Sylvia Plath's *I felt*-Narrative Label of *The Bell Jar* in Ukrainian Translation: Tagging Textness Features

Nataliia Hrytsiv¹, Ivan Bekhta^{1,2}, Mariya Tkachivska³ and Vasyl Byalyk⁴

Abstract

The paper is conducted within the scope of digital humanity and illustrates the combination of computational translatology in connection to semantics. This study aimed to investigate the rendition of *I felt*-narrative label, presented in Sylvia Plath's novel *The Bell Jar*. Methodology of the research relies on cognitive strategy (macrolevel) and content analysis (microlevel). Special notice is given to the major levels of narrative analysis: *structure* and *comprehension*. To establish whether *I felt*-narrative label of *alienation* is preserved in the translated variant we employ TEI standard instructions and XML markup language, which encompasses the novelty of the paper. The research illustrates practical application of Antoine Berman's analytic translation to Ukrainian translations and presents (a) juxtaposing source text *I felt*-narrative label(s) with their translated variants and, on this basis, (b) defining translation tendency. Preliminary findings can serve as a critical model for translation analysis for better understanding of how 'the analytic of translation' may be coopted in the study of author's style dominants being preconditioned by author's cognitive strategy (especially in first person narrative) with the intention to be comprehended by a source text reader, a translator, and a target text reader.

Keywords

NLP, literary translation, negative analytic, Sylvia Plath, I felt-narrative label, tagging, mark-up, computational translatology

1. Introduction

It becomes obvious that the phenomenology of thinking and cognitive experiences gain utmost attention of current studies (within neuroscience, psychology, philosophy, philology, narratology, literary studies, and digital humanities). Promising, though, less presented is translatological perspective, i.e. comprehensive study on how emotions are verbalized into a textual form and, moreover, re-expressed in the translation.

Emotion, cognition and literature have already gained noticeable attention [17; 30; prior studies can be found in: 48].

In this respect, Sylvia Plath's narration presents a perfect example of the narrator's *alienated* consciousness encoded in a literary text, because her *unit message represented by a sentence* discloses the content of a mental act of alienating.

ORCID: 0000-0001-6660-7161 (N. Hrytsiv); 0000-0002-9848-1505 (I. Bekhta); 0000-0001-9989-9156 (M. Tkachivska); 0000-0001-7428-7145 (V. Byalyk)



© 2022 Copyright for this paper by its authors.

¹ Lviv Polytechnic National University, Stepana Bandery Street, 12, Lviv, 79000, Ukraine

² Ivan Franko National University of Lviv, Universytetska Street, 1, Lviv, 79000, Ukraine

³ Vasyl Stefanyk Precarpathian National University, Shevchenko Street, 57, Ivano-Frankivsk, 76018, Ukraine

⁴ Yuriy Fedkovych Chernivtsi National University, Kotsiubynskyi Street, 2, Chernivtsi, 58012, Ukraine

COLINS-2022: 6th International Conference on Computational Linguistics and Intelligent Systems, May 12–13, 2022, Gliwice, Poland EMAIL: nataliia.m.hrytsiv@lpnu.ua (N. Hrytsiv); ivan.a.bekhta@lpnu.ua (I. Bekhta); mariatkachivska@gmail.com (M. Tkachivska); v.bialyk@chnul.edu.ua (V. Byalyk)

To recall, anxieties marking American life and literature of the 20th c. have been crystallized for the mind of Sylvia Plath. As a representative of *The Age of Anxiety* [33], Plath accumulated her vision of the turbulent period within the era of unprecedented societal tumult through the prism of disillusion of ordinary life (marriage, motherhood, and work) and women's household responsibilities and chores [42].

The article seeks to find out how Sylvia Plath's *I felt*- narrative label (hereafter, *I felt*-NL) is translated into Ukrainian. This study is part of a larger research project on the creativity of Sylvia Plath and the reception of her writings via translation(s). Having defined the importance of the connection of emotion, image and fiction [22; 27; 41; 42; 43], we justify our presumption that, with Sylvia Plath, *I felt*- NL is dominant and meaningful, rather than arbitrary and accidental.

Millennia of storytelling represent the large array of works that systematically depict emotions [46; 23; 35], less attention is given to emotion rendition in translation, especially from the cognitive and comprehensive perspective [6].

Plath repeatedly uses *I felt*-NL avoiding specification or explication where it might be expected. This convinces us that this *I felt*-NL is syntactically and semantically defined by the author.

Our objective is to arrive to a set of theoretical and empirical grounds which help to study the influence of the textual factors of the novel along with cognitive approach to literary prose comprehension.

The study primarily uses cognitive perspective [13; 12; 30; 32; 38; 44; 45; 49; 50; 52; 53] that entails the orientation towards social, mental and psychological backgrounds and surroundings of discourse.

To interpret the *alienation* unit [5], preconditioned by the representation of individual psychic states, within the STs and then to have the texture for analyses in translation we rely on three aspectual analysis: cognitive, narratological, translatological. We make use of the term *narrative labelling* [3] to demarcate the unit analysed from the viewpoint of narrative analysis, cognitive stylistics and translation studies analysis.

Along with cognitive strategy, we rely on content analysis since it offers solid theoretical and methodological grounds and elaborated set of parameters, typical of narrative analysis. Nontextual factors are delineated by means of cognitive stylistics.

The approach employed for this textual bottom-up microlevel investigation is interpretative, relying on findings in content analysis as elaborated by Patron [31, p. 59]. Our argumentation is that the system of categories within content analysis endeavours to operationalize the meaning unit, chosen here is the meaning unit of the *I felt*+alienation in translation.

Conceptual background is modelled to optimally fit the analyses of defined unit of meaning, i.e. *I felt-NL+alienation*. A key issue in the analyses below will be the preservance or distortion of *I felt-NL+alienation* in the Ukrainian translation.

These fragmented constructs are framed and tagged from the viewpoint of social estrangement as well as self-estrangement, strengthened via *I felt*-labelling; by their means the heroine, as well as Plath, communicates her message of alienation and devastation in the world of ugliness.

2. Conceptual background and method

2.1. Terminological differentiation

Within the communicational theory of narration, a unit message to be represented by a sentence, in this conception of language, is *the content of a mental act of judging, wishing*, etc. [31, p. 71].

Relevant is the understanding that the narrator – Sylvia Plath – *communicates* her unit massage of alienation by/within a sentence, thus textual means are relevant for the analysis.

