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LEXICAL AND GRAMMATICAL PATTERNS IN HIGHLY RATED VS POORLY RATED DOCUMENTARIES: A COMPARATIVE MULTIDIMENSIONAL ANALYSIS[1]

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Abstract: In this paper, the lexical and grammatical patterns of 20 highly- and poorly-rated documentaries of 2023 and 2024 are compared through the Multidimensional Analysis Tagger. Documentaries that are rated highly are those with a narrative discourse style. The poorly-rated ones are more informational and have a higher lexical density. The documentaries with high ratings are also less persuasive and more abstract. Statistical tests, such as ANOVA, support significant lexical and grammatical differences. The results provide an understanding of the role of linguistic choices in influencing the audience and documentary success.

Keywords: audience engagement; lexical density; lexical and grammatical features; linguistic choices; Multidimensional Analysis.

1. Introduction

A documentary is a powerful narration tool. In its capacity, it informs its viewers on a number of issues such as personal stories, history, and society. Interesting stories and the presentation of facts attract listeners. BBC Select and Factual America offer the viewers a chance to watch fascinating and informative documentaries, such as history, nature, and true crime documentaries, among others.

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The documentaries to be used in this research are chosen according to the IMDb rating list. IMDb is a well-known portal that collects the reviews and ratings of users on movies and TV series. In the proposed time frame, I categorized the documentaries of 2023 and 2024 based on their rating, including highly rated and poorly rated ones.

The text analysis of the study is done with the help of the MAT tagger, which operates with 400-token chunks. It is a suitable sample size, since it is not too large and can be analyzed in detail. It effectively captures linguistic features (Biber 1991: 89-90). The study focuses on the five dimensions identified by Biber (1991).

This study uses the statistical software (SPSS) for statistical analyses, such as descriptive statistics and analysis of variance (ANOVA) for the calculations of the dimension scores of documentaries to compare the highly and poorly rated documentaries. The multidimensionality of the approach reveals the complex ways in which specific features of language affect documentary audiences and the delivery of the message.

It has also been observed that, in the past, documentaries were used to facilitate language learning by exposing students to real language input (Hertel & Harrington 2015; Rahman et al. 2018). Nevertheless, the current research is more concerned with the linguistic trends that make documentaries more appealing to the general audience and successful.

Some documentaries have been studied outside the language education context, especially in communication and media studies. Scholars of these disciplines have examined how documentaries use rhetorical and persuasive appeals, imaginative narrative methods, and unique forms and functions to persuade audiences and influence social discourse (Nichols 2017; Renov 2004; Winston 2019). These studies underline the documentary's power to inform, persuade, and motivate people to think, and its creative and communicative potential to solve real-life problems.

Therefore, the documentary as a highly rated, useful, and demanded social media product has received much attention. Meanwhile, the lexical and grammatical patterns that determine the success (high IMDb audience ratings) or failure (low IMDb audience ratings) of this genre are not well known. Moreover, the linguistic peculiarities that characterize compelling documentaries are underresearched. This paper will compare the highly and poorly rated documentaries to determine the patterns that are related to audience response.

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The study fills the gap in linguistic research on how lexical and grammatical patterns relate to documentary success by examining the use of language in documentaries at different levels of audience ratings. The study seeks to identify tendencies in the use of vocabulary, grammar, and linguistic features, and to offer recommendations for enhancing the linguistic quality of both highly rated and poorly rated documentaries in English. While the current study is limited to English-language production, the identified lexical and grammatical patterns may serve as a basis for exploring whether similar tendencies apply in other linguistic and cultural contexts.

2. Literature review

Documentary filmmaking helps in understanding various topics and subjects in detail. Documentaries can be historical or simply constitute a narrative from a person for whom the advert is meant to be (Nichols 2017; Renov 2004). Filmmakers (Winston 2019) have analyzed the ability of a documentary to teach something to the viewers and make them feel certain emotions. *BBC Select* and *Factual America* produce categorized documentaries, which include history, nature, and true crime.

The narrative content and documentary storytelling have been revisited and analyzed multiple times (Aufderheide 2007; Plantinga 2015), demonstrating how narratives can transform factual content into compelling stories that resonate with audiences. Documentaries such as "The Square" (2013), which portrays the 2011 Egyptian revolution, and "The Hunting Ground" (2015), which portrays sexual assault in the U.S.A., are great examples of social issue documentaries that are inspirational and motivational for change (CODA Filmworks, 2023; Factual America, 2023). The combination of expert interviews, historical re-enactments, and personal accounts, in series like "Digging for Britain" and "Michael Wood's Story of England", from Factual America (2023) showcases the extent and the impact that well-crafted documentaries can reach (Winston et al. 2017).

Most evaluations of documentaries have concentrated on conventional indicators of success, including audience ratings, viewership, or box office revenue. However, there has been limited attention to the lexical and grammatical features that distinguish highly rated and poorly rated documentaries. This gap highlights the need to investigate how specific lexical and grammatical features influence audience reception. Documentaries are an effective method of expressing an opinion on various subjects, including environmental deterioration, ethnic identity, and societal issues. Some of the substantial written communication studies include Abdul et al. (2023), Murat (2022), and Suleimenova (2022). From silent documentaries to sound documentaries and from academic ones to filmmaker documentaries, the form and language of documentary filmmaking have

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evolved dramatically in the last century (Deb 2022). Analyzing the language practices applied in the documentaries and independent films, including those of Al Gore's "An Inconvenient Truth", Hubert Sauper's "Darwin's Nightmare", or films by young Kazakhstan director Kanat Beisekeyev, will help us understand what aspects and language mechanisms caused those works to be so popular and effectively reaching the audience (Murat 2022; Suleimenova 2022). Therefore, argumentation, narrative, and stylistic analysis help reveal lexical and grammatical differences that distinguish effective documentaries, providing practical knowledge for both filmmakers and academics.

Biber's Multidimensional (MD) Analysis has become an established framework for examining linguistic variation across registers and genres (Biber 2006). It has been applied in diverse contexts, such as analyzing newspaper reporting patterns (Ali & Ali 2023; Ponder 2023), distinguishing between texts generated by artificial intelligence and human authors (Ali 2024b; Biber 2019; Sardinha 2024), analyzing academic language (Ali 2024a; Ali & Abdulhaleem 2024; Biber et al. 2002), studying human and ChatGPT-generated English translations of films (Ali & Afzal 2024), and examining Reddit's linguistic diversity evolution (Ali 2024c). The use of MD analysis in the context of documentary filmmaking remains a new field of research. In particular, the analysis of highly rated and poorly rated documentaries, along with MD analysis, is still limited.

Based on the MD framework developed by Biber, previous studies have demonstrated its ability to distinguish different lexical and grammatical characteristics in a variety of genres. Nonetheless, the effect of these linguistic features on audience perception and their effectiveness in documentaries has yet to be explored. This paper applies multidimensional analysis to documentary language and compares linguistic patterns of audience-rating levels to demonstrate how textual characteristics match reception.

3. Methodology

This research applies Biber's Multidimensional Analysis to analyze lexical and grammatical features of highly- and poorly rated documentaries from 2023 and 2024. The research material comprises 20 documentaries, divided into sets based on the ratings indicated on the Internet Movie Database (IMDb 2024), a popular website that features viewers' feedback on movies, shows, and documentaries. Considering that IMDb has a vast number of user ratings and reviews, it is a reliable source for selecting documentaries based on audience feedback.

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If a documentary has an IMDb rating of 7 or above with the number of votes not less than 5000 votes, it can be considered highly rated. It is considered poorly rated if it has a rating of less than two stars, provided the number of reviews exceeds 5,000. Thus, these criteria help to identify those documentaries that have a significant viewership. This is important for evaluating the factors that define success or lack of success in their undertakings. By singling out documentaries that have had adequate ratings and reviews, it will become easier to evaluate correlations between the kind of writing, on the one hand, and the quality and popularity, on the other, as demonstrated by the data received. The documentaries chosen for this study are:

Highly rated documentaries: *American Nightmare* (2024), *Ashley Madison: Sex, Lies & Scandal* (2024)**,** *Billy and Molly: An Otter Love Story* (2024), *Blue Angels* (2024)**,** *Jim Henson: Idea Man* (2024)**,** *MoviePass, MovieCrash* (2024)**,** *Quiet on Set: The Dark Side of Kids TV* (2024), *The Beach Boys* (2024)**,** *The Roast of Tom Brady* (2024)**,** *What Jennifer Did* (2024).

Poorly rated documentaries: *America in Black* (2023), *Harry & Meghan: All Inclusive* (2023), *Harry & Meghan: What's Next* (2023), *Hollywood Princesses: Grace and Meghan* (2023), *Kurz* (2023), *Making of Meme King – Year Two* (2023), *Meghan Markle: Regretless* (2023), *Meghan & Kate: Women of Windsor* (2023), *Queen Cleopatra* (2023).

Using the MAT tagger (Nini 2019), we labelled the data, analyzed lexical and grammatical patterns, and divided the text into 400-word sections. According to Biber, this method works well because it provides enough context to capture speech patterns and makes it easier to do detailed research. This method guarantees close scrutiny of every component of the documentary discourse through the study of both local and global varieties of speech.

I applied Biber's Multidimensional Analysis to the tagged data, focusing on the first five dimensions: 1) involved vs. informational discourse, 2) narrative vs. non-narrative concerns, 3) explicit vs. situationally dependent reference, 4) overt expression of persuasion, and 5) impersonal (abstract) vs. non-impersonal (concrete) reference (See Appendix A for details). This was the most appropriate model considering the diverse and rich lexical and grammatical features and the overall impact of the documentary discourse on audience reception.

Using IBM SPSS Version 29.0 (IBM Corp. 2024), I automated the calculations for the dimension scores and conducted descriptive statistical analysis. To test the equality of variance across dimension scores for the two groups (highly rated and poorly rated documentaries), I applied Levene's Test for Homogeneity of Variances. Robust tests of equality of means, such as the Welch and Brown-Forsythe

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tests, were utilized to validate the ANOVA results, particularly when deviations from homogeneity of variances were suspected. Descriptive statistics were applied to summarize the central tendency and dispersion of the dimension scores for both highly and poorly rated documentaries. The results of the study will enable us to test the hypothesis of the statistically reliable language differences observed between rating tiers.

4. Analysis and discussion

Dimension 1

The analysis in Dimension 1 shows significant differences between the highly- and poorly-rated documentaries in terms of involved and informational discourse. The results, displayed in Table 1, indicate that the mean score of the highly-rated documentaries (16.93) exceeds that of the poorly-rated documentaries (8.89). An ANOVA confirms the statistical significance of this difference: $F(1,58) = 30.171$, $p<0.001$.

Table 1. Descriptive statistics for dimension 1. Source: Own processing

Category	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	Minimum	Maximum
Highly Rated	30	16.93	3.60	0.66	15.59 - 18.27	8.50	23.66
Poorly Rated	30	8.89	7.16	1.31	6.22 - 11.57	-3.40	25.32
Total	60	12.91	6.93	0.89	11.12 - 14.70	-3.40	25.32

According to Levene's Test for equality of variances (based on the mean) (Levene Statistic = 12.022, $p=0.001$), there is a notable difference in variances between the two groups. This indicates that there is more variability in Dimension 1 scores among the poorly-rated documentaries compared to the highly-rated ones.

The greater the score on Dimension 1, the greater the rating of the documentaries in terms of dialogue. The following features of low formalism are typical of these texts: the use of short forms, active verbs in the simple present tense, and first- and second-person pronouns. Linguistic indicators of engagement, including colloquial language, idiomatic expressions that make one feel familiar, and deixis (e.g., *here*, *now*, *this*) that establishes immediacy and a common context, are also part of involved discourse. Such texts also tend to use short and simple sentences, ellipses, and direct address through second-person pronouns (*you*, *your*) that make the viewer feel that he/she is involved. Adjectives and adverbs of evaluation (e.g., *remarkable*, *deeply*, *incredibly*, etc.) are used to appeal to emotion and keep the audience empathizing.

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In order to differentiate it from Dimension 3, it is necessary to mention that Dimension 1 concerns interpersonal involvement rather than contextual reference. In this case, deixis does not serve to place events in time or space but to create the illusion of proximity between the speaker and the viewer, the sense of dialogue and experience. It is concerned with human relationships and emotional closeness rather than representing a real physical scenario.

Such linguistic devices as deixis, colloquial expressions, and first-and second-person pronouns make the conversation interactive and understandable, strengthening the connection and improvised communication. This makes the documentaries easy to follow, thereby enhancing the associations that the viewers make and the flow of the content.

On the other hand, the low rating value documentaries have a discourse style that is portrayed by low scores of Dimension 1. It is thus more informative and less engaged, with a greater number of nominalizations, longer words, and higher lexical density. As a result, the content seems more formal and detached, and this influences how people view such documentaries.

The qualitative differences between the highly rated documentaries and the poorly rated ones are significant, which proves the inconsistent use of features related to the involved discourse. The poorly-rated documentaries are more incoherent and less engaging to the audience, perhaps due to the fact that they do not reach the same level of involvement and interpersonal connection as more successful ones.

In this respect, the results highlight the importance of the discourse style in defining the effects of the documentaries. Again, the focus is more on the documentaries that include elements of engaged argumentation, which may be explained by the fact that these elements enable the audience to become more engaged with the topic. This follows the general concept that a media strategy is comprised of some narrative, which is usually included in the context of relevance.

In the case of the results of Dimension 1, compared to the poorly rated documentaries, the highly rated ones are more likely to be described as having a more engaged style of discourse. On the whole, the use of this communicative strategy that fosters a feeling of intimacy and solidarity is the key to the overall performance achieved by the documentaries. These results indicate that the filmmakers who want to achieve a better rating from the audience should take into consideration the use of a

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balanced discourse style that would allow combining the ease of the language used with the structural and thematic complexity required to maintain the attention of the viewers.

Dimension 2

Despite the lack of statistical significance, the analysis of Dimension 2, distinguishing narrative from non-narrative concerns, reveals notable differences between the highly- and poorly-rated documentaries. The descriptive statistics shown in Table 2 indicate that the mean score of the highly-rated documentaries (-0.32) is higher (less negative) than that of the poorly-rated documentaries (-0.68). The ANOVA findings, however, show that this difference is not statistically significant ($F(1,58)=0.907$, $p=0.345$).

Table 2. Descriptive statistics for dimension 2. Source: Own processing

Category	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	Minimum	Maximum
Highly Rated	30	-0.32	0.91	0.17	-0.66 - 0.02	-1.82	1.67
Poorly Rated	30	-0.68	1.87	0.34	-1.38 - 0.01	-3.82	3.20
Total	60	-0.50	1.47	0.19	-0.88 - -0.12	-3.82	3.20

There is a significant variance between the two groups according to Levene's test for homogeneity of variances (Levene Statistic = 21.231, $p < 0.001$). This indicates that there may be greater variability in the narrative versus non-narrative scores among the poorly-rated documentaries compared to the highly-rated ones.

Comparing the highly-rated documentaries to the poorly-rated ones, Dimension 2 scores for the former indicate a stronger tendency towards narrative features. It is often a conversational style of narration, combining factual reporting with elements of storytelling, such as personal anecdotes, dialogue excerpts, and first-person narration or viewpoints of participants or interlocutors (*I*, *we*).

The temporal sequencing, along with the causal connectors (*then*, *because*, *as a result*) and the evaluative language, helps the audience in their interpretation and contributes to the narrative cohesion as well. The involvement and empathy are increased with the help of emotionally connoted verbs and adjectives (e.g., *struggled*, *astonishing*, *tragic*).

All these features contribute to the storytelling and the generation of narrative flow. Even the inclusion of a few of these elements can increase the relatability and interest of the content. Conversely, the poorly-rated documentaries tend to be founded on the non-narrative discourse, and the more expository or report-based documentaries, which that are not framed in the first person, lack dialogue

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and are not emotional. They are informative but not graphic or engaging because they use present-tense exposition and attributive adjectives.

The significant difference in the ratings of the poorly-rated documentaries suggests that the elements of the narration were not used consistently, and the storyline can be unclear or uninteresting. Even though the discrepancy in the scores on Dimension 2 is not that significant, the results still indicate the significance of storytelling in increasing the appeal and effectiveness of the documentaries. Narrative elements such as past-tense narrations, third-person reference, and time order, helps to enhance the coherence and to spark the interest of the viewer, which makes the material easier to remember and more emotional. On the whole, the discussion of Dimension 2 indicates that though the narrative elements do not indicate statistically significant differences between the highly and poorly rated documentaries, they are the factors that contribute to the audience satisfaction in the case of their successful combination.

Dimension 3

The highly-rated documentaries and the poorly-rated ones have significant differences in Dimension 3 (explicit versus situation-dependent discourse). According to the descriptive statistics in Table 3, the mean score for the highly-rated documentaries is lower (-0.57) compared to the poorly-rated ones (0.59). The ANOVA results confirm that this discrepancy is statistically significant ($F(1,58)=5.350$, $p = 0.024$).

Table 3. Descriptive Statistics for Dimension 3. Source: Own processing

Category	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	Minimum	Maximum
Highly Rated	30	-0.57	1.44	0.26	-1.11 - -0.04	-3.24	2.32
Poorly Rated	30	0.59	2.35	0.43	-0.29 - 1.47	-4.18	5.19
Total	60	0.01	2.02	0.26	-0.51 - 0.53	-4.18	5.19

The variances between the two groups are significantly different, as indicated by Levene's test for homogeneity of variances (Levene Statistic = 6.292, $p = 0.015$). This suggests that there is more variation in the explicit versus situation-dependent scores among the poorly-rated documentaries compared to the highly-rated ones.

The dimension with the highest positive mean score was associated with the documentaries that received lower audience ratings, suggesting a stronger viewer preference for situation-dependent

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discourse in the texts. Such features, including adverbs of time and place, known as temporal and spatial deixis, provide the discourse with a situational frame and are frequently employed in situation-dependent discourse. The efficiency of this type of discourse in enhancing the areas of relatability and engagement is due to the number of explicit references to the situation aimed at the audience.
In contrast to Dimension 1, which indicates interpersonal involvement and dialogic tone, Dimension 3 is concerned with the explicit location of information in context, i.e., the explanation of when, where, and under what conditions the events take place. In this case, deixis and referential markers are not relational, but informational: they lead the viewer through actual time-space coordinates (e.g., in 2019, at the factory, on this day) rather than create the illusion of a conversation. Contextual accuracy and clarity rather than emotional proximity are therefore captured in this dimension.

The perspectives corresponding to the lower rating of the documentaries contain more explicit information. In this context, the data may seem less interesting or less relevant to the audience. Nominalizations and use of *wh*-pronouns in relative clauses mark this style. These linguistic features reflect less context-specific material. Consequently, the documentaries with such linguistic patterns display a more explicit and informational discourse style, evident in the positive mean scores in Table 3.

The poorly rated films show some inconsistent use of the explicit and situation-dependent characteristics, which leads to a substantial gap among the films. This inconsistency likely results from the difficulty for the screenwriters and producers to vary the tone of communication while balancing the explicit and situation-dependent references. Such inconsistencies may cause viewers to lose interest or become disengaged.

The research is concerned primarily with the specificity of the content of documentaries. The results show that including more situation-dependent discourse increases the odds of audience connection. The reason is that communication is more engaging and more accessible when supported by explicit situational contextualization, which enhances the relevance and immediacy of the message. This situation is frequently mentioned in communication and media theory and practice, whereby situated messages are more easily understood and more engaging (Lu et al. 2025).

The results of the analysis of Dimension 3 reveal the differences between the highly- and the poorly-rated documentaries. It was also discovered that the highly rated documentaries are more inclined to a more concrete and perceptually based subject matter, as compared to the poorly rated documentaries, which are more inclined to use simpler and more direct language. Nevertheless, the

success of a given documentary is frequently associated with its intertextual interaction with other documentaries in terms of similar stylistic, thematic, or narrative patterns. This implies that documentary filmmakers ought to use a communicative approach where they emphasize real-life situations and real-life experiences so that the film can attain a high degree of attachment to the audience.

Dimension 4

In analyzing Dimension 4, the existence and non-existence of overt expression of persuasion, it is evident that there is a difference between the highly rated and poorly rated documentaries. As shown in Table 4, the average score for the highly rated documentaries is -0.94, whereas the poorly rated ones received an average rating of 0.89. The results obtained from the ANOVA test give a value of F (1,58)=10. 571, p = 0.002, suggesting that this differentiation is statistically significant.

Table 4. Descriptive statistics for dimension 4. Source: Own processing

Category	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	Minimum	Maximum
Highly Rated	30	-0.94	1.77	0.32	-1.61 - -0.28	-5.27	3.03
Poorly Rated	30	0.89	2.53	0.46	-0.06 - 1.83	-3.46	6.25
Total	60	-0.03	2.35	0.30	-0.64 - 0.58	-5.27	6.25

Thus, the result of Levene's test of equality of variances is as follows: Levene Statistic = 3. 591; p = 0. 063. Hence, the result shows that there is no significant difference between the variances of the two groups. This implies that, while responding to Dimension 4, the differentiation in scores between the highly rated documentaries and the poorly rated ones is comparable.

The highly-rated documentaries have little prompting or overtly persuasive language in Dimension 4. This finding implies that they do not force the audience into a particular opinion. Instead, such documentaries aim to present facts and real-life stories in a balanced, objective manner. Their objectivity makes them more credible and appealing to emotions without trying to convince the audience directly.

It can be postulated that those documentaries that have received the highest rating do not attempt to influence the viewers to a great extent. On the other hand, the poorly-rated documentaries use more forceful language and may come across as manipulative or less trustworthy. This could lead to a hostile reception from the audience.

The mean score between the two documentary groups is different. It means that the same audience has rated the documentaries differently depending on the extent of overt persuasion or objectivity of their language. The results indicate that excessive use of persuasive appeals will decrease the level of audience approval, and a more factual and balanced method is more acceptable. In other words, less persuasive and more informative documentaries are more popular among the audience.

The analysis of Dimension 4 concludes that the highly- and poorly-rated documentaries differ significantly. The documentaries that are rated highly contain few persuasive elements; they present the facts clearly and objectively to the audience. On the other hand, the poorly-rated documentaries are based more on the strong, direct, persuasive techniques, which may be viewed as biased or manipulative. Therefore, the success of documentaries depends on their capability to be objective and balanced, using restrained and respectful persuasive methods that do not compromise the audience.

Dimension 5

Dimension 5 indicates a difference between the highly rated documentaries and the poorly rated ones. In this case, the comparison is made between the impersonal (abstract) style and the non-impersonal (non-abstract) style. Table 5 indicates that the mean score of the highly rated documentaries is equal to -1.94 and the mean score of the poorly rated documentaries is equal to -0.89. The table ANOVAs indicate that the difference is significant ($F(1,58) = 7.728$, $p = 0.007$).

Table 5. Descriptive statistics for dimension 5. Source: Own processing

Category	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	Minimum	Maximum
Highly Rated	30	-1.94	0.83	0.15	-2.25 - -1.63	-3.53	-0.09
Poorly Rated	30	-0.89	1.89	0.35	-1.59 - -0.18	-3.50	4.36
Total	60	-1.41	1.54	0.20	-1.81 - -1.01	-3.53	4.36

In the case of the test of homogeneity of the variances, the Levene test indicates that the variances of the two groups differ significantly (Levene Statistic = 12.760, $p = 0.001$). This observation shows that the scores in Dimension 5 of the poorly-rated documentaries are more dispersed than those of the highly-rated documentaries.

The documentaries with high ratings are more inclined towards the non-abstract style, which is clear and rather limited in objectivity without being too impersonal. Non-abstract language is, however, well used in such productions to communicate their messages, making them more intellectual and credible.

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The mean scores of the poorly rated documentaries have gone down, which is more towards the less personal style. As a result, the explanations that are regarded as non-abstract are easier to understand by the addressees since more definite words are used. The information is also easily organized in this structure.

The poor framing of the aspects of the films that received the lowest ratings demonstrates that non-abstract and non-impersonal concepts were not applied properly. The abstract language was sometimes used in these documentaries, and this made it difficult to get a clear and coherent presentation.

The highly-rated documentaries exhibit a non-abstract style, which is objective and at the same time understandable, clear, and concrete without being too detached from the audience. Thus, this paper shows that the effectiveness of documentaries is best achieved when the style is non-abstract and moderately impersonal, yet still approachable. In this case, impersonality does not imply distance or detachment; it means being objective and analytically precise without sacrificing accessibility. The results show that the documentaries that are rated highly have less complicated sentence structures and clear presentation, which is credible and easy to comprehend for the viewers. This balance means that the audience is entertained by thought-provoking and emotionally engaging documentaries.

In general, Dimension 5 shows the difference between the highly rated documentaries and the poorly rated ones. The viewers' reactions show that the most successful productions are objective and well-organized in tone, neither too abstract nor too informal. This restrained application of an impersonal style, based on clarity and accuracy, increases audience interest and quality of perception. Therefore, filmmakers seeking a higher rating should strive for a language style that is both analytical and communicative, so that their material is not only informative but also enjoyable.

5. Conclusion

This research aimed to provide a comprehensive overview of the lexical and grammatical patterns of the highly and poorly rated documentaries for the years 2023 and 2024. This was achieved by using Biber's MD Analysis. Consequently, the aim of classifying the documentaries according to their IMDb ratings led to the conclusion that there are certain features of the language that can be the cause of the film's success or failure. Thus, it is possible to reveal the importance of the linguistic style in making documentaries, which is beneficial for further research and the practical work of filmmakers.

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The results show that features of involved discourse are more prominent in the highly rated documentaries. This kind of involvement in style creates rapport with the audience, thereby making the content more familiar. Meanwhile, the poorly rated documentaries were characterized by a much less involved approach and a discourse style that makes them less appealing to the audience.

With reference to Dimension 2, there is a slightly higher frequency of the use of the aspects related to the non-narrative features in the poorly rated documentaries. The documentaries which include a mix of the components of the narrative and non-narrative into their framework are more appealing and, therefore, more engaging to viewers.

The results of Dimension 3 indicate that the discourse of the highly rated documentaries is closer to situation-dependent, and therefore includes the time and place adverbs that fix the discourse in a particular context. Such situational grounding increases the film's realism and, therefore, audience appeal. The poorly rated ones, on the other hand, can be very provocative and even abstract, which could be a reason for the audience perceiving the documentary as less appealing.

On Dimension 4, the highly rated documentaries are less exposed to the attempt of direct persuasion. They present information and data without bias, which enables the audience to draw their own conclusions. This is in contrast to the more forceful style seen in the poorly rated documentaries, which can be assertive or, in some cases, biased, thereby compromising credibility.

Lastly, Dimension 5 finds that the preference for the highly rated documentaries is related to a non-abstract style. Conversely, the poorly rated documentaries, which are less non-abstract, might not be as refined as the audience anticipates from high-quality productions.

To sum up, this study confirms the opinion that lexical and grammatical patterns are significant to the effectiveness of documentary films. Using the MD Analysis of Biber, the paper has revealed the characteristics of the corpora that led to the high level of impact of the documentaries. This knowledge can inform documentary filmmakers on how to structure their narrative form and language use to increase audience consumption.

Based on this, future studies can expand on this study by applying other types of linguistic analysis or by utilizing a larger dataset. Moreover, in case the traditional content analysis is performed on the answers of the audience, more delicate patterns can be identified in the context of the influence of

lexical and grammatical decisions on the viewer. This research can create a possibility of conducting further studies on the correlation between language and media in order to enhance the future of documentaries.

List of abbreviations

ANOVA: Analysis of Variance

IMDb: Internet Movie Database

MAT: Multidimensional Analysis Tagger

SPSS: Statistical Package for Social Sciences

MD: Multidimensional

References

1. Abdul, R.G., Jemilatu, S.D. & Morolake, A. (2023). A contextual analysis of documentary film as a product and tool for academic exercise. In *European journal of communication and media studies*, 2 (4), p. 25-35. DOI: https://doi.org/10.24018/ejmedia.2023.2.4.22
2. Ali, M. & Ali, S. (2023). Exploring lexico-grammatical patterns in Saudi press reportage: A multidimensional analysis. In *Arab world English journal*, 14 (1), p. 502-512. DOI: https://doi.org/10.24093/awej/vol14no1.32
3. Ali, S. (2024a). A multidimensional analysis of academic writing: A comparative study of Saudi and British University students' writing. In *World journal of English language*, 14 (2), p. 452-461. DOI: https://doi.org/10.5430/wjel.v14n2p452
4. Ali, S. (2024b). Locating the intersection of generative artificial intelligence and human English writing skills: A comparative study. In *Arab world English journal*, 1 (1), p. 112-123. DOI: https://doi.org/10.24093/awej/ChatGPT.7
5. Ali, S. (2024c). Reddit's linguistic diversity evolution: A multivariate study. In *Lege artis. Language yesterday, today, tomorrow*. Trnava: University of SS Cyril and Methodius in Trnava, 9 (1), p. 2-19. DOI: https://doi.org/10.34135/lartis.24.9.1.01
6. Ali, S. & Abdulhaleem, E. (2024). Multidimensional analysis of differences in lexico-grammatical patterns in Saudi and British linguistics and English language teaching research articles. In *Arab world English journal*, 15 (2), p. 52-72. DOI: https://doi.org/10.24093/awej/vol15no2.4
7. Ali, S. & Afzal, N. (2024). A multidimensional analysis of human and ChatGPT-generated English translations of Arabic film. In *World journal of English language*, 14 (4), p. 632. DOI: https://doi.org/10.5430/wjel.v14n4p632
8. Aufderheide, P. (2007). *Documentary film: A very short introduction*. Oxford University Press.
9. Biber, D. (2019). Multi-dimensional analysis: A historical synopsis. In *Multi-dimensional analysis: Research methods and current issues*. Sardinha, T.B. & Pinto, M.V. (eds.). London: Bloomsbury, p. 11-26. DOI: https://doi.org/10.5040/9781350023857.0009
10. Biber, D. (2006). *University language: A corpus-based study of spoken and written registers*. Amsterdam: John Benjamins Publishing.
11. Biber, D. (1991). *Variation across speech and writing*. Cambridge: Cambridge University Press.

12. Biber, D., Conrad, S., Reppen, R., Byrd, P. & Helt, M. (2002). Speaking and writing in the university: A multidimensional comparison. In *TESOL quarterly*, 36 (1), p. 9-48. DOI: https://doi.org/10.2307/3588359
13. Deb, J. (2022). The development of documentary film language from the silent era to the present. In *International journal of research publication and reviews*, 3 (10), p. 1224-1226. DOI: https://doi.org/10.55248/gengpi.2022.3.10.47
14. Hertel, T.J. & Harrington, S. (2015). Promoting cultural and linguistic competence with documentary film in Spanish. In *Hispania*, 98 (3), p. 549-569. DOI: https://doi.org/10.1353/hpn.2015.0094
15. IBM Corp. (2024). *IBM SPSS Statistics for Windows, Version 29.0*. Armonk, NY: IBM Corp.
16. IMDb. (2024). *Internet Movie Database*. May 19, 2025. Available at: https://www.imdb.com.
17. Lu, Y., Xie, Z., Chiu, D. K. & Kafeza, E. (2025). Digital exposure and emotional response: Public discourse on mandatory IP location disclosure in Chinese social media. In *Systems*, 13 (11), 975. DOI: https://doi.org/10.3390/systems13110975
18. Murat, K. (2022). Inconvenient truth and Darwin's nightmare movies for environmental discourse: A comparative analysis. In *İDEALKENT*, 13 (37), p. 1566-1588. DOI: https://doi.org/10.31198/idealkent.1116634
19. Nichols, B. (2017). *Introduction to documentary* (3rd ed.). Bloomington: Indiana University Press.
20. Nini, A. (2019). *Multidimensional analysis tagger (MAT)* [Computer software]. Available at https://sites.google.com/site/multidimensionaltagger
21. Plantinga, C. (2015). *Rhetoric and representation in nonfiction film*. Grand Rapids, MI: Schuler Books.
22. Ponder, M.L., Kasymova, S., Coleman, L.S., Goodman, J.M. & Smith, C. (2023). COVID-19 frames the news: An examination of race and pandemic frames in newspaper coverage. In *Howard journal of communications*, 35 (2), p. 166-182. DOI: https://doi.org/10.1080/10646175.2023.2263737
23. Rahman, T.A.F.T.A., Chik, A.R. & Sahrir, M.S. (2018). The use of documentary film text in developing Arabic writing skills: What the experts say. In *LSP international journal*, 4 (2), p. 59-71. DOI: https://doi.org/10.11113/lspi.v4n2.56
24. Renov, M. (2004). *The subject of documentary*. Minneapolis: University of Minnesota Press.
25. Sardinha, T. B. (2024). AI-generated vs human-authored texts: A multidimensional comparison. In *Applied corpus linguistics*, 4 (1), p. 100083. DOI: https://doi.org/10.1016/j.acorp.2023.100083
26. Suleimenova, A. E. (2022). Narrative analysis of documentary films by Kanat Beisekeyev as an example of new media publicism. In *Herald of journalism*, 65 (3), p. 77-85. DOI: https://doi.org/10.26577/HJ.2022.v65.i3.08
27. Winston, B. (2019). *Claiming the real II: Documentary: Grierson and beyond*. London: Bloomsbury.
28. Winston, B., Vanstone, G., & Chi, W. (2017). *The act of documenting: Documentary film in the 21st century*. London: Bloomsbury.

