

## COGNITIVE LINGUISTICS: THE STUDY OF COGNITIVE PROCESSES IN PERCEIVING LANGUAGES

<sup>a</sup>SVITLANA SHULIAK, <sup>b</sup>NATALIIA KOROLOVA,  
<sup>c</sup>KSENIIA CHUMAKOVA, <sup>d</sup>ZHANG WEI, <sup>e</sup>NATALIIA  
MEDVID

<sup>a</sup>*Pavlo Tychyna Uman State Pedagogical University, Uman,  
Ukraine*

<sup>b</sup>*Vasyl Stefanyk Precarpathian National University, Ivano-  
Frankivsk, Ukraine*

<sup>c</sup>*Municipal Institution of Higher Education «Khortytsia National  
Educational and Rehabilitational Academy» of Zaporizhzhia  
Regional Council, Zaporizhzhia, Ukraine*

<sup>d</sup>*School of Foreign Languages, Yantai University, Yantai, China*  
<sup>e</sup>*Oleksandr Dovzhenko Hlukhiv National Pedagogical  
University, Hlukhiv, Ukraine*

email: <sup>a</sup>shulyak\_svitlana@ukr.net, <sup>b</sup>ksenchu@gmail.com,  
<sup>c</sup>eiwismn@gmail.com, <sup>d</sup>id.dbtu@gmail.com, <sup>e</sup>Medvedica@ukr.net

**Abstract:** A characteristic feature of modern linguistics is the study of language as a means of communication and expression of mental activity, which provides access to human consciousness. Cognitive linguistics postulates that all cognitive processes, including the perception of the surrounding world, are reflected and captured in linguistic forms. This research is conducted within the framework of cognitive linguistics, based on a unified cognitive methodology for studying linguistic structures. The authors of this study defined the concept of perception as a cognitive process. It is noted that different types of perception (sight, hearing, touch, smell, and taste) are indicated by verbs of sensory perception found in English idiomatic expressions and the names of corresponding sense organs. The imprint of such perceptual properties as integrity, objectivity, meaningfulness, and dependence on the perceiver's personality is described in English phraseological units. In particular, the analysis of phraseological units formed through metaphorical and/or metonymic transfers confirms the associative nature of human thinking. It is demonstrated that human experience serves as an essential link between perception and phraseological meaning. The conducted research allows for a more comprehensive understanding of the nature of the relationship between cognition and the idiomatic system of language. It can be a prerequisite for developing a separate branch in language science – a cognitive idiom integrating the achievements of cognitive science and phraseology. The presented linguistic material can be used in the practice of teaching English. Besides, it can be included in theoretical and practical courses on the English language's general linguistics, cognitive linguistics, lexicology, and phraseology. The English idioms represent such perception features as varying degrees of expressiveness, clarity, purposefulness, duration, focus, integrity, objectivity, consciousness, and dependence on the perceiver. The perception through the prism of English phraseology appears as an active cognitive process inextricably linked to comprehending information from the outside world, considering previous experience. The perceived sensory experience is reinterpreted during further cognitive processing and becomes a source of understanding other, more abstract situations.

**Keywords:** cognition, perception process, human experience, metaphor, metonymy, phraseological units in the English language, phraseological meaning.

### 1 Introduction

The relevance of this topic is determined not only by the world's diversity but also by the uniqueness of each specific language with its unique inventory of units, their connections, and ways of organizing into a single unit. With its origin in the associative nature of human thinking, phraseological meaning illustrates an attempt to understand one entity in terms of another or use one entity to refer to another related one. Accordingly, phraseological units formed by metaphorical and metonymic transfers were identified during this research. A metonymy more often affects a single word in a fixed combination, while metaphor characterizes the reinterpretation of the entire expression. The study revealed that human experience, as a combination of practically acquired knowledge, skills, and abilities, serves as an essential link between perceiving the surrounding world and phraseological meaning. English phraseological units present a reinterpretation of a wide range of human experiences, starting from spatial aspects and ending with life wisdom or professional expertise. Forming phraseological meaning is based on real-world knowledge, including cultural insights, folk beliefs, ethical norms, and religious beliefs.