Therefore, the unit in prose fiction is not the word, but *the event* (emphasis is ours) [27]. If misinterpreted in translation, the event of the novel trivializes the original.

Moreover, 'a theory of narration based on the notion of narrator (the narrator theory of narration) must claim that each sentence of a story [...] is a message communicated by the narrator; each sentence is the product of an act of judging in the narrator's consciousness' [31; 47].

Merits of narratology as reflected in Translation Studies come from scholarly elaborations of various resources [2; 4; 37].

Extensive research has been done in the field of language, social class and discourse [11; 14; 24; 39; 10; 51], with close attention to the mind mapping and context. We are interested in the labelling being comprehended from the discursive, narratological and translatological perspective.

We opt for the alternative that would secure textual and nontextual parameters. In view of that, this study considers the conceptual foundation of *narrative labelling*; it explores and discusses *labelling* in accordance with Mona Baker's framing narratives in translation and refers to the discursive process that involves using lexical item, or, rather, phrases to identify a person and an event seen as a key element in a narrative.

2.2. Methodological preliminaries

Since the purpose of the present study is not only to explore *I felt*-NL in the original version, but also to detect the accuracy of their rendition and comprehension via translation, it becomes obvious that, an alternative and more reliable translational approach to the analysis of literary text needs the update, especially within the scope of cognitive stylistics [29; 38; 52] which has profoundly affected the direction of translation studies in the twenty-first century [13].

Following [13] and [37] we share the idea that cognitive stylistics is a new approach to the analysis and interpretation of literary discourse and regards the concept of context as cognitive entity and views context as a cognitive entity that encompasses knowledge about text-types, sociological roles and settings and relies on the interplay of the individual, the cultural and the universal.

Hogan [18] states verbal art to be still largely absent, though topical, from the interdisciplinary study of emotion.

It seems plausible that different text forms of the narrative are co-opted and interdependent with cognitive form [1; 21; 36; also see: 7; 8].

Recollecting the words of Stephen Straight, Denetti [9, p. 298] claims that the truly 'creative' aspect of language resides in comprehension mediated by a mind capable of reflecting upon the multiple meanings attachable to an utterance, which become available through self-comprehension (or deep interpretation of another's utterance) and can lead to a new thought to be expressed and reinterpreted, and so on indefinitely.

The methodological point of departure is the combination of both cognitive (top-down) and textual (bottom-up) comprehension process (from the viewpoint of a reader, a translator, and a translation studies scholar). Textual (bottom-up) comprehension process is well studied [4; 15; 16; 19; 20; 54].

For more sensible and realistic analysis, it is necessary "to strike a balance on the cognitive-textual continuum" [13, p.30].

Important to highlight is the significance of *cognitive strategy* employed for the analysis. Following the ideas of [51] on *contextual* and *textual strategies* and [55] on *cognitive control system*, the assumption to be set forth is that verbatim information of the prosaic text denotes a variety of author's cognitive actions and triggers reader's literary comprehension, thus, needs thorough elucidation in translation. We hold the belief that surface structure representation is co-determined by both textual and cognitive factors [10; 40].

The emphasis on the verbal representation of a source text on which a translator focuses (or needs to focus) his or her attention neglects, if we may, the social, mental and psychological backgrounds and surrounding of the creator, writer of the original.

Hence, the novel model needs to be spelt out to find the links between the mind and the process of reading; with the emphasis on the individual and the environment as well as on how the environment shapes the brain and the mind of the author, the 'cognitive structure' in terms of Culpeper.

Within the scope of the present study, the examined labeled *meaning units* of the narrative are comprehended as: (a) syntactically defined units: *I felt* (b) semantically defined units: those denoting *alienation* via *devastation* and *emotional dislocation*.

Within the realm of the phenomenology of thinking, Denneti [9] concludes that 'language infects and inflects our thought at every level' and adds that 'the words in our vocabularies are catalysts that can precipitate fixations of content as one part of the brain tries to communicate with another'. Another aspect he singles out that 'the structures of the stories we learn provide guidance at a different level, prompting us to ask ourselves the questions that are most likely to be relevant to our current circumstances [9, p. 301].

This implies that we identify the original NL one-by-one and study its translation, both separately and in the connection to the whole network of *I felt*-NL significance. With this in mind, section 2 explains, what changes (mostly destructive) each variable has undergone in translation.

We do so in line with Berman's approach to novel translation; centrally concerned is a feature of *I felt*- NL from the viewpoint of Berman's [4, p. 12] negative analytic of translation.

2.3. TEI application towards 'meaning unit' tagging

The Text Encoding Initiative is the standard for presenting textual material in digital form using text encoding tools. Thus, we rely on the instructions of TEI, as well as the XML markup language. Due to its advantages and wide popularity, XML has become the metalanguage of choice for expressing the rules of descriptive text encoding in TEI [57; 58; 59; 60]. The advantage of TEI is obvious since TEI is expressed in terms of extensible markup language (XML) and it provides all the procedures and mechanisms to adapt to specific project needs [61; 62; 63].

The TEI guidelines define an open standard that can normally be applied to any text and may satisfy any purpose. In this respect, in focus is *meaning units* designating I *felt* + *alienation* via *devastation* and *emotional dislocation*.

Used are:

```
<s> </s> - sentence marking
<mu> </mu> - tagging meaning unit
n=1; n - number, 1 - sequence numbering
```

Below is Figure 1 with the sample of the chosen textness segment mark-up:

<s> <mu> <mu n=1> I felt like a racehorse in a world without racetracks </mu n=1> or a champion college footballer suddenly confronted by Wall Street and a business suit, his days of glory shrunk to a little gold cup on his mantel with a date engraved on it like the date on a tombstone. </s> </mu>

<s> <mu> <mu n=1> Я почувалася скаковим конем у світі без іподромів </mu n=1> або видатним футболістом, який раптом опинився на Волл-стріт у діловому костюмі, а вся його колишня слава (за)лишилася вдома на камінній полиці в крихітному золоченому кубку з датами, вибитими мов на надгробку. </s> </mu>

Figure 1: Example of text markup of the original and translation

Next see Figure 2 illustrating the fragment of the created corpus:

Sample of a created corpus

Figure 2: Generated corpus data

2.4. Translation challenges: considering novel parameters

The novel under analysis [34; 56] is rich in flashbacks of the main heroine Esther Greenwood, which shows the period of her studying in college. These flashback fragments abound in the chosen variables: *I felt* + *alienation* (via *devastation* and *emotional dislocation*).

