Evaluation of Machine Translations from English and Russian to Croatian: A Study of Google Translate and Yandex Translate

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Master's thesis

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Evaluacija strojnih prijevoda s engleskog i ruskog na hrvatski jezik: procjena Google prevoditelja i Yandex prevoditelja

Diplomski rad

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Abstract

In today's interconnected world, the demand for accurate machine translation is growing, especially for translating journalistic texts that reflect the political climate of different countries. This thesis evaluates the performance of Google Translate and Yandex Translate in translating texts from English and Russian to Croatian. Using both automatic and human evaluation methods, the study assesses the accuracy and fluency of translations.

Automatic evaluation employs BLEU, BERTSCORE, and TER metrics, showing that Yandex Translate slightly outperforms Google Translate in Russian to Croatian translations. Conversely, Google Translate shows marginally better results in English to Croatian translations. Human evaluation, conducted by six native Croatian speakers proficient in English and Russian, corroborates these findings, with a preference for Google Translate in English to Croatian translations, and a slight edge for Russian to Croatian translations.

An error analysis categorizes errors into orthographic, morphosyntactic, lexical, semantic, and stylistic types, revealing orthographic errors as the most common. The study highlights the strengths and weaknesses of each system: Google Translate excels in fluency for English to Croatian translations, while Yandex Translate handles Russian to Croatian translations with better accuracy.

The research offers valuable insights into the current capabilities of machine translation systems and identifies areas for improvement. It suggests that while both systems are useful, they have specific limitations that need to be addressed. These findings have practical implications for selecting the most suitable machine translation system for various language pairs and text types, particularly in translating politically nuanced content. Future work should aim to refine error analysis methods and enhance automatic evaluation metrics to better capture translation complexities.

Sažetak

U iznimno povezanom svijetu potražnja za točnim strojno prevedenim tekstovima raste, posebno za prevođenje novinskih tekstova koji tematiziraju političke situacije različitih zemalja. Ovaj rad istražuje učinkovitost Google Translatea i Yandex Translatea u prevođenju tekstova s engleskog i ruskog na hrvatski. Korištenjem automatskih i ljudskih metoda

evaluacije, istraživanje procjenjuje točnost i tečnost prijevoda.

BLEU, BERTSCORE i TER metrike korištene su za automatsku evaluaciju, a pokazuju da je Yandex Translate blago bolji od Google Translatea u prevođenju s ruskog na hrvatski. Međutim, Google Translate pokazuje malo bolje rezultate u prevođenju s engleskog na hrvatski. Ljudska evaluacija, koju je provelo šest izvornih govornika hrvatskog jezika s visokim razinama znanja engleskog i ruskog, potvrđuje ove rezultate s blagom prednošću Google Translatea u prevođenju s engleskog na hrvatski i u prevođenju s ruskog na hrvatski.

Analiza pogrešaka kategorizira ih na ortografske, morfosintaktičke, leksičke, semantičke i stilističke, otkrivajući da su ortografske pogreške najčešće. Istraživanje ističe pozitivne strane i slabosti svakog sustava: Google Translate ističe se u tečnosti prijevoda s engleskog na hrvatski, dok Yandex Translate točnije prevodi s ruskog na hrvatski.

Istraživanje nudi vrijedne uvide u trenutne mogućnosti sustava za strojno prevođenje i prepoznaje područja s potencijalom za poboljšanje. Iako su oba sustava korisna, imaju specifična ograničenja koja treba istaknuti i dodatno istražiti. Ovi rezultati imaju praktičnu vrijednost pri odabiru najprikladnijeg sustava strojnog prevođenja za različite jezične parove i vrste tekstova, posebno u prevođenju politički nijansiranog sadržaja. Buduća istraživanja trebala bi se usredotočiti na usavršavanje metoda analize pogrešaka i poboljšanje automatskih evaluacijskih metrika kako bi bolje prepoznali složenost prevođenja.

Тезисы

Бесплатные онлайн-системы машинного перевода становятся все более доступными по всему миру, чтобы удовлетворить растущий спрос и использование в сегодняшнем высоко взаимосвязанном обществе. Важное применение таких систем — перевод журналистских текстов, сосредоточенных на текущем политическом климате и ландшафте в различных странах. Это ставит вопрос о том, насколько хорошо эти системы могут сохранять и передавать первоначальное значение без потери каких-либо нюансов в процессе перевода. Эта работа посвящена исследованию качества машинных переводов с английского и русского языков на хорватский, с использованием Google Translate и Яндекса. В работе применяются как автоматические, так и человеческие методы оценки для определения точности и естественности перевода.

Автоматическая оценка осуществляется с использованием метрик BLEU, BERTSCORE и TER. Эти инструменты позволяют сравнивать машинные переводы с эталонными человеческими переводами и назначать числовые оценки, отражающие точность перевода. Результаты показали, что Yandex Translate немного превосходит Google Translate при переводе с русского на хорватский язык, что подтверждается более высокими показателями BLEU.

Человеческая оценка проводилась шестью участниками, все из которых были носителями хорватского языка и имели высокую степень владения английским и русским языками. Участники оценивали переводы по критериям точности и естественности, используя анкету. В этой части исследования было обнаружено, что для переводов с английского и русского на хорватский Google Translate предпочитается чаще, чем Яндекс.

Анализ ошибок был проведен для выявления типов ошибок, присутствующих в переводах. Ошибки классифицировались на орфографические, морфосинтаксические, лексические, семантические и стилистические. Исследование показало, что орфографические ошибки являются наиболее частыми для обеих систем перевода.

Результаты исследования подчеркивают важность дальнейшего совершенствования технологий машинного перевода. Несмотря на то, что обе системы демонстрируют определенные сильные стороны, существует множество областей, требующих улучшения. В частности, необходимо улучшить передачу семантических и стилистических нюансов, что особенно важно при переводе сложных текстов, таких как политические новости.

Таким образом, данное исследование предоставляет ценные данные для пользователей, стремящихся выбрать наиболее надежную систему машинного перевода для конкретных языковых пар и типов текстов. Результаты также подчеркивают необходимость дальнейших исследований и разработки улучшенных алгоритмов машинного перевода, чтобы сделать их более точными и надежными в различных контекстах.

Key words: accuracy, fluency, machine translation, automatic evaluation, BLEU, BERTSCORE, TER

Ключевые слова: точность, естественность, машинный перевод, автоматические метрики, BLEU, BERTSCORE, TER

1. Introduction

Machine translation has become a crucial part of translator education and translation processes for its numerous positive aspects, such as its speed and convenience. It has also attracted a wide population of end-users who find new ways to use it in many situations. However, due to the number of studies that research machine translation, it has been developed to a great extent, thus it can be used in a broader specter of fields, such as translation of professional texts in various languages and spheres, depending on the machine translation system being used. Although there has been noted a fast development of machine translation in recent years, it is still not completely researched due to its complexity and owing to the fact that it has so many different aspects.

Furthermore, people often use free online machine translation systems for reading news in foreign languages to get more information on various topics. The most popular such system is Google Translate, but it is unclear yet if that system is best of its kind. It is possible that other systems are better at translating depending on different variables, such as the type of the text or the language of the source text. It is important to do such studies on the examples of current topics. So I chose the conflict between Israel and Hamas as an example of such a relevant topic, and evaluated the two systems, Google Translate and Yandex Translate, on their translations of such two texts. When choosing a topic, I intentionally avoided selecting topics related to the Russian and Ukrainian conflict to secure an objective approach to translating, taking into account that Yandex Translate is a Russian system.

The aim of this study is therefore to determine the quality of machine translations provided by Google Translate and Yandex Translate. It will also, through direct comparison of machine translations for two language pairs, Russian-Croatian and English-Croatian, determine whether the similarity of language affects the quality of machine translations. This evaluation will be conducted through three different processes: automatic evaluation using BLEU, BERTSCORE and TER, error categorization, and evaluation on Likert's scale done by six participants. The study was conducted on the two texts dealing with the current topic of the conflict between Israel and Hamas, found in highly esteemed journals, the New York Times and the Russian version of Forbes. In recent unstable geopolitical relations, a great need for machine translation of political texts has emerged. When it comes to such texts, it is important to convey all nuances of the meaning from the original text. Such study will shed light on the accuracy and fluency of the translations provided by Google Translate and Yandex Translate, and allow for an educated choice when deciding between the two online machine systems.

2. Previous research

In recent times, there has been a growing interest in the use of online machine translation systems in all spheres of daily life. Its convenience and simple use have garnered a wide population of users, and has encouraged more online machine translation systems to come about. This has motivated many researchers to conduct various evaluations with different approaches, to determine which online machine translation system is the best. Seljan, Tucaković and Dunđer (2015) conducted one such study, in which they focused on a human evaluation of translations from English and Russian to Croatian. The basis of their study were texts from tourist guides, which are some of the most frequently used texts for daily use of machine translation systems. They concluded that Google Translate got better results than Yandex Translate for the English-Croatian language pair, while the results were reversed for the Russian-Croatian language pair. Kočetkova and Revina (2017) offered an overview of the positive aspects of machine translation, such as the fact that it is easily accessible, as well as fast and inexpensive.

Moreover, in their study, Nuriev and Egorova (2021) focused on the different automatic evaluation systems, such as BLEU, METEOR, TER, and chrF, and simultaneously pointed out the drawbacks of such evaluation. They argued that such systems do not recognize the nuances and importance of different types of errors, and find them all equally important. They also find the final score too generic and not informative enough, while also emphasizing the fact that n-gram based evaluation works in favor of machine translation, which lacks quality when translating full sentences, but manages well when translating certain collocations and parts of the whole sentence. They also introduced several human evaluations that would overcome the drawbacks of automatic evaluation, e. g., the evaluation of accuracy and fluency, scoring based on the degree of post-editing that needed to be done, and the categorization of error types.

Denkowskie and Lavie (2010) aimed to bring attention to the fact that it is essential to take human evaluation of the translation quality into account when developing online machine translation systems. In this study, the authors focused on the analysis of correlation between scores for adequacy and fluency, because the translation must be nearly fully fluent, so that the annotators can give it a high score for adequacy.

A very important study for this paper is that of Chatzikoumi (2020), in which the author builds a detailed and gradual analysis of the importance of evaluating machine translation, starting with the definition of quality, as well as an overview of other studies made on this topic. In this paper, Chatzikoumi brings a new perspective, which argues that automatic evaluation and

human evaluation are not that easily distinguishable: “automated evaluation has, up to now, used either human translations or human annotations, and what is automatically performed is a calculation; on the other hand, human evaluation uses several computational tools and automated processes” (Chatzikoumi 2020: 3). He argues that one of the biggest drawbacks of automatic evaluation is that most systems require reference translations, which limits the amount of data that can be evaluated. The study also introduces accuracy and fluency as terms in evaluating translations, and explains various degrees of the scale.

Popović (2018) argues that error analysis is an area in translation studies that must be further researched and developed, because it is currently extremely time consuming, and relies mainly on the human factor. This type of analysis is essential for the improvement of machine translation systems, because the automatic evaluation does not offer enough data to significantly improve such systems. The author emphasizes that the downsides of error analysis that cannot be overlooked are its price, the fact that it is exceptionally time-consuming, as well as fairly inconsistent. However, it is still extremely useful when more detailed insight into machine translation is needed. Mathur et al. (2020) chose to showcase the positive aspects and argued that “[a]utomatic metrics are fundamental for the development and evaluation of machine translation systems” (Mathur et al., 2020: 1), and, in their research, prove that there is a high correlation between the scores obtained through automatic and human evaluations. Researchers agree that this is a fast-developing area of translation studies that needs to be further developed and studied.

3. Key concepts

In this study, two neural machine translation systems were used, Google Translate and Yandex Translate, which are based on neural networks. Kohen defines neural networks as “a machine learning technique that takes many inputs and predicts outputs. In many ways, they are not different from other machine learning methods, but have distinct strengths” (Kohen 2017: 6). This explains how neural machine translation works, because it takes the input data and processes it to predict a different output. To succeed, the corpus must have at least a million segments paired from source language to target language. Human translators provide the target language translations. In other words, “MT aims to find for the source language sentence the most probable target language sentence that shares the most similar meaning. Essentially, MT is a sequence-to-sequence prediction task” (Zhang and Zong, 2015: 16).

The goal of every type of evaluation is to primarily evaluate the quality of the given translation. To have a clear understanding of the term, the chosen definition is found in the study by Koby et al. (2014): "A quality translation demonstrates accuracy and fluency required for the audience and purpose, and complies with all other specifications negotiated between the requester and provider, taking into account end-user needs" (Koby et al. 2014: 416). For the purpose of this research, there were no predisposed specifications for the end-user needs, however, a thorough analysis was conducted in which the users evaluated translations precisely by scoring its accuracy and fluency on Likert's scale. The terms were explained to the participants according to Callison-Burch et al. (2007) with accompanying scales, with accuracy (adequacy) being defined as the degree to which the original meaning is conveyed in the translation. The Linguistic Data Consortium (2005) defined fluency as "the degree to which the translation is well-formed according to the grammar of the target language" (LDC 2005: 1). This is the scale for accuracy: "5 = All [of the meaning] 4 = Most 3 = Much 2 = Little 1 = None", and this is the scale for fluency: "5 = Flawless English 4 = Good English 3 = Non-native English 2 = Disfluent English 1 = Incomprehensible" (Callison-Burch et al., 2007: 140). In this example, English was the target language, but the scale can be applied to any language.

Three automatic evaluation tools were used in this research – BLEU, BERTSCORE and TER. BLEU, or Bilingual Evaluation Understudy, is an automatic evaluation method often used when there is a need for a quick and low-cost evaluation of a machine translation. It offers results by comparing a machine translation to a reference translation, usually offered by human translators. In other words, "the primary programming task for a BLEU implementor is to compare *n*-grams of the candidate with the *n*-grams of the reference translation and count the number of matches" (Papineni et al., 2002: 312). Here n-grams represent any words or string of words found either in the reference or machine translation. The main drawback that modern linguists recognize in BLEU is that it lacks linguistic knowledge, which would allow it to differentiate the severity of the errors and help it understand how and to what extent it affects the final linguistic product. For example, it is also not able to recognize that different synonyms used in the machine and reference translations do not have to automatically be penalized and recognized as errors. It analyses translations on a very basic level, but it is still one of the most frequently used metrics for its convenience and speed. Additionally, BLEU does not only require the machine translation to match the reference text in word choice, but also in the sentence length. It must be noted that the brevity penalty does not directly consider the length of the sentence, but rather "the range of reference translation lengths in the target language"

(Papineni et al., 2002: 315). The scores given by BLEU range from 0 to 1, with 1 being the highest. However, it is almost impossible to obtain the highest grade, because that would mean the translations were identical. It is also important to mention that a higher number of reference sentences compared leads to a higher score. This study scored given sentences by using the Interactive BLEU tool[1] that was developed by Tilde and widely accessible online. It is extremely useful for in depth analysis, because it not only provides a concrete score (in this case, it uses a range between 0 and 100, and not between 0 and 1), but also gives a visual representation and a side-by-side comparison of the translated segment and its reference.

In addition to BLEU, these translations were also evaluated by some newer metrics for easier comparison and a more detailed overview of the automatic evaluation. The chosen metrics were BERTSCORE and TER[2]. They might be considered an updated version of BLEU, or rather the versions in which some of BLEU's downsides were addressed. BERTSCORE evaluates the translations based on their similarity to the reference sentence, "[h]owever, instead of exact matches, we compute token similarity using contextual embeddings" (Zhang et al., 2020: 1). It has been proven that this metric correlates more with human evaluations, because they are using the outputs of 363 systems and comparing them to the human evaluations already available. On the other hand, Translation Edit Rate (TER) is a metric that takes a different approach to evaluating translations. It does not count the errors and differences, but rather counts the least number of edits needed for the translation to be the same as the reference translation. The edits include "insertion, deletion, and substitution of single words, as well as shifts of word sequences" (Snover et al., 2006: 3). BERTSCORE scores the translations on the scale from 1 to 100, and same as BLEU. The higher the score, the better the translation. However, TER uses the same scale, but in this case the lower score marks the better translation.

4. Aims and hypotheses

4. 1. Aims

The aim of this research is to test the quality of machine translation from English and Russian to Croatian conducted by two free online machine translation services, Google Translate and Yandex Translate. For this purpose, I chose two texts published in online journals dealing with the conflict between Israel and Hamas, as a highly relevant topic at the moment of conducting this study. The aim is to determine which machine translation service is more reliable and less

[1] The tool can be accessed here: https://www.tilde.com/products-and-services/machine-translation/features/interactive-bleu
[2] Both tools can be accessed here: https://huggingface.co/spaces/BramVanroy/mateo-demo

likely to produce mistranslation, which could potentially lead to the loss of some important nuances regarding such a sensitive topic. The potential contribution of this research is to guide users to a machine translation service that would preserve and give the more precise information when translating political news. The study will also attempt to determine the frequency of each type of error, which should help the user choose the service based on their preference.

4. 2. Hypotheses

Following the aims of this research, six hypotheses have been developed, which can further be categorized into three groups. The first group includes four hypotheses that reflect two different types of evaluation. H1 and H2 are based on methods of automatic evaluation of machine translations, and the way its scores depend on the language pairs and the online machine translation system that has translated the texts:

> H1: Yandex Translate will receive better automatic evaluation scores for its translation of a news article from Russian to Croatian than for English to Croatian.
>
> H2: Google Translate will receive better automatic evaluation scores for its translation of a news article from English to Croatian than for Russian to Croatian.

