TRANSLATION FROM CROATIAN INTO ENGLISH:
TACKLING THE ISSUE OF TRANSLATING SHORT TEXTS

Submitted in partial fulfillment of the requirements for the B.A. in English Language and Literature and Philosophy at the University of Rijeka

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This B.A. thesis contains translations of short texts of different genres from Croatian into English. Each text is preceded by a brief introduction to the source text and followed by the commentary and analysis section where issues and difficulties that were encountered during the process of translation are described. There are four different translations in this thesis: translation of a medical case report from the official journal of the Croatian Society of Surgery, translation of a political article from a weekly magazine, translation of a scientific article from an encyclopedic magazine and translation of an article from a website about music. The introduction provides a definition of the word translation, describes the approach to translation adopted in this particular thesis and lists language guidelines that were used. The main body of the thesis is comprised of the translations and analyses. In the conclusion, the topic of this thesis is once again briefly discussed, and a personal reflection on the process of translation is given. The source texts can be found in the appendices.
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1. INTRODUCTION

Considering that this B.A. thesis consists of translations of different texts from Croatian into English, it seems only proper to begin with providing the definition of the term translation. Although there are several meanings of translation, two of them are relevant for this work: “words that have been changed from one language into a different language”, “the act or process of translating something into a different language”.¹ The first meaning refers to the concrete product of the process of translation, i.e. the target text (TT). The second meaning refers to the process of transferring the source text (ST) in the source language (SL) into the target text (TT) in the target language (TT), i.e. translating.²

For the purpose of this thesis, I have translated four short texts of different genres. The first text is a medical case report about a rare malign tumor called pelvic neuroblastoma. The second text is a political article about the problems related to accepting Syrian refugees from Nacional. The third one is a scientific text about black holes from the online edition of the encyclopedic magazine Drvo Znanja. The last text is an article discussing Bruce Springsteen’s work that I found on Muzika.hr. Each text is preceded by a brief introduction that contains basic information about the source and the topic of the respective text. Also, the texts are followed by the commentary and analysis section where the difficulties encountered in the process of translation are described.

¹ www.merriam-webster.com
² Munday (2001: 4-5)
The method I have used for translating the above mentioned texts is the communicative translation. According to Newmark\(^3\), as cited in Munday\(^4\), the communicative translation ‘attempts to produce on its readers an effect as close as possible to that obtained on the readers of the original.’ In this sense, translation is considered to be a social act which is primarily used for conveying a certain message. Given that this method is commonly used for translating texts where the form is not strictly bound to the intended meaning, it seemed appropriate to use it for the texts I have chosen.

As elaborated in Munday\(^5\), Vinay and Darbelnet\(^6\) identified seven translation procedures that help the translator to achieve translational equivalence:

1. Borrowing - the word from the source language (hereinafter SL) is directly transferred into the target language (hereinafter TL);
2. Calque – the SL expression is transferred in a literal translation;
3. Literal translation – word-for-word translation;
4. Transposition – replacing one part of speech with another without the change of sense;
5. Modulation – changing the semantics and aspect of the SL;
6. Equivalence – describing the same situation by different structural means;
7. Adaptation – used in cases when a situation in the source culture is non-existent in the target culture.

All of the above listed methods were used for translating the texts in this thesis.

\(^3\) Newmark (1981: 39)  
\(^4\) Munday (2001: 44)  
\(^5\) Munday (2001: 56)  
\(^6\) Vinay & Darbelnet (2000: 85-92)
The language guides that I have used are: a monolingual English dictionary, bilingual dictionaries (Croatian–English and English–Croatian), a thesaurus, online English dictionaries and other online resources.

This B.A. thesis is composed of an abstract, the introduction, a table of contents, the main body (translations and the commentary and analysis section), a conclusion, appendices and a bibliography.
2. TRANSLATION OF A MEDICAL TEXT

2.1. Introduction

The first text chosen for translation is from the official online journal of the Croatian Society of Surgery called *Acta Chirurgica Croatica*. The journal contains numerous articles in the field of general, thoracic and cardiac surgery, orthopedics, neurosurgery, otorhinolaryngology and anesthesiology. This particular article is a case report on the occurrence of an extremely rare pelvic neuroblastoma – a malign tumor. Since the source text is full of medical terms, it was necessary to do a bit of research on the topic before translating.

2.2 Translation

Note!

The source text contains an abstract and keywords. These sections are not included in the translation since they are already translated into English within the source text.
A RARE NEUROBLASTOMA LOCALIZATION IN THE PELVIS

Introduction

Neuroblastoma is the most common extracranial solid malignant tumor that occurs in children. Its highly unpredictable behavior can be reflected in various ways, from spontaneous maturation and healing, to progression and metastasizing.

Neuroblastoma is an embryonic tumor of the autonomic nervous system, meaning that its cells originate from the developing and incompletely assembled precursor cells which stem from the neural crest tissue.

The tumor originates in the tissue of the sympathetic nervous system, typically in the core of the adrenal gland or paraspinal ganglia, and it can appear as a tumor mass in the neck, chest, abdomen or pelvis. Neuroblastoma makes up more than 7% of malignant tumors in patients younger than 15 and its mortality rate in pediatric oncology is around 15%.

The most common primary site of a neuroblastoma is inside the abdomen, in 65-75% of patients, while the adrenal gland is the primary site in 38-50% of cases. The paravertebral sympathetic ganglia, celiac ganglion, superior and inferior mesenteric ganglion, lumbar sympathetic trunk, hypogastric and presacral plexus are the site of tumor in 25% of cases. The mediastinum, i.e. chest, is the location of 20% of neuroblastoma, while in less than 5% of cases it is located in the neck.

As can be expected in the case of a disease of developmental tissue, neuroblastomas generally appear in very young children. The average age at diagnosis is from 17 months to two years.
The age, disease stage, amplification of N-Myc oncogene, cellular DNA content, and Shimada histopathological classification are the most significant prognostic factors that affect survival.

Signs and symptoms that indicate the presence of a neuroblastoma are extremely diversified and dependent on the primary site, as well as on the presence or absence of metastatic diseases, or paraneoplastic syndrome.

In clinical practice, neuroblastoma is usually diagnosed in Stage III (late locally advanced) and in Stage IV (metastasized). The diagnosis of neuroblastoma is made by finding the typical histopathological features in the tumor tissue or by identifying the presence of tumor cells in the bone narrow aspirate, which is accompanied by elevated levels of urinary catecholamines.

Neuroblastoma is treated surgically or with chemotherapy and biotherapy, depending on the disease stage and biological prognostic factors.

**Case Report**

We treated a female infant at the age of nine months, in whose case sensory and motor weakness of the lower extremities, difficulties with urination and defecation, and prolapse of the rectum were noticed 3 months back. Examination showed the presence of paraparesis of the lower extremities with weakened tendon reflexes. Anal sphincter tone was lower, the spontaneous evacuation of stool was frequent, and a tumor mass the size of a chicken egg was palpated toward the sacrum during a digital rectal examination.

Abdominal and pelvic computerized tomography (CT) and the magnetic resonance imaging of the brain and spine revealed a large solid presacral mass. It filled the small pelvis and suppressed
the bladder anteriorly and cranially, while rectum was suppressed anteriorly and to the left. The dimensions of the mass were 60 x 43 x 58 mm, and its cranial edge reached the bottom cover surface of L5 nerve root. The mass touched the sacral trunks and filled up the presacral space in the area of sacral roots’ starting point, predominantly on the right side. Also, it infiltrated the right obturator canal and the piriformis muscle, where the neurovascular bundle was in direct contact with the tumor mass. Extradural expansionary mass filled up the spinal and the sacral canal from the level of bottom cover surface of the L3 trunk to S5. There were no traces of metastases in remote parenchymal organs.

Tumor markers amounted to: neuron-specific enolase 105.9; ferritin 103.8; beta-human chorionic gonadotropin was negative.

We performed a surgery in which the tumor mass from pelvis was almost completely removed, except from the part that was entering the right obturator canal and m. piriformis. In addition to this, para-aortic lymphadenectomy, iliac lymphadenectomy and laminotomy with removal of the tumor from the medullary canal were performed. Pathohistological findings indicated that it was a case of a differentiated neuroblastoma of low mitotic index with metastases in two out of the eight removed lymphatic nodes. In the early postoperative period, the weakness of the lower limbs, which was gradually improving, lagged behind. The urination and defecation were normal. Tumor was in the stage IIB, and it could be classified into the benignant group by INCP (International Neuroblastoma Pathology Classification), according to its histopathological characteristics.

**Discussion**
Pelvic neuroblastoma is extremely rare; it occurs 1 – 5% of cases. It can spread to the spinal canal and cause neurological signs that are associated with compression of the spinal cord in 5% of cases. Such cases represent an oncologic emergency, but there are disagreements about the best type of urgent intervention. Localized tumors are generally sensitive to chemotherapy, and several retrospective studies have shown that laminectomy and chemotherapy result in an equal neurological outcome. Considering that a common consequence of a radical surgical removal is a permanent neurological disorder, an overly aggressive surgical approach is not recommended since the tumor responds well to chemotherapy and the survival rate is good (80%).

Due to the presence of neurological symptoms, we considered that it would be better to remove the tumor from the pelvis and spine than to wait for the chemotherapy to take effect in a few months. Since we did not know the exact histopathological diagnosis before the surgery and the differential diagnosis implied a teratoma, primitive neuroectodermal tumor, neuroblastoma or a sarcoma, we decided to attempt a radical surgical removal of the tumor, or to at least take the tumor tissue for diagnosis. During the surgery, an urgent pathohistological diagnosis revealed that it was a tumor of small blue cells, so we assumed that it was a neuroblastoma considering its intraspinal expansion. We removed the entire tumor from the pelvis, except for the part that entered the obturator and sciatic foramen due to the risk of nerve injury. Given the child’s age and the mentioned literature data, we concluded that it was a neuroblastoma which did not necessarily require complete removal, since an extensive procedure (a radical removal) does not improve survival rate but carries a much higher risk of permanent neurological damage (paraparesis, urine and feces incontinence, impotence, neurogenic bladder). Due to the risk of hemorrhaging in the intraspinal part of the tumor and ensuing pressure on the spinal cord nerves, we decided to perform laminotomy and to remove the tumor from the spinal canal during the
same procedure. In the early postoperative course, there was a gradual recovery of the lower extremities’ motor function.

**Conclusion**

Neuroblastoma originating in the small pelvis with propagations in the spine is a very rare tumor which makes up about 1 – 2 % of all neuroblastomas. A combined surgical approach which involves the removal of the tumor from the pelvis and spine allows recovery of the nerve structures that were damaged by the pressure of the tumor’s mass. An attempt to completely remove the tumor tissue is not recommended, since it carries a high risk of severe neurological damage and disability, but it does not improve survival.

2.3. Commentary and Analysis

Even though this text may seem complicated, the translation process was unexpectedly simple. In general, the source text is well written and coherent. The medical terminology and genre required a bit of research and it was necessary to read some medical texts in the target language and to use a medical dictionary. For this reason, I have read several medical case reports in English published in *Acta Chirurgica Croatica* and *Journal of Medical Case Reports*.