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APPENDIX A

Co-occurring linguistic features on the five textual dimensions of the 1991 MD analysis (p. 89-90)

Dimension 1: Involved vs. Informational Discourse **Positive features** *That* deletion Verb (uninflected present, imperative & third person) Second person pronoun/possessive Verb *do* Demonstrative pronoun Adverb/Qualifier – emphatic (e.g., *just, really*) First-person pronoun/possessive Verb *be* (uninflected present tense, lexical and auxiliary) Subordinating conjunction – causative Discourse particle Nominal pronoun Adverbial – hedge Adverbial/Qualifier – amplifier *Wh*-question Modals of possibility Coordinating conjunction - clausal connector *Wh*-clause …… **Negative features** Nouns (excluding -ing forms functioning as gerunds Preposition Attributive adjective **Dimension 2: Narrative vs. Non-Narrative Concerns** **Positive features** Past tense verb Third-person pronoun (except *it*) Verb - perfect aspect ……	**Dimension 3: Explicit Vs. Situation-Dependent Discourse** **Positive features** *Wh*-pronoun-relative clause-object position *Wh*-pronoun-relative clause-subject position *Wh*-pronoun-relative clause-object position with prepositional fronting (pied-piping) Nominalization Coordinating conjunction – phrasal connector Singular noun-nominalization …… **Negative features** Adverb of time Adverb of place Adverb – Other **Dimension 4: Overt Expression of Argumentation/ Persuasion** **Positive features** Infinitive verb Modal of prediction Persuasive verb Subordinating conjunction-conditional Modal of necessity Adverb within auxiliary …… **Negative features** Private verb Public verb Third-person pronoun Hedge **Dimension 5: Impersonal (Abstract) VS. Non-Impersonal (Non-Abstract Style)** **Positive features** Adverbial conjuncts

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Negative features Present tense verb Place adverbial *That* deletion Pronoun *it*	Agentless passive verb Passive verb + *by* Passive post-nominal modifier Subordinating conjunction - Other …… **Negative features** (none)

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WORD PALINDROME: A TRANSLINGUAL PERSPECTIVE ON STRUCTURAL DIVERSITY

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Abstract: The present paper delves into the remarkably diverse yet highly intricate fabric of palindromicity from a translingual perspective. A seemingly simplistic reversibility pattern underlying the formation of prototypical palindromes yields a multitude of discrete typologies that are constructed upon different criteria and yet exploit homolingual language material in each case. Revisiting the extensive yet fragmented theoretical framework and reexamining the empirical evidence from a number of structurally similar and dissimilar languages allows for creating an integrative typology of word palindromes applicable to the overwhelming majority of world languages, irrespective of their phonemic, graphemic, syllabemic, morphemic, or lexemic idiosyncrasies.

Key words: palindrome, word palindrome, structure, typology, wordplay.

1. Introduction

Wordplay, which appears as old as language itself, constitutes a form of intelligent humour aimed at entertainment, education, or promotion. Miscellaneous manipulations with phonological, graphical, lexical, morphological, syntactic, and stylistic language material increase language awareness, boost a sense of self-identity and self-alterity, celebrate reasoning over rationality, introduce novelty, and embody protest against socially imposed patterns. Amidst the numerous varieties of wordplay thriving within and across different language traditions and backgrounds, palindromy ranks as one of the most consummate and masterful, reflecting the pinnacle of ludolinguistic creativity. The anacyclic nature of the phenomenon coupled with its bidirectionality and symmetry endows it with algebraic formulaicity and geometric proportion.

Palindromes possess a bimillennial history and are detected in diverse modern and ancient languages all over the globe. Yet, all previous research into the logological phenomenon was confined to studies of individual languages (i.e. addressing homolingual material), with no attempt being made so far to theoretically approach palindromy from a translingual perspective (i.e. involving heterolingual material). The aim of this paper is, therefore, to provide a detailed translingual account of word palindromy, based on lexical evidence from over 100 structurally similar and dissimilar languages, both historically related and unrelated.

In particular, this study seeks to address four fundamental research questions:
1) elaborating the definition of ***palindrome*** in general and ***word palindrome*** in particular as applicable to multilingual logological material;
2) identifying and structuring the basic types of word palindromes across different languages;
3) integrating the existing types of palindromes and structurally comparable linguistic phenomena of indeterminate status with the newly delimited types of word palindromes;
4) designing a comprehensive translingual typology spanning word palindromy in structurally similar and dissimilar languages.

2. Theoretical framework

2.1 Etymology and origins

The preliminary clue to understanding the term ***palindrome*** is disguised in its etymology per se. The word consists of two Greek lexemes, *πάλιν* 'again, backwards' and *δρόμος* 'course', which, when coupled (*παλίνδρομος*), roughly translate as 'running again' (Klein 2003: 528). Curiously enough, Greeks themselves prefer other denominations of the phenomenon, namely *καρκινική γραφή*, literally 'crab(-like) writing', and *καρκινική επιγραφή*, literally 'crab(-like) inscription'. The motivation behind these native terms reflects the figurative visual correlation between sideways crab locomotion, on the one hand, and element-by-element reversible readability, on the other, both transcending the boundaries of prototypical forward gait and one-direction reading respectively. In this regard, it bears recalling the terminology introduced by the 18th-century Ukrainian poet Ivan Velychkovskyi, who discriminated between *рак літеральный* (*rak literalnyi*; literally 'letter crab', referring to a palindrome reversible letter by letter), *рак словный* (*rak slovnyi*; literally 'word crab', referring to a palindrome reversible word by word), and *рак прекословный* (*rak prekoslovnyi*; literally 'negatory crab', referring to an anacyclic poem which, when read backwards word by word, produces the opposite meaning) as the three types of palindromes (Velychkovskyi 1972: 73-74) (cf. the Latinistic term *cancrine verses* in English (Donner 1996: 69)).

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The term ***palindrome*** emerged in English back in 1638, introduced by the writer Henry Peacham: "[…] I caused this to be written over the porch of their free-schoole doore, *Subi dura a rudibus*: It is Palindrome, the letters making the same a-gaine backwards." (Peacham 1638: 123). The Latin inscription exemplifying the first mention of a palindrome under its present-day name makes perfect sense, serving as incontrovertible evidence of the then-rampant school abuse, and translates as 'Endure rough treatment from uncultured brutes'. The phenomenon, however, had existed for more than 1,500 years prior to being identified by its modern name that has become truly translingual.

Although a popular ludolinguistic joke has it that, in the Garden of Eden, Adam and Eve introduced themselves to each other, exchanging palindromes "Madam, I'm Adam!" and "Eve, man, am Eve!" respectively (Donner 1996: 12), it is the ancient Greek poet of the 3rd century BC Sotades (of Maroneia), aka Sotades the Maronite, Sotades the Obscene of Maronea, or Sotades of Thrace, who is generally credited with the invention of palindromes. He is believed to be the first literary writer of Sotadean poetry (whence its name), relying on the substitutability of the meter ― ― ◡ ◡ for the meter ― ◡ ― X in the stichic ionic verse ― ― ◡ ◡― ― ◡ ◡― ― ◡ ◡ ― ― , presumably even re-writing Homer's entire "Iliad" in Sotadean verse (Horne 2010: 11; Hunter 2012: 1386). Subsequent, historically recorded, examples of word and sentence palindromes are found in Latin (e.g., the Sator Square palindrome-acrostic *Sator Arepo tenet opera rotas*, writable, readable, and interpretable in a multitude of ways, as one of the 13,000 wall-inscriptions documented so far in the excavations at Pompeii (Benefiel 2013: 67-70)), Greek (e.g., *Νίψον ἀνομήματα, μὴ μόναν ὄψιν (Nipson anomēmata mē monan opsin)*, which means 'Wash away your sins, not only your face' (Yeroulanos 2016: 49), attributed to the 4th-century theologian Gregory of Nazianzus (Brogan & Getty 1993: 874)), Chinese (e.g., the classical reversible poem "Star Gauge" by the 4th-century poet Su Hui, embroidered on a piece of brocade in five colours and readable horizontally, vertically, and diagonally (Hinton 2008: 105-109)), Hebrew (e.g., the affirmative palindromic response by the 12th-century exegete and poet Abraham ibn Ezra to the question whether a fly landing in honey makes it not kosher *ונשרף נתבער שבדבש רעבתן פרשנו (perashnu: ra`avtan shebad'vash nitba`er venisraf)* 'We have explained that the glutton [fly] who is in the honey was burned and incinerated' (Geizhals & Sokol 2016: 19:2)), and other languages. Borgmann emphasizes that the archaic use of palindromes ultimately constitutes the mythic expression of cosmological symmetry and reflects the early psychology of magic, assuming the form of "the mythical, expressive beginnings of the palindrome as a language form, the magic squares which conceal the name of a deity, the recurrent verses from the Torah, and the traditional words of the Hebraic God to Moses" (Borgmann 1980: 92-93), which perfectly aligns with the examples from Latin, Greek, Chinese, and Hebrew provided above.

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2.2 Definition and disambiguation issues

A palindrome has been defined in a number of ways by various scholars: **(1)** as a word that reads the same backwards as forwards (Brandreth 2015: 243); **(2)** as a line or phrase that reads the same backward as forward (Killikelly 1890: 317); **(3)** as a word, verse (a line of metrical writing), or sentence that reads the same backwards as forwards (Chism 1992: iii); **(4)** as a word, sentence, or verse which reads alike backward or forward, whether letter by letter or word by word (Brogan & Getty 1993: 874); **(5)** as a word, sentence, or longer piece of writing that spells the same thing if it is read backwards (Augarde 1994: 158); **(6)** as a recurrent, reciprocal, or reversible word or verse read backwards or forwards (Bombaugh 1961: 59); **(7)** as a word, phrase, or any other sequence of symbols that reads the same in either direction (Blake 2010: 14; Yıldız 2008: 57); **(8)** as any word, phrase, sentence, poem, number, etc. that is spelt the same forward and backward without regard to conventions such as punctuation, word spacing, and capitalization (Donner 1996: 263); **(9)** as a particular type of an anagram, i.e. a word or sentence that reads the same backward and forward (Danesi 2002: 49); **(10)** as a type of an anagram constituted by the inversion of segmental and intersegmental graphemes (Plett 2010: 258).

It is Donner who best outlined the intricate pattern underlying the very nature of a palindrome, defining the latter as "any word, phrase, sentence, poem, number, etc., […] whose letters (or digits) alone are so ordered as to repeat and redouble the original left-to-right text when read back in reverse from right to left with a comparable indifference toward *re*spacing, *re*punctuating, and *re*capitalizing!" (Donner 1996: 263-264).

The definitions provided above highlight diverse aspects of palindromes: 1) linguistic status (i.e. the scope of language units interpretable as palindromes); 2) formal and semantic bidirectionality (i.e. the ontological retention of form and meaning when read and/or spelt in either direction); 3) complete or partial reversibility (i.e. their readability and/or spellability backwards); 4) reversibility unit status (i.e. the range of regular language units or irregular language unit fragments/sequences underlying their readability and/or spellability backwards); 5) allowable metagraphemic loss (i.e. the omissibility of certain supragraphemic, syngraphemic, or topographemic elements that does not run counter to palindromicity).

From the perspective of literary rhetoric, a palindrome is regarded as a rhetoric figure of graphemic deviation, i.e. metagrapheme (as opposed to rhetoric figures of graphemic equivalence, i.e. isographemes). Metagraphemes are produced through addition, subtraction, permutation, and substitution, exploiting different combinations of segmental (letters) and intersegmental or

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suprasegmental (punctuation and diacritics) graphemes. It is permutation, or graphemic rearrangement that underlies the production of various anagrams, including a palindrome (Plett 2010: 253-275).

However, it is difficult to agree with a widespread yet obviously erroneous statement that a palindrome represents a specific case of an anagram (Danesi 2002: 49; De Marco 2025: 11; Friedman & Friedman 1957/2010: 93; Plett 2010: 258). Since letter rearrangement within a word (group) at the core of an anagram is intended to produce "a new word […], phrase, expression, or sentence" (Danesi 2002: 46), create "a new unit of meaning" (Plett 2010: 257) or "new meanings" (De Marco 2025: 10), or else "change some word or phrase into some other word or phrase by changing the order of its letters" (Friedman & Friedman 1957/2010: 92), a palindrome cannot qualify as an anagram. Although both anagrams and palindromes rely on the word-stock readily available in a specific language (with palindromes equally relying on the extensive use of proper names, occasionally non-existent in the language prior to their coinage by the palindromist, in order to partly compensate for their rigid pattern constraints dictated by the language fabric), anagrams undergo letter manipulation leading to the inevitable loss of their original form and meaning, whereas palindromes retain their graphically and/or phonologically full form and full meaning when read in either direction, which, consequently, brings them closer to isographemes.

In this regard, Bergerson distinguishes between palindromes with an even number of letters, which he identifies as anagrams, and palindromes with an odd number of letters, which he excludes from the class, owing to the presence of the centre letter (Bergerson 1973: vii-viii). This approach also appears controversial. Although the second half of a phrase, sentence, or verse palindrome does not generally coincide with the first, constituting its unit-by-unit reflection, a palindrome is regarded as semantically indivisible, with its form and meaning being fully retained when read in either direction.

Nor is it conclusive to claim that all palindromes are produced through permutation as graphemic rearrangement. The latter is irrelevant to homographic word palindromes (such as German *Lagerregal* 'storage rack' or Japanese トマト *(tomato)* 'tomato'), may comply with phrase and sentence palindromes (such as Danish *Du er Freud?* 'You are Freud?' or Irish *sonas sa nós* 'happiness in the habit'), and fully applies to heterographic word palindromes (such as Hungarian *szösz* /søs/ 'fluff' or French *enfant* /ɑ̃fɑ̃/ 'child').

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Another important question concerns the identification of the smallest language unit capable of qualifying as a palindrome. Borgmann claims, that "each letter of the alphabet is a palindrome" (Borgmann 1985: 6), which is obviously erroneous since palindromicity is based on sequentiality and bidirectionality, both being non-applicable to a single free-standing indivisible unit (such as a letter). According to Donner, simple, derived, and compound words or longer assemblages may be regarded as compound palindromes if they are fragmentable into series of palindromes, e.g., *reverses* (*rever* and *ses*) (Donner 1996: 74). As compound palindromes meet the sequentiality and bidirectionality criteria when decomposed, it is apparent that words may be further divisible into smaller elements, such as polygraphemes, as long as each of the units remains palindromic.

Considering all the above, in the present paper, I will construe a ***palindrome*** as a word, phrase, line, sentence, stanza, or text spellable and/or readable the same horizontally (forward/backward) or vertically (downward/upward) [depending on the script orientation in the language], with optional sensitivity to capitalization, diacritics, punctuation, and spacing, the reversibility unit being a phoneme, grapheme, syllabeme, polygrapheme, morpheme, lexeme, phrase, line, sentence, stanza, or text fragment. However, given the widespread lack of academic agreement on what can be regarded as a reversibility unit as well as on whether the segmentation pattern underlying reversibility is to be of regular (i.e. linguistic) or irregular (i.e. random) nature, it is crucial to differentiate between the **broader** and **narrower understandings of palindromy**. The former, **broader, understanding of palindromy** qualifies any items characterized by bidirectional spellability and/or readability as palindromes irrespective of the regularity or structural complexity of the reversibility unit. It is upon this approach that my subsequent structural typology of word palindromes hinges, incorporating structurally divisible units such as syllabemes, polygraphemes, morphemes, etc. as long as they meet the requirements of a formulable reversibility pattern as well as of bidirectionality. In other words, any linguistic unit sequence that is characterized by either regular or irregular but formulaic reversibility is regarded as a palindrome. In accordance with the latter, **narrower, understanding of palindromes**, the phenomenon exclusively applies to those items that comply with bidirectional spellability regardless of whether their readability is fully reversible or not.

Consequently, as the scope of the present paper is limited to word palindromes, a ***word palindrome*** will be defined as a word spellable and/or readable the same horizontally (forward/backward) or vertically (downward/upward) [depending on the script orientation in the language], with optional sensitivity to capitalization, diacritics, and spacing (the latter applies to compounds only), the reversibility unit being a phoneme, grapheme, syllabeme, polygrapheme, morpheme, or lexeme.

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2.3 Existing typologies

Nowadays there exist several typologies of palindromes based on four basic criteria:

1) the linguistic status of the reversible unit: *letter-unit palindromes*, *digram/trigram-unit palindromes*, *syllable-unit palindromes*, *morpheme-unit palindromes*, *word-unit palindromes*, *phrase-unit palindromes*, *sentence-unit palindromes*, *line-unit palindromes*, *paragraph-unit palindromes*, *stanza-unit palindromes*, *poem-unit palindromes*, *story-unit palindromes*, and *essay-unit palindromes* (based on Bergerson 1973: vi-vii); *word or name palindromes* and *sentence or verse palindromes* (Borgmann 1985: 6); *palindromes-by-letters*, *palindromes-by-pairs*, and *palindromes-by-triples* (Etherin 2021: 139-141);

2) the number of letters in the palindrome: *1-letter palindromes* to *25-letter palindromes* (Borgmann 1985: 6-14); *odd-lettered palindromes* and *even-lettered palindromes* (Funt 1977: 232);

3) the phoneme-to-grapheme correspondence regularity level: *phonetic palindromes*, *non-phonetic palindromes*, and *phonetically reversible words* (although the latter are not recognized as palindromes) (Hall 2011: 290);

4) the mode of reversal: *palindromes reversed letter by letter* and *palindromes reversed word by word* (Brogan & Getty 1993: 874).

However, each of the typologies above was primarily designed upon the material of one language only. No previous approach offers a translingual perspective on palindromicity, considering the phonemic, graphemic, syllabemic, morphemic, and lexemic discrepancies between languages of different groups and families. The present research, therefore, seeks to critically examine and review the existing typologies in order to develop a translingual typology spanning word palindromicity in structurally similar and dissimilar languages, both historically related and unrelated.

3. Database and methodology

The database represents a selection of word palindromes extracted from two basic source lists in the multilingual web dictionary "Wiktionary": "Category: Palindromes by language" (PbL) and "Category: Reduplications by language" (RbL). The choice of addressing readymade Wiktionary lists instead of compiling them for each language on one's own was by no means random. Wiktionary features 8,248 approved languages, incorporating modern, dormant, and dead languages as well as language varieties with a controversial status (but qualifiable as languages according to some criteria). Processing an even remotely comparable number of languages (and a manifold greater number of texts in each) in search of a peripheral ludolinguistic phenomenon based on strict structural constraints proves physically impossible for any single human researcher. Yet, the independently collected evidence for each language opens up virtually infinite possibilities for a palindromist to

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analyze translingual convergences and divergences in the phonemic, graphemic, syllabemic, morphemic, and lexemic aspects. The above ultimately results in linguisticizing the detected regularities and irregularities, which, in the present article, gives rise to a novel, translingual, structural typology of word palindromes.

For the purposes of sample representability and global coverage, the number of language families addressed amounts to 22 (as well as two isolates and one creole), the overall language count being 107. The exemplified language families are as follows: **1) Afro-Asiatic** (Amharic, Arabic, Assyrian Neo-Aramaic, Hebrew, Phoenician, Somali, Tigrinya, Ugaritic); **2) Algic** (Ojibwe); **3) Austroasiatic** (Khmer, Vietnamese); **4) Austronesian** (Brunei Malay, Central Bikol, Chuukese, Fijian, Indonesian, Malay, Mokilese, Palauan, Rapa Nui, Samoan); **5) Cariban** (Ye'kwana); **6) Dravidian** (Malayalam, Tamil, Telugu); **7) Eskaleut** (Greenlandic, Inuktitut); **8) Indo-European** (featuring such language groups as *Albanoid* (Albanian); *Armenian*; *Baltic* (Latvian, Lithuanian); *Celtic* (Breton, Cornish, Irish); *Germanic* (Afrikaans, Danish, Dutch, English, Faroese, German, North Frisian, Norwegian, Old English, Swedish, Yiddish); *Hellenic* (Ancient Greek, Modern Greek); *Indo-Iranian* (Assamese, Bengali, Gujarati, Hindi, Marathi, Odia, Pashto, Persian, Prakrit, Prasun, Punjabi, Sanskrit, Sinhala, Zaza); *Romance* (French, Italian, Latin, Occitan, Old French, Old Galician-Portuguese, Portuguese, Romanian, Spanish); *Slavic* (Bulgarian, Czech, Polish, Slovak, Slovene, Ukrainian)); **9) Iroquoian** (Cherokee); **10) Japonic** (Japanese, Okinawan); **11) Kartvelian** (Georgian, Svan); **12) Koreanic** (Jeju, Korean); **13) Kra–Dai** (Lao, Thai); **14) Mayan** (Tzotzil, Yucatec Maya); **15) Mongolic** (Mongolian); **16) Niger-Congo** (Lingala, Xhosa, Yoruba, Zulu); **17) Oto-Manguean** (Zacatepec Chatino); **18) Quechuan**; **19) Sino-Tibetan** (Chinese, Lhasa Tibetan); **20) Tupian** (Guaraní, Old Tupi); **21) Turkic** (Azerbaijani, Crimean Tatar, Turkish); **22) Uralic** (Estonian, Finnish, Hungarian). In addition to the above, the two language isolates under study include Ainu and Sumerian. The only example of creoles featured is Tok Pisin. The list is thus confined to natural languages exclusively, with intentionally constructed languages falling beyond the scope of this research.

The present article employs an integrative methodology of investigating structural palindrome reversibility, based on interplay between phonemic, graphemic, syllabemic, and morphemic analyses, each aimed at decomposing the lexical evidence collected into operational units of a specific level (phonemes, graphemes, syllabemes, and morphemes in their regular as well as irregular combinations). It is the usage of this integrative methodology that paved the way for the elaboration of a novel, translingual, structural typology of word palindromes.

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4. Results and discussion

The **structural typology of word palindromes** designed in this paper allows for differentiation between ***phonemically reversible***, ***graphemically reversible***, ***phonographemically reversible***, ***syllabemically reversible***, ***polygraphemically reversible***, ***morphemically reversible***, and ***lexemically reversible word palindromes***.

A ***phonemically reversible word palindrome*** (aka a ***phonetic palindrome*** (Thorpe 2011)) is a word readable the same horizontally (forward/backward) or vertically (downward/upward), the reversibility unit being a phoneme. In these palindromes, homophonic by default, the pronunciation is reversible while the spelling is not, e.g., Breton *tad* /tɑːt/ 'father', Czech *pochop* /poxop/ 'warrant officer', Dutch *pub* /pʏp/ 'pub', English *cork* /kɔːk/, French *veuve* /vœv/ 'widow', Greek *σοφός* /sofos/ 'wise', Hungarian *szakasz* /sɒkɒs/ 'stage', Old French *soz* /sus/ 'under', Polish *Czecz* /t͡ʂɛt͡ʂ/ 'Chech (region)', and Slovene *tọ̄d* /tóːt/ 'thus'.

A ***graphemically reversible word palindrome*** is a word spellable the same horizontally (forward/backward) or vertically (downward/upward), the reversibility unit being a grapheme. These palindromes are homographic by their nature, i.e. the spelling is reversible whereas the pronunciation is not, e.g., Afrikaans *soos* /sʊəs/ 'like', Arabic ديفيد *(dayfīd)* /dajfiːd/ 'David', Danish *glassalg* /glassalˀj/ 'glass sales', Dutch *droomoord* /droːmoːrt/ 'place of dreams', English *deified* /diːɪfaɪd/, Faroese *óró* /ɔuːɹɔuːw/ 'restlessness', German *Reittier* /ʁaɪ̯ttiɐ̯/ 'a mount (animal)', Greek *άψα* /apsa/ 'irritability', Italian *ingegni* /ind͡ʒeɲɲi/ 'ingeniousnesses', Norwegian *skoboks* /skuːbɔks/ 'shoebox', Occitan *cèc* /sɛk/ 'blind', Old English *ġiċċiġ* /jitt͡ʃij/ 'itchy', Old French *Ecoce* /eːkot͡sə/ 'Scotland', Pashto درد *(dëṛd)* /d̪əɭd̪/ 'pain', Persian گرگ *(gorg)* /gurg/ 'wolf', Phoenician 𐤍𐤇𐤍 *(nḥn)* /naḥnu/ 'we', Polish *zaraz* /zaras/ 'at once, immediately', Portuguese *osso* /osu/ 'bone', Ye'kwana *öju'jö* /əhuʔhʷə/ 'seed', Yoruba *ọmọ* /ɔm̄ɔ̄/ 'child', Zacatepec Chatino *naʔan* /na.ʔã/ 'house'.

A ***phonographemically reversible word palindrome*** is a word both spellable and readable the same horizontally (forward/backward) or vertically (downward/upward), the reversibility unit being a regular phoneme-to-grapheme correspondence, e.g., Bulgarian *отказто (otkakto)* 'ever since', Estonian *öötöö* 'night work', Fijian *ivi* 'Polynesian chestnut', Finnish *autioitua* 'to become deserted', Georgian *როგორ (rogor)* 'how', Greenlandic *qaqqaq* 'mountain', Guaraní *yvy* 'land', Lao *ນອນ (nɔ̄n)* 'to sleep', Latvian *skābāks* 'sourer', Lithuanian *ugnìngu* 'fiery (instrumental masculine singular)', North Frisian *weew* 'to weave', Norwegian *rør* 'stir (imperative)', Ojibwe *wa'aw* 'this', Old Galician-Portuguese *augua* 'water', Palauan *melalem* 'to plant', Prasuni *ügü* 'finger', Quechua *yañay* 'experimentation', Rapa Nui *aka* 'root', Romanian *atâta* 'so much', Slovak *krk* 'neck', Somali *diid*

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'refuse', Spanish *reconocer* 'to recognize', Svan *ჭაჭ (čač)* 'kidney', Tok Pisin *abababa* 'bubblegum', Turkish *küçük* 'small', Tzotzil *'a'* 'water', Xhosa *izazi* 'experts', Yiddish סאָס *(sos)* 'sauce', Yucatec Maya *juuj* 'iguana', Zazaki *gılılıg* 'cornea', Zulu *ibibi* 'heap of rubbish'.

From the narrowest perspective on palindromy, graphemically and phonographemically reversible palindromes constitute ***palindromes proper*** (thus representing the narrower understanding of palindromy), as they are visually perfectly symmetrical. The visual criterion, however, proves to be a treacherous one to solely rely upon.

The first consideration to be taken into account boils down to the visual discrepancies between uppercase and lowercase letters in bicameral alphabets (such as the Armenian, Cyrillic, Greek, or Latin scripts). Among the latter, the Armenian, Greek, and Latin alphabets reveal substantial discrepancies between the representation of the majority of uppercase and lowercase letters, as perfectly illustrated by the following phonographemically reversible but visually non-reversible palindromes: Armenian *Ագա (Aga)* 'Aga (river)', *Անանա (Anna)* 'Anna (a female name)', *Արա (Ara)* 'Ara (a male name)', *Արքա* (Ak'k'a) 'Acre (city)', *Նաթան (Nat'an)* 'Natan (a male name)', *Տաճատ (Tačat)* 'Tachat (a male name)'; Greek *Άννα (Ánna)* 'Ann(e) (a female name)' and *Ήβη (Ívi)* 'Hebe (Greek goddess)'; Latin *Ave, Eva!* 'Hail, Eve!'. In contrast, the Cyrillic alphabet is characterized by a far less marked distinction between majuscule and minuscule representations, as in Mongolian *Или* 'Ili (river)' or Ukrainian *Алла (Alla)* 'Alla (a female name)' and *Боб (Bob)* 'Bob (a male name)'.

My second remark concerns the letter position constraints in some languages, such as the Greek lowercase *ς* (sigma) in the word-final position in opposition to the word-initial uppercase *Σ*, as in *Σάββας (Sávvas)* 'Savvas (a male name)' and *Σέρρες (Sérres)* 'Serres (city)', as well as in opposition to the word-non-final lowercase *σ*, as in *σας (sas)* 'your', *σέλες (séles)* 'saddles', *σήψης (sípsis)* 'sepsis (genetive singular)', *σορός (sorós)* 'corpse', and *σος (sos)* 'sauce'. An even more complicated system of letter position constraints exists in Arabic, where they distinguish the initial, medial, final, and independent positions for every letter, which clearly manifests itself in the phonographemically reversible but visually non-reversible palindromes أداء *(ʔadāʔ)* 'performance', باب *(bāb)* 'door', لُول *(lūl)* 'lol (in Internet slang)', or شاش *(šāš)* 'muslin'.

The third concern is the existence of ambigrams, i.e. a visual play on words consisting of a calligraphic drawing with two or more clear interpretations as written words (Hofstadter 1987: 17). Although ambigrams are frequently dubbed "the visual equivalent of a palindrome" (Astle 2010: 307), there is a notable difference between the two phenomena: while the identical forward-and-

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backward spelling and/or reading of a palindrome results from a specific sequence of language units irrespective of their visual representation, an ambigram achieves its symmetry by relying solely on the visual form, regardless of the phonological and/or graphical unit reversibility or even composition (Hofstadter 1987: 18). Through manipulating the orientation of observation alone, any language unit (including palindromes) can be stylized to become an ambigram, e.g., the rotational ambigram *jump*, the circle ambigram *infinity*, or the mirror ambigram *Athena* (Trisna et al. 2024: 139-141). Difficulties arise when the graphic representation of an ambigram in scripts other than the Latin alphabet likens it to a palindrome, when, in essence, the visual similarity turns out to be a mere coincidence, as in the Arabic ليبيا *(Lībya)* 'Libya'. Thus, both ambigrams and palindromes can be regarded as ludolinguistic phenomena, yet the former are treated as readymade indivisible units and tend to primarily serve aesthetic or commercial purposes, whereas the latter are divisible into constituents arranged in a reversible sequence and principally belong in the realm of linguistics.

A ***syllabemically reversible word palidrome*** is a word spellable and/or readable the same horizontally (forward/backward) or vertically (downward/upward), the reversibility unit being a syllabeme. These palindromes are primarily characteristic of languages exploiting different types of syllabaries:
1) pure syllabaries, such as Ainu ト ノ ト *(tonoto)* 'alcohol', Cherokee ᏏᏅᏫᏅᎩ *(gasquosga)* 'he/she/it is craving, Japanese 東南東 *(tōnantō)* 'east-southeast', Okinawan いかいい *(ikai)* 'anchor', it';
2) alphasyllabaries, such as Amharic ቢምቢ *(bimbi)* 'mosquito', Gujarati ધોધ *(dhodh)* 'waterfall', Hebrew שֶׁמֶשׁ *(shémesh)* 'sun', Hindi शाबाश *(śābāś)* 'shabash, good job', Inuktitut ᑐᒃᑐ *(tokto)* 'caribou', Jeju 이멩이 *(imeng'i)* 'forehead', Khmer កាតាក *(kaataak)* 'leftover cooked rice that has been dried in the sun and is kept as a reserve food', Lhasa Tibetan ཀཀ *(kaka)* 'crow', Odia ଜାହାଜ *(jāhāja)* 'ship', Prakrit ससा *(sāsa)* 'breath', Punjabi ਦਮਾਦ *(dāmād)* 'son-in-law', Sanskrit किकि *(kiki)* 'coconut tree', Sinhala ගමන්මග *(gamanmaga)* 'path', Tamil விகடகவி *(vikaṭakavi)* 'a poet or jester who composes or performs humorous verses or songs for the king's amusement', Telugu కునుకు *(kunuku)* 'sleep', Thai ทายาท *(taa-yâat)* 'heir, heiress', Tigrinya ቋንቋ *(ḳʷanḳʷa)* 'language';
3) logosyllabaries, such as Assyrian Neo-Aramaic ܬܝܬܐ *(tāytā)* 'coming', Chinese 文言文 *(wényánwén)* 'Classical Chinese (texts)', Sumerian 𒍪𒄑𒍪 *(niĝ₂-a₂-ĝar)* 'deception', Ugaritic 𐎀𐎚𐎀 *(šrš)* 'root of a plant'.