Both hypotheses are based on the fact that Yandex Translate is a Russian online translation service, while Google Translate is generally one of the most popular machine translation tools. Consequently, we might expect better quality when translating from Russian with Yandex Translate, and from English to Croatian with Google Translate.

In the following two hypotheses, however, the focus is on the human evaluation of translations for both English and Russian, depending on the online machine translation system that was used:

> H3: Human evaluators will score translations from Russian to Croatian produced by Yandex Translate higher than translations of the same language pair produced by Google Translate.
>
> H4: Human evaluators will score translations from English to Croatian produced by Google Translate higher than translations of the same language pair produce by Yandex Translate.

These hypotheses will be tested through a survey, and the main aim is to show how users perceive the quality of translations for both language pairs and machine translation systems. H3 and H4 are complementary, because they both argue that Google Translate is a better tool for

translating from English, while Yandex Translate is more refined when it comes to translating from Russian to Croatian.

The final hypotheses refer exclusively to the results collected through the process of human evaluation:

> H5: Human evaluators will find that translations produced by Yandex Translate are done with a lower accuracy and fluency than translations produced by Google Translate.
>
> H6: In all translations, orthography errors will make up the highest percentage.

H5 is closely connected to the fact that both services are based on neural machine translation technologies, which means that they have to be trained, or rather that the neural machine translation system is "based on an algorithm that replicates what neurons do in a human brain: it takes in data, codes it, puts it into some sort of context, and then re-codes it for output" (King 2019: 2). The crucial part is that the systems are trained on a certain amount and type of data and examples, and Google even created a Google Translate Community whose volunteers give feedback and verify other translators' work (King 2019: 6). However, it is still unclear what the training material consists of and how all the data is collected. The sixth hypothesis was formulated because Russian has a different alphabet than Croatian and English, which can lead to many wrong spellings during the process of transliteration. This includes not only misspelled words, but also incorrect punctuation and the wrong capitalization. Cyrillic alphabet has strict rules when transliterating into Latin alphabet. However, it is important to know that Croatian transliteration rules are slightly different from the English ones, so that should also be considered when classifying errors.

5. Methodology

5. 1. Materials

The materials for this research were two texts on the conflict between Israel and Hamas in 2023. The first text is an opinion piece written by Thomas L. Friedman for the New York Times on November 9, 2023, entitled *I Have Never Been to This Israel Before*[3]. The second text is a column in the Russian version of Forbes called *Оттенки насилия: будет ли большая война на Ближнем Востоке* [4], written by Nikolaj Surkov on November 3, 2023. Both texts are under 900 words long, and they were chosen for the similarity of the topic, as well as for the fact that

[3] Full article can be accessed at: https://www.nytimes.com/2023/11/09/opinion/israel-hamas-war.html.
[4] Full article can be accessed at: https://www.forbes.ru/mneniya/499822-ottenki-nasilia-budet-li-bol-saa-vojna-na-bliznem-vostoke.

the syntax and vocabulary are approximately on the same level of complexity. The two chosen newspaper columns represent the type of texts readers may choose to read in situations like this, when countries are at war and people are eager to hear different perspectives.

5. 2. Automatic evaluation

After having chosen the two texts, they were translated by two online machine translation systems, Google Translate and Yandex Translate. The produced four translations were further used in three different procedures. It is essential to mention that there was no post-editing done on the translations in either of the procedures. The first procedure involved automatic evaluation method BLEU, the second step of the automatic evaluation process was done in BERTSCORE, and TER gave the final automatic evaluation scores. These tools for automatic evaluation have the same requirements: they need a reference translation provided by a human translator to compare machine translations to it. Based on this comparison and several factors, they score the translations with a concrete number. The positive aspects and the downsides were discussed in detail in section *3. Key concepts*.

As reference translations for the automatic evaluation, human translations of the texts were used, produced by a graduate student majoring in translation studies in English and Russian.

The main goal of this procedure was to get a numeric score indicating which machine translation is closer to human translation.

5. 3. Human evaluation

The second procedure involved human evaluation of machine translation by six participants, who were graduate students or recent graduates of English and Russian with Croatian as their first language. The texts and their translations were given to the participants in a questionnaire. The participants were given the task of evaluating the translations without knowing which online machine translation system has produced the given translations. At the beginning of the questionnaire, participants were asked about their languages to get a general overview of the group, as well as whether they had taken any prior post-editing courses, seeing as that may influence the way they approach the given tasks. In the second part of the questionnaire, the participants were presented with selected sentences from each translation, with the task of evaluating the accuracy and fluency of translations. The sentences were chosen due to the different kinds of errors found during the error categorization in order to offer a diverse overview to the participants. Definitions were provided for the two criteria at the beginning of

this part. A scale of one to five was used to differentiate the nuances possibly lost during the process of translation.

5. 4. Error analysis and categorization

The third and final procedure involved an error analysis of the translations produced by Google Translate and Yandex Translate. I identified and categorized the errors into five groups: orthographic, morphosyntactic, lexical, semantic, and stylistic errors. This allowed for a detailed overview of errors from the users' point of view, and leads to further discussion on the effect that each type of error might have on the understanding of the texts and their meaning. The procedure was accompanied by extensive research of Croatian orthography and grammatical practices. This analysis is as detailed as possible, and is complemented by the third procedure used in this research.

The next sections present the results of the described research and discuss the results to conclude on the quality of different online machine translation services.

6. Results

6. 1. Automatic evaluation

6. 1. 1. BLEU

As it was mentioned above, the first evaluation process in this study involved an automatic evaluation tool that scores translations on precision and brevity by comparing it to the reference. The BLEU scores for translations from Russian into Croatian showed that the translation provided by Yandex Translate was closer to human translation than the one provided by Google Translate (Table 1). The score for the first translation was 35.06, and the second translation got a slightly lower score, 33.56. Additionally, this tool allows to compare 1-grams, 2-grams, 3-grams, and 4-grams, which allows for a more in-depth analysis, because the higher the 4-gram score is, the better. The 4-gram score shows the accuracy of translation in a wider context. More precisely, it is the number of 4-word sequences that were the same as in the reference.

	1-gram	2-gram	3-gram	4-gram
Yandex Translate	61.54	48.97	41.08	35.06
Google Translate	60.05	47.58	39.58	33.56

Table 1 – (BLEU) Automatic scores for the RU-HR translations by Yandex and Google Translate

BLEU individually scores both the precision and the brevity, which, when combined, gives the final score mentioned earlier. The precision for the translation provided by Yandex Translate equals 36.24, and the brevity score is 96.74, while the translation produced by Google Translate got slightly lower scores – the precision score is 35.25, and the brevity score is 95.23.

After this evaluation process, BLEU was used to obtain scores for translations of the English source text into Croatian produced by Yandex Translate and Google Translate (Table 2). The scores are slightly different than in the first case: the translation provided by Yandex Translate got 28.38, and the score of the translation obtained by using Google Translate equals 31.09, which at the first glance shows that in this instance, the Google Translate translation was closer to the reference translation.

Seeing as the general scores were slightly lower than in the evaluation of the Russian text translations, consequently, the n-gram scores were also slightly lower overall.

	1-gram	2-gram	3-gram	4-gram
Yandex Translate	60.52	46.34	36.14	28.38
Google Translate	62.73	48.92	38.75	31.09

Table 2 – (BLEU) Automatic scores for the EN-HR translations by Yandex and Google Translate

Moreover, it is crucial to highlight the scores for precision and brevity, because they are the fundamental part that directly reflects in the general score. The brevity score penalizes too short machine translations, and the precision score evaluates word choices and their compatibility with the reference translation. The scores for precision and brevity of the Yandex Translate translation are 28.69 and 98.94 respectively, while BLEU scored precision and brevity for the Google Translate one with 31.30 and 99.33.

6. 1. 2. BERTSCORE

The second automatic evaluation was done using the BERTSCORE metric. As previously stated, this metric scores translations on the scale from 1 to 100, and the closer the score is to a hundred, the better the translation. The translations of the Russian source text were scored first, and these are the results: the translation provided by Google Translate was scored 87.36, while the translation provided by Yandex Translate was scored just slightly below that, 87.2. This tool also allows for a detailed analysis of the sentence level, which will be introduced later in this

study. However, it is vital to emphasize the fact that BLEU gave a higher score to the translation provided by Yandex Translate.

In the second instance, when evaluating the translations of the English source text, the situation was similar. The translation produced by Google Translate again got the higher score, 86.73. The translation produced by Yandex Translate was scored with 85.86. These scores can again be interpreted in a sense that Google Translate translated the source text closer to the human translation, only in this case, it is true for both the translations of Russian and English texts (Table 3).

	Russian source text	English source text
Yandex Translate	87.2	85.86
Google Translate	87.36	86.73

Table 3 – (BERTSCORE) Automatic scores for the translations by Google and Yandex Translate

The translations of the Russian source text got higher scores, which was also the case in the BLEU evaluation, but the translations translated by Google Translate were superior in this comparison and closer to the human translations.

6. 1. 3. Translation Edit Rate (TER)

The third and final automatic evaluation was done using the TER metric, which evaluates the minimal number of edits needed for the translation to match the reference sentence. This offers a different perspective on the automatic evaluation, and the results might differ from the already presented automatic evaluations. The evaluation scale is also from 1 to 100, but in this case the lower score shows better results, and TER does not yet allow for a detailed analysis on the sentence level.

Since this evaluation does not yet offer a segmental analysis, the general results will be presented and compared. In the case of translations from Russian to Croatian, the slightly better score went to the translation produced by Yandex Translate, which was scored with 57.5, and the translation provided by Google Translate was scored with 57.7. On the other hand, when the translations of the English source text are concerned, the translation provided by Yandex Translate was scored 63.0, while the Google Translate one was scored 60.6 (Table 4). This means Google Translate was considered closer to the human translation than Yandex Translate, because it recognized less edits that had to be made to match the reference translation.

	Russian source text	English source text
Yandex Translate	57.5	63.0
Google Translate	57.7	60.6

Table 4 – (TER) Automatic scores for the translations by Google and Yandex Translate

6. 2. Human evaluation

Six current or former majors of both English and Russian translation studies participated in this part of the study. The results of their responses will now be presented. The participants made up for a highly homogeneous group, but some basic questions still had to be covered. Four women and two men participated in this survey. Five of the participants were 24 years old, and one 25 years old, which means none of them could have considerably more experience in professional translation than others. When asked what languages they know at the B2 level or higher, all participants answered English and Russian, while one participant also added Italian, and one added the Japanese language.

The fourth question was important for this study, because the participants were asked if they had taken post-editing classes during their time at the university, and only one participant answered positively. The remaining four participants had not taken any post-editing classes.

For easier representation of the results, the Google Translate translation will always be the first, and the Yandex Translate translation will be the second, but they were irregularly presented in the survey. In Table 5, average grades for each translation are presented, for easier comparison with the scores given in the process of automatic evaluation.

	Google Translate	Yandex Translate
English ST	3.415	2.87
Russian ST	4.71	3.33

Table 5 – Human evaluation scores for both machine translation systems

It must be noted that these average scores are the results of a sample from two sentences taken from each source text, and these are the combined average scores both for accuracy and fluency. All source text sentences will now be numerically marked, and their average scores for accuracy and fluency will be presented in Table 6 and Table 7.

(1) I am speaking about Iranian-backed Hamas, Hezbollah, Islamic militias in Iraq and the Houthis in Yemen — and now even the openly Hamas-embracing Vladimir Putin.

(2) В этих условиях, считает старший научный сотрудник Центра ближневосточных исследований ИМЭМО РАН Николай Сурков, вероятным сценарием становится многомесячная осада Газы с последующим вмешательством посредников и эвакуацией боевиков ХАМАС в Йемен или даже Иран в обмен на освобождение израильских заложников.

(3) Worse, I am stunned by the degree to which that leader, Prime Minister Benjamin Netanyahu, continues to put the interests of holding on to the support of his far-right base — and pre-emptively blaming Israel's security and intelligence services for the war — ahead of maintaining national solidarity or doing some of the basic things that Biden needs in order to get Israel the resources, allies, time and legitimacy it needs to defeat Hamas.

(4) В этой связи очень ощутимо отчаяние людей в Газе, которые понимают, что за них никто не вступится, и с нескрываемой горечью говорят, что их бросили на произвол судьбы — между молотом и наковальней.

	Google Translate	Yandex Translate
1	4	2.16
2	4.66	4.66
3	3.5	4
4	5	2.66
Average accuracy score	4.29	3.37

Table 6 – Human evaluation scores for accuracy

	Google Translate	Yandex Translate
1	3.66	2.16
2	4.16	4.33
3	2.5	3.16
4	5	1.66
Average fluency score	3.83	2.83

Table 7 – Human evaluation scores for fluency

Some of the participants also left additional comments on these translations that will be mentioned and discussed in section *7. 2. Automatic and human evaluation*.

These results will be discussed in the following section. However, at this point, it must be noted that the limitation of this part of the survey is that the participants have different levels of knowledge, so some results might differ from the average.

Overall, the translations of the Russian source text got slightly higher grades, one of them even got the highest possible scores for both accuracy and fluency. There were no clear and obvious results on whether the Google Translate translations were better or worse than the Yandex Translate ones. To reach a finite conclusion, each set of scores will be analyzed in greater detail.

The first sentence was the sentence from the English source text, where Google Translate was scored with superiorly higher grades, the accuracy was scored with the average grade of 4, and the fluency was scored 3.66. The translation provided by Yandex Translate in this instance got graded 2.16 both for its accuracy and fluency. The first translation was graded by 66.7% of the participants with 4, which is what is reflected in the final average grade, while 83.3% evaluated the accuracy of the second translation with 2 at the scale on 1 to 5. This shows that most participants had the same unsatisfaction with the quality of the translation provided by Yandex Translate. Two of the participants even went as far as to leave additional comments on these translations. One of them simply stated the translations are clumsy, while the other argued that in the translation translated by Yandex Translate, some information was omitted, while other parts of the source text were incorrectly translated, e. g. that the President's full name is Hamas Vladimir Putin, which, alongside numerous orthographic errors, highly affects the quality of the translations. This participant has also commented on the translation produced by Google Translate. They noted that most of the original meaning was correctly conveyed, but that it lacks the idiomaticity of the source text.

In the second section of the survey, the participants evaluated the accuracy and fluency of the translations of the Russian source text. This was the sentence that got the closest scores for both accuracy and fluency for both online machine translation systems. The translation provided by Yandex Translate got a slightly higher score for fluency, 4.33 compared to 4.16, which was the score of the Google Translate translation, while both texts' accuracy was 4.66. It is interesting to look more closely at the scores of the Google Translate translation, because four participants evaluated it with the highest scores, while others gave it a 4, but when it comes to fluency, the situation was reversed. 83.3% of the participants evaluated it with a 4, and only one participant thought it deserved the highest score. This shows that even though the original meaning was preserved, it is not enough for linguists to rate it with the highest grade if it lacks the finesse of the target language. On the other hand, the translation produced by Yandex Translate even got

3 from one of the participants, but three participants evaluated it with the maximum score, which raised the average score. One of the participants noted that both translations cannot be incorrectly interpreted. However, the parts of the sentence that are not the best quality in the translation provided by Google Translate are better in the other translation provided by Yandex Translate, and vice versa.

The third sentence was again taken from the English source text. In this instance, both the accuracy and fluency of the translation offered by Yandex Translate were considered better than the translation produced by Google Translate, with scores as follows: accuracy and fluency of the Google Translate translation got scored 3.5 and 2.5 respectively, while the second translation got scored 4 and 3.16 for accuracy and fluency of the translation. In the first case, all participants chose scores between 2 and 4, which resulted in such middle-of the-scale scores. Meanwhile, most participants opted for the higher end of the scale when evaluating the second translation. The most important downside of Google Translate in this case was highlighted by one of the participants, and it is that it correctly translated the source text. However, it was obvious that an online machine translation system provided the translation. The crucial factors of this were the copied syntax from the source text, as well as collocations that cannot be found in the target text and are not considered established.

The final part of the survey form was the evaluation of the translation of the Russian source text, which was also the greatest difference in the evaluation of the online machine translation systems. The Google Translate one got the highest score by all participants for accuracy and fluency, while the translation produced by Yandex Translate got scored 2.66 for accuracy, and 1.66 for fluency. Not only was the difference significant between the two online machine translations, but also when evaluating the accuracy of the second translation, the scores were chosen on both ends of the spectrum, with one participant choosing 1, and the second participant choosing 5. It is certainly not often that one translation evokes such polar opinions, especially when it comes to accuracy. The fluency scores were all in the lower part of the scale, with 50% of the participants choosing to score it with the lowest score. In this instance, the participants noted that the idiom *между молотом и наковальней* was translated too literally as *između stijene i tvrdog mjesta* by Yandex Translate. However, the overall impression was that the text translated by Google Translate was more fluent and closer with its language constructions to the target language, which is directly reflected in its perfect scores.