It should be noted that the examined fixed expressions present not so much a scientific as a naive worldview. The very specificity of idiomatic composition explains it as the most expressive and colorful sphere in the language system. The conducted research allows justifying the term "cognitive

phraseology" in linguistics. The accumulation of systematized facts in the theories of phraseology and cognitive science has created prerequisites for creating a discipline that integrates the achievements of both fields. Further studies of phraseological units concerning how they reflect a specific vision and cognition of the world by a person can be very promising. Cognitive phraseology aims to contribute to explaining the mysteries of the human mind.

### 2 Literature review

Since its emergence in the XX century, cognitive linguistics has become a promising paradigm of scientific knowledge. In modern national linguistics, it includes a wide range of studies related to the following issues:

- conceptualization and categorization (Tatsenko, 2017), (Prokopenko, 2020), (Perebyinis, 2013), (Maksymenko, 2010);
- cognitive modeling (Zhyhir, 2010), (Vorobyova, 2004), (Baddeley, 2000), (Chmiel, 2016), (Dam, 2004), (Dubsloff F., Martinsen B., 2007);
- the study of text and discourse (Gavioli, 2014), (Gile, 2009), (Hale, 2011), (Korpil, 2016);
- professional communication and terminology, language and culture interaction, and so on (Kövecses, 2003-2014), (Lakoff, 1980, 2004), (Schmidt, 2012), (Seeber, 2011, 2013), (Tiselius, 2013), (Timarová, 2012), (Tebble, 2012).

The cognitive paradigm of linguistic knowledge is based on the interdisciplinary research principle. This principle allows us to consider language closely connected with all cognitive processes. An essential part of cognition is the human perception of the world around us.

The conducted research aimed to identify the peculiarities of perception within the idiomatic system of the English language, where the associative character of human thinking underlies secondary nomination, and phraseological meaning is characterized by varying degrees of reinterpretation. The research tasks included:

- studying perception as a cognitive process;
- analyzing English idiomatic expressions in terms of the representation of perception properties;
- identifying cognitive components that serve as a necessary link between the process of perception and phraseological meaning.

### 3 Method

The research employed general and specific methods of cognition, such as the inductive-deductive method, quantitative counting and classification method, structural-semantic analysis method of phraseological units, and conceptual analysis method. The comprehensive application of these methods allowed for a theoretical exploration of phraseology from the perspective of the cognitive paradigm of knowledge.

### 4 Result

Perception is the reflection in a person's consciousness of objects or phenomena through their direct influence on the sensory organs. Accordingly, visual, auditory, tactile, olfactory, and gustatory perception are distinguished depending on which analyzer plays a predominant role in the perception.

The semantic associations were found to be related to visual perception in 57% of the investigated phraseological units, auditory perception in 15%, tactile perception in 11%, olfactory perception in 9%, and taste perception in 8%. These data are

quite indicative and correspond to the role of different types of perception in understanding the world.

The existence of different perception types is indicated by the verbs of sensory perception contained in English idioms, such as see, look, hear, listen, feel, touch, smell, taste, etc.:

- "see land" (literally "to see land") - to be near the goal.
- "look on the wine when it is red" - to get drunk, to be extra (an expression from the Book of Proverbs: "Look not thou upon the wine when it is red, When it giveth his colour in the cup, When it moveth itself aright. At the last it biteth like a serpent, And stingeth like an adder").
- "won't hear a word said against somebody" - refuse to believe anything bad about somebody.
- "listen to reason" - to heed the voice of reason.
- "feel somebody's pulse" - to discover someone's intentions and plans.
- "touch a string" - to touch someone's weak spot.
- "smell powder" - to smell gunpowder, to gain combat experience.
- "taste blood" - to taste something, to get a taste for something."

An idiom may include words denoting the senses. In these cases, metonymy is observed, which is the transfer based on contiguity between the "sense organ" and the "corresponding type of perception." Examples of such idioms include:

- "Have a thick skin" - to be thick-skinned, insensitive.
- "Have a (good) nose for something" - to have a good sense of something.
- "Be all ears" - to listen attentively.
- "Be all eyes" - to look intently (a Shakespearean expression).

The last two expressions also involve a specific type of metonymy called synecdoche, which is the transfer from a part to the whole.