Typical Croatian long sentences were the most problematic aspect of this translation. In order to properly translate them into English, it was often necessary to read them several times to decipher the intended meaning and to decide whether to break them down into smaller syntactic units or not. For instance, the very first sentence “Neuroblastom je najčešći ekstrakranijalni
solidni maligni tumor u dječjoj dobi, izrazito nepredvidivog ponašanja, od spontanog sazrijevanja i izlječenja do progresije i metastaziranja” had to be split into two because it would otherwise result in a clumsy sentence in English (‘‘Neuroblastoma is the most common extracranial solid malignant tumor that occurs in children. Its highly unpredictable behavior can be reflected in various ways, from spontaneous maturation and healing, to progression and metastasizing.’’). On the other hand, the sentence ‘‘Neuroblastom je embrionalni tumor autonomnog živčanog sustava, što znači da je stanično porijeklo iz razvojnih i nepotpuno skupljenih prekursornih stanica koje potječu iz tkiva neuralnog grebena’’ did not require a breakdown into smaller units since it flows smoothly in English (‘‘Neuroblastoma is an embryonic tumor of the autonomic nervous system, meaning that its cells originate from the developing and incompletely assembled precursor cells which stem from the neural crest tissue.’’). Given the genre and the formality of the source text, it was necessary to carefully use fixed phrases and expressions that are typical for this field. For example, the Croatian syntagme ‘‘prosječna dob u vrijeme dijagnoze’’ was not ‘‘average age of diagnosis’’, but ‘‘average age at diagnosis’’ in English. Also, I had some doubts concerning the appropriate translation of ‘‘prikaz slučaja.’’ While reading an article on Journal of Medical Case Reports, I came across the expression ‘‘case presentation’’ that seemed appropriate. Nevertheless, I opted for ‘‘case report’’ since this term is already mentioned in the source text.

The Croatian word ‘‘palpira’’ was completely unfamiliar to me. Even though the literal translation is quite straightforward (‘‘palpates’’), I had some difficulties when trying to decipher the actual meaning of the sentence. Eventually, I reached the conclusion that the verb should be in the passive form so the final solution is ‘‘(…) a tumor mass the size of a chicken egg was palpated (…)’’.
The greatest problem that I have encountered in this text was the translation of the following sentence: “Kombinirani kirurški pristup odstranjenja tumora iz zdjelice i kralježnice omogućava oporavak živčanih struktura uzrokovanih pritiskom mase tumora.” It seems that the source text contains an error since it is not possible that the nerve structures are caused by pressure. After multiple readings of the sentence, the intended meaning became clear to me and I have managed to translate it properly (“A combined surgical approach which involves the removal of the tumor from the pelvis and spine allows recovery of the nerve structures that were damaged by the pressure of the tumor’s mass”).
3. TRANSLATION OF A POLITICAL TEXT

3.1. Introduction

The second text that I have chosen to translate is an article from the online edition of a political magazine Nacional. This text deals with the current problems concerning the acceptance of Syrian refugees in Croatia and several other countries of the European Union. It also describes the hardships of refugees and the almost inhumane conditions in camps. The text contains direct statements given by the following politicians involved in solving the problems of accepting refugees: Ska Keller (the representative of the Greens in the European Parliament), Aspasia Papadopoulou (the Senior Advisor in the European Council on Refugees and Exiles), Dimitris Avramopoulos (the EU Commissioner for Migration, Internal Affairs and Citizenship), Andrej Plenkovic (the HDZ representative in the European Parliament, the Vice President of the Committee on Foreign Affairs), Tonino Picula (the representative of the SDP in the European Parliament) and Jamal Asaad (the official representative of the Syrian National Council in Croatia).

3.2. Translation

Croatia Under Pressure from Brussels Because of the Refugees from Syria

In the following months, Croatia might find itself under increased pressure from the European Commission and the institutions in Brussels that will demand greater involvement in the acceptance of refugees from Syria. Several European politicians have already publicly
expressed dissatisfaction with the role of some countries in the acceptance of Syrian refugees, and Croatia was often cited as one of the worst examples.

- The situation in Syria is disastrous. Conditions in Lebanese camps inhabited by hundreds of thousands of women and children are impossible, and dozens of people are dying from hypothermia or starvation every day.

- Croatia is not a priority destination for refugees within the EU, but only a transit country for most of the asylum seekers.

Ska Keller, the representative of the Greens in the European Parliament, is one of the biggest critics of Croatia and its policy towards the Syrian refugees. After the last elections for the European Parliament, this German politician was the Greens candidate for president of the European Commission, and currently she is one of the most active representatives when it comes to Syrian refugees and their acceptance in the EU countries. "It is disgraceful that Croatia did not accept a single Syrian refugee. I believe that the Croatian government must change its policy and allow the entry of Syrian refugees in Croatia’’, Ska Keller said in an interview for ‘Nacional’ which we held in the European Parliament in Strasbourg, and added that Croatia is not the only country that is not doing enough when it comes to the reception of refugees from Syria.

‘‘CROATIA IS NOT AN EXCEPTION. The entire policy of the European Union is wrong, and it is unacceptable that two or three countries have to carry the entire burden of accepting the refugees. Half of the EU countries have not accepted a single refugee from Syria. It is not just the
countries that are poorer or in the economic crisis. The United Kingdom’s economy is very good, but they are still not doing enough. The situation is similar in Poland which also has no major economic problems, and the former Polish Prime Minister Donald Tusk is now at the head of the European Council. There is no reason why these countries could not accept a larger number of refugees, while countries like Croatia should accept a slightly smaller number”, noted Ska Keller. Her views are shared by Aspasia Papadopoulou, who is the Senior Advisor in the European Council on Refugees and Exiles. She believes that the members of the European Union should accept about 180,000 of Syrian refugees by the end of this year.

“‘This is a realistic number which is not too large, and each member state should be able to accept part of the refugees without any major difficulties’, said Aspasia Papadopoulou and noted that the number of Syrian refugees who have hitherto come to the EU countries is quite small. There are about 150,000 of Syrian refugees in the EU, and most of them are seeking their salvation in Germany where about 50,000 of Syrians are located. It is precisely because of this figure and the increasing dissatisfaction of Germans with such immigration policy that we can expect that the German Government will pressure other member states into getting more involved when it comes to receiving refugees.

The EU Commissioner for Migration, Internal Affairs and Citizenship, Dimitris Avramopoulos, said that the Committee intends to propose resettlement of the refugees under the combined criterion of the country’s number of inhabitants and its economic strength: “‘It is not right that the countries receiving the highest number of assigned refugees also receive the highest number of asylum seekers. This is the reason why we soon plan to run a pilot project that will include all member states and by which the refugees will be more fairly distributed within the entire Union.’”
According to the available data from the Ministry of the Interior, Syrian nationals have submitted 336 applications for asylum in Croatia since 2010. Only one was granted an asylum, while 22 of them have been granted the so-called subsidiary protection. In 260 cases the proceedings were discontinued since the applicants have left Croatia. While two requests were denied, 40 were diverted to the other Union members on the basis of the Dublin Regulation.

“Although Croatia is not among the priority destinations of refugees within the EU, the number of refugees from Syria seeking asylum in our country has increased from 2010 to 2014. However, for the majority of asylum seekers, Croatia is a transit country for migration to other EU countries”, said Andrej Plenkovic, the HDZ representative in the European Parliament and its Vice President of the Committee on Foreign Affairs. Plenkovic believes that the EU seeks to manage the problem of illegal immigrants, asylum seekers and refugees from war zones by using a number of legal, technical and financial measures, wherein the large Mediterranean members of the EU bear the biggest burden.

“At the meetings of the Committee on Foreign Affairs, a series of discussions about the situation in Syria and Iraq was held, and the topic of Syrian refugees was also discussed. To my knowledge, Croatia was not mentioned in this context. The fact is that Syria’s neighboring countries such as Turkey, Lebanon, Jordan and Egypt, have received the largest number of refugees. The EU is seriously considering the requests of the UNHCR and other international organizations to additionally contribute to the care for refugees, according to the principle of the proportional accommodation in its member states”, said Plenkovic and remarked that the High Representative of the Union for Foreign Affairs and Security Policy, Federica Mogherini, has already presented an aid package of 70 million Euros to Turkey for accepting a great number of Syrian refugees. The priorities of the EU will thereby be combating illegal migration, eradicating
human trafficking, benefiting from the positive effects of migration on development and growth, promoting international protection and strengthening of the external dimension of asylum.

If they had shown more mutual solidarity, the EU members could have already legally improved the situation of refugees. According to the current regulations, the first EU country which a refugee enters has to take care of him. Procedures for the asylum must be implemented in each country. However, Italy, Greece, Hungary and some other countries do not follow this rule. The European courts have repeatedly been criticizing the unbearable living conditions in the refugee camps or faulty processes. For instance, Italy did not even register thousands of refugees in 2014. Instead, immediately after their rescue from the sea, they were let to live illegally, and Italy was happy when they went northward, across the Alps. The five countries that are currently receiving a lot of people, including Germany, advocate a more equitable distribution within the 28 member states. On the other hand, countries that get little asylum seekers, including Croatia, dismiss this proposal.

For the time being, Croatia belongs to the group of EU countries that are ‘protected’ by the so-called Dublin III regulation which stipulates that the EU country on whose territory the refugee first arrives should receive them. This practice has led to an exceptional pressure of refugees on Malta, Italy and Greece, while other countries hesitate to provide assistance. Five EU countries, including Germany, claim that they are receiving the largest number of refugees, in comparison to the number of their inhabitants. Eastern European countries, for instance, receive almost no one, and Croatia can be counted among this group, given the number of accepted refugees.

"REGARDLESS OF THE STATISTICS, Croatia should deal with this increasingly present phenomenon more actively and systematically. By saying this, I do not mean just showing more
solidarity and the acceptance of Syrian refugees, but also building shelters and accommodation for the increasing number of migrants who will find themselves on our side of the border in the near future. It is only a matter of time when we will have to deal with migration much more seriously, regardless of whether we are talking about its causes or consequences”, said Tonino Picula, the representative of the SDP in European Parliament. He added that we should hope that Croatia will not be completely unprepared for it, as it was under the traumatic circumstances of the occupation of a part of its territory and the aggression on Bosnia and Herzegovina, when it was taking care of a large number of deportees and refugees.

Jamal Assad, a Syrian who has been living and working in Zagreb for thirty years, is referring precisely to this solidarity. This respected gynecologist is also the official representative of the Syrian opposition, i.e. the Syrian National Council in Croatia. Assad has returned from Syria and Lebanon last Thursday, where he witnessed the catastrophic humanitarian situation, he said. Currently there are as many as 1.1 million Syrian refugees in Lebanon and because of this the country’s authorities were forced to close its borders with Syria.

