BEYOND PHILOLOGY

AN INTERNATIONAL JOURNAL
OF LINGUISTICS, LITERARY STUDIES
AND ENGLISH LANGUAGE TEACHING

17/4

PRESENT-DAY TRANSLATION AND INTERPRETING RESEARCH: A MYRIAD OF APPROACHES, A MULTITUDE OF METHODS

Edited by Justyna Giczela-Pastwa

WYDAWNICTWO UNIWERSYTETU GDAŃSKIEGO
GDAŃSK 2020

ISSN 1732-1220
eISSN 2451-1498

Contact address
Institute of English and American Studies
University of Gdańsk
ul. Wita Stwosza 51
80-308 Gdańsk
Poland
Phone: (+48) 58 523 30 49, (+48) 58 523 30 50
Email: beyond.philology@ug.edu.pl

Beyond Philology is published in print and online:
<https://fil.ug.edu.pl/wydzial/instytuty_i_katedry/instytut_anglistyki_i_amerykanistyki/czasopismo_naukowe_beyond_philology>,
<http://cwf.ug.edu.pl/ojs/index.php/beyond>.

The online version is primary.

Beyond Philology is indexed by
- The Central European Journal of Social Sciences and Humanities
- ERIH PLUS European Reference Index for the Humanities and Social Sciences
- Index Copernicus
- MLA International Bibliography
- Norwegian Register for Scientific Journals, Series and Publishers

BEYOND PHILOLOGY 17/4

Contents

Beyond Philology No. 17/4, 2020
ISSN 1732-1220, eISSN 2451-1498

Introduction

JUSTYNA GICZELA-PASTWA

It was quite a challenge to decide how the papers submitted for this issue should be ordered. Would it be sensible to group the articles according to the type of translation they reflect on? Or would it be wiser to focus on the methodologies that have been applied? Or perhaps it is specific translation problems that should be set as the ordering criterion? Having considered a few options, I eventually went for the most general *translation vs interpreting* classification. Meanwhile, it occurred to me that the dilemma caused by various interrelations among the papers perfectly reflect the nature of Translation and Interpreting Studies as a field of study. First and foremost, it is interdisciplinary and explores a wide range of topics relating to complex operations on languages and cultures. To do so, researchers dealing with translation and interpreting apply diverse methodologies and turn to other branches of research, in search of insightful perspectives and new research tools. Likewise, it may be noticed that the topics which the Authors discuss in this issue reappear or partly overlap, however, each contribution addresses them from a different perspective and brings something to the table. As is the case with Translation and Interpreting Studies in general, despite the observed diversity, it is possible to discern common ground and shared interests, e.g. in particular translation strategies and techniques, in particular modes of translating, or in the benefits and applicability of particular research methods. The first two papers in this special issue focus on translating EU texts, although they use them for quite a different purpose. Aleksandra Tomaszewska and Natalia Zawadzka-Paluektau compile and analyse an English-Polish parallel corpus of EU

press releases concerning the COVID-19 pandemic, in order to carry out a multifaceted analysis of translation techniques applied in the translation of pandemic-related terminology. The Authors identify a number of features that reflect the nascent nature of an evolving linguistic phenomenon, i.e. institutional multilingual communication about the global COVID-19 emergency.

The study presented by Krzysztof Łoboda discusses practical methods for evaluating the quality of machine-translated EU texts. The solutions offered by the Author may be of particular use to translators who deal with specialised translation and wish to increase their efficiency. Even though, as we can see, quantitative quality evaluation has its drawbacks, in some contexts it may significantly reduce the workload of freelance translators.

Quantitative analysis of the material and primary focus on terminology permeate the first part of the issue. The paper by Wioleta Karwacka certainly fits into this pattern, and at the same time, it echoes the interest of the opening paper, i.e. pinpointing translation techniques and strategies as applied in translating certain type of discourse. The Author deals with medical terminology and aims at identifying procedures used to translate the International Classification for Nursing Practice into Polish. In contrast to the observations presented in the opening paper, this study reveals more stabilised communication conditions and a clear preference for functional translation. The contribution by Paula Gorszczyńska marks the shift to interpreting. The first paper in this part presents the results of a pilot study into types of disfluencies recurrent in sight translation. The study was carried out with the participation of ten subjects, all of them professional interpreters. The Author analyses their sight translation output and by adapting disfluency taxonomies developed in the field of simultaneous interpreting studies, identifies the frequency of particular types of disfluencies. Furthermore, a possible correlation between their occurrence and a dominating source text function has also been examined.

Contrastingly, Heather Adams and David Bovy discuss interpreting in a macro perspective: they present the findings of another pilot study, focused on the activities that freelance conference interpreters undertake in the non-institutional market, apart from interpreting. The Authors designed a questionnaire and managed to collect thirteen sets of answers. A list of various tasks, together with their approximate frequency, has been drawn and discussed on the basis of the returned responses.

Along with this article, as well as with the contribution by Krzysztof Łoboda, the closing paper of the volume, by Arkadiusz Badziński, deals with the nitty-gritty of current professional practice. On top of that, by echoing the topic explored in the opening paper, it also brings the issue full circle. This is quite significant: in 2020 COVID-19 dominated our lives, and in some aspects, influenced our research curiosity as well. As is observed, the pandemic has undeniably changed the contexts and practices of professional medical interpreting, and is likely to leave a lasting imprint on the demands of the profession.

The papers collected in this issue may be viewed as illustrating the interdisciplinary nature of Translation and Interpreting Studies, noticeable in both theoretical and applied orientations of the field. Obviously, even though the perspectives and methods adopted in particular papers differ, the inherent diversity of the discipline exceeds the columns of any academic journal. Future issues of *Beyond Philology* will certainly offer further opportunities to gain deeper insight into the current interests of Translation and Interpreting Studies.

Beyond Philology No. 17/4, 2020
ISSN 1732-1220, eISSN 2451-1498

https://doi.org/10.26881/bp.2020.4.01

Translating a pandemic: A corpus study of COVID-19 multi-word terminology in EU press releases

ALEKSANDRA TOMASZEWSKA
NATALIA ZAWADZKA-PALUEKTAU

Received 7.11.2020,
received in revised form 1.12.2020,
accepted 1.12.2020.

Abstract

The study employs a parallel English-Polish corpus to investigate how COVID-19 multi-word terms are handled in translations of EU press releases. Translation techniques are examined at four levels of analysis: (1) term variation, (2) institutionalization, (3) domestication/foreignization, and (4) degree of transfer of information. The results are discussed in regard to the characteristics of COVID-19 terminology and its, often neological, instability, which manifests itself in high levels of terminological variation, inconsistent use of recommended institutional equivalents, and varied degrees of information transfer between SL and TL. The findings are also reviewed in light of the nature of press releases which, as an essential link in the transmission of knowledge from EU institutions to citizens, prompt the use of domesticating techniques.

Keywords

COVID-19, terminology, translation techniques, EU translation, institutionalization, terminological variation

Pandemia w tłumaczeniu: analiza korpusowa terminologii wielowyrazowej dotyczącej COVID-19 w komunikatach prasowych UE

Abstrakt

W niniejszym artykule wykorzystano równoległy korpus angielsko-polski do zbadania, jak w tłumaczeniach komunikatów prasowych UE oddawane są terminy złożone związane z COVID-19. Techniki tłumaczeniowe zbadano na czterech poziomach analizy: (1) zróżnicowania terminologicznego, (2) instytucjonalizacji, (3) udomowienia/egzotyzacji oraz (4) stopnia przekazywania informacji. W badaniu uwzględniono charakterystykę terminologii dotyczącej COVID-19, w tym jej niestabilność (często neologiczną), przejawiającą się dużym zróżnicowaniem terminologicznym, niekonsekwentnym stosowaniem zalecanych odpowiedników instytucjonalnych oraz przesunięciami w przekazie informacji z języka źródłowego do docelowego. Jednocześnie wyniki interpretowano w odniesieniu do specyfiki komunikatów prasowych, które, pełniąc rolę istotnego ogniwa w przekazywaniu wiedzy z instytucji UE do obywateli, skłaniają do stosowania technik udomawiających.

Słowa kluczowe

COVID-19, terminologia, techniki tłumaczeniowe, tłumaczenie UE, instytucjonalizacja, zróżnicowanie terminologiczne

1. Introduction

Terminology provides essential access points to specialized knowledge structures (Faber 2009: 109). As such, it contributes significantly to the meaning-making of texts (Biel and Koźbiał

2020). During the COVID-19 health crisis, terms have played a significant role in conveying information from experts to the general public. This has usually been done by means of translation: the necessary precondition for the circulation of meaning on a global scale (Bielsa 2005: 139), especially in emergency situations requiring a rapid and smooth flow of information between people and institutions (Zhang and Wu 2020: 527). Overwhelmingly, the source language has been English, given its predominance in institutional and scientific settings such as the European Union (e.g. Biel et al. 2018: 251, Piller et al. 2020: 505, Seracini 2020: 1–2).

This study investigates how multi-word terms relating to the COVID-19 pandemic are rendered from English into Polish by employing a parallel corpus of EU press releases. To the best of the authors' knowledge, research into translation-mediated communication between EU institutions and the public during the pandemic has been limited, especially with respect to terminology. Furthermore, terminology in general is mostly studied in specialized language (Drouin et al. 2017), whereas little attention has been paid to terms when they "move out of their [specialized] sphere and participate in new forms of written and oral interactions" (Delavigne 2017: 32) such as expert-to-lay communication. The present study aims to fill these research gaps by employing quantitative approaches to the study of terminology which has also been recognized as overlooked in the literature (Biel and Koźbiał 2020). It will shed light on how multi-word terms are handled in translation within the context of COVID-19 considering their potential neological instability, as well as the characteristics of EU expert-to-lay translation, and the constraints imposed by the pandemic.

Therefore, this study aims at answering the following questions: (1) How can COVID-19 terms employed in EU press releases be classified according to their thematic scope? (2) What is the degree of variation of equivalents in COVID-19 terms? (3) To what extent are their equivalents institutionalized in translations into Polish? (4) What is the degree of domesti-

cation/foreignization of terminological equivalents of COVID-19 terms? (5) What is the degree of transfer of information from SL (Source Language) to TL (Target Language) equivalents?

2. Context of the study

2.1. COVID-19 pandemic

SARS-CoV-2 – the virus which causes the disease – was first identified in December 2019 in the Chinese municipality of Wuhan (Chaplin 2020). It soon crossed into neighboring countries and by the end of the following month had spread to other continents. The first case in Europe was reported in France on January 24, 2020; by March 2020, all EU member states were affected (Goniewicz et al. 2020: 3). On March 11, 2020, the World Health Organization (WHO) declared the COVID -19 outbreak to be a pandemic. As of October 26, 2020, more than 42 million infection cases had been diagnosed across the globe, with over a million deaths (WHO 2020).

Over eight million diagnoses had been confirmed in the European Union as of October 26 (European Centre for Disease Prevention and Control 2020). Propelled by the growing consequences of the pandemic, EU institutions have been forced to adopt relevant legislation and undertake measures so as to facilitate the flow of information, the assessment of needs, and the introduction of a consistent EU-wide response (Goniewicz et al. 2020). The latter has focused on a number of priorities, most importantly health (the adoption of preventive measures, the purchase of medical equipment and supplies) and research (developing a vaccine and treatment therapies), as well as various measures intended to curb the pandemic (e.g. travel restrictions) and to alleviate its effects on the economy (Goniewicz et al. 2020). Consequently, the role of translation (mostly from English to other languages, given the predominance of this language in institutional settings [Biel et al. 2018: 251, Piller et al. 2020: 505, Seracini 2020: 1–2]) as a key facilitator of com-

munication between member states has grown exponentially. At the same time, the ongoing pandemic has exacerbated the need for accurate and fast translation-mediated communication between institutions and the general public in order to explain basic facts, risks, and ways to minimize them (Costa-Sánchez and López-García 2020).

2.2. EU translation: press releases

Out of the two types of communication observed in EU translation – expert-to-expert and expert-to-lay (Biel 2014: 56) – this study is concerned with the latter. Specifically, it examines a corpus of press releases. Press releases can be defined as:

> relatively short texts resembling news stories and containing what is considered by the issuer to be newsworthy information; they are generally sent to the journalist community (but the intended primary readership has been recently shifting to the general public) with the purpose of having them picked up by the press and turned into actual news stories. (Catenaccio 2008: 13)

Thus, the primary function of a press release is to become transformed into news intended for the general public (Lassen 2006). As a result, this genre constitutes an important link in the (usually translator-mediated) transmission of knowledge from (EU) authorities and experts to the citizens.

The two categories of EU translation are governed by different rules and expectations with regard to quality. Whereas the highest quality is required from legal translation, where the notion of equivalence is foregrounded to ensure a uniform interpretation and application of EU law across member states (Biel 2017: 37), texts directed at the general public are expected to be natural and readable above all else: “a key quality desideratum is to produce texts that read like originals in all languages” (Directorate-General for Translation 2015: 2, 13). This is achieved by localizing translations to TL conventions, high idiomaticity, and

avoiding EU jargon (Biel 2017: 38). In order to produce natural-sounding language, translators of texts addressed to laypeople also have more agency than those responsible for specialized communication (Biel 2017: 38).

2.3. Terminology in translation

The translation of texts containing terms, i.e. "lexical units with a precise meaning in a given special field" (Cabré 2010: 359), presents a challenge in translation, especially given their role of access points to knowledge structures (Faber 2009: 109). This process consists of bridging the gap between two – potentially incongruous – concepts (Biel 2009: 183, Hejwowski 2004: 15). The degree of their incongruity may vary – from (nearly) identical concepts (which are universal or, in institutional settings, supranational) to "conceptual voids" without any equivalent in the TL (Biel 2009: 183). The latter end of the spectrum is occupied in particular by system- and culture-specific items, for example legal terms (Sosoni and O'Shea 2020).

Similarly, neologisms might often pose challenges in translation. Their spread is associated with some of the more dynamically evolving fields like medicine (León-Araúz 2017: 215–216), as well as with political, economic, or social changes (Carter 1999, Sękowska 2002, Maybin and Swann 2007), such as the ongoing health crisis (Cierpich-Kozieł 2020, Lawson 2020). Closing the gap between these newly coined or modified terms might, therefore, require significant effort on the part of translators. Nevertheless, translators should ensure that terms in translation have precise and unambiguous meanings and that they are – ideally – always translated in the same manner to ensure terminological stability (Hejwowski 2004: 14). In the EU context, this consistency should be maintained both at the level of a given text, and with respect to other EU texts (Biel and Koźbiał 2020).

Despite the above-mentioned prescriptive view on terminology (Hejwowski 2004: 14), there is significant empirical evidence

of terminological variation in specialized language. Term variation occurs "when different denominations are used to refer to the same concept" (León-Araúz 2017: 214). Even though some studies have demonstrated that institutional (EU included) translations of terms tend to be consistent (Fernández-Silva and Kerremans 2011, Kerremans 2017), the overwhelming majority argue that complete terminological standardization is very difficult to achieve as definitions and concept systems are never static, and synonymy and polysemy often occur in specialized language (Freixa 2002, Faber 2009, Freixa and Fernández-Silva 2017, León-Araúz 2017, Pimentel 2017), including EU translation (Biel et al. 2018, Mori 2018, Prieto Ramos and Morales 2019, Seracini 2020, Biel and Koźbiał 2020). Terminological variation can be attributed to numerous communicative and cognitive factors, such as the situational context of specialized communication, the translator's knowledge of the topic and its terminology, his or her expectations regarding the target text readers' knowledge, the availability of terminological resources, and translation policy (Faber 2009: 113, Fernández-Silva and Kerremans 2011: 332, Freixa and Fernández-Silva 2017: 176). In the EU context, terminological variation also results from interference, low termness of neologisms, the fragmentation of translation services, insufficient terminological resources, as well as translators' lack of systematicity in following guidelines, and inadequate knowledge of TL terminology (Prieto Ramos and Morales 2019: 107–108, Biel 2020: 13, Biel and Koźbiał 2020). In the Polish context, it may also be due to "the instability of the Polish Eurolect at its formative stage" (Biel and Koźbiał 2020). This may ultimately influence the representation and transfer of specialized knowledge (Faber 2009: 108, Cabré 2010: 358), and on a micro-level, the reception and adoption of specific terms into the TL (Prieto Ramos and Morales 2019).

2.4. Translating a pandemic

Translation processes during the COVID-19 health crisis can be associated with significant challenges. The rapid spread of the virus across the globe has required an equally fast circulation of translation-mediated information (Costa-Sánchez and López-García 2020). As a result, translation processes have been governed by pace above all else (Zhang and Wu 2020: 527). Apart from time pressures, other constraints have been posed on translators during the COVID-19 crisis. The obligatory confinement which resulted in school closures has made it arguably more difficult to balance work and childcare. At the same time, some of the translators with young families may have been forced to work from home, often in confined spaces, which might have impacted on the outcome of translation processes (Strouther 2020). With respect to terminology, translators may have encountered difficulties due to the lack or inadequacy of reference sources such as dictionaries, glossaries, etc. Even though new multilingual entries are regularly being added the EU's database of terminology (Interactive Terminology for Europe 2020), registering new terms might sometimes be delayed in EU translation services as a result of the rapidly evolving epidemiological situation. All these factors may ultimately lead to increased challenges connected with the rendering of COVID-19-related terminology, as well as a higher terminological variation.

3. Materials and research procedure

The EU-COV is a parallel English–Polish corpus of press releases on the subject of the COVID-19 pandemic, extracted from the web archive of the European Commission (https://europa.eu/newsroom/press-releases/). It covers a period of five months – from the date on which the WHO declared the situation a global pandemic, March 11, 2020 to August 11, 2020. Texts were selected using the search term *coronavirus* and choosing specific dates on the website. Sixty-seven English-

language texts and sixty-seven corresponding Polish-language texts were downloaded. The texts were aligned using LF Aligner, manually verified for noise, and uploaded into Sketch Engine (Kilgariff et al. 2014). The structure of the corpus is presented in Table 1 below.

Table 1
Structure of the EU-COV corpus

	EN	PL	TOTAL
Tokens	62,006	60,301	122,307
Unique words	5,218	8,838	14,056
Texts	67	67	134

Multi-word terms were identified by comparing EU-COV to enTenTen2015 using the keywords extraction function in Sketch Engine. The enTenTen2015 corpus was used because it is sufficiently large, thematically and linguistically varied, and comprises relatively recent data (Jakubíček et al. 2013). Only keywords related to COVID-19 having raw frequency scores higher than one were chosen for analysis. The parallel concordances of English and Polish texts were subsequently examined to retrieve the TL equivalents of the identified SL terms. Next, each concordance (extended to full sentences or paragraphs when necessary) was analyzed in order to examine the use of translation techniques at four different levels:

1. **Terminological variation.** Each SL term was paired with its equivalent or equivalents in translated texts in order to establish the degree of term variation.

2. **The level of institutionalization**. Each English term was verified in the EU's terminology database, the Interactive Terminology for Europe (IATE), to find out whether a Polish equivalent had been recommended. The recommended equivalent (in some cases there were several) was then compared with the term(s) employed by the translators of the analyzed press releases. The

aim was to esta-blish to what extent EU guidelines are followed in the translation of press releases. An important note to bear in mind is that some press releases may have been published prior to the introduction of specific COVID-19 terms (especially neologisms) into the database. Entries in IATE are not dated, hence establishing a timeline was not possible. As a result, any conclusions regarding the translators' consistency in following terminological gui-delines of the EU can only be drawn tentatively and have to be treated with caution.

3. **The level of foreignization/domestication**. Four main translation techniques along the foreignization – domes-tication continuum were considered: borrowing ("reproducing the SL expression [in TL]" [Weston 1991: 26]), literal equivalent ("formal (lexical) equivalence at the level of either the word or higher units" [Weston 1991: 24]), descriptive equivalent (paraphrasing SL information in TL [Biel 2009: 185]), and functional equivalent ("using a TL expression which denotes the nearest equivalent concept" [Weston 1991: 21]).

4. **The degree of transfer of information**. Each concordance was analyzed in order to examine whether the information in the TL text was expanded (amplification), reduced (reduction), made more general (generalization) or more specific (particularization) with respect to SL; or whether the information in the two parallel concordances was conveyed to the same extent (correspondence). This part of the analysis was partly inspired by Molina and Hurtado Albir's (2002) classification of translation techniques. The analyzed levels are presented in Figure 1.

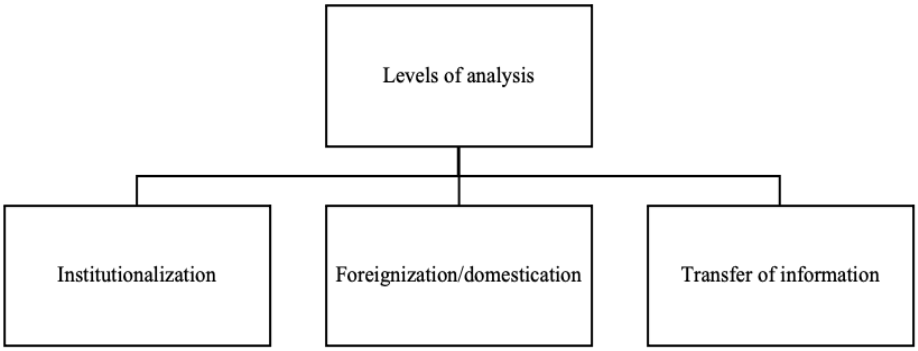


Figure 1
Levels of analysis of COVID-19 terms in EU-COV

4. Results and discussion

The identified terms are not thematically homogenous but can be grouped into three thematic categories: Health and research – 18 terms, Institutional response – 17 terms, and Protective measures – 5 terms (40 terms in total):

(1) Health and research
coronavirus outbreak (N=87), *coronavirus pandemic* (N=56), *medical equipment* (N=23), *cross-border healthcare* (N=6), *cross-border treatment* (N=6), *medical capacity* (N=5), *convalescent plasma* (N=5), *rapid point-of-care (diagnostic tests)* (N=3), *EU health preparedness* (N=3), *essential staff* (N=3), *large-scale testing* (N=3), *transmission chain* (N=3), *testing capacity* (N=3), *coronavirus emergency* (N=2), *expert capacity* (N=2), *respiratory equipment* (N=2), *mass testing* (N=2), *virus outbreak* (N=2)

(2) Institutional response
Temporary Framework (N=75), *non-essential travel* (N=33), *travel restriction* (N=40), *supply chain* (N=16), *joint procurement* (N=11), *private storage aid* (N=6), *gradual lifting* (N=6), *general escape clause* (N=5), *industrial deployment* (N=5), *exit strategy* (N=5), *affected country* (N=5), *circular economy* (N=2), *screening framework* (N=2), *coordination hub*

(N=2), *state aid register* (N=2), *interoperability solution* (N=2), *national stockpiling* (N=2)
(3) Protective measures
protective equipment (N=32), *personal protective equipment* (N=13), *protective clothing* (N=12), *covid-19 confinement* (N=10), *social distancing* (N=5)

Parallel concordances were analyzed to pair SL terms with their TL equivalents. In sum, there are 89 pairs of SL–TL multi-word terms. Since the analysis reveals that the majority of the terms have more than one TL equivalent, terminological variation in the translations of the EU press releases is discussed briefly in the following section (4.1). It is followed by a discussion of the level of institutionalization of the employed TL terms (section 4.2), translation techniques on a scale from domestication to foreignization (section 4.3), and the degree of transfer of information (section 4.4). Selected SL terms for each thematic category, along with their equivalents and the results of the analyses, are presented in Tables 2, 3, and 4 below. Full data was published in an external database (Tomaszewska and Zawadzka-Paluektau 2020).

Table 2
Selected SL terms and their TL equivalents in COVID-19 EU press releases, category: Health and research

SL term	TL equivalent	N	IATE equivalent	Domestication / foreignization	Transfer of information
coronavirus outbreak (N=87)	koronawirus	31	-(new)	functional equivalent	reduction
	pandemia [+ five other equivalents]	13	-(new)	functional equivalent	generalization
coronavirus	pandemia korona-wirusa	50	+(new)	functional equivalent	correspondence

pandemic (N=56)	[+ three other equivalents]				
medical capacity (N=5)	rezerwy medyczne	3	(ø)	functional equivalent	correspondence
	zdolność medyczna	1		literal equivalent	correspondence
	rezerwy	1		functional equivalent	generalization
convalescent plasma (N=5)	osocze ozdrowieńców	5	+(new)	functional equivalent	correspondence
EU health preparedness (N=3)	gotowość UE w dziedzinie zdrowia	2	(ø)	descriptive equivalent	amplification
	gotowość UE	1		functional equivalent	generalization
essential staff (N=3)	pracownicy kluczowi	2	-(new)	literal equivalent	correspondence
	pracownicy	1	-(new)	functional equivalent	generalization
transmission chain (N=3)	łańcuch zakażeń	3	+(new)	functional equivalent	correspondence
coronavirus emergency (N=2)	zagrożenie koronawirusem	2	-(new)	functional equivalent	reduction
mass testing (N=2)	prowadzone na masową skalę działania w zakresie testowania	1	-	descriptive equivalent	amplification
	masowe przeprowadzanie testów	1	-	descriptive equivalent	amplification

Explanation of symbols in the IATE equivalent column (applicable also to Tables 4 and 5): (ø) the SL term is not included in IATE as of October 6, 2020; + TL term is a recommended equivalent; - TL term is not a recommended equivalent; (new) the term was added during the COVID-19 pandemic (Interactive Terminology for Europe 2020). Other comments in brackets, e.g. (preferred), are recommendations of use provided by IATE.

Table 3
Selected SL terms and their TL equivalents in COVID-19 EU press releases, category: Institutional response

SL term	TL equivalent	N	IATE equivalent	Domestication/ foreignization	Transfer of information
Temporary Framework (N=75)	tymczasowe ramy	44	+(new)	functional equivalent	correspondence
	tymczasowe ramy pomocy państwa [+ three other equivalents]	19	+(new)	functional equivalent	amplification
non-essential travel (N=33)	inne niż niezbędne podróże	32	+	descriptive equivalent	correspondence
	podróże, które są niezbędne	1	-	descriptive equivalent	correspondence
joint procurement (N=11)	zamówienie wspólne/ wspólne zamówienie	6	+(new)	functional equivalent	particularization
private storage aid (N=6)	dopłaty do prywatnego przechowywania	5	+	functional equivalent	correspondence
	środki w formie dopłat do	1	-	descriptive equivalent	amplification

	prywatnego przechowywania				
gradual lifting (N=6)	stopniowe zniesienie/ znoszenie	6	+(new)	functional equivalent	correspondence
exit strategy (N=5)	strategia wyjścia	6	+(new)	literal equivalent	correspondence
	strategia wyjścia z kryzysu [+ two other equivalents]	5	-(new)	descriptive equivalent	particularization
affected country (N=5)	państwo dotknięte klęską	2	(ø)	descriptive equivalent	amplification
	kraj dotknięty pandemią	2		descriptive equivalent	amplification
	kraj dotknięty	1		literal equivalent	correspondence
screening framework (N=2)	wytyczne	1	(ø)	functional equivalent	generalization
	ramy monitorowania	1		literal equivalent	correspondence

Table 4

Selected SL terms and their TL equivalents in COVID-19 EU press releases, category: Protective measures

SL term	TL equivalent	N	IATE equivalent	Domestication/ foreignization	Transfer of information
protective equipment (N=32)	środki ochrony [+ three other	23	-(new)	functional equivalent	correspondence

	equivalents]				
protective clothing (N=12)	odzież ochronna	12	+	functional equivalent	corre-spondence
social distanc-ing (N=5)	ograniczenie kontaktów osobistych	2	+(new)	descriptive equivalent	corre-spondence
	ograniczenie kontaktów personal-nych	3	+(new)	descriptive equivalent	corre-spondence

4.1. Terminological variation

Variation in terminology can be defined as "diverging use of terms within one language" (Humbley and Picton 2017: 6). Sixty-five percent of COVID-19 terms extracted from the EU-COV corpus display interlinguistic variation, i.e. variation resulting from contact between languages (León-Araúz 2017: 215). This finding is in line with previous contributions to the study of interlinguistic variation (Pimentel 2017, Rossi 2017), including in the EU context (Biel et al. 2018, Mori 2018, Prieto Ramos and Morales 2019, Seracini 2020, Biel and Koźbiał 2020). As shown in Table 5, the category of Health and research displays the highest variation among the three categories: 72 % of all words in this category have more than one lexicalization in the translated text. The categories of Institutional response and Protective measures, on the other hand, exhibit similar terminological variation levels: 58 % and 60 %, respectively.

Table 5
Terminological variation in COVID-19 press releases

Category	Terms with one TL equivalent	Terms with more than one TL equivalent	Total
Health and research	5 (28 %)	13 (72 %)	18
Institutional response	7 (41 %)	10 (59 %)	17
Protective measures	2 (40 %)	3 (60 %)	5

All three categories follow the same pattern evident in the most frequent, and, therefore, the most salient SL terms whilst at the same time displaying the highest level of variation. These two dimensions – salience and variation – coincide in the two most frequently used terms in the category of Health and research: *coronavirus outbreak* and *coronavirus pandemic* (seven and four variants, respectively), as well as in the most frequently used terms in the other two categories: *Temporary Framework* (five variants) and *protective equipment* (four variants).

The significant level of interlinguistic variation of terms relating to COVID-19 in EU press releases may be attributed to a variety of communicative and cognitive factors. First, translation processes during the pandemic have been constrained by a variety of factors, such as time pressure, working conditions during lockdown, as well as insufficient guidelines and terminological resources, as discussed in section 2.4.

Secondly, terminological variation might be deliberately used as a strategy to convey information or help advance an argument by bringing out specific aspects of a given concept (Freixa and Fernández-Silva 2017: 176, Humbley and Picton 2017: 6). For example, the three variants of the term *testing capacity* focus either on the EU capacity to conduct tests [‘zdolność przeprowadzania testów’], the availability of tests [‘szeroka dostępność testów’], or the number of performed tests [‘liczba wykonywanych testów’], thus foregrounding different aspects of

the same concept. This may sometimes be connected to translators' expectations of the audiences' knowledge (Freixa and Fernández-Silva 2017: 176) and is particularly common with respect to new terms (Humbley and Picton 2017: 6).

In fact, terminological variation was observed in neologisms in particular. As expected (León-Araúz 2017: 215–216), medical terms were revealed to be particularly prone to terminological instability due to the dynamic developments within the field triggered by the health crisis (most notably in the two most frequent terms: *coronavirus outbreak* and *coronavirus pandemic*). This instability, however, might, in this context, be seen as a phase rather than a permanent feature of COVID-19 terminology.