Even though taste receptors primarily perceive the taste, no idiomatic expressions with the word "tongue" in the sense of "taste" were found during the research. This word is encountered in English expressions related to the process of speaking (have a long tongue - to be talkative; lose one's tongue - to become silent, to lose the gift of speech; one's tongue runs before one's wit - a person speaks before thinking). It emphasizes the leading function of language as the organ of speech. However, it is known that taste perception is associated not only with language but also with the receptors in the mouth, which is reflected in the English idiomatic expression "to melt in one's mouth."

Idioms can indicate some characteristics of perception and contain relevant concepts in their semantics. These are the presence of perception (and varying degrees of its vividness) or the absence of perception:

- "to have eyes like a hawk" - to have sharp eyesight, to be very observant (this idiom is based on the well-known fact about the keen vision of birds of prey).
- "to hear the grass grow" - to have exceptional perceptiveness, to be able to discern subtle details (it is believed that if a person focuses on nature, the perception becomes more nuanced and sensitive: it is possible to hear the sound of a young grass growing through the soil and last year's leaves).
- "to see far into the millstone" - to have extraordinary insightfulness.
- "to see no further than one's nose" - to have minimal vision, to be short-sighted.
- "to be (as) blind as a bat" - 1) to be partially blind; 2) to be ignorant, unaware, not noticing or understanding what is happening.
- "to be (as) deaf as an adder" - to be completely deaf, do not listen to anyone.

It is worth noting that different fields of knowledge are activated in Ukrainian and English to conceptualize the same phenomenon. In Ukraine, a person who is deaf or oblivious to their surroundings is compared to a teterya (an adder) that loses hearing during mating and becomes easy prey for hunters. In English-speaking culture, to describe someone who can't hear anything, they resort to the biblical image of "an adder that stops its ears and does not heed the voice of the charmer, no matter how skillful the enchanter may be." In fact, the Psalm refers to wicked people who, like a deaf ear that does not hear or listen to anything, are incapable of perceiving anything good and righteous.

Let us consider the characteristic of clarity or vagueness of perception:

- "to see one's way clear" means to have a clear understanding of how to act or proceed.
- "to see through a glass darkly" refers to having difficulty or unclear perception (this expression comes from the writings of the Apostle Paul (The New Testament). He explains that we do not now see clearly, but at the end of time, we will do so - "For now we see through a glass, darkly; but then face to face: now I know in part; but then shall I know even as also I am known.").
- this characteristic often depends on whether there is an obstacle in the perception process, as reflected in English idiomatic expressions such as "be unable to see the forest for the trees" and "to be unable to see somebody for dust" is a colloquial expression meaning to run so fast that one leaves others behind. The absence of an obstacle to perception is often associated with the reliability of what is perceived, and vice versa: "to hear something straight from the horse's mouth" - to hear something from a reliable source, from the primary source. The origin of this idiom is associated with horse racing: people closely related to horses, such as grooms, sought to obtain information about the horses, their condition, and the likelihood of winning. The most reliable information would come directly from the horse itself. The expression "to hear something through the grapevine" originated during the American Civil War and was used the meaning "to use rumors, gossip, and fabrications." According to one version, the telegraph system at its early stages was nicknamed "the grapevine telegraph" because the wires often tangled and resembled entwined grapevines. During the war, true and false information about the state of affairs was transmitted through the telegraph, making the "grapevine telegraph" an unreliable source of information.

There are the following examples of intentionality and attentiveness or involuntariness and inattention in the process of perception:

- "to have (keep) an eye out for somebody/something" - to be vigilant, attentively observe anyone/anything;
- "to keep one's ears open" - to be alert, prepared, keep one's ears sharp; to spot someone/something in an instant;
- "to go in one ear and out the other" - to pass by unnoticed.
- The duration or shortness of perception (which is related to attention or lack thereof) examples:
- "not to take one's eyes off someone/something" - to keep watching someone/something without looking away;
- "to run one's eye over something" - to glance over, quickly skim through with one's eyes.

There are also many examples of the directionality of perception:

- "to look somebody in the face" - to look directly, honestly in someone's eyes, to look at a person;
- "to look over one's shoulder" - to look around, be afraid, be cautious;
- "to look at someone or something differently" - to ignore certain faults or virtues you know are trying to influence your judgment.