“’The situation is disastrous. The conditions in which hundreds of thousands of women and children are living are impossible and dozens of people are dying from hypothermia or starvation every day. A few days ago, I witnessed a large snowstorm in Lebanon after which 11 people were found dead at one camp, including three children. Unfortunately, the international community is doing nothing to help those people”, Jamal Assad said for ‘Nacional’ and noted that he was also disappointed with the attitude of Croatian authorities towards Syrian refugees. He said that he was in contact with the Ministry of the Interior, but with respect to accepting a larger number of Syrian refugees, there was a lack of understanding. ‘’A few Syrians living in Croatia tried to bring their family members, but the guarantees required by the state are simply too demanding
and impossible to provide. We are aware that the situation in Croatia is difficult and there is no money for refugees, but the state should at least ensure the possibility of bringing our family members”, Assad said and noted that the number of Syrians who would like to come to Croatia was not large and that most of them want to go to Germany. Assad also condemned the last week’s attacks on the editorial staff of the satirical weekly Charlie Hebdo, and noted that these attacks had nothing to do with Syria or Syrians, although he admitted that he was afraid how the citizens of Croatia would react to the arrival of an increased number of Syrian refugees.

‘’THE ATTACK IN PARIS IS THE WORK OF A MONSTER. It has nothing to do with Syria and I would like the citizens to realize that Syrians are very peaceful people. A Syrian would never commit a terrorist attack. All that Syrians want is freedom and the departure of the dictator Bashar al-Assad. The fact that the Syrian opposition in Syria is simultaneously fighting against 33 different armies (from the army of Bashar al-Assad, over ISIL, Hezbollah, to the Iranian volunteers) is fascinating. It is terrible and unbearable, but I am confident that we will liberate Syria and at the moment when this happens all refugees will return to their homeland. That is why any assistance from the international community is so important to us’’, Jamal Assad explained.

IN MANY EU COUNTRIES there is already resistance against asylum seekers, and movements against foreigners have intensified frighteningly in some. The population of the EU is simply not ready to receive and integrate millions of people every year. The latest example are the mass anti-Islamic demonstrations in Germany organized by PEGIDA (English: Patriotic Europeans Against the Islamisation of the West). Such a sentiment could intensify among EU citizens after last week’s attacks in Paris. According to the results of Bertelsmann Foundation’s public opinion polls, 57 percent of the citizens of Germany (non Muslims) think that Islam is a danger. Two
years ago there were 4 percent less of them. Almost two thirds of respondents believe that ‘’Islam does not belong to the Western world’’, while 53 percent of respondents advocated the same opinion in 2012. As many as 40 percent of respondents feel like ‘’strangers in their own country’’ because of Muslims in Germany, and every fourth would even ban Muslims from immigrating into Germany. ‘’After the terrorist attack on the editors, cartoonists and journalists of the Charlie Hebdo weekly in Paris, Europe needs a strong unity and solidarity. Now it is the responsibility of the key political forces in the EU, and especially the main parties, to restore the public confidence in institutions and the safety of the EU borders. The strengthening of internal security and intensified cooperation of all the relevant agencies in member states, as well as with other countries and international organizations, is particularly important’’, said for ‘’Nacional’’ Andrej Plenkovic who concluded that it was important to prevent the uncontrolled radical answers to the most brutal extremism we have witnessed in France.

3.3. Commentary and Analysis

The translation of this text was quite time consuming. The sentences are rather long and they often seemed incomprehensible, so the translation required a lot of attention and thinking. The first problem I encountered was finding an appropriate translation for the expression podnositi teret. There were several possible solutions: to bear the burden, to bear a load, to bear the brunt and to carry the burden. I have decided to use ‘’to carry the burden’’ since it seemed to be the most appropriate translation in this context.

Considering that the English language has plenty of reporting verbs, choosing the most suitable translation was sometimes difficult. For instance, the Croatian verb napomenuti has
several English equivalents such as *remark, point out, observe, mention, note*, etc., so the translation mainly depended on the context and the strength of the reported statement.

The names of the EU institutions and bodies did not present any difficulties, since their English translations are available on the official webpage\(^7\). However, the titles of the officials and politicians in the source language were sometimes difficult to translate without consulting the Internet and doing some research.

There are several quite difficult sentence constructions in the text that have caused me significant trouble. The first sentence was: ‘’ Upravo zbog tog podatka i zbog sve većeg nezadovoljstva Nijemaca takvom imigracijskom politikom može se očekivati pritisak njemačke vlade na ostale članice da pojačaju svoj angažman u prihvatu izbjeglica.’’ The problematic part was ‘’da pojačaju svoj angažman u prihvatu izbjeglica.’’ Considering that the literal translation was clumsy (‘’strengthening their engagement in receiving refugees’’), I had to search for other solutions and have finally opted for ‘’getting more involved when it comes to receiving refugees.’’ The second and hitherto the most difficult sentence to translate was: ‘’ Pritom će prioriteti EU biti suzbijanje ilegalnih migracija, iskorjenjivanje trgovine ljudima, dovođenje učinaka migracije u funkciju razvoja i rasta, promicanje međunarodne zaštite i jačanje vanjske dimenzije azila.’’ More precisely, ‘’dovođenje učinaka migracije u funkciju razvoja i rasta’’ seemed almost impossible to translate. Since the literal translation was not an option (‘’bringing the effects of migration in the function of development and growth’’), I decided to browse the Internet in order to find the positive effects of migrations. Thus, the translation ‘’benefiting from the positive effects of migration on development and growth’’ solved the problem. The third and the last sentence was: ‘’ Kaže da je u kontaktu s Ministarstvom unutarnjih poslova, ali da nije

\(^7\) http://europa.eu/index_en.htm
naišao na razumijevanje kad je u pitanju prihvat većeg broja sirijskih izbjeglica.” The proposed solutions for “nije naišao na razumijevanje” were “he met with no understanding” and “did not find any understanding.” Considering that the entire sentence was still clumsy, the final and appropriate solution was: “He said that he was in contact with the Ministry of the Interior, but with respect to accepting a larger number of Syrian refugees, there was a lack of understanding.”

The last difficulty that I have encountered in this article was the syntagme “kontingentskih izbjeglica”. Given that the literal translation would have altered the intended meaning, I used a descriptive approach which has resulted in the final solution “the highest number of assigned refugees”.
4. TRANSLATION OF AN ARTICLE FROM AN ENCYCLOPEDIC MAGAZINE

4.1. Introduction

The following text can be found in the monthly encyclopedic magazine *Drvo Znanja* that is primarily intended for high school students. There is an online archive which contains several editions where I found this text about black holes. The article is scientific and contains plenty of facts and figures, but is also simple and appropriate for the target audience. The author writes about the phenomenon of black holes by describing their characteristics, effects and formation. Also, he depicts the fall into a black hole quite vividly, which is certainly interesting and a bit disturbing at the same time.

4.2. Translation

**Black Holes**

*The bodies with the strongest gravitational effects which are known to exist, despite the fact that no one has ever seen them.*

A black hole is a cosmic body for which it is safe to say that is dead. It is plain black, without any light. A black hole does not radiate light. There is not a single space body with fewer characteristics. However, black holes used to be stars that were developing but have eventually
faded out. Only basic stellar characteristics have remained: the mass and the force of attraction, gravity.

In order to give the most accurate description of the black hole, we need to mention the cosmic speeds of spaceships. The body has to reach the speed of 7.9 km/s to become Earth’s satellite, and that of 11.2 km/s to separate from Earth entirely – this is the escape velocity. The escape velocity of the Sun is much higher – as much as 620 km/s. So, what happens when the escape velocity has to reach the speed of light (300,000 km/s)? In this case, a space body can release only light. And what if the speed required for the release of a ‘matter’ is higher than the speed of light? Then even light cannot be released but remains trapped in a star and a black hole is created. Its force of attraction is so strong that not even light or anything else can break free from it. We cannot know whether the black hole radiates light. The light returns to the black hole and is trapped in it. The philosopher Pierre Laplace, who is otherwise known for his theory of the origin of planets, had envisioned the existence of such stars in as early as 1798.

**The Fall into a Black Hole**

Let us try to imagine what a testimony of an astronaut approaching a black hole would look like: ‘The vortex of a heated substance through which our spaceship is travelling is not concave like a water whirlpool, but is flat. A giant clump of hot gas which is wrapping into a vortex – just like the wrapped notches on gramophone records – is being extracted from the gigantic star which we have just passed by some powerful attraction. We have been pulled into this vortex and it is tossing us around just like stormy sea would. We have been moving like this for weeks, through the gas where temperature exceeds tens of thousands of degrees and is increasing rapidly. The gas around us is now boiling at several million degrees. A strong light is flashing through the
windows and the glass panes are fluorescent from the powerful X-ray light. It is carrying us toward the center of the vortex in which we cannot see anything…” The continuation of memories would look like this, if the astronaut could only remember:

‘‘Regardless of whether we are standing or lying, the gravity on Earth equally attracts our legs and head. It is completely different here. If our feet are closer to the black hole than our head is, the difference between the attraction of legs and head is so big that the legs are torn from the body, the body from the head…. The last thing I could see was a mighty flash of the universe, as if it was saying goodbye to us. All the light of stars and galaxies was floating around me. Although I could not make out where it was coming from, I could touch it. I have seen my own back, not only one but more of them, and I have also seen myself from all sides. I did not even know where the past and future were anymore, or what was returning from the future or what precedes the past. I did not feel anything anymore because my nerves stopped transmitting bodily sensations. My molecules were disassembled, atoms were destroyed into electrons and nuclei and the particles in them were no longer particles; everything became equal…”

The Physics of Black Holes

Science has predicted black holes. A particularly strong gravitational field is present near these phenomena. While gravity is weak, the occurrences can be interpreted by Newton’s gravitational force well: the motion of planets around the Sun, the motion of satellites around planets, the motion of the Sun in the Milky Way. The modern physics of gravity, known as the general theory of relativity, was established by the works of Albert Einstein and it has led to many new consequences. Einstein’s theory describes the structure of space and time. If the space is without bodies, we display it as a flat network. The bodies bring mass and then the space – the spatial
network – bends. The fact that a ray of light passing by the Sun changes direction, as if the Sun attracts it, was one of the first pieces of evidence that proved that the theory is correct. During the total solar eclipse of 1919, it was found that some stars have changed position. The stars previously hidden behind the Sun could be seen next to it. The shift was very small, but it could be noticed.

The disturbance of space and time is even stronger when the mass of a space body is greater. Bodies of high density – the ones containing a lot of mass in a small volume – distort space the most, and the black hole is a champion among them.

The notion of black holes was developed by K. Schwarzschild in 1916. By using Einstein’s equations, he found that it was possible that such space bodies could exist. These bodies are crushed, collapsed and squeezed to a minimum size (mathematically speaking, to a point, i.e. a singularity) by their own gravity.