Thirdly, terminological variation in EU press releases may result from the properties of the genre under study. As discussed above, EU translators of texts addressed to the general public are granted more agency than those responsible for specialized communication (Biel 2017: 38). Therefore, terminological consistency is not required in press releases to the same extent as in legal genres. Furthermore, in translations into Polish, repetition might be avoided due to its association with a poor style.

4.2. The level of institutionalization

The second step of the analysis was concerned with the level of institutionalization of the analyzed terms in translation into Polish. It aimed at establishing whether the TL terms are equivalents recommended by EU institutions. However, it is important to note that one-third of the SL COVID-19 terms extracted from the press releases analyzed (33 %, i.e. 13 terms) do not have their TL equivalents in IATE (as of October 6, 2020). This might be explained, above all, by their low termness (Shelov 2018: 48), as in the following examples: *affected country, medical capacity, virus outbreak,* and *EU health preparedness.* Furthermore, some of these terms – *EU health preparedness,* for instance – are likely to have gained significant salience only recently, during the pandemic, which might also explain their

absence from the database. Other terms, however, are not included in IATE despite their high termness (Shelov 2018: 48), for example, *screening framework* and *cross-border treatment*. This indicates the incompleteness of the EU's terminological resource and the resulting lack of guidelines with respect to some terms.

The remainder of the SL terms identified in this study (27 terms, 68 %) are included in IATE. In the analyzed press releases, they have, in total, 61 TL equivalents. Out of these 61 terms, however, only 28 (46 %) are recommended equivalents. These include, first, terms included in the database before the pandemic, such as the TL equivalents of *protective clothing;* and second, terms which have become functional or established equivalents during the coronavirus crisis as a result of their significant salience in discourses surrounding the COVID-19 pandemic, e.g. *coronavirus outbreak, non-essential travel,* and *gradual lifting*. In fact, the vast majority of the analyzed recommended TL equivalents were also recognized as functional equivalents (22 terms, 79 %). Third, the database includes terms with a significant degree of termness (Shelov 2018: 48), e.g. *Temporary Framework* and *private storage aid*.

Thirty-three TL terms are not among the established equivalents recommended by IATE. However, it is important to bear in mind that some of the press releases analyzed might have been published before specific terms were added to the database. This may result from the fact that the body of knowledge on COVID-19 has been growing systematically and rapidly, and the various measures to curb the pandemic or to alleviate its effects have been adopted on a short-term basis. New terms, associated with specific aspects of the crisis, were coined and entered into institutional or wide usage, and old terms became more salient within very short periods of time. In fact, 458 new multilingual entries related to the SARS-CoV-2 virus and the COVID-19 pandemic had been added to the database by July 28, including 15 terms analyzed in this study (marked as "new" in Tables 3–5),

e.g. *convalescent plasma, essential staff,* and *social distancing* (Interactive Terminology for Europe 2020).

However, as entries in IATE are not dated, it is impossible to ascertain whether the terms which are not recommended equivalents were not in the database at the time of writing of a given press release, or whether the translator for some reason did not follow the existing guidelines. First, translators might have failed to look up terms displaying a low level of termness (Shelov 2018: 48). For example, the term *testing capacity* had three different variants in translation, none of which followed the IATE recommendation: *zdolność testowania* ['testing capacity']. In a similar way, *essential staff*, for which IATE suggests several synonymous equivalents (e.g. *pracownicy o krytycznym znaczeniu* ['staff of critical importance'] and *niezbędni pracownicy* ['indispensable staff']), was translated either as *pracownicy kluczowi* ['key staff'] or using the general word *pracownicy* ['staff']. Consequently, both TL equivalents provide much fewer specific renderings of the source term.

The second reason for not following IATE's recommendations might be genre-specific. In EU translation of texts addressed to the general public, there is significantly less emphasis on the equivalence of terms than in specialized communication. Instead, texts directed at the general public are expected to be natural and readable above all else. As a consequence, much more agency is granted to translators of expert-to-lay texts who might therefore opt for translation techniques that increase readability instead of resorting to established equivalents. For example, IATE's recommended Polish equivalent for *coronavirus emergency* is *sytuacja nadzwyczajna związana z koronawirusem* ['exceptional situation related to the coronavirus']. Instead of using the long and clumsy recommended equivalent, the translator(s) opted for a much shorter and natural-sounding *zagrożenie koronawirusem* ['coronavirus threat'] (in spite of the slight reduction in meaning).

For the same reason, translators also tended to decrease the level of termness of particular TL equivalents, therefore reducing

the cognitive effort required from the readers. For example, in lieu of the recommended *badanie przesiewowe populacji* ['screenings test of the population'] as an equivalent for *mass testing*, translators avoided the highly specialized word *przesiewowe* ['screening'] and instead adopted more descriptive and explanatory translation solutions: *prowadzone na masową skalę działania w zakresie testowania* ['activities with respect to testing conducted on a mass scale'] and *masowe przeprowadzanie testów* ['mass conducting of tests'].

Thirdly, non-adherence to terminological guidelines may be related to avoiding repetition in Polish, as it is regarded as poor style. For this reason, translators might sometimes resort to synonyms of recommended equivalents instead of invariably following the guidelines. Time pressures and other constraints which have affected the work of translators during the pandemic might also have played a role in limiting their reliance on terminological databases.

4.3. Domestication – foreignization

The third step in this analysis of translation techniques aimed at establishing the level of their foreignization/domestication. In this part of the study, such techniques as borrowings, literal equivalents, descriptive equivalents, as well as functional equivalents were identified and analyzed in SL–TL equivalents and concordances. Three out of the four translation techniques along the foreignization–domestication continuum were identified in the EU-COV corpus. The findings for each category and for the entire corpus are presented in Table 6.

Table 6
Domestication/foreignization techniques per thematic category

Translation technique	Health and research	Institutional response	Protective measures	Total
functional equivalent	29 (73 %)	18 (44 %)	7 (70 %)	54 (61 %)
descriptive equivalent	8 (20 %)	12 (31 %)	3 (30 %)	23 (26 %)
literal equivalent	3 (8 %)	8 (21 %)	0 (0 %)	11 (12 %)
not recognized (typographical error)	0 (0 %)	1 (3 %)	0 (0 %)	1 (1 %)

Domestication techniques are prevalent in COVID-19 press releases, with 61 % functional and 26 % descriptive equivalents in the material analyzed. With respect to the dominant technique of functional equivalent, its frequent use may attest to the presence of equivalents close to SL concepts which can be used in TL instead of coining new words or influencing SL meanings (in other words, introducing calques, borrowings, semantic extensions). This technique was most often applied in the Health and research category, where it appeared in 73 % of the identified cases, and in Protective measures (70 %), whereas in the Institutional response category it was observed in only 44 % of TL equivalents.

On the one hand, the identified functional equivalents include terms which were coined before the pandemic, e.g. *łańcuch zakażeń* [‘transmission chain’] or *osocze ozdrowieńców* [‘convalescent plasma’]. On the other hand, the study reveals that equivalents of some of the terms coined during the pandemic have already become functional. Examples include new concepts related to alleviating the effects of the pandemic: *Temporary Framework* [‘tymczasowe ramy’] and *gradual lifting* [‘stopniowe zniesienie’ or ‘stopniowe znoszenie’].

The second most commonly used technique on the domestication/foreignization scale is descriptive equivalent, which was observed in over a quarter (26 %) of all SL–TL equivalents: about 30 % in both Institutional response and Protective measures, and 20 % in Health and research (as the latter category is dominated to a greater extent by functional equivalents). It can be speculated that translators use this technique to avoid potential interpretation difficulties as it makes the TL equivalent more explicit by resolving text-inherent ambiguity (Biel 2009: 185). Moreover, it can provide "more (but not complete) information than the literal equivalent" (2009: 185). An example of a descriptive equivalent in EU-COV is the term *non-essential travel* rendered in TL as *inne niż niezbędne podróże* ['journeys other than necessary'] and *podróże, które nie są niezbędne* ['journeys that are not necessary'].

In the material under review, foreignizing techniques were rarely diagnosed – the study revealed, on one hand, zero techniques resulting in non-integrated borrowings in TL, while on the other, relatively few literal equivalents (12 % among all SL–TL equivalents). This may be due to the fact that EU press releases are part of non-expert communication, which is why translators may have chosen to bring the concepts closer to the non-specialist reader through domestication.

With respect to literal equivalents, these were observed in 8 % of SL–TL equivalents in the Health and research category and in 21 % in the Institutional response. Therefore, the present analysis indicates that this is not the preferred technique in EU translation of press releases, which might testify to the linguistic accuracy and expertise of translators of EU COVID-19 press releases. It might also be due to the nature of press releases as texts directed at wider audiences, which – contrary to expert-to-expert EU communication (legal texts in particular), where translation is expected to be as close to the original as possible – should rather aim at bringing the text closer to the reader, according to EU translation guidelines (Directorate-General for Translation 2015: 2, 13). What is more, in the few instances

where literal equivalents were employed, the overwhelming result (10 out of 11 TL equivalents) was the creation of unnatural-sounding or even ungrammatical constructions in Polish (with the obvious exception of literal equivalents which have become functional). Examples include terms such as *zdolność medyczna* ['medical capacity'], *strategia wyjścia* ['exit strategy'], and *kraj dotknięty* ['affected country'].

4.4. The degree of transfer of information

The aim of the last part of the study was to examine whether and to what extent, when compared to the SL, the information in the TL was expanded (amplification), reduced (reduction), made more general (generalization), more specific (particularization) or conveyed to the same extent (correspondence). The findings are presented in Table 7.

Table 7
Transfer of information techniques per thematic category

Transfer of information technique	Health and research	Institutional response	Protective measures	Total
correspondence	14 (35 %)	17 (44 %)	9 (90 %)	40 (45 %)
amplification	8 (20 %)	12 (31 %)	1 (10 %)	21 (24 %)
generalization	12 (30 %)	2 (5 %)	0 (0 %)	14 (16 %)
particularization	3 (7,5 %)	5 (13 %)	0 (0 %)	8 (9 %)
reduction	3 (7,5 %)	2 (5 %)	0 (0 %)	5 (6 %)
not recognized (typographical error)	0 (0 %)	1 (3 %)	0 (0 %)	1 (1 %)

SL information is most often transferred in EU-COV by means of correspondence (45 % of cases), i.e. information from SL is transferred to TL to the same degree in less than half of the identified SL–TL equivalents. However, although it is the most commonly used technique in our material, the other techniques – which alter the degree of transfer of information – are predominant in the corpus. In other words, in most cases, the translated terms do not fully correspond to the source terms.

The highest level of correspondence was observed in the thematic category of Protective measures: 90 % of the SL–TL equivalents. The high percentage of the use of the correspondence technique in this category is probably due to the prevalence of, on the one hand, technical and highly terminological items (which are, therefore, easily identified as terms), and, on the other, terminology already in use before the pandemic (which constitutes unambiguous references to the given concepts), for example *protective clothing* translated as *odzież ochronna*. In the remaining categories, the percentage is significantly lower – 35 % in Health and research and 44 % in Institutional response, meaning that with respect to the majority of terms in both categories the translator chose techniques that somehow modify the degree of transfer of information. Correspondence is very often found in literal equivalents (73 %) but to a much lesser extent in functional equivalents (48 %). Correspondence was rarely achieved when descriptive equivalents were employed (22 %).

One of the techniques leading to interference in the transmission of information in TL is amplification. Translators may resort to this technique in order to manage possible reading and interpretation difficulties as the use of this technique makes the TL equivalent more explicit by resolving text-inherent ambiguity. Amplification was employed in 24 % of the SL–TL equivalents in the whole research material – in 20 % of the analyzed items in the category Health and research, in 31 % in Institutional response, and in 10 % in Protective measures. The terms in the latter thematic category do not require clarification (as

mentioned above, their equivalents were used prior to the pandemic). In the other thematic categories, however, a number of new terms were used, prompting the use of amplification in order to clarify their meanings. For instance, *Temporary Framework* has five TL equivalents in the analyzed material, four of which are amplified. Amplification was most frequently used with descriptive equivalents (71 %), which indicates that whenever the translator opted for description as a translation technique, it often required the amplification of meaning of TL terms with respect to SL terms.

Another technique used was generalization, which results in the omission of some aspects of a concept due to the use of a more general or neutral TL term (Molina and Hurtado Albir 2002: 510). Generalization occurred in 16 % of the entire research material, 30 % in Health and research and 5 % in Institutional response. It was not observed in the category Protective measures. For example, generalization was identified in the corpus in as many as five equivalents of the term *coronavirus outbreak*. In one of them, the words *coronavirus* and *outbreak* were omitted, and the term was translated as: *pandemia* ['pandemic']. Another example is *EU health preparedness* rendered as *gotowość UE* ['EU preparedness'] – here, the translator omitted the word *health*. The use of generalization as a translation technique results in a partial loss or blurring of the SL meaning.

The fourth most frequent transfer of information technique in the EU-COV corpus is particularization (9 %), which consists in making the information in TL more specific with respect to SL (Molina and Hurtado Albir 2002: 510). The use of this technique is rare in all thematic categories – it was used in 13 % of cases in Institutional response, 9 % in Protective measures, and 8 % in Health and research. Particularization is usually observed in functional equivalents (63 % of all examples of particularization are functional equivalents), which may indicate that their contexts in Polish required narrower meanings. For instance, *joint procurement* has no exactly corresponding rendering available in TL as Polish equivalents refer to more specific contexts.

Particularization, which was employed in four out of six TL equivalents of *joint procurement*, thus makes the TL texts less ambiguous by referring to one of several meanings or aspects of meanings of the SL term.

The transfer of information technique that is used least frequently in EU-COV (only 6 % of the analyzed SL–TL equivalents) is reduction. Reduction consists in narrowing information in TL with respect to SL (Molina and Hurtado Albir 2002: 10). In other words, one or several aspects of an SL term are omitted in translation, which does not, however, lead to using a more general term, as in the case of generalization (which also results in a partial loss of meaning). In the focus corpus, reduction was used, for example, in the translation of the term *exit strategy* as *wyjście*, where the word *strategy* was omitted in the TL text, and in *coronavirus outbreak* translated as *koronawirus*, where the TL element *outbreak* was omitted.

5. Conclusions

This study set out to investigate how multi-word terms relating to the COVID-19 pandemic are rendered in the translation of expert-to-lay communication from English into Polish. Therefore, it contributes to the study of terminology in non-specialized settings as well as to the advancement of the nascent branch of knowledge regarding the pandemic from a linguistic perspective.

The analysis shows that the COVID-19 multi-word terms can be divided into three main thematic categories. This indicates that EU communication directed at the general public focused on three main aspects of the COVID-19 crisis: the question of health and medical research, the institutional measures to curb the spread of the pandemic and alleviate its effects, as well as personal protective measures. A significant degree of overlap between national and supranational terminology has been observed in the corpus.

Several findings suggest that terminology regarding the disease has not (yet) become fully stabilized. First, there is a significant degree of terminological variation. Sixty-five percent of the identified SL terms have more than one variant in TL. Secondly, a third of the extracted SL terms are not included in the EU's terminological database, and the existing guidelines are followed in less than half of the identified TL equivalents. Thirdly, with respect to the transfer of information, in the majority of terms, the techniques which alter the degree of transfer of information are employed instead of correspondence. Terminological instability was, above all, observed in neologisms. It might also be associated with the constraints that have been imposed on translators during the pandemic, and with the reduced levels of termness of the identified multi-words.

The characteristics and requirements of the genre analyzed, too, are likely to have affected the choice of translation strategies. First, terminological variation may result from stylistic concerns or different assumptions that translators have of their lay audiences' knowledge. This is also associated with the fact that translators of non-specialized texts are granted more agency than translators of legal documents, and thus are not invariably obliged to use recommended equivalents. Secondly, with respect to the level of institutionalization of the analyzed terms, translations directed at the general public are expected to be natural and readable above all else, which might lead translators to rely less on terminological databases than in the case of legal documents, especially in cases where low or high levels of termness can be observed. Thirdly, the use of techniques which alter the degree of transfer of information as well as the use of domesticating techniques might also be due to the translators' efforts to make TL texts more readable and easier to understand for target lay audiences. The limited use of literal equivalents and avoidance of borrowings, on the other hand, might attest to linguistic accuracy or apparent expertise of translators of EU COVID-19 press releases.

The findings of this study, however, have to be seen in light of potential limitations. On the one hand, the focus corpus comprises press releases published in the first five months of the pandemic, whereas terminology has, naturally, continued evolving. At the time of writing this paper, the world is in the ninth month of the pandemic. New terminology is continually introduced to account for the advancements in medical research regarding the new disease and the measures adopted at national and supranational levels. With respect to the EU, its translation bodies are bound to continue working on bringing the terminological databases up to date, especially with respect to COVID-19 terminology. Future research should thus account for these developments.

On the other hand, more conclusive results with regard to how terminology is handled in expert-to-lay translation could be drawn if the focus corpus was compared to a corpus of specialized texts, for instance, EU legal documents. Such a comparative study would allow for attributing specific translation choices to factors related to genre more accurately. Future contributions might aim to fill this gap.

References

Biel, Łucja (2009). "Organization of background knowledge structures in legal language and related translation problems". *Comparative Legilinguistics: International Journal for Legal Communication* 1: 176–189.

Biel, Łucja (2014). *Lost in the Eurofog: The Textual Fit of Translated Law.* Frankfurt am Main: Peter Lang.

Biel, Łucja (2017). "Quality in institutional EU translation: Parameters, policies and practices". In: Tomáš Svoboda, Łucja Biel, Krzysztof Łoboda (eds.). *Quality Aspects in Institutional Translation*. Berlin: Language Science Press, 31–57.

Biel, Łucja (2020). "Eurolects and EU legal translation". In: Meng Ji, Sara Laviosa (eds.). *The Oxford Handbook of Translation and Social Practices.* Oxford: Oxford University Press, 1–25.

Biel, Łucja, Agnieszka Biernacka, Anna Jopek-Bosiacka (2018). "Collocations of terms in EU competition law: A corpus analysis of EU English collocations". In: Silvia Marino, Łucja Biel, Martina Bajčić, Vilelmini Sosoni (eds.). *Language and Law: The Role of Language and Translation in EU Competition Law*. Springer, 249–274.

Biel, Łucja, Dariusz Koźbiał (2020). "How do translators handle (near-) synonymous legal terms? A mixed-genre parallel corpus study into the variation of EU English-Polish competition law terminology". *Estudios de Traducción* 10: 69–90.

Bielsa, Esperança (2005). "Globalisation and translation: A theoretical approach". *Language and Intercultural Communication* 5/2: 131–144.

Cabré, M. Teresa (2010). "Terminology and translation". In: Yves Gambier, Luc van Doorslaer (eds.). *Handbook of Translation Studies*. Amsterdam – Philadelphia: John Benjamins, 356–365.

Carter, Ronald (1999). "Common language: Corpus, creativity and cognition". *Language and Literature* 8/3: 195–216.

Catenaccio, Paola (2008). "Press releases as a hybrid genre: Addressing the informative/promotional conundrum". *Pragmatics* 18/1: 9–31.

Chaplin, Steve (2020). "COVID-19: a brief history and treatments in development". *Prescriber* 31/5: 23–28.

Cierpich-Kozieł, Agnieszka (2020). "Koronarzeczywistość – o nowych złożeniach z członem *korona-* w dobie pandemii". *Język Polski* 4. Available at https://jezyk-polski.pl/wp-content/uploads/2020/09/Artyku%C5%82-Cierpich-Koziel.pdf. Accessed 26.10.2020.

Costa-Sánchez, Carmen, Xosé López-García (2020). "Comunicación y crisis del coronavirus en España. Primeras lecciones". *El Profesional de la Información* 29/3: e290304.

Delavigne, Valérie (2017). "Term usage and socioterminological variation: The impact of social and local issues on the movement of terms". In: Patrick Drouin, Aline Francœur, John Humbley, Aurélie Picton (eds.). *Multiple Perspectives on Terminological Variation*. Amsterdam, Philadelphia: John Benjamins, 31–56.

Directorate-General for Translation, European Commission (2015). *DGT Translation Quality Guidelines*. Available at https://ec.europa.eu/translation/maltese/guidelines/documents/dgt_translation_quality_guidelines_en.pdf. Accessed 08.09.2020.

Drouin, Patrick, Aline Francœur, John Humbley, Aurélie Picton (2017). *Multiple Perspectives on Terminological Variation*. Amsterdam – Philadelphia: John Benjamins.

European Centre for Disease Prevention and Control (2020). *COVID-19 situation update worldwide, as of 26 October 2020.* Available at https://www.ecdc.europa.eu/en/geographical-distribution-2019-ncov-cases. Accessed 26.10.2020.

European Commission. *The Press Corner.* Available at https://ec.europa.eu/commission/presscorner/home/en. Accessed 07.09.2020.

Faber, Pamela (2009). "The cognitive shift in terminology and specialized translation". *MonTi: Monografías de Traducción e Interpretación* 1: 107–134.

Fernández-Silva, Sabela, Koen Kerremans (2011). "Terminological variation in source texts and translations: A pilot study". *Meta* 56/2: 318–335.

Freixa, Judit (2002). *La Variació terminològica: Anàlisi de la variació denomitiva en textos de different grau d'especialització de l'àrea de medi ambient.* Barcelona: Institut Universitari de Linguïstica Aplicada/ Universitat Pompeu Fabra.

Freixa, Judit, Sabela Fernández-Silva (2017). "Terminological variation and the unsaturability of concepts". In: Patrick Drouin, Aline Francœur, John Humbley, Aurélie Picton (eds.). *Multiple Perspectives on Terminological Variation*. Amsterdam – Philadelphia: John Benjamins, 155–180.

Goniewicz, Krzysztof, Amir Khorram-Manesh, Attila J. Hertelendy, Mariusz Goniewicz, Katarzyna Naylor, Frederick M. Burkle Jr. (2020). "Current response and management decisions of the European Union to the COVID-19 outbreak: A review". *Sustainability* 12/9, 3838. Available at https://www.mdpi.com/2071-1050/12/9/3838/htm. Accessed 09.09.2020.

Hejwowski, Krzysztof (2004). *Kognitywno-komunikacyjna teoria przekładu.* Warszawa: Wydawnictwo Naukowe PWN.

Humbley, John, Aurélie Picton (2017). "Multiple perspectives on terminological variation". In: Patrick Drouin, Aline Francœur, John Humbley, Aurélie Picton (eds.). *Multiple Perspectives on Terminological Variation*. Amsterdam, Philadelphia: John Benjamins, 1–10.

Interactive Terminology for Europe (2020). *COVID-19 Terminology Available in IATE (Data as of 28/07/2020).* Available at https://data.europa.eu/euodp/en/data/dataset/covid-19-multili

ngual-terminology-on-iate/resource/44522e37-6b1e-40be-aae2-94d5ca2b8e13. Accessed 12.10.2020.

Jakubíček, Miloš, Adam Kilgariff, Vojtěch Kovář, Pavel Rychlý, Vít Suchomel (2013). "The TenTen corpus family". *7th International Corpus Linguistics Conference CL*, 125–127.

Kerremans, Koen (2017). "Towards a resource of semantically and contextually structured term variants and their translations". In: Patrick Drouin, Aline Francœur, John Humbley, Aurélie Picton (eds.). *Multiple Perspectives on Terminological Variation*. Amsterdam – Philadelphia: John Benjamins, 83–108.

Kilgariff, Adam, Vít Baisa, Jan Bušta, Miloš Jakubíček, Vojtěch Kovář, Jan Michelfeit, Pavel Rychlý, Vít Suchomel (2014). "The Sketch Engine: ten years on". *Lexicography* 1: 7–36.

Lassen, Inger (2006). "Is the press release a genre? A study of form and content". *Discourse Studies* 8/4: 503–530.

León-Araúz, Pilar (2017). "Term and concept variation in specialized knowledge dynamics". In: Patrick Drouin, Aline Francœur, John Humbley, Aurélie Picton (eds.). *Multiple Perspectives on Terminological Variation*. Amsterdam – Philadelphia: John Benjamins, 213–258.

Lawson, Robert (2020). "Coronavirus has led to an explosion of new words and phrases – and that helps us cope". *The Conversation*. Available at https://theconversation.com/coronavirus-has-led-to-an-explosion-of-new-words-and-phrases-and-that-helps-us-cope-136909. Accessed 09.09.2020.

Maybin, Janet, Joan Swann (2007). "Everyday creativity in language: Textuality, contextuality, and critique". *Applied Linguistics* 28/4: 497–517.

Molina, Lucía, Amparo Hurtado Albir (2002). "Translation techniques revisited: A dynamic and functionalist approach". *Meta: Translators' Journal* 47/4: 498–512.

Mori, Laura (2018). *Observing Eurolects: Corpus Analysis of Linguistic Variation in EU Law*. Amsterdam – Philadelphia: John Benjamins.

Piller, Ingrid, Jie Zhang, Jia Li (2020). "Linguistic diversity in a time of crisis: Language challenges of the COVID-19 pandemic". *Multilingua* 39/5: 503–515.

Pimentel, Janine (2017). "Specialized verbs and specialized uses of verbs in a comparable corpus of judgments produced in Canada, Portugal, and Brazil". In: Patrick Drouin, Aline Francœur, John Humbley, Aurélie Picton (eds.). *Multiple Perspectives on*

Terminological Variation. Amsterdam – Philadelphia: John Benjamins, 109–130.

Prieto Ramos, Fernando, Albert Morales (2019). "Terminological innovation and harmonization at international organizations: Can too many cooks spoil the broth?". In: Marita Kristiansen, Ingrid Simonnaes (eds.). *Legal Translation: Current Issues and Challenges in Research, Methods and Applications*. Berlin: Frank & Timme, 87–110.

Rossi, Micaela (2017). "Terminological metaphors and the nomadism of specialized terms: Some observations on intralinguistic and interlinguistic variation". In: Patrick Drouin, Aline Francœur, John Humbley, Aurélie Picton (eds.). *Multiple Perspectives on Terminological Variation*. Amsterdam – Philadelphia: John Benjamins, 181–212.

Seracini, Francesca L. (2020). "Phraseology in multilingual EU legislation: A corpus-based study of translated multi-word terms". *Perspectives*. DOI: 10.1080/0907676X.2020.1800058.

Sękowska, Elżbieta (2002). "Neologizmy słowotwórcze we współczesnej polszczyźnie (wybrane tendencje)". *Eslavística Complutense* 4: 1–9.

Shelov, Sergey D. (2018). *Ocherk teorii terminologii: Sostav, ponyatiynaya organizatsiya, prakticheskiye prilozheniya.* Moscow: V.V. Vinogradov Russian Language Institute of the Russian Academy of Sciences.

Sosoni, Vilelmini, John O'Shea (2020). "Translating property law terms: an investigation of Greek notarial deeds and their English translations". *Perspectives*. DOI: 10.1080/0907676X.2020.1797840.

Strouther, Danielle (2020). "The remote working challenges digital businesses face after COVID-19. *Search Engine Journal*. Available at https://www.searchenginejournal.com/remote-working-challenges/371448/#close. Accessed 02.10.2020.

Tomaszewska, Aleksandra, Natalia Zawadzka-Paluektau (2020). "COVID-19 multi-word terminology in EU press releases: Data". RepOD, V1. Available at https://doi.org/10.18150/DU8D8Z. Accessed 01.11.2020.

Weston, Martin (1991). *An English Reader's Guide to the French Legal System*. New York, Oxford: Berg.

World Health Organization (2020). *WHO Coronavirus Disease (COVID-19) Pandemic*. Available at https://www.who.int/emergencies/diseases/novel-coronavirus-2019. Accessed 26.10.2020.

Zhang, Jie, Yuqin Wu (2020). "Providing multilingual logistics communication in COVID-19 disaster relief". *Multilingua* 39/5: 517–528.

Aleksandra Tomaszewska
ORCID iD: 0000-0001-6379-3034
University of Warsaw
Institute of Applied Linguistics
Dobra 55
00-312 Warsaw
Poland
a.tomaszewska2@uw.edu.pl

Natalia Zawadzka-Paluektau
ORCID iD: 0000-0003-4969-2039
University of Warsaw
Institute of English Studies
Hoża 69
00-681 Warsaw
Poland
University of Seville
Department of Spanish Philology
School of Philology
4 San Fernando St.
Seville
Spain
nataliazawadzka@uw.edu.pl

Beyond Philology No. 17/4, 2020
ISSN 1732-1220, eISSN 2451-1498

https://doi.org/10.26881/bp.2020.4.02

Beyond MT metrics in specialised translation: Automated and manual evaluation of machine translation output for freelance translators and small LSPs in the context of EU documents

KRZYSZTOF ŁOBODA

Received 22.09.2020,
received in revised form 27.12.2020,
accepted 28.12.2020.

Abstract

This paper discusses simplified methods of translation evaluation in two seemingly disparate areas: machine translation (MT) technology and translation for EU institutions. It provides a brief overview of methods for evaluating MT output and proposes simplified solutions for small LSPs and freelancers dealing with specialised translation of this kind. After discussing the context of the study and the process of machine translation, an analysis of fragments of the selected specialist text (an EU regulation) is carried out. The official English and Polish versions of this document provide the basis for a comparative evaluation of raw machine translation output obtained with selected commercially available (paid) neural machine translation engines (NMT). Quantitative analysis, including the Damerau-Levenshstein edit distance parameters and the number of erroneous segments in the text, combined with a manual qualitative analysis of errors and terminology

can be a serviceable method for small LSPs and freelance translators to evaluate the usefulness of neural machine translation engines.

Keywords

machine translation, neural MT, institutional translation, MT evaluation, specialised translation

Miary jakości tłumaczenia maszynowego a przekład specjalistyczny. Metody automatycznej i manualnej oceny tłumaczenia maszynowego możliwe do zastosowania przez niezależnych tłumaczy i małe biura tłumaczeń w kontekście przekładu dokumentów UE

Abstrakt

Niniejszy artykuł przedstawia przyjęte i proponuje uproszczone metody oceny silników tłumaczenia maszynowego z myślą o małych biurach tłumaczeń i niezależnych tłumaczach zajmujących się przekładem specjalistycznym. Po omówieniu kontekstu badania oraz procesu tłumaczenia maszynowego przeprowadzona zostaje analiza fragmentów jednego tekstu specjalistycznego, którym jest wybrany akt prawny UE. Oficjalne wersje angielska i polska zestawione zostały z surowym tłumaczeniem maszynowym uzyskanym za pomocą 2 komercyjnych silników neuronowego tłumaczenia maszynowego (NMT): Microsoft Translator oraz Amazon Translate. Analiza ilościowa (m.in. parametrów odległości edycyjnej Damerau-Levenshteina i liczby błędnych segmentów w tekście) w połączeniu z manualną analizą jakościową błędów w tłumaczeniach może być przydatną metodą oceny przydatności silników neuronowego tłumaczenia maszynowego dla niezależnych tłumaczy.