This characteristic is typical of phraseological units related to visual perception. In most cases, the concept of direction is determined by the occasion.

**Perception Integrity:** The expression "a taste of one's own medicine" describes a situation where a person who has prepared a "medicine" for someone else is now forced to experience it themselves. People recognize the medicine, not its particular ingredients, during the perception process. The stable combination of images in the background (for example, childish or idle, pastime) also indicates the integrity of perception. The fire reflections in the fireplace merge in the observer's mind into changing visual images.

**Objectivity and Consciousness of Perception:** The phraseological unit "to wake up and smell the coffee" is based on a real-life situation where a person who has woken up inhales (and perhaps enjoys) the aroma of coffee. It involves correlating the sensory perception of information with the objective world. The consciousness of the process is manifested in relating the object to a specific category (in this case, beverages) and generalizing it in the word itself. Additionally, it activates the previously acquired experience regarding the invigorating properties of coffee. Furthermore, in one's consciousness, waking up from sleep is compared to awakening from an inadequate understanding of what is happening around, a state of ignorance or forgetfulness.

Objects in the surrounding world can be involved in static and dynamic relationships during human activities. For instance, the concept of motion is present in the expression "to see the wheels go round" - to see, know how things are going, and become familiar with the work progress. The ongoing process, which is not stationary, is compared to the dynamic visual perception of rotating wheels. On the other hand, the fixed expression "you could hear a pin drop" - it was so quiet that you could hear a fly pass by - also depicts a dynamic image, thus, resulting from auditory perception rather than visual perception. It is interesting to note that English-speaking and Ukrainian-speaking cultures utilize different life experiences to describe the same situation: "quiet enough to hear a pin drop" - quiet enough that you can hear something as small as a pin drop - denotes extreme silence, while "quiet enough to hear a fly pass by" emphasizes a similar level of calmness and quietness, but with the addition of auditory perception.

Depending on perception, an individual perceives the image of the perceived object, which is formed under the influence of a person's past experiences, and therefore, it has a personal tint. Consequently, the same thing can be perceived differently by different people. Moreover, a person's perspective can change throughout life, affecting their world perception. For example, "to look with another eye upon something" means to view something from a different perspective, while "to see somebody/something in a different/new light" implies seeing someone or something in another or new way.

An individual's attitude towards reality influences perception. For instance, "to see everything in a gloomy light" means to see everything negatively, emphasizing the negative aspects and being pessimistic. On the contrary, "to look on the bright side" suggests seeing the positive aspects and looking at things optimistically. Another expression is "to see through blue glasses," which implies looking at things in a gloomy and pessimistic manner, while "to see through rose-colored glasses" means viewing something with an overly optimistic or idealized perspective.

On the other hand, perception can be accompanied by positive or negative emotions. For example, "to rub somebody the wrong way" means to irritate or annoy someone, while "to rub somebody the right way" means to please or appease someone.

As mentioned above, perception is based on an individual's prior experience. However, it should be noted that the perceived information undergoes further cognitive processing, becoming

part of human experience and knowledge. Proverbs eloquently testify to this experience, such as "Misfortunes tell us what fortune is" (the Ukrainian version - "You won't know the taste of sweet without tasting bitter first").

During the process of perception, considering prior experience, a holistic and meaningful image of the object is formed in a person's consciousness. What role does it play in the formation of phraseological units? Being connected to a specific situation, it is a prototype of a stable expression. Human thinking transfers the clear sensory image to a broader abstract situation. Unlike homonymous variable word combinations, the meaning of phraseological units is based on the associativity of human thinking, on the comparison of different objects based on their similarity (metaphor) or contiguity (metonymy).

Let us consider several fixed expressions formed with metaphorical transfers.

The meaning of the idiom "to gift horse in the mouth" - to criticize or feel doubt about something good that has been offered to you - is associated with reevaluation. On the one hand, it draws upon the life experience and knowledge that the condition of its teeth can judge a horse's health. On the other hand, it reflects an ethical norm in society (both in English and Ukrainian): "Don't look into the mouth of a given horse." The specific image describes a broader range of similar cases through metaphorical transfer. This transfer can also be rooted in a person's spatial experience. For example, the idiom "to look down your nose at somebody" - to look down upon someone with disdain - creates an image of a taller person looking down at a shorter person from above. The metaphor allows for applying the spatially informed image to describe social relations.