However, before the substance gets to this point, it passes through a boundary which limits the effect of the black hole. The light and substance outside the boundary can escape, but once they enter through it they can no longer get out. This boundary is called the event horizon. We cannot take a peek behind this ‘‘horizon’’ and find out what is happening there. When we talk about the size of a black hole, we actually mean the radius of the event horizon. The event horizon radius of a body that has the mass of the Sun amounts to 3 km, and 30 km for a body that has 10 times the mass. Thus, the rule is simple: the radius of a black hole is proportional to its mass. A black hole containing 300 million suns would have a radius 13 times larger than the Sun, while one containing a billion suns would grow to the size of an entire planetary system – it would have a radius of 20 astronomical units and would reach Uranus.
The properties of the black hole are very simple – it is the simplest physical body. When entering into it, everything disintegrates and the differences between bodies, between atoms and molecules, between particles are lost. Even the process of substance decomposition is simple. The astronaut from the story above felt that the black hole was attracting his head stronger than feet, because his feet were closer to its core. The difference in the gravitational force is so strong at very small distances that all bodies must be disintegrated. A similar phenomenon on Earth is the tide caused by the Moon’s attractive force. Since the force has a stronger impact on the closer side of the Earth, it separates the parts of Earth and causes the tide on both sides. However, this tidal separation is significantly weaker than the tidal effect of the black hole.

The properties of the substances inside the black hole can only be described with mass, electrical charge, and with one physical size called the angular momentum. The difference between a giraffe and a guitar disappears inside a black hole.

Theoreticians believe that space and time are completely distorted inside a black hole, so anything is possible. This has resulted in some quite fantastic ideas, such as the belief that it is possible to travel from one black hole to another, i.e. from one universe to another. Neither people nor any bodies with any particular characteristics would be able to do that, but only matter as such, because – as we have seen – bodies lose their form.

During the fall of a spaceship into a black hole, the astronauts would perceive the trip as if it were unfolding in the normal course of time, but they would be disassembled due to the strong differences of gravity which would rapidly change with distance. However, a distant observer would see the image of their ship quite differently, as if paused. It would seem that the ship was
left hanging and motionless, but its colors would gradually fade out over the years… These are the consequences of Einstein’s theory of relativity.

**How Is a Black Hole Formed?**

The black hole is one form of a dead star. There are no nuclear reactions which could serve as energy sources for producing light in their centers. As the nuclear fuel is consumed and depleted, the force that keeps the star’s layers from collapsing into the center and tightening under its own attractive force runs out. When it dies, it can become any from a range of objects that are increasingly smaller: a white dwarf, a neutron star, a black hole. A white dwarf is born with the gradual development of a big star which flies away into the atmosphere, leaving a small nucleus the size of Earth. Some stars collapse in the stellar catastrophe, when a part of them explodes and the central part collapses on itself. This phenomenon is called a supernova; during this process the dimensions of a star leapingly decrease by abrupt compression or implosion.

Which objects are predestined to become a black hole? There are many candidates for black holes. The most important precondition is the physical mass of a stellar candidate. The stars that have never had more than three solar masses during their development cannot compete at all – they immediately drop out of the competition. A stellar remnant which is smaller than 1.4 solar mass is a white dwarf. Neutron stars are stellar remnants bigger than 1.4 solar mass, while black holes must have a mass at least three times larger than that of the Sun to qualify as such. The instruction is thus simple: black holes should be sought among the massive space bodies. Although the instruction seems simple, it is difficult to follow. Where do we find a star that cannot be seen and weighs more than three Suns?
The astronomers are sure that they will most easily detect a black hole within another star, i.e. within binary stars that are very close to each other. The atmosphere of one star then strips and pours into another, and measurements provide data on the mass of both stars. Although one of the stars is invisible, the behavior of the visible one reveals the state of the whole system. The surest candidates for a black hole among close binary stars are: the X-ray source in the constellation of Cygnus Cyg X-1, a source in the Large Magellanic Cloud LMC X-3, and a star number A0620-00. The source in Cygnus is a binary star with the period of revolution equal to 5.6 days. The visible star is very bright and gigantic, with a mass of about 20 Suns, and the invisible star has at least 4 solar masses. The X-ray radiation that alters its strength in thousandths of a second comes from the area the size of Earth which is located around the invisible star.

**Cosmic Vacuum Cleaners**

The easiest way to detect a black hole is to observe its gravitational effects. A large mass centered in a small area has a very strong gravitational field around it. Everything that comes too close to a black hole gets sucked in. Black holes are the great cosmic vacuum cleaners.

The velocities of movement around black holes reveal a black hole! A strong gravitational field causes high-speed motions of the bodies. If the Earth had two times its mass, the velocity of its satellites would have to be higher. The mass stored in the center of the vortex is estimated by the speed of a rotating disk. The signs indicating the release of gravitational energy around black holes are: big and strong activity, turbulent gases, the dense clusters of stars and interstellar material, and a strong radiation of a very broad spectrum.

The majority of physicists believe that black holes exist. This opinion is based on the growing number of cases that cannot be explained otherwise. Also, the observed data are getting more and
more thorough. The big black holes, formed by the many years of suction stars and interstellar clouds, will be located in large and dense stellar settlements.

If black holes that have a mass of several million Suns exist, they must be located in the densest parts of stellar settlements. We should search for them primarily in particularly active galaxies.

4.3. Commentary and Analysis

Although the article seemed quite simple at first glance, I have found it slightly difficult to translate. This was mainly due to the literary style of writing and the lack of cohesion and coherence. Furthermore, the article seems to employ plenty of enumeration which is not very welcome in the target language. Another problem was the almost constant use of the inversion that is specific for the Croatian literary style. Short sentences were problematic in some parts, so I had to decide whether to stay true to the source text or to connect them. The scientific terminology presented no major problems, since the article deals with a familiar topic.

The first unfamiliar item that I had to look up was “brzina oslobaĎanja”. Fortunately, the expression has only one English equivalent that could fit here—“the escape velocity”. The next prominent issue was deciding upon connecting the short sentences “Tada se ni svjetlost ne moţe odvojiti, nego ostaje zarobljena na zvijezdi” and “Upravo to je crna rupa”. With the purpose of improving the overall flow of the target text, I decided to connect them with some minor deviations and have added a verb at the end of the new sentence (“’Then even light cannot be released but remains trapped in a star and a black hole is created.’”).
I have had a considerable amount of trouble with the translation of the following sentence:

“Molekule su mi se rastavile, atomi razrušili u elektrone i jezgre, i čestice u njima više nisu bile čestice, sve je postalo sasvim jednoliko...” Considering that the literal translation of the clause “sve je postalo sasvim jednoliko” would have seemed redundant and clumsy, I had to reduce the number of clause elements. Although somewhat minimalistic, the final solution “everything became equal” carries the same meaning. Another similar problem was encountered during the translation of “Teoretičari vjeruju da su unutar crne rupe prostor i vrijeme posve poremećeni, tako da može doći do velikih iznenađenja.” More precisely, I could not find an appropriate solution for translating the clause “tako da može doći do velikih iznenađenja”. After realizing that the literal translation would sound clumsy and unnatural in the target language, I decided to choose a typical English phrase “anything is possible”. The meaning of the sentence was slightly altered but still acceptable.

The translation of “neusporedivo” in “No to plimno razdvajanje neusporedivo je slabije od plimnog djelovanja crne rupe” did not go as easy as one would expect. The proposed solutions were: incomparably, surpassingly and remarkably. However, literal translation was not completely suitable here, so I opted for a slightly stronger adverb significantly.
5. TRANSLATION OF AN ARTICLE FROM A WEBSITE ABOUT MUSIC

5.1. Introduction

The fourth text that I have translated for the purpose of this B.A. thesis is an article from Muzika.hr. This website contains numerous articles about Croatian and foreign music. Most of the articles are album or concert reviews, commentaries about the successes (or rather failures) of famous musicians and similar. This particular article is a commentary of Bruce Springsteen’s short movie ‘‘Hunter of Invisible Game’’ and his concert video releases in general.

5.2. Translation

Springsteen, Hunter of an Invisible Good Video

How to write ‘against’ Bruce Springsteen, the man whose ‘half the album’ ‘‘Human Touch’’ is the only real and great flaw in the long career? However, that day has come. Unfortunately, the truth is what it is, cruel and not at all videophilic- Bruce Springsteen, one of the best concert performers in the entire history of rock, has received the biggest complaints from fans precisely because of his concert video releases.

More Bad than Good Rock Movies

The recent ten-minute short movie ‘‘Hunter of Invisible Game’’, which is actually an extended music video, has only added fuel to the fire. I did not get a chance to see it when it was released, but when I did, the comparison with the Led Zeppelin’s movie from 1976 called ‘‘The Songs
Remains The Same” crossed my mind. This was not only because of the pathetic feature frames, among which Bruce rides a horse just like Robert Plant, ‘saves’ some children and returns them to their mother (Plant liberates a captive princess, which is even more absurd), but also because of the artificiality and pretentiousness of both movies, i.e. their parts. The music is good, but the visualisation is simply foolish.

As far as bad rock movies are concerned, they would make a good topic, since it seems to me that they outnumber the good ones. Wanting to say more than you can or need to in a different medium is a weakness of many, especially rock musicians. Considering that Springsteen has broken all records, played flawless concerts and again, for the umpteenth time, proved to be an unattainable concert performer with his two-year ‘'Wrecking Ball/High Hopes tour, the short movie ‘'Hunter of Invisible Game’’ was needless or even worse.

**DePalma, Zimny and Video Killed the Rock Star**

Of course, this is not a crucial project that will modify or jeopardize Springsteen’s status, but there seems to be an obvious problem when seriously talking about his video releases. When Brian DePalma directed the video for ‘'Dancing in the Dark’’ at the time of the first invasion of MTV, it fell flat. Nowadays, Thom Zimny is in charge of Springsteen’s video production and is responsible for the rich archive, but again, it is not the best. Zimny is, to put it mildly, detestable to Springsteen’s fans and connoisseurs of his work, archives and of what they contain.

Fortunately, there is a lot of material which has begun to go public through official channels in recent years. But despite the new open-mindedness and liberalization of the quantity of editions, Zimny has been treated by those who have known more about Springsteen than him for the last ten years. Working with one of the richest rock musicians – not only with money but also with
archives full of unpublished historical jackpots - has given Zimny the slag from dreams- ‘digging’, selecting, assembling and publishing materials that everyone is waiting for, knows something about or has an opinion about. But it is not an easy task to balance the wishes of THE boss, objective circumstances and those who complain.

**His Own Harshest Critic**

At some moments, Zimny did his job perfectly. If you take a look at the documentary about Springsteen’s performance and the performance itself at the Super Bowl a few years ago, you will see what I mean. Also, when you see Zimny’s documentaries on the recording of the albums ‘Born to Run’ and ‘Darkness on the Edge of Town’, you will not be able to deny that the man knows the ropes. However, since he seems to be making poor choices, maybe he lacks the experience of our Delo Hadziselimovic.

During the last ten years, Springsteen, the former control freak and his own harshest critic, has eased off and began to publish albums regularly, rather than recording 40 songs and releasing one LP with 12. However, he still has plenty of unpublished material in his closets, as well as many interesting videos that are periodically released on box-sets such as ‘Darkness on the Edge of Town’ or ‘Born to Run’, along with documentaries and concert footage from the corresponding periods. Here Thom Zimny enters the scene with his choice, or is Bruce the one who chooses and Zimny only collects the bad reviews?