Słowa kluczowe

tłumaczenie maszynowe, tłumaczenie neuronowe, przekład instytucjonalny, ocena tłumaczenia maszynowego, przekład specjalistyczny

1. The translation industry and machine transprocessing of texts

As the use of computer-aided translation tools and machine translation (MT) technology in the translation industry is gradually becoming the norm rather than an exception, we can observe an industry-wide tendency to seek synergy in incorporating these tools in the translation process (Moorkens and O'Brien 2017). Machine translation engines enable an automated[1] processing of the language code whereby a document in the source language is the basis for an almost instantaneous generation of another text in the target language. However, what is time and cost saving for translation agencies can be a source of trouble for freelance translators since raw MT output is often of mixed quality and the results of the MT process might seem unpredictable. The recently introduced translation industry standard ISO 18587:2017 "Translation services – Post-editing of machine translation output – Requirements", which has been in use since February 2018, defines the workflow of full post-editing. It is implemented mostly by larger language service providers (LSPs) who strive to achieve "human parity", i.e. to make a MT post-editing indistinguishable from a human translation. In order to compete with the Goliaths in the industry, many smaller LSPs and experienced freelancers who work for their direct clients are also increasingly turning to machine translation as an efficiency-boosting technology.

Over the last 70 years various machine translation solutions have been proposed (see e.g. Bogucki 2009): example-based translation methods (EBMT) coupled with fuzzy logic principles have been developed in parallel with rule-based translation (RBT) systems. In the early 2000s these methods were replaced with statistical machine translation (SMT) and, most recently, with neural machine translation (NMT).

[1] Hence, with regard to machine translation, we will also use the term *transprocessing* here in contrast to (human) translation.

Despite all these advances in the integration of various areas of research in artificial intelligence, the natural language content in translation applications is still processed without any sensory perception (i.e. without recognizing the image, voice, taste, smell or even the place where the message is transmitted) and without considering the components of the communicative act, such as a pragmatic context, cultural context, the encyclopaedic knowledge of the translator, the target audience (Chesterman 1997), the assumed knowledge of the intended recipient (Tabakowska 1999: 54), etc. Within the last decade, several models representing meaning as high-dimensional numerical vectors, or vector-space models of semantic representation, have been developed (see e.g. Mikolov et al. 2013) to better capture the use of ambiguous expressions in a specific conceptual domain, yet automatic processing of meaning and text is still quite far from the human ability to differentiate between contexts. Basically, natural language processing algorithms could easily transcode any message into other sentences in the same language (intralingual transfer) or transcode the content into images or sounds (intersemiotic transfer). It can be assumed that at the turn of the second and third decades of the 21st century, machine translation of natural language is still predominantly limited to transcoding the text without the use of cognitive functions and without understanding and interpretation of the message taking into account its situational or cultural contexts (cf. Quah 2006: 18).

However, with the vast amount of training data widely available, MT is slowly becoming a mature technology. In a paper describing an experiment carried out in 2018, Popel et al. (2020) claim that machine-human parity was reached when translating isolated sentences from newspapers in selected language directions.[2] In a recent study conducted in the English-Polish language pair (Kur 2020), the feasibility of implementation of three

[2] Unfortunately, since the public service Lindat where Popel's CUBBITT system is implemented does not offer EN-PL automated translation, these claims cannot be easily validated.

generic MT systems was considered (for translating newspaper articles). As for the specialised translation in the EU context, which is our concern in this paper, the MT service known as e-Translation is used by in-house and external translators of the European institutions. Building an internal MT system might not be a problem for larger organisations and translation companies, yet freelance translators and small LSPs would probably need some help in selecting and assessing such solutions for the purposes of their translation jobs.

In this paper, we will briefly review the methods used for evaluating MT output and try to use some of them for a text from a specialised domain, i.e. an EU legal document. In this way, we should be able to propose simple MT evaluation methods (e.g. potential error indicators for subsequent qualitative assessment) which could potentially be of use to smaller LSPs and freelance translators of specialist texts. The aim is to help them make informed choices as to the evaluation of MT technology, and decide whether to put an MT system in place for their projects.

2. Selection of a text from a specialised domain and commercial MT systems for evaluation

For the purposes of our study, first we needed to choose a pair of reference texts from a specialised domain in the source and target languages, which in our case was English and Polish, respectively. To that end, legal instruments which are available and binding in multiple language versions seemed good candidates. With this in mind, we took an EU Regulation, as it is available in all official language versions and directly applicable in all Member States. Consequently, Regulation (EU) No. 1308/2013 of the European Parliament and of the Council (see Annex; European Union 2013; Unia Europejska 2013) was chosen as the reference text for further examination.

A sample of 26 segments was taken from two sections of the English version of the document. Extract 1 (Segments 1-12)

includes the title and the initial part of the preamble, whereas Extract 2 (Segments 13-26) contains the enacting terms with Articles 59-61 of the Regulation. The text, prepared in this way, was compared with the official Polish version published in the Official Journal of the European Union, downloaded from Eur-Lex (provided in the Annex), which is deemed our reference or 'gold standard' translation.

This English text was then used for the basis in machine processing of text in the EN->PL combination using three commercial MT systems: Microsoft Translator (MST) and Google Translate engines accessed via a single CAT tool plugin and the Amazon Translate (AMZT) engine used in the browser via AWS service. The output from the MT systems was collected in mid-March 2020. The selection of these three MT engines seems justified as they are used by some commercial MT integration services which are particularly targeted at small LSPs and freelancers.[3] As further indicated in the Discussion section, two MT systems were found to be of similar quality and one seemed significantly worse so, for the sake of economy, only the two extremes, i.e. the output of Microsoft and Amazon systems, were chosen to illustrate possible problems in evaluating MT. The worst and best raw machine translation and the official versions of the Regulation in English and Polish are shown in the Annex.

3. From MT metrics and automated MT quality assessment to the dimensions of post-editing effort and full evaluation

Let us now focus on quantitative and qualitative methods of MT assessment. A succinct overview should facilitate further selection of potentially fast and simple methods of MT evaluation. Basically, MT output can be evaluated in an automated way or manually with the help of previously trained humans.

[3] I am grateful to an anonymous Reviewer for mentioning Memsource as one of such services where these three engines are integrated.

By far the most comprehensive, potentially the most objective and also the most demanding method is the full evaluation of MT output by many raters. An indicator of MT quality can, for example, be the postediting effort (PE) as defined by Krings (2001), who distinguishes temporal, cognitive and technical dimensions of PE. As for the temporal effort, measuring and comparing the time needed to translate a text from scratch and postedit an MT version can be a viable option to consider for midsize LSPs, yet even this might still prove overly time- and resource-consuming for a single freelance translator or tiny translation companies. The cognitive dimension of postediting effort is possibly the most difficult to measure as (aside from the think-aloud protocol (TAP) method) it usually requires costly high-resolution eye tracking equipment. Eye tracking technology enables evaluators to identify *fixation points*, or the words and phrases in the text where proofreaders' eyes rested for longer periods of time, which is an indicator of greater cognitive load. Finally, the technical effort is measured by the number of editing operations (such as insertions, deletions, substitutions) and usually obtained by keylogging and screen recording software (or the less handy TAP method).

The level of effort expanded in the proofreading is usually analysed using some error classification. The division of errors into possible categories is quite subjective and there are many typologies used both in research and the translation industry (see e.g. Popović et al. 2014, Daems et al. 2017, Toral and Sánchez-Cartagena 2017). For our purposes we chose the scale and typology used by the Directorate-General for Translation of the European Commission as described by Strandvik (2017). At the same time, we must bear in mind that full evaluation by many raters is infeasible for small LSPs and freelancers and that due to these constraints, the qualitative analysis and error classification must be quite limited and should only complement the automated quantitative analysis.

4. BLEU metric: imperfect but widely used

The translation industry uses many automatic measures, or metrics of machine translation quality, including BLEU, METEOR, F-Measure, chrF, TER, HTER and NIST (see e.g. Sno-ver et al. 2006 or Popović 2015 for correlations of 'best performing metrics'). In the EU context, one of the recently proposed metrics is CharCut (Lardilleux and Lepage 2017), but it has not gained much popularity so far.

The BLEU (Bilingual Evaluation Understudy) metric developed in IBM laboratories (Papineni et al. 2002) is most used nowadays. BLEU is based on matching *n*-grams present in automatic translation to *n*-grams in the reference translation when considering precision and brevity penalty. Though it is not perfect and is often criticised for not being adequately correlated with human judgements, it remains the most popular in the translation industry as the only metric that allows for drawing comparisons with other work over the last two decades (examples of recent research where BLEU is used as the main metric include Läubli et al. 2020, Popel et al. 2020[4]).

For our text, the calculated BLEU values for NMT engines reach the values of 61.63, 72.85 and 73.71 for Microsoft, Google and Amazon MT systems, respectively (explained further in the Discussion section). These scores might be useful indicators suggesting that in the chosen textual domain, Amazon MT and Google MT engines are likely to produce higher quality results than Microsoft Translator. However, automatic metrics should not be regarded as the ultimate evaluation of machine translation output—they are in fact the cheapest and fastest rough estimation of MT quality, so the initial results would need to be corroborated by a subsequent qualitative analysis. The scores often happen to be biased or even erroneous (hence the multitude of various metrics). Furthermore, the aggregate BLEU sco-

[4] My thanks to anonymous Reviewer 1 for pointing out the fresh work by Popel et al. (2020) where BLEU and TER are used as the principal metrics.

re for the engine does not indicate what types of errors occur and where they are to be found in the text.

Another weakness of automated metrics is that they are complicated and not widely accessible. The average freelance translator or smaller LSPs would not be very likely to have at their disposal the tools to calculate BLEU, TER, METEOR or CharCut scores. As a way out, we might try to obtain some indicative results in a spreadsheet. With simple calculations which in a way underlie automatic translation quality metrics, we will try to predict possible problematic segments in MT output using either of the two options shown below and then check if the indicated sentences do indeed contain any errors.

4.1. Quality prediction based on characters

One possible option is to calculate and compare the number of characters in each segment in order to indicate the segments where some content may have been omitted or added by an MT system. The graph in Figure 1 shows the number of characters in segments in the official Polish document and the output of the machine translation engines in question. As we can see, the Microsoft Translator engine seems to differ from both the reference translation and the Amazon Translate engine, offering shorter translations – segments 5 and 15 are worth checking for the quality of the translation and possible omissions.

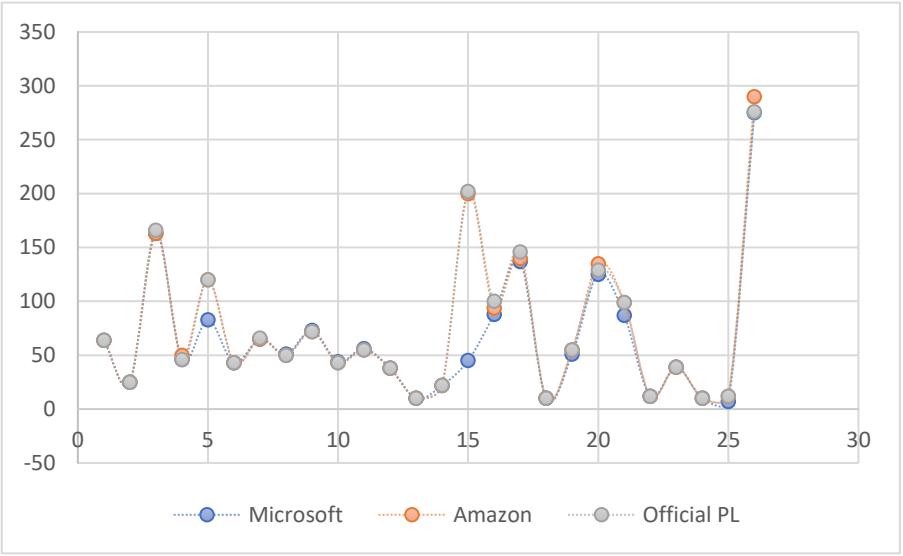


Figure 1
Characters per segment in the official Polish version
and raw MT output in Microsoft and Amazon

4.2. Quality prediction based on words

Metrics may also be based on words[5] rather than characters. To keep the analysis as simple as possible, we could calculate the number of words in each segment and possibly introduce typical statistical calculations (variance, standard deviation). In our case, we stuck to a rough quantitative analysis that allowed us to select segments for a qualitative analysis at a later stage of the assessment. A simple and effective method which consists in calculating the percentage differences in the number of words in segments from the reference text (the official Polish version) sufficed here (Figure 2 and Table 2). As we can see, in this way we could obtain a more detailed image of the differences

[5] An example of such a metric is WER (Word Error Rate), used predominantly in automated speech recognition.

between the segments of the individual versions of the text under analysis.

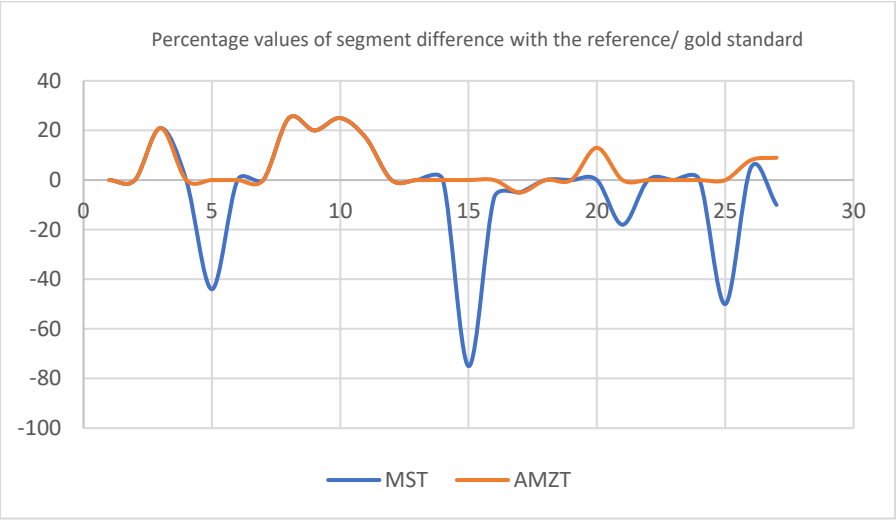


Figure 2
Percentage values of segment difference with the reference text

Table 1
Mean, median and standard deviation
of segmental differences against the reference text

	MEAN	MEDIAN	STD
MST	-3	0	22.00
AMZT	5	0	8.87

As for the segment wordcount, significant percentage divergences from the reference Polish version can be observed for the Microsoft Translator engine, whereas the commercial Amazon MT engine seems closer to the official version published in EU legislation database, EUR-Lex. If we have a look at other statistics (see Table 2), the Microsoft engine appears to use slightly fewer words (3 % less) while Amazon a slightly more (5 % more)

words when compared with the reference text. At the same time, the standard deviation for MST is significantly higher than that of AMZT. The median does not show any differences and seems to be of no prognostic value in our evaluation. The detailed values of percentage differences for individual segments are shown in Table 3. Segments with the same MT output (zero difference) have been omitted.

Table 2
Percentage values of segment difference with the official translation and mean values

Segment # / MT engine	3	5	8	9	10	11	15	16	17	20	21	25	26
MST	21	-44	25	20	25	17	-75	-7	-5	0	-18	-50	5
AMZT	21	0	25	20	25	17	0	0	-5	13	0	0	8

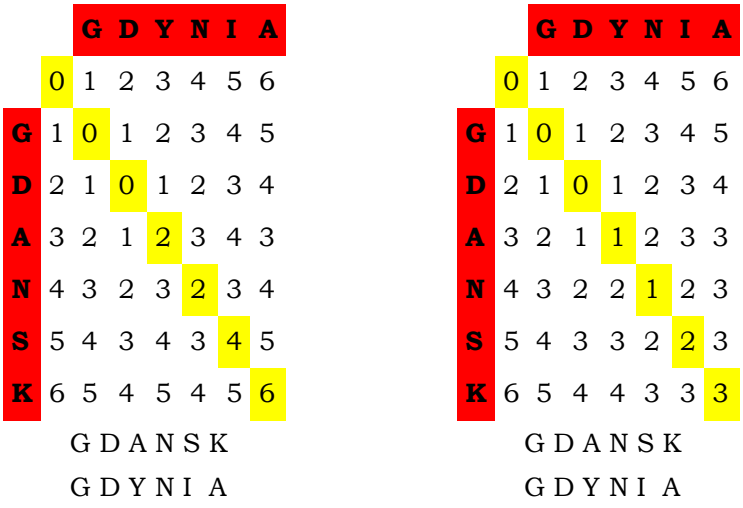
Assuming a cut-off threshold of more than 25 %, a quantitative predictive analysis indicates the following significant differences for individual NMT engines:

(1) Microsoft Translator – possible omissions in segments 5, 15, 25;
(2) Amazon Translate – no segments with the threshold value exceeded (however, the threshold value was reached in two segments).

4.3. Quantitative testing by measuring the edit distance

The edit distance parameter is also commonly used to measure the quality of machine translation. In simple terms, the classic Levenshtein distance is the sum of the operations of removing, inserting and substituting characters in two compared strings of characters. A slightly altered variant of minimum edit distance developed by Levenshtein together with F. J. Damerau (1964) is used more often in the translation industry. This

measure involves inserting, deleting, substituting the character and additionally transposing (shifting) two adjacent characters. To better understand the principle of calculating the edit distance, let us consider two words: GDYNIA and GDANSK. The matrices showing the number of operations necessary to turn one word into another are shown in Figure 3. As we can see, the value of minimum edit distance may equal 3 or 6 (this means 100 % difference!), depending on the variant applied. It is worth mentioning that CAT tools most often use variant b (the Damerau-Levenshtein distance), which always gives smaller values. This distinction may be of importance for freelancers and small LSPs as regards their remuneration for their work in translation and postediting projects.



a) Classic Levenshtein distance = 6 (substitution weight 1)

b) Damerau-Levenshtein distance = 3 (substitution weight 2)

Figure 3
Calculating the edit distance between two words: *GDANSK* and *GDYNIA*

Multi-part strings, whole sentences and even whole texts can also be analysed in this way. The minimum edit distance (MED) calculated against the Polish version (according to the Damerau-Levenshstein model) for whole texts generated by individual machine translation engines is as follows:

Table 3
Edit distance calculated for both MT versions

	Microsoft	Amazon	Mean value
MED	376	177	277

Owing to specific algorithms, it might be possible to make an initial estimate of the quality of the machine translation before actually embarking on any qualitative analysis. Theoretically, a smaller edit distance means a translation closer to the reference translation, therefore for our sample text we should expect higher quality from Amazon Translation engine. This can be examined in a qualitative examination of MT output.

5. Manual evaluation of the quality of translation according to the European Commission's DGT criteria

In this section we will attempt to compare the official English and Polish versions with the raw output of selected neural machine translation (NMT) engines: the Microsoft Translator generic engine, and the commercial Amazon Translate engine. Each version of the translation will be evaluated using a hierarchy of resources (see Łoboda 2012) and the EC DGT evaluation system as described by Strandvik (2017). In one of its longstanding evaluation models, the Directorate-General for Translation of the European Commission distinguishes two dimensions of errors in categories such as wrong rendering of the sense resulting in mistranslation or unjustified addition of content (SENS), unjustified omission or non-translation (OM),

terminological error (TERM), inconsistency with reference documents (RD), grammatical error (GR), spelling error (SP), punctuation error (PT), and unclear conveyance of meaning (CL).

5.1. Microsoft Translator NMT engine

Microsoft Translator is an engine used for the automated transprocessing of multilingual content in the documentation of Microsoft products, therefore it should be particularly suitable in rendering IT-related texts into another language. This solution is also available free of charge as a generic machine translation engine (implemented in Bing Translator) and commercially (on the Microsoft Azure platform as one of Azure Cognitive Services solutions). The sample included in the attachment was generated via an API plugin installed in one of the CAT tools.[6]

Predictive analysis using the editing distance indicated discrepancies with the official Polish version in almost half of the segments. Segments 5, 15 and 25 were indicated as particularly problematic, and indeed they turned out to be grossly incorrect. The machine-generated text contains very serious omissions and terminological errors, which make the text quality unacceptable in terms of the EC DGT criteria.

(1) OM error category – several major omissions of large sections of text after each first full stop of the MT output (segments S5, S15, S21);
(2) TERM error category – terminological inconsistency (*proce-dura kontrolna* in S19 and *procedura sprawdzająca* in S21);
(3) GR error category – inappropriate form in S17 when continuing in S15 and S16; ungrammatical form *w celu zapewnienia, że* in S15;
(4) SENS/CL error category – *obszar chmielu* instead of *obszar uprawy chmielu* in S19; *czas trwania* [duration] translated as

[6] In our internal tests, the output of the commercial NMT by Microsoft accessed via a CAT-tool plugin proved to be identical with the version obtained with the publicly available free Bing Translator engine.

długość [length] in S25; ambiguous translation of S26 (*w celu oceny… systemu i* [*w celu oceny*] *złożenia wniosków*);

(5) SP/PT error categories – incorrect capitalisation of the line of recital in the preamble (S7); adding a slash before numbers in segments S8-S11.

The quality assessment shows that 12 out of 26 segments 12 are identical with the official Polish version, 6 segments contain errors and minor issues, and 8 contain errors considered grave. This is mainly due to an obvious flaw in the implementation of the engine which results in removing the all of the text that follows any full stop in the raw MT output. Thus, a large number of words were omitted, which resulted in a considerable edit distance in relation to the reference text and the output of the other engine under analysis (ED 376 with mean value 277).

5.2. Amazon Translate NMT engine

Amazon Translate is a recently introduced generic machine translation engine. It is offered commercially and has been used for Amazon, one of the world's largest e-commerce platforms. Amazon operates in many countries, and individual regional websites are available in several languages thanks to machine translation. For example, in addition to the default German language version, Amazon.de regional website provides machine translation in 5 other languages (English, Dutch, Polish, Czech and Turkish). The translation service is also commercially available on a *pay-per-use* basis within AWS (Amazon Web Services) Cloud Platform in 55 languages and seems to be aimed specifically at the e-commerce market. Amazon Translate, unfortunately, is not available as a free open service. The service documentation does not indicate the sources used to build a generic language model and to train the neural network.[7]

[7] https://docs.aws.amazon.com/translate/latest/dg/how-it-works.html.

In the case of this engine, the quantitative predictive analysis did not reveal a single segment that would deviate significantly from the Polish reference text. This is confirmed by a low edit distance value. However, a detailed qualitative analysis reveals the following errors:

(1) GR error category – incorrect grammatical case in segment S4; incorrect grammatical cases in the listed section in segments S16-S17; ungrammatical form *w celu zapewnienia, że* in S15;
(2) CL/SENS error category – as in the case of the other MT engine analysed, *obszar chmielu* instead of *obszar uprawy chmielu* in S19; ambiguous translation of S26 (*w celu oceny… systemu i przedstawienia propozycji*);
(3) SP/PT error category – minor defects due to the change of bracketed references to square brackets (S8-S11); incorrect capitalisation of the line of recital in the pre-amble (S7).

The text generated by the Amazon Translate engine does not contain any significant terminological errors. The raw MT output turns out to be surprisingly similar to the official Polish version, which may suggest that Amazon Translate is a high quality tool and/or the fact that this text has been used to train the NMT engine. The convergence of the official version and NMT output is confirmed by a very low edit distance of 177 with the mean value of 277. Nevertheless, a few grammatical errors were found in the text, which affects the overall quality of machine translation. All in all, our qualitative analysis of errors corroborates our findings from the quantitative predictive analysis. In the case of our reference text, the output of Amazon Translate NMT engine indeed provides a significantly higher quality than Microsoft Translator.

6. Discussion

There are a few issues to consider in this context. First, the values of BLEU which hardly ever reaches 30-40 in general contexts (such as news, see Popel et al. 2020) were found to be significantly higher for our document. Such a high level of correspondence between the reference and MT hypothesis might mean that: (i) our reference text was translated using an NMT engine or (ii) the reference text was used to train the MT system and/or (iii) that the specialised texts in question (EU law) are highly standardized in terms of the terminology and formulaic language so they are processed in a more uniform way by an NMT system. The first option can easily be rejected since EU Regulation No. 1308/2013 was published over 3 years prior to the launch of the NMT services by Google and Microsoft. The second option seems plausible, since the EU institutions (the European Commission and European Parliament) compiled large corpora of EU legislation which have been made available to the public over the last decade. Therefore, it seems advisable to compare the BLEU value for the text in question (our Text 1, or T1) with two other documents: one from the same domain and text type, and another from a related domain and a differing text type. To that end we selected two freshly published documents (texts 2 and 3, or T2 and T3): Commission Implementing Regulation (EU) 2021/28 (European Commission 2021) and a news article from the EU Research Portal CORDIS (Publications Office 2021). We ensured that T2 and T3 were newly published documents in order to minimise the risk of them having been used as the training material for commercial NMT engines. The calculated BLEU scores for T1, T2 and T3 are shown in Table 4.

Table 4
BLEU scores for T1, T2 and T3 without lowercasing the text (the higher, the better)

	Micro-soft	Google	Amazon	Mean MT	Do-main	Text type	Publica-tion year
BLEU T1	61.63	72.85	**73.71**	69.40	EU law	Legisla-tion	2013
BLEU T2	61.67	60.37	**62.53**	61.52	EU law	Legisla-tion	2021
BLEU T3	22.94	**27.87**	26.23	25.68	EU rese-arch	News article	2021

For a news article (T3), where the highest result was obtained by Google Translate, BLEU scores reach typical, significantly lower values than for a specialist document such as EU legislation (T1 and T2). The MT systems by Google and Amazon reach comparable quality, though we found it surprising that for T1 and T2 it was Amazon (a system built primarily for e-commerce) that scored slightly better. It is worth noticing that the texts were not lowercased, as this would deviate from human translation evaluation criteria in EU institutions (such as spelling and capitalization). Otherwise, the scores would be a few points higher. We should also note that for uniformly lowercased texts (a frequent practice in MT evaluation), a higher BLEU score would have been reached by Google rather than Amazon.

The European law and EU-related documents provide fascinating material for the evaluation of machine translation solutions. The amount of data made available for the training purposes by the European institutions over the last two decades are unprecedented, so the quality of generic MT systems can be relatively high for some text types. At the same time, we should bear in mind that EU legal texts (such as Regulations, Directives, Decisions) are highly standardised and written according

to accepted templates. The EU policy-related terminology is also quite uniform, as the crucial and most frequent terms are entered into the IATE database which in turn is a binding source for in-house and external translators of the EU institutions. Such a normalized text structure and terminology is the main reason why NMT systems can give relatively good results and high BLEU scores.

7. Limitations of this study and concluding remarks

We can see that a quantitative analysis can be a useful method for finding general differences between the evaluated MT output and the reference text in some highly conventionalized documents such as EU law. A quantitative analysis of MT makes it easy to detect the number of segments deviating from the adopted version, as well as to assess the scale of such discrepancies.

Such quantitative methods have both their advantages and limitations. First and foremost, they are fast and easy to use. They provide translation project managers with immediate results and statistical data without the need to adhere to more complex MT metrics. The predictive quantitative analysis has a significant prognostic value: some assumptions as to the MT quality can be made before the proper evaluation of MT quality by professional translators. As for the limitations, we should pay attention to the low efficiency in finding grammatical errors which are always considered grave. All the metrics we have discussed here in detail share the same principle which underlies the NMT technology: the algorithms treat texts as sequences of individual sentences/segments rather than coherent texts (see Läubli et al. 2020).

The method described here is restricted to specific, highly conventionalised types of texts from a specific domain such as EU law where the use of synonyms would be limited. In other contexts (e.g. newspaper articles such as T3), our methods would be less reliable but fit for our purpose (and as we can see from the table above, MT engines also fare worse). Quality

prediction based on the number of characters or words is a very simple solution but hardly meant to replace BLEU, METEOR or human-targeted metrics. We believe, though, that in certain contexts such a procedure could be useful for translators or small LSPs who do not have access to tools offering such metrics. While other solutions are usually less accessible or offered as paid solution,[8] with a limited number of language combinations and not always disclosed quality estimation algorithms, calculation of characters or words in the segments can be carried out for free in any spreadsheet application.

The quantitative and qualitative analysis, which is primarily of a technical and linguistic nature, could be further combined with measuring the temporal effort of the post-editing process. This is generally possible to accomplish with the most popular CAT tools (e.g. Qualitivity plugin in Trados Studio), PET (Aziz et al. 2012) or ROE (Farrell 2018). These more advanced solutions allow for filling in translation evaluation forms according to selected translation quality standards and for examining the time spent on post-editing. However, the methods analysed in this paper should be sufficient for freelance translators and small LSPs, enabling them to make informed choices as to whether to put specific MT engines in place in the context of their projects.

References

Aziz, Wilker, Sheila C. M. de Sousa, Lucia Specia (2012). "PET: A tool for post-editing and assessing machine translation". In: Nicoletta Calzolari, Khalid Choukri, Thierry Declerck, Mehmet Uğur Doğan, Bente Maegaard, Joseph Mariani, Asuncion Moreno, Jan Odijk, Stelios Piperidis (eds.). *Proceedings of the 16th Annual*

[8] Examples include Intento or Memsource, which offers its paid MTQE solution. However, the English-Polish combination is not officially supported when this paper is written. The algorithms behind MTQE values (which are similar to fuzzy bands) are not revealed by the company. (I would like to thank one the anonymous Reviewers for drawing my attention to MTQE by Memsource).

Conference of the European Association for Machine Translation. Istanbul: European Language Resources Association (ELRA), 3982–3987.

Bogucki, Łukasz (2009). *Tłumaczenie wspomagane komputerowo.* Warszawa: PWN.

Bojar, Ondřej (2017). *English-to-Czech MT: Large Data and Beyond. Habilitation Thesis.* Prague: Institute of Formal and Applied Linguistics, Charles University.

Chesterman, Andrew (1997). *Memes of Translation. The Spread of Ideas in Translation Theory*. Amsterdam – Philadelphia: John Benjamins.

Damerau, Frederick J. (1964). "A technique for computer detection and correction of spelling errors". *Communications of the ACM* 7 (3): 171–176.

Daems, Joke, Sonia Vandepitte, Robert J. Hartsuiker, Lieve Macken (2017). "Translation methods and experience: A comparative analysis of human translation and post-editing with students and professional translators". *Meta* 62/2: 245–70.