If a syllabeme coincides with a morpheme, as in English *aye aye*, *corecore*, or *old-old*, the resulting palindrome is categorizable in its broader understanding as either syllabemically reversible (from a purely structural perspective) or morphemically reversible (the second and third examples equally

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qualifiable as lexemically reversible) (from a structural and semantic perspective). An example of a pseudosyllabemically reversible palindrome in English would be *re-entry*, considering that the word is syllabified as *re-en-try* and not as *re-ent-ry*.

A ***polygraphemically reversible word palindrome***, equally approached from a broader perspective, is a word spellable and/or readable the same horizontally (forward/backward) or vertically (downward/upward), the reversibility unit being either a random letter-combination, e.g., English *unga-bunga*, or a sequence containing at least one random graph, e.g., English *arty-farty*, *easy-peasy*, *okey-dokey*, *ooky-spooky* (their polygraphemic status still being retained even though part of the constituents are fully represented morphemes or lexemes). The term can be used as an umbrella denomination of several "exotic" types of palindromes, namely a compound palindrome, a palindrome-by-pairs and an aelindrome. A ***compound palindrome*** is a single word or longer assemblage composed of a series of palindromes, e.g., English *papooses* (*pap+oo+ses*) or *Agamemnon* (*Aga+mem+non*) (Donner 1996: 74-75). A ***palindrome-by-pairs*** is a palindrome that is reversible by blocks of two letters, e.g., English *reside in desire* ([*re*][*si*][*de*] [*in*] [*de*][*si*][*re*]) (Etherin 2021: 123). An ***aelindrome*** (a portmanteau word formed from the initials of its creator *A[nthony]+E[therin] + -lindromes*) is a variation on palindromes, which, instead of mirroring a repeated, fixed letter-unit, reverses units of variable sizes, as determined by premeditated numerical sequences, e.g., English *Melody, a bloody elm*, structured by the numerical palindrome *1234321*, since *[m]1 [el]2 [ody]3 [a blo]4* reflects backward as *[a blo]4 [ody]3 [el]2 [m]1* (Etherin 2021: 143). However, in spite of labelling aelindromes "a variation on lettristic palindromes" (Etherin 2021: 143), their creator subsequently denies any possibility of construing them as palindromes, remarking that the former are limited by the constraint of "palindromic bidirectionality in the numerical sequences underpinning them, but never […] in a consistent (operating a unit representing either a random letter-combination or a sequence containing a random linguistic unit (letter, word, line, sentence, paragraph, etc.)" (Etherin 2021: 144). Meanwhile, the introduction of polygraphemic reversibility into the typology designed in this paper allows for qualifying aelindromes as palindromes.

A ***morphemically reversible word palindrome*** is defined in the broader understanding of palindromy as a word spellable and/or readable the same horizontally (forward/backward) or vertically (downward/upward), the reversibility unit being a morpheme. My search for morphemically reversible palindromes has yielded examples representing full reduplicatives, e.g., Afrikaans *plek-plek* 'here and there', Ancient Greek *πάμπαν (pámpan)* 'wholly', Arabic ألف ألف *(ʔalf ʔalf)* 'million', Armenian *δωլ-δωլ (cal-cal)* 'having folds', Azerbaijani *tez-tez* 'frequently', Bengali *মাঝে মাঝে (majhe majhe)* 'sometimes', Central Bikol *nguyâ-nguyâ* 'chewing', Cornish *hwyhwi* 'you (plural)',

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Crimean Tatar *usul-usul* 'quietly', Czech *jenjen* 'only', Danish *farfar* 'paternal grandfather', Dutch *bushbush* 'wilderness', English *moonmoon*, French *bonbon* 'candy, sweet', Japanese もちもち *(mochimochi)* 'chewy as a rice cake', Lingala *máimái* 'wet', Mokilese *dehndehn* 'to be very old', Old Tupi *kûesekûesé* 'the day before yesterday', Swedish *hysch-hysch* 'secrecy', Turkish *anneanne* 'grandmother', Vietnamese *rành rành* 'clearly', as well as partial reduplicatives, e.g., Armenian *մոտամոտ (motamot)* 'very close', Assyrian Neo-Aramaic ܗܳܕܰܟ̰ܳ ܘ̰ܗܳܕܰܟ̰ *(hādḵā w-hādḵā)* 'so-so', Brunei Malay *adi-beradi* 'sibling', Chuukese *patapat* 'cold', Czech *chtě nechtě* 'willy-nilly', English *blackity-black*, French *tête-à-tête* 'head-to-head', Hindi *हाथोंहाथ (hāthõhāth)* 'from hand to hand', Indonesian *beri-memberi* 'to give each other', Malay *awang-gemawang* 'atmosphere', Mokilese *pikapik* 'to be sandy', Norwegian *barnebarn* 'grandchild'. As manifested by the evidence collected in this article, the basic pattern behind these palindromes is as follows: [root] + ([affix(es)]) + [root]. The pattern slightly alters for the informal Brazilian Portuguese *nhenhenhém* 'a repetitive and/or annoying speech' (from Old Tupi *nhe'eng* 'to speak') as well as for the English slang word *lololol*, namely to [root] + [root] + [root], the root-final and root-initial consonants overlapping with the purposes of spelling simplification as well as of eye dialect-conditioned counter-standardization. Slang is blatantly opposed to standard and inevitably challenges it, whether in pronunciation, spelling, grammar, or stylistics, which fundamentally reflects "protest against the socially imposed behaviour patterns and pragmatic ethics" (Borys 2023b: 6). In this respect, Borys points out that "[a]s opposed to language standard, which represents a carefully "pruned", "shaped", and "sculpted" grapholect, slang, in spite of constituting a rather "gnarled", "misshapen", and "untrimmed" sociolect, mirrors an accurate projection of its users' cognition just as it is, free from any intervention, enforcement, or manipulation by external forces" (Borys 2023a: 80).

It is noteworthy that the delimitation of morphemically reversible word palindromes is ontologically fraught with a number of difficulties. Firstly, although morphemes are generally recognized as the smallest meaningful units of language, palindrome types upwards of the lexical level (phrase, line, sentence, stanza, paragraph, and text palindromes) prototypically exploit lexemes as operational units. Hence, the fact that all free morphemes coincide with lexemes complicates the matter even further, contributing to partial overlap between morphemically reversible word palindromes, on the one hand, and lexemically reversible word palindromes, on the other. Yet, the superposition results from the conventionally blurred linguistic boundary between a free morpheme and a simplex. Secondly, morphemically reversible word palindromes based on full reduplication overlap with tautonyms. A ***tautonym*** is a word or term consisting of two identical parts or syllables, e.g., English *bonbon* or *Bora Bora* (Żyśko 2017: 22). A word or term comprised of three identical parts or syllables

is known as a ***triple tautonym***, e.g., the scientific Latin name *Bufo bufo bufo* applicable to what is popularly known as the European toad.

Morphemically reversible word palindromes are not to be confused with what Gold terms ***morphemic palindromes***, which he defines as compounds whose constituents can be reversed without change of meaning, e.g., *book lung* and *lung book*, *downplay* (v) and *play down*, *overstuffed* and *stuffed-over* (Gold 1978: 164). However, the term ***palindrome*** traditionally applies to any SINGLE unit spellable and/or readable the same horizontally (forward/backward) or vertically (downward/upward), whereas, in the case of the so-called "morphemic palindromes", we are dealing with TWO independent units whose morphemic structure is interreversible and whose semantics happens to coincide. Consequently, in the light of more recent research, the controversial phenomenon represents none other than a ***morphemically reversible semordnilap***. A semordnilap (from the reversed spelling of ***palindromes***), or ***palinode***, is a word or sentence that makes a different word or sentence when spelt backwards, e.g., English *diaper* → *repaid* (Brandreth 2015: 247-248; Chism 1992: iii). This equally brings to mind the British phenomenon of ***back slang***, or ***back talk***, which is fully based on semordnilap, e.g., *tobacco* → *occabot* (Donner 1996: 57). Speaking of Gold's definition, of the three examples I have randomly selected for the purpose of mere illustration, only the first pair represents genuine compounds, whereas *downplay* and *overstuffed* qualify as derivatives formed through affixation (i.e. by adding prefixes *down-* and *over-* respectively). Thus, morphemically reversible semordnilaps rely on both free and bound morphemes, incorporating derivatives alongside compounds.

Finally, a ***lexemically reversible word palindrome*** represents, in its broader understanding, a word spellable and/or readable the same horizontally (forward/backward) or vertically (downward/upward), the reversibility unit being a lexeme. These units prove fairly common in phrase, line, sentence, stanza, paragraph, and text palindromes, yet their presence is remarkably limited in word palindromes. A lexeme serving as a constituent unit within another lexeme makes sense only in the case of compound lexemes. The examples identified in the present research all represent full reduplicatives, namely:

1) homomorphemic full reduplicatives (which overlap with the morphemically reversible word palindromes based on uninterrupted sequences of identical free morphemes, e.g., Albanian *avash-avash* 'little by little', Arabic بين بين *(bayna bayna)* 'in-between', Armenian *ջոկ-ջոկ (ǰok-ǰok)* 'separately', Azerbaijani *bir-bir* 'one by one', Brunei Malay *langit-langit* 'palate', Central Bikol *huyóp-huyóp* 'blowing (by the wind)', Chinese *亭亭 (tíngtíng)* 'towering', English *bun-bun*, French *chouchou* 'term of endearment', German *Klein-Klein* 'irrelevant details; trifle', Hindi *क़रीब-क़रीब (qarīb-qarīb)*

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'nearly', Korean *차례차례 (charyecharye)* 'in turn', Marathi *रामराम (rāmrām)* 'a form of greeting among Hindus', Mokilese *kidkid* 'to wrap', Norwegian *mormor* 'maternal grandmother', Old Tupi *eteeté* 'grandiose', Samoan *pi'opi'o* 'crooked', Swedish *finfin* 'excellent', Vietnamese *bươm bướm* 'butterfly');

2) heteromorphemic full reduplicatives (which include non-identical reduplicated free morphemes, derivatives and compounds based on interrupted sequences of free morphemes, Afrikaans *huisie-huisie* 'the game of playing house', Assamese *মাজে মাজে (maze maze)* 'seldom', Bengali *সঙ্গেসঙ্গে (śoṅgeśoṅge)* 'always in the company of', Chinese *一步一步* (yībùyībù) 'step by step', Crimean Tatar *bile-bile* 'on purpose', English *something-something*, Dutch *koppie-koppie* 'smart', German *Künstler-Künstler* 'artist with particular renown within artistic circles, not necessarily the wider public', Malayalam *പതുക്കെ പതുക്കെ (patukke patukke)* 'slowly', Norwegian *femti-femti* 'fifty-fifty', Portuguese *empurra-empurra* 'an instance of people pushing each other repeatedly', Tamil *மாறிமாறி (māṟimāṟi)* 'in turns').

5. Conclusions

The present study was designed to provide a detailed translingual account of word palindromy based on lexical evidence from over 100 structurally similar and dissimilar languages, both historically related and unrelated.

A palindrome constitutes a word, phrase, line, sentence, stanza, or text spellable and/or readable the same horizontally (forward/backward) or vertically (downward/upward) [depending on the script orientation in the language], with optional sensitivity to capitalization, diacritics, punctuation, and spacing, the reversibility unit being a phoneme, grapheme, syllabeme, polygrapheme, morpheme, lexeme, phrase, line, sentence, stanza, or text fragment. Consequently, a word palindrome is defined as a word spellable and/or readable the same horizontally (forward/backward) or vertically (downward/upward) [depending on the script orientation in the language], with optional sensitivity to capitalization, diacritics, and spacing (the latter applies to compounds only), the reversibility unit being a phoneme, grapheme, syllabeme, polygrapheme, morpheme, or lexeme.

Structurally, the logological material collected from 107 languages allows for distinguishing between phonemically reversible, graphemically reversible, phonographemically reversible, syllabemically reversible, polygraphemically reversible, morphemically reversible, and lexemically reversible word palindromes. This typology relies on the broader understanding of palindromy as applicable to any linguistic unit sequence that is characterized by either regular or irregular but formulaic reversibility.

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A phonemically reversible word palindrome is homophonic by default and constitutes a word readable the same horizontally (forward/backward) or vertically (downward/upward), the reversibility unit being a phoneme. Conversely, a graphemically reversible word palindrome is homographic by its nature and represents a word spellable the same horizontally (forward/backward) or vertically (downward/upward), the reversibility unit being a grapheme. If a word is both spellable and readable the same horizontally (forward/backward) or vertically (downward/upward), the reversibility unit being a regular phoneme-to-grapheme correspondence, the former is referred to as a phonographemically reversible word palindrome. A more structurally complex syllabemically reversible word palindrome is a word spellable and/or readable the same horizontally (forward/backward) or vertically (downward/upward), the reversibility unit being a syllabeme, as primarily applied to pure syllabaries, alphasyllabaries, and logosyllabaries. A polygraphemically reversible word palindrome serves as an umbrella term embracing predominantly compound palindromes, palindromes-by-pairs, and aelindromes, and is defined as a word spellable and/or readable the same horizontally (forward/backward) or vertically (downward/upward), the reversibility unit being either a random letter-combination or a sequence containing at least one random grapheme. An even more complex morphemically reversible word palindrome constitutes a word spellable and/or readable the same horizontally (forward/backward) or vertically (downward/upward), the reversibility unit being a morpheme. The morphemic reversibility is achieved through full or partial reduplication, the former case overlapping with tautonymy. Finally, a lexemically reversible word palindrome is a compound word spellable and/or readable the same horizontally (forward/backward) or vertically (downward/upward), the reversibility unit being a lexeme as part of a homomorphemic or heteromorphemic full reduplicative.

Further research should be done to investigate the structural diversity of palindromes upwards of the lexical level, as well as their graphical heterogeneity as regards capitalization, punctuation, spacing, and use of diacritics. There is equally abundant room for future progress in determining the role of rhythm in palindromy, especially types of rhythmic patterns and figures (Panasenko et al. 2023: 1534-1539), or in establishing the correlation between palindromicity, on the one hand, and language economy, on the other, namely in terms of lexical reduction (Lančarič & Bojo 2020: 91-94; Lančarič & Bojo 2024: 26-29).

Abbreviations

PbL – Palindromes by language

RbL – Reduplications by language

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References

1. Astle, D. (2010). *Puzzled: Secrets and clues from a life lost in words.* Crows Nest: Allen & Unwin.
2. Augarde, T. (1994). *The Oxford A to Z of word games*. Oxford – New York: Oxford University Press.
3. Benefiel, R.R. (2013). Magic squares, alphabet jumbles, riddles and more: The culture of word-games among the graffiti of Pompeii. In *The muse at play: Riddles and wordplay in Greek and Latin poetry*. Kwapisz, J., Petrain, D. & Szymański, M. (eds.). Berlin – Boston: Walter de Gruyter, p. 65-79.
4. Bergerson, H.W. (1973). *Palindromes and anagrams.* New York: Dover Publications.
5. Blake, B.J. (2010). *Secret language*. Oxford – New York: Oxford University Press.
6. Bombaugh, C.C. (1961). *Oddities and curiosities of words and literature.* New York: Dover Publications.
7. Borgmann, D.A. (1980). Palindromes: The ascending tradition. In *Word ways. The journal of recreational linguistics*, 13 (2), p. 91-101.
8. Borgmann, D.A. (1985). The majestic palindrome. In *Word ways. The journal of recreational linguistics*, 18 (1), p. 6-15.
9. Borys, D. (2023a). Conceptual metaphor in English slang phytonyms. In *SKASE journal of theoretical linguistics*, 20 (2), p. 79-98.
10. Borys, D. (2023b). Sensory metaphor in English slang phytonyms. In *Lege artis. Language yesterday, today, tomorrow*. Trnava: University of SS Cyril and Methodius in Trnava, VIII (1), Special issue, p. 5-20. DOI: https://doi.org/10.34135/lartis.23.8.1.01
11. Brandreth, G. (2015). *Word play: A cornucopia of puns, anagrams, euphemisms & other contortions & curiosities of the English language*. London: Coronet.
12. Brogan, T.V.F. & Getty, R.J. (1993). Palindrome. In *The new Princeton encyclopedia of poetry and poetics.* Preminger, A. & Brogan, T.V.F. (eds.). Princeton: Princeton University Press, p. 874-875.
13. Chism, S.J. (1992). *From A to Zotamorf: The dictionary of palindromes.* Morristown: Word Ways Press.
14. Danesi, M. (2002). *The puzzle instinct: The meaning of puzzles in human life*. Bloomington – Indianapolis: Indiana University Press.
15. De Marco, P. (2025). *Anagram Unraveler* (s.l.).
16. Donner, M. (1996). *I love me, vol. 1: S. Wordrow's palindrome encyclopedia; being a magic mirror, master key, and treasure map to some well-defined cracks and hot spots in reality (all-round trips) arranged alphabetically from AA to ZZZ-ZZZ-ZZZZZZ / revealed and interpreted by Michael Donner*. Chapel Hill: Algonquin Books of Chapel Hill.
17. Etherin, A. (2021). *Slate petals (and other wordscapes)*. Padstow: Penteract Press.
18. Friedman, W.F. & Friedman, E.S. (1957/2010). *The Shakespearean ciphers examined: An analysis of cryptographic systems used as evidence that some author other than William Shakespeare wrote the plays commonly attributed to him*. Cambridge: Cambridge University Press.
19. Funt, R. (1977). Notes on palindromes. In *Word ways. The journal of recreational linguistics*, 10 (4), p. 232-234.
20. Geizhals, S.H. & Sokol, D. (2016). Finding maximal 2-dimensional palindromes. In *27th annual symposium on combinatorial pattern matching (CPM 2016). Leibniz international proceedings in informatics (LIPIcs)*, 54, p. 19:1-19:12. DOI: https://doi.org/10.4230/LIPIcs.CPM.2016.19
21. Gold, D.L. (1978). Morphemic palindromes. In *American speech*, 53 (2), p. 164-166.
22. Hall, T.A. (2011). On the distinction between 'phonetic' palindromes and 'phonetically' reversible words. In *Word ways. The journal of recreational linguistics*, 44 (4), p. 290-293.

23. Hinton, D. (2008). *Classical Chinese poetry: An anthology*. (Translated and edited by David Hinton). New York: Farrar, Straus and Giroux.
24. Hofstadter, D.R. (1987). *Ambigrammi: Un microcosmo ideale per lo studio della creatività*. Firenze: Hopeful Monster editore.
25. Horne, A. (2010). *Wordwatching. Breaking into the dictionary: It's his word against theirs.* London: Virgin Books.
26. Hunter, R.L. (2012). Sotades. In *The Oxford classical dictionary*. Hornblower, S. & Spawforth, A. (eds.). Oxford: Oxford University Press, p. 1386.
27. Killikelly, S.H. (1890). *Curious questions in history, literature, art, and social life*. Philadelphia: Keystone Publishing Co.
28. Klein, E. (2003). *A comprehensive etymological dictionary of the English language*. Amsterdam: Elsevier.
29. Lančarič, D. & Bojo, P. (2020). Structural lexical reduction in informal on-line communication. In *Lege artis. Language yesterday, today, tomorrow.* Trnava: University of SS Cyril and Methodius in Trnava, V (2), December 2020, p. 88-121.
30. Lančarič, D. & Bojo, P. (2024). Systemic irregularity patterns in graphemic representation of e-chat sentential initialisms. In *Lege artis. Language yesterday, today, tomorrow. Trnava: University of SS Cyril and Methodius in Trnava*, IX (2), p. 25-36. DOI: https://doi.org/10.34135/lartis.24.9.2.02
31. *Palindromes by language*. Available at: https://en.wiktionary.org/wiki/Category:Palindromes_by_language
32. Panasenko, N., Stashko, H. & Zabuzhanska, I. (2023). Love and rhythm in poetry and music. In *Language and Emotion. Vol. 3*. Schiewer, G.L., Altarriba, J. & Ng, B.Ch. (eds.). Berlin – Boston: Walter de Gruyter, p. 1529-1557. DOI: https://doi.org.10.1515/9783110795486-009
33. Peacham, H. (1638). *The truth of our times revealed out of one mans experience, by way of essay. Written by Henry Peacham.* London: Printed by N[icholas] O[kes] for Iames Becket, and are to be sold at his shoppe at the middle Temple gate.
34. Plett, H.F. (2010). *Literary rhetoric: Concepts – structures – analyses*. Leiden – Boston: Brill.
35. *Reduplications by language*. Available at: https://en.wiktionary.org/wiki/Category:Reduplications_by_language
36. Thorpe, S. (2011). Phonetic palindromes. In *Word ways. The journal of recreational linguistics*, 44 (3), p. 209-212.
37. Trisna, N.M.S.W., Purwita, D.G., Budayana I.W.G. & Indira, W. (2024). *Jalinan tanda dan makna: Bahasa visual dalam desain komunikasi visual*. Badung: Penerbit Intelektual Manifes Media.
38. Velychkovskyi, I. (1972). *Works*. Kyiv: Naukova Dumka / Velychkovskyi I. *Tvory*. Kyiv: Naukova dumka. / Величковський І. *Твори*. Київ: Наукова думка.
39. Yeroulanos, M. (2016). *A dictionary of classical Greek quotations*. London – New York: I.B. Tauris.
40. Yıldız, H. (2008). Bir kelime oyununu tasnif denemesi türk dilinde palindromlar. In *Dil Arastırmaları*, 2 (2), p. 57-78.
41. Żyśko, K. (2017). *A cognitive linguistics account of wordplay*. Cambridge: Cambridge Scholars Publishing.

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MEDIATING LANGUAGE AND CULTURE: AN ANALYSIS OF KOREAN EXPRESSIONS IN *KPOP DEMON HUNTERS*[1]

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Abstract: The article focuses on linguistic and cultural elements portrayed in the film *KPop Demon Hunters*. With the popularity of Korean culture, Korean terms are increasingly entering global languages through borrowing. These expressions not only carry deep cultural meanings but also showcase the importance of Korean cultural products in media globalization. Using several methodological approaches, the article investigates how *KPop Demon Hunters* employs these expressions not simply as language but as cultural signs that enable audiences to understand, interpret, and transcode their context.

Keywords: *KPop Demon Hunters*, Korean culture, Korean language, Korean popular culture, language borrowing, linguistic and cultural authenticity, media culture and globalization.

1. Introduction

The successful American film from Sony Animation Pictures entitled *KPop Demon Hunters* (Kang & Appelhans 2025) appealed to many around the world and confirmed the popularity of South Korean content. However, it was not a South Korean film; rather, South Korea served only as the setting where the story took place. The production company signed a contract with the streaming company Netflix, which Magalová (2024) describes as the most popular IDTV provider, thus guaranteeing its success. The result of the collaboration between the two large companies is striking, as the film became number one on Netflix and the songs featured in the film reached the top of music streaming

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platforms (Savage 2025). Its popularity was mainly ensured by the virality of the songs, which many people sang along to, or at least encountered on social media before they had the opportunity to see the film.

The film *KPop Demon Hunters* tells the story of the girl group *Huntr/x*, whose real job is to rid the world of demons who see humans as prey. The task of the three singers is to use their voices to maintain the protective barrier, "*the honmoon*", and strengthen it to its full – golden – form, thereby ensuring that the demons disappear from the world and stop harming people. The demons are also aware of the power of fandom, so at the suggestion of one of them, a demonic version of the group – a boy band – is created, which begins to use its voice and popularity to strengthen the demons in the world. The story tells of the struggle between these two worlds and the secret of the main character, who is herself a half-demon and longs all the more to rid the world of evil. It is a profound story about the search for one's own identity, friendship, and a sense of belonging, which contribute to healing, but also about survivor's guilt, and subsequent redemption and sacrifice. At the same time, the background of the story is secondary, and in essence, it tells a story of the struggle between good and evil that even child viewers can understand, as evidenced by various videos on social media where young children watch and sing along to the rhythm of the songs.

The film, which reflects South Korean society, the music industry, and culture, has strengthened interest in Korean popular culture, but also in culture in general. Although the film is originally in English, the narration and dialogues include untranslated Korean phrases that are well known among fans of K-pop, i.e., South Korean music production, but remain incomprehensible and difficult to translate for global audiences who have accessed the content thanks to its virality. The creators themselves preferred to preserve Korean elements rather than translate them literally, thereby spreading Korean culture even among non-fans. Words such as *maknae, gwima*, and others, which remain untranslated, although sometimes explained, point to the penetration of the Korean language through media production into the global language. This paper aims to explain the meaning of these untranslated words in *KPop Demon Hunters* and to point out how they carry not only linguistic but also cultural meaning. To achieve this goal, three different analytical approaches are used: semiotic analysis according to Barthes, Hall's cultural semiotics, and content analysis. Instead of strictly adhering to specific pre-established analytical categories or research approaches (e.g., Ahn & Kiaer 2023; Kiaer et al. 2024) the analysis takes the form of an interpretative text of narrative and socio-cultural commentary, providing context through discourse involving language, images, and culture.

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2. Cultural and linguistic globalization through K-pop and other cultural products

Hallyu, also known as the Korean Wave, is a cultural phenomenon that has been sweeping the global media market since the late 1990s and refers to the popularity of Korean cultural products outside South Korea (Jung 2017). Initially, many researchers, especially Chinese and Japanese ones, considered it a short-lived phenomenon (Yang 2012), but the popularity of primarily musical and television productions exceeded these expectations and globalized hallyu into what it is today. This was aided in particular by media products, which reached diverse audiences quickly. At first, they reached diasporas, i.e., ethnically closer recipients (Yoon 2022), and then moved on to others who were culturally distant but whose interest and love for the content kept them engaged (Francistyová 2023).

2.1 "K" and Korean terms in global language

Currently, there is a growing use of the prefix "K" to designate various South Korean products, so it is not surprising that people encounter terms such as K-pop, K-drama, K-beauty, or K-content, among others. According to Lie (2012), the prefix "K" functions as a marketing brand. Kiaer et al. (2024), on the other hand, state that it serves as a denotation of something translingual and transcultural, but note that "K" is not Korean, although it contains Korean elements. It is also important to note that "K" as a brand has enabled the popularization of other products and cultural artifacts that are now encountered not only by fans but also by global audiences (Francistyová & Novanská Škripcová 2024). The popularity of Korean cultural production among its fans, especially of K-pop, has also led to transformative practices in the romanization of the Korean language. The number of fans of South Korean media and cultural products is growing, and, based on what Ahn and Kiaer write, with this growing number, the prominence of the adoption of Korean expressions is also increasing, with fans becoming important "agents of linguistic negotiation" (2023: 77). Although the borrowing of Korean words into English is minor compared to the borrowing of English words into Korean, the number of such words is steadily increasing. As Ahn (2021: 43) argues

> "*with a surge in popularity of Korean pop (K-pop) and Korean television dramas (K-dramas) amongst English-speaking international fans worldwide, non-Koreans are becoming increasingly more familiar with Korean words, causing them to be adopted into the English language in various ways*".

Korean popular music, or rather its specific genre commonly known as K-pop, is one of the main drivers of interest in Korean cultural products abroad. Although today we also see interest in manhwa, webtoons, cosmetics, food, etc., the initial success began with music and TV series (Kim 2013), and therefore it can be said that, according to Choi's (2015) stratification, these products are at the core of hallyu and contribute to the spread of the popularity of other products as well. K-pop was even the

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first term to be included in the Oxford English Dictionary in 2016 and was associated with the popularity of South Korean culture abroad, confirming the position of hallyu in media culture.

Other terms related to South Korean culture were added to the dictionary five years after K-pop was added as an entry. In 2021, 26 new words of Korean origin were added to the Oxford English Dictionary, with clear and concise explanations for their inclusion, pointing to the influence and globalization of South Korean cultural production and interest in the culture it promotes (Ahn & Kiaer 2023). The newly defined words included food-related terms such as banchan, bulgogi, and kimbab; Korean Wave-related words such as hallyu, K-drama, manhwa, and mukbang; words related to family; Konglish (Korean English) expressions such as fighting; and expressive words such as daebak. The latest additions to the dictionary were seven words, including noraebang, hyung, tteokbokki, and pansori (Lee 2025). They were added at the end of 2024 and reflect people's interest in cultural aspects and life in South Korea.

The continuous addition of South Korean expressions or terms originating in the South Korean environment into English dictionaries points to the broader influence and penetration of South Korean culture into the global environment, but it also serves as lexical enrichment that allows for a better understanding and use of these words in different contexts (Ashrafova 2024; Calude et al. 2020; Gao 2022). Dictionaries that update and reflect the current era and trends in communication help us understand and culturally anchor interactions between audiences. Nevertheless, it must be noted that the reflection of the words used is relatively slow, and in the meantime, other Korean words are becoming popular and anchored in the dictionaries of *hallyu* fans. One example is *sasaeng* fan (사생팬), an obsessive fan, similar to a stan, but capable of doing anything, including invading the privacy of their favourites or even harming them (Pan 2021). Despite the frequent use of the word to describe such fans, the word has not yet been picked up by dictionaries.

2.2 Language borrowing, penetration of the Korean language, and fan communities

The popularity of Korean cultural products has led to an interest in the culture and language that has spread beyond Korea's borders and has become part of the everyday language of fans. Today, they commonly use expressions such as *jebal* (제발) = please; *jeongmal* (정말), *jinjja* (진짜) = really, truly; *selca* (셀카) = selfie, self-taken photo; *daesang* (대상) = highest award given at ceremonies or awards; or, as already mentioned, *sasaeng*. Batoul Touhami and Fawwaz Al-Abed Al-Haq (2017) see several reasons why fans use Korean expressions instead of their own, more linguistically familiar expressive terms. They mention several reasons:

a) Expressiveness – fans consider the Korean language to be more expressive;
b) Cultural immersion – fans use the language to feel closer to Korean culture;
c) Language practice – fans use certain expressions to improve their language skills;
d) Code communication and inside jokes – fans use words to identify themselves among other fans who understand them, and also use the words in fandom;
e) Unconscious usage – fans use words and terms subconsciously and unconsciously, influenced by media production;
f) Specificity of terms – fans use terms to accurately express the meaning of a word that, for example, has no equivalent in their language;
g) Cognitive influence – fans who have learnt Korean might think in Korean, influenced by the semantic categories, and use them in their everyday lives (Touhami & Al-Haq 2017).

The use of South Korean words in the community gives fans a sense of belonging, reinforcing their love for the products, content, and cultural artifacts. Although there are a variety of reasons for fans to use Korean words and expressions, language immersion plays an important role in reaching global audiences who are encountering Korean content for the first time. Ofori et al. (2024) note that language immersion improves cultural understanding, further creating a deeper awareness of cultural contexts and nuances, and can also lead to immersion in history, customs, and traditions (Karlik 2023). Culturally sensitive translation adapts the text to meet the cultural sensibilities of the target audience while remaining faithful to the original text being translated (Onomejoh et al. 2024). Many people confuse cases where the original linguistic wording or phrase is deliberately retained with untranslatable terms. Des Rochers and Twiss (2018) also criticize the confusion between these two concepts, distinguishing between untranslatable words that are linguistically – structurally – untranslatable, and deliberately untranslated words are left untranslated for reasons of cultural and aesthetic preservation rather than linguistic constraints.

In fact, even language-specific words, often denoted as untranslatable words, have their translations. Taking *han* (한) as an example, which, from a cultural perspective, can be understood as a culturally specific concept encompassing deep emotional experiences unique to Korean people, this illustrates how deeply culture shapes emotional expression. Its literal translation is impossible, but it is collectively understood as a "feeling of unresolved resentment, pain, grief, and anger" (Kim 2017: 254). Although this concept is often left untranslated, it does have a "translation." However, it is not direct, because in many languages it does not have an exact equivalent, and its meaning, or rather the description of its meaning, is often long and descriptive rather than exact and concise. As Weber (2008) writes, the text is transcoded rather than translated. Werner Koller (2004) also speaks in this

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context of paraphrasing rather than translation. Moreover, as research by Parthasarathi et al. (2021) shows, recipients tend to favor faithful translation over robust translation, which explains why the use of original words is often preferred.

In another case, recipients may encounter untranslated words in the media products precisely because of 'deliberative untranslatedness'. This is the deliberate decision to leave words in their original form without translation, thereby preserving the cultural effect of the text. Bergantino (2023) highlights various cultural reasons why some texts are untranslated or are left only partially translated, mentioning in particular cultural distance or particularities of the source culture, which often evoke a sense of exoticism and authenticity (ibid.), which further fuels the interest.