The algorithm of analyzing the rendition of alienated consciousness (being verbalized via conflict) in translation might be described as follows:

- the sender expresses the content of a mental act of alienation in a linguistic form, hereith, *I felt*-NL;
- the first addressee (a translator) perceives this linguistic form by reading and interpreting it, and, eventually, understands its meaning and the content of the addressor's mental act;
- a translator (the re-addressor) re-expresses the content of a mental act of alienation in a linguistic form;
- the second addressee (a final reader) perceives this linguistic form by reading and interpreting it, and, eventually, understands its meaning and the content of the addressor's mental act.

If the algorithm is conducted ideally, then the textual communication succeeds and the final reader's horizon of expectations is satisfied.

To verify syntactic and semantic (in)adequacy of Plath's message in the Ukrainian translation we shall incorporate Antoine Berman's 'negative analytic' of translation; study semantically permissible, if not syntactically necessary, translation tendencies evident in the target text (hereafter, TT); conclude whether *The Bell Jar* reads alienated in Ukrainian.

We have chosen A. Berman's model since he is among translation studies scholars who has elaborated novel-oriented 'analytics of translation'.

Berman states that 'all translation is, and must be, the restitution of meaning' on the one hand, and 'restoration of the particular signifying process of works (which is more than their meaning), on the other hand – on which we agree.

Claiming that translation tends to reduce variation, Berman elaborates twelve 'deforming tendencies' (p. 280): rationalization, clarification, expansion, ennoblement, qualitative impoverishment, quantitative impoverishment, the destruction of rhythms, the destruction of underlying networks of signification, the destruction of linguistic patternings, the destruction of vernacular networks or their exoticization, the destruction of expressions and idioms, the effacement of the superimposition of languages.

Unit of meaning under analysis is the labelling: *I felt + alienation* (via *devastation* and *emotional dislocation*). First and foremost, the challenge is obvious with the signifier *felt*. The word has a

number of substantives in Ukrainian that constitute different shades of a particular perception; thus, in the Ukrainian language there exist such lexemes as:

- Почуватися (to feel oneself);
- Відчувати (to feel, to sense, to perceive);
- Передчувати (to anticipate);
- Чути (in the abstract notion as in *not to feel the ground beneath your feet*).

Unit(s) of meaning in the current paper is the smallest textual unit within which the occurrence of labelling I felt + alienation unit is examined. This unit is consequently invoked to establish the link between the ST unit and its representation in the TT.

3. Findings and discussions

In the subchapter we illustrate the mark-up procedure of the *meaning unit* enclosing the chosen textness fragment. Then we offer translation studies insights following each excerpt.

3.1. I felt-NL example 1

Figure 3 depicts the first sample for analysis:

<s> <mu> <mu n=1> I felt like a racehorse in a world without racetracks </mu n=1> or a champion college footballer suddenly confronted by Wall Street and a business suit, his days of glory shrunk to a little gold cup on his mantel with a date engraved on it like the date on a tombstone. </s> </mu>

<s> <mu> <mu n=1> Я почувалася скаковим конем у світі без іподромів </mu n=1> або видатним футболістом, який раптом опинився на Волл-стріт у діловому костюмі, а вся його колишня слава (за)лишилася вдома на камінній полиці в крихітному золоченому кубку з датами, вибитими мов на надгробку. </s> </mu>

Figure 3: Sample of the original and translation parallel markup

Discussion:

Mirrored in her heroine Esther, Sylvia Plath exemplifies her feeling of being 'split between a fabricated public self and a truer and more elusive hidden self' (p.14). This variable depicts the situation when Esther learned she was not accepted into the writing programme she applied for and was obliged to spend summer time with her mother in the outskirts. She feels suffocated and trapped within the social norms that disgust and exhaust her. Variable 1 is presented by the comparison of a person to a racehorse in a world without racetracks, meaning deprived of the possibility to fulfill its natural desires and triggers; it is intensified with the comparison to a champion college footballer suddenly confronted by Wall Street and a business suit, his days of glory shrunk to a little gold cup on his mantel with a date engraved on it like the date on a tombstone, meaning he had to adopt to societal demands and reality (suddenly confronted by Wall Street and a business suit) while his inner energy got suppressed (his days of glory shrunk to a little gold cup on his mantel) symbolizing the death of his dreams and ambitions (with a date engraved on it like the date on a tombstone).

The variable is meant to depict an alienated individual who feels at a loss because of being relocated from the usual cognitive environment, and placed within the realm of estranged circumstances; the circumstances that intrude into self wellbeing, which bother and do not feel comfortable or satisfying anymore; the location itself may remain unchanged. In variable 1, the main heroine communicates her current state by illustrating discomfort, compared to a racehorse or football player, feeling perplexed and aghast when put in the odd conditions.

ST meaning unit *I felt like a racehorse in a world without racetracks* is re-expressed in translation as *Я почувалася скаковим конем у світі без іподромів* (back translation: I felt a racehorse in the world without hippodromes) and reads fluent and natural in Ukrainian. The opposition of a *horse without a track* is well preserved. However, ST meaning unit *I felt [...] a champion college footballer suddenly confronted by Wall Street and a business suit, his days of glory shrunk to a little gold cup on his mantle with a date engraved on it like the date on a tombstone has undergone a deforming tendency. Thus a champion college footballer* is rationalized to the expression видатним футболістом (back translation: famous footballer); confronted by Wall Street and a business suit is rationalized as опинився на Волл-стріт у діловому костюмі (back translation: is, occurs to be in Wall Street in a business suit) and his days of glory is clarified as колишня слава (back translation: past/previous glory).

The trial of translation (in Berman's terms) is mostly vivid concerning the meaning unit confronted by Wall Street and a business suit in terms of the Ukrainian text being uprooted from its original language context. This choice of the translator destroyed the underlying network of signification. The point is that, individually, that is to say, used separately, these words may not be significant, but they add an underlying exactitude of content of a mental act embossed to the text. The network of words detoning confrontation restores the particular signifying process of Plath's writing. Saying it metaphorically, the whole life of Sylvia Plath as well as Esther Greenwood was 'the art of dying, struggling and confronting', confronting herself, confronting norms and society she was put in, confronting her past as well as the future. The variable I felt [...] confronted by Wall Street and a business suit is lost in translation.