One participant pointed out the length of the source text sentences and concluded that that could significantly affect the quality of the translations. The other participant indicated that the main

information was retained in all the given examples, not taking into account smaller errors that affect understanding to the lesser extent. What they found the most crucial part of the translation is the fluency, which is the real differentiating factor in all these examples. However, on some occasions, it can be equally bad.

6. 3. Error analysis and categorization

The following process was the most extensive part of the research. Once the texts were chosen and translated by Google Translate and Yandex Translate, I conducted a detailed analysis of all four translations. The results of this extensive analysis will be presented and compared; both the different language pairs and the different online machine translation systems. The five categories that encompass all different error types include: orthographic, morphosyntactic, lexical, semantic, and stylistic errors. This general categorization allows for a systematic overview, even though it is clear that the number of errors is not enough to determine which machine translation system provides better translations.

Regarding the number of errors, there were 127 in the translation done by Yandex Translate, while Google Translate had 92. This is precisely why this type of research requires a human error-based analysis, which will give a fuller picture of how well the original meaning was translated from English and Russian to Croatian.

6. 3. 1. Russian to Croatian translations

Firstly, a detailed analysis of machine translations of the Russian source text was conducted in the same manner as the process explained in section *6. 3. Error analysis and categorization*. The final number of errors in the translation by Yandex Translate is 74, and in the translation provided by Google Translate, there were 52 errors in all five categories combined. These results will be discussed in section *7. 2. Automatic and human evaluation* in greater detail when it will be easier to compare each category for both language pairs. Moreover, the causes of such results will be discussed based on the online machine translation system that produced each translation.

When it comes to the translation of the Russian source text by Yandex Translate, the first orthographic category has the most errors – 38. There have been nine morphosyntactic errors, seven lexical errors, and 19 semantic. Only a single stylistic error has been found (Figure 1).

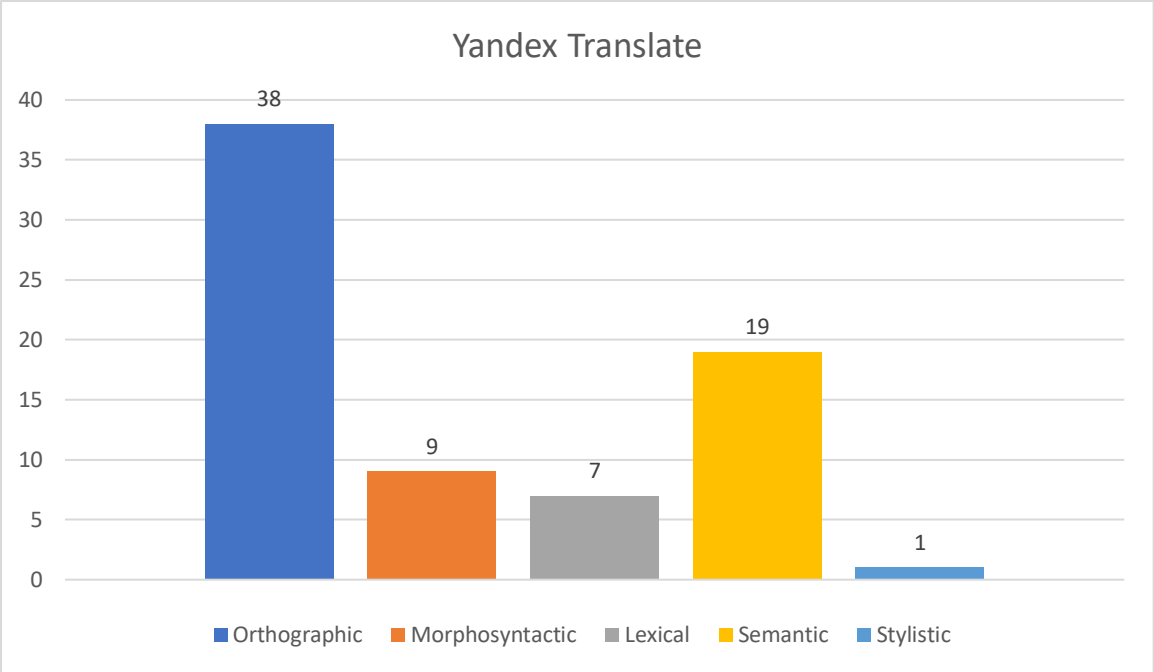

Figure 1 – Categorization of errors in RU-HR translation by Yandex Translate

The results for the translation of the same source text produced by Google Translate were considerably different. In this instance, the first group of orthographic errors had 14 errors. There were 13 errors in the morphosyntactic group, 8 errors in the lexical category, and 17 semantic errors. However, the analysis showed that there were no stylistic errors in the translation provided by Google Translate, as shown in Figure 2.

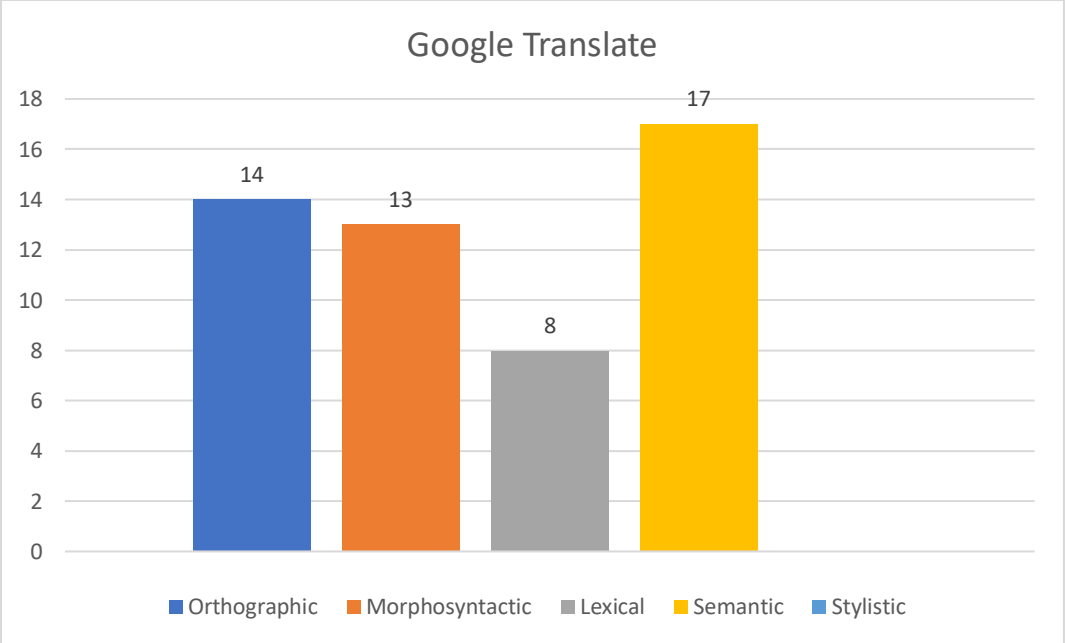

Figure 2 – Categorization of errors in RU-HR translation by Google Translate

The first category, which entails orthographic errors, had the most errors, especially in the Yandex Translate translation. This category is especially interesting for the significant difference between the number of errors provided by Yandex Translate and Google Translate. Google Translate made 14 orthographic errors, while Yandex Translate reached 38 orthographic errors. The highest percentage of this number were wrongly capitalized words. For example, as it was the case for the translation of the English source text, *Gaza* was translated as *gaza*. However, Yandex Translate made many illogical capitalization errors, such as the following:

> [1A] Но сейчас израильское общество, а значит, и избираемые им политики, не могло не отреагировать на тысячи жертв среди гражданского населения.
>
> [1B] Ali sada izraelsko društvo, a time i političari koje bira, nisu mogli ne reagirati na tisuće civilnih žrtava.
>
> [1C] Ali sada izraelsko društvo, a time i političari koje je izabralo, nije moglo ne reagirati na Tisuće civilnih žrtava.

It must be noted that in all such examples the sentence marked with the letter A is the original sentence, sentence B is the translation provided by Google Translate, while sentence C is the Yandex Translate translation. Sentence 1A, which is the Russian source text, was translated very similarly by Google Translate and Yandex Translate, however, as it can be seen in the sentence 1C, Yandex Translate translated тысячи as *Tisuće* which does not directly affect the meaning. Nevertheless, this error being continuously repeated, especially when translating арабский as *Arapski*, has a strong impact on the readers perception of the quality of the translation. Even though the focus is now on the orthographic errors, a significant morphosyntactic error is present here. Google Translate made an error in concordance because it put the main verb of the sentence in the plural, but it only refers to *izraelsko društvo.* Orthographic errors are easily noticed by every speaker because they are considered to be a basic error. Both online machine translation systems had the same transliteration errors. The error that was repeated many times was the transliteration of *Хезболлы* which was transliterated as *Hezbollah*, an English transliteration of that word. However, the Croatian version is *Hezbolah* or *Hizbullah*. On the other hand, Google Translate proved to be better at transliteration because it correctly transliterated *Биньямина Нетаньяху* as *Benjamina Netanyahua*, while Yandex Translate transliterated it incorrectly as *Benjamina Netanjahua*. Generally, Yandex Translated failed in retaining the spaces between words, chose wrong

quotation marks and even omitted them in few places. This made the biggest difference orthographically in comparison to the Google Translate translation.

The next in analysis were morphosyntactic errors, and in this case the translation provided by Google Translate had 13 errors which is overall a higher number than nine, which is the number of errors that the translation done by Yandex Translate had. When taking into account purely morphological errors, Google Translate made more errors in translating the grammatical number of the sentence and the correct form of the verb as can be seen in the following example:

> [2A] (…) как известно, после Ливанской войны 1982 года Израиль вынудил боевиков Организации освобождения Палестины (ООП) покинуть Ливан и перебраться в Тунис.
>
> [2B] (…) kao što je poznato, Izrael je nakon libanonskog rata 1982. prisilio militante Palestinske oslobodilačke organizacije (PLO) da napustiti Libanon i preseliti se u Tunis.
>
> [2C] (…) kao što znate, nakon libanonskog rata 1982. godine Izrael je prisilio militante Palestinske oslobodilačke organizacije (PLO) da napuste Libanon i presele se u Tunis.

Not considering the errors that belong in other categories, sentence 2C, which was translated by Yandex Translate, is morphologically superior to the sentence 2B translated by Google Translate. In this example, it is clear that Google Translate completely copied the form of the Russian source text by keeping the verbs *napustiti* and *preseliti* in their infinitive form. It failed to recognize that *вынудил* requires a verb in the infinitive form to complement it, while the Croatian verb *prisiliti* has to be followed by *da* + verb in the present tense, as can be seen in sentence 2C provided by Yandex Translate.

Contrary to this, in the translation provided by Yandex Translate there were more syntactic errors than in the translation conducted by Google Translate. Apart from the most usual syntactic errors of putting the short version of the auxiliary verb in the wrong place, there were several sentences in which Yandex Translate chose the wrong word order which led to a more difficult understanding of the translated sentences, which is precisely why the following example will be further analyzed:

> [3A] Поэтому задача оказания давления на Израиль, а заодно на США, была по традиции делегирована дружественным Исламской республике негосударственным акторам в Ливане, Сирии, Ираке и Йемене.

[3B] Stoga je zadatak pritiska na Izrael, a ujedno i na SAD, tradicionalno delegiran nedržavnim akterima prijateljski raspoloženim prema Islamskoj Republici u Libanonu, Siriji, Iraku i Jemenu.

[3C] Stoga je zadatak vršenja pritiska na Izrael, a istovremeno i na SAD, tradicionalno delegiran prijateljskim islamskim republikama nedržavnim akterima u Libanonu, Siriji, Iraku i Jemenu.

Sentence 3C is certainly a mistranslation due to the fact that put like that it can be interpreted that Lebanon, Syria, Iraq, and Yemen are friendly Islamic republics. This is a very severe error that can lead to the reader misunderstanding a large portion of the text, especially if the reader does not have sufficient contextual knowledge of such a delicate and current topic. Sentence 3B provided by Google Translate offers a good solution by paraphrasing and consequently retaining the original meaning of the Russian source text. On the other hand, sentence 3C retained the original order of the words without adding additional meaning and by also wrongly translating the phrase *дружественным Исламской республике негосударственным акторам*. This might have easily been avoided by putting the translation of the aforementioned phrase at the end and turning it into an adjective clause. A better and more elegant solution for such sentence would be: *Stoga je zadatak vršenja pritiska na Izrael, a istovremeno i na SAD, tradicionalno delegiran nedržavnim akterima u Libanonu, Siriji, Iraku i Jemenu koji se smatraju prijateljskim državama Islamske republike.*

Similarly, the following sentences example how a simple switch in the order of the words can lead to a better translation:

[4A] Представить, какой разрушительной она может оказаться, будет легко, если вспомнить события 2006 года.

[4B] Lako je zamisliti koliko bi to moglo biti razorno ako se prisjetimo događaja iz 2006. godine.

[4C] Zamisliti koliko bi to moglo biti destruktivno bilo bi lako kad se prisjetite događaja iz 2006.godine.

The word order in sentence 4C cannot be considered as incorrect, however, a native speaker of the Croatian language could argue that it is highly stylistically marked due to the fact that the phrase *zamisliti (...) bilo bi lako* was intentionally phrased like that. Inversion is a well-known tool used when wanting to highlight and put special emphasis on a certain part of the sentence,

which is not fit for the style of the given source text. Thus, the inversion should be avoided in this instance, as is the case in sentence 4B provided by Google Translate.

Lexical errors belong to the third group of errors in this analysis. This error category proved to be the common ground of Google Translate and Yandex Translate because they had eight and seven lexical errors respectively. These errors include mainly the words that only partially encompass the meaning from the Russian source text as well as prepositions that do not collocate with certain words in Croatian as they do in Russian. Both Google Translate and Yandex Translate had difficulty translating the following sentence:

> [5A] Жесткий антиизраильский нарратив хуситов сформировался давно.
>
> [5B] Tvrdi antiizraelski narativ Hutija formiran je dugo vremena.
>
> [5C] Kruti antiizraelski narativ Hutija nastao je davno.

First and foremost, it should be noted that both online machine translation systems refer to Houthis as Hutiji, rather than Huti, or possiblly, since in this text there was no instance of this word being used in the nominative case, this could be an example of morphosyntactic error. The correct form in this case would be *narativ Huta*. Secondly, both Google Translate and Yandex Translate translated жесткий with words that reflect the physical aspect of a described word. Yet, the word the adjectives refer to is a narrative, and the collocations *tvrdi narativ* and *kruti narativ* do not exist in the Croatian language in this context. The original meaning of the said collocation implies that the narrative is aggressive and cannot be changed easily which would better be reflected if the translation was for example *čvrsti antiizraelski stav*. This collocation manages to preserve the negative connotation from the original text as well as completely relays the full meaning. Some other more notable lexical errors also include Google Translate translating США as Sjedinjene Države, and Yandex Translate translating *поистине бурю негодования* as *uistinu oluju ogorčenja*. In this translation, the meaning and the part of the speech was retained, however I would argue that instead of an adverb, it would be better in this instance to use an adjective to emphasize the word *oluja*, so a proposed solution would be *pravu oluju ogorčenja*:

> [6A] Гибель мирных жителей Газы вызывает осуждение и поистине бурю негодования в арабском мире и в большинстве мусульманских стран.
>
> [6B] Smrt civila u Gazi izaziva osude i doista buru ogorčenja u arapskom svijetu i većini muslimanskih zemalja.

[6C] Smrt civila u Gazi izaziva osudu i uistinu oluju ogorčenja u arapskom svijetu i većini muslimanskih zemalja.

One other notable lexical error done by Google Translate should be mentioned and discussed:

[7A] (…) а масштабные боевые действия с бомбардировками и боями на земле могут очень сильно обескровить группировку.

[7B] (…) a vojne operacije velikih razmjera s bombardiranjem i borbama na terenu mogu uvelike raskrvariti skupinu.

[7C] (…) a velike borbene akcije s bombardiranjem i borbama na zemlji mogu jako iscrpiti grupu.

In the original text, the word обескровить, which usually has a metaphorical and a literal meaning, was in this instance used in its metaphorical sense to make somebody or something weaker[5]. Google Translate has failed to recognize that even though the context of the text were war and battles, it would be better to choose to preserve the meaning 'to make something weak', and not 'to make someone lose blood'. Yandex Translate had no problem in translating this sentence and has even gone a step further in choosing a verb which is more descriptive, rather than just plainly translating it as *oslabiti grupu.*

The fourth category of errors is the category of semantic errors. These errors have occurred significantly more frequently in the translation of the Russian text than in the translation of the English text. In this category as well, there was a small difference in the number of errors, Google Translate made 17 semantic errors, while Yandex Translate had 19 semantic errors. Generally, this is a high number of errors because semantic errors are what determines the level of understanding that the reader has of the translation. It is not simple to talk about semantic errors generally, because there are many kinds of incorrect translations that these errors entail, so it is better to discuss several examples to compare the quality of the two online machine translation systems:

[8A] Мой обычно сдержанный арабский коллега почти плакал, рассказывая о гибели своего палестинского друга-профессора со всей семьей в результате авиаудара.

[5] According to an online dictionary accessible here: https://gramota.ru/, translated by the author of the study.

[8B] Moj inače suzdržani arapski kolega gotovo je zaplakao kad je govorio o pogibiji svog prijatelja profesora Palestinca i cijele njegove obitelji u zračnom napadu.