The expression "to see rocks ahead" - to foresee or perceive danger ahead - most likely originates from the professional activities of sailors because the cliffs directly ahead can cause a shipwreck. This professional experience is rethought, and this idiom refers to any dangerous life situation.

The "handwriting on the wall" idiom also represents an ominous danger. However, this expression has biblical origins: the proud Babylonian king Belshazzar, who did not give glory to the true God and committed blasphemy, saw mysterious words written on the wall during a banquet. The prophet Daniel was able to interpret them: "Mene, Mene, Tekel, Upharsin," which meant, "God has numbered the days of your kingdom and brought it to an end; you have been weighed on the scales and found wanting; your kingdom is divided and given to the Medes and Persians." That very night, Belshazzar was killed, and the Persians captured Babylon. This expression denotes any alarming sign or indication through the metaphorical reinterpretation of the biblical story.

Now let us address the phraseological units whose meanings have been formed considering a metonymic transfer.

The idiom "the smell of the lamp" refers to a style that is dry and bookish and mainly refers to work that takes a lot of effort at night and is related to professional experience in writing. The semantic content of this phraseological unit is determined by an associative chain that includes several concepts: "dark time of the day" - "light and smell of the lamp" - "prolonged and exhausting work."

The meaning of the phraseological unit "to touch one's hat to somebody" - to greet someone by raising one's hat - is quite understandable, as it is associated with a commonly accepted behavior, particularly with a polite greeting. This expression illustrates metonymic transfer from the act to its socially conditioned manifestation.

To understand the meaning of "to see the lions" - to see the sights - a person needs to have specific cultural knowledge. The lions housed in the Tower of London were one of its notable

attractions (the Royal Menagerie existed in the Tower for almost 600 years, from the XIII century until 1835, when the animals were moved to the London Zoo). Thus, a prerequisite for the metonymic transfer is a background understanding of the specific knowledge.

The reinterpretation may be based on either real-world knowledge or popular beliefs which are believed to be accurate. For example, the idiom "to see a wolf" - to lose the ability to speak - harks back to ancient superstitions that when a person sees a wolf, they lose the ability to speak.

According to one version, the idiom "to touch the wood" - to knock on wood and spit over one's shoulder - is explained by an ancient pagan tradition of tapping on wood to seek help or protection from a "good spirit" believed to reside within it. Perhaps this pagan ritual found its reflection in a children's game, where the one who touched something wooden and said "touch the wood" is considered safe or exempt from being chased. Another version asserts that this phrase is connected to the Christian tradition of touching a wooden crucifix (or rosary) as a sign of reverence and protection against evil spirits.

Many idiomatic expressions covered by metaphorical and metonymic transfer were recorded during this research.

The idiom "to be glad to see the back of somebody" - means to be glad to get rid of somebody, to see this person for the last time. It represents a situation where we see the person's back. The semantics of this phrase helps to determine both prior experience and knowledge, as well as the restoration of certain cause-and-effect relationships. Simple logical reasoning reveals an association by contiguity: "back" - "departure," "seeing the back of a person" - "seeing a person leaving." If an unpleasant person is leaving, we are "getting rid" of their presence. Through the metaphorical reinterpretation of the relevant experience regarding the mutual positioning of objects concerning each other, the analyzed expression acquires a broader meaning of "getting rid of anyone."

In the idiom "to look to your laurels," the word "laurels" first undergoes metonymy. From ancient history, it is known that laurel wreaths were awarded to victors; thus, laurels are associated with victory. Literally, the idiom "to look to your laurels" urges a person to "take care" of their laurels, to look after them. The metaphorical reinterpretation of the entire expression allows it to be used in the sense of "striving to preserve one's superiority."

## 5 Conclusion

English phraseology is rich in idiomatic expressions that reflect the peculiarities of perception and the cognitive process in general. The verbs found in sensory perception idioms and the names of sensory organs indicate the existence of various types of perception: sight, hearing, touch, smell, and taste.