European Union (2013). "Regulation (EU) No 1308/2013 of the European Parliament and of the Council of 17 December 2013 establishing a common organisation of the markets in agricultural products and repealing Council Regulations (EEC) No 922/72, (EEC) No 234/79, (EC) No 1037/2001 and (EC) No 1234/2007". *Official Journal of the European Union,* OJ L 347, 20.12.2013, 671–854.

European Union (2021). "Commission Implementing Regulation (EU) 2021/28 of 14 January 2021 amending Council Regulation (EC) No 1362/2000 as regards the Union tariff quota for bananas originating in Mexico". *Official Journal of the European Union.* OJ L 12, 15.1.2021, 1–2.

Farrell, Michael (2018). "Raw output evaluator, a freeware tool for manually assessing raw outputs from different machine translation engines". In: David Chambers, Joanna Drugan, João Esteves-Ferreira, Juliet Margaret Macan, Ruslan Mitkov, Olaf-Michael Stefanov (eds.). *Proceedings of the 40th Conference Translating and the Computer, London, UK, November 15-16, 2018*. London: International Society for Advancement in Language Technology Asling, 38–49.

Fischer, Lukas, Samuel Läubli (2020). "What's the difference between professional human and machine translation? A blind multi-language study on domain-specific MT". In: André Martins, Helena Moniz, Sara Fumega, Bruno Martins, Fernando Batista, Luisa

Coheur, Carla Parra, Isabel Trancoso, Marco Turchi, Arianna Bisazza, Joss Moorkens, Ana Guerberof, Mary Nurminen, Lena Marg, Mikel L. Forcada (eds.). *Proceedings of the 22nd Annual Conference of the European Association for Machine Translation*. Lisboa: European Association for Machine Translation, 215–224.

Krings, Hans P. (2001). *Repairing Texts: Empirical Investigations of Machine Translation Postediting Processes*. Kent: The Kent State University Press.

Kur, Maciej (2020). *Feasibility of DeepL, Google and Microsoft MT Systems Implementation into the Translation Process*. Gdańsk: Wydawnictwo Uniwersytetu Gdańskiego.

Lardilleux, Adrien, Yves Lepage (2018). "CHARCUT: Human-targeted character-based MT evaluation with loose differences". In: Sakriani Sakti, Masao Utiyama (eds.). *Proceedings of the 14th International Workshop on Spoken Language Translation, Tokyo, Japan, December 14th-15th, 2017*. Tokyo: IWSLT, 146–153.

Läubli, Samuel, Sheila Castilho, Graham Neubig, Rico Sennrich, Qinlan Shen, Antonio Toral (2020). "A set of recommendations for assessing human–machine parity in language translation". *Journal of Artificial Intelligence Research* 67: 653–672.

Łoboda, Krzysztof (2012). "Praktyczne i dydaktyczne aspekty przekładu dokumentów instytucji Unii Europejskiej: charakterystyka tekstów, narzędzi i problemów terminologicznych". In: Maria Piotrowska, Joanna Dybiec-Gajer (eds.) *Przekład – teorie, terminy, terminologia. Język a komunikacja 30*. Kraków: Tertium, 161–169.

Martínez Mateo, Roberto (2014). "A deeper look into metrics for translation quality assessment (TQA): A case study". *Miscelánea: A Journal of English and American Studies* 49: 73–94.

Mikolov, Tomas, Ilya Sutskever, Kai Chen, Greg Corrado, Jeffrey Dean (2013). "Distributed representations of words and phrases and their compositionality". In: Christopher J. C. Burges, Léon Bottou, Max Welling (eds.). *Proceedings of the 26th International Conference on Neural Information Processing Systems – Vol. 2, December 2013*. New York: Curran Associates, 3111–3119.

Moorkens, Joss, Sharon O'Brien (2017). "Assessing user interface needs of post-editors of machine translation". In: Dorothy Kenny (ed.). *Human Issues in Translation Technology: The IATIS Yearbook*. Florence: Taylor and Francis, 110–130.

Papineni, Kishore, Salim Roukos, Todd Ward, Wei-Jing Zhu (2002). "BLEU: a method for automatic evaluation of machine translation".

In: Pierre Isabelle, Eugene Charniak, Dekang Lin (eds.). *ACL-2002: 40th Annual meeting of the Association for Computational Linguistics.* Pennsylvania: Association for Computational Linguistics, 311–318.

Popel, Martin, Marketa Tomkova, Jakub Tomek, Łukasz Kaiser, Jakob Uszkoreit, Ondřej Bojar, Zdeněk Žabokrtský (2020). "Transforming machine translation: a deep learning system reaches news translation quality comparable to human professionals". *Nature Communications* 11, 4381. Available at <https://doi.org/10.1038/s41467-020-18073-9>. Accessed 14.03.2021.

Popović, Maja, Arle Lommel, Aljoscha Burchardt, Eleftherios Avramidis, Hans Uszkoreit (2014). "Relations between different types of post-editing operations, cognitive effort and temporal effort". In: Mauro Cettolo, Marcello Federico, Lucia Specia, Andy Way (eds.). *Proceedings of the 17th Annual conference of the European Association for Machine Translation.* Dubrovnik: European Association for Machine Translation, 191–198.

Popović, Maja (2015). "CHRF: character n-gram F-score for automatic MT evaluation". In: Ondřej Bojar, Rajan Chatterjee, Christian Federmann, Barry Haddow, Chris Hokamp, Matthias Huck, Varvara Logacheva, Pavel Pecina (eds.). *Proceedings of the Tenth Workshop on Statistical Machine Translation.* Lisbon: Association for Computational Linguistics, 392–395.

Publications Office (2021). Long-lived worms hold the secret for healthy ageing in humans. *CORDIS EU Research Results.* Available at <https://cordis.europa.eu/article/id/428745-long-lived-worms-hold-the-secret-for-healthy-ageing-in-humans>. Accessed 14.03.2021.

Quah, Chiew Kin (2006). *Translation and Technology*. Basingstoke / New York: Palgrave Macmillan.

Rinsche, Adriane, Nadia Portera-Zanotti (2009). *The Size of the Language Industry in the EU. Studies on Translation and Multilingualism.* Brussels: European Commission.

Rossi, Caroline, Jean-Pierre Chevrot (2019). "Uses and perceptions of machine translation at the European Commission". *The Journal of Specialised Translation* 31: 178–200.

Snover, Matthew, Bonnie Dorr, Richard Schwartz, Linnea Micciulla, John Makhoul (2006). "A study of translation edit rate with targeted human annotation". *Proceedings of the 7th Conference of the Association for Machine Translation in the Americas (AMTA).* Cambridge, USA: AMTA, 223–231.

Strandvik, Ingemar (2017). "Evaluation of outsourced translations. State of play in the European Commission's Directorate-General for Translation (DGT)". In: Tomáš Svoboda, Łucja Biel, Krzysztof Łoboda (eds.). *Quality Aspects in Institutional Translation*. Berlin: Language Science Press, 123–137.

Tabakowska, Elżbieta (1999). *O przekładzie na przykładzie.* Kraków: Znak.

Toral, Antonio, Sheila Castilho, Ke Hu, Andy Way (2018). "Attaining the unattainable? Reassessing claims of human parity in neural machine translation". In: Ondřej Bojar, Rajen Chatterjee, Christian Federmann, Mark Fishel, Yvette Graham, Barry Haddow, Matthias Huck, Antonio Jimeno Yepes, Philipp Koehn, Christof Monz, Matteo Negri, Aurélie Névéol, Mariana Neves, Matt Post, Lucia Specia, Marco Turchi, Karin Verspoor (eds.) *Proceedings of the Third Conference on Machine Translation: Research Papers*, *Vol. 1*. Brussels: Association for Computational Linguistics, 112–123.

Toral, Antonio, Víctor M. Sánchez-Cartagena (2017). "A multifaceted evaluation of neural versus phrase-based machine translation for 9 language directions". In: Mirella Lapata, Phil Blunsom, Alexander Koller (eds.). *Proceedings of the 15th Conference of the European Chapter of the Association for Computational Linguistics: Volume 1, Long Papers*. Valencia: Association for Computational Linguistics, 1063–1073.

Unia Europejska (2013). "Rozporządzenie Parlamentu Europejskiego i Rady (UE) nr 1308/2013 z dnia 17 grudnia 2013 r. ustanawiające wspólną organizację rynków produktów rolnych oraz uchylające rozporządzenia Rady (EWG) nr 922/72, (EWG) nr 234/79, (WE) nr 1037/2001 i (WE) nr 1234/2007", *Dziennik Urzędowy Unii Europejskiej*, Dz.U. L 347, 20.12.2013. 671–854.

Krzysztof Łoboda
ORCID iD: 0000-0002-9575-5080
Jagiellonian University
Institute of Linguistics
and Translation Studies
al. Mickiewicza 9a/408
31-120 Kraków
Poland
krzysztof.loboda@uj.edu.pl

#	EN [official version in EUR-Lex]	PL [official version in EUR-Lex]	Microsoft Translator NMT	Amazon Translate NMT	#
1	REGULATION (EU) No 1308/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL	ROZPORZĄDZENIE PARLAMENTU EUROPEJSKIEGO I RADY (UE) NR 1308/2013	ROZPORZĄDZENIE PARLAMENTU EUROPEJSKIEGO I RADY (UE) NR 1308/2013	ROZPORZĄDZENIE PARLAMENTU EUROPEJSKIEGO I RADY (UE) NR 1308/2013	1
2	of 17 December 2013	z dnia 17 grudnia 2013 r.	z dnia 17 grudnia 2013 r.	z dnia 17 grudnia 2013 r.	2
3	establishing a common organisation of the markets in agricultural products and repealing Council Regulations (EEC) No 922/72, (EEC) No 234/79, (EC) No 1037/2001 and (EC) No 1234/2007	ustanawiające wspólną organizację rynków produktów rolnych oraz uchylające rozporządzenia Rady (EWG) nr 922/72, (EWG) nr 234/79, (WE) nr 1037/2001 i (WE) nr 1234/2007	ustanawiająca wspólną organizację rynków produktów rolnych i uchylająca rozporządzenia Rady (EWG) nr 922/72, (EWG) nr 234/79, (WE) nr 1037/2001 i (WE) nr 1234/2007	ustanawiające wspólną organizację rynków produktów rolnych i uchylające rozporządzenia Rady (EWG) nr 922/72, (EWG) nr 234/79, (WE) nr 1037/2001 i (WE) nr 1234/2007	3
4	THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,	PARLAMENT EUROPEJSKI I RADA UNII EUROPEJSKIEJ,	PARLAMENT EUROPEJSKI I RADA UNII EUROPEJSKIEJ,	PARLAMENTU EUROPEJSKIEGO I RADY UNII EUROPEJSKIEJ,	4
5	Having regard to the Treaty on the Functioning of the European Union, and in particular the first	uwzględniając Traktat o funkcjonowaniu Unii Europejskiej, w szczególności jego art. 42 akapit pierwszy i art. 43 ust. 2,	uwzględniając Traktat o funkcjonowaniu Unii Europejskiej, w szczególności jego art.	uwzględniając Traktat o funkcjonowaniu Unii Europejskiej, w szczególności jego art. 42 akapit pierwszy i art. 43 ust. 2,	5

	subparagraph of Article 42 and Article 43(2) thereof,				
6	Having regard to the proposal from the European Commission,	uwzględniając wniosek Komisji Europejskiej,	uwzględniając wniosek Komisji Europejskiej,	uwzględniając wniosek Komisji Europejskiej,	6
7	After transmission of the draft legislative act to the national parliaments,	po przekazaniu projektu aktu ustawodawczego parlamentom narodowym,	Po przekazaniu projektu aktu ustawodawczego parlamentom narodowym	Po przekazaniu projektu aktu ustawodawczego parlamentom krajowym,	7
8	Having regard to the opinion of the Court of Auditors (1),	uwzględniając opinię Trybunału Obrachunkowego (1),	uwzględniając opinię Trybunału Obrachunkowego \[1],	uwzględniając opinię Trybunału Obrachunkowego [1],	8
9	Having regard to the opinions of the European Economic and Social Committee (2),	uwzględniając opinię Europejskiego Komitetu Ekonomiczno-Społecznego (2),	uwzględniając opinie Europejskiego Komitetu Ekonomiczno-Społecznego \[2],	uwzględniając opinie Europejskiego Komitetu Ekonomiczno-Społecznego [2],	9
10	Having regard to the opinion of the Committee of the Regions (3),	uwzględniając opinię Komitetu Regionów (3),	uwzględniając opinię Komitetu Regionów \[3],	uwzględniając opinię Komitetu Regionów [3],	10
11	Acting in accordance with the ordinary legislative procedure (4),	stanowiąc zgodnie ze zwykłą procedurą ustawodawczą (4),	stanowiąc zgodnie ze zwykłą procedurą ustawodawczą \[4],	stanowiąc zgodnie ze zwykłą procedurą ustawodawczą [4],	11
12	Whereas:	a także mając na uwadze, co następuje:	a także mając na uwadze, co następuje:	a także mając na uwadze, co następuje:	12
13	Article 59	Artykuł 59	Artykuł 59	Artykuł 59	13
14	Delegated powers	Przekazane uprawnienia	Uprawnienia delegowane	Uprawnienia delegowane	14

15	In order to ensure that the aid referred to in Article 58 finances the pursuit of the aims referred to in Article 152, the Commission shall be empowered to adopt delegated acts in accordance with Article 227 concerning:	W celu zapewnienia finansowania z pomocy, o której mowa w art. 58, realizacji celów, o których mowa w art. 152, Komisja jest uprawniona do przyjmowania zgodnie z art. 227 aktów delegowanych dotyczących:	W celu zapewnienia, że pomoc określona w art.	W celu zapewnienia, że pomoc, o której mowa w art. 58, finansuje realizację celów, o których mowa w art. 152, Komisja jest uprawniona do przyjmowania zgodnie z art. 227 aktów delegowanych dotyczących:	15
16	(a) | aid applications, including rules on deadlines and accompanying documents;	a) | wniosków o przyznanie pomocy, w tym przepisów dotyczących terminów i dokumentów towarzyszących;	a) | wniosków o pomoc, w tym przepisów dotyczących terminów i dokumentów towarzyszących;	a) | wnioski o przyznanie pomocy, w tym zasady dotyczące terminów i dokumentów towarzyszących;	16
17	(b) | rules on eligible hop areas and the calculation of the amounts to be paid to each producer organisation.	b) | przepisów dotyczących kwalifikujących się obszarów uprawy chmielu i obliczania kwot, które mają być wypłacone każdej organizacji producentów.	b) | zasady dotyczące kwalifikujących się obszarów chmielu oraz obliczanie kwot, które mają być wypłacone każdej organizacji producentów.	b) | zasady dotyczące kwalifikujących się obszarów chmielu oraz obliczanie kwot, które mają zostać wypłacone każdej organizacji producentów.	17
18	Article 60	Artykuł 60	Artykuł 60	Artykuł 60	18
19	Implementing powers in accordance with the examination procedure	Uprawnienia wykonawcze zgodnie z procedurą sprawdzającą	Uprawnienia wykonawcze zgodnie z procedurą kontroli	Uprawnienia wykonawcze zgodnie z procedurą sprawdzającą	19
20	The Commission may adopt implementing acts laying down the measures	Komisja może przyjmować akty wykonawcze ustanawiające środki niezbędne do stosowania	Komisja może przyjąć akty wykonawcze ustanawiające środki niezbędne do stosowania	Komisja może przyjmować akty wykonawcze ustanawiające środki niezbędne do stosowania	20

	necessary for the application of this Section concerning the payment of aid.	niniejszej sekcji dotyczącej wypłaty pomocy.	niniejszej sekcji dotyczące wypłaty pomocy.	niniejszej sekcji w odniesieniu do wypłaty pomocy.	
21	Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 229(2).	Te akty wykonawcze przyjmuje się zgodnie z procedurą sprawdzającą, o której mowa w art. 229 ust. 2.	Te akty wykonawcze przyjmuje się zgodnie z procedurą sprawdzającą, o której mowa w art.	Te akty wykonawcze przyjmuje się zgodnie z procedurą sprawdzającą, o której mowa w art. 229 ust. 2.	21
22	CHAPTER III	ROZDZIAŁ III	ROZDZIAŁ III	ROZDZIAŁ III	22
23	Scheme of authorisations for vine plantings	System zezwoleń na nasadzenia winorośli	System zezwoleń na nasadzenia winorośli	System zezwoleń na nasadzenia winorośli	23
24	Article 61	Artykuł 61	Artykuł 61	Artykuł 61	24
25	Duration	Czas trwania	Długość	Czas trwania	25
26	The scheme of authorisations for vine plantings established in this Chapter shall apply from 1 January 2016 to 31 December 2030, with a mid-term review to be undertaken by the Commission to evaluate the operation of the scheme and, if appropriate, make proposals.	System zezwoleń na nasadzenia winorośli ustanowiony w niniejszym rozdziale stosuje się od dnia 1 stycznia 2016 r. do dnia 31 grudnia 2030 r.; Komisja przeprowadzi przegląd śródokresowy w celu ewaluacji funkcjonowania systemu oraz, w stosownych przypadkach, przedstawi wnioski.	System zezwoleń na nasadzenia winorośli ustanowiony w niniejszym rozdziale stosuje się od dnia 1 stycznia 2016 r. do dnia 31 grudnia 2030 r., przy czym Komisja dokona przeglądu śródokresowego w celu oceny funkcjonowania systemu i, w stosownych przypadkach, złożenia wniosków.	System zezwoleń na nasadzenia winorośli ustanowiony w niniejszym rozdziale stosuje się od dnia 1 stycznia 2016 r. do dnia 31 grudnia 2030 r., przy czym Komisja ma przeprowadzić przegląd śródokresowy w celu oceny funkcjonowania systemu i, w stosownych przypadkach, przedstawienia propozycji.	26

Beyond Philology No. 17/4, 2020
ISSN 1732-1220, eISSN 2451-1498

https://doi.org/10.26881/bp.2020.4.03

A quantitative analysis of translation strategies used in the translation of the International Classification for Nursing Practice into Polish

WIOLETA KARWACKA

Received 27.11.2020,
received in revised form 28.12.2020,
accepted 29.12.2020.

Abstract

This article discusses the standardisation and translation of the International Classification for Nursing Practice (ICNP). The material used in the analysis is the ICNP in translation into Polish. The terms are grouped into the following categories: cross-cultural equivalent, terminological equivalent, descriptive equivalent, calques and borrowings, neologism. The results indicate which is the most frequent strategy involved using cross-cultural equivalents (1987 terms, 49.96 %). Calques and borrowings are present in 1025 terms (25.77 %), 904 (22.73 %) terms are terminological equivalents. There were only 61 (1.53 %) descriptive equivalents. No neologisms were found in the Classification.

Keywords

medical terminology, nursing terminology, ICNP, translation strategies, medical translation

Analiza ilościowa strategii przekładowych zastosowanych w tłumaczeniu Międzynarodowej Klasyfikacji Praktyki Pielęgniarskiej ICNP na polski

Abstrakt

W artykule omówiono zagadnienie standardyzacji terminologii oraz analizę tłumaczenia Międzynarodowej Klasyfikacji Praktyki Pielęgniarskiej (ICNP) na język polski pod kątem zastosowanych strategii. Przetłumaczone terminy zostały podzielone na następujące kategorie: ekwiwalent międzykulturowy, ekwiwalent terminologiczny, ekwiwalent opisowy, kalki i zapożyczenia oraz neologizm. Wyniki opisanego badania wskazują, że najczęściej w tłumaczeniu ICNP na polski stosowane są ekwiwalenty międzykulturowe (1987 terminów, 49,96 %). Kalki i zapożyczenia występują w 1025 terminach (25,77 %), 904 (22,73 %) terminy to ekwiwalenty terminologiczne. Ekwiwalentów opisowych znaleziono tylko 61 (1,53 %). W Klasyfikacji nie stwierdzono neologizmów.

Słowa kluczowe

terminologia medyczna, terminologia pielęgniarska, ICNP, strategia przekładowa, tłumaczenie medyczne

1. Introduction

Terminology is one of the most prominent features of LSP (*Language for Special Purposes*), special or specialised language. Modern terminology, understood both as a discipline and system of terms, is to an extent influenced by the work of Wüster and the principles of the Vienna School for Terminology, which involve the onomasiological perspective, the postulate for concepts to be clear-cut, the relationship between concepts and terminological definitions, the univocity principle and the synchrony principle (Temmerman 2000: 4–14, see Wüster 1979). Newly-formed terms are expected to be precise and unambiguous, mainly resulting from the principle of univocity, which involves a combination of monosemy and mononymy

(Temmerman 2000: 10, Felber 1984, see Wüster 1979). The issues discussed in this paper concern terminology as a set of terms with a particular interest in secondary term formation (Sager 1997: 27–39), which may either involve a monolingual revision of terminology or transfer of scientific and technological knowledge from one linguistic community to another, very often through translation, including borrowing or calque, which is very common in massive terminology transfer. The latter kind of secondary formation can also be called secondary neology or translation neology (Sager 1990, 1993; Cabré Castellví et al. 2012). Quite understandably, the attitudes in designing language policies in secondary term formation or translation neology will vary from purist to permissive (Sager 1997: 41) in terms of accepting foreign elements in terminology transfer. The aim of this study is to determine strategies used in the translation of ICNP (International Classification for Nursing Practice) terminology into Polish, trace trends present within this particular terminology transfer case and comment on translation-related terminology problems.

2. **Background**

There seems to be a consensus that the principles of the Vienna school, i.e. the postulates for clear-cut concepts, the univocity principle and the synchrony principle are, in fact, desirable features rather than actual characteristics of the controlled terminology which is and has been developing exponentially as a result of social, technological and institutional processes and their specific needs (Temmerman 2000: 16). Systems of terms, terminologies are controlled and standardised because "traditional schools believed in the need for standardisation in order to improve special language communication" (Temmerman 2000: 11) but also because standard becomes all-important (Temmerman 2000: 11) in large institutions or in communities where, as in healthcare and flight control, accurate communication is crucial and where there is no room for ambiguity, and misunderstandings may have critical consequences. On the

other hand, socio-cognitive approaches to terminology involve combining the semasiological and onomasiological perspective, recognising the fact that categories cannot always be distinctly delineated, definitions may vary, and synonymy and polysemy are present in specialised terminologies (Temmerman 2000).

English medical terms can be divided into three groups: basic English (BE), fundamental medical English (FME) and specialised medical English (SME) (Salager 1983). Fage-Butler and Nisbeth Jensen (2016) developed a five-category division: dictionary-defined medical terms, co-text-defined medical terms, medical initialisms, medication brand names and colloquial technical terms. Those divisions are structured around the lay/expert axis and accommodate specialised terms as well as units from the general register used in medical communication (see Montalt, Zethsen and Karwacka 2018).

In the case of medical terminology, monoreferentiality (Gotti 2011) or univocity (Felber 1984) principles are not always satisfied as medical terms include lexical units associated with general register, doublets, synonyms, and polysemous terms despite the need for clarity and precision in interprofessional communication (Mitzkat et al. 2016), which is seen in projects aimed at controlling and standardising medical terminology especially in regulatory registration and reporting (see Montalt, Zethsen and Karwacka 2018).

Increasing standardisation and control over medical terminology to an extent result from the need for integrating terminologies and classifications with healthcare information systems to enable the electronic exchange of clinical data (Cimino 1998; Awaysheh et al. 2017). One of the most widely used classifications is the International Statistical Classification of Diseases and Related Health Problems. SNOMED CT, maintained by the International Health Terminology Standards Development Organisation (IHTSDO), which is, in fact, a consolidation of two controlled terminologies: SNOMED RT and Clinical Terms Version 3, is also among the leading healthcare terminology systems (Wang et al. 2001). In fact, there are numerous clinical classifications (e.g. ICD, ICF, ICPC, MedDRA, DSM, MEDCIN for

diagnosis, CPT, CDT, HCPCS for procedures, at least several classifications for nursing, diagnostic tests, medical devices etc.). One of the reasons for such an abundance of classifications is that none of them is a universal one as they serve different purposes and are used in different healthcare sectors. They still need to be compatible since data are transferred between different systems, which is the why terminology systems are mapped, i.e. aligned to ensure adequate information exchange (Fung 2007, Cardillo 2015, see also Montalt, Zethsen and Karwacka 2018).

This article discusses standardisation and translation of the International Classification for Nursing Practice (ICNP), a formal terminology first developed in 1995 by the International Council of Nurses (ICN 2020). It is a glossary of terms for nursing activities and the rationale behind its development was to facilitate communication in the nursing community through the consistent and systematic use of specific language in reporting. Consequently, it is meant to support decision-making, nursing education, health policy development and managing data sets for research. It is a unifying nursing language system whose aim includes "harmonisation with other widely used classifications and the work of standardisation groups in health and nursing" (ICN 2020). ICNP is consistent with ISO 1087-1:2000 vocabulary, and it is mapped onto the anatomical terminology system SNOMED CT.

ICNP has so far been translated into 19 languages, including Polish (ICN 2020). As the original Classification is subject to updates, new translations are required to reflect changes in the original. The Guidelines for the translation of ICNP suggest striving for "cross-cultural equivalence" of concepts rather than word-for-word translation or "etymological equivalence" (ICN 2018). Translators are advised to "avoid ambiguous terms that have more than one meaning" (ICN 2018), which means that polysemous and synonymous terms are to be avoided. It is consistent with other terminology development guidelines or standardisation, such as striving for univocity, monoreferentiality, and avoiding polysemy and synonymy. ICN guidelines for

translation also include recommendations to avoid colloquial phrases and jargon, and guidance on tackling terminological gaps: "if there is no appropriate term in the target language, translate the source term into a set of words using the definition" (ICN 2018).

ICNP is a formal terminology where secondary term formation is present, but the formation process is dissimilar in the English and the Polish version and, in fact, any other non-English version. The terms are arranged in 7 axes: focus, judgement, client, action, means, location. The original terminology is based on the Web Ontology Language (OWL) (Hong et al. 2006). Moreover, the system is consistent with ISO 1087-1:2000. The formation process of the Polish version involves translation, or — to be more specific — a number of translation strategies. It is vital to note that the classification concerns concepts which are generally recognised in the nursing community rather than discoveries or inventions, which is why translation often involves using an existing terminological equivalent, while on other occasions, a cross-cultural equivalent which may be a multi-word unit which had not been previously terminologised and is now used consistently throughout the Classification, for instance, EN: 'Medication Reconciliation' – PL: 'rozliczenie leków'.

Since the ICNP translation guidelines and in fact, other guidelines and expectations discussed above include what seem to be conflicting recommendations: univocity vs avoiding jargon vs cross-cultural equivalence vs standardisation etc., at least some terms are not likely to satisfy those postulates completely. So far, there have been no available translation studies on nursing terminology or translation-driven nursing term formation and use. Although there are studies available on specialised discourse and how it is affected by multilingualism or institutional harmonisation (e.g. Biel 2014), there are no available translation analyses of interlingual transfer of nursing terminology or corpus analyses of nursing texts to trace standardisation, or studies into translation as secondary term formation in massive terminology transfer.

The available studies of a slightly similar scope of interest

show quantitative term formation in Japanese (Kaguera 2002) and medical term formation (Džuganova 2006, 2013) with a particular interest in affixation. Górnicz (2009) is interested in specialised terminology in specialised texts – he studies English, Polish and Russian medical terms (immunology) for term naturalness, term formation, borrowings etc. and notices similar growing homogenisation of specialised languages. Fernández-Domínguez (2016) conducted a corpus-based study into the morphosemantics of word-formation from a contrastive perspective which showed that explicitness of expression is favoured over equivocality in term formation. The study, however, did not focus on translation.

Several studies assess the use of controlled terminologies in data processing in healthcare, e.g. Humphreys et al. (1997), Goossen (2006), Elfrink (2001). Strudwick and Hardiker (2016) present a review of ICNP-related studies terminology — most research is into the classification system itself, and fewer studies focus on the outcomes of nursing practice processed by the system: Cho and Park (2006), Cardoso and Paiva e Silva (2010), Dykes et al. (2009). Several other articles discuss mapping country-specific nursing terminology systems onto ICNP, e.g. Hong and Ruknuddin (2012), Matney et al. (2008); Kuo and Yen (2006), Laukvik et al. (2015) but they usually concern a subset of the Classification, and the analyses are conducted from the perspective of healthcare disciplines and healthcare needs rather than that of translation studies or linguistics; in short, they explore the healthcare dimension of the Classification, not its linguistic one.

3. Material and method

The material used in the analysis is the International Classification for Nursing Practice in translation into Polish (the 2017 release). The ICN-Accredited Centre provides access for ICNP Research and Development for research purposes free of charge. Term pairs were analysed for translation strategies and marked manually in an MS Excel file. The concept of translation strategy

can be problematic as the term 'strategy' is not consistently used by translation researchers (see Kearns 1998/2011: 282). In this article it is understood as ways of handling lexical (terminological) items and language structures. The premise of this analysis is that in the case of ICNP, secondary term formation is conducted in a controlled way by means of translation. The results will indicate the prevalence of particular translation strategies in the Classification and, possibly, those strategies which are not used at all. The terms are grouped into the categories of the following translation strategies:

- *cross-cultural equivalent* — an accurate and functional translation which does not involve using previously terminologised units;
- *terminological equivalent* — an accurate and functional translation which involves using previously terminologised units;
- *descriptive equivalent* — using a definition or an explanation to fill a terminological gap;
- *calques and borrowings* — an umbrella category for *borrowing*, i.e. transferring the original term with only minor adjustment to the target language diacritic system (Waliński 2015: 59), *lexical calque*, i.e. preserving the syntactic structure of the target language while introducing a new mode of expression (Waliński 2015: 59) and *structural calque*, i.e. literal translation which introduces a new construction into the target language (Waliński 2015: 59);
- *neologism* — forming a new word to fill a terminological gap.

The categories of strategies are based on secondary term formation processes described by Sager (1997) and guidelines for ICNP translation issued by the International Council of Nurses (2008), as discussed above, to serve the purpose of analysing terms in translation.

The categories of borrowings and calques are combined as they all involve transferring patterns from the source language and can co-exist in multi-word units in various combinations, such as structural calque + lexical calque or borrowing + structural calque or on their own. The remaining categories are

exclusive, i.e. if a unit is a terminological equivalent, it cannot be a descriptive one etc.

This study is in line with the assumptions of Descriptive Translation Studies (DTS) (see Toury 1995, Hermans 1998, Chesterman 1998, 2006, 2008) since term translation strategies have been observed to determine regularities in translation, find prevalent strategies and features of this secondary term formation process in massive terminology transfer. The study does not involve quality assessment evaluating the adequacy of translation solutions or formulating prescriptive conclusions as that would undermine its descriptive character.