[8C] Moj obično rezervirani Arapski kolega gotovo je plakao dok je s cijelom obitelji prepričavao smrt svog palestinskog prijatelja profesora u zračnom napadu.

The challenge in this instance is to determine whether the Arabian colleague was retelling the story with the help of his family, or whether the family of his Palestinian friend has died with the friend. Google Translate has opted for the second variant, while Yandex Translate chose the first explanation. However, after taking into account the word order, which is very important in the Russian language, it is more logical that the Palestinian friend and his family died together.

The following example was chosen in order to depict how literal translation can be detrimental for the understanding and the quality of the translation:

[9A] Обстановка в регионе меняется очень быстро — возможны любые повороты (…).

[9B] Situacija u regiji se vrlo brzo mijenja – mogući su bilo kakvi obrati (…).

[9C] Situacija u regiji mijenja se vrlo brzo-mogući su Bilo kakvi zavoji (…).

These two translations side by side on many levels show the difference between translations produced by Google Translate and Yandex Translate. If the lack of formatting is put aside at this point and only the correct meaning is taken into account, Yandex Translate made a crucial error of once again not recognizing the context of the sentence and choosing the incorrect translation to Croatian for the word *поворот*. The word *поворот* cannot be translated as *zavoj*, the accurate translation of the word is *skretanje.* This is one of the contextual situations when the only correct and appropriate translation is the word *obrat*.

In some instances, the online machine translation systems failed to translate all the words from the original, sometimes important words such as intensifiers that can affect the meaning of the whole sentence, as well as incorrectly translating the official title of the war which can consequently lead to misunderstanding and confusion if further discussion arises from such situations. Both Google Translate and Yandex Translate incorrectly translated *как человек в состоянии аффекта* as *kao čovjek sposoban afektirati / kao čovjek u stanju afekta*, which are both the incorrect version of *kao čovjek obuzet emocijama i spreman za akciju*:

[10A] Израиль пережил самый сильный шок даже не с 1973 года, когда ни один вражеский солдат так и не ступил на его территорию, а со времени по-настоящему тяжелой и кровопролитной Войны за независимость 1948 года, и теперь правительство Биньямина Нетаньяху действует, как человек в состоянии аффекта, без оглядки на чужое мнение.

[10B] Izrael je najveći šok doživio ne od 1973. godine, kada niti jedan neprijateljski vojnik nije kročio na njegov teritorij, već od uistinu teškog i krvavog rata za neovisnost 1948. godine, a sada se vlada Benjamina Netanyahua ponaša kao čovjek sposoban afektirati, bez obzira na tuđa mišljenja.

[10C] Izrael je doživio najgori šok čak ni od 1973.godine, kada nijedan neprijateljski vojnik nije kročio na njegov teritorij, već od stvarno teškog i krvavog rata za neovisnost 1948. godine, a sada Vlada Benjamina Netanjahua djeluje kao čovjek u stanju afekta, bez obzira na tuđe mišljenje.

There was a single stylistic error found in the translation provided by Yandex Translate. The original phrase from the source text *насилие использует очень дозированно и точечно* was translated into Croatian as *a nasilje koristi na vrlo odmjeren i precizan način*. This is not a completely incorrect translation, but it lacks stylistic refinement. A recommended solution would be paraphrasing the original sentence and translating it as *a nasilje koristi vrlo odmjereno i precizno:*

[11A] Как метко выразился один очень уважаемый эксперт из региона, Иран предпочитает не спеша «ткать на Ближнем Востоке свой персидский ковер», а насилие использует очень дозированно и точечно, избегая прямой конфронтации.

[11B] Kako je prikladno rekao jedan vrlo cijenjeni stručnjak iz regije, Iran preferira polako “tkati svoj perzijski tepih na Bliskom istoku”, a nasilje koristi vrlo odmjereno i ciljano, izbjegavajući izravnu konfrontaciju.

[11C] Kao što je prikladno rekao jedan vrlo cijenjeni stručnjak iz regije, Iran radije polako "Tka svoj perzijski tepih na Bliskom Istoku", a nasilje koristi na vrlo odmjeren i precizan način, izbjegavajući izravno sučeljavanje.

6. 3. 2. English to Croatian translations

Secondly, both translations of the English text to Croatian were considered and their errors categorized. For an easier visualization, the results for the translation provided by Yandex Translate, which will later be discussed in more detail, are shown in Figure 3.

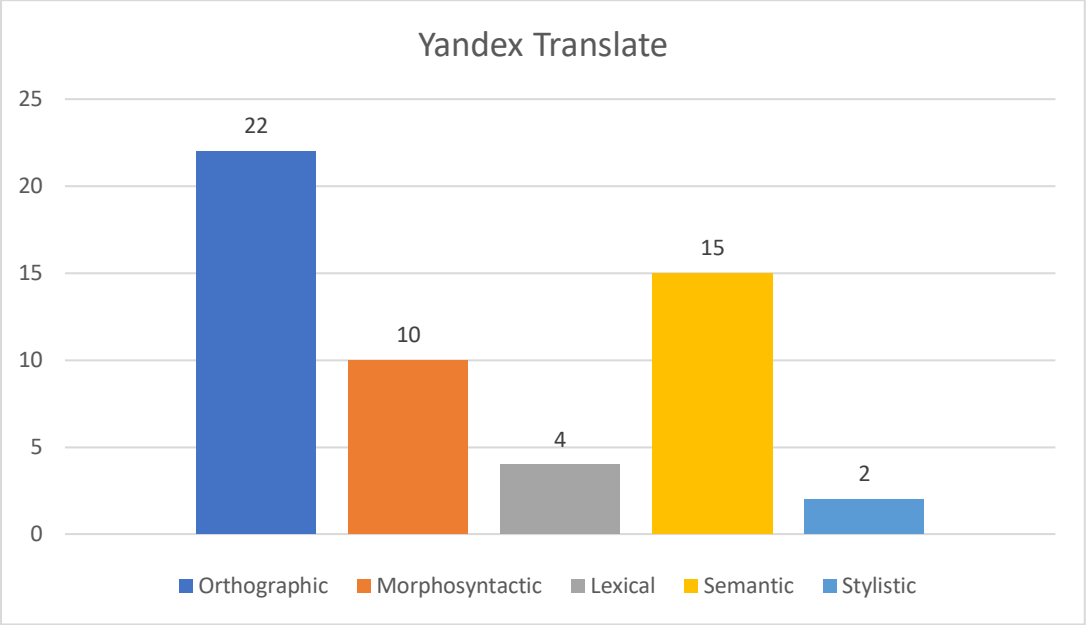

Figure 3 – Categorization of errors in EN-HR translation by Yandex Translate

As can be seen from the graph, there were 22 orthographic errors noted, 10 morphosyntactic, 4 lexical, 15 semantic, and only 2 stylistic errors in this 820-word-long text. This data will be further analyzed later in this section on specific examples to depict what each error category entitles because not every error affects the understanding of the translation to the same degree.

On the other hand, some categories showed very different results when it came to the translation of the same text provided by Google Translate. The biggest difference can be noted in the first category; there were only 9 orthographic errors in the translation done by Google Translate, there were 11 morphosyntactic errors, 11 lexical, 6 semantic and 2 stylistic errors. It should be noted that most of the categories showed similar results, and the three groups that stand out are orthographic, lexical, and semantic categories (Figure 4).

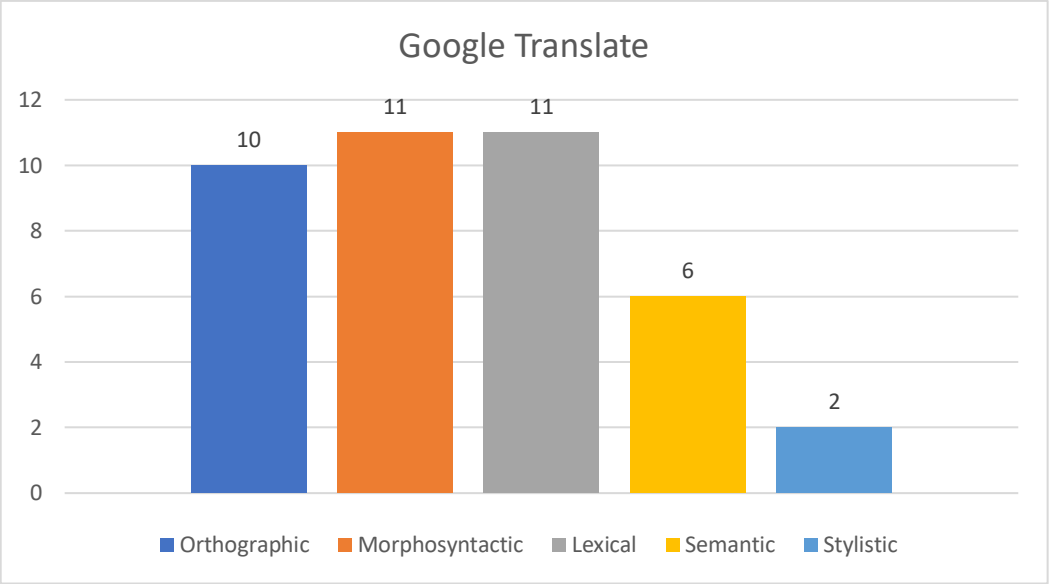

Figure 4 – Categorization of errors in EN-HR translation by Google Translate

The first category of orthographic errors entails punctuation errors, wrongly capitalized words, as well as incorrect citation. There is a clear distinction between Google Translate and Yandex Translate in this category seeing as Google Translate had only nine errors, while there were 22 orthographic errors in the Yandex Translate translation. This numeric difference stems mainly from the fact that the translation provided by Yandex Translate was badly formatted. It oftentimes lacked word spacing, especially in dates. For example, the original sentence *(…) that the Israel of Oct. 7 is an Israel that I've never been to before* was translated as *(…) da je Izrael 7.listopada Izrael u kojem nikada prije nisam bio* by Yandex Translate. According to the rules of the Croatian orthography, a space is required between a full stop and the following sentence. Furthermore, both online machine translation systems made the same errors when it came to adjunct at the beginning of the sentence. In English, commas are obligatory after an adjunct, however, in Croatian if an adjunct is simply a phrase the comma is not necessary, thus, both Google Translate and Yandex Translate made an error by translating *[a]fter traveling around Israel and the West Bank,* as *[n]akon putovanja po Izraelu i Zapadnoj obali, / [n]akon putovanja Izraelom i Zapadnom obalom,* because they retained the comma from the original.

The second type of orthographic errors that can universally be noted in both translations is the wrong formatting of the quotation marks. For example, when writing quotations as "Hezbollah" with both marks on the upper part of the word, this follows the English language orthographic rules. The Croatian version would be written as „Hezbollah". The types of errors mentioned so far do not affect the meaning to a greater deal, but the capitalization of words can significantly

affect the meaning. The source text mentions the Houthis, participants of the Houthi movement, but Yandex Translate fails to capitalize this word in the translation. When written in the translation as *huti*, among other groups like Hezbollah and Hamas, which were both capitalized, it loses its original and prime meaning. A slightly more significant errors is that of not capitalizing the word *gaza* when referring to Gaza, the city in Palestine. This was also an error found in the translation provided by Yandex Translation. In Croatia, the word *gaza* when not capitalized has another definition, it refers to a breathable cotton cloth, oftentimes used in the medicine when cleaning a wound.

The second group of errors was morphosyntactic errors. This group entails both morphological and syntactic errors. Morphological errors are common because in English the different cases are not reflected in the flection of suffixes. Additionally, English does not have visible gender signifiers which is reflected in Croatian through suffixes. Syntactic errors entail most times a wrong word order or incorrect conjunctions between the main clause and the sub-clauses.

In this category, the translation produced by Google Translate had eleven errors, while the Yandex Translate one had 10 errors. Longer sentences with more clauses pose a bigger problem for online machine translation systems, especially in the morphosyntactic sense. The following example will compare both the translation from Google Translate and Yandex Translate in order to see how they dealt with the problem of a complex sentence.

> [12A] The second danger I see is that the only conceivable way that Israel can generate the legitimacy, resources, time and allies to fight such a difficult war with so many enemies is if it has unwavering partners abroad, led by the United States.
>
> [12B] Druga opasnost koju vidim je da je jedini mogući način na koji Izrael može stvoriti legitimitet, resurse, vrijeme i saveznike za vođenje tako teškog rata s toliko mnogo neprijatelja ako ima nepokolebljive partnere u inozemstvu, predvođene Sjedinjenim Državama.
>
> [12C] Druga opasnost koju vidim je da je jedini zamislivi način na koji Izrael može osigurati legitimitet, resurse, vrijeme i saveznike za vođenje tako složenog rata s toliko neprijatelja imati nepokolebljive partnere u inozemstvu predvođene Sjedinjenim Državama.

The possible problem with this is the object, which is rather complex, so it is harder to conclude what refers to what. Now, in the focus will be the following part of that sentence: *The second*

danger I see is that the only conceivable way that Israel can generate (…) is if it has unwavering partners abroad, led by the United States. The middle part was omitted to make it easier to visualize what the discussion is about. Sentence 12B, which was translated by Google Translate, is morphosyntactically correct. However, in sentence 12C, there is an error in the following part of the sentence: *Druga opasnost koju vidim je da je jedini zamislivi način na koji Izrael može osigurati (...) imati nepokolebljive partnere u inozemstvu predvođene Sjedinjenim Državama*. Here it can be noticed that the last clause was an infinitive clause which is incorrect, the better solution would have been an if-clause as in the original and sentence 12B. The way sentence 12C is translated implies that the verb *imati* refers to the verb *može* like the verb *osigurati* is.

Another example of Yandex Translate following the English syntax too closely is the following example:

> [13A] I am speaking about Iranian-backed Hamas, Hezbollah, Islamic militias in Iraq and the Houthis in Yemen — and now even the openly Hamas-embracing Vladimir Putin.
>
> [13B] Govorim o Hamasu koji podržava Iran, Hezbollahu, islamskim milicijama u Iraku i Hutijima u Jemenu — a sada čak i o Vladimiru Putinu koji otvoreno prihvaća Hamas.
>
> [13C] Govorim o Hamasu, „Hezbollahu“, islamskim milicijama u Iraku i hutijima u Jemenu, a sada čak i o otvoreno podržavajućem Hamasu Vladimiru Putinu.

Disregarding the other types of errors in both sentences that will be discussed at a later point, the biggest syntactic error is in copying the exact syntax from the source text that cannot be used in the same way when translating into Croatian. Croatian syntax is not set up in a way that supports many premodifiers, but rather relies mostly on postmodifying clauses as seen in sentence 13B: *o Vladimiru Putinu koji otvoreno prihvaća Hamas*. This is why the solution *o otvoreno podržavajućem Hamasu Vladimiru Putinu* does not only sound unusual but is indeed incorrect.

A typical morphologic error is the incorrect case that does not fit the verb or the rest of the noun phrase. It is interesting to note that online machine translation systems usually have not made errors at the same place, but rather a morphologic error that can be found in the translation of Yandex Translate is correct in the other translation and vice versa. The following example highlights an error done by Google Translation:

[14A] (…) and are no longer organized as small bands of militiamen but as modern armies with brigades, battalions, cybercapabilities, long-range rockets, drones, and technical support.

[14B] (…) i više nisu organizirani kao male skupine milicija već kao moderne vojske s brigadama, bataljunima, kibernetičkim sposobnostima, raketama dugog dometa, bespilotnim letjelicama i tehnička podrška.

[14C] (…) i više nisu organizirani kao male milicijske jedinice, već kao moderne vojske s brigadama, bataljunima, kibernetičkim sposobnostima, raketama dugog dometa, bespilotnim letjelicama i tehničkom podrškom.

This is a clear example of an incorrect concordance between two noun phrases: *moderna vojska s* requires all following noun phrases to be in the same case – the instrumental case. Yandex Translate had no problem with translating this sentence, however Google Translate translated all noun phrases in the instrumental case except for the last one. *Tehnička podrška* was left in the nominative case and thus does not convey the right meaning of the sentence from the source text. Another error that Yandex Translate and Google Translate made was that they left out prepositions that are very important in Croatian. For example, when translating: *The Israeli general asked them where they were from. "Kiryat Shmona," the father answered,* in both cases the translation was *"Kirjat-Šmona", odgovorio je otac.* The Croatian language needs a preposition *iz* and the city in the genitive case, so the correct translation would be *„Iz Kirjat Šmone", odgovorio je otac.*

In this morphosyntactic category, both online machine translation systems had approximately the same number of errors which affected the understanding of the translation to a greater degree than the orthographic errors. The shorter sentences posed less of a problem morphosyntactically than those sentences that are more complex.

The next error category is lexical errors in which most errors are the wrong choice of words. It is not rare that online machine translation systems such as Google Translate and Yandex Translate choose the word with the same meaning as the word from the source text, however the chosen translation does not fit the context. In this category of errors, also belong words that cannot be usually found as a part of the same phrase, collocation, or idiom.

When analyzing lexical errors in the translations of the English source text, it can be noticed that Google Translate provided a translation with more errors than the Yandex Translate one.

The translation offered by Google Translate has eleven lexical errors, while the translation produced by Yandex Translate had only 4 lexical errors.