The image of a little gold cup on his mantel with a date engraved on it like the date on a tombstone is adequately preserved in translation β∂ομα μα καμιμιϊ ποπιιμί β κρυχίπησων 30πουθησων κύδκυ 3 ∂απαμι, βυσυπιμμί μοθη μαθεροδκυ. However, the action verb shrunk is omitted in translation and, thus, its semantics denoting the process of belittling, being powerful and becoming meaningless is lost. Instead, the lexeme β∂ομα (at home) makes the reader evoke the emotion of comfort and coziness, which is exactly the opposite to what is semantically defined in a unit message in the original novel.

Finding: ST alienation variable 1 is re-expressed in translation with partial deformation; prevailing is the tendency of rationalization, clarification and destruction of the underlying network of signification.

3.2. I felt-NL example 2

Figure 4 depicts the second sample for analysis:

<s> <mu> <mu n=2> I felt very still and very empty, the way the eye of a tornado must feel </mu n=2>, moving dully along in the middle of the surrounding hullabaloo. </s> </mu>

<mu> <s> <mu n=2> Я почувалася геть вкляклою, геть порожньою — певно, так почувається центр торнадо</mu n=1>, мляво повзучи кудись у хаотичному вихорі. </s> </mu>

Figure 4: Second sample parallel markup

Discussion:

This variable depicts Esther's feeling of emptiness. Contextually, it portrays the development of Esther's mental illness, when she is not able to enjoy her life and find comfort with the people who surround her. The use of analogy – the eye of a tornado – seems to encapsulate self-estrangement within the empty eye of the tornado while the rest of the world is triumphing over life and vibrancy.

Unable to control her emotions, Esther succumbs to a state of numbness. Significant is Sylvia Plath's choice to self-expression via personification *the way the eye of a tornado must feel*.

To recall, the devastation is so overwhelming that the *feeling* of emptiness and hopelessness is attributed to the natural phenomena, excruciating and destructive.

ST meaning unit *I felt very still and very empty, the way the eye of a tornado must feel* is reexpressed in the translation in the lines Я почувалася геть вкляклою, геть порожньою — певно, так почуваеться центр торнадо. It has, though, undergone a number of deformations. The semantics of the meaning unit is well preserved; the translator's decision making resulted in the substitution of the image dominant (eye), thus deformation of the texture: the eye of a tornado is reexpressed as центр торнадо (the center of the tornado). She further clarifies an abstract hullabaloo to concrete хаотичний вихор (chaotic whirlwind). This mode of clarification marks the movement from polysemy to monosemy. Explication, according to Berman, aims to render 'clear' what does not wish to be clear in the original (p. 281).

The transformation of the movement *moving dully* into *мляво повзучи* (*sluggishly moving*) resonates well with the intonation of the novel texture and its mood.

Finding: ST alienation variable 2 is re-expressed in translation with partial deformation; prevailing is the tendency of clarification and rationalization.

3.3. I felt-NL example 3

Fig. 5 demonstrates the third excerpt to be analyzed:

<s> <mu> <mu n=3> I felt overstuffed and dull and disappointed </mu n=3>, the way I always do the day after Christmas, as if whatever it was the pine boughs and the candles and the silver and gilt-ribboned presents and the birch-log fires and the Christmas turkey and the carols and the piano promised never came to pass. </s> </mu>

<s> <mu> <mu> n=3> Напередодні я переїла, дорогою почувалася знуджено й розчаровано</mu n=3>, як то завжди після Різдва: наче хтось пообіцяв мені, що соснові гілки, і свічки, і срібно-золоті стрічки, і вогнища на березових дровах, і різдвяна індичка, і колядки під акомпанемент піаніно ніколи не закінчаться, а вони закінчилися </s> </mu>

Figure 5: Third sample parallel markup

Discussion:

To talk about the meaning unit of variable 3, let us first analyse the zeugma *I felt overstuffed* and dull and disappointed. As a matter of fact, these words signify the promises of youth years of Esther which, in the majority of cases, failed to be satisfying. *I felt the overstuffed* construct unfolded later in the sentence and exemplified by Christmas context. In the meantime, the *I felt dull and* disappointed construct resonates with the semantic dominant of Sylvia Plath and denotes senselessness, devastation and emotional dislocation.

The translator distorts this novelistic curdle and the underlying network of signification by adopting the crucial semantic shifts in the translated text. The translated variant ties (semantically and syntactically) all three words overstuffed and dull and disappointed to Christmas: Напередодні я переїла, дорогою почувалася знуджено й розчаровано, як то завжди після Різдва (On the eve I ate too much (ate too much is one word in translation as the Ukrainian language is synthetic and affixations allow that), on the way I felt bored and disappointed, as always after Christmas). Nevertheless, the translation catches the subtext of the promises that failed to come true and to be satisfying: as if whatever it was the pine boughs and the candles and the silver and gilt-ribboned presents and the birch-log fires and the Christmas turkey and the carols and the piano promised never came to pass is re-expressed as наче хтось пообіцяв мені, що соснові гілки, і свічки, і срібно-золоті стрічки, і вогнища на березових дровах, і різдвяна індичка, і колядки під

акомпанемент піаніно ніколи не закінчаться, а вони закінчилися (as if someone had promised me that pine branches, and candles, and silver and gold ribbons, and bonfires on birch wood, and a Christmas turkey, and carols to the accompaniment of a piano would never finish, and they finished). Though placed at the end of the sentence structure in translation ніколи не закінчаться, а вони закінчилися (would never finish, and they finished), the sentence construction employed perfectly organizes the mode of expression.

Interesting fact, the variable 3 is a rare sample of rhythmicity and alliteration: *dull and disappointed*; *Christmas-candles-carols*; *piano promised never came to pass*. It might have been unintended by Plath, thought created an intensification of *shapeless polylogic* (in terms of Berman). The feature appeared to be re-created in translation: *соснові гілки*, *i свічки*, *i срібно-золоті стрічки* and, consequently, provides a fortunate rhythmic movement.

Finding: ST alienation variable 3 is re-expressed in translation with partial deformation; prevailing is the tendency of destruction of the underlying network of signification by introducing in the translated text words and specifiers which are avoided in the original.