4. Results and discussion

The total number of terms in the Classification was 4325, and it included pre-existing terms widely used in medical contexts, such as *paresis* or *pleura* and newly formed multi-word terms, such as *presence of implantable cardiac device* or *collaborating with social worker*. After eliminating duplicates (i.e. terms occurring in one axis and repeated in another axis) – 3977 unique terms were marked as terminological equivalents, cross-cultural equivalents, descriptive equivalents, calques and borrowings, and neologisms.

The most frequent translation strategy involved using cross-cultural equivalents (1987 terms, 49.96 %). Calques and borrowings are present in 1025 terms (25.77 %); 904 (22.73 %) terms are terminological equivalents. There were only 61 (1.53 %) descriptive equivalents. No neologisms were found in the Classification (see Table 1).

Table 1
Strategies used in the translation of ICNP into Polish

Term translation strategy	Number of terms translated with each strategy	%
Cross-cultural equivalent	1987	49.96
Calque or borrowing	1025	25.77
Terminological equivalent	904	22.73
Descriptive equivalent	61	1.55

Tables 2–6 include examples of strategies used in the translation of ICNP. Table 1 below can serve as an example of both consistency and cross-cultural equivalence of terminologised units, although it should be noted that, for instance, *umiejętność komunikowania* is a more usual collocation than *zdolność komunikowania* and appears more frequently in the National Corpus of Polish (Pęzik 2012). Although the examples in Table 2 are literal translations of the source terms, they are acceptable in Polish and are therefore categorized as cross-cultural equivalents.

Table 2
Examples of cross-cultural equivalents

Term in English	Term translated (into Polish)
Ability to Communicate	zdolność komunikowania
Ability to Communicate Feelings	zdolność komunikowania uczuć
Ability to Communicate Needs	zdolność komunikowania potrzeb
Ability to Dress	zdolność ubierania
Ability to Feed Oneself	zdolność samodzielnego jedzenia
Ability to Feel	zdolność odczuwania
Ability to Hear	zdolność słyszenia

It is worth noting that the Polish equivalents of terms such as *aphasia* or *amnesia* (*afazja* and *amnezja*, respectively; see Table 3 below) are functional medical terms although they were originally transferred as borrowings into Polish medical terminology. In this study, all such functional terms which come from foreign

languages (quite frequently Greek and Latin via English) and are found in medical or nursing dictionaries, classifications or research papers are categorised as terminological equivalents (not borrowings).

Table 3
Examples of terminological equivalents

Term in English	Term translated (into Polish)
Amnesia	amnezja
Aphasia	afazja
Apnoea	bezdech
Arrhythmia	arytmia

In turn, units which have their equivalents in Polish but are, nevertheless, transcribed and transferred in their (almost) original form are classified as borrowings, for instance – *kontynencja, niekontynencja* (*continence – trzymanie, incontinence – nietrzymanie*). Another challenge observed in the calque and borrowing category is related to the *faux amis* phenomenon – *prevention* is translated into *prewencja* (instead of zapobieganie), *status* into *status* (instead of *stan*). The calque and borrowing category also includes multi-word terms with the words *regime* (*reżim* in the Polish version, see Table 4 below) and *management* (*zarządzanie* in the Polish version, see Table 4 below). The Polish word *reżim* is more or less equivalent to *dictatorship,* and can sometimes be used in healthcare contexts to denote a pattern or scheme, but collocations such as *reżim bezpieczeństwa dziecka* (*Child Safety Regime*) are unusual. *Management* has a number of equivalents in Polish – *zarządzanie, postępowanie, prowadzenie, posługiwanie (się), leczenie* – used depending on the collocational context. In the Polish version of ICNP, *management* is always translated into *zarządzanie* — probably to ensure consistency throughout the Classification. In fact, it seems that in general, in the translated ICNP version, calques predominate in situations where it is challenging to meet the univocity or monoreferentiality postulates while using

cross-cultural equivalents, which is indicative of the tension between those conflicting expectations. Descriptive terms are usually avoided in this Classification, which is understandable since one of the main aims of ICNP is effective reporting, and, therefore, brevity may be prioritised over linguistic purity.

Table 4
Examples of lexical calques

Term in English	Term translated (into Polish)
Able to manage Medication Regime	zdolny/a do zarządzania reżimem leku
Able to manage Regime	zdolny/a do zarządzania reżimem
Impaired Ability to manage Dietary Regime	zaburzona zdolność zarządzania reżimem diety
Impaired Ability to manage Exercise Regime	zaburzona zdolność zarządzania reżimem ćwiczeń

Table 5
Examples of structural calques

Term in English	Term translated (into Polish)
Altered Perception	zmieniona percepcja
Pain Guideline	wytyczne bólu

Descriptive equivalents are uncommon in the Polish version of ICNP and serve as paraphrases of words which cannot be rendered more concisely, for instance due to cross-linguistic lacunarity, i.e. the absence of a source element in the target language (see Szerszunowicz 2015). In the case of the discussed classification, descriptive equivalents are used particularly in the absence of a word-to-word equivalent, for example the word *groom* is rendered as *zdolność dbania o estetyczny wygląd* (literal back-translation: *the ability to take care of [one's] aesthetic appearance*).

Table 6
Examples of descriptive equivalents

Term in English	Term translated (into Polish)
Ability To Dress And Groom Self	zdolność samodzielnego ubierania i dbania o estetyczny wygląd
Ability To Groom Self	zdolność dbania o estetyczny wygląd

What can also be observed in the Polish translation is consistency – throughout the Classification each word is translated in the same manner even if that involves forming unusual phrases. If two words are close in meaning and can be translated with the same equivalent, they are consistently differentiated throughout the Classification (e.g. *assessing – ocenianie, evaluation – ewaluacja*). It seems that consistency is prioritised over linguistic purity, as well. However, despite the complexity of the project and conflicting expectations, cross-cultural translation is the predominant approach (49.96 %) for units which were not previously terminologised. Terminological equivalents account for 22.73 % of all ICNP entries but a vast majority of pre-existing terms included in the Classification. Calques or borrowings seem to be used to achieve monosemy and mononymy, i.e. univocity.

Interlingual massive terminology transfer involves more than translation. For instance, the term that the World Health Organization (WHO 2013) uses to refer to interlingual transfer of its ICD classification is "multilingual representation" (instead of "translation") to emphasise the desired equivalence of concepts resulting from a semasiological approach rather than word-for-word transfer. The ICNP is going to be managed, produced, released and distributed by SNOMED International (SNOMED International 2020) so quite possibly some changes are to be expected as a result of the mapping processes, which may mean that the approach to secondary term formation will change as well.

5. Conclusions

This article presents an analysis of the International Classification for Nursing Practice in translation. The translation of the ICNP involves problems relevant to secondary term formation in various disciplines – conflicting expectations, competitive terms, uncontrolled neology or rather dismissive purist attitudes. The presented study indicates a tendency to avoid neology and descriptive equivalents in the translation of the ICNP. On the other hand, calques and borrowings, which may be controversial from a purist perspective, are used in ≈25 % but are outnumbered by cross-cultural equivalents, which are accurate and functional translations. It seems that the distribution of strategies reflects the range of approaches to terminology transfer – from purist to permissive. The next step of research into the ICNP in translation should be verifying if the newly terminologised units are in active use in the nursing community.

References

Awaysheh, Abdullah, Jeffrey Wilcke, François Elvinger, Loren Rees, Weiguo Fan, Kurt Zimmerman (2017). "A review of medical terminology standards and structured reporting". *Journal of Veterinary Diagnostic Investigation – Online First.* Available at http://journals.sagepub.com/doi/pdf/10.1177/1040638717738276. Accessed 27.11.2020.

Biel, Łucja (2014). *Lost in the Eurofog: The Textual Fit of Translated Law*. Bern: Peter Lang.

Cabré Castellví, Teresa, Rosa Estopà Bagot, Chelo Vargas-Sierra (eds.) (2012). *Neology in Specialized Communication* [*Terminology* 18:1]. Amsterdam – Philadelphia: John Benjamins.

Cardillo, Elena (2015). *Mapping between international medical terminologies. Annex 4 to SHN Work Package 3*. Available at <http://www.semantichealthnet.eu/SemanticHealthNet/assets/File/SHN%20288408%20D3_3%20rev2%20Annex%204_Cardillo_SHN_D3_3_final.pdf>. Accessed 27.11.2020.

Cardoso, Alexandrina, Abel Paiva e Silva (2010). "Representing nursing knowledge on maternal and neonatal health: a study on cultural suitability of ICNP®". *International Nursing Review* 57: 426–434.

Chesterman, Andrew (1998). "Description, explanation, prediction: A response to Gideon Toury and Theo Hermans". In: C. Schäffner (ed.) *Translation and Norms*. Clevedon: Multilingual Matters, 91–98.

Chesterman, Andrew (2006). "A note on norms and evidence". In: Jorma Tommola, Yves Gambier (eds.) *Translation and Interpreting – Training and Research*. Turku: University of Turku, Department of English Translation Studies, 13–19.

Chesterman, Andrew (2008). "On explanation". In: Anthony Pym, Miriam Shlesinger, Daniel Simeoni (eds.). *Beyond Descriptive Studies. Investigations in homage to Gideon Toury*. Amsterdam – Philadelphia: John Benjamins, 363–379.

Cho, InSook, Hyeoun-Ae Park (2006). "Evaluation of the expressiveness of an ICNP-based nursing data dictionary in a computerised nursing record system". *International Journal of Nursing Terminologies and Classifications* 13: 456–464.

Cimino, James J. (1998). "Desiderata for controlled medical vocabularies in the twenty-first century". *Methods of Information in Medicine* 37/4–5: 394–403.

Dykes, Patricia C., Hyeon-eui Kim, Denise M. Goldsmith, Jeeyae Choi, Kumiko Esumi, Howard S. Goldberg (2009). "The adequacy of ICNP version 1.0 as a representational model for electronic nursing assessment documentation". *International Journal of Nursing Terminologies and Classifications* 16: 238–246.

Džuganova, Božena (2006). "Negative affixes in medical English". *Bratislavské lekárske listy - Bratislava Medical Journal* 107 (8): 332–335.

Džuganova, Božena (2013). "English medical terminology – different ways of forming medical terms". *JAHR – Annual of the Department of Social Sciences and Medical Humanities* 7/4: 55–69.

Elfrink, Victoria, Suzanne Bakken, Amy Coenen, Barbara McNeil, Carol Bickford (2001). "Standardised nursing vocabularies: a foundation for quality care". *Seminars in Oncology Nursing* 17/1: 18–23.

Fage-Butler, Antoinette M., Matilde Nisbeth Jensen (2016) "Medical terminology in online patient–patient communication: evidence of high health literacy?" *Health Expectations* 19/3: 643–653.

Felber, Helmut (1984). *Terminology Manual*. Vienna: Infoterm.

Fernández-Domínguez, Jesús (2016). "A morphosemantic investigation of term formation processes in English and Spanish". *Languages in Contrast* 16/1: 54–83.

Fung, Kin Wah, Olivier Bodenreider, Alan R. Aronson, William T. Hole, Suresh Srinivasan (2007). "Combining lexical and semantic methods of inter-terminology mapping using the UMLS". *Studies in Health Technology and Informatics* 129. Pt 1: 605–609. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2430093/>. Accessed 27.11.2020.

Gotti, Maurizio (2011). *Investigating Specialized Discourse.* Bern: Peter Lang.

Goossen, William (2006). "Cross-mapping between three terminologies with the international standard nursing reference terminology model". *International Journal of Nursing Terminologies and Classifications* 17/4: 153–164.

Górnicz, Mariusz (2009). "Transfer międzyjęzykowy w terminologii i tekstach specjalistycznych". In: Jerzy Lukszyn, Aleksandra Waszczuk-Zin (eds.) *W kręgu problematyki technolektalnej*. Warszawa: Katedra Języków Specjalistycznych UW, 72–95.

Hermans, Theo (1998). "Translation and normativity". In: Christina Schäffner (ed.) *Translation and* Norms. Clevedon: Multilingual Matters, 50–71.

Hong, Woi-Hyun, Amy Coenen, Nick Hardiker, Claudia Bartz (2006). "Changes in the ICNP Version 1.0 from Beta 2". *Studies in Health Technology and Informatics* 122: 503–504.

Hong, Jungyun, Rafat J. Ruknuddin (2012). "Analysing nursing notes by cross-mapping to ICNP (International Classification for Nursing Practice) in maternity unit in one of the tertiary hospitals in Pakistan". *Nursing Informatics*. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3799119/. Accessed 27.11.2020.

Humphreys, Betsy L., Alexa T. McCray, May L. Cheh (1997). "Results of NLM/AHCPR large scale vocabulary test, original investigations". *Journal of the American Medical Informatics Association* 4: 484–500.

ICN (2018) *Translation Guidelines for International Classification of Nursing Practice (ICNP®)*. Geneva. Available at <https://www.icn.ch/sites/default/files/inline-files/ICNP%20Translation%20Guidelines%202018.pdf>. Accessed 27.11.2020.

ICN (2020) *About ICNP®*. Available at <https://www.icn.ch/what-we-do/projects/ehealth-icnptm/about-icnp>. Accessed 27.11.2020.

Kaguera, Kyo (2002). *The Dynamics of Terminology: A Descriptive Theory of Term Formation and Terminological Growth*. Amsterdam – Philadelphia: John Benjamins.

Kearns, John (1998/2011). "Strategies". In: Mona Baker (ed.). *Routledge Encyclopedia of Translation Studies*. London: Routledge, 282–285.

Kuo, Chun-Hua, Yen Miaofen (2006). "Cross-mapping ICNP terms with Taiwanese gynecological nursing records". *Journal of Nursing Research* 14: 271–278.

Laukvik, Lene Baagøe, Kathy Mølstad, Mariann Fossum (2015). "The construction of a subset of ICNP® for patients with dementia: a Delphi consensus and a group interview study". *BMC Nursing* 14: 1–9.

Matney, Susan A., Rebecca DaDamio, Carmela Couderc, Mary Dlugos, Jonathan Evans, Gay Gianonne, Robert Haskell, Nicholas Hardiker, Amy Coenen, Virginia K. Saba (2008). "Translation and integration of CCC nursing diagnoses into ICNP". *International Journal of Medical Informatics* 15: 791–793.

Mitzkat, Anika, Sarah Berger, Scott Reeves, Cornelia Mahler (2016). "More terminological clarity in the interprofessional field – a call for reflection on the use of terminologies, in both practice and research, on a national and international level". *GMS Journal for Medical Education* 33:2. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4895843/>. Accessed 05.11.2020.

Montalt, Vicent, Karen Zethsen, Wioleta Karwacka (2018). "Medical translation in the 21st century – challenges and trends". *MonTI* 10: 27–42.

Pęzik, Piotr (2012). "Wyszukiwarka PELCRA dla danych NKJP". In: Adam Przepiórkowski, Mirosław Bańko, Rafał L. Górski, Barbara Lewandowska-Tomaszczyk (eds.). *Narodowy Korpus Języka Polskiego*. Warszawa: Wydawnictwo PWN, 253–273.

Sager, Juan C. (1990). *A Practical Course in Terminology Processing*. Amsterdam: John Benjamins.

Sager, Juan C. (1993). *Curso práctico sobre el procesamiento de la terminología*. Madrid: Fundación Germán Sánchez Ruipérez and Ediciones Pirámide.

Sager, Juan C. (1997). "Term formation". In: Sue Ellen Wright, Gerhard Budin (eds.) *Handbook of Terminology Management*. Amsterdam – Philadelphia: John Benjamins, 25–41.

Salager, Francoise (1983) "The lexis of fundamental medical English: Classificatory framework and rhetorical function (a statistical approach)". *Reading in a Foreign Language* 1/1: 54–64.

SNOMED International (2020). Available at <https://www.snomed.org/news-and-events/articles/ICN-SNOMED-sign-groundbreaking-agreement-2020>. Accessed 27.11.2020.

Strudwick, Gillian, Nicholas R. Hardiker (2016). "Understanding the use of standardised nursing terminology and classification systems in published research: A case study using the International Classification for Nursing Practice®". *International Journal of Medical Informatics* 94: 215–221.

Szerszunowicz, Joanna (2015). "Lacunarity, lexicography and beyond: integration of the introduction of a linguo-cultural concept and the development of L2 learners' dictionary skills". *Lexicography ASIALEX* 2: 101–118. Available at <https://doi.org/10.1007/s406 07-015-0015-6>. Accessed 27.11.2020.

Temmerman, Rita (2000). *Towards New Ways of Terminology Description. The Sociocognitive Approach.* Amsterdam – Philadelphia: John Benjamins.

Toury, Gideon (1995). *Descriptive Translation Studies and Beyond*. Amsterdam – Philadelphia: John Benjamins.

Waliński, Jacek T. (2015). "Translation procedures". In: Łukasz Bogucki, Stanisław Goźdź-Roszkowski, Piotr Stalmaszczyk (eds.). *Ways to Translation*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego, 55–67.

Wang, Amy Y, James W. Barrett, Tim Bentley, David Markwell, Collin Price, Kent A. Spackman, Miachael Q. Stearns (2001). "Mapping between SNOMED RT and Clinical terms version 3: A key component of the SNOMED CT development process". *AMIA Symposium Proceedings,* 741–745.

WHO (World Health Organization) (2013). *WHO ICD Revision Information Note*. Available at https://www.who.int/classifications/icd/revision/17_Multilingual_Generation.pdf. Accessed 27.11.2020.

Wüster, Eugen (1979). *Introduction to the General Theory of Terminology and Terminological Lexicography.* Vienna: Springer.

Wioleta Karwacka
ORCID iD: 0000-0002-8540-4535
University of Gdańsk
Institute of English and American Studies
Wita Stwosza 51
80-308 Gdańsk
Poland
wioleta.karwacka@ug.edu.pl

Beyond Philology No. 17/4, 2020
ISSN 1732-1220, eISSN 2451-1498

https://doi.org/10.26881/bp.2020.4.04

Disfluencies in sight translation vis-à-vis dominating text function: A pilot study based on English-Polish sight translation performed by professional interpreters

PAULA GORSZCZYŃSKA

Received 30.11.2020,
received in revised form 28.12.2020,
accepted 29.12.2020

Abstract

The aim of the paper is to provide an account of a pilot study whose primary intention was to classify and analyse disfluencies that recur in sight translations performed by professional interpreters. For this purpose, Gósy's disfluency taxonomy (2004, 2007) was modified and applied to ten professional translations of three source texts (STs), the latter representing three text functions reflecting Christina Nord's interpretation of Katherine Reiss' classification (Reiss 1989 in Nord 1997), namely informative, expressive and operative one. An attempt was also made to trace any interdependencies of disfluency occurrence and ST dominating function.

Keywords

speech disfluencies, hesitations, sight translation, text type, text function

Zakłócenia płynności w tłumaczeniu a vista a dominująca funkcja tekstu. Badanie pilotażowe w oparciu o tłumaczenie a vista w parze językowej angielski-polski wykonane przez profesjonalnych tłumaczy ustnych

Abstrakt

Celem artykułu jest przybliżenie czytelnikowi badania pilotażowego, w ramach którego przeanalizowano i sklasyfikowano zakłócenia płynności dyskursu w tłumaczeniu à vista wykonanym przez profesjonalnych tłumaczy ustnych. By umożliwić sklasyfikowanie zakłóceń, poproszono 10 profesjonalnych tłumaczy o przetłumaczenie à vista fragmentów trzech tekstów, które odzwierciedlały trzy typy dominujących funkcji testu w rozumieniu Nord (1997) na podstawie Reiss (1989), czyli informacyjną, ekspresyjną i operatywną. Podjęto również próbę powiązania wystąpień poszczególnych typów zakłóceń z dominującą funkcją teksu, którego dotyczyły.

Słowa kluczowe

zakłócenia płynności dyskursu, zawahania, zająknięcia, tłumaczenie a vista, typ tekstu, funkcja tekstu

1. Introduction

As proven by researchers, fluency is one of the factors with the strongest impact on the evaluation of interpreter' performance, reliability and overall quality of interpretation (Collados Aís et al. 2007: 218, García Becerra 2007: 314). As such it has been studied thoroughly and approached from many different angles. Scholars propose definitions of fluency that are characterised by a high degree of overlap (*inter alia*: Chambers 1997, Götz 2013, Pradas Macías 2006, Rennert 2010). Rennert, for example, describes fluency as "a prosodic feature of speech that can be viewed as a function of a number of temporal variables. It is the

complex interaction of pauses, audible breathing, hesitations, vowel and consonant lengthening, false starts, repairs, repetitions and speech rate […]" (2010: 104). A more general understanding of the term is that of an uninterrupted natural and proficient flow of speech (Chambers 1997). Disfluency[1] would, therefore, be marked by any breach of fluency thus understood, i. e. an occurrence of any of the variables mentioned.

Cecot (2001: 70–71) developed a handy classification of different shades of "non-fluencies, i.e. fluency interruptions". The umbrella category of "non-fluencies" also encompasses "disfluencies", among which we will find the features whose temporal interplay result in an output of a varying degree of fluency (Rennert 2010: 104). These are: filled pauses, glottal clicks, audible breaths, vowel and consonant lengthening, parenthetical sentences, and utterance interruptions, including repeats, restructuring and false starts.

A similar approach is adopted by Tissi in her taxonomy (2000: 122), which comprises silent pauses and disfluencies further subdivided into subcategories: "[…] silent pauses (the two subcategories being grammatical and/or communicative pause and non-grammatical pauses) and disfluencies. The latter include filled pauses (further broken down into vocalized hesitations and vowel and consonant lengthening) and interruptions (further broken down into repeats, restructuring and false starts)".

Gósy (2007: 93 in Bakti 2009: 5–6) approaches speech disfluencies as "phenomena that interrupt the flow of speech and do not add propositional content to an utterance". She divides them into two major categories: (a) disfluencies rooted in uncertainty and (b) errors or error-type disfluencies (ETDs). Among the main sub categories of uncertainty-related speech disfluencies there are: hesitations, fillers, repetition, restarts, leng-

[1] Magno Caldognetto et al. (1982) offers one of the classical taxonomies of disfluencies. The terms 'disfluency', 'non-fluency', 'influency', 'fluency disruption' overlap to a varying degree across different studies. Throughout this paper, 'disfluency' should be used as an umbrella term. The other terms will be used mainly in relation to other scholarly contributions referred to in this text.

thening and pauses within the word. The error-type disfluencies include: Freudian slips, grammatical errors, contamination, false word activation, "tip of the tongue" (TOT), change, ordering pro-blems and slips.

A majority of the studies alluded to thus far concern the output of simultaneous or consecutive interpreting (SI and CI, respectively), either applying or generating varying classifications of disfluencies. A selection of these classifications is presented in section 2 below. A question arises whether classifications which are meant to describe the output of SI or CI are also applicable to sight translation (SiT[2]). In other words, we will try to learn whether similar types of disfluencies as those that occur in simultaneous translation can also be found in sight translation. The notion of SiT is to be understood here as proposed by, among others, Angelelli (1999: 27), i.e. as "[…] an oral translation of a written text that should sound as if the interpreter were merely reading a document written in the target language", and as the outcome of the process.

There has been dispute among translation scholars as to whether this signifier should or should not be viewed as denoting the same scope of actions and/or results as those of sight interpreting. Franz Pöchhacker, for instance, emphasises the importance of the temporal factor and claims that "In sight translation, the interpreter's target-text production is simultaneous not with the delivery of the source text but with the interpreter's real-time (visual) reception of the written source text." (Pöchhacker 2016: 20). Pointing at the common misuse of the term, the scholar contrasts SiT with sight interpreting, which he considers to be "a variant of the simultaneous mode […] practiced in real time for immediate use by an audience" (Pöchhacker 2016: 20).

Reinart (2014) advocates classifying the act of rendering orally a translation of a written content as a hybrid communicative act. She believes that assigning this borderline case to the

[2] SiT is to be understood here as sight translation. This symbol has been chosen instead of the simpler ST, which denotes ST.

domain of either translation or interpreting tends to be based on relative criteria. Lambert (2004) also appreciates the hybrid nature of the process, believing it to be a particular kind of both written translation (processing visual information) and interpreting (oral processing of information). Still, she chooses to call it sight translation, and preserves the term 'sight interpreting' for the process that is also called 'simultaneous-with-text interpreting'. In this mode, in which a booth interpreter can simultaneously hear the speaker and read the transcript of the speech, both the auditory and written input is present. However, it is what the interpreter hears that is subject to the actual simultaneous oral processing.

The dichotomy between sight translation and sight interpreting, or lack thereof, also permeates the Translation Studies discourse concerning other language pairs. For instance, the scholars working with German as one of the languages in the pair involved in translation use a number of terms to denote a target language rendition of a written source text (ST). These include, among other labels, *Vom-Blatt-Dolmetschen*, *Blattdolmetschen* (interpreting from a sheet of paper, sheet-of-paper interpreting), *Blatt-Übersetzen* (sheet-of-paper translation), *Stegreifübersetzen* (extemporaneous translation), *Stegreiftranslation* (extemporaneous translation), *Spontanübersetzung* (spontaneous translation) and *Diktieren einer Rohübersetzung* (dictating a rough version of a translation) (Parkin 2012: 21–24). The naming options vary and depend on factors such as presence or absence of a spoken ST alongside the written one, a temporal constraint or lack thereof, circumstances in which SiT is performed and used, the form in which the written ST was given to the translator, the latter's familiarity with the ST, to mention just a few.

As we can see, sight translation can be applied in situations that do not involve the audience (e.g. the translator dictates his rough SiT version and sends the file to the client to give them a general sense of what the source document contains). However, it can also be interwoven in conference or business interpreting contexts. Here, for instance, the speaker gives the translator a written text for them to render it into the target language

in front of the participants of the meeting. Pöchhacker argues that if there is no time pressure of the in-front-of-the-audience performance, the translator is likely to freely introduce corrections, reviewing the output, much as in the written translation process, in which case "sight interpreting will shade into the consecutive mode or even come to resemble 'oral translation' […]" (Pöchhacker 2004: 19; 2016: 20). Drawing from these observations, we shall attempt to analyse the nature of some of these revisions in SiT.

Another objective of the study that this article aims to present is to capture any interdependencies between performance disfluencies and the dominating type of text that is sight translated. Following Reiss (1989), Nord (1997) adopts a classification of dominating textual functions into informative, expressive and operative. The informative function consists in communicating facts about real world objects and phenomena to the reader without distracting him or her with elaborate linguistic or stylistic forms. The focus of expressive texts is more on the aesthetic factor, which co-creates the message of the text by means of stylistic choices adopted by the author. In operative texts the extralinguistic effect is superior to both content and form. In other words, the text calls the reader to act or refrain from acting in a particular way (Nord 1997: 37–38). Identifying which disfluencies tend to recur in sight translation of texts with a given dominant function may prove to be an important step towards reducing their rate. This could be achieved via sight translation training targeted at particular text types, designing of which, however, exceeds the scope of the present study.

Having sketched the rationale behind this article, its author will first present an overview of research on speech disfluencies in simultaneous and consecutive interpreting (Section 2.1). Section 2.2 will provide an account of selected studies pertaining to speech disfluencies in sight translation. Section 3 will contain a description of a pilot study carried out within ongoing research on SiT disfluencies, and will be followed by a presentation of results and their interpretation (Section 4) and conclusions (Section 5).

2. Speech disfluencies in oral translation – research overview

There has been a multitude of approaches to perceptive studies of the impact of disfluencies on translation comprehensibility and on the general rating of the translation quality by its recipients. Different scholars studied fluency as either a single complex phenomenon, focused on its subfeatures in isolation, related it to speech aspects such as prosody or treated it as one of the prosodic features. Even though some studies have been replicated, there seems to be no consensus as to which factors, or a combination thereof, have the most detrimental impact on the final assessment of the translation by its users. This section constitutes a brief review of a number of fluency studies concerning simultaneous interpreting and consecutive interpreting as those setting the stage (subsection 2.1), as well as recent studies devoted to exploring sight translation from the perspective of the cognitive challenges it poses (subsection 2.2).

2.1. Disfluencies in simultaneous interpreting

Since we adopted Rennert's definition of fluency as the one we shall relate to in this paper, let us glance at one of her studies first. The scholar studies a correlation between interpretation fluency and the perception of its intelligibility and interpreter's performance (2010: 111–112). The study exposed the respondents, business students with a considerable understanding of marketing, to one of the two versions of a professional SI rendition from English to German of a single source lecture on innovative marketing. The versions varied in terms of their fluency, one being manipulated so as to enhance and the other so as to lower its fluency level. This is how Rennert describes the modification introduced to the recording:

> One copy of the selected base version was then manipulated for increased fluency by removing hesitations, false starts and audible breathing that had a negative impact on fluency, and shortening or

> removing pauses in non-syntactic positions, while at the same time adding pauses and calm audible breathing to syntactic positions. A second copy was turned into the non-fluent version by adding pauses, hesitations and audible breathing to non-syntactic positions, lengthening existing pauses in non-syntactic positions and adding false starts, lengthened sounds and repairs.

The interventions Rennert introduced to render one of the recordings less fluent mirror the disfluencies typical of spontaneous speech, even one made with an external input, as is the case with interpreting. A rudimentary disfluency list based on Rennert's would then include: excessively frequent or excessively long pauses, hesitations, audible breathing in non-syntactic positions, false starts ("created by interrupting a sentence and beginning a new one without completing or correcting the previous sentence" [Rennert 2010: 104]), lengthened sounds and repairs ("corrections of errors in pronunciation, grammar, structure, content or style" [Rennert 2010: 104]).

As a second stage of Rennert's study, a survey was used in which the study participants answered comprehension questions and subjectively rated the fluency of the rendition they heard. Thus fluency was singled out as a quality factor, which might impact the users' overall assessment of an SI performance. The results "suggest that there is a link between perceived fluency and perception of the interpreter's accuracy, confirming previous studies that suggested that lower fluency may impact negatively on the perceived quality of an interpretation" (Rennert 2010: 112).