There was an interesting error that both online machine translation systems made:

> [15A] I am speaking about Iranian-backed Hamas, Hezbollah, Islamic militias in Iraq and the Houthis in Yemen — and now even the openly Hamas-embracing Vladimir Putin.
>
> [15B] Govorim o Hamasu koji podržava Iran, Hezbollahu, islamskim milicijama u Iraku i Hutijima u Jemenu — a sada čak i o Vladimiru Putinu koji otvoreno prihvaća Hamas.
>
> [15C] Govorim o Hamasu, „Hezbollahu“, islamskim milicijama u Iraku i hutijima u Jemenu, a sada čak i o otvoreno podržavajućem Hamasu Vladimiru Putinu.

There is a specific word in both translations that should be in the focus for the sake of analyzing lexical errors in the translation. The word *militia* was translated as *milicija* which can mean "an organized civilian army in countries or situations without professional army"[6] according to an online dictionary of Croatian words, *Hrvatski jezični portal*. However, this was recognized as an error by a human translator that has more contextual knowledge than online machine translation systems. *Milicija* was a word used to define a type of police that existed during the second half of the 20th century in Croatia and other countries that were a part of Socialist Federalist Republic of Yugoslavia. This can even be considered the primary meaning of the word *milicija* for Croatian people, thus it can cause confusion when used as a translation for *militia* even though the words even have the same root word. *Paravojne postrojbe* might be considered a better translation for this context and target audience.

Both online machine translation systems translated *the United States* as *Sjedinjene države* which is not an official name that can be used for the United States in Croatian. The only accepted names are *SAD* and *Sjedinjene Američke Države*. Both Google Translate and Yandex Translate translated *personally* as *osobno* in the following example:

> [16A] I am stunned by how many Israelis now feel this danger personally, no matter where they live (…).
>
> [16B] Zaprepašten sam koliko Izraelaca sada osobno osjeća ovu opasnost, bez obzira gdje žive (…).

[6] Translated by the author of the paper.

[16C] Šokiran sam koliko Izraelaca sada osobno osjeća ovu opasnost, bez obzira gdje žive (…).

This is considered to be a lexical error because *personally* and *osobno* are not absolute synonyms but rather partial because only some of their meanings are completely the same. This means that *osobno* can always be translated as personally into English, but it cannot be produced the same when translating from English to Croatian. In this case, *personally* means that they themselves feel the danger and not through others, while *osobno* usually implies a certain level of intimacy with whatever is concerned in such contexts. Moreover, a proposed solution for this translation would be *(...) koliko Izraelaca sada na svojoj koži osjeća ovu opasnost.*

Google Translate had more lexical errors in its translation because it offered more incorrect collocations than what was the case for Yandex Translate. Google Translate translated *that Israel can generate the legitimacy* as *Izrael može stvoriti legitimitet* which is not an often-recurring phrase in a Croatian language. According to Sketch Engine and its corpora, *stvoriti legitimitet* can only be found in 4 examples which is not enough for it to become established as a phrase in Croatian. A better solution would be *osigurati / steći* as can be seen in the Yandex Translate translation:

[17A] The second danger I see is that the only conceivable way that Israel can generate the legitimacy, resources, time and allies (...).

[17B] Druga opasnost koju vidim je da je jedini mogući način na koji Izrael može stvoriti legitimitet, resurse, vrijeme i saveznike (...).

[17C] Druga opasnost koju vidim je da je jedini zamislivi način na koji Izrael može osigurati legitimitet, resurse, vrijeme i saveznike (...).

The fourth category of errors are semantic errors whose number is arguably the best sign of the quality of translations because they directly reflect how well the original meaning from the source text was retained in the process of translating. In contrast to the last category where Yandex Translate made fewer errors, now, in the Google Translate translation, only six semantic errors were found, while in the translation provided by Yandex Translate, there were 15 errors singled out while analyzing.

Both online machine translation systems made the same error of translating a phrase literally which does not convey the original meaning at all. This sentence was previously discussed for its other types of errors, however now the focus should be at the end of the sentence:

[18A] These foes have long been there, but all of them seemed to surface together like dragons during this conflict, threatening Israel with a 360-degree war all at once.

[18B] Ti su neprijatelji već dugo tamo, ali činilo se da su svi zajedno izronili na površinu poput zmajeva tijekom ovog sukoba, prijeteći Izraelu ratom od 360 stupnjeva odjednom.

[18C] Ti su neprijatelji već dugo tu, ali činilo se da su svi zajedno isplivali na površinu poput zmajeva tijekom ovog sukoba, prijeteći Izraelu ratom od 360 stupnjeva odjednom.

When closely looking at the premodifier 360-degree, it is obvious that it implies the high intensity and the severity of the war. The war is being fought at many places at the same time, or rather it evokes an image that one side is being attacked from all directions. However, when discussing the Croatian translation *rat od 360 stupnjeva,* it must be noted that it fully lacks the meaning of the original. This phrase was translated too literally and in doing so, online machine translation systems failed to convey the meaning of the original. This phrase does not successfully create the right contextual image in the person looking for a translation. *Rat na svim frontama* would be considered as a correct translation of this phrase.

[19A] (…) which is as much a threat to the future of Israel as it is to Palestinians longing for a decent state of their own in Gaza or the West Bank.

[19B] (…) koji je jednako prijetnja budućnosti Izraela kao i Palestincima koji čeznu za pristojnom vlastitom državom vlastite u Gazi ili na Zapadnoj obali.

[19C] (…) koji predstavlja prijetnju budućnosti Izraela kao i Palestincima koji traže vlastitu dostojanstvenu državu u Gazi ili na zapadnoj obali.

This is an interesting example of a semantic error made by Yandex Translate. Here in question is the premodifier *decent* which was translated better by Google Translate than by Yandex Translate. In sentence 19B decent was translated as *pristojnom* which fully contains the original meaning regarding the "good enough" meaning that is implied by the adjective *decent*. On the other hand, in the translation provided by Yandex Translate which can be seen in sentence 19C, this premodifier was translated as *dostojanstvenu*. While online Merriam-Webster dictionary [7]defines *decent* as "conforming to standards of propriety, good taste, or morality", which can be translated as *dostojanstven*, in this case, *decent* is used in its other meaning "fairly good, adequate, satisfactory", which is not covered by the Croatian word *dostojanstveno.* There is

[7] The dictionary can be accessed here: https://www.merriam-webster.com/

only a particularly narrow contextual window in which *dostojanstveno* is a correct translation for *decent* which does not include the aforementioned source text sentence. Apart from *pristojnom,* a successful translation would be *kvalitetnom, dovoljno dobrom*, even *poštenom* which would imply some more meaning and attributes of the state, but it would still be close enough to the original.

In the following example, Yandex Translate made quite an unexplainable semantic error because there is no obvious connection between the original word from the source text and the translation provided by Yandex Translate:

> [20A] Biden cannot help Israel build a coalition of U.S., European and moderate Arab partners to defeat Hamas if Netanyahu's message to the world remains (…).
>
> [20B] Biden ne može pomoći Izraelu da izgradi koaliciju američkih, europskih i umjerenih arapskih partnera za poraz Hamasa ako Netanyahuova poruka svijetu ostane na snazi (…).
>
> [20C] Biden neće moći pomoći Izraelu da stvori koaliciju američkih, europskih i umjerenih arapskih partnera kako bi porazio Hamas ako Netanjahuova poruka miru ostane na snazi (…).

In sentence 20C there is an obvious mistranslation – in the translation provided by Yandex Translate, the word *world* was translated as *miru* which is completely incorrect. These two words are not even partial synonyms, so it is unclear how this error came about. One connection that can be made here is that the word *мир* in Russian means the world, so it is possible that Yandex Translate did not recognize these false friends. This highlights the difference between Yandex Translate and Google Translate because Google Translate did not make such error of choosing a completely wrong word as a translation. The only semantic error that Google Translate made that Yandex Translate avoided making, which was of more significance for the understanding of the translation, was being too vague and choosing a wrong pronoun. The pronoun *they* from the source text was translated as *oni* by Google Translate which is not an error by itself, however *oni* in the context of the translated text is not a logical continuation of the previous sentence. *They* refers to *the demonic forces*, which are in Croatian linguistically considered to be of feminine gender so the pronoun should also reflect this. Otherwise, it causes confusion and is not a correct translation.

The final group of errors are stylistic errors that make up the smallest percentage of all errors in both translations. The translations provided by both online machine translation systems had two stylistic errors each. One of the errors was a pleonasm in both translations, while the second error has to be explained in further detail. Yandex Translate translated the phrase *a toddler and a baby in the stroller* as *malom djetetu i malom djetetu u kolicima* which is not the best solution stylistically, and the repetition of the collocation *malom djetetu* should be avoided. *A baby in the stroller* translated as *beba u kolicima* might be the best solution in this instance.

The following sentences example the stylistic error of Google Translate:

> [21A] (…) that indicates Israel will discuss some kind of two-state solutions if Palestinian officials can get their political house unified and in order.
>
> [21B] (…) koja ukazuje da će Izrael razgovarati o nekoj vrsti rješenja s dvije države ako palestinski dužnosnici ujedine i dovedu u red svoju političku kuću.

In this instance, the meaning was retained however the metaphorical translation of *get their political house unified and in order* does not exist in Croatian. It would be better to adapt the translation to the already existing metaphors, or simply paraphrase the translation so that it logically follows the style of the rest of the text. A better translation of this part of the sentence would be *ako se palestinski dužnosnici ujedine i dovedu u red političko stanje u državi.*

7. Discussion

7. 1. Comparison of automatic evaluations

Based on the results presented in section *6. 1. Automatic evaluation*, it is now possible to further analyze the evaluation of machine translation of English and Russian texts done by Google Translate and Yandex Translate. The results show that both translations of the Russian source text got better scores in BLEU than those of the English source text. This was also the case with the evaluation done by BERTSCORE.

Firstly, when comparing scores for translations of the Russian source text, it must be noted that the translation provided by Yandex Translate got a higher score (35.06) than the translation done by Google Translate (33.56) in BLEU. However, BERTSCORE scored the Yandex Translate translation 87.2 which is slightly lower than its score for Google Translate 87.36. It is interesting to note that both of these systems score the translations from 1 to 100, and the scores given in BERTSCORE are considerably higher. This reflects its lenience in comparison to BLEU, which searches for absolute matches between reference and machine translations. The third online

automatic evaluation tool also showed preference for the Yandex Translate translation, but this time in the form of a lower score, which signifies that fewer post-editing operations needed to be done to match the reference translation. The difference in this case is only 0.2, with Yandex Translate being scored 57.5, and Google Translate being scored 57.7.

On the other hand, the same evaluations were conducted for the two translations of the English source text done by Google Translate and Yandex Translate. It must be noted that the translations from English got lower scores in all of the cases which might be connected to the reference translation provided by a human translator. Seeing as the translator in case has studied Russian for five years and English for most of his life, he might have felt freer to make more stylistic choices in the second instance. It is also important to point out that in all three automatic evaluations of the translations of the English source text Google Translate got scored better.

To begin with, when comparing the score by BLEU of a translation offered by Google Translate, which was awarded 31.09 points, and that of a translation provided by Yandex Translate, which got 28.38 points, it is crucial to note that Google Translate translated the source texts closer to a translation provided by a human translator. Although that score is indeed higher, the difference between the scores is 2.71, which is not something that could be dismissed, however, it is clear that both translations must have many similarities. BERTSCORE scored Google Translate with 86.73, while Yandex Translate was scored with 85.86. As it was the case with the translations of the Russian source text, these scores are much higher than BLEU scores. The third automatic evaluation system once again favored the Google Translate translation (60.6). On the other hand, it scored Yandex Translate with 63.0.

The higher scores given to Google Translate by BERTSCORE are of great importance if we take into account the basic mechanism of BERTSCORE's evaluation. In this process of evaluation, the focus is on the context and this system allows for more options to be considered correct, and not only the absolute matches as BLEU.

Overall, the results show that BLEU and TER scored Yandex Translate better for its translation of the Russian source text, while BERTSCORE favored the translation produced by Google Translate. On the other hand, the results were homogenous for the translations of the English source text because all of the automatic evaluations scored the translation done by Google Translate as a better translation, or rather as the translation that is closer to the reference produced by a human translator.

The biggest benefit of using automatic evaluation systems is in their offering of concrete scores that can easily be compared one to another. As per the results, in two out of three cases, Yandex Translate translated the Russian source text better than Google Translate. However, Yandex Translate was in all three instances scored the worst for its translation of the English source text.

BLEU and BERTSCORE allow for a more detailed analysis of scores on a sentence level, which is not yet available in TER. This opens an interesting area for further research of different tools for automatic evaluation of machine translation. Even though BLEU is still one of the most often used tools, there are increasingly more tools being developed. In order to improve such tools, these results must be compared to the human evaluation of the same texts.

7. 2. Automatic and human evaluation

The previous section *7. 1. Comparison of automatic evaluation* discussed the results of the three different tools for automatic evaluation. However, in order to get a more in-depth analysis, these results also have to be compared to the results of the human evaluation. The final step will be to compare the human evaluation scores with the number of errors recognized in the detailed analysis.

In order to determine which online machine translation system scored better, a general final score was calculated. It is an average score that each system got for its accuracy and for its fluency for both source texts combined. The average accuracy score for Google Translate is 4.29, and the average fluency score is 3.83. In contrast, the average accuracy score that Yandex Translate got for its translations is 3.37, and the fluency got scored 2.83. What reflects the quality of the translations even more are the average scores that combine both the accuracy and fluency scores: Google Translate was scored by the participants with 4.06, while Yandex Translate was scored 3.1. These results show that, even though in some cases Yandex Translate scored higher than Google Translate, the translations provided by the latter were of higher quality.

For the purposes of comparing automatic evaluation scores to human evaluations, it would be ideal to calculate the average score for all three automatic evaluation tools, however, that is not possible due to the fact that TER has an opposite way of evaluating the more accurate translation, which is why each of the systems will be compared to the human evaluation scores. First and foremost, the most prominent result that has been extracted from the questionnaire responses is that Yandex Translate got considerably lower scores for its translations of both

texts. Google Translate got 4.71 for its translation of the Russian source text, and 3.15 for the translation of the English source text, while Yandex Translate got scored by the participants with 2.66 for the Russian source text and 2.87 for the English source text. These results differ from those that were provided by BLEU because that system recognized the translation of the Russian text done by Yandex Translate as a better translation. The next automatic evaluation tool, BERTSCORE, had very similar results as the results of human evaluation. In both cases, Google Translate was considered to be closer to the reference translation in its machine translations, however in the automatic evaluation the difference between the scores was considerably smaller than is the case with human evaluation. Lastly, the final automatic evaluation tool, TER, had similar results with few differences. Yandex Translate was scored better than Google Translate for the RU-HR translation which is the opposite of the human evaluation results. However, the translations of the English source text were scored the same in the automatic and human evaluation.

Even though the tools for automatic evaluation did not make a major difference between the scores given to each of the translations, the same cannot be said for the human evaluation. However, the combination of the previously analyzed results show that Google Translate has a slight advantage when translating the chosen texts.

Regarding the error analysis and categorization, there is no concrete numeric score on the basis of which all of the translations can be compared, but there is sufficient data to provide a new outlook on the research. In short, the general results showed that the translation with the least number of errors was the translation of the English source text done by Google Translate which had only 40 errors. On the other hand, the translation with most errors was the translation of the Russian source text produced by Yandex Translate which had 74 errors. The remaining two translations, the Yandex Translate translation of the English source text and the Google Translate translation of the Russian source text, each had 53 and 52 errors respectively.

Overall, out of the five error categories Yandex Translate had more orthographic and semantic errors, while Google Translate had more morphosyntactic and lexical errors in the translation of the English source text. However, it is worth noting that Google Translate had only one morphosyntactic error more than Yandex Translate, and both had only two stylistic errors. Generally, both online machine translation systems made errors in the same parts of the text, but Yandex Translate had more semantic errors which would be considered the basic linguistic error, and which affects the understanding of the text drastically.

The same analysis that has been conducted for the machine translations of the English source text has been done in the second case for the machine translations of the Russian source text. In this case, Yandex Translate had significantly more orthographic errors, as well as more semantic errors. On the other hand, it was superior to Google Translate in the morphosyntactic category, because it had four errors less than Google Translate. When it comes to the category with lexical errors, there was one error more found in the translation provided by Google Translate, but Yandex Translate was the only translation in which a single stylistic error was recognized.

In order to gain a broader perspective of the translations done by Google Translate and Yandex Translate, the number of errors done by each online machine translation system for both source text cumulatively should be taken into account. There were 92 errors found in both translations done by Google Translate and 127 errors in the translations provided by Yandex Translate. After singling out semantic errors as being the most influential on the quality of the overall translation, the numbers show that in the translations done by Yandex Translate there were 33 semantic errors. On the other hand, there were only 23 semantic errors in the translations produced by Google Translate.

8. Conclusion

Machine translation, especially the neural type, is evolving more and more each year, however, in order for this development to continue, experts need to evaluate and recognize both its positive aspects as well as its drawbacks. It is imperative not only to recognize the errors machine translation systems make, but also to find out why these errors come about and how to eliminate that. In order for that to be possible, continuous research has to be conducted with many different approaches to evaluating different machine translation systems.

