* ein. Der Beitrag reiht sich in die Problematik des facettenreichen Prozesses der Agensausschaltung ein und beantwortet die Frage der Konkurrenzformen zum Vorgangspassiv. Obwohl der Autor des Beitrags in der Zusammenfassung feststellt, dass er „einige der rezessiven agensabsorbierenden Konstruktionen im Polnischen und Deutschen behandelt“ (S. 106) hat, gelten die präsentierten Beispiele (S. 98–106) nur als Beleg für die Komplexität des Phänomens struktureller, funktionaler und kontextueller Art.

Jan Iluk und Mariusz Jakosz greifen in ihrem Beitrag *Narrativer Fremdsprachenunterricht im Vor- und Schulalter aus der Perspektive der interkulturellen Erziehung* auf das Konzept des narrativen Ansatzes zurück. Die Autoren des Beitrags folgen dem Ziel, die Frage der Eignung narrativer Texte für den Fremdsprachenunterricht für Kinder zu erörtern. Wohldurchdacht und detailliert stellen die Autoren das in drei Kindergärten und einer Grundschule realisierte Projekt dar, erklären die angewandte Lehrmethode (S. 113), beschreiben den Aufbau der Sprachkurse (S. 114), stellen Forschungsfragen (S. 114–115) und präsentieren Erhebungsinstrumente (S. 115–120). All das runden die Autoren des Beitrags mit den Ergebnissen zur Verstehensleistung ab (S. 120–125), mit deren Hilfe sich der narrative Ansatz methodologisch als Instrumentarium zur Etablierung der positiven Haltung gegenüber der Fremdsprache, der fremden Kultur, der kindlichen Weltoffenheit und der Bereitschaft, eine Fremdsprache weiter zu lernen (S. 126–127), bewährt.

Mit Charme, feinsinnigem Humor und dem Hauch der intimen, sehr persönlichen Atmosphäre stellen Werner Abraham, Ulrich Engel, Harald Weydt ihre Laufbahn, Forschungsschwerpunkte und Arbeitsgebiete dar. Alle sprachlich kreierte Bilder aus dem Leben der Autoren bekommt der Leser im Überblick, mit dem Fokus auf Menschen, Orte, Ereignisse, prägnante Momente, die auf den Werdegang der Autoren Wirkung ausübten.

Jens Stüben hingegen widmet seinen Beitrag „[...] *den Menschen zu Trost und Traum*“. Zum 40. Todestag des Danziger Dichters Willibald Omankowski/ Omansen (1886 – 1976) einem der wichtigsten Persönlichkeiten im Kulturleben der Freien Stadt Danzig. Ausführlich schildert der Autor das künstlerische Schaffen von dem deutschen Danziger (S. 187), das sich in seinen Gedichten, Rezensionen, Essays, Theaterkritiken äußerte. In seinem Beitrag betont Jens Stüben Omankowskis starkes emotio-

nales Verhältnis zu seiner Heimatstadt Danzig vor dem Hintergrund der Geschichtsergebnisse, was zur Folge hat, dass Danzig als ein unerlässlicher „Mitspieler“ zum Porträt des Dichters miteinbezogen wird.

Eine besondere Anziehungskraft von Danzig, gegen die sich Wissenschaftler unterschiedlicher Disziplinen nicht wehren könnten, wird in dem Beitrag *Was wäre, wenn Danzig...? Dialoge über die alternative Geschichte der Stadt* von Peter Oliver Loew hervorgehoben. Die historischen Eventualitäten, mit denen sich die zwei Figuren Opto und Peso auseinandersetzen, positionieren Danzig im sehr breiten historischen Kontext, was nur als Beweis dafür gilt, dass „ohne das, was in seiner Geschichte geschehen ist, Danzig schließlich nicht Danzig [wäre]“ (S. 217).

Zum Vorschein kommt die äußerst facettenreiche Fragestellung, die die Beiträger und Beiträgerinnen im 37. Band von *Studia Germanica Gedanensia* in den Blick nehmen. Die hier geschilderten theorie- und empiriebezogenen Ansätze richten konsequent den Fokus auf konstruktive, inspirierende und, ohne Zweifel, mehrdimensionale Vergleiche, Konfrontationen, Kontraste und ..., was daraus resultiert, Kontakte, dank deren in der interdisziplinären Herangehensweise der wissenschaftliche Mehrwert der Erkenntnisse gewährleistet wird.

Joanna PĖDZISZ

Uniwersytet Marii Curie-Skłodowskiej/ Maria Curie-Skłodowska University

E-Mail: joanna.pedzisz@gmail.com