**Record It and Store It in a Closet**

More by accident than by design, every video release edited and supervised by Zimny was followed by complaints that it was not the best reflection of Springsteen’s concert expression and output in a given period. And those who complained were right. For an artist of such a torrential
concert profile, it really cannot be a coincidence that for every published concert recording there are always a few better ones that are stored in some closet - probably for some re-release in 25 years. It cannot be denied that Springsteen resisted the lucrative siren call of releasing concert videos for a long time, considering that the first double DVD “Live in the New York City” was released on the market in 2001, 28 years after the beginning of his career. Out of 15 concerts at the Madison Square Garden, only the last two were recorded. Since those two were also edited, the concept of the complete performance, which is something very important in Springsteen’s case, was lost.

**Without the Drama of a “Real” Concert**

It was not until the next “The Rising” tour that a DVD of a continuous concert arrived, but even this was first shown on MTV. Springsteen’s lazy headquarters probably did not want to bother with other recorded materials, so they used the MTV’s and supplemented them slightly. The DVD recording of the Seeger Sessions tour in Dublin suffers from the lack of image and sound of the audience, so there is a sense that Springsteen and the band played a brilliant program alone in an empty hall. Even worse, the professional recording of the concert in Boston from the previous “Devils & Dust” solo tour was placed in a closet and they used the performance from the MTV Storytellers, which was recorded in a studio and is nowhere near the atmosphere and the drama of a real concert.

A few years later, at the height of the universal frenzy for Springsteen, sold-out tours, epic concerts and after the “Magic/Working on a Dream” tours, the concert at London’s Hyde Park from the Hard Rock Calling festival dawned on DVD. Springsteen did not even have his own stage, but was performing on a standard festival stage with the usual monitors and other
disruptive factors. Although his closet contained recordings from a dozen performances at the Giants Stadium in New Jersey, the choice, whether Zimny’s or his, fell on the easiest solution yet again - the concert that was already partly shown on British television.

**Zimny Against Bootleg**

Two years later, as a bonus to the excellent documentary by Ridley Scott, “Springsteen & I”, a part of the next festival performance at London’s Hard Rock Calling was used, regardless of the fact that recordings of many more attractive performances from the tour existed. Even archival gems such as the video of the Houston performance in 1978 - used for the box-set on the occasion of 25 years of the “Darkness on the Edge of Town” - which somehow never leaked into public, have more superior variants of legendary performances in Largo, Passaic, obtained through illegal bootleg editions by the ungrateful audience. But Zimny’s choice was different.

In the heat of discussions about the recent box-sets “The River” and “Born in the USA”, the hater mood of inveterate fans has already gained momentum and they are throwing insults at Zimny and everyone involved in the business, due to the oversights that will probably happen. It is easy to be the prime live performer of present day. It is easy to play flawless South African, New Zealand, Australian and then the US tour as they did this year, but it is also easy to constantly make wrong moves when publishing such material. Even in the case of the live download of audio recordings of (all) the concerts held this year – an unprecedentedly liberal move on behalf of Springsteen’s headquarters – there were some wicked mistakes. After Pearl Jam and others have used such occasions for putting up monuments, Jon Landau’s management has caused a public scandal at the beginning of the manifestation with the decision that the USB-
bracelet at concerts or by mail order – for the download of the recording of only one show – would cost a whopping 40 dollars.

The Universal Internet Revolt

Only after the universal Internet revolt, the recipe has been changed to the usual 15 dollars for FLAC and 10 dollars for 320kpbs, with a lot of wiggling out and naïve apologies to the audience. Needless to say, all the recordings show the impeccable machine of Springsteen and the expanded E Street Band under full voltage, along with Tom Morello on guitar, with a repertoire of songs and modifications that other performers cannot even imagine, but the damage was done. And then, after a few months, all the recordings were needlessly removed and those who were fast enough to snatch them snatched them.

‘’Hunter of Invisible Game’’ is the last in a series of examples, although it is a directed product and not a documentary record. That is exactly the problem. The pretentious movie backed up by the excellent eponymous song from the ‘’High Hopes’’ album is a silly fantasy in which it is difficult to figure out whether it is an attempt of copying the atmosphere from the movies of the legendary Terrence Malick or someone else.

They Know What Is in His ‘Closet’ Better than He Does

Because, the problem is, i.e. is not, that Springsteen simply cannot disappoint you at concerts, even if you are watching him for the first time. On the other hand, if you have watched him several times and you know what else is recorded and in the archives, he surely can. Whether it was the director and supervisor Zimny’s fault, or his along with Bruce’s and Jon Landau’s, there is no doubt that the next video release will trigger outbursts of rage from the online community that appears to know what is in Springsteen’s closet better than he does…
5.3. Commentary and Analysis

This article was by far the most demanding text to translate because it was written using a colloquial style. It is a ‘typical Croatian’ text since it contains plenty of expressions and words that are stylistic but almost void of meaning (e.g. videofilska, blentavije, bedaste). Since the sentences are exhaustingly long and sometimes very confusing, the process of translation was time consuming and challenging. On the other hand, there are parts in the text where the coherence is interrupted by the usage of short ‘commentary’ sentences (e.g. ‘’Ne glazbe, nego bedaste vizualizacije’’, ‘’No, došao je i taj dan’’).

There were quite a few problems on the syntactic level. For example, the sentence ‘’Mogla bi se napraviti dobra tema o lošim rock filmovima, čini mi se da ih je bilo više nego dobrih’’ had to be reconstructed without any considerable deviations from the intended meaning. Given ’the spirit’ and the requirements of the target language, the translation had to include a linking phrase. Hence the final solution: ‘’As far as bad rock movies are concerned, they would make a good topic, since it seems to me that they outnumber the good ones.’’ Similarly, I have encountered a problem while translating the following sentence: ‘’No, usprkos nove slobodoumnosti i liberalizacije količine izdanja, Zimny je zadnjih desetak godina na terapiji onih koji o Springsteenu znaju više od njega.’’ The expression ‘’na terapiji’’ could not be translated literally because that would insinuate a different meaning, i.e. that the subject is undergoing a medical treatment. For this reason, I decided to replace the adverb with a verb, which resulted in the following solution: ‘’has been treated.’’ The mentioned examples are the most prominent instances of the problems encountered on the syntactic level.
As far as the semantics are concerned, the greatest problem was to find a suitable translation for the Croatian swear-word ‘’j*** mater’’. Obviously, it would not be appropriate to translate it literally or to replace the verb phrase with a noun phrase. The first possible solution was ‘’trash-talks about’’, but considering that this would be an understatement I have opted for ‘’throwing insults at’’. Apart from this, I had trouble finding an appropriate translation for the word ‘’izmotavanje’’ in the sentence ‘’Tek nakon opće internetske pobune recept je promijenjen u uobičajenih 15 američkih dolara za flac i 10 dolara za 320kpbs, uz izmotavanje i naivne isprike publici.’’ Since the first proposed solutions (excuses, avoidances) proved to be unsuitable, I have decided to use a phrasal verb wiggle out which is the closest to the intended meaning.
6. CONCLUSION

In this B.A. thesis, I have translated four short texts of different genres, analyzed the translations and provided a commentary on the translation process. There were various difficulties on the syntactic, semantic and lexical levels that I had to overcome in order to produce the best possible translations. Some of the encountered difficulties stem from my lack of experience in translating a certain genre, some from the poorly written or vague sentences in the source texts and some from the differences between the English and the Croatian language.

Translating these texts required much patience, effort, research and most of all undivided attention. Considering that every translation also required a certain amount of research and a different approach, I have realized that the job of a translator is everything but easy and definitely undervalued.
APPENDICES

APPENDIX A

RIJETKA LOKALIZACIJA NEUROBLASTOMA U ZDJELICI

A rare neuroblastoma location in the pelvis

Sažetak

Neuroblastom je najčešći ekstrakranijalni maligni solidni tumor kod djece koji se većinom pojavljuje u trbuhu (nadbubrežna žlijezda, simpatički lanac) i medijastinumu, dok su druge lokacije rijetke. Tumor se liječi kirurški, kemoterapijom i radioterapijom. U ovom članku prikazan je rijedak slučaj neuroblastoma sakralnog pleksusa u zdjelici 9-mjesečnog ženskog dojenčeta sa širenjem u desni ishijadični i opturatorni kanal. Učinjena je ekstirpacija tumora s paraaortalnom i ilijakalnom limfadenektomijom, dok je manji dio tumora zaostao u opturatornom otvoru jer bi pokušaj potpunog odstranjenja nosio visok rizik od neurološkog oštećenja. Pokušaj potpunog odstranjenja tumorskog tkiva nije preporučiv jer nosi visok rizik od znatnih neuroloških oštećenja, a ne poboljšava preživljenje.

Ključne riječi

neuroblastom, tumor zdjelice

Abstract

Neuroblastoma is the most common extracranial solid malignant tumor in children that is most often located in the abdomen (suprarenal gland, sympathetic chain) and mediastinum, while other locations are rare. The treatment is surgery, chemotherapy and radiotherapy. In this article we present a rare case of neuroblastoma originating from sacral plexus in a 9-month-old female infant, with infiltration of the obturator channel. We performed tumor extirpation with paraaortal and iliacal lymphadenectomy, while a small portion of the tumor remained in the obturator channel because the attempt of complete removal would carry a significant risk of nerve damage.
Radical removal is not recommended because it carries a high risk of nerve damage without improving overall survival.

**Keywords**

neuroblastoma, pelvic tumor

**Uvod**

Neuroblastom je najčešći ekstrakranijalni solidni maligni tumor u dječjoj dobi, izrazito nepredvidivog ponašanja, od spontanog sazrijevanja i izlječenja do progresije i metastaziranja.

Neuroblastom je embrionalni tumor autonomnog živčanog sustava, što znači da je stanično porijeklo iz razvojnih i nepotpuno skupljenih prekursornih stanica koje potječu iz tkiva neuralnog grebena [1].

Tumor nastaje u tkivu simpatičkog živčanog sustava, tipično u srži nadbubrežne žlijezde ili paraspinalnim ganglijima, te se može pojaviti kao tumorska masa u vratu, prsištu, trbuhi i zdjelici [2]. Neuroblastom čini više od 7% malignih tumora kod bolesnika mlađih od 15 godina i uzrokuje oko 15% smrtnosti u dječjoj onkologiji [3].

Najčešće mjesto nastanka neuroblastoma je unutar trbuha, kod 65–75% bolesnika, a nadbubrežna žlijezda primarno je mjesto tumora u 38–50% slučajeva. Paravertebralni simpatički gangliji, celijačni ganglion, ganglion gornje mezerike, ganglion donje mezerike, lumbalni simpatički trunkus, hipogastrični pleksus i presakralni pleksus zajedno su sjelo tumora u 25% slučajeva. U mediastinumu, tj. prsištu, nalazi se 20% neuroblastoma, dok se u vratu nalazi u manje od 5% slučajeva [3].

Kao što se može i očekivati kod bolesti razvojnog tkiva, neuroblastomi se općenito pojavljuju kod vrlo mlade djece. Prosječna dob u vrijeme dijagnoze je od 17 mjeseci do dvije godine [4, 5].