The aim of this study was to determine which online machine translation system, Google Translate or Yandex Translate, was better at translating politically themed texts both from English and Russian to Croatian. This was done by three evaluation processes, automatic evaluation, error categorization, and annotators' evaluation. The research showed that automatic evaluation tools generally found the translation of the Russian source text provided by Yandex Translate to be the closest to human translation, but they also showed that the translations of the English source text translated by the same system to be the furthest from the reference translation.

The results of the human evaluation were provided by six participants of the survey who, without knowing which online machine translation system produced which translation, evaluated their accuracy and fluency on the Likert's scale from 1 to 5. The results for each sentence followed no pattern because there is no one way to interpret them. The data presented in previous sections show that the participants did not favor one of the systems over another, but it is also important to note that the difference between accuracy and frequency were never higher than a single point on the scale which goes to show that there is a high connection between those two parameters. In order to attempt to translate these results in a single comparison, the final average grades were calculated: Google Translate got 4.06, and Yandex Translate got 3.1. These scores were enough to conclude that Google Translate produced sentences that were more accurate from the perspective of linguists who have taken into account all the errors and their severity and the degree to which they affect the meaning and the understanding of the translation.

The most extensive evaluation showed that, when it comes to the translation of the English source text, both online machine translation systems made similar errors, but Yandex Translate had more semantic errors which are arguably the most important errors because they affect the meaning the most. However, it should not be disregarded that Google Translate had more lexical errors which are linguistically also important for the understanding of the translation. Nevertheless, this part of the evaluation process showed that the translation provided by Yandex Translate of the Russian source text also had more semantic errors, which once again highlights the semantic accuracy of the translations produced by Google Translate. As was expected, Yandex Translate was morphosyntactically more correct when translating the Russian source text due to its similarity to the Croatian language. Other error categories should not be discounted but the emphasis of this study was to evaluate how well the original meaning was conveyed in the translation so semantic errors are naturally highlighted and put into focus. The final count of semantic errors shows that Yandex Translate made 10 more semantic errors than Google Translate has, so it could be concluded that precisely this online machine translation system could be more useful for wider population of end-users.

With respect to the hypotheses, H1 and H2 were confirmed because the results of automatic evaluation show that Google Translate got better scores for the translation from English, while Yandex Translate got better scores for its translations of the Russian source text. Even though H4 was confirmed because the participants scored Google Translate better than Yandex Translate when it comes to translating from English, its complementary hypothesis was not

proven to be correct. It was expected that Yandex Translate would get higher human evaluation score for its translation from Russian than Google Translate, yet the results were different. Results show that H5 was correct in expecting that Yandex Translate translated source texts with lower levels of accuracy and fluency, however the results did not confirm the expected sixth hypothesis. It stated that in every translation there would be the highest percentage of orthographic errors, yet this was only accurate for both translations done by Yandex Translate.

Lastly, this study made an effort to combine both an automatic evaluation and a human evaluation with the ultimate goal of providing a detailed analysis of machine translations for the aforementioned two language pairs. This field of translation studies is in need of more studies with such methodology on a bigger sample so as to see if there would be different results and scores.

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10. Appendices

Appendix 1 – Russian ST

Оттенки насилия: будет ли большая война на Ближнем Востоке

Страны региона сочувствуют палестинцам в Газе, но предпочитают сохранять остатки стабильности. В этих условиях, считает старший научный сотрудник Центра ближневосточных исследований ИМЭМО РАН Николай Сурков, вероятным сценарием становится многомесячная осада Газы с последующим вмешательством посредников и эвакуацией боевиков ХАМАС в Йемен или даже Иран в обмен на освобождение израильских заложников

Движение ХАМАС использовало круглую дату — 50-летие относительно успешной для арабов Октябрьской войны 1973 года, чтобы напомнить о себе и палестинской проблеме. Можно предположить, что если бы атакам 7 октября подверглись только военные объекты, то реакция Израиля и поддерживающих его стран могла быть несколько более сдержанной. В конце концов, израильтяне как-то смирились с потерями и фактическим провалом своей войсковой операции в Ливане летом 2006 года. Но сейчас израильское общество, а значит, и избираемые им политики, не могло не отреагировать на тысячи жертв среди гражданского населения. Израиль пережил самый сильный шок даже не с 1973 года, когда ни один вражеский солдат так и не ступил на его территорию, а со времени по-настоящему тяжелой и кровопролитной Войны за независимость 1948 года, и теперь правительство Биньямина Нетаньяху действует, как человек в состоянии аффекта, без оглядки на чужое мнение.

Гибель мирных жителей Газы вызывает осуждение и поистине бурю негодования в арабском мире и в большинстве мусульманских стран. Мой обычно сдержанный арабский коллега почти плакал, рассказывая о гибели своего палестинского друга-профессора со всей семьей в результате авиаудара. На этом фоне СМИ постоянно муссируют тему новой большой войны на Ближнем Востоке, собирая клики и просмотры, но спустя почти месяц после начала конфликта в Газе никто из серьезных региональных игроков так и не вступил в конфликт.

Парад угроз

Арабские страны заняли откровенно выжидательную позицию. Саудовская Аравия, де-факто лидер региона, ограничивается критической риторикой и сбором

благотворительных пожертвований. Даже в соцсетях подданные королевства ведут себя осторожно, а о каких-то массовых публичных акциях в поддержку Палестины ничего не слышно. В Каире попытки уличных агитаторов, скорее всего, из числа местных исламистов, устроить стихийные демонстрации тоже не вызывают особого энтузиазма у населения. Египетские эксперты из госструктур осторожно рассуждают о том, что можно было бы повторить 1982 год и вывезти боевиков ХАМАС из Газы куда-нибудь подальше — как известно, после Ливанской войны 1982 года Израиль вынудил боевиков Организации освобождения Палестины (ООП) покинуть Ливан и перебраться в Тунис.

После начала конфликта все взоры были устремлены на Иран — главного и самого сильного регионального противника Израиля. Однако быстро стало понятно, что в Тегеране не хотят войны, по крайней мере в настоящий момент. Как метко выразился один очень уважаемый эксперт из региона, Иран предпочитает не спеша «ткать на Ближнем Востоке свой персидский ковер», а насилие использует очень дозированно и точечно, избегая прямой конфронтации. Поэтому задача оказания давления на Израиль, а заодно на США, была по традиции делегирована дружественным Исламской республике негосударственным акторам в Ливане, Сирии, Ираке и Йемене.

В последние недели октября заметно обострилась обстановка на севере Израиля. Армия обороны Израиля и ливанское движение «Хезболла» обмениваются болезненными ударами, несут потери, но все происходящее вдоль линии соприкосновения больше похоже на демонстрацию силы и готовности ее применить, нежели на настоящую войну. Представить, какой разрушительной она может оказаться, будет легко, если вспомнить события 2006 года. Складывается впечатление, что руководство «Хезболлы» пытается усидеть на двух стульях — продемонстрировать солидарность с палестинцами и в то же время не оказаться втянутым в большой конфликт с Израилем. Военный потенциал «Хезболлы» значителен, но он предназначен не столько для наступления, сколько для сдерживания Израиля в интересах повышения влияния «Хезболлы» внутри Ливана. Движение с 2006 года пользуется статусом «защитника от Израиля», что гарантирует ему долю во власти и престиж, а масштабные боевые действия с бомбардировками и боями на земле могут очень сильно обескровить группировку.

Ракеты с юга

Единственная сила, которая публично и официально вступила в конфликт на стороне ХАМАС, — это йеменское движение «Ансар Алла», или хуситы, которых Саудовская

Аравия и США считают иранскими прокси. Однако в реальности у хуситов нет возможности серьезно повлиять на ситуацию вокруг Газы, а их попытки организовать ракетные обстрелы Израиля больше похожи на эффектные жесты, предназначенные для поднятия боевого духа собственного населения и привлечения внимания. Жесткий антиизраильский нарратив хуситов сформировался давно. Если посмотреть их видеоролики, снятые еще несколько лет назад после разгрома саудовских колонн, то можно услышать, как простые бойцы с жаром заявляют о том, что они воюют не с Саудовской Аравией, а с Америкой и Израилем, которые якобы стоят за спиной королевства. Так что нынешние действия и заявления руководства «Ансар Алла» вполне вписываются в нарисованную его пропагандистами картину мира. При этом обстрелы Израиля с территории Йемена не носят массированного характера и вряд ли достигнут цели с учетом достаточно плотной и, судя по всему, работоспособной системы противоракетной обороны.

Обстановка в регионе меняется очень быстро — возможны любые повороты и, что хуже, непросчитываемые из Москвы неожиданности. Однако пока все потенциальные защитники палестинцев предпочитают лавировать, уклоняясь от участия в ненужном и невыгодном конфликте, полагаясь на демонстрации силы и тщательно дозируя ее применение — как стало модно говорить, используют разные «оттенки насилия». В этой связи очень ощутимо отчаяние людей в Газе, которые понимают, что за них никто не вступится, и с нескрываемой горечью говорят, что их бросили на произвол судьбы — между молотом и наковальней. И пока что самым оптимистичным выглядит сценарий, при котором повторится 1982 год, — многомесячная осада Газы, как когда-то Западного Бейрута, с последующим вмешательством посредников и эвакуацией боевиков ХАМАС в Йемен или даже Иран в обмен на освобождение израильских заложников.

Appendix 2 – Yandex Translate translation of RU ST

Nijanse nasilja: hoće li biti Velikog rata na Bliskom Istoku

Zemlje u regiji suosjećaju s Palestincima u Gazi, ali radije zadržavaju ostatke stabilnosti. U tim uvjetima, smatra viši znanstvenik centra za bliskoistočne studije IMEMO RAS Nikolaj Surkov, vjerojatni scenarij postaje višemjesečna Opsada gaze, nakon čega slijedi intervencija posrednika i evakuacija militanata Hamasa u Jemen ili čak Iran u zamjenu za oslobađanje izraelskih talaca

Pokret Hamas iskoristio je okrugli datum — 50. obljetnicu relativno uspješnog arapskog rata u listopadu 1973. - kako bi podsjetio na sebe i palestinski problem. Može se pretpostaviti da bi, ako su 7.listopada napadnuti samo vojni objekti, odgovor Izraela i zemalja koje ga podržavaju mogao biti nešto suzdržaniji. Na kraju su se Izraelci nekako pomirili s gubicima i stvarnim neuspjehom svoje vojne operacije u Libanonu u ljeto 2006. Ali sada izraelsko društvo, a time i političari koje je izabralo, nije moglo ne reagirati na Tisuće civilnih žrtava. Izrael je doživio najgori šok čak ni od 1973.godine, kada nijedan neprijateljski vojnik nije kročio na njegov teritorij, već od stvarno teškog i krvavog rata za neovisnost 1948. godine, a sada Vlada Benjamina Netanjahua djeluje kao čovjek u stanju afekta, bez obzira na tuđe mišljenje.

Smrt civila u Gazi izaziva osudu i uistinu oluju ogorčenja u arapskom svijetu i većini muslimanskih zemalja. Moj obično rezervirani Arapski kolega gotovo je plakao dok je s cijelom obitelji prepričavao smrt svog palestinskog prijatelja profesora u zračnom napadu. U tom kontekstu, mediji stalno raspravljaju o novom velikom ratu na Bliskom Istoku, prikupljajući klikove i poglede, ali gotovo mjesec dana nakon početka sukoba u Gazi, nitko od ozbiljnih regionalnih igrača nije ušao u sukob.

Parada prijetnji

Arapske zemlje zauzele su otvoreno stajalište čekanja. Saudijska Arabija, de facto vođa regije, ograničena je na kritičku retoriku i prikupljanje dobrotvornih donacija. Čak se i na društvenim mrežama podanici kraljevstva ponašaju oprezno, a o nekim masovnim javnim akcijama u potporu Palestini ništa se ne čuje. U Kairu pokušaji uličnih agitatora, najvjerojatnije među lokalnim islamistima, da organiziraju spontane demonstracije također ne izazivaju veliko oduševljenje stanovništva. Egipatski stručnjaci iz vladinih agencija oprezno tvrde da bi bilo moguće ponoviti 1982.godinu i izvesti borce Hamasa iz Gaze negdje daleko-kao što znate, nakon libanonskog rata 1982. godine Izrael je prisilio militante Palestinske oslobodilačke organizacije (PLO) da napuste Libanon i presele se u Tunis.

Nakon početka sukoba, sve su oči bile uprte u Iran, glavnog i najjačeg regionalnog protivnika Izraela. Međutim, brzo je postalo jasno da Teheran ne želi rat, barem u ovom trenutku. Kao što je prikladno rekao jedan vrlo cijenjeni stručnjak iz regije, Iran radije polako "Tka svoj perzijski tepih na Bliskom Istoku", a nasilje koristi na vrlo odmjeren i precizan način, izbjegavajući izravno sučeljavanje. Stoga je zadatak vršenja pritiska na Izrael, a istovremeno i na SAD, tradicionalno delegiran prijateljskim islamskim republikama nedržavnim akterima u Libanonu, Siriji, Iraku i Jemenu.

Posljednjih tjedana listopada situacija na sjeveru Izraela znatno se pogoršala. Izraelske obrambene snage i libanonski pokret "Hezbollah" razmjenjuju bolne udare, trpe gubitke, ali sve što se događa duž linije dodira više liči na demonstraciju snage i spremnosti za njezinu primjenu nego na stvarni rat. Zamisliti koliko bi to moglo biti destruktivno bilo bi lako kad se prisjetite događaja iz 2006.godine. Stječe se dojam da vodstvo "Hezbollaha" pokušava sjediti na dvije stolice — pokazati solidarnost s Palestincima i istodobno se ne uvući u veliki sukob s Izraelom. Vojni potencijal " Hezbollaha "je značajan, ali nije toliko namijenjen napadu, već zadržavanju Izraela u interesu povećanja utjecaja" Hezbollaha " unutar Libanona. Pokret od 2006.godine uživa status "zaštitnika od Izraela", što mu jamči udio u moći i ugledu, a velike borbene akcije s bombardiranjem i borbama na zemlji mogu jako iscrpiti grupu.

Rakete s juga

Jedina sila koja je javno i službeno ušla u sukob na strani Hamasa je jemenski pokret "Ansar alla", ili Huti, koje Saudijska Arabija i SAD smatraju iranskim opunomoćenicima. Međutim, u stvarnosti, Huti nemaju načina da ozbiljno utječu na situaciju oko gaze, a njihovi pokušaji organiziranja raketnih napada na Izrael više su poput spektakularnih gesta namijenjenih podizanju borbenog duha vlastitog stanovništva i privlačenju pažnje. Kruti antiizraelski narativ Hutija nastao je davno. Ako pogledate njihove videozapise snimljene prije nekoliko godina nakon poraza saudijskih kolona, možete čuti kako obični borci Žarko izjavljuju da se ne bore sa Saudijskom Arabijom, već s Amerikom i Izraelom, koji navodno stoje iza leđa kraljevstva. Dakle, trenutne akcije i izjave vodstva "Ansar alla" sasvim se uklapaju u sliku svijeta koju su nacrtali njegovi propagandisti. Istodobno, granatiranje Izraela s teritorija Jemena nije masivno i malo je vjerojatno da će postići cilj s obzirom na prilično gust i, čini se, učinkovit sustav proturaketne obrane.

Situacija u regiji mijenja se vrlo brzo-mogući su Bilo kakvi zavoji i, što je još gore, iznenađenja koja se ne mogu računati iz Moskve. Međutim, za sada svi potencijalni branitelji Palestinaca radije manevriraju, izbjegavajući sudjelovanje u nepotrebnom i nepovoljnom sukobu, oslanjajući se na demonstracije sile i pažljivo dozirajući njezinu upotrebu — kako je postalo moderno reći, koriste različite "nijanse nasilja". S tim u vezi, očaj ljudi u Gazi vrlo je opipljiv, koji shvaćaju da se nitko neće zauzeti za njih, i s neskrivenom gorčinom kažu da su prepušteni svojoj sudbini — između stijene i tvrdog mjesta. I do sada je najoptimističniji scenarij u kojem će se ponoviti 1982. — višemjesečna Opsada Gaze, kao nekada Zapadnog Bejruta, praćena intervencijom posrednika i evakuacijom militanata Hamasa u Jemen ili čak Iran u zamjenu za oslobađanje izraelskih talaca.

Appendix 3 – Google Translate translation of RU ST

Nijanse nasilja: hoće li biti velikog rata na Bliskom istoku

Zemlje u regiji suosjećaju s Palestincima u Gazi, ali više vole zadržati neke ostatke stabilnosti. Pod tim uvjetima, kaže Nikolaj Surkov, viši istraživač u Centru za bliskoistočne studije pri IMEMO RAS, vjerojatan scenarij je višemjesečna opsada Gaze praćena intervencijom posrednika i evakuacijom Hamasovih militanata u Jemen ili čak Iran u zamjenu za oslobađanje izraelskih talaca

Pokret Hamas iskoristio je obljetnicu - 50. obljetnicu za Arape relativno uspješnog listopadskog rata 1973. - da podsjeti na sebe i na palestinski problem. Može se pretpostaviti da bi 7. listopada, da su napadnuti samo vojni ciljevi, reakcija Izraela i zemalja koje ga podupiru mogla biti nešto suzdržanija. Na kraju su se Izraelci nekako pomirili s gubicima i praktičkim neuspjehom svoje vojne operacije u Libanonu u ljeto 2006. godine. Ali sada izraelsko društvo, a time i političari koje bira, nisu mogli ne reagirati na tisuće civilnih žrtava. Izrael je najveći šok doživio ne od 1973. godine, kada niti jedan neprijateljski vojnik nije kročio na njegov teritorij, već od uistinu teškog i krvavog rata za neovisnost 1948. godine, a sada se vlada Benjamina Netanyahua ponaša kao čovjek sposoban afektirati, bez obzira na tuđa mišljenja.