3.4. I felt-NL example 4

Below is the next fragment to be discussed:

<s> <mu> <mu n=4>I felt very low. </mu n=4> </s><s> I had been unmasked only that morning by Jay Cee herself, and I felt now that all the uncomfortable suspicions I had about myself were coming true, and I couldn't hide the truth much longer. </s><s> After nineteen years of running after good marks and prizes and grants of one sort and another, I was letting up, slowing down, dropping clean out of the race. </s> </mu>

<s> <mu> <mu n=4> Мені було геть невесело. </mu n=4> </s> <s> Уранці того дня Джей Сі мене розсекретила, і я відчувала, що справджуються всі мої неприємні передчуття щодо самої себе, й уже не могла приховувати правду. </s> <s> По дев'ятнадцяти роках гонитви за відмінними оцінками, усілякими преміями та стипендіями я здавалася, сповільнювалась, явно сходила з дистанції. </s> </mu>

Figure 6: Fourth sample parallel markup

Discussion:

Meaning unit I felt very low of the variable 4 deciphers as I felt very depressed and dejected, and I ran out of my vital energy. The sense is intensified by the meaning unit I felt now that all the uncomfortable suspicions I had about myself were coming true, which reads as now is the time I have to be honest with myself and admit that I got exhausted by the dynamics of my life and it seems that I was slowing down, losing my primacy position. This was preceded by I had been unmasked [...] by Jay Cee herself structure, meaning It was high time I started to realize, I began to see clearly. Esther had to be honest to her true self and face the reality, confess to herself. It echoes with NL 3 in which the words signify the promises of Esther's young life of Esther which, in the majority of cases occured to be unsatisfying.

Translation, in its turn, neglects original iconicity and moves from polysemy to monosemy, which is a mode of clarification along with qualitative impoverishment. Translation of the original *I felt very low* reads as following *Мені було геть невесело*. (word for word back translation: *To me it was геть* (vernacular lexeme, untranslatable into English, missing in the original) not merrily). Thus, the syntactically defined unit *I felt very low* is lost in translation.

Next, original meaning unit I felt now that all the uncomfortable suspicions I had about myself were coming true, and I couldn't hide the truth much longer is re-expressed in translation as g відчувала, що справджуються всі мої неприємні передчуття щодо самої себе, й уже не могла приховувати правду (word for word back translation I felt that are coming true all my unpleasant premonitions about myself, and could not hide the truth).

Syntactically defined unit *I felt now that* is preserved in the translation.

Finding: ST variable 4 consists of two meaning units (defined syntactically and semantically); one is lost, another is preserved in translation. Partial deformation is observed in terms of clarification along with qualitative impoverishment.

3.5. I felt-NL example 5

Next, check Fig.7

```
<\!\!s\!\!><\!\!mu\!\!><\!\!mu n=5> I felt dull and flat and full of shattered visions. </mu n=5> </s> </mu> <\!\!s\!\!><\!\!mu\!\!><\!\!mu n=5> Meні було нудно й буденно, усі надії вмирали в мене на очах. </mu n=5> </s> </mu>
```

Figure 7: Fifth sample of textness marking

Discussion:

In translation, this variable 5, as well as variable 4 witnesses the substitute of subjectival *I felt* into objectival *meni (to me)*, in such a way distorting the syntactically defined unit of the original.

Syntactically and semantically, this variable echoes with variable 3 (compare: *I felt overstuffed and dull and disappointed*) which proves author's intentionally elaborated network. As for variable 5, the wholicity of form and meaning is lost in translation. The translator re-accentuates the hidden dimension, where 'certain signifiers correspond to link up' (in Berman's terms) and, eventually, destructs the underlying network of signification.

The original has the repetitious development with the stylistical effect of emotional climax *I felt dull and flat and full of shattered visions*. The distribution of the corresponding lexical items of the original is lost in translation *Мені було нудно й буденно, усі надії вмирали в мене на очах (То те was boring and ordinary, all hopes were dying on my eyes).*

Apart from this, addited to translation punctuation mark rationalizes the most meaningful elements of the prose, it annihilates the relations which prevail in the original between ordered and disordered (<u>dull</u> and <u>flat</u> and <u>full</u> of shattered visions).

Finding: ST alienation variable 5 is re-expressed in translation with destruction of the underlying network of signification by introducing in the translated text punctuation and eliminating *I felt* construction from translation.

3.6. I felt-NL example 6

Now let us consider Fig. 8

<s> <mu> <mu n=6> I felt limp and betrayed</mu n=6>, like the skin shed by a terrible animal. </s> </mu> <s> It was a relief to be free of the animal, but it seemed to have taken my spirit with it, and everything else it could lay its paws on. </s> </mu>

<s> <mu> <mu n=6> Я почувалася розмоклою та зрадженою<mu n=6>, наче шкіра, скинута страшним звіром. </s> <mu> <s> Було добре не почуватися звіром, але я відчувала, ніби той звір забрав із собою мою душу й усе, що лиш зумів загарбати лапами. </s> <mu>

Figure 8: Sixth sample of textness marking

Discussion:

The narrator accentuates the loss of the protagonist's character and willpower through the adjectives *limp and betrayed*, which suffices to show exhaustion and fatigue, accompanied by the shade of *betrayal*, driven from the context of Esther's growing alienation from her body by emphasizing the process of skin change (typical for reptiles) and portraying the imaginary relief to be free of the animal (inner beast); however, along with healing the body, the emptiness of the soul takes it turn. The self-metaphorization with the skin, rather than the animal, margins Esther's self reception as being the outsider, being betrayed and separated from the rest whole.

This variable has undergone deforming tendency in translation, first and foremost, the lexeme *limp*, initially meaning *weak*, *not strong enough,powerless, loosing control over your body*, is impoverished. The translation tends to impose the definite, which is, adopting Berman's ideas, typical for novel translations. The translator adopts qualitative impoverishment and creates a new image (absent in the original); she replaces signifying *limp* which is used repeatedly through the text (for example, the allegory: *I knew something was wrong with me that summer*, because all I could think about was the Rosenbergs and *how stupid I'd been to buy all those uncomfortable, expensive clothes, hanging limp as fish in my closet*, and how all the little successes I'd totted up so happily at college *fizzled to nothing* outside the slick marble and plate-glass fronts along Madison Avenue). The translator has chosen a word *po3mokna* that initially denotes *soaked, processed by water, submerged*. However, the syntactically defined unit *I felt* is preserved in translation.

Finding: ST alienation variable 6 is re-expressed in translation with destruction of the underlying network of signification and qualitative impoverishment of iconic word *limp*.