In the case of the film *KPop Demon Hunters*, it is necessary to refer to the words that were deliberately untranslated in order to preserve the cultural identity and linguistic reference to South Korea, where the story takes place. It was also intended to retain the names of elements that originate from Korean culture and mythology. By being in English but showcasing elements of South Korean culture and preserving expressive words that have English equivalents, the film emphasizes the role and position of South Korean culture in the global market. In a way, it can also be said that this is a response to the South Korean music industry, which often blends Korean lyrics with English phrases, while the film is in English and incorporates Korean words into the narrative and dialogue.

3. Methodology of research

As mentioned above, the material is subjected to analysis using four different analytical approaches: semiotic analysis according to Barthes, Hall's cultural semiotics, content analysis, and visual semiotics. Barthes' (1972) analysis forms the basis for understanding cultural context as a system of signs and meanings; however, the research does not adhere strictly to his terminology or distinct analytical approach. Rather, it focuses on how signs and symbols become carriers of meaning. This is further examined by S. Hall's (1997) cultural semiotics, which focuses on the societal dimension of the research, as it is relevant to analyzing how social positions, among other aspects, are created through cultural discourse. Moreover, the article also focuses on the symbolism of colors in E. T. Hall's (1959) understanding. Content analysis, which also includes the examination of narrative and its various components, such as characters, is important for further interpretation. Although multiple methodological approaches are used, the research focuses on cultural interpretation through signs and symbols within social and cultural contexts. Therefore, the results are presented through concise interpretative texts, which do not follow precisely defined analytical categories.

As part of our initial analysis, we identified the following Korean expressions: *gwima* (귀마), *honmoon* (혼문), *maknae* (막내), *kaja* (가자), *aish* (아이씨), *saja* (사자), *hoobae* (후배), *man nal lae* (만날래), and *oppa* (오빠). The research presents an analysis of identifiable Korean expressions – not yet defined in English dictionaries – included in the film *KPop Demon Hunters*. However, not all identified words and expressions are examined. Korean phrases and sentences, including those in songs, are excluded from analysis, as this aspect deserves separate research in the context of language globalization and the identification of ways of mixing English and Korean. Thus, the words *kaja*, translated into English as "let's go," *man nal lae*, translated into English as "Want to meet up?" or "Shall we meet?", and *aish*, which is an interjection expressing frustration, will be excluded from the analyzed terms. At the same time, we also exclude words that are defined in dictionaries such as the Oxford English Dictionary (s.a.). Words *oppa* and *maknae*, which have since been defined, are also ruled out.

4. Analysis of Korean expressions in *KPop Demon Hunters*

The following chapter focuses on identifying the social and cultural meaning of selected words that were identified in the narrative and dialogues of the film *KPop Demon Hunters*. In this chapter, we focus on the words *gwima, honmoon, hoobae,* and *saja*, and present the contextual and cultural meaning of these Korean expressions.

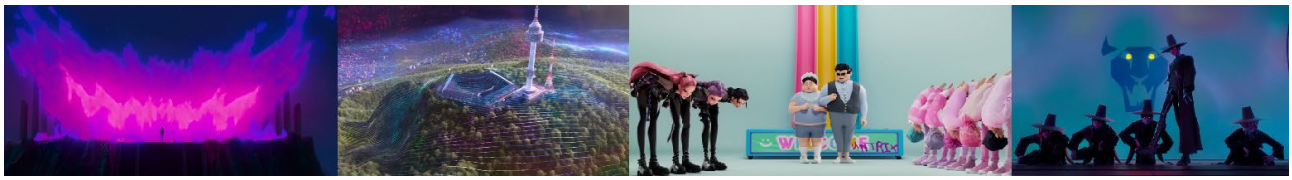

Figure 1. Visual representation of the analysed words *gwima, honmoon, hoobae,* and *saja*
Source: Own processing (from Kang & Appelhans 2025)

4.1 Gwima

Gwima, also written as 귀마 in Korean, is the main antagonist of the story. Gwima is the king of the Demon Realm. He is depicted as a pink-purple fiery mouth that can enlarge as needed, especially when laughing or angry.

The word gwima is derived from the hanja characters 鬼, which means ghost, and 魔, which means evil spirit (Gwi-ma s.a.). When the word is reversed to *ma – gwi*, it is also a Korean word for a being that has the ability to influence thoughts, especially turning them negative, and can compel people to commit evil deeds and acts. The character can be understood as a biblical devil or demon (Oh 2023), although magwi were known in Korean culture long before the introduction of Christianity. Similarly,

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within the narrative, Gwima has the ability to tempt, leading Jinu, the main character of the film, to abandon his family, but also to later betray Rumi. At the same time, his portrayal in the narrative as a mouth is important for understanding that Gwima does not do evil or physically harm others, but uses words, therefore his portrayal as a mouth, to influence others who act on his behalf. It is not surprising that the colors in which the flame of the mouth is drawn/animated are purple and pink. These are among the main colors used in animations to represent negative characters. Famous animated villainesses Maleficent, the Evil Queen, and Ursula are typically associated with the color purple, while other villainous characters, such as Thanos, were also of this color. Initially, negative characters were colored exclusively in black, but they began to be dressed in purple because it was an easier color to shade (Purple is the New... s.a.). What is interesting, however, is that film reflects Western depictions of negative heroes, and it is therefore clear that the work was created by a Western company, because South Korean villains are typically dressed in either black or red, which we do not see in this case.

Gwima plays an important role in the narrative because he symbolizes themes such as the struggle between good and evil, where he is the negative counterpart, while also pointing to human afflictions such as moral temptation (Jinu and his life of luxury in the palace) and the disruption of social harmony, which is highly valued in Confucianism. Confucian values suggest that family is the most important construct (apart from being a vassal to one's king), which is precisely what Gwima's temptation and Jinu's betrayal point to. Gwima also suggests that temptation will always be present in our surroundings and that it depends on moral purity and goodness whether we are able to resist that temptation.

4.2 Honmoon

Honmoon refers to a fictional soul gate, or a barrier that protects the human world from demons who seek to harm it. In Korean, *honmoon* is written as 혼문, but the term derives its meaning from hanja by combining the two words soul (魂) and gate (門). Within the narrative, we see the materialization of *honmoon* through a striped barrier that can take on a golden form. It acquires this form through fan support, i.e., love, and drives demons out of the world. The word *honmoon*, which is closely associated with traditional Chinese philosophy, refers to two important aspects. The word 魂 refers to the soul, which, if it dies through intentional harm or violent death, becomes a malevolent spirit whose goal is to harm the living (Wong 2023). The word 門 means gate, but also door. The meaning of a door is important because it keeps two different sides either closed or open, and therefore plays an important role. Among other things, it also signifies a transition, or a place that can maintain a

balance between two places. In the case of *KPop Demon Hunters*, these are two different worlds. However, maintaining *honmoon* is not a one-sided effort by *Huntr/x* and requires human effort. The power of *honmoon* is represented by the color yellow or gold, which in Korean culture symbolizes wealth, prosperity, and prestige, and in Chinese culture also symbolizes wealth, nobility, and good fortune (Allen 2025). At the end of the film, the color of the barrier is a rainbow, not golden as it used to be. This color is different from the originally anticipated one, as the original barrier breaks and falls apart, but *Huntr/x* creates and strengthens the new one, which is colorful, symbolizing acceptance and diversity as the main female lead, Rumi, is partially a demon. By strengthening *honmoon*, human well-being is also strengthened. It is therefore not surprising that the term 魂門 is also used in Chinese medicine as a point for acupuncture, which is connected to the soul and the feeling of well-being (Hunmen..., *s.a.*).

Honmoon does not only embody an abstract understanding of heroism, i.e., South Korean heroism that protects the world, but also strengthens the position of South Korean culture and people within global culture. It is not surprising that *honmoon* is protected by idols. On the contrary, the deliberate choice to use one of the most popular components of the globalization of hallyu, hides a metaphorical embodiment of Korean identity and its power. *Honmoon* embodies the ritual of cleansing the world of evil and elevates the main heroines to superheroes who can protect the world with their abilities. This is all the more interesting when it is considered that they use the power of soft power and depart from stereotypical (especially Western) heroes. It is no longer possible to say that only Western heroes save the world. In a figurative sense, this can also be understood through the popularity of K-pop, because just as the Western world and its productions were once dominant, today hallyu is becoming an important part of cultural globalization. The fact that Sony Animation Pictures has brought Korean superheroes to the West confirms the popularity of South Korean production and the culture it promotes.

4.3 Hoobae

Hoobae, or 후배 in Korean, typically refers to an individual who is newer to a group based on the construct of experience. Within the narrative, it is pointed out that *Huntr/x*, as seniors, came to greet their *hoobae*, the *Saja Boys*. The status of the *sunbae* and *hoobae* relationship is therefore based on a hierarchy of experience. *Sunbae*, or seniors, always have more experience than *hoobae*, their juniors.

In the *hoobae* status, social hierarchy is important, being based on the expectation of respect for *sunbae* (선배), who has more experience. In cases when *sunbae* are younger than *hoobae*, respect for

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those with more experience is expected. Confucianism teaches that experience takes precedence over age, although age remains important in social hierarchy and its structure. *Hoobae* are expected to respect their elders and those higher in the hierarchy, such as *sunbae*. *Hoobae* are usually understood as people who have a lot to learn and are still growing, so *sunbae* are expected to help them grow by mentoring them and giving them advice (Lee 2018). On the other hand, however, it is important to mention that such a relationship also has its own challenges, which stem from the *hoobae's* need to prove their abilities in a way that does not offend the abilities of their *sunbae*. It is a relationship based on the negotiation of respect, one's own abilities, and maintaining social order by maintaining politeness.

The relationship between *hoobae* and *sunbae*, in which *hoobae* occupies a lower hierarchical position, symbolizes the constant maintenance of society in a rigidly closed construct that dates back to the period of traditional Confucianism, rather than the more flexible system shaped by South Korea's contemporary globalization. Maintaining this relationship points to social harmony and respect based on the obligatory roles established by society. Their clearly defined roles indicate that while *sunbae* are supposed to provide guidance, *hoobae* are supposed to politely submit and accept everything taught. *Hoobae* are thus taught their exact place, which strengthens discipline. At the same time, under the mentorship of *sunbae*, both strive to achieve collective well-being, because *sunbae* lead *hoobae* in work and adaptation to social life.

4.4 Saja

The term *saja* (사자), which appears several times in the narrative, is associated with its translation from Korean and means lion. This is also visually represented by banners, posters, LED screens behind the group while they are performing, and other merchandise featuring a lion as a symbol.

The meaning of the word *saja* is relatively straightforward, as evidenced by the visual influences we see in scenes where the word or its embodiment is expressed. In Korean culture, *saja* is associated with the symbolism of strength, with primary connotations based on the characteristics of strength, courage, and protection. However, it is important to note that lions are not native to South Korea, nor were they native to the country in the past. Rather, they were adopted through cultural contact, particularly with China, although lions are not native to China either. Nevertheless, the lion is a symbol and an executor of warding off evil in various traditional dances and processions (A place of music... s.a.). It is interesting and ironic that the symbol of purification was used to name a group whose task is to bring "evil" to the world. Moreover, the word *saja* is also found in the mythological creatures *jeoseung saja* (저승사자), which are similar to Western grim reapers. Their task is to

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transport the souls of the deceased from the world to the afterlife. They are typically depicted wearing black hanbok, traditional Korean folk clothing, and a *gat*, a traditional hat. Similarly, in *KPop Demon Hunters*, we see that the members of the group wear similar clothing during scenes set in the world of demons and during the performance of the song "Your Idol". This points to a rather ironic double meaning, because while as *saja* – lions represent protection from evil, as *jeoseung saja* they are the very evil that many fear. On the other hand, it is interesting that in the human world, where they perform as *Saja Boys*, they are depicted in pastel colors, which refer to typical South Korean trends and the visuals of music videos from K-pop groups and idols. In the human world, the colors may look pastel and eye-catching, but if we look at their logo, for example, we see that they use purple and pink colors, which correspond exactly to those represented in the animation of Gwima, the king of the Demon Realm.

The meaning of *saja* or *jeoseung saja* points to a deeper problem in the South Korean music industry. It should be noted that what the *Saja Boys* represent and how they appear in public is not the same as who they really are. They show that the media image is different from the real one. This points to the duality of the lives of idols, who are different from the expectations of their fans because, in addition to their mission to be loved by their fans, they also try to bring them to ruin by having Gwima absorb their souls. This raises questions about the boundaries of parasocial relationships, expectations, and, above all, the commercialization of fan devotion.

5. Discussion and conclusion

The analyzed expressions from the film *KPop Demon Hunters* point to deeper Korean cultural contexts that persist in the South Korean consciousness to this day. Regardless of whether they refer to mythological elements or words of everyday use, they have a clear position within Korean culture. It is precisely the reflection of words that are linked to culture and disseminated to a wider – globalized – audience that points to a growing interest in Korean culture. The most suitable means for this are undoubtedly media products, which spread not only culture but also ideas that exist in society. They have even more impact if, within the narrative and dialogues, they present the viewer with original words that bring them closer to the culture they represent. This is similar to the animated film *Coco* (Unkrich 2017), which retained Spanish words from everyday life, such as *abuelita* (grandma), *mijo* (my son), and so on. Similarly to *Coco* (ibid.), *KPop Demon Hunters* also retained Korean words in order to create a sense of authenticity and fidelity to the culture depicted. The analyzed words, as well as words that have already entered the global language (i.e., coined words in dictionaries such as *maknae* and *oppa*) or parts of the narrative spoken in Korean, give viewers a sense of authenticity regardless of whether they are familiar with them.

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Fans who started watching the film because of its mention of K-pop, a Korean export article, understood the Korean words used in the work. For them, these words are mostly part of their everyday fan life or are words they commonly encounter. In particular, the use of words such as *maknae* or *hoobae* was not surprising. While the study focuses on lesser-known words such as *gwima, honmoon, hoobae,* and *saja*, other identified words and expressions – such as *maknae, aish, kaja, man nal lae,* and *oppa* – also play an important role in creating a sense of authenticity. However, just as non-fans, i.e., recipients who had minimal prior exposure to Korean popular culture, encountered some words for the first time, so did fans. Mixing well-known and lesser-known words offers both fans and non-fans an opportunity for cultural learning. This is particularly true with the word *honmoon*, which is not used in everyday Korean. What is even more interesting is that today, viewers of this film can be seen "strengthening the honmoon" on social media by singing or dancing to the songs featured in the film and using the Korean term for these acts. This showcases and proves the power of media when it comes to mediating language and culture.

Leaving Korean words in an American film set in South Korea was not only about cultural and linguistic authenticity, but also about cultural identity. The use of original words helps viewers empathize with the environment and life of the culture being presented, creating a sense of belonging to that culture among viewers, who may subsequently become fans. In this sense, audiences are creating a sense of belonging, which opens the door to other productions from that culture or a sincere fan relationship with the product (for more see, Stanko 2024). This subsequently increases diversity in global media production and acceptance among globalized audiences. In a way, it can be argued that the use of original – in this case, Korean – expressive words evoke a sense of authenticity in viewers, interest in the culture beyond superficial reception, and creates a positive relationship with South Korea, which in turn leads to the consumption of other Korean cultural products, thereby strengthening the *hallyu*.

Notes

The translation from Slovak and Korean into English was done by the author.

References

1. *A place of music and dance*. (s.a.). Available at: https://web.archive.org/web/20160305170936/http://jcedu.org/dispfile.php?id=909
2. Ahn, H. (2021). Spelling variations of translingual Korean English words. In *English today,* 37 (1), p. 42-49. DOI: http://doi.org/10.1017/S0266078419000336

3. Ahn, H. & Kiaer, J. (2023). Translingual English words of Korean origin and beyond: Skinship, fighting, chimaek. In *Asian Englishes,* 26 (1), p. 69-83. DOI: https://doi.org/10.1080/13488678.2023.2216866
4. Allen, A. *Chinese lucky colours and what they mean.* January 23, 2025. Available at: https://www.insightvacations.com/blog/chinese-culture
5. Ashrafova, I. (2024). Phonetic and lexical characteristics of German loanwords in English: A study on linguistic adaptation and cultural influence. In *Euroglobal journal of linguistics and language education,* 1 (2), p. 44-50. DOI: https://doi.org/10.69760/2xgtn820
6. Barthes, R. (1972). *Mythologies.* New York: The Noonday Press.
7. Bergantino, A. (2023). Translation and its fictions: Pseudotranslation and partial cultural translations in focus. In *The translator,* 30 (2), p. 249-264. DOI: https://doi.org/10.1080/13556509.2023.2251892
8. Calude, A. S., Miller, S. & Pagel, M. (2020). Modelling loanwords success – a sociolinguistic quantitative study of Maori loanwords in New Zealand English. In *Corpus linguistics and linguistic theory,* 16 (1), p. 29-66. DOI: https://doi.org/10.1515/cllt-2017-0010
9. Choi, J. (2015). Hallyu versus hallyu-hwa: Cultural phenomenon versus institutional campaign. In *Hallyu 2.0: The Korean wave in the age of social media.* Lee, S. & Nornes, A. M. (eds.). Ann Arbor: University of Michighan Press, p. 31-52.
10. De Rochers, A. & Twiss, R. (2018). Against untranslatability: Two translators' response to Emily Apter. In *Quaderna,* (4), p. 1-15. Available at: https://quaderna.org/wp-content/uploads/2018/12/DES-ROCHERS-TWISS-Against-Untranslatability.pdf
11. Francistyová, B. (2023). Acceptance of Korean cultural products in Slovakia: Multiculturalism, recipients and metaverse. In *Marketing identity: AI – The future of today.* Prostináková Hossová, M., Martovič, M. & Solík. M. (eds.). Trnava: Faculty of Mass Media Communication, University of Ss. Cyril and Methodius in Trnava, p. 88-94. DOI: https://doi.org/10.34135/mmidentity-2023-08
12. Francistyová, B. & Novanská Škripcová, L. (2024). *Korean drama: From Korean TV to global popularity.* Prague: Wolters Kluwer.
13. Gao, X. (2022). Significance of loanwords. In *Journal of contemporary education research,* 6 (1), p. 22-24. DOI: http://doi.org/10.26689/jcer.v6i1.2897
14. *Gwi-ma*. (s.a.). Available at: https://kpop-demon-hunters.fandom.com/wiki/Gwi-Ma
15. Hall, E. T. (1959). *The silent language.* New York: Doubleday & Company.
16. Hall, S. (1997). Introduction. In *Representation: Cultural representations and signifying practices.* Hall, S. (eds.). London – Thousand Oaks – New Delhi: Sage, p. 1-11.
17. *Hunmen*. (s.a.). Available at: https://www.meso.it/old.tcmwiki.com/wiki/%E9%AD%82%E9%96%80.html
18. Jung, H. (2017). Transnational media culture and soft power of the Korean wave in the United States. In *The Korean wave: Evolution, fandom, and transnationality.* Yoon, T.J. & Jin, D.Y. (eds.). Lanham – Boulder – New York – London: Lexington Books, p. 225-244.
19. Kang, M. & Appelhans, C. (Directors). (2025). *KPop demon hunters* [Film]. Sony Pictures Animation.
20. Karlik, M. (2023). Exploring the impact of culture on language learning: How understanding cultural context and values can deepen language acquisition. In *International journal of language, linguistics, literature and culture,* 2 (5), p. 5-11. DOI: https://doi.org/10.59009/ijlllc.2023.0035
21. Kiaer, J., Lord, E. & Kim, L. (2024). *The K-wave on screen: In words and objects*. Abingdon – New York: Routledge.

22. Kim, S. S. H. C. (2017). Korean han and the postcolonial afterlives of "The Beauty of Sorrow". In *Korean studies,* 41, p. 253-279. Available at: https://works.hcommons.org/records/ekkzb-9zr46/files/korean-han-postcolonial-afterlives.sshck_.pdf
23. Kim, Y. (2013). Introduction: Korean media in a digital cosmopolitan world. In *The Korean wave: Korean media go global.* Kim, Y. (ed.). London – New York: Routledge, p. 1-28. DOI: https://doi.org/10.4324/9781315859064
24. Koller, W. (2004). Untranslatable words – translatable texts? Or, translatable words – untranslatable texts? In *FORUM. International journal of interpretation and translation,* 2 (2), p. 59-72. DOI: http://doi.org/10.1075/forum.2.2.04kol
25. Lee, J. *Seven Korean words added to Oxford English dictionary.* January 8, 2025. Available at: https://www.korea.net/NewsFocus/Society/view?articleId=264601
26. Lee, N. K. (2018). Hubaeege Jeonhaneun Naui Geulsseugi. In *Teaching and learning*, 25, p. 51-54. Available at: https://s-space.snu.ac.kr/handle/10371/147552 / 이,내경. (2018). 후배에게 전하는 나의 글쓰기. In *가르침과 배움*, 25, p. 51-54. (in Korean)
27. Lie, J. (2012). What is the K in K-pop? In *Korea observer,* 43 (3), p. 339-363.
28. Magalová, L. (2024). Netflix – Globalization and platformization of television production. Trnava: University of Ss. Cyril and Methodius in Trnava, Faculty of Mass Media Communication. / Magalová, L. (2024). *Netflix – Globalizácia a platformizácia televíznej produkcie.* Trnava: Univerzita sv. Cyrila a Metoda v Trnave, Fakulta masmediálnej komunikácie. (in Slovak)
29. Ofori, J. A. D., Kabio-Danlebo, F. & Annoh-Achampong, M. (2024). Motivational factors and cultural impact of language immersion programmes: Perspectives from the University of Ghana. In *Legon journal of the humanities,* 35 (2), p. 41-72. DOI: http://doi.org/10.4314/ljh.v35i2.2s
30. Oh, J. H. (2023). *A study on the formation process of devil imagery in Korean Protestantism* [Dissertation thesis]. Seoul: Seoul National University. Available at: https://s-space.snu.ac.kr/bitstream/10371/197239/1/000000179597.pdf / 오, 준 혁. (2023). *한국 개신교의 마귀 표상의 형성 과정 연구* [Dissertation thesis]. Seoul: Seoul National University. (in Korean)
31. Onomejoh, P., Ehigie, D., Osakpolo, I. & Jimoh Junior, J.J. (2024). Navigating cultural sensitivity in translation: The role of interpersonal communication in translating sensitive narratives. In *Journal of science and knowledge horizons*, 4 (2), p. 204-229. DOI: https://doi.org/10.34118/jskp.v4i02.4020
32. *Oxford English dictionary*. (s.a.). Available at: https://www.oed.com/
33. Pan, Y. (2021). Analysis on the motives being a fan or fandom and the possible factor that some fans performed sasaengpaen/fanatical behavior. In *Proceedings of the 2021 international conference on social development and media communication (SDMC 2021).* Amsterdam – Paris: Atlantis Press, p. 258-261.
34. Parthasarathi, P., Sinha, K., Pineau, J. & Williams, A. (2021). Sometimes we want ungrammatical translations. In *Findings of the association for computational linguistics: EMNLP 2021*. Moens, M.-F., Huang, X., Specia, L. & Yih, S. W.-T. (eds.). Punta Cana: Association for Computational Linguistics, p. 3205-3227. DOI: http://doi.org/10.18653/v1/2021.findings-emnlp.275
35. *Purple is the new black.* (s.a.). Available at: https://tvtropes.org/pmwiki/pmwiki.php/Main/PurpleIsTheNewBlack
36. Savage, M. KPop Demon Hunters becomes Netflix's most-watched film with 236m views. In *The guardian.* August 26, 2025. Available at: https://www.theguardian.com/media/2025/aug/26/kpop-demon-hunters-netflix-most-watched-film-record

37. Stanko, D. (2024). From canon to fanon: A comparative study of fanfiction in Harry Potter and Naruto. In *Lege artis. Language yesterday, today, tomorrow*. Trnava: University of SS Cyril and Methodius in Trnava, IX (2), p. 91-105. DOI: https://doi.org/10.34135/lartis.24.9.2.06
38. Touhami, B. & Al-Haq, F. A.-A. (2017). The influence of the Korean wave on the language of international fans: Case study of Algerian fans. In *Sino-US English teaching,* 14 (10), p. 598-626. DOI: http://doi.org/10.17265/1539-8072/2017.10.004
39. Unkrich, L. (Director). (2017). *Coco* [Film]. Pixar Animation Studios.
40. Weber, S. (2008). *Benjamin's – abilities.* Cambridge, MA – London: Harvard University Press.
41. Wong, D. (2023). *Mind (heart-mind) in Chinese philosophy.* July 10, 2023. Available at: https://plato.stanford.edu/entries/chinese-mind/
42. Yang, J. (2012). The Korean wave (hallyu) in East Asia: A comparison of Chinese, Japanese, and Taiwanese audiences who watch Korean TV dramas. In *Development and society,* 41 (1), p. 103-147.
43. Yoon, K. (2022). *Diasporic hallyu: The Korean wave in Korean Canadian youth culture*. Cham: Palgrave Macmillan.

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TOWARDS A COGNITIVE-LEXICOLOGICAL APPROACH TO ONOMASTIC TERMINOLOGY: CROSS-LINGUISTIC INSIGHTS FROM ENGLISH, ITALIAN, POLISH, AND SLOVAK[1]

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Abstract: The article proposes a cognitively and lexically grounded perspective on onomastic terminology, i.e. the set of technical terms used to designate and classify types of proper names. Such terms function not only as taxonomic labels but also as cognitive tools that support conceptual structuring and epistemological framing within onomastic and interdisciplinary discourse. The study explores the motivated morphology, semantic transparency, as well as scientization and lexicalization patterns of selected terms across four languages: English, Italian, Polish, and Slovak.

Keywords: onomastic terminology, onomastic theory, cognitive linguistics, scientization, lexicalization, conceptual frames, language of science.

> *[…] the objective structure of reality is best described by the language of science, and everyday language is at best a weak derivative of scientific categorization, at worst a conceptual muddle teeming with philosophical pseudo-problems.*
>
> D. Geeraerts, "Prototype theory: Prospects and problems of prototype theory" (2006: 158).

1. Introduction

Onomastics, the linguistic discipline devoted to the study of proper names (onyms[1]), has long relied on an increasingly diversified body of terminology to describe and classify the wide range of naming phenomena (see e.g. Bezlaj et al. 1983; Buchko & Tkachova 2012; Caffarelli & Gagliardi 2018;

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Dorion & Poirier 1975; Witkowski 1964). Despite the evident taxonomic importance of this terminology (Blanár 2009: 85-88; Gałkowski 2022: 38-40; Witkowski 1995), the cognitive foundations reflected in lexical mechanisms of onomastic terms remain underexplored. This article proposes that onomastic – or rather "metaonomastic" (a category we call "names of the Names" – nofN; cf. Gałkowski 2022; 2024: 12; Włoskowicz 2015: 73) – terminology serves classificatory and referential purposes, while at the same time functioning as a cognitive tool for the scientific and general perception of name-related phenomena.

To date, no theoretical or lexicographic study has directly addressed the interplay between lexicological and cognitive aspects in the construction of entries and definitions in onomastic terminology (cf. e.g. Blanár 2002; Dvonč 1966; ICOS lists…; Morărașu 2020; Valentová et al. 2024). Nevertheless, it appears to be an implicit and indispensable component in the foundational considerations of terminology in onomastics as cognitively and culturally embedded items.

It must be noted, however, that within the framework of onomastic terminology – conceived both as a conceptual apparatus supporting the analytical tools of onomastics and as a distinct subfield situated at the intersection of various disciplines – there have also emerged tendencies that exceed the permissible boundaries of cognitively grounded approaches. This is particularly evident in the domain of name-referent relations and the status of the onomastic term itself, which is designed to define or mediate such relations and is framed as a metalinguistic notion (cf. Majtán 1979; Šrámek 2003). These tendencies often result in an overproduction of technicisms that hinder rather than support methodological clarity in onomastic studies.

2. Theoretical and methodological framework

Primarily, this research is anchored in terminology studies, especially in both the traditional descriptive model and the more recent sociocognitive approach. The former, as formulated by scholars such as Felber (1984) and Cabré (1999), focuses on the standardization, precision, and systemic coherence of terms in specialized discourse. The latter, exemplified by Temmerman (2000: 39-44) and L'Homme (2020; 2014), introduces context-sensitive, dynamic models of terminological variation, acknowledging the roles of the user, discourse, and communicative situations.

Secondly, the investigation is supported by cognitive approaches in contemporary lexicology, with an emphasis on word (name) formation, onomasiological patterns, and structural neology. These approaches enable us to trace the origin, evolution, and integration of onomastic terms within both specialized and everyday language, as influenced by various scientific paradigms and methodological

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frameworks (Csabi & Kövecses 2014; Kageura 2002; Manuale di terminologia… 2002; Thelen 2021).

The scientization of onomastic terminology entails both its diffusion within academic discourse and its epistemological legitimation, whereas lexicalization reflects its entrenchment in the linguistic system and usage. These processes are, in fact, complementary: while they unfold at different levels – conceptual legitimation and linguistic stabilization – they equally stem from the dynamics of scientific discourse.

The analysis focuses on 66 selected (meta)onomastic terms attested in usage, considering their occurrence in both specialised linguistic and general discursive contexts across English, Italian, Polish, and Slovak. Degrees of scientization and lexicalization, as presented in Table 2, were established based on combined criteria: absolute frequency, breadth of distribution across registers, and collocational productivity. Google was employed as a heuristic search tool to identify occurrences in non-standardised or emergent usage domains. Contextual reading was applied to exclude irrelevant or metaphorical usages and to verify that the identified instances reflect the intended terminological sense.

2. Interdisciplinary context

In light of the previously outlined theses and theoretical framework, it is worth considering whether the present reflections – positioned at the crossroads of scientific terminology (particularly onomastic) and cognitive linguistics, or more broadly cognitive science – may be regarded as part of the emerging current of cognitive onomastics (Karpenko 2006; Reszegi 2022a; 2022b; 2023). It must be emphasized that the focus here is not on the cognitive nature of proper names themselves, but markedly on the common and terminological names (i.e., metalinguistic terms) that allow proper names to be conceptually classified into categorical systems.

Taking into account our previously formulated postulate to recognize onomastic terminology as an integral subfield of onomastics (Gałkowski 2024; cf. Harvalík & Caffarelli 2007; Harvalík & Valentová 2018), it follows that its analysis through a cognitive lens constitutes a scientifically valid interdisciplinary framework, which displays a degree of autonomy within the context of both the onomastic studies, on the one hand, and the cognitive research, on the other. In the latter context, the theoretical scope of such an analysis should be situated within the broader conceptual field of cognitive terminology studies – a relatively recent direction within terminological research that incorporates the insights from cognitive science into terminology as a general and applied scientific

discipline (see, e.g., A cognitive linguistics view… 2012; Aspects of cognitive terminology… 2024). This orientation also aligns with emerging perspectives that advocate cognitively informed analytical frameworks across various branches of terminology.

3. Cognitive and semantic structures of onomastic terms

Onomastic terminology, though often perceived as a set of descriptive labels used to categorize proper names, in fact encapsulates intricate semantic and pragmatic values. These values go beyond mere denotation and reflect how speakers cognitively organize their knowledge of the world of names. It is worth recalling that "terminology […] considers that the concept, which is its main focus, is prior to the name and can be conceived of independently from the name or term that represents it" (Cabré 1999: 33). Each onomastic term within this onomasiological system triggers the activation of complex conceptual domains, such as geography, demographic administration, economic exchange, socio-professional and cultural achievements, etc. (cf. Table 1). These domains are not arbitrary but deeply rooted in civilizational and cognitively salient experiences, which vary across cultural-linguistic areas, and across current and historical contexts.

Moreover, onomastic terms do not function in isolation; rather, they serve as condensed semantic frames (in the sense of Fillmore 1982) that anchor proper names within broader conceptual and communicative structures. They operate as cognitive facilitators, granting access to pre-established informational schemata, interpretive scripts, and inferential frameworks – initially intended for domain-specific experts, yet increasingly accessible to non-specialist language users as well.

From a cognitive perspective, onomastic terms can therefore be seen as scientized and lexicalized conceptual schemas that support linguistic processing and simultaneously epistemological categorization. Their meaning is not solely a product of formal definition, but emerges from a combination of etymological transparency, semantic motivation, usage-based reinforcement, and cultural embedding.