Smrt civila u Gazi izaziva osude i doista buru ogorčenja u arapskom svijetu i većini muslimanskih zemalja. Moj inače suzdržani arapski kolega gotovo je zaplakao kad je govorio o pogibiji svog prijatelja profesora Palestinca i cijele njegove obitelji u zračnom napadu. U tom kontekstu, mediji konstantno raspravljaju o novom velikom ratu na Bliskom istoku, skupljaju klikove i preglede, ali gotovo mjesec dana nakon početka sukoba u Gazi nitko od ozbiljnih regionalnih igrača nije ušao u sukob. .

Parada prijetnji

Arapske zemlje zauzele su stav otvorenog čekanja. Saudijska Arabija, de facto lider regije, ograničava se na kritičku retoriku i prikupljanje dobrotvornih priloga. Čak se i na društvenim mrežama građani kraljevine ponašaju oprezno i ništa se nije čulo o masovnim javnim akcijama podrške Palestini. U Kairu pokušaji uličnih agitatora, najvjerojatnije iz redova lokalnih islamista, da organiziraju spontane demonstracije također ne izazivaju veliko oduševljenje stanovništva. Egipatski stručnjaci iz vladinih agencija oprezno nagađaju da bi bilo moguće ponoviti 1982. i odvesti Hamasove militante iz Gaze negdje daleko - kao što je poznato, Izrael

je nakon libanonskog rata 1982. prisilio militante Palestinske oslobodilačke organizacije (PLO) da napustiti Libanon i preseliti se u Tunis .

Nakon početka sukoba sve su oči bile uprte u Iran, glavnog i najjačeg regionalnog protivnika Izraela. No, brzo je postalo jasno da Teheran ne želi rat, barem u ovom trenutku. Kako je prikladno rekao jedan vrlo cijenjeni stručnjak iz regije, Iran preferira polako “tkati svoj perzijski tepih na Bliskom istoku”, a nasilje koristi vrlo odmjereno i ciljano, izbjegavajući izravnu konfrontaciju. Stoga je zadatak pritiska na Izrael, a ujedno i na SAD, tradicionalno delegiran nedržavnim akterima prijateljski raspoloženim prema Islamskoj Republici u Libanonu, Siriji, Iraku i Jemenu.

Posljednjih tjedana listopada situacija u sjevernom Izraelu se osjetno pogoršala. Izraelske obrambene snage i libanonski pokret Hezbollah razmjenjuju bolne udarce i trpe gubitke, ali sve što se događa uz crtu dodira više liči na demonstraciju sile i spremnosti da se ona upotrijebi, nego na pravi rat. Lako je zamisliti koliko bi to moglo biti razorno ako se prisjetimo događaja iz 2006. godine. Stječe se dojam da vodstvo Hezbollaha pokušava sjediti na dvije stolice - pokazati solidarnost s Palestincima i istovremeno ne biti uvučeno u veliki sukob s Izraelom. Hezbollahov vojni potencijal je značajan, ali nije toliko namijenjen ofenzivi koliko obuzdavanju Izraela u interesu povećanja Hezbollahovog utjecaja unutar Libanona. Od 2006. pokret uživa status "branitelja protiv Izraela", što mu jamči udio u moći i prestižu, a vojne operacije velikih razmjera s bombardiranjem i borbama na terenu mogu uvelike raskrvariti skupinu.

Rakete s juga

Jedina sila koja je javno i službeno ušla u sukob na strani Hamasa je jemenski pokret Ansar Allah ili Huti, koje Saudijska Arabija i Sjedinjene Države smatraju iranskim opunomoćenicima. No, u stvarnosti Huti nemaju mogućnosti ozbiljnije utjecati na situaciju oko Gaze, a njihovi pokušaji da organiziraju raketne napade na Izrael više su poput spektakularnih gesta kojima se podiže moral vlastitog stanovništva i privlači pozornost. Tvrdi antiizraelski narativ Hutija formiran je dugo vremena. Ako pogledate njihove videe, snimljene prije nekoliko godina nakon poraza saudijskih kolona, možete čuti kako obični borci strastveno izjavljuju da se ne bore protiv Saudijske Arabije, već protiv Amerike i Izraela, koji navodno stoje iza kraljevstva. Tako da se trenutni postupci i izjave rukovodstva Ansar Allaha dobro uklapaju u sliku svijeta koju crtaju njegovi propagandisti. U isto vrijeme, granatiranje Izraela iz Jemena nije masivno i malo

je vjerojatno da će postići svoj cilj, s obzirom na prilično gust i, očito, učinkovit sustav proturaketne obrane.

Situacija u regiji se vrlo brzo mijenja - mogući su bilo kakvi obrati i, što je još gore, iznenađenja koja Moskva nije proračunata. Međutim, do sada svi potencijalni branitelji Palestinaca više vole manevrirati, izbjegavajući sudjelovanje u nepotrebnom i neprofitabilnom sukobu, oslanjajući se na demonstraciju sile i pažljivo mjereći njezinu upotrebu - kako je postalo moderno reći, koriste različite "nijanse nasilja". ” U tom pogledu itekako je opipljiv očaj ljudi u Gazi koji shvaćaju da se nitko neće zauzeti za njih, te s neskrivenom gorčinom govore kako su ostavljeni na milost i nemilost sudbine – između čekića i nakovnja. . A zasad se najoptimističnijim scenarijem čini onaj u kojem se ponavlja 1982. - višemjesečna opsada Gaze, kao što je nekada bio Zapadni Bejrut, praćena intervencijom posrednika i evakuacijom Hamasovih militanata u Jemen ili čak Iran u zamjenu za oslobađanje izraelskih talaca.

Appendix 4 – English ST

People warned me before I came to Tel Aviv a few days ago that the Israel of Oct. 7 is an Israel that I’ve never been to before. They were right. It is a place in which Israelis have never lived before, a nation that Israeli generals have never had to protect before, an ally that America has never had to defend before — certainly not with the urgency and resolve that would lead a U.S. president to fly over and buck up the whole nation.

After traveling around Israel and the West Bank, I now understand why so much has changed. It is crystal clear to me that Israel is in real danger — more danger than at any other time since its War of Independence in 1948. And it’s for three key reasons:

First, Israel is facing threats from a set of enemies who combine medieval theocratic worldviews with 21st-century weaponry — and are no longer organized as small bands of militiamen but as modern armies with brigades, battalions, cybercapabilities, long-range rockets, drones and technical support. I am speaking about Iranian-backed Hamas, Hezbollah, Islamic militias in Iraq and the Houthis in Yemen — and now even the openly Hamas-embracing Vladimir Putin. These foes have long been there, but all of them seemed to surface together like dragons during this conflict, threatening Israel with a 360-degree war all at once.

How does a modern democracy live with such a threat? This is exactly the question these demonic forces wanted to instill in the mind of every Israeli. They are not seeking a territorial compromise with the Jewish state. Their goal is to collapse the confidence of Israelis that their

defense and intelligence services can protect them from surprise attacks across their borders — so Israelis will, first, move away from the border regions and then they will move out of the country altogether.

I am stunned by how many Israelis now feel this danger personally, no matter where they live — starting with a friend who lives in Jerusalem telling me that she and her husband just got gun licenses to have pistols at home. No one is going to snatch their children and take them into a tunnel. Hamas, alas, has tunneled fear into many, many Israeli heads far from the Gaza border.

The second danger I see is that the only conceivable way that Israel can generate the legitimacy, resources, time and allies to fight such a difficult war with so many enemies is if it has unwavering partners abroad, led by the United States. President Biden, quite heroically, has been trying to help Israel with its immediate and legitimate goal of dismantling Hamas's messianic terrorist regime in Gaza — which is as much a threat to the future of Israel as it is to Palestinians longing for a decent state of their own in Gaza or the West Bank.

But Israel's war against Hamas in Gaza entails urban, house-to-house fighting that creates thousands of civilian casualties — innocent men, women and children — among whom Hamas deliberately embedded itself to force Israel to have to kill those innocents in order to kill the Hamas leadership and uproot its miles of attack tunnels.

But Biden can sustainably generate the support Israel needs only if Israel is ready to engage in some kind of a wartime diplomatic initiative directed at the Palestinians in the West Bank — and hopefully in a post-Hamas Gaza — that indicates Israel will discuss some kind of two-state solutions if Palestinian officials can get their political house unified and in order.

This leads directly to my third, deep concern.

Israel has the worst leader in its history — maybe in all of Jewish history — who has no will or ability to produce such an initiative.

Worse, I am stunned by the degree to which that leader, Prime Minister Benjamin Netanyahu, continues to put the interests of holding on to the support of his far-right base — and pre-emptively blaming Israel's security and intelligence services for the war — ahead of maintaining national solidarity or doing some of the basic things that Biden needs in order to get Israel the resources, allies, time and legitimacy it needs to defeat Hamas.

Biden cannot help Israel build a coalition of U.S., European and moderate Arab partners to defeat Hamas if Netanyahu's message to the world remains, in effect: "Help us defeat Hamas

in Gaza while we work to expand settlements, annex the West Bank and build a Jewish supremacist state there."

Let's drill down on these dangers.

Last Saturday night, a retired Israeli Army commander stopped by my hotel in Tel Aviv to share his perspective on the war. I took him to the 18th-floor executive lounge for our chat, and when we got into the elevator to go up, we joined a family of four — two parents, a toddler and a baby in a stroller. The Israeli general asked them where they were from. "Kiryat Shmona," the father answered.

Appendix 5 – Yandex Translate translation of EN ST

Ljudi su me upozorili prije nego što sam prije nekoliko dana stigao u Tel Aviv da je Izrael 7.listopada Izrael u kojem nikada prije nisam bio. Bili su u pravu. To je mjesto u kojem Izraelci nikada prije nisu živjeli, nacija koju izraelski generali nikada prije nisu morali braniti, saveznik kojeg Amerika nikada prije nije morala braniti — zasigurno ne s toliko hitnosti i odlučnosti da bi američki predsjednik doletio i podigao cijelu naciju na noge.

Nakon putovanja Izraelom i Zapadnom obalom, sada razumijem zašto se toliko toga promijenilo. Jasno mi je da je Izrael u stvarnoj opasnosti — većoj opasnosti nego u bilo koje drugo vrijeme od revolucionarnog rata 1948. I to iz tri ključna razloga:

Prvo, Izrael se suočava s prijetnjama mnoštva neprijatelja koji kombiniraju srednjovjekovni teokratski svjetonazor s naoružanjem 21.stoljeća—i više nisu organizirani kao male milicijske jedinice, već kao moderne vojske s brigadama, bataljunima, kibernetičkim sposobnostima, raketama dugog dometa, bespilotnim letjelicama i tehničkom podrškom. Govorim o Hamasu, "Hezbollahu", islamskim milicijama u Iraku i hutijima u Jemenu, a sada čak i o otvoreno podržavajućem Hamasu Vladimiru Putinu. Ti su neprijatelji već dugo tu, ali činilo se da su svi zajedno isplivali na površinu poput zmajeva tijekom ovog sukoba, prijeteći Izraelu ratom od 360 stupnjeva odjednom.

Kako moderna demokracija može živjeti s takvom prijetnjom? Upravo je to pitanje koje su ove demonske sile htjele ubaciti u um svakog Izraelaca. Ne traže teritorijalni kompromis sa židovskom državom. Njihov je cilj potkopati povjerenje Izraelaca da ih njihove obrambene i obavještajne službe mogu zaštititi od iznenadnih napada preko njihovih granica — pa će se Izraelci prvo povući iz pograničnih područja, a zatim potpuno napustiti zemlju.

Šokiran sam koliko Izraelaca sada osobno osjeća ovu opasnost, bez obzira gdje žive — počevši od prijateljice koja živi u Jeruzalemu koja mi je rekla da su ona i njezin suprug upravo dobili dozvole za nošenje oružja kako bi imali pištolje kod kuće. Nitko im neće oteti djecu i odvesti ih u tunel. Hamas je, nažalost, usadio strah u mnoge, mnoge izraelske glave daleko od granice s gazom.

Druga opasnost koju vidim je da je jedini zamislivi način na koji Izrael može osigurati legitimitet, resurse, vrijeme i saveznike za vođenje tako složenog rata s toliko neprijatelja imati nepokolebljive partnere u inozemstvu predvođene Sjedinjenim Državama. Predsjednik Biden, na potpuno herojski način, pokušava pomoći Izraelu u njegovom neposrednom i legitimnom cilju — demontiranju hamasovog mesijanskog terorističkog režima u Gazi, koji predstavlja prijetnju budućnosti Izraela kao i Palestincima koji traže vlastitu dostojanstvenu državu u Gazi ili na zapadnoj obali.

No, izraelski rat protiv Hamasa u Gazi podrazumijeva urbane borbe od kuće do kuće koje rezultiraju tisućama civilnih žrtava - nevinih muškaraca, žena i djece - među kojima se Hamas namjerno infiltrirao kako bi prisilio Izrael da ubije ove nevine ljude kako bi uništio vodstvo Hamasa i iskorijenio kilometre njegovih tunela za napade.

No, Biden može održivo dobiti potporu koja je Izraelu potrebna samo ako je Izrael spreman sudjelovati u bilo kojoj ratnoj diplomatskoj inicijativi usmjerenoj protiv Palestinaca na zapadnoj obali—i nadamo se u Gazi nakon povlačenja Hamasa - što ukazuje da će Izrael raspravljati o nekakvim rješenjima dviju država ako Palestinski dužnosnici mogu postići svoj put. politička kuća je ujedinjena i u redu.

To izravno dovodi do moje treće, duboke zabrinutosti.

Izrael ima najgoreg vođu u svojoj povijesti — možda u cijeloj židovskoj povijesti — koji nema ni volje ni sposobnosti da pokrene takvu inicijativu.

Što je još gore, zapanjen sam u kojoj mjeri ovaj čelnik, Premijer Benjamin Netanjahu, nastavlja stavljati interese održavanja potpore svojoj krajnje desničarskoj bazi-i preventivno optuživati izraelske sigurnosne i obavještajne službe za rat — iznad održavanja nacionalne solidarnosti ili obavljanja nekih od osnovne stvari koje su Bidenu potrebne kako bi Izraelu pružio resurse, saveznike, vrijeme i legitimitet koji su mu potrebni da porazi Hamas.

Biden neće moći pomoći Izraelu da stvori koaliciju američkih, europskih i umjerenih arapskih partnera kako bi porazio Hamas ako Netanjahuova poruka miru ostane na snazi: "Pomozite nam

da porazimo Hamas u Gazi dok radimo na širenju naselja, aneksiji Zapadne obale i uspostavljanju tamošnje države židovske prevlasti."

Zaustavimo se na tim opasnostima.

Prošle subote navečer umirovljeni zapovjednik izraelske vojske svratio je u moj hotel u Tel Avivu kako bi podijelio svoj pogled na rat. Odveo sam ga u izvršni salon na 18.katu radi našeg razgovora, a kad smo ušli u dizalo da se popnemo gore, pridružili smo se četveročlanoj obitelji- dva roditelja, malom djetetu i malom djetetu u kolicima. Izraelski general pitao ih je odakle dolaze. "Kirjat-Šmona", odgovorio je otac.

Appendix 6 – Google Translate translation of EN ST

Ljudi su me upozorili prije nego što sam došao u Tel Aviv prije nekoliko dana da je Izrael od 7. listopada Izrael u kojem nikada prije nisam bio. Imali su pravo. To je mjesto na kojem Izraelci nikad prije nisu živjeli, nacija koju izraelski generali nikada prije nisu morali štititi, saveznik kojeg Amerika nikada prije nije morala braniti - svakako ne s hitnošću i odlučnošću koja bi navela američkog predsjednika da odleti više i dići cijelu naciju.

Nakon putovanja po Izraelu i Zapadnoj obali, sada razumijem zašto se toliko toga promijenilo. Kristalno mi je jasno da je Izrael u stvarnoj opasnosti - većoj opasnosti nego u bilo kojem drugom trenutku od njegovog rata za neovisnost 1948. I to iz tri ključna razloga:

Prvo, Izrael je suočen s prijetnjama od niza neprijatelja koji kombiniraju srednjovjekovne teokratske svjetonazore s oružjem 21. stoljeća - i više nisu organizirani kao male skupine milicija već kao moderne vojske s brigadama, bataljunima, kibernetičkim sposobnostima, raketama dugog dometa, bespilotnim letjelicama i tehnička podrška. Govorim o Hamasu koji podržava Iran, Hezbollahu, islamskim milicijama u Iraku i Hutijima u Jemenu — a sada čak i o Vladimiru Putinu koji otvoreno prihvaća Hamas. Ti su neprijatelji već dugo tamo, ali činilo se da su svi zajedno izronili na površinu poput zmajeva tijekom ovog sukoba, prijeteći Izraelu ratom od 360 stupnjeva odjednom.