In her experiment, having applied her own disfluency classification, Cecot (2001) detected, measured and compared the non-fluencies occurrence in STs and TTs to gain insight into the possible causes of professional interpreters' hesitating and pausing. She invited 11 professional interpreters to perform a simultaneous interpretation from English (B) into Italian (A) of two texts delivered at two different speech rates. Additionally, the interpreters' performance self-assessment was confronted with the objective data concerning pause occurrence, duration

and function versus ST speech rate. Interestingly, the majority of the subjects proved unaware of the hesitation pauses they had made. Women interpreters tended to use fewer unfilled pauses, while men spoke more slowly and paused more. Since women tended to speak faster, the disfluency rate in their output was higher. On the other hand, there was a lower total number of disfluencies in the TTs produced simultaneously to the ST delivered at a higher pace. With a lower ST pace, interpreters have more time for planning (Cecot 2001: 78), a factor bringing this situation closer to most SiT-related situations, even if SI is still far more speaker-dependent than the interpreter-paced SiT. The dominating pauses identified in the study were segmentation ones, followed by hesitation pauses (Cecot 2001: 80).

Pradas Macías (2006, 2007) also focused on pauses, silent pauses in particular, which she tested as subparameters of fluency. To study the perception of German to Spanish SI, she manipulated the input ST interpretation by inserting a varying number of pauses into the original rendition thus creating two additional versions enriched by 13 and 20 added pauses. Each version was then subject to survey-based rating by one of three sub-groups of law professors, in which they assessed fluency as one of 14 translation quality parameters. In her conclusions, the scholar emphasised the link between pauses, intonation and speech continuity, and suggested it was legitimate to use groups of parameters rather than isolated one for quality evaluation (Pradas Macías 2006: 39). The results appear to suggest that a higher number of silent pauses in an interpreter's output is likely to have a negative impact on users' assessment of fluency, which is acceptable for the users as long as it does not impact the comprehensibility of the message rendered. At the same time, once detected by the users, silent pauses are likely to influence negatively their assessment of factors such as fluency, intonation or impression of interpreter's professionalism.
In an extended version of the 2006 study, Pradas Macías (2007) broadened the scope of potentially relevant disfluencies by manipulating the experimental material not only by inserting silent pauses but also filled ones, false starts and reformulations.

Again, the impact of the manipulation was clearly negative in relation to not only the perception of fluency but also general quality and intonation (Pradas Macías 2007: 66–67).

Bakti (2009) presents the results of two studies whose objectives were to identify the most common error type disfluencies (ETDs) in the simultaneous interpreting output of trainee and professional interpreters and to investigate the origins of these disfluencies in the workings of the speech production system. Bakti classifies SI as speech production in ambient noise and, following Gósy (2007: 102), expects restarts, lengthenings and repeats to constitute a substantial share of all the disfluencies that the subjects are likely to produce. These disfluencies, which Gósy herself classifies as errors rooted in uncertainty, are likely to accompany changed pausing patterns among other differences between no-noise and in-noise speech production. They may result from the necessity to divide attention in noisy environments. As Gósy puts it: "the speakers restart the words and repeat them when there is a mismatch between planning and execution in order to save their planning mechanism from intruding (disturbing) noise" (Gósy 2007: 102). In Bakti's study seven trainee interpreters interpreted simultaneously a 12-minute read-out speech from English (B) to Hungarian (A). The errors found in the transcriptions of the recorded interpretations were categorised following Gósy's taxonomy of disfluencies (2004). The procedure was then repeated with three professional interpreters, the only difference being that they worked from a recording. It is not clear, however, whether it was an audio or video recording, which makes it impossible to trace back potential impact of the ST form (audio vs. audio-visual) onto the practicing interpreters' output. The results showed that most disfluencies in the output of both groups of subjects were in fact restarts and grammatical errors, followed by false word activation, and that their occurrence is related to "morphological and syntactic planning and co-ordination between lexical access and articulatory planning" (Bakti 2009: 13). As Bakti did not take into account the occurrence of lengthenings or repeats in her research design, it cannot be confirmed whether their occur-

rence in her subjects' output would corroborate Gósy's and Tissi's findings on them dominating the disfluency or slip rates in SI (Gósy 2007: 102; Tissi 2000: 120–122).

SI prosodic features and their impact on the listeners' assessment of interpretation comprehensibility, its fluency and accuracy were also studied by Christodoulides and Lenglet (2014). The scholars exposed 47 experts and 40 non-experts to a 20-minute lecture on an investment strategy, which was delivered in German and sight interpreted into French by a professional interpreter working into his mother tongue. Each of the subject heard either the recording of the actual interpretation or a recording of the same interpretation in the form of a transcript read out by the same interpreter. The subjects were then asked to answer a set of comprehension and rating questions. The analysis of prosodic features of both input materials juxtaposed with the subjects' answers showed that in as much as the prosody does impact the perception of the fluency of interpreter's output and indirectly that of its accuracy, this impact is weaker in the case of expert listeners, who approach the text with a greater contextual knowledge. In terms of average silent pause length, it proved greater in SI as compared to the texts read aloud, while as regards audible disfluencies, 272 pauses were found in SI with only 8 in the read-out text. Whereas there were almost no other disfluencies in the read-out text, the SI output displayed false starts, repetitions and deletions (in order of frequency) (Christodoulides and Lenglet 2014: 1004).

2.2. Speech disfluencies in sight translation

The studies on speech fluency in sight translation have been notably less numerous than those exploring fluency in SI. It is only the last few years that have seen the revival of scholarly interest in this topic, which was sparked in 2010 when Shreve, Lacruz and Angelone published a chapter based on an experiment comparing the cognitive load of a number of SiT aspects to that accompanying written translation. Eye-tracking was used to detect any performance disruptions and correlate them

with the manipulated input. The study was followed up in 2011 when a report was published on SiT performance analysis from a cognitive perspective (Shreve, Lacruz and Angelone 2011). The authors hypothesised that the more syntactically complex a segment of a ST is, the greater the difficulty and disruption of comprehension, transfer and production. They also predicted that the disruption can be measured on the basis of an increased number of TT errors (speech disfluencies included, following Gósy's definition [2004]) and with the use of eye tracking parameters reflecting increased cognitive effort. Eleven English-Spanish translation programme students were asked to, respectively, translate in writing and sight translate two paragraphs of general Spanish texts (on tourism), each set containing one non-complex paragraph and the other which had been manipulated syntactically so as to contain a complex sentence. Meticulous transcription and annotated protocols were applied and the findings were triangulated with the data from eye tracking. The authors claim that the disfluencies of speech that were analysed within the study, i.e. unfilled pauses, filled pauses, repetitions and repairs/revisions, are indicative of the cognitive load related to visual interference. They also believe that the workings of interpreters' minds can be accessed by means of analysing the ways and strategies they use when faced with challenges on the level of lexis[3] or syntax.

Bakti (2017) offers a close-up approach to speech disfluencies in SiT by exploring explicitation patterns in SiT as compared to those in SI. She expects that apart from the cohesive shifts typical of SI, SiT output is likely to abound in the shifts whose function is to add or explain rather than enhance target text (TT) cohesion, explicitation being one of such non-cohesive shifts. In the study, ten MA level translation and interpreting students with Hungarian as their A language and English as they B or C language (three and seven students respectively) were asked to talk about English as a lingua franca, then

[3] The lexical level, next to visual interference, was singled out by Mikkelson (1995) as unique to SiT due to the fact that constant presence of written input pushes the interpreter into focusing on particular words.

perform a SiT and a consecutive interpretation on the same topic, and finally fill in a questionnaire on their background, language competence and the tasks performed. Transcripts of the SiT task were then analysed in search for explicitations as classified by Gumul (2006).

The results show that interpreters performing oral translations of written input tend to produce output enriched with explicitations whose function is different from the one they serve in SI. While explicitation shifts detected in SI are usually those strengthening text cohesion, the ones in SiT tend to add new pieces of information to the ST content (Bakti 2017). The main types of explicitation spotted in the TTs were, in order of frequency, replacing nominalizations with verb phrases, adding modifiers and qualifiers, adding explanatory remarks and adding connectives. As all these interventions tend to increase the number of words in the TT, that being particularly true of the explanatory shifts, it appears worthwhile to investigate the latter as potentially disruptive to the fluency of SiT.

This overview of interpreting- and SiT-related fluency studies reveals a variety of approaches and methodologies applied by scholars often with the intention of gaining insight into the working of the interpreter's cognitive processes and thus understanding the intricacies of ST decoding and target speech production. Although SI and SiT do differ in terms of the mode and nature of input, oral and written respectively, they both produce spoken output. Since disfluencies occur in both these translation modes but appear to have been understudied in the case of SiT, it might be interesting to explore SiT through the lens of the disfluency categories elicited and analysed by the scholars whose work has been referred to in sections 2.1 and 2.2 of the present article.

3. Pilot study on disfluencies in English to Polish SiT versus dominating text function

In this section of the paper a pilot study will be presented, whose main objective was to establish, against the background of

speech disfluencies proven to recur in SI, which categories of disfluencies also appear in sight translation. It appears justified to assume that the types of disfluencies which occur in SI as a result of the constraints of working in noise and under considerable time pressure imposed by the speaker's speech rate will be rare if not non-existent in most SiT products. Given that the input – the written ST – is readily available to the interpreter throughout the translation process,[4] it seems likely that there is more time for speech planning and thus disfluencies like restarts and repetitions should not be as pronounced. The text availability, on the other hand, may be a source of visual interference, which may have negative impact on translation fluency (see research overview in section 2.2.). Other interesting relations to explore are those of the interpreters' speech rate during SiT and disfluency rate in the TT, as well as disfluency rate vis-à-vis ST characteristics.

Given the limited scope of the pilot study as part of a larger on-going research involving a considerably larger number of participants, including trainee interpreters as well as professionals, within this section of the article only the results pertaining to the main objectives of the study, specified in section 3.1 below, will be presented and discussed.

3.1. Aims

The primary aim of the pilot study described in this paper is (1) to identify speech disfluencies recurring in SiT on the basis of a selection of disfluency categories from across the studies on SI described in section 2.1. Other objectives involve (2) measuring the occurrence rate of particular disfluencies identified and (3) detecting any plausible interdependencies of these disfluencies and ST characteristics, including text dominant function.

[4] As mentioned in the introductory part, the comfort of this access varies depending on whether the written text is the only input (SiT) or is accompanied by the speaker's oral delivery (with-text-SI). In the latter case, SiT is subject to similar challenges to those of SI.

3.2. Materials, participants and methods

This early stage of a broader ongoing project involved 10 professional interpreters sight translating from English (B) into Polish (A) (3 males and 7 females). Interpreting had been the primary area of their professional activity cultivated continuously for no less than four years, a minimum threshold of experience adopted by a translation agency that had helped in recruiting the subjects. The subjects' professional experience ranged between seven and twenty years. They all gave a written consent for their output to be anonymously used for research purposes.

The interpreters participated in the study on-line sight translating three written excerpts of three texts with a different dominant functions (Reiss 1989 in Nord 1997). The order of translating the texts was counterbalanced across the participants. The input texts were: a report on literacy in the USA (302 words, informative function), a review of a book on literacy (293 words, expressive function) and a political speech on literacy (332 words, operative function). As the texts had previously been used for a study on other SiT related aspects, we quote here the rationale behind the text selection method as applied within the original study, which was carried out between 2012 and 2016:

> All the passages, 927 words in total, were selected as a result of an Internet engine search for texts whose genres would fit within the text types inspired by Christiane Nord's description of Reiss's typology (Nord 1997). The subjective search was not meant to lead to selecting representative or typical samples of a given genre or function, as (1) the accuracy of such bold labels can be found questionable, (2) the aim was rather to expose the research subjects to text of the varieties they are likely to translate in their professional life under a heading such as a 'report', 'review' or 'speech' however arbitrary they may prove to be, as is often the experience of the translators working in the Polish market. It was, therefore, the overt names the text has been labelled with that were the first selection criterion applied in the search. Certain linguistic markers that tend to be used in each particular genre, further discussed in chapter three, section 3.3 on qualitative analysis of the translation output,

> were considered next, the last criterion being a comparable length of the final set of three STs. (Gorszczyńska 2016: 44)

The report and the speech were edited so as to become uninterrupted passages (e.g. tables were removed from the report and a few paragraphs of the speech were deleted), while no interventions were made into the book description. The length of the passages resulted from pragmatic observations made during a pilot study that had preceded the original research project, which concerned, among others, the fatigue effect on raters involved in the set up with the output of 30 student interpreters, 30 professional interpreters and 30 professional translators.

The interpreters were given two minutes to browse through the set of three texts and asked to immediately proceed to translating them orally one by one, audio recording the entire process. This short initial phase was to enable the participants to get an idea of the general nature and message of each text. In this way, much like in real life setting, they had a chance to produce a more naturally sounding oral output than they might have if they had had enough time to annotate the ST and turn it into a semi-finished written translation to read out. A reservation was made that the interpreters should not resort to any aids and that they should work at their own pace. The subjects were not allowed to introduce any improvements to the recordings of their output after they have completed the sight translation task. Next, all the translations were transcribed, reflecting the division into separate text types. The transcripts were then analysed so as to identify the categories of disfluencies they contained. The table below lists the categories of disfluencies sought for in the present study, which are largely inspired by Gosy's taxonomy (2007). Explicitation was also included to reflect any explicitation shifts other than those that strengthened or created text cohesion (Gumul 2006). As much as such additions and explanations are likely to enhance the comprehensibility of SiT output, they, nevertheless, constitute an intervention into the text that exceeds a rather inconspicuous nature of other translation shifts such as, for instance, reorganizing the

syntactic structure of a source language sentence. Following Chambers (1997), a fluent speech would be one characterised with *uninterrupted* natural and proficient flow (emphasis added), while Cecot (2001: 70) lists parenthetical sentences, one of the forms explicitation takes, among disfluencies.

The category of 'silent pauses' (SP) was adopted from Tissi, as was the case with the qualifiers 'vocalized' added to hesitations and 'consonant and vowel' specifying the objects of lengthening (L) (Tissi 2000: 122). The category of 'vowel and consonant lengthening' is also used by Rennert (2010: 104), whose classification also enriched the one compiled for this study with the category of 'repairs' (RPR) understood as "corrections of errors in pronunciation, grammar, structure, content or style" (Tissi 2000: 114). Additionally, Gósy's category of 'change' (2004) was narrowed down to 'change to a synonym' (CH) to differentiate it from uncertainty rooted 'repairs' (RPR). It should be noted, however, that the nature of revisions such as repairs, repeats, among other types, may also be a manifestation of "the translator's conscious deliberation of text production choices, e.g. translation strategy" rather than being rooted in uncertainty or linguistic or non-linguistic knowledge deficiencies (Shreve, Lacruz and Angelone 2011: 112). The 'grammatical errors' (GE) category has also been adopted from Gósy (2004) but is to be understood as denoting grammatical flaws as a result of disruptions to input processing related to the cognitive effort that accompanies sight translation (Shreve, Lacruz and Angelone 2011: 94).

Table 1

Types of disfluencies sought for in the present study

Types of disfluencies (symbols) to be sought for in SiT
Vocalized hesitations (H)
Silent pauses (SP) < 2 seconds
Fillers (F)
Repetitions (RPTN)
Repairs (RPR)

Restarts (RST)
Consonant and vowel lengthening (L)
In-word pauses (IWP)
Freudian slips (FRS)
Grammatical errors (GE)
Contaminations (CONT)
False word activation (FWA)
Tip of tongue (TOT)
Change to a synonym (CH)
Ordering problems (ORD)
Spoonerisms (SPN)
Explicitations (EXP)

3.3. Results

3.3.1. SiT disfluencies in the texts studied

The Tables 2 to 4 below show the distribution of disfluency categories from the classification presented in Table 1 in relation to the SiTs of the report (Table 2), the review (Table 3) and the political speech (Table 4). The major TT disfluency across all the three text types is that of *vocalized hesitations*. In the translations of the report, review and political speech, hesitations constituted 40 %, 41 % and 40 % of the observed disfluencies respectively. A vast majority of them manifested themselves as the Polish equivalents of what Garnham (1985: 206) calls "ums and ahs". The vocalized hesitations reflected in the figures are those that exceeded the cut-off level of 2 seconds adopted in this study as a threshold above which this kind of hesitation marker may be perceived as indicative of translation challenges on the part of the translator.

Table 2
Distribution of disfluencies in report SiT output

SiT TT No.	Disfluencies	H	SP	F	RPTN	RPR	RST	L	IWP	FRS	GE	CONT	FWA	TOT	CH	ORD	SPN	EXP	Total per translator
	Report																		
1		9	2				1	1			3				3				19
2		1				1					2				3	1			8
3		10									2		1		2				15
4		19			3	1		1											24
5		9			2					1	5	1	4			1			23
6		8			2	1					1				5				17
7		1			2			1					1		5	1			11
8		4				1	1								12	1	1	6	26
9		6									1		1		5				13
10		1					1				3				7				12
	Total (inst.)	**68**	**2**	**0**	**9**	**4**	**3**	**3**	**0**	**1**	**17**	**1**	**7**	**0**	**42**	**4**	**1**	**6**	**168**
	Total (%)	**40 %**	**1 %**	**0 %**	**5 %**	**2 %**	**2 %**	**2 %**	**0 %**	**1 %**	**10 %**	**1 %**	**4 %**	**0 %**	**25 %**	**2 %**	**1 %**	**4 %**	100 %

Table 3
Distribution of disfluencies in review SiT output

SiT TT No.	Disfluencies	H	SP	F	RPTN	RPR	RST	L	IWP	FRS	GE	CONT	FWA	TOT	CH	ORD	SPN	EXP	Total per translator
	Review																		
1		7	5		2			1			1				2				18
2		1			3	1				1			3		4				13
3		16			2			2					1		3			1	25
4		14			2	1									3				20
5		6				1					7		4		6				24
6		7			1		1								4	1			14
7		4				2													6
8		10		6		1	4				1		1		13			2	38
9		7					1				1				3			1	13
10		2		1											4		1	1	9
	Total	**74**	**5**	**7**	**10**	**6**	**6**	**3**	**0**	**1**	**10**	**0**	**9**	**0**	**42**	**1**	**1**	**5**	**180**
	Total (%)	**41 %**	**3 %**	**4 %**	**6 %**	**3 %**	**3 %**	**2 %**	**0 %**	**1 %**	**6 %**	**0 %**	**5 %**	**0 %**	**23 %**	**1 %**	**1 %**	**3 %**	100 %

Table 4
Distribution of disfluencies in political speech SiT output

SiT TT No.	Disfluencies	H	SP	F	RPTN	RPR	RST	L	IWP	FRS	GE	CONT	FWA	TOT	CH	ORD	SPN	EXP	Total per translator
	Speech																		
1		6	4			1		2							3				16
2					1	1					1		1		5				9
3		5			1										2				8
4		14								1					4	1			20
5		6			1						1		2			1			11
6		3	2			1	2				1				2				11
7		1				2									3	1	1		8
8		6		4			3				5		1		8		1	1	29
9		5														2		1	8
10		5					1												6
	Total (inst.)	**51**	**6**	**4**	**3**	**5**	**6**	**2**	**0**	**1**	**8**	**0**	**4**	**0**	**27**	**5**	**2**	**2**	**126**
	Total (%)	**40 %**	**5 %**	**3 %**	**2 %**	**4 %**	**5 %**	**2 %**	**0 %**	**1 %**	**6 %**	**0 %**	**3 %**	**0 %**	**21 %**	**4 %**	**2 %**	**2 %**	100 %

The second most prominent disfluency category, with the occurrence rate of 25 %, 23 % and 21 % respectively, is *change to a synonym*, or in Gósy's terms (2007: 93), *change*. It is to be understood here as the interpreter's decision to withdraw from using the term or phrase and replacing it with another one. The first term used may or may be not be an accuracy error but Gósy

(2004) places the mechanism of attempting to improve it among error based disfluencies. In this sense change can be exemplified by means of the following passage from one of the TTs:

(1)
ST: Many *have absorbed* the puritanical message that reading is […].
TT: Wielu *przyjęło [H] do siebie [FWA] / zinternalizowało [CH]* ten [FLL] [H] ów [CH] purytański przekaz, że czytanie to […]
Back-translation (BT): 'Many *have accepted [H] to themselves [FWA] / internalised [CH]* this [FLL] [H] yon [CH] puritan message that reading is […]'.

The verb *absorbed* in sentence (1), taken from the review excerpt, was first translated as *przyjęło*, then, after a moment of hesitation, an incorrect sense-changing collocation pattern was activated (*do siebie).* Immediately afterwards, a synonymous verb was uttered. The rather similar occurrence rate of change across all the three text types may suggest that this disfluency is not text type dependent but rather related to the translation mode. With no noise of oral ST delivery (Bakti 2009: 5) and undisturbed access to the written input, SiT appears to encourage revisions in search for a more suitable word of phrase (Pöchhacker 2004: 19; 2016: 20). In the example analysed here cognate avoidance *(zaabsorbowało*) is another possible explanation for the word-level repair introduced (Shreve, Lacruz and Angelone 2011: 118).

The third most commonly occurring disfluency type in the SiTs of the report was *grammatical errors* (10 % of all the disfluencies detected in this text type), typically consisting in the violation of subject-verb agreement rules in terms of number and/or gender, as in example (2), where, while the subject, *per cent,* imposes the third person singular form of the verb, the interpreter used the third person plural instead.

(2)
ST: 65 % of college freshmen read for pleasure for less than […]
TT: *65 %* osób, które przychodzą do college'u *czytają* ['read', 3rd person plural] dla przyjemności mniej niż […]

Grammatical error of the kind illustrated seem likely to recur in SiT of informative texts in particular as their dominating function is habitually supported by grammatical and syntactic patterns that favour placing inanimate nouns such as numbers in the subject position. As we rarely speak statistics, ascribing the right grammatical form to the predicate which follows a number, other numerical value or quantifier does can pose problems to translators who verbally convey their translation.

In the case of the review, the third position was taken by *grammatical errors* and *repetitions* (6 % each). The latter are to be understood in this study as the interpreter's repeating an entire word or phrase without introducing any modifications to these units. In the material analysed most repetitions occurred when a given speech unit was delivered twice in a row, which may indicate a speech planning effort or stalling (Rennert 2010: 104). It appears that, contrary to what one might expect, working in the context free of the constraint of time pressure of real life performance and having revision opportunities due to the constant presence of the written input (Pöchhacker 2004: 19; 2016: 20) proved more conductive to repeating than to introducing repairs.

In the translations of the political speech, it is also *grammatical errors* that ranked third (7 %), closely followed by *restarts* (6 %), i.e. interpreters' uttering the first phoneme, syllable or syllables of a word, and then, without finishing it, starting to say the same word either stuttering or stammering or saying the entire word without interruptions. In this sense, restarts can be interpreted as synonymous with what Clark and Clark (1977) call repetitions, allowing them to be incomplete and treating them as representative of hesitations related to incomplete planning. Also Shreve, Lacruz and Angelone refrain from using the term 'restart', "a near synonym for revision or repair, preferring

to classify all utterance modifications as repairs" (Shreve, Lacruz and Angelone 2011: 99). However, if triangulated with, for instance, retrospective protocol data, making a distinction between particular subtypes of utterance modifications in future studies may shed more light on their underlying causes.

The total number of disfluencies in the report TTs was 168. The translations of the review were interrupted 180 times, while 126 disfluencies were found in the SiTs of the political speech. The dominating ones having been presented, let us now look at those disfluency categories that either do not appear in the material studied or occur only incidentally (Table 5).

Table 5

Total % values of disfluencies in the entire SiT output

Types of disfluencies (symbols) to be sought for in SiT	No. of instances	% of all instances
Vocalized hesitations (H)	193	41
Change to a synonym (CH)	111	23
Grammatical errors (GE)	35	7
Repetitions (RPTN)	22	5
False word activation (FWA)	20	4
Repairs (RPR)	15	3
Restarts (RST)	15	3
Silent pauses (SP) < 2 seconds	13	3
Explicitation (EXP)	13	3
Fillers (F)	11	2
Ordering problems (ORD)	10	2
Consonant and vowel lengthening (L)	8	2
Spoonerisms (SPN)	4	1
Freudian slips (FRS)	3	1
Contaminations (CONT)	1	0
In-word pauses (IWP)	0	0
Tip of tongue (TOT)	0	0

Thus, no pauses within words (IWP) or tips of tongue (TOT) were detected in the entire study material. Additionally, in the renditions of the report, no fillers were spotted, while Freudian slips, ordering issues, contaminations and silent pauses constituted a mere 1 % each of all the disruptions. Similar patterns recur in the review and speech, the difference lying in a greater frequency of silent pauses and fillers in the SiTs of these texts. These instances, which were produced by one or two translators, though statistically insignificant, may indicate that the simpler the ST in terms of style and syntax, which is characteristic of informative text, the more content oriented and careful the translator performing its SiT is likely to be about displaying any hesitation markers and overt additions. The findings concerning a low frequency of unfilled pauses as compared to that of filled pauses seem to corroborate those in Shreve, Lacruz and Angelone (2011: 103), which additionally shows that this performance factor is not necessarily professional experience dependent.

3.3.2. Frequency of SiT disfluencies versus translators' performance duration

The speech rate factor in SiT is worth considering in terms of its potential impact on speech disfluencies. As no particular pace is set by the speaker, who is not present in the process, the question of how fast the interpreter processes the textual input and produces its target language version depends on the ST characteristics and the interpreter's abilities. In Tables 6 to 8 quantitative data concerning SiT process duration have been juxtaposed.

Table 6
Disfluency, translation duration and TT word count
in SiTs of the report

Report (302 words)			
TT No.	Number of disfluencies	Performance time (min:sec)	TT word count
1	19	3:40	371
2	**8**	**3:56**	**328**
3	15	4:00	328
4	**24**	**5:15**	**384**
5	**23**	**3:31**	**322**
6	17	3:56	341
7	11	2:59	336
8	**25**	**4:44**	**392**
9	13	3:45	368
10	12	3:45	339
Disfluencies in total: 168			

When we look at rows 8 and 4 of Table 6, with the highest number of disfluencies detected in SiTs of the report, we will notice that the disfluencies were found in the outputs whose authors needed more time than the others to complete their translations. The longer it took the subject to translate the texts, the more words their TTs comprise. However, although in row 5 of the same table we see the third highest number of disfluencies in the ten TTs studied, they disfluencies concern the second fastest rendition and the shortest TT. The fewest disfluencies were found in a medium-paced rendition with an average word count (row 2).

Table 7
Disfluency, translation duration and TT word count in SiTs of the review

Review (293 words)			
TT No.	Number of disfluencies	Performance time (min:sec)	TT word count
1	18	4:13	405
2	13	4:09	385
3	**24**	**5:49**	**330**
4	20	5:22	378
5	**24**	**3:42**	**331**
6	14	3:35	306
7	**6**	**3:10**	**304**
8	**38**	**5:31**	**423**
9	12	3:24	349
10	9	3:47	357
Disfluencies in total: 180			

In the case of the review, it was the same translator (row 8, Table 7) that generated the largest number of disfluencies (the highest out of all the cases found in the study). Again, their output was very long (second longest in the review part of the study) and contained the highest number of words out of all the review TTs. Interestingly, in row 3 of the same table, with the same number of disfluencies as in row 5, we have the longest speech timewise but, at the same time, the fourth shortest in the set in terms of the word count. The relatively low word count of TTs by the translator who authored the review TT analysed here is consistent across all their outputs. Row 7 shows the lowest number of disfluencies in the shortest text in terms of word count and pace of production, the time and length factor highly consistent in this translator in the entire study, much like in the case of translator 10. This consistency may indicate that the pace at which the professional interpreters translate is related more to their proficiency in SiT and, possibly, their own production style,

than to the actual challenges posed by the ST. This conjecture, however, requires further confirmation, the more so that it does not fully corroborate the findings of Shreve, Lacruz and Angelone (2011: 118), whose (non-professional) study subjects' slow pace and disfluency effects were interpreted as related "mostly to task characteristics of the sight translation: visual interference, differences between oral source and written STs in terms of syntax, grammar, and register […]".

Table 8
Disfluency, translation duration and TT word count in SiTs of the speech

Political speech (332 words)			
TT No.	Number of disfluencies	Performance time (min:sec)	TT word count
1	**16**	**4:03**	**390**
2	9	4:19	379
3	8	5:11	336
4	**20**	**5:02**	**380**
5	11	3:20	329
6	11	3:07	295
7	8	2:46	304
8	**29**	**5:31**	**404**
9	**7**	**3:10**	**340**
10	**6**	**3:10**	**324**
Disfluencies in total: 126			

In the case of the political speech SiT, it is yet again translator 8 that produced the longest TT over the longest time and with the highest disfluency rate. A look onto the distribution of disfluencies in this translator shows that they hesitate relatively frequently, and add fillers (6 in the review, 4 in the speech), unlike the others. What is more, they introduce numerous corrections (12 in the report, 13 in the review, 8 in the speech), outnumbering some of the other translators even twofold, and are

the only one to resort to explicitation (6 in the report, 2 in the review and 1 in the speech). This translator's output being markedly different from that of the others, let us look into second highest disfluency rate in the table, which is that reflected in row 4 (Table 8). Again, the score matches the production time and relatively high word count, this pattern weakened by the figures in the first row, with medium-duration delivery, the second highest word count and hesitation scores. Moving to the other end of the spectrum and putting aside the out-of-trend incredibly fast rendition of translator 7, we notice the lowest disfluency score in translator 10, with the third fastest delivery and second shortest TT. The total cumulative SiT delivery times per text are: 15:31 for the report, 18:42 for the review, and 15:39 for the speech, which, coupled with the highest cumulative disfluency rate for this text type, indicates that the texts with expressive function as the dominating one are likely to put the greatest cognitive strain on the interpreters.

3.3.3. Triggers of most frequent SiT disfluencies

A closer look at the target texts reveals certain patterns pertaining to their disfluency triggers. Hesitations in the form of vocalised pauses tend to directly precede the equivalents of polysemic terms and rarely used nouns and verbs, whose first choice equivalents activate strong associations with domains that do not match the general subject matter of the text. This observation can be exemplified by, for instance, *eroding* in the sense of the deterioration of skills. What is more, hesitations are likely to occur when the interpreter is confronted with a decision about the correct form of the verb in sentences that begin with a collective descriptor such as *nearly half, the percentage of, x %, less than one third* and millions, particularly when the latter does not immediately precede the verb. Lexical-syntactic pattern of this kind often gives rise to grammatical disfluencies as well.

Scrutinising the manifestations of changes to a synonym, another prominent disfluency category detected, one can notice

that they are mainly triggered in two contexts. One is when the interpreter notices that a wrong syntactic structure or an incorrect verb grammatical pattern was anticipated and has to withdraw from the initial decision (3a).[5] Another is lexis based, and involves uttering a correct equivalent of the ST term or a synonym to the term already spoken out as the first choice, often reflex-based (3b).