Dob, stadij bolesti, amplifikacija N-myc onkogena, stanični sadržaj DNK te histopatološka Shimada klasifikacija najznačajniji su prognostički faktori koje utječu na preživljenje [6, 7].
Znakovi i simptomi kojima se prezentira neuroblastom izrazito su raznoliki i ovisni o mjestu nastanka primarnog tumora kao i o prisutnosti ili odsutnosti metastatske bolesti ili paraneoplastičkog sindroma.

U kliničkoj praksi neuroblastom se uobičajeno dijagnosticira u uznапredovalom 3. stadiju (lokoregio nalno prošireni) i 4. stadiju bolesti (metastatski). Dijagnoza neuroblastoma postavlja se nalaskom karakterističnih histopatoloških obilježja u tumorskom tkivu ili prisutnosti tumorskih stanica u aspiratu koštane srţi praćenih povišenim razinama urinarnih katekolamina.

Neuroblastom se liječi kirurški, kemoterapijom, radioterapijom i bioterapijom, ovisno o stadiju bolesti i biološkim prognostičkim pokazateljima.

**Prikaz slučaja**

Liječili smo žensko dojenče u dobi od devet mjeseci kod kojeg je unatrag tri mjeseca zamijećena senzorna i motorička slabost donjih ekstremiteta, otežano mokrenje i defekacija, te prolaps rektuma. Pregledom je naĎena parapareza donjih ekstremiteta s oslabljenim tetivnim refleksima. Tonus analnog sfinktera je niţi, stolicu spontano evakuira učestalo, a digitorektalno se prema sakrumu palpira tumorska tvorba veličine kokošjeg jajeta.

Kompjuteriziranom tomografijom (CT) trbuha i zdjelica i magnetskom rezonancijom zdjelice i kraljeţnice naĎena je velika solidna presakralno smještena tvorba, koja ispunjava malu zdjelicu i potiskuje mokračni mjehur anterioorno i kranijalno, a rektum je potisnut anteriorno i u lijevo (sl. 1 i 2). Tvorba je dimenzija 60 x 43 x 58 mm i kranijalnim rubom dopire do donje pokrovne plohe L5. Tumorska tvorba je u kontaktu s trupovima sakruma i ispunjava presakralni prostor u području ishodišta sakralnih korjenova dominantno s desne strane te infilira desni opturatorni kanal i piriformni mišić gdje je neurovaskularni snop neposredno u kontaktu s tumorskom tvorbom. Spinalni i sakralni kanal od razine donje pokrovne plohe trupa L3 pa do S5 ispunjava ekstraduralno smještena ekspanzivna tvorba. Metastaze u udaljenim parenhimalnim organima nisu naĎene.

Tumorski markeri iznosili su: neuron specifična enolaza 105,9; feritin 103,8; beta humani korionski gonadotropin negativan.
Učinjen je operacijski zahvat u kojem je izvađena tumorska tvorba iz zdjelice, osim dijela tumora koji je ulazio u desni opturatorni kanal i m. piriformis. Također, učinjena je paraaortalna i ilijakalna limfadenektomija kao i laminotomija s odstranjjenjem tumora iz medularnog kanala. Patohistološki nalaz pokazuje da se radi o diferenciranoj neuroblastomi s niskim mitotskim indeksom te s metastazama u dva limfna čvora od osam izvađenih. U ranom postoperacijskom tijeku zaostaje slabost donjih ekstremiteta koja se postepeno oporavlja. Mokrenje i defekacija su uredni. Tumor se nalazi u stadiju 2B i po histopatološkim karakteristikama može se svrstati u povoljnu skupinu po INPC-u (engl. International Neuroblastoma Pathology Classification) [7, 8].

**Rasprava**

Neuroblastom u zdjelici je iznimno rijedak, nalazi se u 1−5% slučajeva [3, 9−12]. Može se širiti u spinalni kanal i uzrokovati neurološke znakove povezane s kompresijom na kraljezična moždina u 5% slučajeva. Ovakvi slučajevi predstavljaju pravu onkolološku hitnost, ali postoje nesuglasice o tome koji je tip hitne intervencije najbolji. Lokalizirani tumori su u načelu osjetljivi na kemoterapiju i više retrospektivnih studija pokazalo je podjednak neurološki ishod bez obzira je li učinjena laminektomija ili kemoterapija [3]. S obzirom na to da je posljedica radikalnog kirurškog odstranjivanja visoka učestalost trajnog neurološkog oštećenja, preagresivni kirurški stav se ne preporučuje jer tumor dobro odgovara na kemoterapiju i ima dobro preživljenje (oko 80%) [10, 11].

Zbog prisutnih neuroloških simptoma smatrali smo da je bolje tumor ukloniti iz zdjelice i kraljeznice nego čekati na učinak kemoterapije za koji je potrebno i nekoliko mjeseci. Kako prije operacije nismo znali točnu patohistološku dijagnozu tumora, a u diferencijalnoj dijagnozi u obzir je dolazio teratom, primitivni neuroektodermalni tumor, neuroblastom i sarkom, odlučili smo se na operacijski zahvat s pokušajem radikalnog uklanjanja tumora ili uzimanjem tumorskog tkiva za dijagnostiku. Tijekom operacije na hitnoj patohistološkoj dijagnostici dobili smo nalaz da se radi o tumoru malih plavih stanica te smo pretpostavili, s obzirom na intraspinalno širenje, da se radi o neuroblastomu. Tijekom operacijskog zahvata uklonili smo cijeli tumor iz zdjelice, osim dijela tumora koji je ulazio u opturatorni i ishijadični otvor zbog rizika od ozljede živca. S obzirom na dob djeteta i navedene podatke iz literature radi se o neuroblastomu koji nije nužno u potpunosti odstraniti jer ekstenzivni zahvat (radikalno odstranjivanje) ne poboljšava preživljenje, a nosi znatno viši rizik od trajnih neuroloških oštećenja (parapareza, inkontinencija urina i stolice,

Zaključak

Neuroblastom s ishodištem u maloj zdjelici s propagacijom u kralježnicu vrlo je rijetki tumor koji čini oko 1−2% svih neuroblastoma. Kombinirani kirurški pristup odstranjenja tumora iz zdjelice i kralježnice omogućava oporavak živčanih struktura uzrokovanih pritiskom mase tumora. Pokušaj potpunog odstranjenja tumorskog tkiva nije preporučiv jer nosi visok rizik od znatnih neuroloških oštećenja i invaliditeta, a ne poboljšava preživljenje.

Source:

Acta Chirurgica Croatica. Website.

Hrvatska pod pritiskom Bruxellesa zbog izbjeglica iz Sirije

Hrvatska bi se idućih mjeseci mogla naći pod pojačanim pritiskom Europske komisije i institucija iz Bruxellesa, koje će od Vlade RH tražiti veći angažman u prihvatu izbjeglica iz Sirije. Nekoliko europskih političara već je javno izrazilo nezadovoljstvo ulogom nekih zemalja u prihvatu sirijskih izbjeglica, a kao jedan od lošijih primjera često se navodi baš Hrvatska.

- Situacija u Siriji je katastrofalna, a uvjeti u kampovima u Libanonu u kojima žive stotine tisuća žena i djece nemogući su i svakodnevno od pothlađenosti ili izglađnjelosti umiru deseci ljudi.

- Hrvatska nije prioritetno odredište izbjeglica unutar EU, za većinu azilanata Hrvatska je samo tranzitna zemlja.

Jedna od najvećih kritičarki Hrvatske i njene politike prema sirijskim izbjeglicama je zastupnica Zelenih u Europskom parlamentu Ska Keller. Ta je njemačka političarka nakon prošlih izbora za Europski parlament bila kandidatkinja Zelenih za predsjednicu Europske komisije, a trenutačno je jedna od najaktivnijih zastupnica kad su u pitanju sirijske izbjeglice i njihov prihvat u zemljama Europske unije. “Sramotno je da Hrvatska nije primila ni jednog izbjeglicu iz Sirije. Mislim da hrvatska vlada mora promijeniti svoju politiku i dopustiti ulazak sirijskih izbjeglica u Hrvatsku”, rekla je Ska Keller u razgovoru za Nacional koji smo vodili u Europskom parlamentu u Strasbourgu i dodala da Hrvatska nije jedina koja ne čini dovoljno kad je u pitanju prihvat izbjeglica iz Sirije.

“NIJE HRVATSKA IZNIMKA. Cijela politika koju vodi Europska unija pogrešna je i neprihvatljivo je da dvije-tri države podnose cijeli teret prihvata izbjeglica. Pola zemalja EU nije prihvatilo ni jednu jedinu izbjeglu osobu iz Sirije. Ne radi se samo o državama koje su

“To je realna brojka, koja nije prevelika i svaka bi država članica bez većih problema trebala moći prihvatiti dio izbjeglica”, smatra Aspasia Papadopoulou i napominje da je broj izbjeglica iz Sirije koji su dosad došli u zemlje Europske unije poprilično malen. U EU ima otprilike 150.000 sirijskih izbjeglica, a najveći dio spas je potražio u Njemačkoj, gdje se smjestilo oko 50.000 Sirijaca. Upravo zbog tog podatka i zbog sve većeg nezadovoljstva Nijemaca takvom imigracijskom politikom može se očekivati pritisak njemačke vlade na ostale članice da pojačaju svoj angažman u prihvatu izbjeglica.

Povjerenik EU za migracije, unutarnje poslove i državljanstvo Dimitris Avramopoulos izjavio je da Komisija namjerava predložiti raspoređivanje izbjeglica prema kombiniranom kriteriju broja stanovnika neke zemlje i njene ekonomske snage: “Nije u redu da zemlje koje primaju najviše kontingentskih izbjeglica ujedno dobivaju i najveći broj tražitelja azila. Zato uskoro želimo pokrenuti pilot-projekt koji će, vjerujem, obuhvatiti sve članice i pomoću kojeg će izbjeglice biti pravednije raspodijeljeni na cijelu Uniju.”


“Premda Hrvatska unutar EU nije među prioritetnim odredištima izbjeglica, i u našoj je zemlji od 2010. do 2014. u porastu broj izbjeglica iz Sirije koji traže azil. No za većinu azilanata Hrvatska je tranzitna zemlja za migracije u druge zemlje EU”, rekao je za Nacional Andrej Plenković, zastupnik HDZ-a u Europskom parlamentu i potpredsjednik Odbora za vanjske poslove tog
parlamenta. Plenković smatra da problemima ilegalnih migranata, tražitelja azila i izbjeglica iz ratnih područja, EU nastoji upravljati nizom pravnih, tehničkih i financijskih mjera, pri čemu najveći teret snose velike sredozemne članice EU.

“Na Odboru za vanjske poslove održan je niz rasprava o situaciji u Siriji i Iraku, u sklopu kojih se govorilo i o tematici sirijskih izbjeglica. Koliko ja znam, u tom kontekstu nije bila spominjana Hrvatska. Činjenica jest da su Siriji susjedne zemlje, poput Turske, Libanona, Jordana i Egipta, primile najveći broj izbjeglica. EU ozbiljno razmatra zahtjeve UNHCR-a i drugih međunarodnih organizacija da dodatno pridonese zbrinjavanju izbjeglica prema načelu razmjernog smještaja u svojim članicama”, kaže Plenković i napominje da je visoka predstavnica EU za vanjsku politiku i sigurnost Federica Mogherini već predstavila paket pomoći od 70 milijuna eura Turskoj zbog primanja brojnih sirijskih izbjeglica. Pritom će prioriteti EU biti suzbijanje ilegalnih migracija, iskorjenivanje trgovine ljudima, dovođenje učinaka migracije u funkciju razvoja i rasta, promicanje međunarodne zaštite i jačanje vanjske dimenzije azila.