3.7. I felt-NL example 7

Now let us turn our sights to Fig. 9:

```
<s> <mu> <mu n=7> I didn't know how long I had slept, but I felt one big twitch of exhaustion. </mu n=7> </s> <math></mu>
```

<s> <mu> <mu n=7> He знаю, скільки я спала, однак тепер почувалася тугим кавалком виснаження. </mu n=7> </s> </mu>

Figure 9: Seventh sample of textness marking

Discussion:

This variable 7 is of interest, first and foremost, because of the syntactic structure preferred by Sylvia Plath. As seen in previous variables, she tends to use I felt variable + alienation, the latter expressed by means of adjectives (dull, devastated, etc. or/and a comparison with the particle like). Meanwhile here, poetization of prose is framed by I felt + alienation, the syntactically defined unit of which is presented via predominant noun-phrase (though preceded by a numeral one and adjective big), i.e.: I felt + one big twitch of exhaustion.

The meaning unit adds up to the topoi of exhaustion and devastation. Metaphorized via <u>twitch</u> of exhaustion, it intensifies physical and mental pang (as in a twitch of remorse). The applied to an entire work 'fresh' iconicity of Plath, is re-expressed in translation by means of a 'fresh' coinage of the translator почувалася тугим кавалком виснаження (I felt a tight chunk of exhaustion). The TT word combination is alien and not typical to TT readers, which prompts the suggestion that the choice was deliberate. To our mind, the decision is justified as it encompasses the complexity of the original meaning unit so as to enhance the intended communicative effect on TT reader. This serves a vivid example when the translator does not only re-express the intended original meaning, but re-creates the author's estranged, postmodern mindset.

Finding: ST alienation variable 7 undergoes a number of transformations, which resulted in a positive analytic of translation. Despite the fact it is distanced from the original in terms of 'same words usage' for adequate equivalency, translator preserved predominant noun-phrase in *I felt* variable along with estranged metaphor (*twitch* of exhaustion).

3.8. I felt-NL example 8

Next in the raw is Fig. 10:

<s> <mu> <mu n=8> I felt myself shrink to a small black dot against all those red and white rugs and that pine paneling. I felt like a hole in the ground. <mu n=8> </s> <mu>

<s> <mu> <mu n=8> Я відчувала, як стискаюся в крихітну чорну цятку на тлі усіх цих біло-червоних килимів і соснових панелей. Почувалася, ніби яма в землі. <mu n=8> </s> </mu>

Figure 10: Eighth passage

Discussion:

ST variable 8 discloses the main heroine's self perception as miniscule being as confronted to the other rest. Meaning unit *I felt myself shrink to a small black dot_against* intensifies her enduring position on the social margins. Instead of feeling harmony with the world around, Esther's self-image suggests an abiding sense of blurred identification *I felt like a hole in the ground* ventilates the burden of socialising experiences and belittled self-awareness in the circumstances the heroine lives in, dark and gloomy – Esther is convinced.

The target text exemplifies positive analyticity of translation and leaves original 'unspoken' to remain unfolded in the translation. The ST reader is left guessing what might it be to feel like a hole in the ground, as, fortunately, is the TT reader почувалася, ніби яма в землі (to feel as a hole in the ground).

Finding: ST alienation NL 8 is liberated in translation, which mobilizes the shapeless polylogic of Plath's literary prose.

3.9. I felt-NL example 9

Succeeding Fig. 11 to assess:

<s> <mu> <mu n=9> After a late night I felt too dull to think up the excuse that would take me back to my room for the glove, the handkerchief, the umbrella, the notebook I forgot. </mu n=9> </s> </mu>

<s> <mu> <mu n=9> Після вчорашнього важкого вечора я була не в змозі вигадати поважну причину, щоб повернутися в номер по забуту рукавичку чи носовичок, чи парасольку, чи сумочку. </mu n=9> </s> </mu>

Figure 11: Ninth passage

Discussion:

Meaning unit *I felt too dull to think up the excuse* contains a signifier *dull* which is avoided in translation я була не в змозі вигадати поважну причину (I was not able to trump up a good reason). Proceeding in the translation, there is a combination Після вчорашнього важкого вечора (After yesterday's difficult evening) which, although renders the meaning, destructs the network of significance. The word *dull* constitutes a particular network, it witnesses the presence of a particular pattern (*see* NL 2,3,5,9). Another co-signifier is *limp* which is manifested throughout the texture, but more frequently finds itself outside the realm of *I felt* NL and remains systematic in *I hate* NL.

In addition, the translator combines ennoblement and qualitative impoverishment and substitutes the original chain of words for the glove, the handkerchief, the umbrella, the notebook I forgot with no забуту рукавичку чи носовичок, чи парасольку, чи сумочку (for the forgotten glove (used with

diminutive) or handkerchief (used with diminutive), or umbrella (used with diminutive), or purse (used with diminutive). The choice of diminutive suffixation along with the substitution of original notebook with the lady's hangback in translation belittles the narration and contradicts to Sylvia Plath's worldview; these 'girlish stereotypes' are genuinely the prejudices she has been fighting against during the whole of her life.

This observation of ours is supported by the reviewer of the analysed translation. The reviewer concludes that the translated text nurtures the ambition to 'shift the text into a different dimension', the translator desires to make the narrative more tender, innocent, frail, fragile, girlish, so to say. Esther is not tender and far from romantic, she is portrayed pretty cynical and even sarcastic. She is a decadent, appealing to self-indulgence, imbalanced and unstable, rather than sensitive and empatic [11].

Finding: ST alienation NL 9 is re-expressed in translation and is negatively deformed. In addition, it banalizes the underlying significance and debilitates the content of Sylvia Plath's mental act of liberation over suffocating 'normal for woman'.

3.10. *I felt*-NL example 10

Upcoming piece to inspect:

<s> <mu> For the first time in my life, sitting there in the soundproof heart of the UN building between Constantin who could play tennis as well as simultaneously interpret and the Russian girl who knew so many idioms, <mu n=10> I felt dreadfully inadequate. </mu n=10> </s> </mu> <s> The trouble was, I had been inadequate all along, I simply hadn't thought about it. </s>

<s> <mu> Уперше в житті, сидячи в звуконепроникному серці оонівської будівлі між Константином, який умів грати в теніс і синхронно перекладати, і російською дівчиною, яка знала безліч ідіом, <mu n=10> я почулася страшенно нездібною. </mu n=10> </s> </mu> <s> Прикрість полягала в тому, що такою я була ціле життя, просто ніколи раніше про це не думала. </s>

Figure 12: Tenth instance

Discussion:

Meaning unit *I felt dreadfully inadequate* of NL 10 indicates Esthers feeling of insecurity. The other meaning unit *The trouble was, I had been inadequate all along, I simply hadn't thought about it* connects abstract *now* and *always*. Semantically, this chain of opposition is preserved in translation. Syntactically defined unit is lost. Compare original *I felt dreadfully inadequate*. *The trouble was, I had been inadequate* all along and translated я почулася страшенно нездібною. Прикрість полягала в тому, що такою я була ціле життя (I felt terribly incapable. The disappointment/trouble consisted in that like this I was whole life).