3.1 Prototype theory and category structure

Many onomastic terms correspond to radial or prototype-based category models rather than strictly delineated taxonomic hierarchies (cf. Brugman & Lakoff 2006; Geeraerts 2006; Rosch 1978; Wierzbicka 1996). This means that within a given onomastic category, certain name categories are cognitively perceived as more typical, prominent, or representative than others, while peripheral cases are more marginal or contextually dependent, yet equally pertinent.

For instance, the category of *anthroponyms* (It. *antroponimi*, Pl. *antroponimy*, Sk. *antroponymá*) includes prototypical personal names such as given names (*John*, *Anna*) or surnames (*Smith*, *Nowak*), as well as encompasses less central types such as stage names, pseudonyms, nicknames, or even usernames in digital discourse (cf. Ainiala et al. 2012: 124-201; Lawson 2016).

The same escalation can be observed in other onomastic domains. In the category of *toponyms* (It. *toponimi*, Pl. *toponimy*, Sk. *toponymá*), prototypical instances include names of physical and natural features (e.g., *Vistula*, *Tatra Mountains*) and inhabited places (*Paris*, *Kraków*), whereas street names, building names, or infrastructural microtoponyms may be cognitively peripheral, especially when their semantic transparency or recognizability is limited (cf. Tent & Blair 2009). In the case of *chrematonyms* (It. *crematonimi*, Pol. *chrematonimy*, Sk. *chrématonymá*) – referring to names of material and non-material or symbolic cultural products – prototypical examples include well-known brand names (e.g., *Apple*, *Coca-Cola*) or institutions names with widespread recognition (e.g., *Vatican Museums*, *UNESCO*). However, this category also extends to major or minor and context-bound items such as temporary event labels, names of fictional objects, and different identifiers (titles of artistic works, scientific projects, sport competitions, social initiatives, religious and non-religious holidays and festivals, etc.; e.g., *the Mona Lisa*, a painting by Leonardo da Vinci; *Wimbledon*, an international tennis tournament; *International Women's Day*, a civil awareness festival) whose classification depends heavily on domain-specific salience and cultural-pragmatic relevance (cf. Gałkowski 2018). Similarly, the category of *cosmonyms* or *astronyms* (names of celestial bodies or structures) comprises as its core units the canonical astronomical names (*Mars*, *Milky Way*), while also encompassing marginal and specialized designations, such as those found in cosmic object catalogues, artificial satellite programs, or fictional astronomy within literary texts.

3.2 Terminological economy and motivated morphology

Terms such as *choronym* (< Gr. χώρα *chṓra* 'territory/state'; denoting the proper name of a country or region – It. *coronimo*, Pl. *choronim*, Sk. *choronymum*) or *zoonym* (< Gr. ζῷον *zôon* lit. 'something alive; animal; living creature'); designating the individual name of a non-human animate being – It. *zoonimo*, Pl. *zoonim*, Sk. *zoonymum*) exemplify a broader trend in onomastic terminology: the reliance on etymologically motivated, morphologically transparent lexical formations rooted in classical languages.

This type of morphological structuring aligns with the principle of terminological economy (cf. Antia 2000: 131) – the ability to express complex, specialized concepts in a concise, systematic, and cognitively efficient manner. The use of classical roots contributes to international comprehensibility

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across linguistic traditions, while simultaneously supporting semantic cohesion within the onomastic terminological system.

The structure of these terms typically follows a bimorphemic compound model: basically, a Greek or Latin root indicating the semantic field (e.g., *choro-* for territory, *zoo-* for animal, *anthropo-* for human being, *hydro-* for bodies of water; cf. Table 1) followed by a standardized lexical component *-onym* (cf. note 1) marking the onomastic function.

Moreover, such formations exhibit a desirable potential for scientization and lexicalization, as their internal motivation and analogical structure enable:

1. regular derivational productivity (e.g. *hydronym → hydronymic*; It. *idronimo → idronimico*; Pl. *hydronim → hydronimiczny*; Sk. *hydronymum → hydronymický*);
2. cross-linguistic borrowability, standardization, and decisions by national onomastic bodies (within the frameworks of the ISO/TC 37 Language and Terminology Technical Committee or the ICOS Terminology Working Group; cf. ICOS lists…);
3. semantic coherence with related disciplines (e.g. geography, biology, ethnolinguistics, anthropology, cultural studies, discourse studies, economics, etc.).

In contrast to opaque or arbitrarily coined terms, morphologically motivated onomastic terms often gain quicker acceptance into general or semi-specialized discourse, especially within typologies, official documents, media texts, and educational materials. Their transparent morphology facilitates knowledge transfer within academic settings not only in institutional but also in public-oriented communication.

3.2.1 Structurally motivated onomastic formations

As stated, onomastic terms constructed on the basis of classical morphemes exhibit a high degree of morphological motivation, terminological economy, and cross-linguistic transparency: they directly reflect the conceptual content they denote (basically, the type of the denominated object or the onomastic nature of denominations).

From the perspective of cognitive linguistics, this motivated morphology supports both vertical knowledge structuring (system-internal relationships between types of names) and horizontal semantic extension (shared root elements across disciplines). Furthermore, the terminological economy of such forms, i.e. their ability to express complex referential categories with minimal

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morphological material, increases their potential for lexicalization beyond specialist circles. The analogy-based productivity of these formations also reinforces their presence in diverse registers.

3.2.2 Overview of morphologically transparent onomastic terms

To empirically substantiate the claims outlined in section 3.2.1, the following section presents a systematically compiled multilingual dataset of onomastic terms that conform to the principles of morphological motivation and terminological economy.

This typological sample facilitates cross-linguistic comparison and demonstrates the regularity of term formation in scientific discourse. From a cognitive perspective, the formal and semantic predictability of these units reflects schematic morphological processing and supports the acquisition of terminological knowledge across languages, as evidenced in the Table 1 below.

The table comprises four columns:

A: multilingual equivalents of each term;

B: terminological meaning anchored in the onomastic system;

C: etymology of the term;

D: extra-onomastic, general or specialized, lexical items derived from the same root element.

Table. 1. Cognitively salient structures in multilingual onomastic terminology. Source: Own processing

No.	A	B	C	D
1.	En. *abionym* / It. *abionimo* / Pl. *abionim* / Sk. *abionymum*	nofN of a non-living object	Gr. ἄβιος *ábios* 'inanimate'	*abiological, abiotic, abiosis, abiogenesis*
2.	En. *actionym* / It. *aziononimo* / Pl. *akcjonim* / Sk. *akcionymum*	nofN of an event or action	Lat. *actio* 'action'	*action, reaction, interaction*
3.	En. *anoikonym/anoiconym* / It. *anoiconimo/anoikonimo* / Pl. *anojkonim* / Sk. *anojkonymum*	nofN of an uninhabited place	Gr. ἄ- (*a-*) 'not' + οἶκος *oîkos* 'house'	See *oikonym/oiconym*
4.	En. *anthroponym* / It. *antroponimo* / Pl. *antroponim* / Sk. *antroponymum*	nofN of a human being	Gr. ἄνθρωπος *ánthrōpos* 'human'	*anthropology, anthropoid, anthropomorph*
5.	En. *astronym* / It. *astronimo* / Pl. *astronim* / Sk. *astronymum*	nofN of a celestial body	Gr. ἄστρον *ástron* 'star'	*astronomy, astronaut, astrophysics*
6.	En. *bionym* / It. *bionimo* / Pl. *bionim* / Sk. *bionymum*	nofN of a living organism	Gr. βίος *bíos* 'life'	*biology, biome, biotic*
7.	En. *campanonym* / It. *campanonimo* / Pl. *kampanonim* / Sk. **kampanonymum*	nofN of a bell (religious or civic)	Lat. *campana* 'bell'	It./En. *campanile, campanology*
8.	En. *choronym* / It. *coronimo* / Pl. *choronim* / Sk. *choronymum*	nofN of a region or country	Gr. χώρα *chṓra* 'territory/state'	*chorograph, chorometry, chorogram*
9.	En. *chrematonym* / It. *crematonimo* / Pl. *chrematonim* / Sk. *chrématonymum*	nofN of a commercial product or brand	Gr. χρήμα *chrḗma* 'thing, good'	*chrematistics, chrematology, chrematophobia, chrematistophilia*
10.	En. *chromonym* / It. *cromonimo* / Pl. *chromonim* / Sk. **chromonymum*	nofN based on color	Gr. χρῶμα *khrôma* 'color'	*chromatic, chromaticity*

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11.	En. *chrononym* / It. *crononimo* / Pl. *chrononim* / Sk. *chrononymum*	nofN of a time period or date	Gr. χρόνος *khrónos* 'time'	*chronology, chronicle, synchronous*
12.	En. *cryptonym* / It. *criptonimo* / Pl. *kryptonim* / Sk. *kryptonymum*	secret or coded nofN	Gr. κρυπτός *kryptós* 'hidden'	*cryptic, cryptography, encrypt*
13.	En. *dendronym* / It. *dendronimo* / Pl. *dendronim* / Sk. *dendronymum*	nofN of a tree	Gr. δένδρον *déndron* 'tree'	*dendrology, dendrite, rhododendron*
14.	En. *documentonym* / It. *documentonimo* / Pl. *dokumentonim* / Sk. *dokumentonymum*	nofN of a document	Lat. *documentum* 'teaching, proof'	*document, documentation*
15.	En. *drymonym* / It. *drimonimo* / Pl. *drymonim* / Sk. *drymonymum*	nofN of a forest	gr. δρυμός *drymós* 'forest'	In biological taxonomy, e.g. *Pseudodrymus*, *Mimodrymus*
16.	En. *ecclesionym* / It. *ecclesionimo* / Pl. *eklezjonim* / Sk. *eklézionymum*	nofN of a church or ecclesiastical entity	Gr. ἐκκλησία *ekklēsía* 'assembly, church'	*ecclesiastical, ecclesiology*
17.	En. *emporionym* / It. *emporionimo* / Pl. *emporionim* / Sk. *emporionymum*	nofN of a market or trade place	Gr. ἐμπόριον *empórion* 'market'	En. *Emporium*; It. *emporio*
18.	En. *endonym* / It. *endonimo* / Pl. *endonim* / Sk. *endonymum*	nofN used by local people	Gr. ἔνδον *éndon* 'inside'	*endogenous, endoscope, endorse*
19.	En. *enonym* / It. *enonimo* / Pl. *enonim* / Sk. *enonymum*	nofN of a wine or wine brand	Gr. οἶνος *oînos* 'wine'	*oenology, oenophile*
20.	En. *ergonym* / It. *ergonimo* / Pl. *ergonim* / Sk. *ergonymum*	nofN of a business or working entity	Gr. ἔργον *érgon* 'work'	*ergonomic, ergonomics*
21.	En. *ethnonym* / It. *etnonimo* / Pl. *etnonim* / Sk. *etnonymum*	nofN of an ethnic group	Gr. ἔθνος *éthnos* 'nation, people'	*ethnic, ethnology, ethnography*
22.	En. *exonym* / It. *esonimo* / Pl. *egzonim* / Sk. *exonymum*	nofN given to a physical feature in a foreign language	Gr. ἔξω (éxō) 'outside'	*exotic, exoskeleton, exogenous, exodus*
23.	En. *fictionym* / It. *fiktonimo* / Pl. *fiktonim* / Sk. *fiktonymum*	nofN of a fictional character or place	Lat. *fictio* 'fiction, invention'	*fiction, fictitious, fictional*
24.	En. *gephyronym* / It. *gefironimo* / Pl. *gefironim* / Sk. **gefironymum*	nofN of a bridge	Gr. γέφυρα *géphira* 'bridge'	*gephyrophobia*
25.	En. *geonym* / It. *geonimo* / Pl. *geonim* / Sk. *geonymum*	nofN of a geographical entity	Gr. γῆ *gê* 'earth, land'	*geography, geology, geosphere*
26.	En. *glottonym* / It. *glottonimo* / Pl. *glottonim* / Sk. *glottonymum*	nofN of a language	Gr. γλῶττα *glôtta* 'tongue, language'	*glottal, polyglot, epiglottis*
27.	En. *hagionym* / It. *hagionimo* / Pl. *hagionim* / Sk. *hagionymum*	nofN of a saint or sacred figure	Gr. ἅγιος *hágios* 'holy, sacred'	*hagiography, hagiology, hagiographic*
28.	En. *helonym* / It. **elonimo* / Pl. *helonim* / Sk. *helonymum*	nofN of a swamp or wetland area	gr. έλος *elos* 'swamp'	*helophyte, helobiome*
29.	En. *heortonym* / It. *heortonimo* / Pl. *heortonim* / Sk. *heortonymum*	nofN of a holiday or religious feast	Gr. ἑορτή (heortḗ) 'feast, festival'	*heortology* (rare), *heortologion*
30.	En. *hipponym* / It. *ipponimo* / Pl. *hipponim* / Sk. **hipponymum*	nofN of a horse	Gr. ἵππος *híppos* 'horse'	*hippodrome, hippology, hippotherapy*
31.	En. *hodonym* / It. *odonimo* / Pl. *hodonim* / Sk. *hodonymum*	nofN of a street or road	Gr. ὁδός *hodós* 'way, road'	*odometer/odograph, method, exodus*
32.	En. *hydronym* / It. *idronimo* / Pl. *hydronim* / Sk. *hydronymum*	nofN of a body of water in the landscape	Gr. ὕδωρ *hýdōr* 'water'	*hydrology, dehydrate, hydrogen*
33.	En. *ideonym* / It. *ideonimo* / Pl. *ideonim* / Sk. *ideonymum*	nofN of an artistic work	Gr. ἰδέα *idéa* 'idea, form'	*ideology, ideal, ideogram*
34.	En. *idionym* / It. *idionimo* / Pl. *idionim* / Sk. *idionymum*	nofN of a particular person	Gr. ἴδιος *ídios* 'own, personal'	*idiom, idiosyncrasy, idiolect*

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35.	En. *institutionym* / It. *istituziononimo* / Pl. *instytucjonim* / Sk. *inštitúcionymum*	nofN of an institution	Lat. *institutio* 'establishment, institution'	*institution, institutional, institute*
36.	En. *kynonym/cynonym* / It. *cinonimo* / Pl. *kynonim* / Sk. *kynonymum*	nofN of a dog	Gr. κύων *kýōn* 'dog'	*cynology/kynology, cynic*
37.	En. *limnonym* / It. *limnonimo* / Pl. *limnonim* / Sk. *limnonymum*	nofN of a lake	Gr. λίμνη *límnē* 'lake'	*limnology, limnic, limnetic*
38.	En. *markonym* / It. *marchionimo* / Pl. *markonim* / Sk. *markonymum*	nofN of a commercial product or brand	En. *mark* 'label, sign' (Germanic root)	*trademark, marketing, hallmark*
39.	En. *metronym* / It. *metronimo* / Pl. *metronim* / Sk. *metronymum*	nofN derived from a mother or maternal ancestor	Gr. μήτηρ *mḗtēr* 'mother'	*matronymic, metropolis, metritis*
40.	En. *mythonym* / It. *mitonimo* / Pl. *mitonim* / Sk. *mitonymum*	nofN used in mythology	Gr. μῦθος *mŷthos* 'myth, story'	*mythology, mythic, mythos*
41.	En. *naonym* / It. *naonimo* / Pl. **naonim* / Sk. **naonymum*	nofN of a boat/ship	gr. ναύς *naús* 'ship, boat'	*nautical, nautics, astronaut*, En./It. *naumachia*
42.	En. *nesonym* / It. *nesonimo* / Pl. *nesonim* / Sk. **nesonymum*	nofN of an island	Gr. νῆσος *nêsos* 'island'	*nesology* (rare), *Polynesia, Indonesia*
43.	En. *oikonym/oiconym* / It. *oiconimo/oikonimo* / Pl. *ojkonim* / Sk. *ojkonymum*	nofN of an inhabited settlement	Gr. οἶκος *oîkos* 'house, dwelling'	*economy, ecology*
44.	En. *oronym* / It. *oronimo* / Pl. *oronim* / Sk. *oronymum*	nofN of a mountain or hill	Gr. ὄρος *óros* 'mountain'	*orography, orogeny, orogenetic*
45.	En. *pelagonym* / It. *pelagonimo* / Pl. *pelagonim* / Sk. *pelagonymum*	nofN of a sea	Gr. πέλᾰγος *pélagos* 'sea'	*pelagic*, *archipelago* (semantic connection)
46.	En. *pharmaconym* / It. *farmaconimo* / Pl. *farmakonim* / Sk. *farmakonymum*	nofN of a medicinal substance or drug	Gr. φάρμακον *phármakon* 'drug, remedy'	*pharmacy, pharmacology, pharmaceutical*
47.	En. *phytonym* / It. *fitonimo* / Pl. *fitonim* / Sk. *fytonymum*	nofN of a plant	Gr. φυτόν *phytón* 'plant'	*phytology, phytoplankton, phytochemical*
48.	En. *pinaconym* / It. *pinaconimo* / Pl. *pinakonim* / Sk. *pinakonymum*	nofN of a painting or image	Gr. πίναξ *pínax* 'tablet, picture'	*pinacotheca, pictorial* (via Latin)
49.	En. **pyrgonym* / It. *pirgonimo* / Pl. *pirgonim* / Sk. **pirgonymum*	nofN of a tower or fortified structure	Gr. πύργος *pýrgos* 'tower'	*pyrgos, pyrgom, pyrgoidal, pyrgology*
50.	En. *planetonym* / It. *planetonimo* / Pl. *planetonim* / Sk. *planétonymum*	nofN of a planet	Gr. πλανήτης *planḗtēs* 'wandering, planet'	*planetarium, planetary, planetoid*
51.	En. *poetonym* / It. *poetonimo* / Pl. *poetonim* / Sk. *poetonymum*	nofN of a fictional individual or object in literary world (literary name)	Gr. ποιητής *poiētḗs* 'poet, maker'	*poetry, poetical, poetics*
52.	En. *poreionym* / It. *poreionimo* / Pl. *porejonim* / Sk. *porejonymum*	nofN of a means of transportation / transport service	gr. πορεία *poreia* 'trip, passage'	*aporia, poreutic*
53.	En. *potamonym* / It. *potamonimo* / Pl. *potamonim* / Sk. *potamonymum*	nofN of a river or stream	Gr. ποταμός *potamós* 'river'	*potamology, potamic, potamography, potamophobia*
54.	En. *pragmatonym* / It. *pragmatonimo* / Pl. *pragmatonim* / Sk. *pragmatonymum*	nofN of a commercialized object or thing	Gr. πρᾶγμα *prâgma* 'thing, deed'	*pragmatic, pragmatism, pragmatology*
55.	En. *pseudonym* / It. *pseudonimo* / Pl. *pseudonim* / Sk. *pseudonym*	nofN of a person or other object created fictitiously	Gr. ψευδής *pseudḗs* 'false'	*pseudoscience, pseudonymity, pseudepigraph*
56.	En. *ruronym* / It. *ruronimo* / Pl. *ruronim* / Sk. **ruronymum*	nofN of a village / rural place	Lat. *ruris* 'countryside'	*rural, rustic, rurban*
57.	En. *serionym* / It. *serionimo* / Pl. *serionim* / Sk. *sérionymum*	nofN of a commercialized	Lat. *series* 'row, sequence'	*series, serial, serialization*

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		objects produced in series		
58.	En. *speleonym* / It. *speleonimo* / Pl. *speleonim* / Sk. *speleonymum*	nofN of a cave	Gr. σπήλαιον *spḗlaion* 'cave'	*speleology, spelunking, speleothem*
59.	En. *thalassonym* / It. *talassonimo* / Pl. *talasonim* / Sk. *talasonymum*	nofN of a sea or marine body	Gr. θάλασσα *thálassa* 'sea'	*thalassocracy, thalassophobia, thalassic*
60.	En. *theonym* / It. *teonimo* / Pl. *teonim* / Sk. *teonymum*	nofN of a deity or divine being	Gr. θεός *theós* 'god'	*theology, theism, theogony*
61.	En. *toponym* / It. *toponimo* / Pl. *toponim* / Sk. *toponymum*	nofN of a place	Gr. τόπος *tópos* 'place'	*topography, topos, topical*
62.	En. *tyronym* / It. *tironimo* / Pl. *tyronim* / Sk. *tyronymum*	nofN of a cheese brand	Gr. τυρός *tyrós* 'cheese'	*tyrosine, tyrophile*
63.	En. *unicatonym* / It. *unicatonimo* / Pl. *unikatonim* / Sk. *unikátonymum*	nofN of a unique or one-of-a-kind entity	Lat. *unicus* 'only, unique'	*unique, unification, unicameral*
64.	En. *urbanonym* / It. *urbanonimo* / Pl. *urbanonim* / Sk. *urbanonymum*	nofN of a place or object in the urban space	Lat. *urbanus* 'of the city'	*urban, suburban*; see also *urbonym*
65.	En. *urbonym* / It. *urbonimo* / Pl. *urbonim* / Sk. *urbonymum*	nofN of a city or town	Lat. *urbs* 'city'	*urbanism, urbanization, urbanist, urbanity*
66.	En. *zoonym* / It. *zoonimo* / Pl. *zoonim* / Sk. *zoonymum*	nofN of an animal	Gr. ζῷον *zôion* 'animal'	*zoology, zooid, zoonosis*

The sample of 66 entries systematized in Table 1 provides empirical evidence of onomastic and morphological regularity while also illustrating how motivated morphemes function as cognitive markers in the formation, categorization, and interpretation of name types. It reveals the interdisciplinary versatility of roots such as *bio-*, *topo-*, *ethno-*, *chrono-*, etc., and confirms the potential for the scientization and lexicalization of these formations across multiple discourses (geographical, zoological, administrative, medical, religious, fictional, etc.).

Terminological onomastic units expand the lexical realizations of already familiar word-formation bases, even if they are often regarded as neologisms or "occasionalisms", and are rarely attested in general-language dictionaries.

Onomastic terminology constitutes a specialized, relatively hermetic and esoteric system, yet one endowed with substantial taxonomic potential in onomastic research and broader interdisciplinary relevance across the humanities. The internal structure of these terminological units reflects schema-based conceptualization and analogy-driven categorization, making them cognitively transparent despite their specialized nature.

4. Discussion on scientization and lexicalization processes of onomastic terms

Building on the formal typology and motivated morphology discussed in Section 3.2, this chapter develops an explicitly cognitive and epistemological account of how onomastic terms evolve from morphologically transparent constructs into functionally embedded lexical units. The

morphosemantic clarity outlined in Table 1 enhances cross-linguistic comparability while contributing decisively to the embedding of these terms within broader discursive frameworks. Their cognitive value lies in their capacity to support categorization processes, foster schema construction, and reinforce conceptual cohesion at the interdisciplinary level. More importantly, these processes should be understood in the context of the increasing scientization of naming research: the transformation of intuitive, descriptive observations into structured, theoretically framed knowledge categories, built on formalized terminologies.

4.1 Morphological transparency and conceptual categorization

Onomastic terms based on classical morphemes, especially bimorphemic compounds, display a high degree of semantic motivation. Their internal structure serves as a conceptual map. This transparency supports efficient categorization in the sense of cognitive linguistics, reflecting prototype theory (Rosch 1978) and schematic processing (Langacker 2008). Onomastic terms provide cognitive shortcuts for understanding complex naming phenomena.

4.2 Scientization and lexicalization patterns across languages and registers

Although many onomastic terms originate in specialized discourse, some display clear signs of lexicalization across multiple registers. Corpus evidence confirms the diffusion of certain forms (*anthroponym*, *chrematonym*, *toponym*, *hydronym*, etc.) into administrative, journalistic, and literary registers, while others (*ergonym*, *tyronym*, *pinaconym*, etc.) remain restricted to academic, i.e. specialized usage. These latter terms are used primarily within onomastic discourse, however, since onomastics is inherently an interdisciplinary field, this discourse draws from various sources and extends into multiple domains.

Scientization and lexicalization are assessed here based on three main criteria: frequency of occurrence in large general usage and in specialized or semi-specialized contexts accessible via Google, breadth of register penetration, and cross-linguistic presence.

The frequency disparities across English, Italian, Polish, and Slovak indicate varying degrees of lexical entrenchment, both in scientific discourse and in general language. Viewed from this perspective, scientization and lexicalization transcend the domain of usage frequency and encompasses cognitive factors such as the structural compatibility of terms with pre-existing conceptual schemas, which facilitates their assimilation and reiteration. Moreover, scientization as a socio-discursive process reinforces this diffusion by institutionalizing such terms through academic curricula, publication practices, and terminological standardization efforts.

The table below (Table 2) presents the degree of scientific entrenchment and lexicalization of our corpus of selected onomastic terms across four languages, based on textual sources in examined linguistic areas as well as the broader retrievability of these terms across the contexts through open-access Google searches, serving as indicators of diffusion and discursive visibility.

The comparative data reveal a stratified pattern of scientization and lexicalization among onomastic terms across English, Italian, Polish, and Slovak occurrences, organized in four scale-grade categories (from 0 to 10+; cf. Table 2):

{I} Fully lexicalized and widely entrenched in scientific discourse terms (9 terms). This group includes onomastic terms that have reached a high degree of lexicalization (between 9 and 10 or greater), appearing in diverse contexts of the examined materials. The terms are: *anthroponym*, *cryptonym*, *ethnonym*, *exonym*, *phytonym*, *hodonym/odonym*, *hydronym*, *pseudonym*, *toponym* and *zoonym*. These terms demonstrate not only high frequency in scientific and other contexts but also broad register penetration, confirming their full integration into shared lexicon. Their entrenched status likely stems from their semantic transparency, historical continuity, and broad applicability across academic, administrative, and public domains.

{II} Moderately scientized and lexicalized terms (13 terms). This category includes terms that show a moderate level of lexicalization and scientization in interdisciplinary area, with degrees ranging from 5 to 8 in at least one language. The terms are: *chrematonym*, *endonym*, *ergonym*, *hagionym*, *ideonym*, *idionym*, *mythonym*, *oikonym/oiconym*, *oronym*, *poetonym*, *theonym*, *urbanonym*, *urbonym*. These items demonstrate recognizable usage and partial institutionalization, particularly within specific subfields of onomastics.

{III} Marginally scientized and lexicalized terms (21 terms marked). This group consists of terms with degrees from 2 to 4 across the investigated material. These include: *actionym*, *anoikonym/anoiconym*, *astronym*, *bionym*, *choronym*, *chrononym*, *ecclesionym*, *fictionym*, *geonym*, *glottonym*, *heortonym*, *institutionym*, *markonym*, *pharmaconym*, *planetonym*, *potamonym*, *pragmatonym*, *speleonym*, *thalassonym*, *limnonym*. These terms may be considered marginally lexicalized and appear predominantly in scholarly or terminological discussions, with limited presence beyond specialized contexts.

{IV} Minimally scientized and or non-lexicalized/rare terms (23 terms). The largest group comprises terms that appear with the degree 0/1 or 1 in each of the four linguistic areas. They include: *abionym*, *campanonym*, *chromonym*, *cynonym/kynonym*, *dendronym*, *documentonym*, *drymonym*, *emporionym*, *enonym*, *gephyronym*, *helonym*, *hipponym*, *metronym*, *naonym*, *nesonym*, *pelagonym*, *pinaconym*, *poreionym*, *pyrgononym*, *ruronym*, *serionym*, *tyronym*, *unicatonym*. These forms tend to occur only sporadically or remain confined to terminological discourse, with little to no presence in

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general and interdisciplinary language registers. Their low scores reflect both limited conceptual necessity and low intertextual visibility. They are often theoretical, archaic or novel, or limited to narrow scholarly application, lacking broader discursive circulation.

In terms of linguistic distribution, Polish and Slovak display the highest number of terms with medium to high scientization and lexicalization (scores of 5–10), indicating a stronger tradition of onomastic scholarship and possibly a broader acceptance of terminological variation in academic and public usage. English shows the most polarized distribution, with many low-frequency terms alongside several instances of lexical saturation (10+), reflecting both the productivity and the asymmetries of English academic and general lexicon. Italian occupies an intermediate position, showing comparable scores and usage patterns to English, predominantly confined to scholarly and formal texts. In all languages, the absence of certain terms must also be acknowledged, though this does not exclude their occasional adaptation from another linguistic domain.

The results support the hypothesis that the scientization and lexicalization of onomastic terms are uneven and context-dependent, shaped by a combination of linguistic tradition, terminological culture, and the permeability of registers. Terms related to names of living beings and geographic features form a core lexicalized nucleus, while more abstract or technical formations remain peripheral. This lexical stratification suggests a prototype effect, whereas certain term types function as conceptual anchors within the onomastic lexicon.

Table 2. Degree of scientization and lexicalization of onomastic terms based on attestations retrieved from Google multilingual corpus. Source: Own processing

No.	Term	English	Italian	Polish	Slovak
1.	abionym	0/1	0/1	1	1
2.	actionym	0/1	0/1	0/1	0/1
3.	anoikonym/anoiconym	2	2	4	4
4.	anthroponym	10+	10	10+	10+
5.	astronym	2	2	3	4
6.	bionym	2	0/1	3	3
7.	campanonym	0/1	0/1	1	0
8.	choronym	3	3	4	4
9.	chrematonym	6	5	8	8
10.	chromonym	0/1	0/1	0/1	0
11.	chrononym	2	1	2	2
12.	cryptonym	10	10	10	10
13.	dendronym	0/1	0/1	2	2
14.	documentonym	0/1	0/1	0/1	1
15.	drymonym	0/1	0/1	0/1	0/1
16.	ecclesionym	2	2	3	2
17.	emporionym	0/1	0/1	2	0/1
18.	endonym	5	5	5	6
19.	enonym	0/1	2	1	0/1
20.	ergonym	4	3	3	2
21.	ethnonym	10	9	9	9

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22.	exonym	10+	10	10	10
23.	fictionym	4	3	3	3
24.	geonym	4	3	4	4
25.	gephyronym	0/1	0/1	0/1	0
26.	glottonym	4	4	2	2
27.	hagionym	5	6	6	4
28.	helonym	0/1	0	1	1
29.	heortonym	3	2	4	2
30.	hipponym	1	1	0/1	0
31.	hodonym	10	10	10	9
32.	hydronym	10+	10	10+	10+
33.	ideonym	5	5	7	6
34.	idionym	5	6	6	5
35.	institutionym	3	3	3	3
36.	kynonym/cynonym	1	0/1	1	1
37.	limnonym	3	3	4	4
38.	markonym	2	4	4	2
39.	metronym	1	1	1	1
40.	mythonym	6	5	6	5
41.	naonym	0/1	1	0	0
42.	nesonym	1	1	1	0/1
43.	oikonym/oiconym	5	5	8	8
44.	oronym	5	5	7	7
45.	pelagonym	1	1	1	1
46.	pharmaconym	2	3	2	1
47.	phytonym	10	10	10	10
48.	pinaconym	1	1	1	1
49.	planetonym	3	4	2	2
50.	poetonym	5	7	6	6
51.	poreionym	1	1	3	3
52.	potamonym	2	2	3	3
53.	pragmatonym	2	2	3	2
54.	pseudonym	10+	10+	10+	10+
55.	pyrgonym	0	1	1	0/1
56.	ruronym	0/1	0/1	2	0/1
57.	serionym	0/1	0/1	1	2
58.	speleonym	2	2	3	2
59.	thalassonym	2	2	2	2
60.	theonym	6	5	6	5
61.	toponym	10+	10+	10+	10+
62.	tyronym	0/1	0/1	1	2
63.	unicatonym	0/1	0/1	1	2
64.	urbanonym	5	5	6	5
65.	urbonym	6	5	7	5
66.	zoonym	10	9	10	10

The empirical data presented in Table 2 indicate that onomastic terms, structurally uniform and conceptually coherent, exhibit relatively consistent degrees of lexicalization (and scientization) across languages. This similarity, or even parity, underscores the fact that terminological consistency tends to correspond with lexical homogeneity. Nonetheless, the onomastic lexicon appears cognitively stratified, comprising a nucleus of highly entrenched forms, a transitional zone of moderately established items, and a large peripheral layer of low-frequency or speculative formations.

5. Conclusion

From a cognitive-linguistic perspective, (meta)onomastic terms function as schematic representations that support the formation of structured knowledge. Their compound morphology, mostly based on

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classical roots, enhances semantic interpretability and facilitates conceptual transfer across disciplines – particularly between linguistics, anthropology, geography, cultural studies, and economics. Their etymological transparency further allows for a degree of accessibility even to non-specialists.

Onomastic terminology is more than a classificatory tool. It is a cognitive resource that shapes how we understand, name, and organize reality. Its progression from specialized terminology to lexicalized units in various discourses reflects a dynamic interplay among categorization, framing, scientific and communicative needs.