(3a)
ST: So we should never forget that what we are doing is vital […]
TT: A więc nigdy nie powinniśmy *zapominać o tym, co, że to, co robimy* jest bardzo istotne […]
BT: 'And so we should never forget *about what, that what we* do is very important […]'

(3b)
ST: […] the book explores everything *from the invention* of silent reading […]
TT: książka stanowi wgląd do wszystkiego tego, *od wymyślenia, od czasu inwencji, przepraszam, od czasu wymyślenia* […]
BT: 'The book constitutes insight into all this, *from inventing, from the time of invention, sorry, from the time of inventing* […]'

The quantitative analysis of the translators' scores of their sight translations of the three STs seems indicative of a moderately strong interdependence of hesitations, the category of disfluencies prevalent in the TTs of all the ST types, and the pace of delivery. Generally, the slower the delivery, the more disfluencies in the output. The longer the text, the more vocalised disfluencies it is likely to contain, particularly filled pauses and corrections but also explicitations. This approximation, however, should be further verified by analysing more SiT outputs as there are exceptions in the analysed material that go against this tendency (see Table 8, row 3, for instance).

As far as the co-dependence of text characteristics and SiT disfluencies is concerned, the review, despite being the shortest

[5] Should no correction follow, this kind of disfluency would be categorised as *false word activation*.

of the three STs, proved to have been most challenging to the subjects, which was reflected in its total cumulative delivery time (18:42) compared to the total number of disfluencies (180). The major disfluency trigger in this text seems to be the one of sophisticated lexis, convoluted syntax and rhetorical devices that do not match the conventions applying in Polish. The difference in total cumulative delivery time between the report and the political speech was merely 8 seconds, with the report having been delivered in a shorter time. However, despite both texts having a similar word count, with the speech containing 30 words more, the proportion of disfluencies was 126 to 168, the higher number pertaining to the shorter text of the report. This observation, backed up with the qualitative analysis of source and target text features, can indicate that the greater degree of orality of the speech text made it easier to translate than the report with its syntax more typical of written language, challenging verbs describing trends and scarce cohesion markers.

4. Conclusions

The study revealed that not all the categories of disfluencies adapted from the SI disfluency taxonomies discussed in the Introduction to the present paper and presented in Tables 1 and 5 apply to the SiT output analysed. From among those that clearly do, an impressive value of 41 % was classified as *vocalized hesitations,* followed by *changes to a synonym* (23 %). The third top category, *grammatical errors* (7 %), opens a list of 15 re-maining categories with a one digit percentage frequency. At the bottom of the list we find the disfluencies that did not disrupt the recorded performance. These are *contaminations*, *in-word pauses* and *tip-of-tongue disfluencies*. In between the top- and bottom-of-the-list categories, there are disfluencies described in the analysis, whose occurrence, in the case of professional interpreters, may indicate the applied solution evaluation in progress (Angelone 2010) rather than actual syntactic or lexical production problems aggravated by the visual interference of the written source or the novelty of the SiT task (Shreve,

Lacruz and Angelone 2011). In professionals, this interference is perhaps strongest where *grammatical errors* and *ordering problems* emerge. Thus *repetitions*, *false word activation* and *fillers* may be triggered by the application of the least effort principle, i.e. uttering the first solution that offers itself even if this is not the optimum one. This, done intentionally or unintentionally, is su-pposed to ensure a continuous flow of speech, with as few lengthy *silent pauses* as possible. *Repairs*, *restarts* and *explicitations* may be used as fixing strategies that set in when the applied solution evaluation proved negative. However, although some evidence was found that seems to support these conjectures, a more careful analysis of particular instances of these disfluencies is advisable, preferably involving a greater number of professional interpreters or translators as participants, plus triangulation with, for example, eye-tracking metrics and retrospective protocols.

Dominating text functions reflected in textual features of the STs appear to be only moderately related to range of the top scoring disfluencies detected in the study. These differences, concerning frequency figures for *vocalized hesitations*, *changes to a synonym* and *grammatical errors* are more apparent in the frequency of their occurrence than in the presence or absence of particular disfluency types in the target texts. Major disfluency triggers in the review, the text with the highest number of SiT disfluencies, seem to be sophisticated lexis, convoluted syntax and rhetorical devices that do not match the conventions applying in Polish. *Repetitions* and *false word activation* point at the interpreters' having struggled with these features of the expressive text. The renditions of the report displayed instances of the same right-out-of-the-top-three types of disfluencies, which were triggered by syntax more typical of written language, challenging verbs and phrases describing trends and scarce cohesion markers. *Explicitations* did rank next to *repetitions* and *false words activated* but came from a single translator only. As regards the speech, oralised as the text was in the appellative parts, it contained simpler sentences (hence fewer *grammatical errors* were found than in the remaining texts) but also a few

fixed phrases. In this case, the interpreters appear to have been more careful about their lexical choices and speech planning, which is reflected in the relatively high frequency of *restarts* and *silent pauses* instead of *false word activation* left without any modification.

In order for SiT to be able to draw from the analytical and methodological legacy of Interpreting Studies and interpreter training, with the perspective of speech disfluencies as a starting point, further studies should be encouraged. They could aim to, for example, discover mechanisms that stimulate disfluencies and adjust interpreter training methods that would facilitate their prevention. Naturally, study replications across different language pairs would have to be performed to gain further insight into the degree of universality of the findings.

References

Angelelli, Claudia V. (1999). "The role of reading in sight translation". *The ATA Chronicle (Translation Journal of the American Association of Translators)* 28/5: 27–30.

Angelone, Eric (2010). "Uncertainty, uncertainty management and metacognitive problem solving in the translation task". In: Eric Angelone, Gregory M. Shreve (eds.). *Translation and Cognition.* Amsterdam – Philadelphia: John Benjamins, 17–40.

Bakti, Mária (2009). "Speech disfluencies in simultaneous interpreting". In: Dries De Crom (ed.). *(Trans)formation of Identities: Selected Papers of the CETRA Research Seminar in Translation Studies 2008.* Leuven: KU Leuven Centre for Translation Studies, 1–18.

Bakti, Mária (2017). "Explicitation in sight-translating into Hungarian texts". In: Andrzej Łyda, Katarzyna Holewik (eds.). *Interdisciplinary Encounters: Dimensions of Interpreting Studies*. Katowice: Wydawnictwo Uniwersytetu Śląskiego: 136–148.

Cecot, Michaela (2001). "Pauses in simultaneous interpretation: A contrastive analysis of professional interpreters' performances". *The Interpreters' Newsletter* 11: 63–85.

Chambers, Francine (1997). "What do we mean by fluency?" *System* 25/4: 535–544.

Christodoulides, George, Cédric Lenglet (2014). "Prosodic correlates of

perceived quality and fluency in simultaneous interpreting". In: Nick Campbell, Dafydd Gibbon, Daniel Hirst (eds.). *Proceedings of 7th International Conference on Speech Prosody 2014, 20–23 May 2014*. Dublin: Trinity College Dublin, 1002–1006.

Clark H. Herbert, Eve V. Clark (1977). *Psychology and Language: An Introduction to Psycholinguistics*. New York: Harcourt Brace Jovanovich.

Collados Aís, Ángela, Olalla Garcia Beccerra, Esperanza Macarena Pradas Macías, Elisabeth Stévaux (2007). *La evaluación de la calidad en interpretación simultánea: parámetros de incidencia.* Granada: Comares.

García Becerra, Olalla. (2007). "La incidencia de las primeras impresiones en laevaluación de la calidad de la interpretación. Estudio piloto". In: María Manuela Fernández Sánchez, Ricardo Muñoz Martín (eds.). *Aproximaciones cognitivas al estudio de la traducción y lainterpretación*. Granada: Comares, 302–326.

Garnham, Alan (1985). *Psycholingusitics. Central Topics.* London: Methuen.

Gorszczyńska, Paula (2016). *Recorded Sight Translation Revisited: The Benefits of Technology-Assisted "Dictated" Translation*. Gdańsk: Wydawnictwo Uniwersytetu Gdańskiego.

Gósy, Mária (2004). "A spontán magyar beszéd megakadásainak hallás alapú győjteménye". In: Mária Gósy (ed.). *Beszédkutatás 2004. „Nyelvbotlás"— korpusz, tanulmányoki.* Budapest: MTA Nyelvtudományi Intézet, Kempelen Farkas Beszédkutató Laboratórium, 6–18.

Gósy, Mária (2007). "Disfluencies and Self-monitoring". *Govor* 24: 91–110.

Götz, Sandra (2013). *Fluency in Native and Non-native English Speech.* Amsterdam – Philadelphia: John Benjamins.

Gumul, Ewa (2006). "Explicitation in simultaneous interpreting: A strategy or a by-product of language mediation?". *Across Languages and Cultures* 7/2: 171–190.

Lambert, Sylvie (2004). "Shared attention during sight translation, sight interpretation and simultaneous interpretation". *Meta* 41/1: 75–83.

Magno Caldognetto, Emanuela, Enrica De Zordi, Loredana Corrà (1982). "Il ruolo delle pause nella produzione della parola". *Il Valsalva — Bollettino della Società Italiana di Audiologia e Foniatria* 5: 12–21.

Mikkelson, Holly (1995). *The Interpreter's Edge*. San Diego: ACEBO.

Nord, Christiane (1997). *Translation as a Purposeful Activity*. Manchester: St Jerome.

Parkin, Christina (2012). *Stegreifübersetzen. Überlegungen zu einer Grenzform der Translation am Beispiel des Sprachenpaares Franzosisch-Deutsch*. Frankfurt am Main: Peter Lang.

Pöchhacker, Franz (2016). *Introducing Interpreting Studies*. London – New York: Routledge.

Pradas Macías, Esperanza Macarena (2006). "Probing quality criteria in simultaneous interpreting: The role of silent pauses in fluency". *Interpreting* 8/1: 25–43.

Pradas Macías, Esperanza Macarena (2007). "La incidencia del parámetro fluidez". In: Angela Collados Aís, Olalla Garcia Beccerra, Esperanza Macarena Pradas Macías, Elisabeth Stévaux (eds.). *La evaluación de la calidad en interpretación simultánea: parámetros de incidencia.* Granada: Comares, 53–70.

Reinart, Sylvia (2014). *Lost in Translation (Criticism)? Auf dem Weg zu einer konstruktiven Übersetzungskritik*. Berlin: Frank & Timme.

Reiss, Katharina (1989). "Text types, translation types and translation assessment". In: Andrew Chesterman (ed.). *Readings in Translation Theory*. Helsinki: Finn Lectura, 105–115.

Rennert, Sylvi (2010). "The impact of fluency on the subjective assessment of interpreting quality". *The Interpreters' Newsletter* 15: 101–115.

Shreve, Gregory M., Isabel Lacruz, Erik Angelone (2010). "Cognitive effort, syntactic disruption, and visual interference in a sight translation task". In: Eric Angelone, Gregory M. Shreve (eds.). *Translation and Cognition.* Amsterdam – Philadelphia: John Benjamins, 63–84.

Shreve, Gregory M., Isabel Lacruz, Erik Angelone (2011). "Sight translation and speech disfluency: Performance analysis as a window to cognitive translation processes". In: Cecilia Alvstad, Adelina Hild, Elisabet Tiselius (eds.). *Methods and Strategies of Process Research*. Amsterdam – Philadelphia: John Benjamins, 121–146.

Tissi, Beneditta (2000). "Silent pauses and disfluencies in simulta-neous interpretation: A descriptive analysis". *The Interpreters' Newsletter* 10: 103–127.

Paula Gorszczyńska
ORCID iD: 0000-0002-3125-5116
University of Gdańsk
Institute of English and American Studies
Wita Stwosza 51
80-308 Gdańsk
Poland
paula.gorszczynska@ug.edu.pl

Beyond Philology No. 17/4, 2020
ISSN 1732-1220, eISSN 2451-1498

https://doi.org/10.26881/bp.2020.4.05

Conference interpreting on the privatemarket: Employment and assignment-related variables

HEATHER ADAMS
DAVID BOVY

Received 30.11.2020,
received in revised form 29.12.2020,
accepted 29.12.2020.

Abstract

The benchmark for the study of conference interpreting tends to be the institutional market, in which employment conditions are secure and communicative situations, context and terminology will tend to recur. By contrast, conference interpreters working in the private sector face a range of ever-changing circumstances, negotiating each assignment not only in terms of remuneration but also in terms of all aspects relating to working conditions, thus requiring an increased capacity to adapt on many levels.

This article presents findings from a pilot study that aims to showcase what interpreters working in the private market actually do before their interpreting assignment, over and above the preparation work that all interpreters put in. After a brief contextualization based on both academic and professional literature, this article presents the responses to two questions posed in our study regarding additional tasks carried out before assignments. Our conclusions are relevant to practitioners, trainees and trainers, as they shed light on current professional practice.

Keywords

conference interpreting, freelance, private markets, workload

Tłumaczenie konferencyjne w sektorze prywatnym: aspekty związane z zatrudnieniem i realizacją zleceń

Abstrakt

W badaniach koncentrujących się na tłumaczeniu konferencyjnym punktem odniesienia jest zazwyczaj rynek instytucjonalny, który charakteryzuje się stabilnymi warunkami zatrudnienia i powtarzalnością terminologii, kontekstów oraz sytuacji komunikacyjnych. Zupełnie inaczej przedstawia się sytuacja tłumaczy konferencyjnych pracujących w sektorze prywatnym.

Ulegające ciągłym zmianom warunki realizacji zleceń, a także konieczność każdorazowego negocjowania wysokości wynagrodzenia i zróżnicowanych aspektów świadczonych usług, wymagają od tej grupy zawodowej dużej elastyczności i zdolności adaptacyjnych.

W niniejszym artykule przedstawiono wyniki badania pilotażowego, którego celem było zidentyfikowanie aktywności podejmowanych przez tłumaczy konferencyjnych w sektorze prywatnym przed realizacją zlecenia, poza typową dla każdego rynku pracą przygotowawczą. Udzielenie odpowiedzi na dwa pytania badawcze poprzedza ukontekstowienie tematyki, przeprowadzone w oparciu o stosowną literaturę przedmiotu. Postawione wnioski są istotne dla aktywnych zawodowo tłumaczy konferencyjnych, adeptów zawodu i nauczycieli przekładu konferencyjnego, ponieważ rzucają światło na obecne praktyki rynkowe.

Słowa kluczowe

tłumaczenie konferencyjne, freelance, wolny zawód, sektor prywatny, nakład pracy

1. Introduction

As opposed to dialogue interpreting, which has been practiced for thousands of years, probably ever since human beings first went to war or decided to trade products between societies that spoke different languages, conference interpreting, in both consecutive and simultaneous modes, emerged to answer the need for the spoken translation of institutionalized communication within the formulaic traditions of diplomacy in the 20th century. Conference interpreting was initially born in the realm of international organizations (the League of Nations, UN, EU and the USSR's Comintern (see Baigorri-Jalón 2014 and Chernov 2016), and many continue to associate it with purely institutional settings, particularly in the case of simultaneous interpreting. As an example, Donovan (2017: 91) states that

> Conference interpreting is woven into the institutions and structures of the globalized world. As international meetings have multiplied, it has become more commonplace. Most experts or high-ranking government officials who attend multilateral or international conferences will have listened to a speaker through the headset, hearing the interpreter's voice and understanding the speaker's meaning through interpretation.

However, the demand for conference interpreting "has spread far beyond multilateral diplomacy to virtually any field of activity involving communication and exchange across linguistic boun-daries" (Pöchhacker 2004: 15), and "the skillset of staff interpreters at intergovernmental organizations, parliaments and international tribunals" (Setton and Dawrant 2016: 31), by which they refer to a high level of language proficiency, education and technical skills, as well as professionalism, "is now deployed well beyond the profession's traditional domain in multilateral organizations" (Setton and Dawrant 2016: 373). These same authors highlight the versatility of conference interpreters, bringing to mind Shermet's view (2012: 125) of interpreters as musicians, who have to turn their skill to any number of genres

and styles, and state that conference interpreters today "must handle a wide spectrum of discourse, from free and colloquial discussion to the reciting of prepared text in rigid and formal registers" (Setton and Dawrant 2016: 31), thus:

> In the modern world, conference interpreters need an extended skillset to meet the needs of a much wider variety of settings than the traditional international conference, including parliamentary interpreting, media/broadcast interpreting, diplomatic or high-level business interpreting and, particularly in international tribunals, court interpreting. (Setton and Dawrant 2016: 31)

According to Diriker (2015: 175), nowadays "a significant majority of conference interpreters are freelance interpreters who work in the private market", which leads us to consider the working conditions of these interpreters, and how they compare to those of full-time employees of major international organizations, or of freelancers working for said institutions.

2. Conference interpreters: working conditions

Grbic and Pöchhacker (2015) cite three types of variables that most frequently affect the working conditions of interpreters, namely employment conditions, assignment-based factors and input variables. They go on to say that it is the latter, the input factors at the time of interpreting that give rise to the highest levels of occupational stress, and there is no doubt that the process of interpreting itself has received considerable attention from scholars, amongst which Gile's Efforts Model is perhaps the foremost example of the division of labour required between different cognitive tasks in real time on the part of the interpreter (see Gile 2015, for a succinct overview). However, in this article, we are interested in examining the first two in more detail, as, unlike the input variables, which are constant whether interpreters are working in institutional or private settings, these differ by context. In terms of employment conditions, as we pointed out in a previous study (Bovy and Adams 2019), staff

interpreters are employees of organizations – typically the major international organizations such as the EU and the UN – and are paid according to their seniority within the organization. Their financial and job security is therefore guaranteed (along with other fringe benefits).

In a kind of half-way house position between staff interpreters and freelancers working on the private market, we should also point out that the major international organizations also use freelance conference interpreters on a regular basis, and that in these cases working conditions are negotiated under agreements in place between the organization in question and AIIC (the International Association of Conference Interpreters) (see Diriker 2015: 173 and Grbic and Pöchhacker 2015: 443), so that, although they are self-employed rather than on the payroll, they are much less exposed to the context-related variables than their colleagues working on the private market are.

By contrast, freelance interpreters on the private market are also self-employed, but their income and the stability of their working conditions will depend not only on the legislation in force in their country of residence, which may vary considerably from one country to another, but also, to a large extent, on the client base they are able to build up, and the fees they are able to secure in a fiercely competitive market (although not the thrust of this article, the question of dumping is a common topic of conversation amongst interpreters on the private market the world round).

In addition to the precarious employment situation freelancers live in, they also have to deal with external variables, defined as "those specific properties of the original speeches and their contexts that are out of the interpreters' control, irrespective of their professional competence" (Baigorri-Jalón and Travieso-Rodríguez 2017: 58) that, in a well-oiled international organization that recognizes and relies on the services of its staff interpreters, are taken care of by other members of the organization. As Setton and Dawrant (2016: 31) affirm "[i]n traditional conference interpreting, there is comparatively little need for negotiation of basic conditions, roles and expectations". However, this will not

be the case for freelance interpreters, who may well have to deal with related variables both before and during interpreting assignments. In this sense, we could cite Kalina's "peri-process framework", including "the conditions in which the interpreting act takes place (data on participants, working languages, team composition, possible relay requirements, documents made available in-conference, time schedules, technical equipment)" (Kalina 2005: 778).

It is interesting to note that Baigorri-Jalón and Travieso-Rodríguez's study (2017) among interpreters at the UN seems to indicate that institutional interpreters' working conditions have also been affected by some of these external variables. Of their respondents, 58 % were staff interpreters and 42 %, freelancers working at the UN so, although not all "staffers", they would all be working under industry-accepted conditions, as per AIIC. These authors refer to some of the interpreters' concerns as shared in an interpreters' staff meeting, most of which could be placed in the "input" category of working conditions, i.e. factors that come into play when interpreters are actually interpreting, such as the increased speed of delivery of original speeches, as well as accent (due at least in part to the increasing tendency of speakers to give their original speech in English, regardless of their command thereof). Additional factors include the increased participation of non-diplomatic actors from civil society who are "not used to being interpreted and unaware of what is required of them" (Baigorri-Jalón and Travieso-Rodríguez 2017: 67) for interpreters to provide good quality interpretation and the wide range of topics covered. However, one assignment-related concern was mentioned more than once: a lack of provision of speeches before delivery, "especially hard for certain booths that have to provide relay" (Baigorri-Jalón and Travieso-Rodríguez 2017: 57), which would appear to indicate that interpreters in these institutional settings were previously used to being given the speeches they would interpret in advance in order to prepare, and that they noted that this was no longer always the case.

3. Our study

Our premise at the outset of this study was that freelance conference interpreters working on the private market would have to deal with a number of external variables that staff interpreters and freelancers working for institutional clients would not. Encouraged by Setton's comment that "in interpreting, practice always came first, informing training and theory" (Setton 2007: 54), we decided to run a small-scale pilot study to see the extent to which our own experiences and those of fellow practitioners were, more or less, widespread. To this end, we drew up a questionnaire (described in Adams and Bovy, forthcoming) covering those factors that seemed to crop up most often, and asked our (controlled) sample to add in any further aspects that they felt were relevant. In this article, we will present the results obtained from the collection of the answers to two particular questions relating firstly to the frequency with which our participants had to negotiate or explain their fees to clients (both confirmed and potential), and secondly, to how often they had to ask (more than once) for documentation in order to prepare for the event and to explain the following aspects pertaining to a particular assignment:

- the difference between simultaneous and consecutive interpreting,
- the general conditions of the interpretation service where travel is involved (fares, travel arrangements, etc.),
- the human resources needed to perform the service (number of interpreters per booth, language combination of the interpreters, etc.),
- the technical requirements to perform the service,
- the concept of "relay" when the assignment calls for relay.

4. Methodology

This initial pilot project, consisting of a preliminary questionnaire with 31 questions for professional interpreters working on the private market, was sent out in February 2019 to 20 interpreters using Google Forms. Our controlled target respondents included participants drawn mainly from our personal database of professional interpreters from all over the world who had participated in the two editions of the WISE Interpreting Workshops that we had also taken part in (2017 and 2019). The reason for controlling the population in this way was mainly to test certain technical aspects/limitations of the Google Forms format, as subsequently proved useful, so that we could make any necessary changes before launching a larger-scale study. Thirteen valid sets of responses were received, constituting 65 % of the population.

5. Results

Before presenting the specific findings for this article, we need to describe our sample of participants. The following tables give the breakdown, in % terms by gender, age, level of training in Translation and/or Interpreting (in this case, some participants marked several options, as would be expected given that they reflect differing levels of higher education – BA, MA, PhD, etc), and years worked as a professional interpreter. In tables 1-4 below, despite the small sample set, we have a good level of variety in terms of age, training and years of professional experience. Although we would in no way claim that this initial group would be representative of freelance interpreters on the private market as a whole, given the limitation in numbers, we were encouraged to see the spread in these fields, which enables us, albeit very tentatively, to say that our results are not directly attributable to, for example, having responses from only either recent graduates or experienced practitioners, for example.

In the case of this last data set, it is worth noting that the largest proportion correspond to those with least experience

(1-5 years, 30.8 %) and those with most (20+ years, 23.1 %), this latter group tying with participants with 6-10 years of experience working as a professional interpreter on the private market.

Table 1
Participants by gender

Gender	%
Male	23.1 %
Female	76.9 %
I prefer not to answer	-

Table 2
Participants by age

Age range	%
18 – 25	-
26 – 35	46.2 %
36 – 45	23.1 %
46 – 55	7.7 %
56 -65	7.7 %
65+	7.7 %

Table 3
Training in translation and/or interpreting

Studies in translation and/or interpreting	%
BA in Translation and Interpreting	46.2 %
MA in Translation and Interpreting	30.8 %
MA in Conference Interpreting	53.8 %
MA in Institutional Translation	7.7 %
PhD in Translation and Interpreting	7.7 %
1-year interpreting-only postgraduate course	7.7 %

Table 4
Years of professional experience working as an interpreter

Years of professional experience	%
1 – 5	30.8 %
6 – 10	23.1 %
11 – 15	15.4 %
15 – 20	7.7 %
20+	23.1 %

Further to the description of our sample, we will now present the responses to the two questions asked regarding additional tasks that freelance conference interpreters on the private market had to carry out before accepting an assignment.

We have broken them down by the categories given by Grbic and Pöchhacker (2015), taking negotiation of fees to be paid for services rendered as part of employment conditions, and other factors as assignment-related conditions.

5.1. Employment conditions

The results given in Table 5 show the frequency with which our participants have to negotiate or explain (we might say justify) the fees they charge, or quote when negotiating an assignment.

Table 5
Freelancers negotiating or explaining rates/fees
to their clients before an assignment

How often do you have to negotiate/explain your rates/fees to a client?	%
Never	0 %
Seldom	7.7 %
Occasionally	15.4 %
Often	53.8 %
Almost always	23.1 %
Always	0 %

In this case we can see that none of our participants reported that they always have to negotiate or explain their fees to clients when contacted for an assignment. However, similarly, all of them have to do so on occasion with varying degrees of frequency (none of them answered "never"). If we take the categories of "often" and "almost always" together (53.8 % and 23.1 %, respectively), we can see that more than 75 % of the sample often have to negotiate or explain their fees, which is something no staff interpreter will have to do. In addition, only 7.7 % (1 person) answered "seldom", and 2 people (15.4 %), occasionally, thereby demonstrating that this additional task is something that has to be undertaken by freelancers more often than not.

5.2. Assignment-related factors

In this same vein, we asked our participants to indicate the frequency with which they had to perform a number of additional tasks before the interpreting assignment, as part of the process of negotiating the assignment, to ensure that the technical aspects were fully understood by the client and that the interpreters would be able to prepare the topic and/or presentations sufficiently in advance (see Table 6). The aspects included are common to all conference settings (relay interpreting only as needed) and would, in institutional settings, be automatically taken care of by the conference organizers.

The first thing that strikes us, when we look at this data, is the frequency with which our participants reported having to explain the difference between consecutive and simultaneous interpreting.

As we can see from the results in Table 6, our participants reported that they have to insist by asking more than once for the relevant documentation that will enable them to prepare for their assignment. Only 1 person (7.7 %) claimed that they never had to, while the remaining 90+ % did, at best often, with 60 % having to do so (almost) always.

Table 6
Tasks carried out by professional freelance interpreters before an assignment

Task	Never	Seldom	Occasionally	Often	Almost always	Always
Explain the difference between simultaneous and consecutive interpreting	-	-	38.4 %	30.8 %	23.1 %	7.7 %
Ask (more than once) for documentation	7.7 %	-	-	30.8 %	53.8 %	7.7 %
Explain the general conditions of the interpretation service (fares, travel arrangements. etc.)	-	-	23.1 %	38.4 %	23.1 %	15.4 %
Explain the human resources needed to perform the service (number of interpreters per booth, language combination of the interpreters etc.)	-	-	23.1 %	46.1 %	23.1 %	7.7 %
Explain the technical requirements to perform the service	-	-	38.4 %	30.8 %	23.1 %	7.7 %
Explain the concept of ”relay” when the assignment calls for relay	-	7.7 %	23.1 %	23.1 %	38.4 %	7.7 %

Our freelancers also find themselves having to explain the practicalities the routine nuts and bolts associated with the assignment conditions where the interpreters have to travel, such as the fares that apply, having to make travel arrangements and other logistical issues on a regular basis, with more than 75 % of the respondents having to explain these aspects often or more

frequently, and 15.4 % reporting that they always had to do so. As for explaining the specific human resources needed to carry out an assignment (the number of interpreters per booth, language combination of the interpreters, etc.), this is something that freelance interpreters often have to explain to ensure that clients understand the full implications of the service they require. Thus, we can see that, as in the previous item, none of our respondents reported "never" or "seldom" needing to explain this information to the client, and although 23.1 % only do so occasionally, the majority have to do so often (46.1 %), almost always (23.1 %) or always (7.7 %). Similarly, although with a slightly different distribution amongst the degrees of frequency, freelancers often have to explain the technical requirements needed to guarantee that the service can be provided, as well as the details of how relay interpreting works.

In the next question in our pilot study, participants were asked to include any other task(s) performed at least occasionally before an event, in order to see if we should add any further tasks to our final questionnaire. Two of our participants answered, one citing the need to share resources and glossaries with colleagues working at the same event, and the other mentioning the coordination of the team of interpreters, which we know to be a time-consuming task.

6. Discussion

Perhaps the most striking element of the results presented in both Tables 5 and 6 is the number of times that none of our respondents marked the option "never" or "seldom". Thus, of these tasks that no staff interpreter would have to negotiate with or explain to a client, almost all fall within the remit of the freelance conference interpreter, generally at the very least "often". This is not limited to their fee explanation and/or negotiation. Staff interpreters receive the notification of the assignments they have to cover and enjoy the back-up of an experienced conference organisers who are used to working with interpreters and technical experts. By contrast, a considerable amount of

a freelancer's time and energy is taken up ensuring that the client understands the nature of the service she/he is commissioning. These assignment-based variables include explaining the need for specific human and technical resources, insisting on the need for the relevant documentation to be able to prepare the topic and, where possible, the specific presentations that will be given at the event. Freelancers even have to explain the difference between consecutive and simultaneous interpreting, in order to ensure that the client understands what and who is needed. The high levels of frequency reported by our respondents regarding many of these issues reveal the time and energy that freelance interpreters dedicate to negotiating their assignments, and it should be remembered that much of this information will be provided to the client before submitting a budget, precisely to ensure that the budget is fit for purpose, and that there is no guarantee that the freelancer in question will necessarily be awarded the contract, thus adding to the precarious nature of his or her independent status.

References

Adams, Heather, David Bovy (forthcoming). "Conference interpreting on the private market: a survey".

Baigorri-Jalón, Jesús, Críspulo Travieso Rodríguez (2017). "Interpreting at the United Nations: The impact of external variables. The Interpreters' View". *CLINA* 3/2: 53–72.

Baigorri-Jalón, Jesús (2014). *From Paris to Nuremberg, The Birth of Conference Interpreting* (translated by Holly Mikkelson and Barry Olsen). Amsterdam – Philadelphia: John Benjamins.

Bovy, David, Heather Adams (2019). "Características de la interpretación de conferencias en el sector privado". *E-Aesla* 5: 343–350.

Chernov, Sergei (2016). "At the dawn of simultaneous interpreting in the USSR: Filling some gaps in history". In: Kayoko Takeda, Jesús Baigorri-Jalón (eds.). *New Insights in the History of Interpreting*. Amsterdam – Philadelphia: John Benjamins, 136–166.

Diriker, Ebru (2015). “Conference interpreting”. In: Holly Mikkelson, Renée Jourdenais (eds.). *The Routledge Handbook of Interpreting*. London – New York: Routledge, 171–185.

Donovan, Clare (2017). “The place of the interpreter and interpreting in an institutional Setting”. *CLINA* 3/2: 91–113.