The translator clarifies the feature Esther verbalizes as *inadequate* and opts for the corresponding, contextually driven, *neadiona*, meaning *incapable*, *lacking appropriate skills*. Such a choice bears the destructive tendency as it does not recompose the signifier (*I felt dreadfully*) *inadequate* of the original narrative.

Finding: ST alienation NL 10 is re-expressed in translation and is negatively deformed. It clarifies the underlying significance and omits syntactically defined unit.

4. Acknowledgements

The project has been carried out within the complex academic topic "Application of modern technologies for optimization of information processes in natural language" at Lviv Polytechnic

National University. Illustrated is the initial stage of the project which opts for the employment of modern digital tools within the usage of parallel translation corpora in quality assessment of translated product

5. Conclusions

This article explores how *I felt*-NL of Sylvia Plath is translated into Ukrainian. Necessary to note that the current analysis does not exceed the realm of *I felt+alienation* NL and should not be considered evaluative in relation to the whole translation product.

In a lucid way, we (a) discussed what comprises *I felt*-NL; (b) analysed how it is translated into Ukrainian by Olha Liubarska; (c) assessed the translated product on the basis of Antoine Berman's analytic of translation (negative and positive). Juxtaposing ST alienation NL with their translated variants enabled defining translation tendency. This resulted in argumentation that *I felt*-NL is significant for Plath's narrative of *The Bell Jar* because it is framed within main heroine flashbacks from the past and encapsulates her alienated self-identification. In the majority of cases this novelistic meaning unit (defined semantically and syntactically) has been exposed to negative analytic of translation with prevailing tendencies of clarification, rationalization, destruction of underlying network of significance. There are, though, bright examples of positive analytic of translation.

6. References

- [1] Aldama, Frederick (Ed.) (2010). Prophesying with Accents Terrible: Emotion and Appraisal in Macbeth. In *Toward a Cognitive Theory of Narrative Acts*. Austin, TX: University of Texas Press, 251–280.
- [2] Baker, M. (2000). Towards a Methodology for Investigating the Style of a Literary Translator, *Target* 12(2): 241-266.
- [3] Baker, M. (2018). Framing narratives in translation. In *Translation and conflict: A Narrative Account*, London: Routledge
- [4] Berman A. Translation and the trials of the foreign. In The Translation studies reader, Second edition, edited by Lawrence Venuti, 2009, pp. 276-289
- [5] Bloom, Harold (Ed.) (2009). *Alienation*. Bloom's Literary Themes: Alienation. Vol.editor Blake Hobby, Infobase Publishing: New York.
- [6] Boase-Beier, J. (2003). Mind Style Translated, Style 37(3): 253-65.
- [7] Cognitive Science, Literature, and the Arts: A Guide for Humanists (2003). New York: Routledge.
- [8] Communications to Self and Others: Emotional Experience and Its Skills (2009). *Emotion Review*, 1.3: 206–213.
- [9] Denneti, Daniel (1991). *Consciousness explained*, Back Bay Books, New Yorh-Boston-London, 530 p.
- [10] Emmott, C. (1997) Narrative Comprehension, A Discourse Perspective, Oxford: Oxford University Press.
- [11] Fowler, R. (1977). Linguistics and the Novel, London: Methuen.
- [12] Frawley, W. (ed.) (1984). *Translation: Literary, Linguistic and Psychological Perspectives*, London and Toronto: Associated University Press.
- [13] Ghazala, Hasan (2011). Cognitive stylistics and the translator, London, Sayyab Books Ltd, 237p.
- [14] Gibbs, R. (1994). The Poetics of Mind: Figurative Thought, Language and Understanding, Cambridge: Cambridge University Press.
- [15] Halliday, M. (1973). Linguistic Function and Literary Style, in Chatman, S. (ed.), *Literary Style: A Symposium*, London: OUP, pp.330-65.
- [16] Hirsch, E.D. (1967). Validity in Interpretation, New Haven: Yale University Press.
- [17] Hogan, Patrick Colm.(2009). The Mind and Its Stories: Narrative Universals and Human Emotion, Cambridge University Press.