Onomastic terms are not merely lexical artifacts but also conceptual instruments of interdisciplinary cognition. They enable the articulation of naming phenomena in a systematized, inferable, and expandable manner. The uneven scientization and lexicalization patterns observed across four languages affirm their dual function: they are both products and vehicles of epistemological organization.

The findings of this study underscore that onomastic terms act more than descriptive or classificatory items. Their structured morphology, semantic transparency, and patterned lexicalization reveal them as epistemic blueprints – linguistic tools that encode both categorical structure and conceptual potential. They play a crucial role in enabling disciplinary coherence, facilitating interdomain communication, and reinforcing the cognitive salience of naming as a domain of inquiry.

Notes

1. It is important to emphasize at the outset that the lexeme *onym* (< Gr. ὄνυμον *ónymon* 'name'; OED: *s.v.*), as a synonym of a *proper name* in all its structural and categorial forms, serves as a pivotal element around which onomastic terminology is constructed. While fully autonomous and transparent, it simultaneously functions as an unambiguous compositional element in other onomastic terms, in which it operates as a recurrent morphological and semantic figure. In this role, it functions as a final and recurrent combining form in neoclassical bimorphemic compounds, endowing the term with a schematic meaning (cf. Evans 2007: 188-189), in accordance with the theoretical framework of cognitive linguistics and terminology (cf. Menzel & Degaetano-Ortlieb 2017: 203-209; Valentová 2021).

Abbreviations

En. – English

It. – Italian

nofN – name of the Name

OED – Oxford English Dictionary

Pl. – Polish

Sk. – Slovak

References

1. *A cognitive linguistics view of terminology and specialized language* (2012). Faber, P. (ed.). Berlin – Boston: De Gruyter Mouton.
2. Ainiala, T., Saarelma, M. & Sjöblom, P. (2012). *Names in focus: An introduction to Finnish onomastics*. Helsinki: Finnish Literature Society.
3. Antia, B.E. (2000). *Terminology and language planning. An alternative framework of practice and discourse*. Amsterdam – Philadelphia: John Benjamins.
4. *Aspects of cognitive terminology studies. Theoretical considerations and the role of metaphor in terminology*. (2024). Molina-Plaza, S. & Maroto, N. (eds.). Berlin – Boston: De Gruyter Mouton.
5. Bezlaj, F. et al. (1983). *Osnoven sistem i terminologija na slovenskata onomastika. Osnovnaja sistema i terminologija slavjanskoj onomastiki. Grundsystem und Terminologie der slawischen Onomastik.* Skopje: Makedonska akademija na naukite i umetnostite.
6. Blanár, V. (2002). Onomastická terminológia. In *Słowiańska onomastyka. Encyklopedia*. Vol. I. Rzetelska-Feleszko, E., Cieślikowa, A. & Duma, J. (eds.). Warszawa – Kraków: Towarzystwo Naukowe Warszawskie, p. 84-85.
7. Blanár, V. (2009). *Vlastné meno vo svetle teoretickej onomastiky. Proper names in the light of theoretical onomastics*. Martin: Matica slovenská.
8. Brugman, C. & Lakoff, G. (2006). Radial network: Cognitive topology and lexical networks. In *Cognitive linguistics: Basic readings.* Geeraerts, D. (ed.). Berlin – New York: De Gruyter Mouton, p. 109-140.
9. Buchko, D.G. & Tkachova, N.V. (2012). *Dictionary of Ukrainian onomastic terminology*. Kharkiv: Ranok-NT. / Buchko D.H., Tkachova N.V. *Slovnyk ukrayins'koyi onomastychnoyi terminolohiyi*. Kharkiv: Ranok-NT. / Бучко Д.Г., Ткачова Н.В. *Словник української ономастичної термінології*. Харків: Ранок-НТ.
10. Cabré, M.T. (1999). *Terminology: Theory, methods and applications*. Philadelphia PA: John Benjamins.
11. Caffarelli, E. & Gagliardi, C. (2018). Terminologia onomastica. In *Archivio per il vocabolario storico italiano AVSI*, I, p. 11-55.
12. Csabi, S. & Kövecses, Z. (2014). Lexicography and cognitive linguistics. In *Revista Española de lingüística aplicada*, 27 (1), p. 118-139.
13. Dorion, H. & Poirier, J. (1975). *Lexique des termes utiles à l'étude des noms de lieux*. Québec: French and European Publications.
14. Dvonč, L. (1966). K niektorým základným onomastickým termínom. In *Československý terminologický časopis*, 5 (4), p. 215-223.
15. Evans, V. (2007). *A glossary of cognitive linguistics*. Edinburgh: Edinburgh University Press.
16. Felber, H. (1984). *Terminology manual*. Paris: UNESCO/Infoterm.

 ISSN 2453-8035

17. Fillmore, Ch.J. (1982). Frame semantics. In *Linguistics in the morning calm. Selected papers from SICOL-1981*. SICOL Seoul International Conference on Linguistics – Linguistic Society of Korea (ed.). Seoul: Hanshin, p. 111-137.
18. Gałkowski, A. (2018). Definicja i zakres chrematonimii. In *Folia onomastica Croatica*, 27, p. 1-14.
19. Gałkowski, A. (2024). Kilka spostrzeżeń na temat stanu i interdyscyplinarności terminologii onomastycznej. In *Acta Universitatis Lodziensis. Folia linguistica*, 58 (1), p. 9-28.
20. Gałkowski, A. (2022). Metalinguistic significance of basic Italian onomastic terminology: A corpus-based study. In *Lege artis. Language yesterday, today, tomorrow.* The journal of University of SS Cyril and Methodius in Trnava, VII (1), p. 33-83.
21. Geeraerts, D. (2006). Prototype theory: Prospects and problems of prototype theory. In *Cognitive linguistics: Basic readings*. Geeraerts, D. (ed.). Berlin – New York: De Gruyter Mouton, p. 141-165.
22. Harvalík, M. & Caffarelli, E. (2007). Onomastic terminology: An international survey. Terminologia onomastica: un'inchiesta internazionale. In *Rivista Italiana di onomastica*, XIII, p. 181-220.
23. Harvalík, M. & Valentová, I. (2018). The current state and perspectives of onomastic terminology. In *Onomastica Uralica*, 14, p. 53-63.
24. ICOS lists of key onomastic terms. Available at: https://icosweb.net/publications/onomastic-terminology/
25. Kageura, K. (2002). *The dynamics of terminology: A descriptive theory of term formation and terminological growth*. Amsterdam – Philadelphia: John Benjamins.
26. Karpenko, O.Yu. (2006). Problems of cognitive onomastics: A monograph. Odesa: Astroprint. / Karpenko O.Yu. Problematyka kohnityvnoyi onomastyky: Monohrafiya. Odesa: Astroprint. / Карпенко О.Ю. *Проблематика когнітивної ономастики: Монографія*. Одеса: Астропринт.
27. Langacker, R. (2008). *Cognitive grammar: A basic introduction*. New York: Oxford Academic/Oxford Scholarship Online. DOI: https://doi.org/10.1093/acprof:oso/9780195331967.001.0001
28. Lawson, E.D. (2016). Personal naming systems. In *The Oxford handbook of names and naming*. Hough, C. & Izbebska, D. (eds.). Oxford: Oxford University Press, p. 169-196.
29. L'Homme, M.-C. (2020). *Lexical semantics for terminology: An introduction*. Philadelphia – Amsterdam: John Benjamins.
30. L'Homme, M.-C. (2014). *Terminologies and taxonomies*. Oxford Handbooks Online. DOI: https://doi.org/10.1093/OXFORDHB/9780199641604.013.008
31. Majtán, M. (1979). Onomastické termíny podľa objektov pomenúvaných vlastnými menami. In *Kultúra slova*, 13 (5), p. 153-159.
32. *Manuale di terminologia. Aspetti teorici, metodologici e applicativi*. (2002). Magris, M., Musacchio, M. T., Rega, L. & Scarpa, F. (eds.). Milano: Hoepli.
33. Menzel, K. & Degaetano-Ortlieb, S. (2017). The diachronic development of combining forms in scientific writing. In *Lege artis. Language yesterday, today, tomorrow.* Trnava: University of SS Cyril and Methodius in Trnava, II (2), p. 185-249. DOI: 10.1515/lart-2017-0016
34. Morărașu, N.-N. (2020). *English-Romanian Dictionary of Name-related Terms / Dicționar englez-român de termni referitori la nume*. Cluj Napoca: Casa Cărții de Știință.
35. *Oxford English Dictionary*. Available at: https://www.oed.com/
36. Reszegi, K. (2022b). A cognitive approach in onomastics: some notes on metaphorical place names. In *Voprosy onomastiki*, 19 (1), p. 235-244. DOI: https://doi.org/10.15826/vopr_onom.2022.19.1.012
37. Reszegi, K. (2022a). Metonymic name giving from a cognitive perspective. In *Acta onomastica*, 63 (1), p. 206-225.

38. Reszegi, K. (2023). Proper names in cognitive onomastics: Meaning and categorization of proper names. In *Onomástica desde América Latina*, 4 (jan. – dez.), p. 1-32.
39. Rosch, E. (1978). Principles of categorization. In *Cognition and categorization*. Rosch, E. & Lloyd, B.B. (eds.). Hillsdale, NJ: Lawrence Erlbaum, p. 27-48.
40. Šrámek, R. (2003). Tematizace slovanské onomastické terminologie. In *Metodologia badań onomastycznych*. Biolik, M. (ed.). Olsztyn: Ośrodek Badań Naukowych im. Wojciecha Kętrzyńskiego w Olsztynie, p. 31-42.
41. Temmerman, R. (2000). *Towards new ways of terminology description: The sociocognitive approach*. Philadelphia PA: John Benjamins.
42. Tent, J. & Blair, D. (2009). Motivations for naming: The development of a toponymic typology for Australian placenames. In *Names: A journal of onomastics*, 59 (2), p. 67-89.
43. Thelen, M. (2021). Relations between terms: A cognitive approach. The interaction between terminology, lexicology, translation studies and translation practice. In *Linguistica Antverpiensia. New series – themes in translation studies*, 1, p. 193-209. DOI: https://doi.org/10.52034/lanstts.v1i.15
44. Valentová, I. (2021). Zo slovenskej onomastickej terminológie: onymum, onymia, onomastika. In *Kultúra slova*, 55 (3), p. 143-153.
45. Valentová, I. et al. (2024). *Slovenská onomastická terminológia*. Bratislava – Trnava: Veda/Pedagogická fakulta, Trnavská univerzita.
46. Wierzbicka, A. (1996). *Semantics: Primes and universals*. Oxford: Oxford University Press.
47. Witkowski, T. (1964). *Grundbegriffe der Namenkunde*. Berlin: Akademie Verlag.
48. Witkowski, T. (1995). Probleme der Terminologie. In *Namenforschung. Name studies. Les noms propres. Ein internationales handbuch zur Onomastik. An international handbook of onomastics. Manuel international d'onomastique*. Eichler, E. et al. (eds.). Berlin – New York: De Gruyter Mouton, vol. 1, p. 288-294.
49. Włoskowicz, W. (2015). Trójelementowy model znaczenia onimicznego i pojęciowy model onomastykonu. In *Onomastica*, 59, p. 57-76.

Multilingual data source:

Google – *Google Search*. Retrieved between March and July, 2025.

Available at: https://www.google.com

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Language yesterday, today, tomorrow

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COGNITIVE TYPOLOGY MATTERS: A BIBLIOMETRIC REVIEW USING PRISMA PROTOCOL AND VOSVIEWER

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Abstract: Utilizing bibliometric methods with the Dimensions database and VOSviewer, this paper analyzes 3,556 publications to chart the evolution of cognitive typology from 2011 to 2025. We identify leading authors, collaboration networks, and trending topics. Findings indicate a strong focus on motion and space, with a methodological split between experimental and theoretical research. The analysis uncovers a significant gap between the field's aim of achieving linguistic diversity and its actual language sample, outlining priorities for future research to address this and other limitations.

Key words: cognitive typology, semantic typology, linguistic diversity, PRISMA protocol, VOSviewer.

1. Introduction

The interrelation between cognitive linguistics and linguistic typology, initially explored through Greenberg's universals, has evolved to address typological diversity with a comprehensive theory of language that integrates disciplines such as sociolinguistics, discourse analysis, and evolutionary linguistics (Croft 2016). The recent development of cognitive linguistics under a postrelativism research paradigm (Boroday 2020; Kemmerer 2014), focusing on linguistic and cultural diversity (Bender & Beller 2013; Blomberg & Zlatev 2021; O'Shaughnessy et al. 2022), embodiment (Majid & Van Staden 2015), and enactivity, has fostered the emergence of interdisciplinary studies merging cognitive linguistics, typology and linguistic diversity leading to the field known as cognitive typology.

According to Kemmer (2003: 90), cognitive typology is a "discipline that examines how languages systematically encode meaning – or fail to do so – revealing cognitive priorities." The underlying principle is that if many languages distinguish between similar meanings through grammatical coding, this difference is cognitively significant. The more common a distinction is across languages, the more likely it reflects the universal human propensity to make such a distinction. Conversely, if languages recurrently subsume two meanings under a single form, this lack of differentiation suggests the meanings are cognitively closely related (ibid).

The crosslinguistic aspect of cognitive typology is supported by the framework of semantic typology, developed by the researchers from the Max Planck Language and Cognition Department (https://www.mpi.nl/page/former-departments-and-groups) (Pederson et al. 1998; Evans 2004). Evans (2010: 504) defines semantic typology as a "part of linguistic typology concerned with the expression of meaning in language and languages", positioning it as an interdisciplinary field between "psychology, neuroscience, anthropology, the natural sciences, and general linguistics" (Evans 2010: 505) – disciplines that constitute cognitive science. Thus, semantic typology examines semantic categorization from a crosslinguistic perspective. It has been further defined as "the study of the distribution of semantic categories across language" (Moore et al. 2015: 189) and is tasked with "exploring the language variable in cross-cultural cognition" (Bohnemeyer 2011). According to Bohnemeyer, semantic typology aims to sort out "the universal from the language-specific in how languages of a broadly varied sample represent and categorize reality" (ibid.).

Although the terms 'cognitive typology' and 'semantic typology' have slightly different emphases, they converge in their primary object of research: semantic categories and their cross-linguistic coding, which reflect the cognitive preferences of language speakers. Studies within this framework are numerous and cover various semantic domains, as summarized in Table 1.

Table 1. Semantic domains studied within the cognitive typology framework before 2011
Source: Adapted from Moore et. al 2015, elaborated by the authors)

Semantic category	**Researchers**
Kinship	Morgan 1871
Color	Berlin & Kay 1969
Time	Bender et al. 2010; Boroditsky 2000; 2001; Boroditsky & Gaby 2010
Space / frame of reference	Levinson 2003; Levinson & Meira 2003; Levinson & Wilkins 2006; Majid et al. 2004; Palmer 2002; Pederson et al. 1998
Motion events	Slobin 2004; Talmy 1985; 2000a; 2000b
Fictive motion	Huumo 2005; Matlock 2004; Matsumoto 1996; Mishra 2009
Events	Bohnemeyer et al. 2007; 2010; Kemmer 2003; Majid et al. 2008

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Landscape	Burenhult 2008
Body	Majid 2010
Evidentiality	Aikhenvald 2004
Sensory	Rakhilina & Lemmens 2003

Despite this wide range of categories, Van der Auwera et al. (2010: 1086) noted a lack of sufficient research within the cognitive typology framework. This observation raises two questions: Has the situation changed since then, and to what extent has the cognitive typology developed? These questions necessitate a bibliometric analysis to identify the field's research trends, as demonstrated by preceding studies (Dechnich & Litvinova 2024; Litvinova et al. 2024).

While a previous bibliometric study (Glukhova 2025) examined the intersection of cognitive typology and linguistic diversity from 2000 to 2025, highlighting the insufficient attention to linguistic diversity as a research gap, it left several essential questions unanswered. This study aims to address the following research questions (RQs):

- RQ1: Who are the key researchers in the field and what are their collaborative networks?
- RQ2: What are the predominant topics of interest in modern cognitive typology?
- RQ3: What are the most extensively studied semantic domains in cognitive typology over the past 15 years?

To answer these questions, this paper conducts a bibliometric analysis using the Dimensions database, (Dimensions AI. URL: https://app.dimensions.ai) one of the largest scientific databases, with nearly 158,000 publications. The analysis addresses the following **objectives**: 1) to analyze publication and citation patterns and track field development; 2) to measure the impact of specific articles and authors; 3) to identify collaboration networks; and 4) to outline emerging trends through keyword analysis.

2. Methodology

The study examines publications from 2011 to 2025 that address cognitive typology. Following the PRISMA protocol (Page et al. 2021), we identified an initial 3,556 documents for performance analysis (assessing contributions) and science mapping (revealing relationships).

A keyword search in Dimensions for *cognitive+typology AND semantic+typology AND linguistic+diversity AND relativity* yielded 37,531 publications. This research strategy expands upon Glukhova's (2025) approach by including the essential terms 'semantic typology' and 'relativity' to

create a more comprehensive dataset. The resulting publications were filtered by publication year, research field, and type according to PRISMA 2020 protocol (see Figure 1).

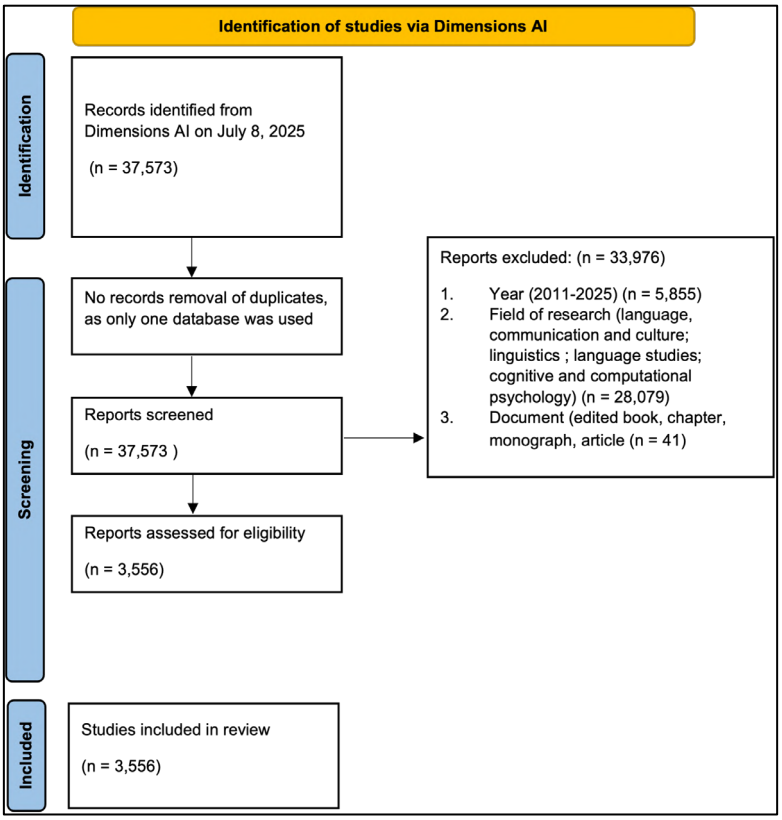

Figure 1. PRISMA flow diagram
Source: Own processing

The final dataset of 3,556 publications was processed and visualized using VOSviewer (Van Eck & Waltman 2014), both within the Dimensions interface (for co-authorship and co-citation analyses) and as standalone software (for keyword co-occurrence analysis).

Keywords were also visualized using the Biblioshiny tool in Bibliometrix (Aria & Cuccurullo 2017). As the Biblioshiny analyzes raw data files and the free version of Dimensions allows downloading only up to 500 items, the dataset was sorted by relevance, and the top 500 papers were analyzed. Although this could constitute a limitation of the study, it still provides a representative overview of the field.

For the keywords co-occurrence analysis in VOSviewer, the binary counting method was used including keywords with a minimum of ten occurrences. The association strength method identified 164 relevant terms for co-occurrence mapping.

3. Results and discussion

3.1 General performance analysis

The dataset of 3,556 publications by 2,743 authors was analyzed using Dimensions' tools to assess productivity (publications) and impact (citations). Figure 2 shows a gradual increase in publications from 2011 to 2022, peaking at 328 papers, indicating field development. The slight decline starting in 2024 is likely due to a time lag database indexing, a conclusion supported by the sustained growth of citations (Figure 3).

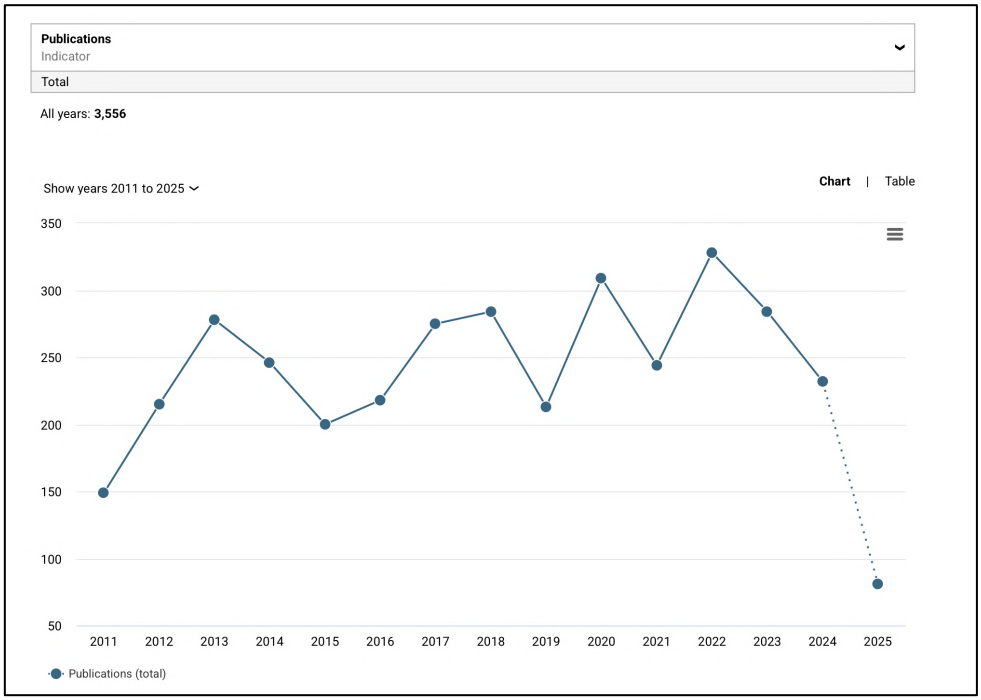

Figure 2. Annual number of publications on cognitive typology (2011-2022)
Source: Dimensions analytical overview: publications (see the dataset link)

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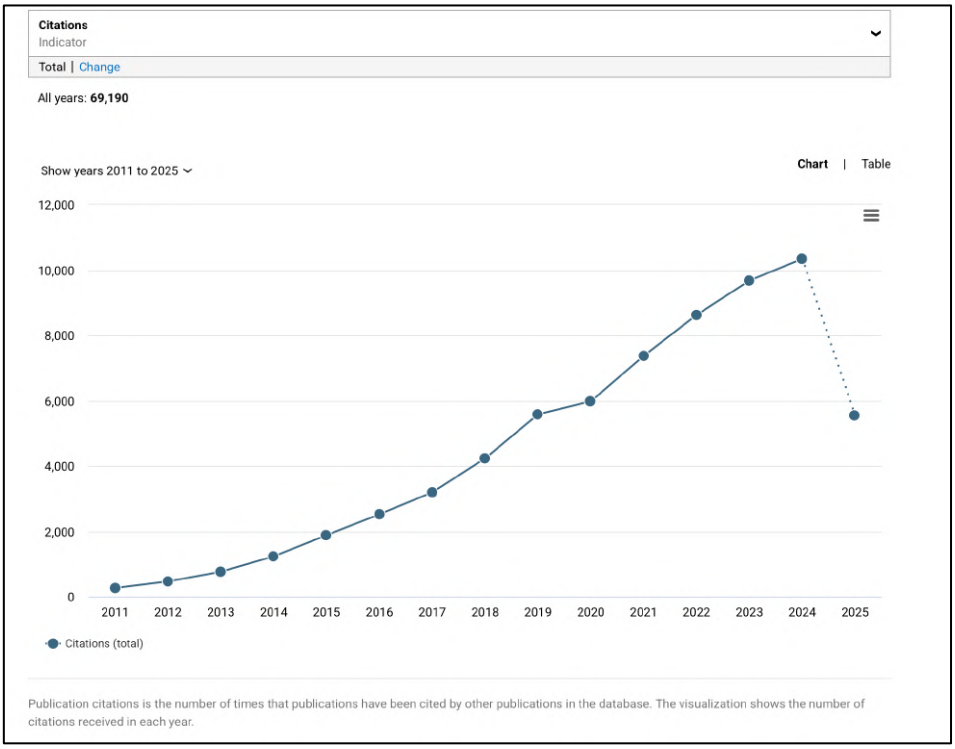

Figure 3. Annual citations of cognitive typology papers (2011-2022)
Source: Dimensions analytical overview: citations (see the dataset link)

The most productive authors in the field are David Kemmerer with 11 papers on cognitive typology issues (Kemmerer 2014; 2015; 2016a; 2016b; 2017; 2019; 2023), Luna Filipović – 10 publications (e.g., Filipović 2012; 2017; Filipović & Geva 2012; Filipović & Jaszczolt 2012a; 2012b), and Asifa Majid (e.g., Majid 2012; Majid et al. 2008; 2011; 2015; Majid & Van Staden 2015).

The most cited authors are also Asifa Majid (795 citations) and David Kemmerer (620 citations), who co-authored the highly cited paper by Blasi et al. (2022), which has 238 citations. Compared to the most cited papers in the dataset from over a decade ago (e.g., Canagarajah 2012: 620 citations; Dörnyei 2014: 612 citations), the citation rate of Blasi et al. (2022) indicates significant current interest in its topic.

3.2 Researchers' collaboration networks

A co-authorship analysis revealed the collaborative structure of the field. VOSviewer settings were adjusted to display a maximum of 500 researchers, exclude publications with more than 25 authors, and show all connected items. This resulted in 200 clusters (Figure 4), including 12 major ones (shown in color) and several minor ones (in grey). In total, 1,011 authors were connected by 788 co-authorship links. The major clusters are listed in the legend for Figure 4.

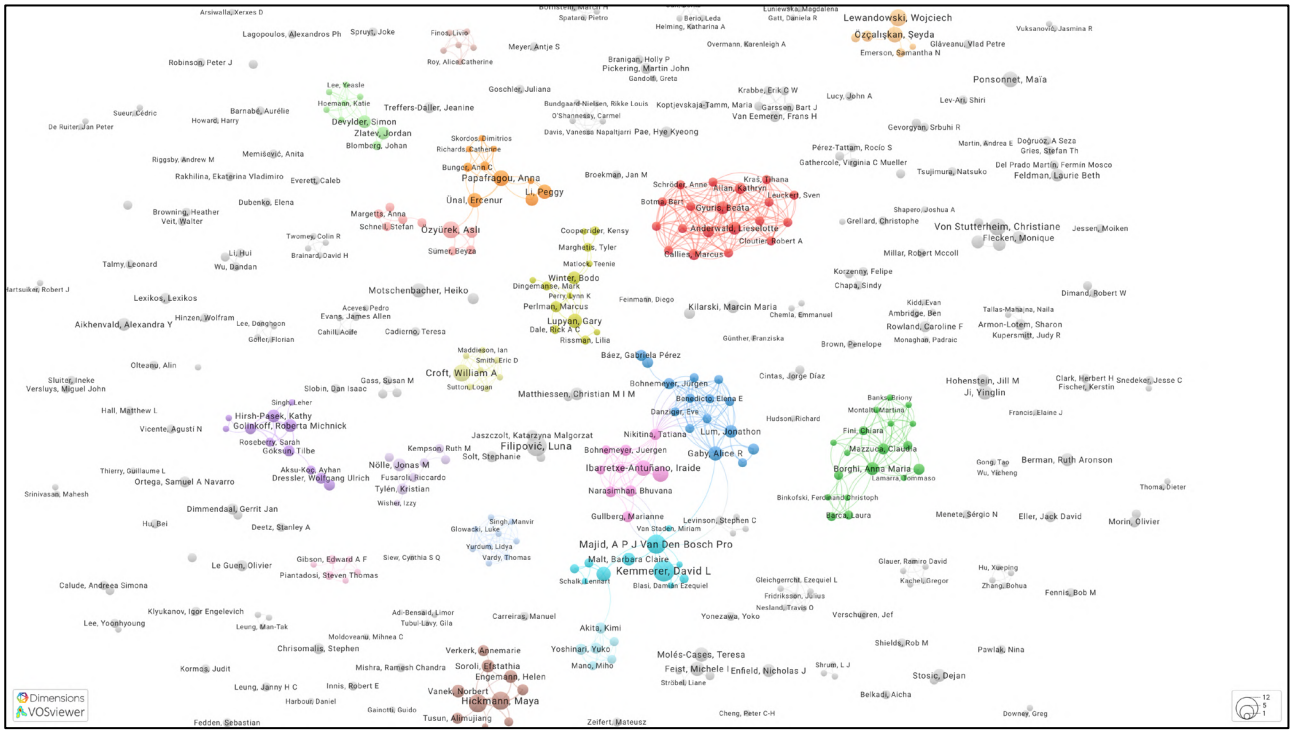

Figure 4. Co-authorship network
Source: Dimensions Analytical Views Researchers (see the dataset link)
Legend:

cluster 1 (Lewandowski) cluster 2 (Gyuris) cluster 3 (Zlatev) cluster 4 (Papafragou/ Özyürek/ Ünal) cluster 5 (Lupyan)
cluster 6 (Croft) cluster 7 (Borghi) cluster 8 (Gibson) cluster 9 (Golinkoff) cluster 10 (Hickman)
cluster 11(Nöll) cluster 12 (Bohnemyer; Gaby; Ibarretxe-Antuñano; Kemmerer; Levinson)

A content analysis of titles and abstracts was conducted to identify the key contributors and primary topics within these 12 clusters. **Cluster 1,** with Lewandowski (2018; 2021) as the principal contributor, focuses on semantic categories such as motion (Lewandowski & Özçalışkan 2024), manner and path (Lewandowski & Mateu 2018). This research is based on data from Spanish, German, and Polish (Lewandowski & Özçalışkan 2021; 2023).

Cluster 2 is represented by a group of researchers who have co-authored a series of publications in The Year's Work in English Studies (URL: https://academic.oup.com/ywes/pages/About), published by Oxford Academic. This journal provides narrative bibliographical reviews and critical commentary on scholarly work in English studies. The researchers in this cluster, with Gyuris as a consistent contributor, review books on various topics, including cognitive linguistics. For instance, in Kostadinova et al. (2024) they review the book "A cognitive perspective on spatial prepositions" (Sullivan & Mazurkiewicz-Sokołowska 2022), which covers studies of language and thought relationships via spatial prepositions' analysis in English, German, Polish and Russian. Thus, while the researchers of the cluster do not directly study cognitive typology, their work promotes the field by increasing its visibility.

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Cluster 3, led by Zlatev, investigates motion events in Swedish, French, Thai, and Teiugu (Zlatev et al. 2021a) often employing the Motivation and Sedimentation Model (Zlatev et al. 2021b).

Cluster 4 is larger than the preceding clusters and comprises two research groups. Major contributors Ünal, Özyürek, and Papafragou study motion in Greek and English (Bosse & Papafragou 2018; Skordos et al. 2020), motion events in Turkish (Ünal, et al. 2022; 2024), and spatial relations (Manhardt et al. 2020; Perniss et al. 2015; Sümer & Özyürek 2020) from a psycholinguistic perspective (Ünal & Papafragou 2016).

A similar psycholinguistic framework is developed by **Cluster 9** (Golinkoff's group), which examines how language influences the perception of path (Pruden et al. 2013) and events (Golinkoff et al. 2025; Konishi et al. 2016; Pruden et al. 2012;) in children and bilinguals.

Cluster 10, with Hickmann and Hendriks as major contributors, conducts in-depth studies on motion in second language acquisition (Engemann et al. 2012; Hickmann et al. 2018b) and across different age groups (Hendriks et al. 2022). Their works which employ methods like eye-tracking, analyze motion expression in English, German, French (Hickmann et al. 2017; 2018a) and Chinese (Ji et al. 2011a; 2011b; Soroli et al. 2019).