English phraseological units represent perception properties such as different levels of expressiveness, clarity, purposiveness, duration, directionality, integrity, concreteness, consciousness, and dependence on the perceiver. Perception, viewed through the prism of English phraseology, emerges as an active cognitive process inseparably linked to comprehending information received from the external world, considering previous experiences. The perceived sensory experience is reinterpreted during further cognitive processing and becomes a source of understanding abstract situations. With its origin in the associative nature of human thinking, phraseological meaning illustrates an attempt to understand one entity in terms of another or use one entity to refer to another related one. Consequently, phraseological units formed through metaphorical and metonymic transfers were identified during the study. Metonymy often affects a single word in a fixed combination, while metaphor characterizes the reinterpretation of the entire expression.

This study revealed that human experience, as a collection of practically assimilated knowledge, skills, and abilities, is an essential link between the perception of the surrounding world and the phraseological meaning. English phraseology reflects the reinterpretation of a broad spectrum of human experience, ranging from spatial perception to life wisdom or professional experience. Phraseological meaning is shaped based on actual knowledge of the world, including cultural understanding, folk beliefs, superstitions, ethical norms, and religious convictions. It should be noted that the investigated fixed expressions present not so much a scientific as a naive worldview, explained by the nature of phraseological composition as the most expressive and colorful sphere within the language system.

This research justifies using the term "cognitive phraseology" in linguistics. The accumulation of systematized facts in phraseology theory and cognitive science has created prerequisites for establishing a discipline that integrates the achievements of these fields. Further studies of phraseological units concerning how they reflect a specific vision and cognition of the world by a person can be very promising. Cognitive phraseology aims to contribute to explaining the mysteries of the human mind.

## Literature:

1. A Promised Land by Barack Obama: Audiobook: 11 Episodes / Unmissable Sounds BBC. – Access mode: <https://www.bbc.co.uk/sounds/series/m000q57g>
2. Baddeley, A.D. (2000). The episodic buffer: A new component of working memory? *Trends in Cognitive Sciences*, Vol. 4 (11), P. 417–423.
3. Chmiel, A. (2016). Directionality and context effects in word translation tasks performed by conference interpreters. *Poznan Studies in Contemporary Linguistics*, Volume 52, P. 269–295.
4. Daily Press Briefing: Eswatini, Trip Announcement, Yemen, Ethiopia, Nigeria, Climate, Timor-Leste/COVID-19, Water/Health Care Facilities, Migrant Pay Gap. // United Nations. – Access mode: <http://webtv.un.org/search/daily-press-briefing-eswatini-trip-announcement-yemen-ethiopia-nigeria-climate-timorlestecovid-19-waterhealth-care-facilities-migrant-paygap/6216195592001/>
5. Dam, H. V. (2004). Interpreters' notes: On the choice of language. *Interpreting*. Vol. 6, Issue 1, P. 3–17.
6. Dubsloff, F., (2007). Martinsen B. Exploring untrained interpreters' use of direct versus indirect speech. *Healthcare Interpreting: Discourse and Interaction*/eds.: F. Pöchhacker, M. Schlesinger. Amsterdam: John Benjamins, P. 53–76.
7. Gavioli, L. (2014). Negotiating renditions in and through talk: some notes on the contribution of conversation analysis to the study of interpreter-mediated interaction. *Lingue Culture Mediazioni - Languages Cultures Mediation*. Vol. 1–2, P. 37–55.
8. Gile, D. (2009). *Basic Concepts and Models for Interpreter and Translator Training*. Amsterdam: John Benjamins, 283 p.
9. Hale S. (2011). *Public service interpreting The Oxford Handbook of Translation Studies*/eds.: K. Windle, K. Malmkjaer. Oxford, Oxford University Press, P. 343–356.
10. Kórpál, P. (2016). Interpreting as a stressful activity: physiological measures of stress in simultaneous interpreting. In: Katarzyna Dziubalska-Kolaczyk, Bogusława Whyatt, *Language processing in translation*, P. 297–316.
11. Kövecses, Z. (2014). Conceptual metaphor theory and the nature of difficulties in metaphor translation. *Tradurre Figure/Translating Figurative Language* [ed. D. R. Miller & E. Monti]. Bologna, Quaderni del CeSLiC, P. 25–39.
12. Kövecses, Z. (2003). Language, Figurative Thought, and Cross-Cultural Comparison. *Metaphor and Symbol*, No. 18(4), P. 311–320.
13. Kövecses, Z. (2010). Metaphor in Culture. *Acta Universitatis Sapientiae, Philologica*, №2(2), P. 197–220.
14. Kövecses, Z. (2005). *Metaphor in Culture: Universality and Variation*. New York, Cambridge University Press, 314 p.
15. Kövecses, Z. (2010). *Metaphor: a Practical Introduction*. Oxford, University Press, 249 p.