Gile, Daniel (2015). “Effort models”. In: Franz Pöchhacker (ed.). *Routledge Encyclopedia of Interpreting Studies*. London – New York: Routledge, 135–137.

Grbic, Nadia, Franz Pöchhacker (2015). “Working conditions”. In: Franz Pöchhacker (ed.). *Routledge Encyclopedia of Interpreting Studies*. London – New York: Routledge, 441–443.

Pöchhacker, Franz (2004). *Introducing Interpreting Studies*. London – New York: Routledge.

Setton, Robin, Andrew Dawrant (2016). *Conference Interpreting – A Complete Course*. Amsterdam – Philadelphia: John Benjamins.

Shermet, Sheila (2012). “Communication, interpretation and ‘Oral Translation’. Contrastive analysis of freelancing vs. working for a large organization”. Presentation at Second UN Conference of MOU Universities, University of Mons, Belgium, May 2012, Annex 2, 125–144. Available at <https://www.un.org/dgacm/sites/www.un.org.dgacm/files/Documents_MOU/report_of_the_second_mou_conference-final.compressed.pdf>. Accessed 23.10.2020.

Heather Adams
ORCID ID: 0000-0001-7822-431X
University of Las Palmas de Gran Canaria
Dpt. of Modern Philology, Translation and Interpreting
C/Pérez del Toro 1
35003 Las Palmas de Gran Canaria
Spain
heather.adams@ulpgc.es

David Bovy
ORCID ID: 0000-0001-5634-8477
University of Las Palmas de Gran Canaria
Dpt. of Modern Philology, Translation and Interpreting

C/Pérez del Toro 1
35003 Las Palmas de Gran Canaria
Spain
david.bovy@ulpgc.es

Beyond Philology No. 17/4, 2020
ISSN 1732-1220, eISSN 2451-1498

https://doi.org/10.26881/bp.2020.4.06

COVID-19: The assessment of the current situation, recommendations, challenges, and conduct guidelines for medical interpreters at the time of the SARS-CoV-2 pandemic

ARKADIUSZ BADZIŃSKI

Received 30.11.2020,
received in revised form 28.12.2020,
accepted 29.12.2020.

Abstract

The paper addresses the underlying complexities and phenomena arising in response to the ongoing COVID-19 outbreak, and pertaining to interpreting. The pandemic-related neologisms are introduced, followed by practical guidelines for medical interpreters and the assessment of the problems and challenges encountered in the current mode of work, including (remote) community interpreting. The impact of the pandemic on medical interpreters is also discussed with the associated problems which are also related to the wellbeing of the interpreters themselves at the time of the SARS-CoV-2 pandemic. To fully comprehend the real value of services provided by medical interpreters, it is necessary to assess the health outcomes and the quality of life of patients in longitudinal studies conducted on large cohorts of patients, with particular attention to at least several months of follow-up.

Key words

COVID-19, SARS-CoV-2, medical interpreting, community medical interpreting, medical interpreter

COVID-19: Ocena aktualnej sytuacji, zalecenia, wyzwania i wytyczne w zakresie postępowania dla tłumaczy ustnych medycznych w czasie pandemii SARS-CoV-2

Abstrakt

W artykule omówiono zjawiska związane z tłumaczeniem ustnym w dobie COVID-19. Przedstawiono neologizmy związane z pandemią, praktyczne wskazówki dla tłumaczy medycznych ustnych oraz ocenę problemów i wyzwań, jakie napotykają obecnie, w tym również w tłumaczeniu środowiskowym. Omówiono wpływ pandemii na tłumaczy medycznych i związane z tym problemy, które również dotyczą dobrostanu samych tłumaczy w czasie pandemii SARS-CoV-2. Aby w pełni zrozumieć rzeczywistą wartość usług świadczonych przez tłumaczy, należy poddać ocenie wyniki zdrowotne oraz jakość życia pacjentów w badaniach longitudinalnych przeprowadzonych na dużych kohortach pacjentów, ze szczególnym uwzględnieniem co najmniej kilkumiesięcznego okresu obserwacji.

Słowa kluczowe

COVID-19, SARS-CoV-2, tłumaczenie ustne medyczne, medyczne tłumaczenie środowiskowe, tłumacz ustny medyczny

> Access to translation and interpreting in public settings is a natural, human right to be guaranteed. Failure to enforce it may endanger the life and the well-being of millions of people while perpetuating a social landscape where everyone is not equal.
> (European Commission 2011: 21)

1. Introduction

In November 2019, the city of Wuhan, China, caught the attention of the world due to an increasing number of infections and subsequent deaths related to a novel coronavirus medically termed Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), which spread at such a rapid rate that it finally resulted in a global paralysis of the healthcare system. As a result, the World Health Organization (WHO) announced the pandemic on 11th March 2020 (Aslani 2020; WHO 2020a, WHO 2020b).

So far, SARS-CoV-2 infections have been confirmed in 224 countries and territories. Such a sudden outbreak of the pandemic of this magnitude that has already taken the lives of over 1,520,000 individuals and affected almost 66 million people worldwide has rarely been observed (data as of 30th Nov 2020; according to public WHO announcements). The situation has posed a challenge to people in many respects, including private and professional spheres. A large number of professionals, such as healthcare workers, were initially literally overwhelmed and exhausted due to never-ending duties, let alone the enormous virus-related death risk.

In a mere few months, COVID-19 has fundamentally changed the manner of living. Prolonged stress, uncertainty related to the future and associated mortality rates, and grief over those who passed away have led to clinically significant psychological signs and symptoms, including depression (Stein 2020), increased levels of fear (Lin 2020), anxiety (Wang and Zhao 2020), hopelessness (Shaw 2020), and adjustment disorders (Zhang et al. 2020).

Against this background, prolonged exposure to a completely unknown phenomenon requires rapid response from many different organizations and individuals. Next to healthcare professionals, translators and interpreters, both of whom work under enormous public pressure, are also directly affected, mostly through pressures on time and the need to deliver detailed

information to the parties concerned accurately and effectively under unprecedented circumstances.

Since the COVID-19 pandemic occurred within a short period of time, the term COVID-19 has become the synonym for the transfer of pandemic-related information and research in professional medical literature published in English and other languages, thereby resulting in the dissemination of information worldwide to both experts and non-experts, which is done mostly by translators and interpreters.

2. COVID-19-related neologisms

Each phenomenon of crucial importance leaves an imprint not only on certain aspects of the geopolitical or socio-economic situation but also in the language itself since it is the language that allows individuals to express certain states, emotions and other situations and this has been observed in the current SARS-CoV-2 pandemic, with COVID-19 neologisms being typical examples.

Language is certainly a vital part of the response to COVID-19 as illustrated by the instance of England that faced legal proceedings due to the fact that a British sign language interpreter was not included in its regular government briefings as opposed to Scotland, Wales, and Northern Ireland (as reported by the BBC on 28th April 2020).

The language of medicine is related to an unstoppable progression of neologism formation, one of the reasons being the occurrence of new disease entities or emerging infectious diseases (e.g., *Escherichia coli* O157:H7, hantavirus), technology-related terms connected with new modalities, particularly in neuroimaging studies (mMRI, fMRI), newly created specialties (e.g. nanotechnology, hypertensiology) and other phenomena related to pharmacotherapy (e.g. polypharmacy). The English language is currently the *lingua franca* in medicine and therefore dictates certain trends for the adoption of terminological lexemes (Badziński 2018). Neologisms play a crucial role since they designate new concepts. However, they may have simultane-

ously more than one designation, which is related to the fact that they have a cognitive as well as communicative dimension that definitely determines the use of such neologisms in medical discourse (Haddad Haddad and Montero-Martínez 2020). As indicated by Cabré Castellví (1999), coining neologisms has to be conducted in accordance with the linguistic language code in which they are created.

At the time of the COVID-19 pandemic, the necessity to fill in terminological gaps is of paramount importance so that scientific information could be disseminated worldwide. Additionally, the process in question should bridge the communication between experts and non-experts (laypersons). To achieve this aim, adequate terms must be coined.

According to Thorne (2020), the number of lexical items created during the pandemic in both non-specialized areas and technical terminology has reached more than 1,000 new words. From a linguistic and translational perspective, the timeline of the COVID-19 pandemic has shown that the WHO has referred to the disease using at least several terminological compounds. It was initially termed *pneumonia of unknown cause* and later *novel coronavirus*. Furthermore, the WHO initially adopted the acronyms (e.g. *nCov*), and abbreviations or short forms (*2019-nCoV*) and finally opted for the term *Coronavirus Disease 2019* and its current acronym *COVID-19*. The underlying intention was to use an unambiguous and mono-referential term, without any geographical or human indications, so avoiding both inaccuracy and stigmatization. The officially adopted term (*Coronavirus Disease 2019*) is composed of 3 lexemes that refer to the type of virus responsible for the disease, the disease process, and the year of the outbreak. The term used to refer to the type of virus causing the disease is the compound lexeme *coronavirus*.

As reported by Kenyon (2020), Yong (2020), Furukawa et al. (2020), other terms have also been coined by the WHO, whereas other neologisms have been proposed by the Centers for Disease Control and Prevention (CDC) — (1) medical terms with a new sense (field hospital; super-spreader, frontline healthcare

worker, frontliner), (2) entirely new headword entries (drive-thru testing, personal protective equipment, N95 R referred to as an 'N95 mask', ambulatory triage algorithm, covexit, coronacoma, anticoronavirus, covidials, COVID toes, triaged, convalescent plasma, emergency use authorization), and (3) new sub-entries (i.e., compounds or phrases integrated into the body of newly or recently updated entries; e.g., case fatality ratio, cytokine storm, R number, spike protein).

The COVID-19 pandemic has influenced the terminology and thus translation since a plethora of newly formed terms have been introduced to the language.

Within days following the onset of the pandemic, translators and interpreters faced the challenge of providing accurate information for healthcare providers as well as laypersons worldwide. Since misinformation can cause inevitable damage, professionals in these disciplines work closely with public authorities and healthcare providers to enable proper dissemination of information. To illustrate, as indicated by the official website of the Ministry of Health of New Zealand, interpreters and translators were involved in the process of translating official documentation for the ministry in multiple languages to provide knowledge to citizens of different origin (including such languages as Māori, Arabic, French, German, Indonesian or Thai). In the USA, President Trump's administration was involved in translating medical data for the Spanish community in the US territory. According to Runcieman (2020: 6), in the medical settings, "there would appear at first to be a tendency for the interpreter to act more as a conduit, particularly when communicating the medical practitioner's directives regarding medicines and curative therapies".

To the best of the author's knowledge, there have been no official reports on the number of COVID-19-related medical translation and interpreting services as yet. Based on the literature review, there have been no specific data that address this issue in a detailed manner with the division into countries or regions and hence the collection of such vital information in this respect is of utmost importance. However, some residual

information can be obtained. For instance, the Royal Melbourne Hospital, Australia, reported an increase in video interpreting appointments (approximately 20 appointments monthly before the pandemic to over 220 at the time of the pandemic; data obtained by the author via telephone consultation).

3. Challenges of medical interpreting at the time of the pandemic

The outbreak of the COVID-19 pandemic resulted in certain changes in the field of translation and interpreting, mainly in terms of the aspects related to the reorganization of work. The translation/interpreting industry was also affected by certain restrictions and changes. However, it is mainly interpreting that faces new challenges now. Despite the fact that most scheduled conferences and meetings were either cancelled or postponed, Internet platforms facilitated the provision of conference interpreting services. Therefore, the significance of platform solutions is not to be underestimated.

Indeed, interpreters have to bear in mind the prospect of unforeseen difficulties, including quality problems (loss of connection; equipment failure that cannot be eliminated in a rapid manner). Additionally, legal issues should also be mentioned in this respect, especially in the case of unauthorized access to sound or image that is broadcast during the process of interpreting (risk of hacking, unauthorized recording). The responsibility in this respect should be exclusively on the side of the organizing body calling the meeting, which is not always stipulated in contracts the interpreters are provided with.

Another challenge is related to the work itself as interpreters work from booths. Under current circumstances, they are in two different places and mutual exchange between them is considerably limited (if possible).

Last but not least, the current situation has had a significant impact on the psychological well-being of interpreters. Prior to the pandemic, they were involved in the delivery of information, whereas at the present moment they are also involved in

preparing the technical equipment and self-management of problems they have never experienced before (sudden Internet disconnection, freezing). Working under extreme pressure, often single-handedly and in different time zones may take its toll on the health of interpreters.

Since a significant number of meetings and conferences are currently being held online via different platforms, the demand for professional medical interpretation has shifted to another domain known as remote simultaneous interpreting, also known as distance interpreting. As a result, a dramatic increase in the number of medical conferences during which simultaneous interpretation services are being used has been observed at the time of the pandemic (data collected over the phone from the WHO headquarters, Geneva and limited to Europe only). Therefore, the need for medical interpreters has been reported. However, due to social distancing and measures for infection control, these specialists often work over the phone or via teleconference. Interestingly, despite the fact that the global economic slowdown has resulted in a decreased number of translations due to the lockdown, a significantly higher demand has been observed in the field of medicine.

Currently, medical interpreters work remotely, which results in the multiplication of challenges for front-line doctors on the one hand and non-English-speaking patients on the other. Due to the fact that personal protective equipment is in short supply at hospital settings across Poland, only some clinical interpreters are physically able to work in person with COVID-19 patients as they normally would. As a result, most language interpretation is then performed remotely. Obviously, under these circumstances, communicating information through an interpreter may even triple the length of an exchange of knowledge, and add confusion and anxiety to the conditions that are already stressful for patients and their loved ones. Additionally, the codes of practice followed in the care of COVID-19 patients (i.e., the unusually rapid pace at which medical assessment is made, the desire of healthcare professionals to limit the duration of their exposure to patients) further exacerbate the

problem, thus creating numerous obstacles to effective interpretation.

In many countries (e.g., United States, United Kingdom), separate recommendations have been issued for interpreters that stipulate guidance on health and safety in terms of working practices in medical settings during the SARS-CoV-2 pandemic. At the same time, it should be noted that rules and regulations issued by the WHO must be adhered to at all times and must always take priority, irrespective of the guidelines given elsewhere. As reported by Runcieman (2020), in 2004, America's National Council on Interpreting in Health Care (NCIHC) issued the National Code of Ethics for Interpreters which stressed the role of the interpreter as an 'advocate' rather than a linguistic conduit for patients when their health and well-being are at risk, the interpreter may be then justified to act as an advocate, which, in this context, is understood to be the act of undertaking, on behalf of a person, an assignment that exceeds the frames of facilitating communication with the intention of supporting good health outcomes. Although the guidelines given by the Association of Sign Language Interpreters (2020) were specifically prepared for sign language interpreters in medical settings, they can also be successfully and practically applied to other medical interpreters (both in terms of simultaneous and consecutive modes) and therefore some of them were incorporated in the present paper.

As the primary aim of the interpreter is the impartial performing of interpreting undertaking so as to realize the communication goals of the parties involved in the interaction, the effects of misinterpretation could have grave immediate sequelae for patients. Of note, the process of interpreting may be significantly affected by a number of variables, such as physical and mental strain related to the wearing of protective equipment.

Interpreters should be treated like healthcare workers rather than members of the public. General health and safety policies for healthcare specialists should be simultaneously applied to interpreters working in medical settings. Interpreters ought to be provided with the same personal protective equipment (PPE)

which medical personnel use in the setting when exposed to the same level of risk. If interpreters attend more than one assignment on the same premises, yet at different wards/departments, a separate single-use PPE must be provided as in the case of health professionals. The same regulation is applicable to masks, although they conceal mouth movements, considerably impairing the interpreting process (face shields may be an alternative measure).

It is of paramount importance that all parties involved in interpreting (patients, health professionals, and interpreters) cooperate to work out the best solution for each individual (as in the algorithm for personalized medicine).

Medical interpreting at the time of the COVID-19 pandemic can be mostly performed face-to-face *in situ* or remotely. The former is related to a situation when the interpreter provides their service at a distance of several meters or through glass due to the potential infection risk. The latter is related to remote interpreting, which is considered a beneficial option that minimizes the infection risk for all parties involved when applied in routine appointments that do not require obtaining an extensive history, but repeat prescriptions, referrals or copies of official documents. However, remote interpreting is discouraged in the case of mental health assessment, terminally ill patients on oxygen therapy or those whose movements are restricted (due to medical equipment, both pre- and post-operative consultations), or those under the influence of illicit substances, as they may severely impair both language production and comprehension except for situations when there is no other alternative (e.g. emergency cases or when a healthcare professional agrees due to the benefit-risk-ratio of *in situ* interpreting). Therefore, the decision of how to undertake the interpretation should always be made in agreement with all parties involved (i.e., the patient, the medical health provider, and the interpreter). In turn, remote options are still better than none in an emergency or when no *in situ* face-to-face interpreting is available.

Another issue is related to interpreting in departments of geriatric medicine where an increased infection rate has been

reported since the onset of the pandemic (also in Poland). Such patients may encounter additional stressful challenges connected with using remote interpreting services and display idiosyncratic language use due to comorbidities (e.g., conductive, sensorineural or special hearing loss, non-syndromic deafness, auditory processing disorder), assistive devices (cochlear implants) and the lack of experience in using such services. Furthermore, mental health settings, particularly restricted access departments/wards, present additional challenges for interpreters since social distancing measures may be difficult to enforce.

The coronavirus outbreak has indeed multiplied the logistical barriers for delivering medical interpretation (hospital rooms filled with buzzing equipment that delivers oxygen at 10-15 litres per minute). Interpreters have to use their words more sparingly, which is detrimental to their work, partly due to the fact that not only the quality of work suffers at the time of such remote contact instead of in person.

Interpreters working in medical settings must also take care of their own comfort and well-being, bearing in mind that the quality of interpretation is reduced after approximately 20-30 minutes of continuous work with no break *in situ*, as indicated by studies (Moser-Mercer et al. 1998), or remotely (Moser-Mercer 2005). Therefore, they should unquestionably limit working or discontinue practising if their ability to practise could be adversely affected by their mental or physical well-being. Bearing in mind their own safety, interpreters, who must always act in the best interests of individuals and work only within the limits of their expertise, ought to only accept assignments in a high-risk COVID-19-related environment if they consider it necessary and no other option of providing support in the form of interpreting is possible. Consequently, any interpreter with COVID-19 symptoms still working in high-risk settings can themselves risk breaching legal codes of conduct, which can result in legal sanctions against them (cf. The Association of Sign Language Interpreters 2020).

It is of crucial importance to bear in mind that under no circumstances should relatives, especially children, be used as

interpreters. The involvement of family members is absolutely contraindicated and unethical (even if they are professional interpreters themselves) due to their lack of impartiality. Additionally, the strain on relatives who are neither trained nor emotionally impartial can significantly impact the patient's mental health, thus adversely affecting future mutual relationships.

4. The main interpreting-related problems during COVID-19 as reported by medical interpreters

The author of the present paper is a medical translator and interpreter himself who has been involved in the process of providing services to over 14 medical centres across Poland. These services were mainly related to consultations before emergency procedures, such as surgery, neuroinvasive procedures, and (non)invasive diagnostic modalities (including imaging studies) where patients must be provided not only with written informed consent but also a detailed procedure-related knowledge. Most of the consultations were done over the phone (tele-interpreting services), which was particularly challenging due to the fact that most of the activities were performed practically in a consecutive mode, which resulted in the lengthening of the whole diagnostic process. However, in cases where the presence of the interpreter was necessary, the interpreter delivered the services on the premises (i.e., mostly in hospital settings).

For the purposes of the present paper, the author contacted three other interpreters who were also involved in delivering assistance in the medical field. The following are the most common problems that were encountered in the process of interpreting by the author of the paper: technical (connection) problems, time pressure (before emergency surgery), stress related to the lack of another interpreter to provide assistance, risk of being infected by a patient, risk of transmitting infection to a patient, involvement of family members in the process of interpreting, factors that impaired patient's language skills (e.g. a history of stroke or other comorbidities affecting effective communication),

too lengthy/short descriptions provided by medical healthcare workers. Other items indicated by the three interpreters also included anxiety/fear of patients that can result in providing incoherent information, complex history (from several departments), and patients with additional needs (deafness), mental and physical exhaustion due to the length of interpreting, no feedback from medical personnel, stress due to unpredictability of the subject matter of interpreting, too specialized terms given by the medical personnel (necessity to paraphrase specialized terminology to patients), unknown terminology, impatience on both sides (medical personnel and a patient).

The above factors resulted in significant delays in interpreting, which was frequently related to the necessity of repeating the questions and asking for clarification, or even rephrasing in the case when the physician(s) asked the question in a highly specialised medical register or jargon that was completely incomprehensible to the patient.

What needs to be considered is related to the cognitive processes that occur during interpreting (Tymoszuk 2016). Since some fragments were interpreted also *in situ* and in the simultaneous mode, the effort model by Daniel Gile should also be taken into account. According to the model, the act of interpreting requires a certain amount of mental energy that is in fact available in limited supply. Interpretation "takes up almost all of this mental energy, and sometimes requires more than is available, at which times performance deteriorates" (Gile 1995: 161), which may account for the interpreter's comments on mental fatigue or even exhaustion (cf. Braun and Taylor 2012). Although Tymoszuk (2016) in her monograph refers to the simultaneous mode, her comments can be also related to the consecutive mode or remote community interpreting when she observes that interpreter isolation is related to the lack of feedback in the form of non-verbal reactions, which is also a source of information for an interpreter and is absent when interpretation is conducted over the phone.

5. Further issues to consider

The ultrarapid transition in terms of service delivery necessitated by COVID-19 has provided some opportunity for a systemic change regarding professional interpreting services. Firstly, the effectiveness of such services should be adequately assessed. All healthcare centres that currently provide services to people with (highly) limited English proficiency ought to adopt appropriate remote interpreting services. Moreover, the number of health services using remote interpreting should be assessed, measured, registered and reported to show the magnitude of the phenomenon. Furthermore, it is crucial to explore the barriers associated with remote interpreting services that hamper communication and then address them to prevent their occurrence in the future. Satisfaction of all parties should be also addressed (physician-patient-interpreter), bearing in mind the wellbeing of all parties involved in the process of transferring knowledge. From the economic perspective, the cost of remote delivery should be evaluated (comparison of costs between different modes, e.g., video *versus* telephone) to work out a generally acceptable and economically feasible policy.

Last but not least, to comprehend the tangible value of services offered by medical interpreters, both health outcomes and the quality of life of patients should (and must) be assessed in longitudinal studies conducted on large cohorts of patients with particular attention to at least several months of follow-up.

6. Study limitations

The pandemic is characterized by an unpredictable course and hence some of the recommendations provided in this paper may be subject to partial change in the future. The recommendations stipulated in the present manuscript are based on the algorithms that have been developed outside of Poland and do not constitute a finite spectrum of guidelines due to the pace of the pandemic. The problematic issues reported may serve as a pilot study and, at the same time, may be a stimulus for conducting

further research into detrimental factors affecting medical interpreting and proposing new algorithms of management and procedure.

6. Conclusions

The role of medical interpreters has definitely been given a new scope. Such specialists are not only immersed in the new work-related surroundings but have to be fully aware of certain risk-related activities connected with performing the duties (the risk of cross-infection). Bearing in mind the above, different procedures related to interpreting services also come into play, let alone the COVID-19-related neologisms. Due to the immense impact of the pandemic, some of the COVID-19 lexemes will be probably never lost in translation and will certainly have their well-established place in the language of medicine and language in general. It is, however, tentative to predict to what extent all associated lexemes will remain in a given language. However, considering a poor prognosis related to the virus control, it seems that the medical terms coined due to the COVID-19 situation in English and Polish will remain for years to come. Therefore, further studies are warranted on the use of Polish equivalents related to the COVID-19 disease. Bearing in mind the interpreter's code of conduct (confidentiality and impartiality) which must be maintained at all times, the decision whether to conduct *in situ* interpreting should also be always done with due regard for individuals suspected of or adversely affected by the COVID-19 pandemic and consideration of one's own wellbeing. Furthermore, the decision should be based on the algorithm of the case-by-case basis, considering the benefit-risk ratio of such decisions which should be made jointly by the medical and interpreting professionals.

References

Aslani, Parisa (2020). "What are our health expectations in a pandemic?". *Health Expectations* 23/2: 257–258.

Badziński, Arkadiusz (2018). "Collocations, equivalence and untranslatability as selected critical aspects in medical translation". In: Wioleta Karwacka (ed.). *Towards Understanding Medical Translation and Interpreting*, Gdańsk: Wydawnictwo Uniwersytetu Gdańskiego, 67–83.

Braun, Sabine, Judith Taylor (2012). "Video-mediated interpreting in criminal proceedings: two European surveys". In: Sabine Braun, Judith Taylor (eds.). *Videoconference and Remote Interpreting in Legal Proceedings*. Cambridge – Antwerp: Intersentia, 69–98.

Cabré Castellví, Teresa (1999). *Terminology: theory, methods and applications.* Amsterdam and Philadelphia: John Benjamins.

European Commission (2011). *Special Interest Group on Translation and Interpreting for the Public Services: Final report.* Brussels: European Commission, Directorate-General for Interpretation.

Furukawa, Nathan, John Brooks, Jeremy Sobel (2020). "Evidence supporting transmission of severe acute respiratory syndrome Coronavirus 2 while presymptomatic or asymptomatic". *Emerging Infectious Diseases* 26/7: e1–e6

Gile, Daniel (1995). *Basic Concepts and Models for Interpreter and Translator Training*. Amsterdam – Philadelphia: John Benjamins.

Haddad Haddad, Amal, Silvia Montero-Martínez (2020). "COVID-19: A metaphor-based neologism and its translation into Arabic". *JCOM* 19 (05), A01: 1–21.

Kenyon, Cynthia (2020). "Flattening-the-curve associated with reduced COVID-19 case fatality rates — an ecological analysis of 65 countries". *Journal of Infection* 81/1: e98-e99.

Lin, Chung-Ying (2020). "Social reaction toward the 2019 novel coronavirus (COVID-19)". *Social Health and Behavior* 3/1: 1–2.

Moser-Mercer, Barbara (2005). "Remote interpreting: Issues of multisensory integration in a multilingual task". *Meta* 50/2: 727–738.

Moser-Mercer, Barbara, Alexander Künzli, Marina Korac (1998). "Prolonged turns in interpreting: Effects on quality, physiological and psychological stress (pilot study)". *Interpreting* 3/1: 47–64.

Runcieman Alan James (2020). "Community interpreting and the COVID-19 crisis: Present relevancy and future directions". *Tilburg Papers in Culture Studies* 242: 1–22.

Shaw, Sebastian (2020). "Hopelessness, helplessness and resilience: The importance of safeguarding our trainees' mental wellbeing during the COVID-19 pandemic". *Nurse Education in Practice* 44: 1–2.

Stein, Murray (2020). "Editorial: COVID-19 and anxiety and depression in 2020". *Depression and Anxiety* 37/4: 302–302.

The Association of Sign Language Interpreters (2020). "Guidelines for booking interpreters in healthcare settings during the COVID-19 pandemic". Available at <https://asli.org.uk/wp-content/uploads/2020/06/Best-Practice-for-Booking-Interpreters-in-Healthcare-settings-during-Covid-19-FINAL.pdf>. Accessed 30.11.2020.

Thorne, Tony (2020). "#CORONASPEAK – the language of Covid-19 goes viral." Available at <language-and-innovation.com/2020/04/15/coronaspeak-part-2-the-language-of-covid-19-goes-viral/>. Accessed 30.11.2020.

Tymoszuk, Katarzyna (2016). *Przetwarzanie tekstu w tłumaczeniu symultanicznym*. Lublin: Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej.

Wang, Chongying, Hong Zhao (2020). "The impact of COVID-19 on anxiety in Chinese university students". *Frontiers in Psychology* 11: 1–7.

World Health Organization (2020a). "Coronavirus disease (COVID-19) advice for the public". Geneva: World Health Organization. Available at <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>. Accessed 30.11.2020.

World Health Organization (2020b). "Coronavirus disease 2019 (COVID-19) situation report – 56". Geneva: World Health Organization. Available at <https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200316-sitrep-56-covid-19.pdf?sfvrsn=9fda7db2_6>. Accessed 30.11.2020.

Yong, Ed (2020). "Long-haulers are redefining COVID-19 – Without understanding the lingering illness that some patients experience, we can't understand the pandemic". *The Atlantic*. Available at <https://www.theatlantic.com/health/archive/2020/08/long-haulers-covid-19-recognition-support-groups-symptoms/615382/>. Accessed 30.11. 2020.

Zhang, Wen, Kun Wang, Lu Yin, Wen-feng Zhao, Qing Xue, Mao Peng Bao-quan Min, Qing Tian, Hai-xia Leng, Jia-lin Du, Hong Chang, Yuan Yang, Wei Li, Fang-fang Shangguan, Tian-yi Yan, Hui-qing Dong, Ying Han, Yu-ping Wang, Fiammetta Cosci, Hong-xing Wang (2020). "Mental health and psychosocial problems of medical health

workers during the COVID-19 epidemic in China". *Psychotherapy and Psychosomatics* 1: 1–9.

Arkadiusz Badziński
ORCID iD: 0000-0001-7019-6131
University of Silesia in Katowice
Institute of Linguistics
Gen. Stefana Grota-Roweckiego 5
41-205 Sosnowiec
Poland
arkadiusz.badzinski@us.edu.pl

Beyond Philology No. 17/4, 2020
ISSN 1732-1220, eISSN 2451-1498

Information for Contributors

Beyond Philology is an international journal of linguistics, literary studies and language acquisition. The journal publishes articles, reviews, reports and interviews. The language of the journal is English.

The preferred length of papers is 3500 words, but slightly shorter and longer manuscripts are also considered for publication. Manuscripts should be accompanied by abstracts of about 150 words and keywords.

Each contributor should send a note stating specifically that his/her manuscript is only being considered for publication in *Beyond Philology*.

Manuscripts (papers, book reviews, reports, interviews) and books submitted for review should be sent to:

Beyond Philology
Institute of English and American Studies
University of Gdańsk
ul. Wita Stwosza 51
80-308 Gdańsk
Poland
Email: beyond.philology@ug.edu.pl

For more information see:

<https://fil.ug.edu.pl/wydzial/instytuty_i_katedry/instytut_anglistyki_i_amerykanistyki/czasopismo_naukowe_beyond_philology>

All correspondence concerning subscriptions should be sent to:

Wydawnictwo Uniwersytetu Gdańskiego
ul Armii Krajowej 119/121
80-824 Sopot, Poland
Phone/fax: (48) 58 523 11 37
http://www.wyd.univ.gda.pl
Email: wyd@ug.gda.pl