Cluster 5, led by Lupyan, explores conceptual systems and linguistic diversity (Rissman et al. 2023; Rissman & Lupyan 2024), particularly through the lenses of iconicity (Perlman et al. 2015; Winter et al. 2023) and adaptation (Lupyan & Dale 2016).

Cluster 6 researchers study theoretical and philosophical issues of universal (Youn et al. 2016) and language-specific phenomena (Croft 2016; 2024), focusing on language as a complex adaptive system. This framework integrates various functionalist approaches in linguistics, including "construction grammar, cognitive linguistics, typology and universals research, the usage-based model, and evolutionary approaches to language change" (Croft 2014: 1).

Cluster 7, with Borghi as a key contributor, investigates abstract concepts (Banks et al. 2023) from an embodied perspective (Borghi & Binkofski 2014) and argues that these concepts are not universal but instead arise from environmental regularities, cultural-linguistic practices (Banks et al. 2023), and social cognition (Borghi et al. 2019).

Cluster 8, associated with the Gibson Lab (Brain + cognitive science. URL https://bcs.mit.edu/directory/edward-gibson), studies the social factors in numerical concepts representation and spatial cognition, challenging the notion of a single predominant spatial reference frame through work with indigenous Bolivian languages (O'Shaughnessy et al. 2022; Pitt et al. 2022).

Cluster 11 researchers, including Nölle, develop a theoretical and methodological framework for the interconnection of language, culture, and cognition focusing on spatial frames of reference from an evolutionary perspective. They investigate how behavioral factors in language evolution are shaped by the environment (Nölle et al. 2020a; 2020b; Nölle & Spranger 2022) and propose an empirical approach integrating comparative linguistics, experimental semiotics and agent-based models (Nölle 2014).

Cluster 12 constitutes the largest research group in the dataset, encompassing 46 researchers (see Figure 5).

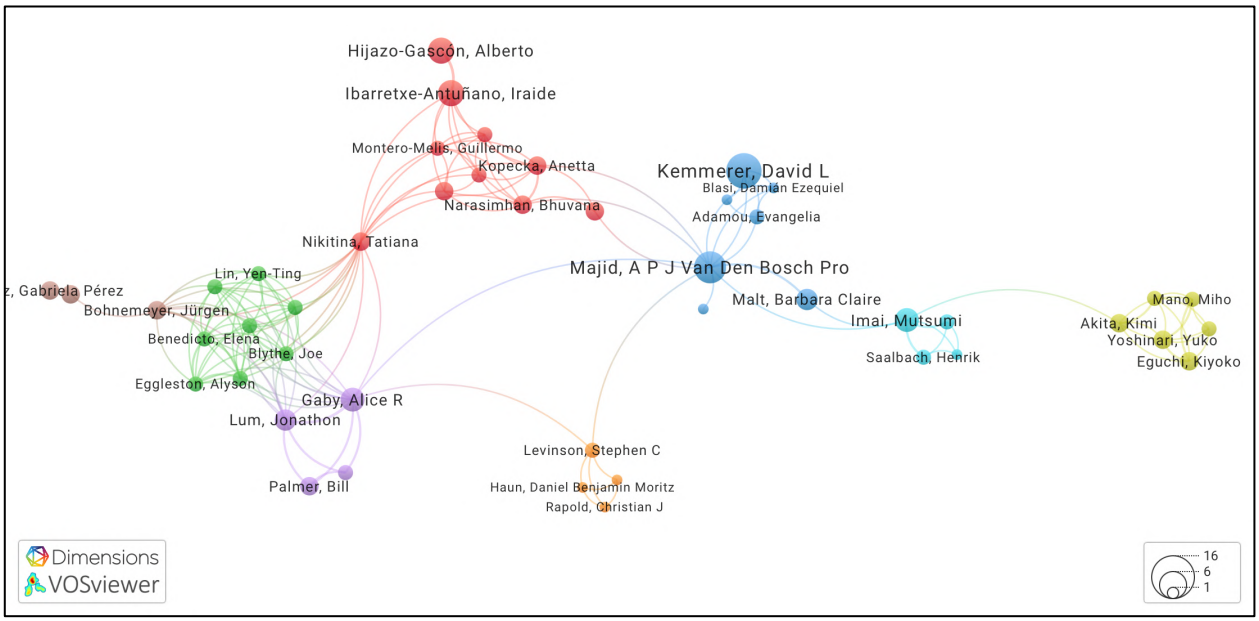

Figure 5. The largest set of connected items in co-authorship network
Source: Dimensions analytical views: researchers network (see the dataset link)

The studies within this cluster address all the semantic domains outlined in the introduction (Table 1), with various contributors – including J. Bohnemeyer; A. Gaby; I. Ibarretxe-Antuñano; D. Kemmerer; S.C. Levinson – focusing on different semantic categories and languages. Guided by the framework of semantic typology, this cluster's research includes work on linguistic diversity in spatial frames of reference (Bohnemeyer et al. 2022; Hijazo-Gascón 2017; Lum et al. 2022; Nikitina 2018; Palmer et al. 2017), studied in languages such as Yukatec (Bohnemeyer 2011b), Tseltal (Polian & Bohnemeyer 2011), and various Australian languages (Gaby 2012; Gaby et al. 2016). Motion events are another major focus, with research on Italian and French (Hijazo-Gascón & Ibarretxe-Antuñano

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2013; Ibarretxe-Antuñano 2015; 2017; 2025; Ibarretxe-Antuñano & Hijazo-Gascón 2012), Estonian (Narasimhan et al. 2012; Taremaa & Kopecka 2023), and a typological study of nineteen languages (Montero-Melis et al. 2017).

Furthermore, the cluster's researchers investigate a wide array of semantic domains, including manner (Akita & Matsumoto 2020); reciprocity (Majid et al. 2011), perception and sensory language (Majid & Levinson 2011), grammatical gender as a specific instance of nominal classifiers (Imai et al. 2014), color systems (Huisman et al. 2022), locomotion (Malt et al. 2014), emotion description (Majid 2012), visual motion description (Matsumoto et al. 2022), and the domain of olfaction (Majid 2021) in Basque (Ibarretxe-Antuñano 2021).

A significant number of studies in Cluster 12 also incorporate neuroscientific data. A major contributor in this area is Kemmerer (Kemmerer 2015; 2019; 2023), whose work spans domains such as nominal classifiers (Kemmerer 2016a) and action (Kanero et al. 2015; Kemmerer 2015; 2017; Saalbach & Imai 2012). This neuroscience-informed perspective has given rise to theoretical advances such as the iconicity ring hypothesis which "explains how language-specific, secondary iconicity might emerge from biologically grounded and universally shared iconicity in the course of language acquisition and evolution" (Imai & Akita 2023: 381).

In summary, the analysis reveals that the most extensively studied semantic categories are spatial frames of reference and motion events (see Table 2). However, these are often investigated using a limited set of languages (e.g. English, French, Spanish, German, Italian, Estonian, Bashkir, Turkish, Bolivian Amazonian, Australian, Aztec, Tseltal, Japanese, Polish, Greek, Basque, Dutch and others), which represents only a small fraction of world's language diversity. A comparison of semantic domains studied before and after 2011 is presented in Table 2.

Table 2. Comparison of semantic domains in cognitive typology research
Source: Own processing, adapted from Moore et. al (2015).

Semantic category	**Researchers (before 2011)**	**Researchers (2011-2025)**
Kinship	Morgan 1871	
Color	Berlin & Kay 1969	Huisman et al. 2022
Time	Bender et al. 2010; Boroditsky 2000; 2001; Boroditsky & Gaby 2010	Gaby 2012; Núñez & Cooperrider 2013
Space / frame of reference	Levinson 2003; Levinson & Meira 2003; Levinson & Wilkins 2006; Majid et al. 2004; Palmer 2002; Pederson et al. 1998	Bohnemeyer et al. 2022; Gaby et al. 2016; Lum et al. 2022; Manhardt et al. 2020; Nikitina 2018; Palmer et al. 2017; Perniss et al. 2015; Sümer & Özyürek 2020

Motion events	Slobin 2004; Talmy 1985, Talmy 2000a; 2000b	Bosse & Papafragou 2018; Engemann et al. 2012; Hickmann et al. 2018b; Hijazo-Gascón 2017; Ibarretxe-Antuñano 2015; 2017; 2025; Ibarretxe-Antuñano & Hijazo-Gascón 2012; 2025a; Lewandowski & Özçalışkan 2024; Malt et al. 2014; Skordos et al. 2020; Ünal et al. 2024; Zlatev et al. 2021a
Fictive motion	Huumo 2005; Matlock 2004; Matsumoto 1996; Mishra 2009	
Path / manner		Akita & Matsumoto 2020; Lewandowski & Mateu 2018; Pruden et al. 2013
Events	Bohnemeyer et al. 2007; 2010; Kemmer 2003; Majid et al. 2008	Golinkoff et al. 2025; Konishi et al. 2016; Pruden et al. 2012
Action		Kemmerer 2015
Landscape	Burenhult 2008	
Body	Majid 2010	
Nominal classification, including grammatical gender		Imai et al. 2014; Kanero et al. 2015; Kemmerer, 2016b; 2017; Saalbach & Imai 2012
Olfaction		Bierling et al. 2025; Ibarretxe-Antuñano 2021; Majid 2021
Reciprocity		Majid et al. 2011
Evidentiality	Aikhenvald 2004	
Sensory & emotion domains	Rakhilina & Lemmens 2003	Lesuisse & Lemmens 2024; Majid 2012; Majid & Levinson 2011; Matsumoto et al. 2022; Rakhilina & Reznikova 2022
Abstract concepts		Banks et al. 2023; Borghi et al. 2019; Borghi & Binkofski 2014

The cognitive typology field shows a differentiation of approaches from a typological perspective to the study of semantic domains: psycholinguistics, evolution, neuroscience and cognitive linguistics. Whichever approach is used rests on the ideas of linguistic diversity, which is essential for cognitive significance. To enhance the conclusions drawn from the co-authorship analysis a keywords analysis was conducted at the next stage of the research.

3.3 Keyword analysis

A keyword analysis using Biblioshiny generated word clouds based on authors', titles', and abstracts' keywords (see Figure 6a, 6b, 6c).

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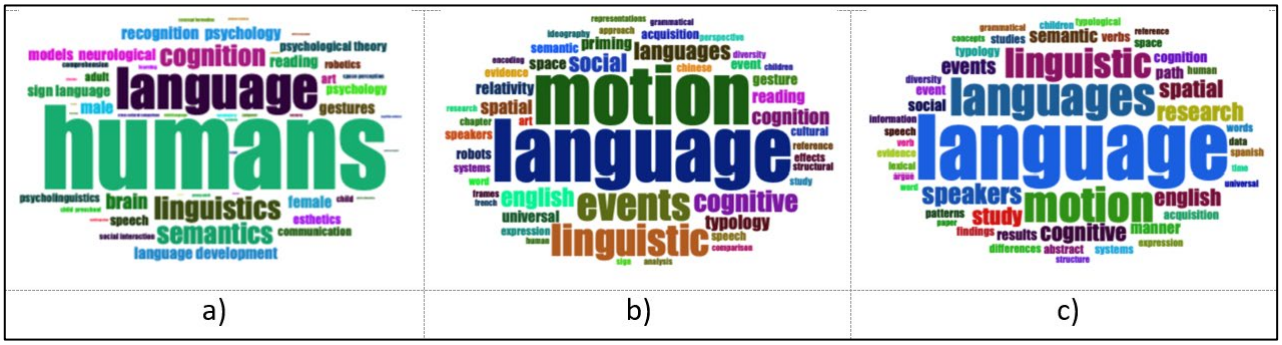

Figure 6. Word clouds of the most frequent keywords: a) authors' keywords, b) titles' keywords, c) abstracts' keywords
Source: Own processing using Biblioshiny tool

The most frequently occurring authors' keywords were *humans, language, linguistics, cognition, semantics, brain, male, recognition psychology, female, and gestures.* Research titles most frequently employed such keywords as *language*, *motion, events*, *linguistic, cognitive, English, social, languages, cognition,* and *spatial*. Abstract keywords also prioritized *language*, followed by *motion, linguistics, speakers, research, cognitive, spatial, study,* and *English.* This consistency across these categories confirms that motion events and spatial frames are predominant semantic domains in cognitive typology research. The analysis also revealed inconsistencies in language selection in titles, abstracts, and keywords, which could reduce the visibility of relevant papers in search engines. To validate the results obtained, the next stage of research involved keyword co-occurrence analysis.

3.4 Keyword co-occurrence analysis

A keyword co-occurrence map was created to outline the conceptual structure of the field, requiring a minimum of five co-occurrence links. The analysis yielded two distinct clusters (see Figure 7).

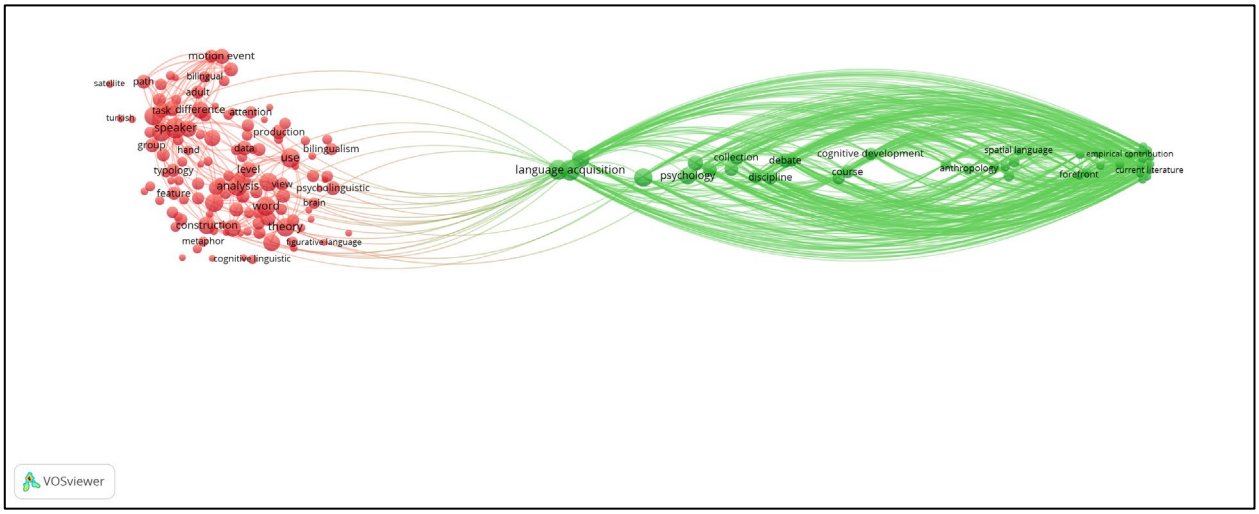

Figure 7. Keyword co-occurrence visualization
Source: Own processing using VOSviewer

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The clusters reflect different methodological frameworks used for investigating issues in cognitive typology:

- Cluster 1 (red, 123 items) depicts a cognitive linguistic and psycholinguistic approach, focusing on categories, such as *motion, event, manner, path, action* in the context of *language processing, bilingualism, language acquisition, conceptual representation,* and *cross-linguistic variation*. The research is predominantly experimental.
- Cluster 2 (green, 41 items) represents a more theoretical and interdisciplinary approach, centered on space, linguistic relativity, and anthropology.

The clusters intersect in the domain of *language acquisition,* albeit from different angles. Cluster 1 focuses on bilingualism, while Cluster 2 focuses on cognitive development. A comparison is summarized in Table 3.

Table 3. The keyword co-occurrence cluster comparison
Source: Own processing

	Cluster 1 (red)	**Cluster 2 (green)**
Focus	Empirical / Experimental	Theoretical / Interdisciplinary
Key terms	Motion, event, bilingualism	Space, linguistic relativity
Disciplinary ties	Psycholinguistics, cognitive science	Anthropology, Philosophy

This bifurcation suggests a synergetic relationship, where empirical findings on language use (Cluster 1) inform broader theoretical debates (Cluster 2).

4. Conclusion

This bibliometric study investigated the state of cognitive typology from 2011 to 2025, revealing a field with growing productivity and impact. The three research questions were answered as follows:

- RQ1: The key researchers include Asifa Majid, David Kemmerer, Jurgen Bohnemeyer, Alice Gaby, Bill Palmer, Iraida Ibarretxe-Antuñano; Stephen C. Levinson, Wojciech Lewandowski, William Croft, Edward Gibson, Gary Lupyan, Jordan Zlatev among others. Collaboration network analysis identified 12 major research clusters, often centered on specific methodological approaches: empirical or theoretical.
- RQ2 & RQ3: The predominant topics and most extensively studied semantic domains are motion events and spatial frames of reference. Other categories, like color, time, and olfaction, receive moderate attention, while domains such as fictive motion, kinship, and evidentiality remain under-researched.

The findings correlate with Glukhova (2025) regarding field growth. The keyword co-occurrence analysis revealed a fundamental methodological division between empirical, experimental approach (focusing on motion / events) and a theoretical, interdisciplinary one (focusing on space / relativity).

The study offers a comprehensive reference for new researchers, classifying key literature by semantic category and research school. Limitations include a potential database bias toward English-language publications (underrepresenting Russian or Global South scientific research) and inconsistencies in keyword tagging (due to specific usage in a particular framework terms like 'cognitive typology' and 'semantic typology'), which may have excluded relevant studies.

Future researchers should prioritize partnerships for documenting understudied and low-resource languages, focus on neglected semantic categories, and develop integrative methodologies that combine field linguistics with experimental and neuroscientific approaches. Addressing these gaps will be crucial for advancing cognitive typology within post-relativist cognitive science.

References

1. Akita, K. & Matsumoto, Y. (2020). A fine-grained analysis of manner salience: experimental evidence from Japanese and English. In *Human cognitive processing*. Vol. 69. Matsumoto Y. & Kawachi K. (eds.). Amsterdam: John Benjamins Publishing Company, p. 143-180. DOI: https://doi.org/10.1075/hcp.69.05aki
2. Aria, M. & Cuccurullo, C. (2017). bibliometrix: an R-tool for comprehensive science mapping analysis. In *Journal of informetrics,* 11 (4), p. 959-975. DOI: https://doi.org/10.1016/j.joi.2017.08.007
3. Banks, B., Borghi, A.M., Fargier, R., Fini, C., Jonauskaite, D., Mazzuca, C., Montalti, M., Villani, C. & Woodin, G. (2023). Consensus paper: Current perspectives on abstract concepts and future research directions. In *Journal of cognition,* 6 (1), 62. p. 1-26. DOI: https://doi.org/10.5334/joc.238
4. Bender, A. & Beller, S. (2013). Cognition is … fundamentally cultural. In *Behavioral sciences,* 3 (1), p. 42-54. DOI: https://doi.org/10.3390/bs3010042
5. Blasi, D.E., Henrich, J., Adamou, E., Kemmerer, D. & Majid, A. (2022). Over-reliance on English hinders cognitive science. In *Trends in cognitive sciences,* 26 (12), p. 1153-1170. DOI: https://doi.org/10.1016/j.tics.2022.09.015
6. Blomberg, J. & Zlatev, J. (2021). Metalinguistic relativity: Does one's ontology determine one's view on linguistic relativity? In *Language & communication,* 76, p. 35-46. DOI: https://doi.org/10.1016/j.langcom.2020.09.007
7. Bohnemeyer, J. (2011a). Semantic typology as an approach to mapping the nature-nurture divide in cognition. In *White paper for the initiative SBE 2020: future research in the social, behavioral & economic sciences*. National Science Foundation. Available at: https://www.researchgate.net/publication/283795219_Semantic_typology_as_an_approach_to_mapping_the_nature-nurture_divide_in_cognition
8. Bohnemeyer, J. (2011b). Spatial frames of reference in Yucatec: referential promiscuity and task-specificity. In *Language sciences,* 33 (6), p. 892-914. DOI: https://doi.org/10.1016/j.langsci.2011.06.009
9. Bohnemeyer, J., Danziger, E., Lum, J., Alshehri, A., Benedicto, E., Blythe, J., Cerqueglini, L., Donelson, K., Eggleston, A., Gaby, A., Lin, Y., Moore, R., Nikitina, T., Stoakes, H. & Yulbarangyang Balna, M. (2022). Reference frames in language and cognition: Cross-population mismatches. In *Linguistics vanguard,* 8 (s1), p. 175-189. DOI: https://doi.org/10.1515/lingvan-2021-0091
10. Borghi, A.M., Barca, L., Binkofski, F., Castelfranchi, C., Pezzulo, G. & Tummolini, L. (2019). Words as social tools: Language, sociality and inner grounding in abstract concepts. In *Physics of life reviews,* 29, p. 120-153. DOI: https://doi.org/10.1016/j.plrev.2018.12.001
11. Borghi, A.M. & Binkofski, F. (2014). *Words as social tools: An embodied view on abstract concepts*. New York: Springer. DOI: https://doi.org/10.1007/978-1-4614-9539-0
12. Borodai, S.Yu. (2020). *Language and cognition: An introduction to post-relativism*. Lektorsky, V.A., Smirnov, A.V. (eds.). Moscow: Sadra LLC: YASK Publishing House. / Boroday S.Yu. *Yazyk i poznaniye: vvedeniye v postrelyativizm*. Otv. red. Lektorskiy V.A. & Smirnov A.V. Moskva: OOO "Sadra": Izdatel'skiy Dom YaSK. / Бородай С.Ю. *Язык и познание: введение в пострелятивизм*. Отв. ред. Лекторский В.А., Смирнов А.В. Москва: ООО "Садра": Издательский Дом ЯСК.

13. Bosse, S. & Papafragou, A. (2018). Does language affect memory for object position? A crosslinguistic comparison. In *Spatial cognition & computation*, 18 (4), p. 285-314. DOI: https://doi.org/10.1080/13875868.2018.1440396
14. *Brain + cognitive science*. (s.a.). Available at: https://bcs.mit.edu/directory/edward-gibson
15. Canagarajah, S. (2012). *Translingual practice: global Englishes and cosmopolitan relations*. London: Routledge. DOI: https://doi.org/10.4324/9780203073889
16. Croft, W. (2016). Comparative concepts and language-specific categories: theory and practice. In *Linguistic typology*, 20 (2), p. 377-393. DOI: https://doi.org/10.1515/lingty-2016-0012
17. Croft, W. (2024). Philosophical reflections on the future of construction grammar (or, confessions of a radical construction grammarian). In *Constructions and frames*, 16 (2), p. 191-219. DOI: https://doi.org/10.1075/cf.23011.cro
18. Croft, W. (2014). Studying language as a complex adaptive system. In *English linguistics*, 31 (1), p. 1-21. DOI: https://doi.org/10.9793/elsj.31.1_1
19. Croft, W. (2016). Typology and the future of cognitive linguistics. In *Cognitive linguistics*, 27 (4), p. 587-602. DOI: https://doi.org/10.1515/cog-2016-0056
20. Dekhnich, O.V. & Litvinova, T.A. (2024). A keystroke analysis to study writing: A bibliometric review using R and VOSviewer. In *Research result. Theoretical and applied linguistics*, 10 (3), p. 91-115. DOI: https://doi.org/10.18413/2313-8912-2024-10-3-0-5
21. Dimensions AI. Available at: https://adimensions.ai
22. Dörnyei, Z. (2014). *The psychology of the language learner*. New York: Routledge. DOI: https://doi.org/10.4324/9781410613349
23. Engemann, H., Harr, A.K. & Hickmann, M. (2012). Caused motion events across languages and learner types: A comparison of bilingual first and adult second language acquisition. In *Human cognitive processing*. Vol. 36. Filipović, L. & Jaszczolt, K.M. (eds.). Amsterdam: John Benjamins Publishing Company, p. 263-288. DOI: https://doi.org/10.1075/hcp.36.15eng
24. Evans, N. (2010). Semantic typology. In *The Oxford handbook of linguistic typology*. Sung, J.J. (ed.). New York: Oxford University Press, p. 504-533.
25. Evans, V. (2004). *The structure of time: Language, meaning and temporal cognition*. Vol. 12. Amsterdam: John Benjamins Publishing Company. DOI: https://doi.org/10.1075/hcp.12
26. Filipović, L. (2017). Applied language typology: applying typological insights in professional practice. In *Languages in contrast*, 17 (2), p. 255-278. DOI: https://doi.org/10.1075/lic.17.2.05fil
27. Filipović, L. (2012). Spatial reference in discourse. In *The Cambridge handbook of pragmatics*. (1st ed.). Allan, K. & Jaszczolt, K.M. (eds.). Cambridge: Cambridge University Press, p. 403-422. DOI: https://doi.org/10.1017/CBO9781139022453.022
28. Filipović, L. & Geva, S. (2012). Language-specific effects on lexicalisation and memory of motion events. In *Human cognitive processing*. Vol. 37. Filipović, L. & Jaszczolt, K.M. (eds.). Amsterdam: John Benjamins Publishing Company, p. 269-282. DOI: https://doi.org/10.1075/hcp.37.18fil
29. Filipović, L. & Jaszczolt, K.M. (2012a). Introduction: Linguistic, cultural, and cognitive approaches to space and time. In *Human cognitive processing*. Filipović, L. & Jaszczolt, K.M. (eds.). Vol. 37. Amsterdam: John Benjamins Publishing Company, p. 1-11. DOI: https://doi.org/10.1075/hcp.37.03fil
30. Filipović, L. & Jaszczolt, K.M. (2012b). Introduction: Linguistic diversity in the spatio-temporal domain. In *Human cognitive processing*. Vol. 36. Filipović, L. & Jaszczolt, K.M. (eds.). Amsterdam: John Benjamins Publishing Company, p. 1-12. DOI: https://doi.org/10.1075/hcp.36.01intro
31. Gaby, A. (2012). The Thaayorre think of time like they talk of space. In *Frontiers in psychology*, 3, p. 1-3. DOI: https://doi.org/10.3389/fpsyg.2012.00300
32. Gaby, A., Blythe, J. & Stoakes, H. (2016). Absolute spatial cognition without absolute spatial language. In *Geographic grounding: Place, direction and landscape in the grammars of the world*. Copenhagen: University of Copenhagen, 30-31 May, 2016. Available at: https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=y5ss1y4AAAAJ&citation_for_view=y5ss1y4AAAAJ:-f6ydRqryjwC
33. Glukhova, O.V. (2025). Cognitive typology in linguistic diversity issues: A bibliometric review using PRISMA protocol and VOSviewer. In *Book of abstracts. 17th international cognitive linguistics conference "discourse, culture, and cognition"*. Audisio, C.P. & the 17th ICLC Organizing Committee (eds.). Buenos Aires, Argentina, p. 300-302. Available at: https://iclc17.com/book-of-abstracts/
34. Golinkoff, R.M., Katz, S., Jo, J., Singh, L., Collins, M.A. & Hirsh-Pasek, K. (2025). How the perception of events in children is influenced by language. In *Cognition*, 259, p. 106-123. DOI: https://doi.org/10.1016/j.cognition.2025.106123
35. Hendriks, H., Hickmann, M. & Pastorino-Campos, C. (2022). Running or crossing? Children's expression of voluntary motion in English, German, and French. In *Journal of child language*, 49 (3), p. 578-601. DOI: https://doi.org/10.1017/S0305000921000271
36. Hickmann, M., Engemann, H., Soroli, E., Hendriks, H. & Vincent, C. (2017). Expressing and categorizing motion in French and English: Verbal and non-verbal cognition across languages. In *Human cognitive processing*. Vol. 59. Ibarretxe-Antuñano, I. (ed.). Amsterdam: John Benjamins Publishing Company, p. 61-94. DOI: https://doi.org/10.1075/hcp.59.04hic

37. Hickmann, M., Hendriks, H., Harr, A.K. & Bonnet, P. (2018a). Caused motion across child languages: A comparison of English, German, and French. In *Journal of child language,* 45 (6), p. 1247-1274. DOI: https://doi.org/10.1017/S0305000918000168
38. Hickmann, M., Veneziano, E. & Jisa, H. (2018b). What can variation tell us about first language acquisition? In *Trends in language acquisition research*. Vol. 22. Hickmann, M., Veneziano, E. & Jisa, H. (eds.). Amsterdam: John Benjamins Publishing Company, p. 1-24. DOI: https://doi.org/10.1075/tilar.22.01hic
39. Hijazo-Gascón, A. (2017). Motion event contrasts in Romance languages: Deixis in Spanish as a second language. In *Human cognitive processing*. Vol. 59. Ibarretxe-Antuñano, I. (ed.). Amsterdam: John Benjamins Publishing Company, p. 301-328. DOI: https://doi.org/10.1075/hcp.59.13hij
40. Hijazo-Gascón, A. & Ibarretxe-Antuñano, I. (2013). Las lenguas Románicas y la tipología de los eventos de movimiento. In *Romanische forschungen,* 125 (4), p. 467-494. DOI: https://doi.org/10.3196/003581213808754483
41. Huisman, J.L.A., Van Hout, R. & Majid, A. (2022). Stability and change in the colour lexicon of the Japonic languages. In *Studies in language,* 46 (2), p. 323-351. DOI: https://doi.org/10.1075/sl.20032.hui
42. Ibarretxe-Antuñano, I. (2015). Going beyond motion events typology: The case of Basque as a verb-framed language. In *Folia linguistica,* 49 (2), p. 307-352. DOI: https://doi.org/10.1515/flin-2015-0012
43. Ibarretxe-Antuñano, I. (2017). Motion and semantic typology: A hot old topic with exciting caveats. In *Human cognitive processing*. Vol. 59. Ibarretxe-Antuñano, I. (ed.). Amsterdam: John Benjamins Publishing Company, p. 13-36. DOI: https://doi.org/10.1075/hcp.59.02iba
44. Ibarretxe-Antuñano, I. (2021). The domain of olfaction in Basque. In *Typological studies in language*. Vol. 131. Jędrzejowski, Ł. & Staniewski, P. (eds.). Amsterdam: John Benjamins Publishing Company, p. 73-112. DOI: https://doi.org/10.1075/tsl.131.03iba
45. Ibarretxe-Antuñano, I. (2025). The use of Basque ideophones in motion events. In *Cognitive semantics,* 11 (2), p. 1-27. DOI: https://doi.org/10.1163/23526416-bja10081
46. Ibarretxe-Antuñano, I. & Hijazo-Gascón, A. (2012). Variation in motion events: Theory and applications. In *Human cognitive processing*. Vol. 36. Filipović, L. & Jaszczolt, K.M. (eds.). Amsterdam: John Benjamins Publishing Company, p. 349-372. DOI: https://doi.org/10.1075/hcp.36.19iba
47. Imai, M. & Akita, K. (2023). The iconicity ring hypothesis bridges the gap between symbol grounding and linguistic relativity. In *Topics in cognitive science,* 15 (4), p. 676-682. DOI: https://doi.org/10.1111/tops.12671
48. Imai, M., Schalk, L., Saalbach, H. & Okada, H. (2014). All giraffes have female-specific properties: Influence of grammatical gender on deductive reasoning about sex-specific properties in German speakers. In *Cognitive science,* 38 (3), p. 514-536. DOI: https://doi.org/10.1111/cogs.12074
49. Ji, Y., Hendriks, H. & Hickmann, M. (2011a). How children express caused motion events in Chinese and English: universal and language-specific influences. In *Lingua,* 121 (12), p. 1796-1819. DOI: https://doi.org/10.1016/j.lingua.2011.07.001
50. Ji, Y., Hendriks, H. & Hickmann, M. (2011b). The expression of caused motion events in Chinese and in English: Some typological issues. In *Linguistics,* 49 (5), p. 1041-1077. DOI: https://doi.org/10.1515/ling.2011.029
51. Kanero, J., Imai, M., Okada, H. & Hoshino, N. (2015). Do classifiers make the syntactic count/mass distinction? Insights from ERPs in classifier processing in Japanese. In *Journal of memory and language,* 83, p. 20-52. DOI: https://doi.org/10.1016/j.jml.2015.03.006
52. Kemmer, S. (2003). Human cognition and the elaboration of events: some universal conceptual categories. In *The new psychology of language: Cognitive and functional approaches to language structure*. Vol. 2. Tomasello, M. (ed.). New York: Psychology Press, p. 95-124. DOI: https://doi.org/10.4324/9781410606921-6
53. Kemmerer, D. (2016a). Categories of object concepts across languages and brains: The relevance of nominal classification systems to cognitive neuroscience. In *Language, cognition and neuroscience,* 32 (4), p. 401-424. DOI: https://doi.org/10.1080/23273798.2016.1198819
54. Kemmerer, D. (2016b). Do language-specific word meanings shape sensory and motor brain systems? The relevance of semantic typology to cognitive neuroscience. In *Linguistic typology,* 20 (3), p. 623-634. DOI: https://doi.org/10.1515/lingty-2016-0033
55. Kemmerer, D. (2023). Grounded cognition entails linguistic relativity: a neglected implication of a major semantic theory. In *Topics in cognitive science,* 15, p. 615-647. DOI: https://doi.org/10.1111/tops.12628
56. Kemmerer, D. (2019). Messages must be tuned to the target language: Some implications of crosslinguistic semantic diversity for neurolinguistic research on speech production. In *Journal of neurolinguistics,* 52, p. 1-11. DOI: https://doi.org/10.1016/j.jneuroling.2019.100861
57. Kemmerer, D. (2017). Some issues involving the relevance of nominal classification systems to cognitive neuroscience: response to commentators. In *Language, cognition and neuroscience,* 32 (4), p. 447-456. DOI: https://doi.org/10.1080/23273798.2016.1274414
58. Kemmerer, D. (2015). Visual and motor features of the meanings of action verbs: a cognitive neuroscience perspective. In *Cognitive science perspectives on verb representation and processing*. Almeida, R.De & Manouilidou, C. (eds.). Cham: Springer, p. 191-212. DOI: https://doi.org/10.1007/978-3-319-10112-5_9
59. Kemmerer, D. (2014). Word classes in the brain: implications of linguistic typology for cognitive neuroscience. In *Cortex,* 58, p. 27-51. DOI: https://doi.org/10.1016/j.cortex.2014.05.004