Hrvatska, zasad, pripada onoj skupini zemalja EU koju “štiti” tzv. pravilo Dublin III, po kojem bi izbjeglice trebala primiti ona zemlja EU na čiji je teritorij ta osoba najprije stigla. Ta je praksa dovela do iznimnog izbjegličkog pritiska na Maltu, Italiju i Grčku, dok druge zemlje oklijevaju u pružanju pomoći. Pet zemalja EU, među kojima i Njemačka, navode da one, u odnosu na broj svojih stanovnika, primaju najveći broj izbjeglica. Istočnoeuropske zemlje, primjerice, ne primaju gotovo nikoga, a u tu se grupu može ubrojiti i Hrvatska, s obzirom na broj prihvaćenih izbjeglica.
“BEZ OBZIRA NA STATISTIKU, Hrvatska se treba aktivnije i sustavnije suočiti s tim sve prisutnijim fenomenom. Pritom ne mislim samo na iskazivanje veće solidarnosti i prihvaćanje izbjeglica iz Sirije, nego i na izgradnju prihvatilišta i smještajnih kapaciteta za sve brojnije migrante koji će se u skoroj budućnosti naći s naše strane granice. Samo je pitanje vremena kad ćemo se morati znatno ozbiljnije nositi s migracijama, neovisno o tome govorimo li o njihovima uzrocima ili posljedicama”, smatra Tonino Picula, zastupnik SDP-a u Europskom parlamentu, i dodaje da se treba nadati kako Hrvatska za to neće biti potpuno nepripremljena kao što je bila u traumatičnim okolnostima okupacije dijela svog teritorija i agresije na BiH, kad je zbrinjavala veliki broj prognanika i izbjeglica.

Upravo se na tu solidarnost poziva i Jamal Assad, Sirijac koji već tridesetak godina živi i radi u Zagrebu. Taj ugledni ginekolog ujedno je i službeni predstavnik sirijske oporbe, odnosno Sirijskog nacionalnog vijeća u Hrvatskoj. Assad se prošlog četvrtka vratio iz Sirije i Libanona gdje je, kako kaže, svjedočio katastrofalnoj humanitarnoj situaciji. U Libanonu se trenutačno nalazi čak 1,1 milijun sirijskih izbjeglica i zbog toga su vlasti te zemlje bile prisiljene zatvoriti svoju granicu sa Sirijom.


Source:

Nacional online. Website.

Crne rupe

Tijela s najjačim gravitacijskim djelovanjem, za koja se zna da postoje usprkos tome što ih nitko nikada nije vidio.


U cilju da crnu rupu što točnije opišemo valja nam spomenuti kozmičke brzine kojima se gibaju svemirski brodovi. Da bi tijelo postalo Zemljinim satelitom, ono mora postići brzinu od 7,9 km/s, a da bi se nasvim odvojilo od Zemlje, 11,2 km/s; to je brzina oslobađanja. Brzina oslobađanja u slučaju Sunca iznosi mnogo više, čak 620 km/s. Što se događa kada se zahtijeva da brzina oslobađanja dostigne brzinu svjetlosti (300 000 km/s)? Tada se sa svemirskog tijela može osloboditi samo svjetlost. A što onda ako je brzina koja je potrebna da se “stvar” oslobodi veća od brzine svjetlosti? Tada se ni svjetlost ne može odvojiti, nego ostaje zarobljena na zvijezdi. Upravo to je crna rupa. Njezina je privlačna sila toliko jaka da se ni svjetlost, ni ikoje tijelo ne može osloboditi. Mi ne možemo znati zrači li crna rupa svjetlost. Svjetlost se vraća crnoj rupi, zarobljena je na njoj. Da postoje takve zvijezde zamislio je već filozof Pierre Laplace 1798. god., inače poznat po svojoj teoriji o postanku planeta.

Pad u crnu rupu

Pokušajmo zamisliti kakvo bi moglo biti svjedočanstvo astronauta koji se približava crnoj rupi: “Vrtlog usijane tvari kroz koju se giba naš svemirski brod nije udubljen kao vodeni vir, već je ravan. Iz divovske zvijezda kraj koje smo upravo prošli, izvučen je nečijom snažnom
privlačnošću divovski pramen vrućeg plina koji se zamata u vrtlog, kao što su na gramofonskoj ploči zamotani urezi. Uvuklo nas je u taj vrtlog i bacaka nas kao na olujnom moru. Gibamo se tako tjednima u plinu kojemu temperatura nadmašuje desetak tisuća stupnjeva, i sve više raste. Sada plin oko nas vrije na više milijuna stupnjeva. Kroz okna bljeska jaka svjetlost, a stakla samih okana fluoresciraju od jake rendgenske svjetlosti. Nosi nas prema središtu vrtloga u kojemu ne vidimo ništa...” Nastavak sjećanja izgledao bi ovako, kad bi se astronaut samo mogao sjećati:

“Bez obzira na to stojimo li ili ležimo, na Zemlji nam sila teža jednako privlači noge i glavu. Ovdje je sasvim drukčije. Ako su nam noge bliže crnoj rupi od glave, razlika privlačenja nogu i privlačenja glave tako je velika da nam se noge otkidaju od tijela, tijelo od glave.... Posljednje što sam spoznao bio je silan bljesak svemira, kao da nas pozdravlja na rastanku. Sva svjetlost zvijezda i galaksija lebdjela je oko mene i mogao sam je doticati. Nisam razabirao otkuda dolazi. Ugledah i vlastita leđa, i to ne jedna, više njih, i sebe sam vidio sa svih strana. Nisam više znao ni gdje je prošlost, ni budućnost, što se to vraća iz budućnosti ili prethodi prošlosti. Ne osjetim više ništa jer živci prestadoše prenositi tjelesne osjete. Molekule su mi se rastavile, atomi razrušili u elektrone i jezgre, i čestice u njima više nisu bile čestice, sve je postalo sasvim jednoliko...”

**Fizika crnih rupa**

Poremećenje prostora i vremena tim je jača što je masa svemirskog tijela veća. Prostor najviše iskrivljuje tijela velike gustoće – ona s mnogo mase u malom obujmu, a crna rupa je prvak među njima.


Polumjer horizonta događaja za tijelo Sunčeve mase iznosi 3 km, a za tijelo koje ima 10 puta veću masu iznosi 30 km. Pravilo je dakle jednostavno: što crna rupa ima veću masu, razmjereno veći i njezin polumjer. Crna rupa od 300 milijuna sunaca imala bi polumjer 13 puta veći od Sunca, a ona od milijardu sunaca narasla bi na čitav planetski sustav; imala bi polumjer od 20 astronomskih jedinica i dosegla bi do Urana.

Svojstva crne rupe veoma su jednostavna. To je najjednostavnije fizičko tijelo. Pri ulasku u nju sve se razgrađuje, gube se razlike među tijelima, među atomima i molekulama, među česticama. Jednostavan je i način na koji dolazi do razgradnje tvari. Astronaut iz gornje priče osjetio je da mu crna rupa jače privlači stopala nego glavu, jer su mu stopala bila bliže njezinu središtu. Razlika gravitacijske sile tako je jaka na sasvim malim razmacima, pa se sva tijela moraju razdvojiti. Slična je na Zemlji pojava plime, koja nastaje tako što Mjesečeva privlačna sila jače privlači bližu nego udaljeniju Zemljinu stranu, pa razdvaja dijelove Zemlje i izaziva plimu s obje Zemljine strane. No to plimno razdvajanje neusporedivo je slabije od plimnog djelovanja crne rupe.

Svojstva tvari unutar crne rupe mogu se opisati samo masom, električnim nabojem i jednom fizičkom veličinom koja se zove kutni impuls. U crnoj rupi nestaje razlike između žirafe i gitare. Teoretičari vjeruju da su unutar crne rupe prostor i vrijeme posve poremećeni, tako da može doći do velikih iznenađenja. Zato se javljaju i sasvim fantastične ideje da se, primjerice, iz jedne crne rupe može putovati u drugu, iz jednog svemira u drugi. Ali to ne bi mogli ljudi, niti ikakva tijela s
posebnim osobinama, već samo materija kao takva, jer – kako smo vidjeli – tijela gube svoje obliče.

Prilikom pada svemirskog broda u crnu rupu, astronauti bi put doživljavali kao u normalnom tijeku vremena, jedino što bi zbog jakih razlika gravitacijske sile koja se jako mijenja s udaljenošću, bili rastavljeni. Sliku njihova broda udaljeni bi promatrač vidio, međutim, sasvim drukčije, kao da je zastala. Činilo bi se da je brod ostao visjeti, bez pokreta, jedino bi se njegove boje postupno gasile, godinama i godinama... Posljedice su to Einsteinove teorije relativnosti.

**Kako nastaje crna rupa?**

Crna rupa je jedan oblik mrtve zvijezde. Pritom se misli na takvu zvijezdu u čijem središtu ne postoje nuklearne reakcije kao izvor energije kojim se stvara svjetlost. Kako se nuklearno gorivo troši i istroši, ponostaje sile koja podržava zvijezdine slojeve da ne propadnu do središta i da se zvijezda pod vlastitom privlačnom silom ne stegne. Kad umre, ona može biti niz objekata sve manjih dimenzija: bijeli patuljak, neutronska zvijezda, crna rupa. Bijeli patuljak se rađa s postupnim razvojem velike zvijeze kojoj atmosfera odleti, ostavivši malu jezgru veličine Zemlje. Neke se zvijezde urušavaju u zvjezdanoj katastrofi, kada jedan njihov dio eksplodira, a središnji se dio uruši sam u sebe. To je pojava supernove; tada se dimenzije zvijezde smanjuju skokovito, naglim sažimanjem, ili implozijom.

Koji su objekti predodređeni da postanu crnom rupom? Mnogo je kandidata za crne rupe. Najvažniji uvjet koji se od zvjezdanog kandidata zahtijeva jest njegova fizička masa. Zvijezde koje u svom razvoju nisu nikada imale više od tri Sunčeve mase uopće se ne mogu natjecati. Odmah ispadaju iz konkurencije. Zvjezdani ostatak manji od 1,4 Sunčeve mase je bijeli patuljak. Neutronske zvijezde su zvjezdani ostaci veći od 1,4 Sunčeve mase, a crne rupe moraju imati masu barem tri puta veću od Sunčeve da bi to mogle biti. Naputak je zato jednostavan: crne rupe treba tražiti među masivnim svemirskim tijelima. Koliko je naputak jednostavan, toliko ga je teško slijediti. Gdje naći zvijezdu koju ne vidiš, a ima masu veću od tri Sunca?