- [18] Hogan, Patrick Colm.(2011). What Literature Teaches Us about Emotion, Cambridge University Press.
- [19] Iser, W. (1971). Indeterminacy and the Reader's response in Prose Fiction, in Hillis, M.J. (ed) *Aspects of Narrative*, New York: Colombia University Press, 1-45.
- [20] James, Henry (1973). The House of Fiction: Essays on the Novel. Westport, CT: Greenwood Press.
- [21] Katz, J. (1990). The Metaphysics of Meaning, Cambridge, Massachusetts: MIT Press.
- [22] Kosslyn, Stephen (1994). Image and Brain: The Resolution of the Imagery Debate. Cambridge, MA: MIT Press.
- [23] Lewis, Michael (2008). *Self-Conscious Emotions: Embarrassment, Pride, Shame, and Guilt.* In Lewis, Haviland-Jones, and Barrett, 742–756.
- [24] Lodge, D. (1966). The Savage Mind, Routledge and Kegan Paul.
- [25] Lypyatskykh, Anna (2018). Review on: Сильвія Плат. Під скляним ковпаком / пер. з англ. Ольги Любарської. Львів: Видавництво Старого Лева, 2017. 360 с. Available at: https://chytomo.com/pid-sklyany-m-kovpakom-sy-l-viyi-plat-m/
- [26] Mithen, S. (2003). The Prehistory of Mind, London: Phoenix.
- [27] Mudrick, Marvin. Character and Event in fiction. Yale Review, L,1960, p.205-206.P. S. Abril, R. Plant, The patent holder's dilemma: Buy, sell, or troll?, Communications of the ACM 50 (2007) 36–44. doi:10.1145/1188913.1188915.
- [28] Nussbaum, Martha C. Upheavals of Thought: The Intelligence of Emotions. Cambridge: Cambridge University Press, 2001.
- [29] Pandit, Lalita (2006). Emotion, Perception, and Anagnorisis in The Comedy of Errors: A Cognitive Perspective. *College Literature* 33.1: 94–126.
- [30] Parkinson, Brian; Illingworth, Sarah (2009). Guilt in Response to Blame from Others. *Cognition and Emotion* 23: 1589–1614.
- [31] Patron, Sylvie (Ed.) (2014). Toward a Poetic Theory of Narration., Trends in Linguistics Studies and Monographs, Volume 269, 2014
- [32] Pérez, M. (2007). Transitivity in Translation: The Interdependence of Texture and Context, Peter Lang.
- [33] Perkins, George (Ed.) (2007). The American Tradition in Literature, Eleventh edition, Volume 2.
- [34] Plath, Sylvia. The Bell Jar. 1963. New York: HarperCollins, 2006.
- [35] Rimé, Bernard (2009). Emotion Elicits the Social Sharing of Emotion: Theory and Empirical Review. *Emotion Review* 1.1: 60–96.
- [36] Rimmon-Kenan, Sh. (1983). Narrative Fiction: Contemporary Poetics, London: Methuen.
- [37] Robinson, D. (1997/2007). Becoming a Translator, Routledge: London and New York.
- [38] Rubin, David (1995). Memory in Oral Traditions: The Cognitive Psychology of Epic, Ballads, and Counting-Out Rhymes. New York: Oxford University Press.
- [39] Sapir, E. (1956). *Culture, Language and Personality*, Berkeley, California: University of California Press.
- [40] Semino, Elena; Culpeper, Jonathan (Eds.) (2002). Cognitive Stylistics: language and cognition in text analysis, John Benjamins Publishing Company: Amsterdam/Philadelphia
- [41] Simpson, Jane; Carter, Sarah; Anthony, Susan and Overton Paul (2006). Is Disgust a Homogeneous Emotion? *Motivation and Emotion* 30.1: 31–41.
- [42] Smith, Ellen (2011). Sylvia Plath's The Bell Jar: Critical Reception. Y Janet McCann. *Critical Insights: The Bell Jar*. Pasadena, CA: Salem Press. c. 92–109.
- [43] Smith, Greg (2003). Film Structure and the Emotion System. Cambridge: Cambridge University Press.
- [44] Sperber, D. and Wilson, D. (1986/1995) *Relevance Theory, Communication and Cognition*, Oxford: Blackwell.
- [45] Stockwell, P. (2002). Miltonic Texture and the feeling of Reading', in Semino, E. & Culpeper, J. (eds), *Cognitive Stylistics: Language and Cognition in Text Analysis*, Amsterdam & Philadelphia: Benjamins, pp. 73-94.
- [46] Taylor, Kathleen (2007). Disgust is a Factor in Extreme Prejudice. *British Journal of Social Psychology* 46: 597–617.

- [47] Titscher, Stefan; Meyer, Michael; Wodak, Ruth and Vetter, Eva (2000). *Methods of Text and Discourse Analysis*, SAGE Publications London' Thousand Oaks New Delhi
- [48] Towards a Cognitive Theory of Emotions (1987). Cognition and Emotion 1: 29–50.
- [49] Tsur, R. (2000). Lakoff's Roads not taken. Pragmatics and Cognition 7: 339–359.
- [50] Turner, M. (1991). Reading Minds: The Study of English in the Age of Cognitive Science, Princeton: Princeton University Press.
- [51] van Dijk, T.A. and Kintsch W. (1983). *Strategies of Discourse Comprehension*. London: Academic Press.
- [52] van Leeuwen, Cees (1998). Perception. *In A Companion to Cognitive Science*. Ed. William Bechtel and George Graham. Oxford: Blackwell, 265–281.
- [53] Verdonk, P. (1999). The Liberation of the Icon: A Brief Survey from Classical Rhetoric to Cognitive Stylistics', Journal of Literary Studies, 15(3/4): 291-304
- [54] Weber, J-J. (1996). The Stylistics Reader: From Roman Jakobson to the present. London: Arnold.
- [55] Zwaan, Rolf A. (1993). Aspects of Literary Comprehension: a cognitive approach, John Benjamins Publishing Company, 190 p.
- [56] Plat Sil'via. Pid sklanym kovpakom [Tekst]: roman / Sil'via Plat; perekl. z angl. Ol'hy Lubars'koi. L'viv: Vydavnyctvo Starogo Leva, 2018. 360 s. [Плат Сильвія. Під скляним ковпаком [Текст]: роман/Сильвія Плат; перекл. з англ. Ольги Любарської. Львів: Видавництво Старого Лева, 2018. 360 с.]
- [57] Giatsoglou M, Vozalis M, Diamantaras K, Vakali A, Sarigiannidis G, Chatzisavvas K. Sentiment analysis leveraging emotions and word embeddings. Exp. Syst. Appl. 2017;69:214–224. doi: 10.1016/j.eswa.2016.10.043.
- [58] D. Ivanchyshyn, V. Vysotska and S. Albota, "The Film Script Generation Analysis Based on the Fiction Book Text Using Machine Learning," 2021 IEEE 16th International Conference on Computer Sciences and Information Technologies (CSIT), 2021, pp. 68-80, doi: 10.1109/CSIT52700.2021.9648818.
- [59] O. Levchenko and M. Dilai, "A Method of Automated Corpus-Based Identification of Metaphors for Compiling a Dictionary of Metaphors: A Case Study of the Emotion Conceptual Domain," 2021 IEEE 16th International Conference on Computer Sciences and Information Technologies (CSIT), 2021, pp. 52-55, doi: 10.1109/CSIT52700.2021.9648667.
- [60] I. Bekhta, N. Bondarchuk, O. Marchuk and V. Bialyk, "Processing Modality of British Modernist and Postmodernist Fiction," 2021 IEEE 16th International Conference on Computer Sciences and Information Technologies (CSIT), 2021, pp. 81-84, doi: 10.1109/CSIT52700.2021.9648624.
- [61] V. Lytvyn, Y. Burov, V. Vysotska, Y. Pukach, O. Tereshchuk and I. Shakleina, "Abstracting Text Content Based on Weighing the TF-IDF Measure by the Subject Area Ontology," *2021 IEEE International Conference on Smart Information Systems and Technologies (SIST)*, 2021, pp. 1-7, doi: 10.1109/SIST50301.2021.9465978.
- [62] Khomytska I., Teslyuk V., Kryvinska N., Bazylevych I. Software-Based Approach Towards Automated Authorship Acknowledgement—Chi-Square Test on One Consonant Group // Electronics. July 2020. Vol. 7:1138.
- [63] Khomytska I., Teslyuk V., Bazylevych I., Shylinska I. Approach for Minimization of Phoneme Groups in Authorship Attribution Attribution // International Journal of Computing. 2020. Vol. 19(1). P. 55-62.