Kako moderna demokracija živi s takvom prijetnjom? Upravo su to pitanje te demonske sile željele usaditi u um svakog Izraelca. Oni ne traže teritorijalni kompromis sa židovskom državom. Njihov cilj je srušiti povjerenje Izraelaca da ih njihove obrambene i obavještajne službe mogu zaštititi od iznenadnih napada preko njihovih granica - tako da će se Izraelci prvo udaljiti od pograničnih područja, a zatim će se potpuno iseliti iz zemlje.

Zaprepašten sam koliko Izraelaca sada osobno osjeća ovu opasnost, bez obzira gdje žive - počevši od prijateljice koja živi u Jeruzalemu koja mi je rekla da su ona i njezin suprug upravo dobili dozvolu za oružje kako bi imali pištolje kod kuće. Nitko im neće otimati djecu i odvoditi ih u tunel. Hamas je, nažalost, uvukao strah u mnoge, mnoge izraelske glave daleko od granice Gaze.

Druga opasnost koju vidim je da je jedini mogući način na koji Izrael može stvoriti legitimitet, resurse, vrijeme i saveznike za vođenje tako teškog rata s toliko mnogo neprijatelja ako ima nepokolebljive partnere u inozemstvu, predvođene Sjedinjenim Državama. Predsjednik Biden, prilično herojski, pokušava pomoći Izraelu u njegovom neposrednom i legitimnom cilju demontiranja Hamasovog mesijanskog terorističkog režima u Gazi — koji je jednako prijetnja budućnosti Izraela kao i Palestincima koji čeznu za pristojnom vlastitom državom vlastite u Gazi ili na Zapadnoj obali.

Ali izraelski rat protiv Hamasa u Gazi podrazumijeva urbane borbe od kuće do kuće koje stvaraju tisuće civilnih žrtava — nevinih muškaraca, žena i djece — među koje se Hamas namjerno ugradio kako bi prisilio Izrael da mora ubijati te nedužne kako bi ubio Vodstvo Hamasa i iskorijeniti njegove milje napadačkih tunela.

Ali Biden može održivo generirati potporu potrebnu Izraelu samo ako je Izrael spreman uključiti se u neku vrstu ratne diplomatske inicijative usmjerene na Palestince na Zapadnoj obali - i nadamo se u Gazi nakon Hamasa - koja ukazuje da će Izrael razgovarati o nekoj vrsti rješenja s dvije države ako palestinski dužnosnici ujedine i dovedu u red svoju političku kuću.

Ovo izravno vodi do moje treće, duboke zabrinutosti.

Izrael ima najgoreg vođu u svojoj povijesti - možda u cijeloj židovskoj povijesti - koji nema volje ni sposobnosti pokrenuti takvu inicijativu.

Što je još gore, zapanjen sam stupnjem do kojeg taj vođa, premijer Benjamin Netanyahu, i dalje drži interese zadržavanja potpore svoje krajnje desničarske baze — i preventivno optužujući izraelske sigurnosne i obavještajne službe za rat — ispred održavanja nacionalne solidarnosti ili obavljanja nekih od osnovnih stvari koje su Bidenu potrebne kako bi Izrael dobio resurse, saveznike, vrijeme i legitimitet koji su mu potrebni da porazi Hamas.

Biden ne može pomoći Izraelu da izgradi koaliciju američkih, europskih i umjerenih arapskih partnera za poraz Hamasa ako Netanyahuova poruka svijetu ostane na snazi: “Pomozite nam

poraziti Hamas u Gazi dok radimo na širenju naselja, aneksiji Zapadne obale i izgradnji tamošnja židovska supremacistička država."

Razmotrimo ove opasnosti.

Prošle subote navečer, umirovljeni zapovjednik izraelske vojske svratio je u moj hotel u Tel Avivu kako bi podijelio svoje viđenje rata. Odveo sam ga u poslovni salon na 18. katu na naš razgovor, a kad smo ušli u dizalo da se popnemo, pridružili smo se četveročlanoj obitelji — dva roditelja, malo dijete i beba u kolicima. Izraelski general ih je pitao odakle su. "Kiryat Shmona", odgovorio je otac.

Appendix 7 – Reference translation of RU ST

Nijanse nasilja: hoće li na Bliskom istoku doći do masovnog rata

Zemlje u regiji suosjećaju s Palestincima u Gazi, no prednost daju održavanju ostataka stabilnosti. U takvim uvjetima sve izglednijom postaje višemjesečna opsada Gaze te potom uplitanje posrednika i evakuacija boraca Hamasa u Jemen ili čak Iran u zamjenu za oslobođenje izraelskih taoca, smatra Nikolaj Surkov, viši znanstveni suradnik Centra za bliskoistočne studije pri Institutu za svjetsko gospodarstvo i međunarodne odnose Ruske akademije znanosti.

Hamas je iskoristio znakovit datum – 50. godišnjicu iz arapske perspektive relativno uspješnog Jomkipurskog rata 1973. godine – kako bi podsjetio na sebe i palestinski problem. Da je napad 7. listopada imao za metu samo vojne objekte, može se pretpostaviti da bi reakcija Izraela i država koje ga podržavaju mogla biti nešto suzdržanija. Na kraju krajeva, Izraelci su se naizgled pomirili s gubitcima i *de facto* neuspjehom svoje vojne operacije u Libanonu u ljeto 2006. godine. No sada izraelsko društvo, a time i političari koje izabiru, nije moglo ne reagirati na tisuće civilnih žrtava. Izrael je ovime pretrpio najsnažniji šok od ne čak 1973. godine, kada niti jedan neprijateljski vojnik nije ni stupio na njegov teritorij, već od vremena uistinu teškog i krvavog Izraelskog rata za neovisnost 1948. godine. Sada vlada Benjamina Netanyahua postupa kao osoba u stanju afekta, bez osvrtanja na tuđe mišljenje.

Umiranje civilnog stanovništva u Gazi izaziva osudu i pravu oluju negodovanja u arapskom svijetu i u većini muslimanskih zemalja. Moj inače suzdržani arapski kolega bio je na rubu suza dok je svojoj obitelji pričao o svom prijatelju Palestincu, profesoru koji je stradao uslijed zračnog napada. Usred svega toga masovni mediji neprestano vrte temu novog masovnog rata na Bliskom istoku i time skupljaju klikove i preglede, no nakon gotovo mjesec dana od početka sukoba u Gazi nitko od ozbiljnih regionalnih igrača nije se pridružio sukobu.

Parada prijetnji

Zemlje arapskog svijeta otvoreno su zauzele poziciju pasivnog promatrača. Saudijska Arabija, koja je *de facto* predvodnik regije, ograničava se na kritičku retoriku i prikupljanje humanitarne pomoći. Čak i na društvenim mrežama državljani ovog kraljevstva ponašaju se oprezno te o masovnim javnim akcijama u podršku Palestini nema ni riječi. U Kairu pokušaji uličnih huškača, najvjerojatnije pripadnika lokalnih islamističkih skupina, da organiziraju burne demonstracije također nisu naišli na osobit entuzijazam domaćeg stanovništva. Egipatski državni stručnjaci s oprezom raspravljaju o mogućnosti ponavljanja scenarija iz 1982. godine, odnosno o izvlačenju boraca Hamasa iz Gaze na neku dalju lokaciju; kao što je poznato, nakon Libanonskog rata 1982. godine Izrael je primorao borce Palestinske oslobodilačke organizacije (PLO) da napuste Libanon i prijeđu u Tunis.

Nakon što je sukob započeo svi su pogledi bili upereni prema Iranu, glavnom i najsnažnijem Izraelovom protivniku u regiji. Međutim, ubrzo je postalo jasno da Teheran ne priželjkuje rat, u krajnju ruku ne u ovom trenutku. Kako se spretno izrazio jedan vrlo ugledni stručnjak iz regije, Iran preferira neužurbano „tkati na Bliskom istoku svoj perzijski sag“, a nasilje koristi u vrlo malim i preciznim dozama, izbjegavajući izravne sukobe. Stoga je zadaća vršenja pritiska na Izrael, a istodobno i na SAD, po tradiciji pala na nevladine aktere u Libanonu, Siriji, Iraku i Jemenu koji su simpatizeri Islamske republike.

U posljednjim tjednima listopada stanje na sjeveru Izraela znatno se pogoršalo. Izraelske obrambene snage i libanonski pokret Hezbolah lansiraju slabašne napade jedan na drugoga, trpe gubitke, no sve što se događa uzduž bojišnice više sliči na demonstraciju sile i spremnosti na primjenu iste nego na pravi rat. Lako je zamisliti koliko razoran taj rat može biti ako se sjetimo što se dogodilo 2006. godine. Stvara se dojam da vodstvo Hezbolaha pokušava sjediti na dvije stolice – pokazati solidarnost s Palestincima i istovremeno izbjeći ulaženje u sukob velikih razmjera s Izraelom. Hezbolah ima znatan vojni potencijal, no on nije namijenjen za ofenzivu, već za zaustavljanje Izraela s ciljem osnaživanja utjecaja Hezbolaha u Libanonu. Hezbolah od 2006. godine uživa status „zaštitnika od Izraela“, što mu jamči mjesto u vlasti i prestiž, a masovne vojne operacije, bombardiranja i bitke na tlu mogli bi znatno oslabiti ovu skupinu.

Rakete s juga

Jedina sila koja je javno i službeno ušla u sukob na strani Hamasa jemenski je pokret Ansar Alah, odnosno Huti, koje Saudijska Arabija i SAD smatraju iranskom posredničkom skupinom. Međutim, Huti zapravo ne mogu značajno utjecati na situaciju u Gazi, a njihovi pokušaji

organiziranja raketnih napada na Izrael više podsjećaju na dojmljivu gestu čiji je cilj pobuditi ratnički duh kod domaćeg stanovništva i privući pozornost javnosti. Huti odavno zauzimaju izraženo antiizraelski stav. Ako pogledamo njihove video uratke koje su snimili nekoliko godina ranije, nakon pobjede nad saudijskim postrojbama, možemo čuti kako obični borci sa žarom izjavljuju kako oni ne ratuju protiv Saudijske Arabije, nego protiv Amerike i Izraela, koji tobože podržavaju kraljevstvo. Iz tog se razloga trenutni postupci i izjave vodstva Ansar Alaha u potpunosti slažu sa slikom svijeta koju promoviraju njegovi propagandisti. Međutim, pokušaji bombardiranja Izraela iz jemenskog teritorija nisu masovnog karaktera i rijetko kada dostižu svoj cilj zbog prilično čvrstog i, po svemu sudeći, funkcionalnog proturaketnog obrambenog sustava.

Stanje u regiji mijenja se silnom brzinom – mogući su svakakvi preokreti i, što je još gore, situacije koje Moskva ne može predvidjeti. Međutim, zasad su svi potencijalni zaštitnici Palestinaca neodlučni i izbjegavaju ulazak u nepotreban i nepovoljan sukob, oslanjajući se umjesto toga na demonstracije sile i minimalnu primjenu iste, odnosno na tzv. „nijanse nasilja“. Pritom je sve izraženije očajanje stanovnika Gaze, koji shvaćaju da se za njih nitko neće zauzeti i s neprikrivenom gorčinom govore da su prepušteni sudbini, ostavljeni između dvije vatre. Zasad se najoptimističnijom varijantom čini ponavljanje scenarija iz 1982. godine: višemjesečna opsada Gaze, kao nekad zapadnog Beiruta, potom uplitanje posrednika i evakuacija boraca Hamasa u Jemen ili čak Iran u zamjenu za oslobođenje izraelskih taoca.

Appendix 8 – Reference translation of EN ST

Prije mog dolaska u Tel Aviv od prije nekoliko dana upozorili su me da je Izrael nakon 7. listopada postao potpuno novi Izrael u kojem nikad nisam bio. Bili su u pravu. On je sad mjesto u kojem Izraelci nikad prije nisu živjeli, država koju izraelski generali nikad prije nisu morali braniti, saveznik kojeg Amerika nikad prije nije trebala štititi – barem ne toliko hitno i odlučno da bi sam američki predsjednik odletio u Izrael i bodrio čitavu naciju.

Proputovavši Izrael i Zapadnu obalu razumijem zašto se toliko toga promijenilo. Posve mi je jasno da je Izrael u velikoj opasnosti, najvećoj od Izraelskog rata za neovisnost 1948. godine. Tri su ključna razloga tome:

Prvo, Izrael je suočen s neprijateljima koji kombiniraju srednjovjekovni teokratski pogled na svijet i oružje 21. stoljeća, a više nisu organizirani u malene militantne skupine već u suvremene vojske s brigadama, bataljunima, kibernetičkim potencijalom, dalekometnim projektilima, dronovima i tehničkom podrškom. Ovdje mislim na Hamas, koji ima podršku Irana, Hezbolah,

militantne islamiste u Iraku i hutiste u Jemenu – a sada čak i Putin otvoreno podržava Hamas. Ovi neprijatelji postoje već dugo, ali svi su naizgled skupa izmiljeli poput zmajeva tijekom trenutnog sukoba, zbog čega Izraelu sada istovremeno prijete ratovi sa svih strana.

Kako da jedna moderna demokracija preživi u takvoj opasnosti? Upravo su to pitanje te demonske sile željele da se zapita svaki Izraelac. Oni ne pokušavaju postići teritorijalni kompromis s državom Židova. Njihov je cilj uništiti uvjerenost Izraelaca da ih njihove obrambene i obavještajne službe mogu zaštititi od iznenadnih prekograničnih napada kako bi se Izraelci iselili prvo iz pograničnih područja, a zatim iz cijele države.

Užasava me koliko Izraelaca ovu opasnost osjeća na osobnoj razini bez obzira na to gdje žive; za početak, moja prijateljica koji živi u Jeruzalemu rekla mi je da su ona i njen muž upravo ishodili dozvole za vatreno oružje kako bi kod kuće mogli imati pištolje. Njima nitko neće oteti djecu i odvući ih u tunel. Hamas je nažalost unio strah u živote mnogih, mnogih Izraelaca koji se nalaze daleko od granice Gaze.

Druga opasnost koju primjećujem leži u činjenici da je jedini zamislivi način na koji Izrael može postići legitimnost, resurse, vrijeme i saveznike potrebne za vođenje ovako teškog rata taj da iza njega stanu nepokolebljivi inozemni partneri, predvođeni Sjedinjenim Američkim Državama. Predsjednik Biden ulaže herojske napore u pomaganje Izraelu u njegovom neodgodivom i zakonitom cilju rušenja Hamasovog mesijanskog terorističkog režima u Gazi, koje je jednako velika prijetnja kako budućnosti Izraela tako i Palestincima koji priželjkuju vlastitu urednu državu u Gazi ili Zapadnoj obali.

Međutim, izraelski rat protiv Hamasa u Gazi uključuje sukobe u urbanim područjima i stambenim građevinama koji rezultiraju tisućama civilnih žrtava – nevini muškarci, žene i djeca, među koje se Hamas s namjerom ugnijezdio kako bi natjerao Izrael da ubije te nevine ljude ako žele ubiti vodstvo Hamasa i iskorijeniti njihove kilometarske tunele za napad.

No Biden može osigurati održivu podršku kakva je Izraelu potrebna jedino ako je Izrael spreman pokrenuti ratnu diplomatsku inicijativu usmjerenu na Palestince u Zapadnoj obali – i nadajmo se u Gazi nakon uništenja Hamasa – koja bi pokazala spremnost Izraela na raspravu o mogućem rješenju s dvije države, ako palestinski službenici uspiju ujediniti i urediti svoja politička stajališta.

Ovo posljednje izravno je povezano s mojim trećim izvorom duboke zabrinutosti.

Izrael trenutno predvodi najgori vođa u njegovoj, a možda i židovskoj povijesti uopće, koji nema niti želje niti sposobnosti pokrenuti takvu inicijativu.

Što je još gore, užasnut sam time koliko taj vođa, premijer Benjamin Netanyahu, nastavlja davati prednost zadržavanju potpore svojih glasača koji pripadaju ekstremnoj desnici – i brzopletom krivljenju izraelskih sigurnosnih i obavještajnih službi za rat – pred održavanjem nacionalne solidarnosti ili povlačenjem osnovnih poteza koji su Bidenu potrebni kako bi Izraelu osigurao resurse, saveznike, vrijeme i legitimnost potrebne za pobjedu nad Hamasom.

Biden ne može pomoći Izraelu izgraditi koaliciju američkih, europskih i umjerenih arapskih partnera u borbi protiv Hamasa ako Netanyahuova poruka svijetu nastavi biti, u suštini: „Pomozite nam poraziti Hamas u Gazi dok mi radimo na širenju naseobina, aneksiji Zapadne obale i izgradnji šovinističke države židova na njenom teritoriju. ”

Razmotrimo sada te opasnosti u više detalja.

Prošle subote uvečer jedan umirovljeni izraelski general svratio je do mog hotela u Tel Avivu kako bi podijelio sa mnom svoju perspektivu o ovom ratu. Za naš razgovor odlučio sam ga odvesti na 18. kat u salon; u liftu smo se pridružili četveročlanoj obitelji koja se sastojala od roditelja, sasvim malog djeteta i bebe u kolicima. General ih je priupitao odakle su. „Kiryat Shmona”, odgovorio je otac.