16. Kövecses, Z. (2007). Variation in Metaphor. *Ilha do Desterro: A Journal of English Language, Literatures in English and Cultural Studies*, No. 53, P. 13-39.
17. Lakoff, G., Johnson, M. (1980). *Conceptual Metaphor in Everyday Language*. *The Journal of Philosophy*, Vol. 77-8, P. 453-456.
18. Lakoff, G. (2004). *Don't think of an elephant! Know your values and frame the debate: The essential guide for progressives*. Vermont, Chelsea Green Publishing, 124 p.
19. Schmidt, G. A. (2012). *Cognitive-linguistic approach to the translation of metaphor from English to Croatian*: Ph.D. thesis. Osijek, 208 p.
20. Seeber, K. G. (2011). *Cognitive load in simultaneous interpreting: Existing theories - New models*. *Interpreting*, Vol. 13 (2), P. 176-204.
21. Seeber, K. G. (2013). *Cognitive load in simultaneous interpreting: measures and methods*. *Target. International Journal of Translation Studies*, Vol. 25, Issue 1: *Interdisciplinarity in Translation and Interpreting Process Research*/eds.: M. Ehrensberger-Dow, S. Göpferich, S. O'Brien, P. 18-33.
22. Tebble, H. (2012). *Interpreting or interfering? Coordinating Participation in Dialogue Interpreting*/eds.: C. Baraldi, L. Gavioli. Amsterdam, John Benjamins, P. 23-44.
23. Timarová, Š. (2012). *Working memory in conference simultaneous interpreting*: Doctoral dissertation, University of Leuven, Charles University.
24. Tiselius, E. (2013). *Experience and expertise in conference interpreting: An investigation of Swedish conference interpreters*: Doctoral dissertation. University of Bergen.
25. Vorobyova, O. P. (2004). *Kohnityvna poetyka: zdobutky i perspektyvy* [Cognitive Poetics: Progress and Prospects]. *The Journal of V. N. Karazin Kharkiv National University, Kharkiv, Constanta*, No. 635, P. 18-22.
26. Zhyhir, V. I. (2010). *Metody doslidzhennia statystychnykh danykh profesiinoi pedahohiky u pidhotovtsi menedzheriv dlia osvithnoi diialnosti* [Methods of studying statistical data of professional pedagogy in the management training for educational activities]. *Youth & Market*, No. 7-8 (66-67), P. 60-65.
27. Maksymenko, O. V., Fokin, S. B. (2010). "Community interpreting": novyi vyklyk dlia perekladacha ["Community interpreting": a new challenge for translators]. *Ukrainian Linguistics*, Issue 40/1, P. 333-338.
28. Perebyinis, V. I. (2013). *Statystychni metody dlia lnhvistiv: posibnyk* [Statistical methods for the linguists: a guide]. 2nd edition, revised and updated, Vinnytsia, Nova Knyha, 176 p.
29. Prokopenko, A. V., Rava, V. M. (2020). *Correlation Of Cognitive Processes And Working Memory Of A Translator*. *Scientific notes of V. I. Vernadsky Taurida National University, Series: "Philology. Social Communications," Vol. 31 (70), Issue 4 (41)*.
30. Tatsenko, N. V. (2017). *Realizatsiia empatii v suchasnomu anhlovnomu diskursi: kohnityvno-synerhetychnyi aspekt* [Empathy realization in modern English discourse: a cognitive-synergistic aspect. A monograph]. Sumy, Sumy State University, 357 p. URL: <https://essuir.sumdu.edu.ua/handle/123456789/53030>

**Primary Paper Section: A**

**Secondary Paper Section: AI**