Astronomi su sigurni da će crnu rupu najlakše otkriti u sklopu s drugom zvijezdom, tj. kod dvojnih zvijezda koje su jedna drugoj jako blizu. Tada se atmosfera jedne zvijeze svlači i pretače na drugu, a mjerenja pružaju podatak o masi obju zvijezda. Premda se jedna zvijezda ne vidi, ponašanje one koja je vidljiva otkriva stanje cijelog sustava. Najsigurniji kandidati za crnu
rupu u bliskoj dvojnoj zvijezdi su: izvor rendgenskog zračenja u zviježđu Labud Cyg X-1, izvor u Velikom Mageljanovom oblaku LMC X-3 i zvijezda pod brojem A0620-00. Izvor u Labudu je dvojna zvijezda s periodom obilaska jednakim 5,6 dana. Vidljiva je zvijezda veoma sjajna i divovska, s masom od oko 20 Sunčevih masa, a nevidljiva zvijezda ima barem 4 Sunčeve mase. Iz područja veličine Zemlje, smještenog oko nevidljive zvijezde, dopire rendgensko zračenje koje izmijeni jakost u tisućinki sekunde.

**Svemirski usisivači**

O prisustvu crne rupe najlakše se može saznati na temelju njezina gravitacijskog djelovanja. Velika masa usredotočena u malom prostoru ima veoma jako okolno gravitacijsko polje. Sve što crnoj rupi pride previše blizu biva usisano. Crne su rupe veliki svemirski usisivači.

Brzine gibanja oko crne rupe otkrivaju crnu rupu! Jako gravitacijsko polje uzrokuje velike brzine gibanja tijela. Kada bi Zemlja imala dva puta veću masu, brzina gibanja njezinih satelita morala bi biti veća. Brzinom rotirajućeg diska procjenjuje se masa uskladištena u središtu vrtloga. Velika i snažna aktivnost, uzburkani plinovi, guste nakupine zvijezda i međuvjezdanog materijala, jako zračenje u širokom spektru znaci su oslobađanja gravitacijske energije u okolini crne rupe.

Većina fizičara drţi da crne rupe postoje. Mišljenje je utemeljeno na rastućem broju slučajeva koji se, eto, ne mogu rastumačiti drukčije. Opažački materijal sve je temeljitiji i brojniji. U velikim i gustim zvjezdanim naseobinama smjestit će se i velike crne rupe nastale dugogodišnjim usisivanjem zvijezda i međuvjezdanih oblaka.

Ako postoje crne rupe koje imaju masu od više milijuna Sunaca, one se moraju nalaziti u najgušćim dijelovima zvjezdanih naseobina. Najprije ih valja tražiti u posebno aktivnim galaksijama.

**Source:**

Drvo Znanja online. Website

<http://www.sysprint.hr/drvo/tekst31_1.html> Accessed in August 2015
Springsteen; lovac na nevidljivi dobar video

Kako pisati 'protiv' Brucea Springsteena? Čovjeka koji jedinu pravu i veliku manu u dugoj karijeri ima samo u polovičnom albumu "Human Touch"? No, došao je i taj dan. Nažalost, istina je takva kakva je, okrutna i nimalo videofilmska; Bruce Springsteen, jedan od najboljih koncertnih izvođača u ukupnoj povijesti rocka, trpio je najveće prigovore fanova upravo zbog svojih koncertnih video-izdanja.

Više loših nego dobrih rock filmova


Mogla bi se napraviti dobra tema o lošim rock filmovima, čini mi se da ih je bilo više nego dobrih. Htjeti reći više nego što možeš ili je potrebno, pogotovo u drugom mediju, boljka je mnogih, pogotovo rock glazbenika. U trenutku kad je Springsteen s dvogodišnjom "Wrecking Ball/High Hopes" turnejom oborio sve rekorde, odsvirao besprijekorne koncerte i opet se, po tko zna koji put, dokazao kao nedostižni koncertni izvođač, filmić "Hunter of Invisible Game" stigao je bespotrebno, ako ne i gore od toga.

DePalma, Zimny i video killed the rock star

Dakako, ne radi se o nikakvom ključnom projektu koji će izmijeniti ili dovesti u piranje Springsteenov status, ali se na njemu vidi očiti problem koji postoji kad se ozbiljno govori o njegovim video izdanjima. Pa kad je i Brian DePalma davno, u trenutku prve najezde MTV-a, režirao videospot "Dancing in the Dark", nije prošlo najbolje. Danas je za Springsteenovu video produkciju vodi Thom Zimny, ujedno zadužen i za bogatu arhivu, i opet nije najbolje. Zimny je,
blago govoreći, mrazak Springsteenovim poklonicima i poznavateljima njegovog opusa, arhiva i onoga čega u njima ima.

A ima puno toga, što je, srećom, zadnjih godina i službenim kanalima počelo izlaziti u javnost. No, usprkos nove slobodoumnosti i liberalizacije količine izdanja, Zimny je zadnjih desetak godina na terapiji onih koji o Springsteenu znaju više od njega. Posao kod jednog pod najbogatijih rock glazbenika – ne samo novcima nego i arhivama punim neobjavljenih povijesnih zgoditaka – Zimnyu je dala šljaku snova; 'kopanje', biranje, montiranje i objavljivanje materijala koje svi čekaju, znaju nešto o njima i imaju o njima svoje mišljenje. Ali nije lak zadatak balansirati između želja šefa, da ne velimo bossa, objektivnih okolnosti i ovih koji ti prigovaraju.

**Sam svoj najoštriji kritičar**

U nekim trenucima Zimny je odradio posao savršeno; pogledajte dokumentarac o Springsteenovu nastupu na finalu Super Bowla pred par godina – a i sam nastup – i bit će vam jasnije mnogo toga. Ili Zimnyeve dokumentarce o snimanju albuma "Born To Run" i "Darkness on the Edge of Town" i nećete moći poreći da čovjek zna raditi. Ali nešto lošije odabire i tu mu moţda fali naš Đelo Hadžiselimović sa svojim iskustvom. Nekadašnji control freak i sam svoj najoštriji kritičar, Springsteen je zadnjih desetak godina popustio, počeo objavljivati albuume u redovitom rasporedu, a ne snimiti po 40 pjesama i objaviti jedan LP s 12. No, jako puno neobjavljenih još mu je po ormarima, kao i mnoge zanimljive video snimke koje se periodično objavljaju po box-setovima poput poput "Darkness On The Edge Of Town" ili "Born To Run", skupa s dokumentarcima i snimkama koncerata iz pripadajućih razdoblja. Tu u kadar ulazi Thom Zimny sa svojim izborom, ili je ipak izbor Bruceov a Zimny samo pobire loše kritike?

**Snimi pa pospremi u ormar**

karijere (?!?) – na tržište pušten prvi, dvostruki DVD "Live In New York City". Od 15 koncerata u Madison Square Gardenu zabilježena su samo zadnja dva, a i oni su premontirani pa se izgubio koncept cjelovitog nastupa, nečeg vrlo važnog u Springsteenovu slučaju.

**Bez drame 'pravog' koncerta**
Tek na idućoj "The Rising" turneji stigao je DVD sa snimkom kontinuiranog koncerta, ali je i taj prvo bio prikazan na MTV-u. Lijenom Springsteenovom štabu valjda se nije dalo baviti s drugim snimljenim materijalima pa su iskoristili MTV-evu montažu i мало je dopunili. DVD snimka nastupa s The Seeger Sessions turneje u Dublinu bolovala je od manjka slike i zvuka publike, pa se mogao steći dojam da Springsteen s bendom i briljantnim programom svira sam u praznoj dvorani. Još gore, s prethodne "Devils & Dust" samostalne turneje, profesionalna snimka s koncerta u Bostonu stavljena je u ormar, a iskorišten nastup s MTV Storytellersa, snimljen u studiju, time niti blizu ugođaju i drami pravog koncerta.

Par godina kasnije, u jeku sveopće pomamne za Sprinsgteenom, rasprodanim turnjama i epskim koncertima, nakon turneja "Magic/Working On A Dream", na DVD-u je osvanuo koncert iz londonskog Hyde Parka s festivala Hard Rock Calling, gdje Springsteen nije imao niti svoju pozornicu nego standardnu festivalsku binu s uobičajenim monitorima i ostalim remetilačkim faktorima. Iako je u ormaru imao snimke s desetak nastupa na stadionu Giants u New Jerseyu, izbor, je li Zimnyev ili njegov, opet je pao na najlakše rješenje, koncert kojeg je dio već bio prikazan na britanskoj televiziji.

**Zimny protiv bootlega**

U jeku rasprava o skorašnjim box-setovima "The River" i "Born In The U.S.A." hejtersko raspoloženje zagriženih fanova već je uzelo maha i jebe mater Zimnyu i svima uključenima u
posao, zbog vjerojatnih previda koji će se dogoditi. Lako je biti premijerni live izvođač današnjice, lako je, kao ove godine, odsvirati besprijekorne južnoafričke, novozelandske i australske turneje, pa onda i američku, a lako je i konstantno raditi pogrešne poteze pri objavljivanju tih materijala. Čak i u slučaju live downloada audio snimaka (svih) koncerata ove godine – nezamisljeno liberalnog poteza Springsteenova štaba – bilo je opakih pogrešaka. Nakon što su Pearl Jam i ostali od toga davno digli spomenik, menadžment Jona Landaua na početku akcije izazvao je sablazan javnosti odlukom da se USB-narukvica na koncertima ili poštom – za download snimke samo jednog nastupa – plaća vrtoglavih 40 dolara.

Opća internetska pobuna

Tek nakon opće internetske pobune recept je promijenjen u uobičajenih 15 američkih dolara za flac i 10 dolara za 320kbps, uz izmotavanje i naivne isprike publici. Suvišno je reći da su sve snimke pokazale besprijekornu mašinu Springsteena i proširenog The E Street Banda pod punim naponom, skupa s Tomom Morellom na gitari, s repertoarom i izmjenama pjesama kakve drugi izvođači ne mogu niti zamisliti, ali šteta je bila napravljena. A onda su sve snimke nakon par mjeseci bespotrebno maknute i tko je jamio je jamio.

"Huntner of Invisible Game" zadnji je u nizu primjera, mada se radi o režiranom proizvodu a ne dokumentarnom zapisu. U tome i jest problem. Pretenciozni film s podlogom izvršne istoimene pjesme s albuma "High Hopes", bezvezna je maštarija u kojoj je teško odgonetnuti je li pokušaj kopiranja atmosfere filmova legendarnog Terrencea Malicka ili nekog trećeg.

Poznaju mu 'ormar' bolje od njega

Jer, problem jest, to jest nije, što vas Springsteen jednostavno ne može razočarati na koncertu, čak i kad ga gledate prvi put. Ali može ako ste ga gledali nekoliko puta i znadete što još postoji snimljeno i ostavljeno u arhivu. Bio kriv redatelj i supervizor Zimny, ili on skupa s Bruceom i Jonom Landauom, ne treba sumnjati da će prvo iduće video izdanje izazvati salve bijesa internetske zajednice koja, čini se, bolje poznaje Springsteenov ormar od njega samoga...
Source:

Muzika.hr. Website

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