60. Konishi, H., Wilson, F., Golinkoff, R.M., Maguire, M.J. & Hirsh-Pasek, K. (2016). Late Japanese bilinguals' novel verb construal. In *Bilingualism: Language and cognition*, 19 (4), p. 782-790. DOI: https://doi.org/10.1017/S136672891400073X
61. Kostadinova, V., Wiemann, M., Dreschler, G., Bouso, T., Gyuris, B., Zhong, A., Scott, M., Anderwald, L., Ahlers, W., Vida-Mannl, M., Al-Thubaiti, K.A., Ting, S.S.P., Parise, I., Cogo, A. & Reber, E. (2024). I English language. In *The year's work in English studies*, 102 (1), p. 1-142. DOI: https://doi.org/10.1093/ywes/maad020
62. Lewandowski, W. (2018). A typological approach to the encoding of motion events. In *Pragmatics & beyond new series*. Vol. 296. Gómez González, M.D.L.Á. & Mackenzie, J.L. (eds.). Amsterdam: John Benjamins Publishing Company, p. 45-74. DOI: https://doi.org/10.1075/pbns.296.03lew
63. Lewandowski, W. (2021). Variable motion event encoding within languages and language types: A usage-based perspective. In *Language and cognition*, 13 (1), p. 34-65. DOI: https://doi.org/10.1017/langcog.2020.25
64. Lewandowski, W. & Mateu, J. (2018). Thinking for translating and intra-typological variation in satellite-framed languages. In *Benjamins current topics*. Vol. 99. Piquer-Píriz, A.M. & Alejo-González, R. (eds.). Amsterdam: John Benjamins Publishing Company, p. 181-204. DOI: https://doi.org/10.1075/bct.99.08lew
65. Lewandowski, W. & Özçalışkan, Ş. (2021). How language type influences patterns of motion expression in bilingual speakers. In *Second language research*, 37 (1), p. 27-49. DOI: https://doi.org/10.1177/0267658319877214
66. Lewandowski, W. & Özçalışkan, Ş. (2023). Running across the mind or across the park: does speech about physical and metaphorical motion go hand in hand? In *Cognitive linguistics*, 34 (3-4), p. 411-444. DOI: https://doi.org/10.1515/cog-2022-0077
67. Lewandowski, W. & Özçalışkan, Ş. (2024). Translating motion events across physical and metaphorical spaces in structurally similar versus structurally different languages. In *Metaphor and symbol*, 39 (1), p. 10-39. DOI: https://doi.org/10.1080/10926488.2023.2268685
68. Litvinova, T.A., Mikros, G.K., Dekhnich, O.V. (2024). Writing in the era of large language models: A bibliometric analysis of research field. In *Research result. Theoretical and applied linguistics*, 10 (4), p. 5-16. DOI: https://doi.org/10.18413/2313-8912-2024-10-4-0-1
69. Lum, J., Palmer, B., Schlossberg, J. & Gaby, A. (2022). Diversity in representing space within and between language communities. In *Linguistics vanguard*, 8 (s1), p. 1-10. DOI: https://doi.org/10.1515/lingvan-2021-0105
70. Lupyan, G. & Dale, R. (2016). Why are there different languages? The role of adaptation in linguistic diversity. In *Trends in cognitive sciences*, 20 (9), p. 649-660. DOI: https://doi.org/10.1016/j.tics.2016.07.005
71. Majid, A. (2012). Current emotion research in the language sciences. In *Emotion review*, 4 (4), p. 432-443. DOI: https://doi.org/10.1177/1754073912445827
72. Majid, A., Boster, J.S. & Bowerman, M. (2008). The cross-linguistic categorization of everyday events: A study of cutting and breaking. In *Cognition*, 109 (2), p. 235-250. DOI: https://doi.org/10.1016/j.cognition.2008.08.009
73. Majid, A., Evans, N., Gaby, A. & Levinson, S. C. (2011). The semantics of reciprocal constructions across languages: An extensional approach. In *Typological studies in language*. Vol. 98. Evans, N., Gaby, A., Levinson, S.C. & Majid, A. (eds.). Amsterdam: John Benjamins Publishing Company, p. 29-60. DOI: https://doi.org/10.1075/tsl.98.02maj
74. Majid, A., Jordan, F. & Dunn, M. (2015). Semantic systems in closely related languages. In *Language sciences*, 49, p. 1-18. DOI: https://doi.org/10.1016/j.langsci.2014.11.002
75. Majid, A. & Levinson, S. C. (2011). The senses in language and culture. In *The senses and society*, 6 (1), p. 5-18. DOI: https://doi.org/10.2752/174589311X12893982233551
76. Majid, A. & Van Staden, M. (2015). Can nomenclature for the body be explained by embodiment theories? In *Topics in cognitive science*, 7 (4), p. 570-594. DOI: https://doi.org/10.1111/tops.12159
77. Malt, B.C., Ameel, E., Imai, M., Gennari, S.P., Saji, N. & Majid, A. (2014). Human locomotion in languages: constraints on moving and meaning. In *Journal of memory and language*, 74, p. 107-123. DOI: https://doi.org/10.1016/j.jml.2013.08.003
78. Manhardt, F., Özyürek, A., Sümer, B., Mulder, K., Karadöller, D.Z. & Brouwer, S. (2020). Iconicity in spatial language guides visual attention: a comparison between signers' and speakers' eye gaze during message preparation. In *Journal of experimental psychology: Learning, memory, and cognition*, 46 (9), p. 1735-1753. DOI: https://doi.org/10.1037/xlm0000843
79. Matsumoto, Y., Akita, K., Bordilovskaya, A., Eguchi, K., Koga, H., Mano, M., Matsuse, I., Morita, T., Nagaya, N., Takahashi, K., Takahashi, R. & Yoshinari, Y. (2022). Linguistic representations of visual motion: A crosslinguistic experimental study. In *Human cognitive processing*. Vol. 72. Sarda, L. & Fagard, B. (eds.). Amsterdam: John Benjamins Publishing Company, p. 43-67. DOI: https://doi.org/10.1075/hcp.72.03mat
80. Montero-Melis, G., Eisenbeiss, S., Narasimhan, B., Ibarretxe-Antuñano, I., Kita, S., Kopecka, A., Lüpke, F., Nikitina, T., Tragel, I., Florian Jaeger, T. & Bohnemeyer, J. (2017). Satellite- vs. verb-framing underpredicts nonverbal motion categorization: insights from a large language sample and simulations. In *Cognitive semantics*, 3 (1), p. 36-61. DOI: https://doi.org/10.1163/23526416-00301002
81. Moore, R., Donelson, K., Eggleston, A. & Bohnemeyer, J. (2015). Semantic typology: New approaches to crosslinguistic variation in language and cognition. In *Linguistics vanguard*, 1 (1), p. 189-200. DOI: https://doi.org/10.1515/lingvan-2015-1004

82. Narasimhan, B., Kopecka, A., Bowerman, M.F., Gullberg, M. & Majid, A. (2012). Putting and taking events: A crosslinguistic perspective. In *Typological studies in language*. Vol. 100. Kopecka, A. & Narasimhan, B. (eds.). Amsterdam: John Benjamins Publishing Company, p. 1-18. DOI: https://doi.org/10.1075/tsl.100.03nar
83. Nikitina, T. (2018). Frames of reference in discourse: Spatial descriptions in Bashkir (Turkic). In *Cognitive linguistics*, 29 (3), p. 495-544. DOI: https://doi.org/10.1515/cog-2016-0081
84. Nölle, J. (2014). A co-evolved continuum of language, culture and cognition: prospects of interdisciplinary research. In *Studies about languages*, 25, p. 5-13. DOI: https://doi.org/10.5755/j01.sal.0.25.8504
85. Nölle, J., Fusaroli, R., Mills, G.J. & Tylén, K. (2020a). Language as shaped by the environment: linguistic construal in a collaborative spatial task. In *Palgrave communications*, 6 (1), 27, p. 1-10. DOI: https://doi.org/10.1057/s41599-020-0404-9
86. Nölle, J., Hartmann, S. & Tinits, P. (2020b). Language evolution research in the year 2020: A survey of new directions. In *Language dynamics and change*, 10 (1), p. 3-26. DOI: https://doi.org/10.1163/22105832-bja10005
87. Nölle, J. & Spranger, M. (2022). From the field into the lab: Causal approaches to the evolution of spatial language. In *Linguistics vanguard*, 8 (s1), p. 191-203. DOI: https://doi.org/10.1515/lingvan-2020-0007
88. O'Shaughnessy, D.M., Gibson, E. & Piantadosi, S.T. (2022). The cultural origins of symbolic number. In *Psychological review*, 129 (6), p. 1442-1456. DOI: https://doi.org/10.1037/rev0000289
89. Page, M.J., McKenzie, J.E., Bossuyt, P.M., Boutron, I., Hoffmann, T.C., Mulrow, C.D. et al. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. In *BMJ*, 372, n71, p. 1-9. DOI: https://doi.org/10.1136/bmj.n71
90. Palmer, B., Lum, J., Schlossberg, J. & Gaby, A. (2017). How does the environment shape spatial language? Evidence for sociotopography. In *Linguistic typology*, 21 (3), p. 457-491. DOI: https://doi.org/10.1515/lingty-2017-0011
91. Pederson, E., Danziger, E., Wilkins, D.P., Levinson, S.C., Kita, S. & Senft, G. (1998). Semantic typology and spatial conceptualization. In *Language*, 74 (3), p. 557-589.
92. Perlman, M., Dale, R. & Lupyan, G. (2015). Iconicity can ground the creation of vocal symbols. In *Royal society open science*, 2 (8), p. 150-152. DOI: https://doi.org/10.1098/rsos.150152
93. Perniss, P., Zwitserlood, I. & Özyürek, A. (2015). Does space structure spatial language?: A comparison of spatial expression across sign languages. In *Language*, 91 (3), p. 611-641. DOI: https://doi.org/10.1353/lan.2015.0041
94. Pitt, B., Carstensen, A., Boni, I., Piantadosi, S.T. & Gibson, E. (2022). Different reference frames on different axes: Space and language in indigenous Amazonians. In *Science advances*, 8 (47), eabp9814, p. 1-11. DOI: https://doi.org/10.1126/sciadv.abp9814
95. Polian, G. & Bohnemeyer, J. (2011). Uniformity and variation in Tseltal reference frame use. In *Language sciences*, 33 (6), p. 868-891. DOI: https://doi.org/10.1016/j.langsci.2011.06.010
96. Pruden, S.M., Göksun, T., Roseberry, S., Hirsh-Pasek, K. & Golinkoff, R.M. (2012). Find your manners: How do infants detect the invariant manner of motion in dynamic events? In *Child development*, 83 (3), p. 977-991. DOI: https://doi.org/10.1111/j.1467-8624.2012.01737.x
97. Pruden, S.M., Roseberry, S., Göksun, T., Hirsh-Pasek, K. & Golinkoff, R.M. (2013). Infant categorization of path relations during dynamic events. In *Child development*, 84 (1), p. 331-345. DOI: https://doi.org/10.1111/j.1467-8624.2012.01843.x
98. Rissman, L., Liu, Q. & Lupyan, G. (2023). Gaps in the lexicon restrict communication. In *Open mind*, 7, p. 412-434. DOI: https://doi.org/10.1162/opmi_a_00089
99. Rissman, L. & Lupyan, G. (2024). Words do not just label concepts: activating superordinate categories through labels, lists, and definitions. In *Language, cognition and neuroscience*, 39 (5), p. 657-676. DOI: https://doi.org/10.1080/23273798.2024.2350526
100. Saalbach, H. & Imai, M. (2012). The relation between linguistic categories and cognition: the case of numeral classifiers. In *Language and cognitive processes*, 27 (3), p. 381-428. DOI: https://doi.org/10.1080/01690965.2010.546585
101. Skordos, D., Bunger, A., Richards, C., Selimis, S., Trueswell, J. & Papafragou, A. (2020). Motion verbs and memory for motion events. In *Cognitive neuropsychology*, 37 (5-6), p. 254-270. DOI: https://doi.org/10.1080/02643294.2019.1685480
102. Soroli, E., Hickmann, M. & Hendriks, H. (2019). Casting an eye on motion events: eye tracking and its implications for linguistic typology. In *Human cognitive processing*. Vol. 66. Aurnague, M. & Stosic, D. (eds.). Amsterdam: John Benjamins Publishing Company, p. 250-288. DOI: https://doi.org/10.1075/hcp.66.07sor
103. Sullivan, M.B. & Mazurkiewicz-Sokołowska, J. (2022). A cognitive perspective on spatial prepositions. In *Human cognitive processing*, 74. Amsterdam: John Benjamins Publishing Company, p. 242. DOI: https://doi.org/10.1075/hcp.74
104. Sümer, B. & Özyürek, A. (2020). No effects of modality in development of locative expressions of space in signing and speaking children. In *Journal of child language*, 47 (6), p. 1101-1131. DOI: https://doi.org/10.1017/S0305000919000928
105. Taremaa, P. & Kopecka, A. (2023). Manner of motion in Estonian: A descriptive account of speed. In *Studies in language*, 47 (1), p. 32-78. DOI: https://doi.org/10.1075/sl.21038.tar
106. The year's work in English studies. Available at: https://academic.oup.com/ywes/pages/About
107. Ünal, E., Mamus, E. & Özyürek, A. (2024). Multimodal encoding of motion events in speech, gesture and cognition. In *Language and cognition*, 16 (4), p. 785-804. DOI: https://doi.org/10.1017/langcog.2023.61

108. Ünal, E., Manhardt, F. & Özyürek, A. (2022). Speaking and gesturing guide event perception during message conceptualization: Evidence from eye movements. In *Cognition,* 225, p. 105-127. DOI: https://doi.org/10.1016/j.cognition.2022.105127
109. Ünal, E. & Papafragou, A. (2016). Interactions between language and mental representations. In *Language learning,* 66 (3), p. 554-580. DOI: https://doi.org/10.1111/lang.12188
110. Van Der Auwera, J. & Nuyts, J. (2010). Cognitive linguistics and linguistic typology. In *The Oxford handbook of cognitive linguistics.* Oxford Handbooks. Geeraerts, D. & Cuyckens, H. (eds.). Oxford: Oxford University Press, p. 1074-1071. DOI: https://doi.org/10.1093/oxfordhb/9780199738632.013.0040
111. Van Eck, N. J. & Waltman, L. (2014). Visualizing bibliometric networks. In *Measuring scholarly impact*. Ding, Y., Rousseau, R. & Wolfram, D. (eds.). Cham: Springer International Publishing, p. 285-320. DOI: https://doi.org/10.1007/978-3-319-10377-813
112. Winter, B., Lupyan, G., Perry, L. K., Dingemanse, M. & Perlman, M. (2023). Iconicity ratings for 14,000+ English words. In *Behavior research methods,* 56 (3), p. 1640-1655. DOI: https://doi.org/10.3758/s13428-023-02112-6
113. Youn, H., Sutton, L., Smith, E., Moore, C., Wilkins, J.F., Maddieson, I., Croft, W. & Bhattacharya, T. (2016). On the universal structure of human lexical semantics. In *Proceedings of the national academy of sciences,* 113 (7), p. 1766-1771. DOI: https://doi.org/10.1073/pnas.1520752113
114. Zlatev, J., Blomberg, J., Devylder, S., Naidu, V. & Van De Weijer, J. (2021a). Motion event descriptions in Swedish, French, Thai and Telugu: A study in post-Talmian motion event typology. In *Acta linguistica hafniensia,* 53 (1), p. 58-90. DOI: https://doi.org/10.1080/03740463.2020.1865692
115. Zlatev, J., Jacobsson, G. & Paju, L. (2021b). Desiderata for metaphor theory, the motivation & sedimentation model and motion-emotion metaphoremes. In *Figurative thought and language*. Vol. 11. Soares Da Silva, A. (ed.). Amsterdam: John Benjamins Publishing Company, p. 41-74. DOI: https://doi.org/10.1075/ftl.11.02zla

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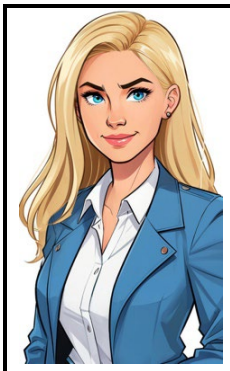	*name:*	**Olga Dekhnich**
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INTERPRETATIVE VARIABILITY OF THE ENGLISH GENITIVE: A MINIMAL CONTEXT-BASED APPROACH

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Abstract: This article examines the concept of English genitive structures and provides a closer look at possible ambiguities of its semantics. The generally accepted classification of the English genitive into a range of semantic functions raises considerations on their clarity within a minimal context. The article is a corpus analysis of the frequency of the semantic functions of the genitive. Alongside the possessive function, the article aims to determine the frequencies of other semantic functions of genitives, which may be interpreted in multiple ways.

Keywords: case, genitive, noun, noun phrase, semantic function, variability

1. Introduction

The genitive plays a key role in the structure of language and in the everyday communication of human thoughts. At first glance, it appears to be a grammatical device intended primarily to express ownership or affiliation, but its functions extend far beyond that. Genitive constructions allow speakers not only to express ownership, but also to indicate origin, source, authorship, descriptive characteristics, or classification criteria. It is precisely this multi-layered nature that shows that the genitive cannot be understood exclusively in the traditional possessive sense, but as a dynamic linguistic category that contributes significantly to the semantic richness of language, reflecting its universal tendency whereby the genitive encodes a broad spectrum of adnominal relations beyond possession (cf. Carlier & Verstraete 2013).

The importance of studying the genitive lies not only in its frequency but also in its multiple semantic functions. One and the same genitive construction can convey different meanings in different contexts, creating room for variability in meaning.

The aim of this article is therefore to offer a systematic overview of the semantic functions of the genitive in the English language. The article focuses on identifying the frequencies of the genitive's semantic functions and also examines how, depending on the speaker's perception, a genitive structure may be assigned multiple semantic functions. This approach not only allows for a better understanding of the functioning of the genitive as a grammatical-semantic category, but also reveals patterns and tendencies that apply to its use in real communication.

2. Theoretical framework

2.1 Genitive case: General remarks

The genitive has been examined from multiple perspectives, including register differentiation and syntactic variation (Jucker 1993; Kreyer 2003), genre-specific tendencies (Biber 2003), and the interaction of semantic relation and animacy in genitive alternation (Payne & Berlage 2011; Rosenbach 2006). Adding a comparative dimension, studies of the Scandinavian *s*-genitive, namely as a phrasal marker in Swedish and in broader possessive variation across Danish and Swedish, arrive at closely related generalizations about form – function mapping (Piotrowska 2018; 2023), reinforcing the view that genitives reflect mechanisms of structural variation in English (cf. also Hinrichs & Szmrecsányi 2007).

In the most general sense, case can be characterized as a grammatical category that determines the function of a noun or a pronoun (in some languages, also of an adjective, a preposition, a numeral, etc.) in relation to another member of a phrase or a sentence (cf. Matthews 1997). According to Robins (1964), case as a grammatical category applies where specific syntactic relationships between nouns (or nominal groups) and other sentence elements require specific word forms. The case thus signals syntactic relationships between sentence elements and at the same time expresses the relationship of a subject to a predicate, especially a noun to a verb (Dušková 2012).

Modern English is an analytical language in which the relationships between words or phrases are not primarily expressed by inflectional suffixes, but through word order and prepositions. This situation is the result of historical development, during which English gradually lost most of its original case system. In Old English, not only nouns but also adjectives and verbs were highly inflected, as demonstrated by Akmajian et al. (2001) with the example:

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cyning "king"

Nominative	*cyning*
Accusative	*cyning*
Genitive	*cyninges*
Dative/instrumental	*cyninge*

The case system of English nouns is therefore relatively limited today, as it contains only two forms – the common case and the genitive.

The terminology itself and approaches to categorising English cases vary considerably among different authors. Huddleston and Pullum (2002), for example, distinguish between the plain (nominative) case and the genitive case. Quirk et al. (1985) use the terms "common case" and "genitive", considering the common case to be the form used when the genitive is not present. Dušková (2012), on the other hand, prefers the term "adnominal case", since, according to her, the apostrophic form of the genitive has retained only some of its original functions and has lost, in particular, its object and partitive functions.

The complexity of the English genitive functions also lies in the existence of two different forms of its expression (the *'s*-genitive and the *of*-phrase). The morphologically expressed *'s*-genitive, also called the "Saxon genitive" or the "synthetic genitive" (Visan 2011), is used mainly with persons (*the teacher's desk*), animals (*the cat's tail*), proper names (*Elizabeth's crown*), and collective nouns (*the company's policy*). Recent corpus work shows that the alternation between the *'s*-genitive and the *of*-phrase is probabilistic and conditioned by modality and genre. In particular, words denoting animate possessors favour the *'s*-genitive, whereas longer denominations of possessors and names of possessors ending in a final sibilant tend to favour the *of*-phrase (Grafmiller 2014).

However, the choice between the *'s*-genitive and the *of*-phrase often depends on the speaker's communicative intent. The *'s*-genitive construction tends to place the information focus on the head of the noun phrase (*the plane's wing* – emphasis on "wing"), while the *of*-construction places the emphasis on the prepositional complement (*the wing of the plane* – emphasis on "plane"). This phenomenon is closely related to the tendency of speakers to begin their utterances with known information and build new information on it (Lančarič 2020).

Huddleston and Pullum (2002) consider the genitive realised by means of the *of*-phrase to be analytical, while Quirk et al. (1985) argue that the *of*-construction is essentially identical in its

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functions and meanings to the morphological *'s*-genitive, although they acknowledge that interchangeability is not always possible. The results of Piotrowska (2021) suggest that animacy exerts the strongest influence on genitive variation, ranking above both definiteness and phrase length. These findings underscore that the choice between the *'s*-genitive and the *of*-phrase is not random, but is governed by a set of specific factors that have hierarchical weight.

Quirk et al. (1985) distinguish six basic types of genitive according to its grammatical status: genitive as determiner, genitive as modifier, group genitive, independent genitive, locative genitive, and post-genitive.

The genitive as determiner performs a function similar to articles or possessive pronouns and specifies the reference of a noun phrase (e.g., *Peter's car*) (cf. Carter at al. 2006). In contrast, the genitive as modifier behaves like an adjective and does not express possession, but rather a classificatory or descriptive relationship (e.g., *a women's college*). The group genitive, embedded within another noun phrase and forming multi-layered constructions such as *the president of France´s visit*, represents, as Allen (2003) points out, a crucial stage in the reanalysis of the genitive marker from an inflectional morpheme to a syntactically mobile clitic, reflecting the broader typological shift of English from a synthetic to an analytic language. The independent genitive is formed by omitting a noun that can be easily inferred from the context (e.g., *Her presentation was better than Mark's*). The locative genitive refers to places or institutions that are understood by convention without an explicit noun (e.g., *Let's meet at Anna's*). The post-genitive (double genitive) is linked to the preposition *of* and emphasizes partitivity or non-specificity (e.g., *a friend of John's*).

Some linguists combine these categories. For example, Biber at al. (2002) unify the independent and locative genitives under the term "independent genitive" and distinguishes between elliptical and non-elliptical cases, which points to the fact that the boundaries between the different types are not fixed but can overlap.

The semantic dimension of the English genitive will be examined in more detail in the following section. This aspect is particularly significant because the genitive not only serves a grammatical function but also expresses a wide range of semantic concepts.

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2.2 Semantic functions of the English genitive case

According to Dušková (2012), the genitive (or adnominal case) most often has a possessive meaning, as it expresses a possessive relationship to the superordinate noun, e.g., *Peter's house* – "Peter has a house". However, in addition to ownership, it can also signal other relationships – origin (e.g., *Mozart's symphony*), time or measure (e.g., *two days' journey*), attribute (e.g., *the child's innocence*), or the relationship between a part and a whole (e.g., *the book's cover*). Vikner and Jensen (2002) also distinguish four major subtypes of lexical interpretation – inherent, part-whole, agentive, and control relations – further demonstrating that the semantic scope of the English genitive cannot be reduced to possession alone. The precise grammatical meaning of such relations is determined by context, as the designation "possessive" refers to a grammatical category rather than to a strictly semantic concept. This explains why the so-called possessive genitive covers a broad range of meanings that extend well beyond simple ownership (Rosenbach 2002).

Quirk et al. (1985) categorise the genitive meanings in detail and provide numerous examples that highlight the diversity and flexibility of genitive constructions in English:

The **possessive genitive** expresses a relationship of ownership or belonging, i.e., that what one noun denotes, belongs to, or how it is somehow connected with what another noun denotes. However, the possessive function of genitive goes beyond that pure relationship and is often defined as a range of parameters associated, e.g. with animacy and alienability (Carlier & Verstraete 2013). This type of genitive is the most typical and also the most easily recognisable meaning of a genitive construction. In English, it is most often expressed by the apostrophe constructions. Some examples are *Emma's phone*, *the boy's bicycle* or *my teacher's book*. All of these constructions clearly indicate that the physical object belongs to a specific person or is closely associated with them.

The **subjective genitive** expresses that one noun acts as the subject of the action expressed by another noun. In such a construction, the agent of the action is in the genitive case, while the head of the noun phrase denotes the process itself. This type of genitive can usually be paraphrased with a sentence containing a verb, where the genitive member corresponds to the subject. An example is *the student's answer* – "the student answered". Similarly, *the author's speech* means "the author gave a speech", or *the manager's proposal* – "the manager proposed something". All heads of noun phrases (*answer*, *speech*, and *proposal*) represent a process and semantically behave like transitive verbs (cf. Biber at al. 2002; Quirk et al. 1985).

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The **objective genitive** suggests that one noun is the direct object of the action expressed by another noun. In such constructions, the genitive member is the addressee or recipient of the action named by the head of the noun phrase. This head is semantically close to a verb because it denotes a process and resembles a transitive verb in character (cf. Lančarič 2020). An example is *the company's closure* – "someone closed the company". Similarly, *the actor's dismissal* means "someone fired the actor", or *the patient's treatment* – "the doctors treated the patient". The objective genitive can often be replaced by an *of*-construction (e.g., *the dismissal of the actor*), which is an important distinguishing feature from the subjective genitive. In practice, however, ambiguity can arise because the same form can be interpreted subjectively or objectively depending on the context.

The **genitive of origin** indicates the origin or authorship of an object represented by another noun. In such a construction, the genitive member expresses the originator or creator, while the head of the noun phrase indicates the resulting product or creation (ibid.). This type of genitive is commonly associated with artistic, literary, or scientific works, but also with various forms of production or manufacture. An example is *Shakespeare's play* – "a play written by Shakespeare". Similarly, *Mozart's symphony* refers to "a symphony composed by Mozart", or *Picasso's painting* means "a painting created by Pablo Picasso". The genitive of origin can often be replaced by an *of*-construction (e.g., *the play of Shakespeare*), but the latter form sounds more bookish or archaic. In modern English, the *'s*-genitive is commonly preferred because it sounds more natural and is closely associated with personal names.

The **descriptive genitive** is used to classify an object represented by one noun into a certain category represented by another noun. It is therefore not a matter of ownership or origin, but of a generic or functional specification. In such a construction, the head of the noun phrase usually has a nominal meaning, while the preceding noun acts as a modifier, similar to an adjective. Therefore, for example, Biber et al. (2002) refer to the genitive as a modifier or classifying genitive. An example is *children's literature*. Other examples include *women's rights* and *a driver's license*. The descriptive genitive often occurs in combinations where compounds or adjectives could also be used, but the genitive provides a more natural and established form. This type of genitive does not express direct ownership, but rather categorisation or determination of the addressee, purpose, or function.

The **genitive of measure** uses a single noun to express time, duration, distance, length, size, or value in relation to another noun (cf. Biber et al. 2002). This type of genitive functions as a quantifier and serves to more precisely determine the extent or quantity associated with the head of the noun phrase. Its meaning is therefore predominantly quantitative, not qualitative. An example is *an hour's delay*.

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Other examples include *five miles' walk* or *ten euros' fee*. The genitive of measure occurs mainly in fixed constructions and is characteristic of formal or written language. In colloquial English, a descriptive alternative with a preposition is more commonly used (e.g., *a walk of five miles*, *a delay of three hours*).

The **attributive genitive** uses a noun in the function of an adjective and attributes a certain property or characteristic to an object represented by another noun. In such a construction, the head of the noun phrase does not refer to a specific object, but to an abstract property or quality associated with it. This type of genitive thus shifts the meaning towards evaluation or characterisation. An example is the *girl's kindness* – "the girl is kind". Similarly, *the soldier's bravery* means "the soldier is brave", or *the child's curiosity* – "the child is curious". The attributive genitive is close to the descriptive genitive, but while the descriptive genitive classifies into a category (e.g., *children's literature*), the attributive genitive emphasises an individual property or feature of a specific referent. It is therefore particularly typical when expressing abstract concepts such as feelings, qualities, or abilities. Here, too, there is a terminological inconsistency, as Biber et al. (2002) refer to the specifying genitive with a determinative function in this case.

The **partitive genitive** expresses that what is designated by one noun represents a part or component of a whole that is represented by another noun (cf. Lančarič 2020; Quirk at al. 1985). In such a construction, the genitive member is the whole, while the head of the noun phrase denotes its part or aspect. This type of genitive functions as a part–whole relation. An example is *the tree's branches* – "the tree has branches". Other examples include *the car's engine* or *the book's pages*. The partitive genitive is used mainly in cases where it is necessary to emphasise an integral part of a larger object or whole. It can often be confused with the possessive genitive, but the difference is that the possessive emphasises ownership, while the partitive expresses a structural part. In some cases, it can also be replaced by an *of*-construction (e.g., *the pages of the book*), which is very common in everyday communication.

The **appositive genitive** is a marginal category mentioned by Quirk et al. (1985). This is a type of genitive in which the noun phrase in the genitive functions as a complement or explanation of what is expressed by the *of*-phrase. This is not a possessive or processual relationship, but an identifying or explanatory relationship – a kind of "equals" assignment. An example is *the country of Slovakia* – "Slovakia is a country". Similarly, *the month of May* means "May is a month", or *the continent of Europe* – "Europe is a continent". The appositive genitive is used mainly in official or formal contexts where it is necessary to specify or categorise a concept more precisely.

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3. Corpus and methodology

The corpus is collected from a number of random online texts. The subsequent AI-assisted search identified a dataset of 280 *'s*-genitive structures, which were further analysed for the type and the frequency of semantic function/functions they perform within a minimal context. A mixed method (qualitative and quantitative) was used with a qualitative input at the initial stage, where each genitive structure was empirically tested for the type/types of semantic functions they perform. Next, a quantitative approach was employed to determine the frequencies and the productivity of the semantic functions. Based on the preliminary observations, three research questions are addressed:

1. Which semantic functions other than possession and belonging are dominant? The primary semantic function assigned to the English genitive is possession and belonging (the possessive genitive); e.g., *Sarah's book is on the table*, where the genitive structure *Sarah's book* is interpreted as having a possessive function. However, other semantic functions are common as well, whose frequencies will be identified.
2. What is the productivity of the cases which may perform multiple semantic functions? Some genitive structures, presented in the minimal context (the sentence in which they were tagged), may be interpreted in multiple ways, each being assigned a different semantic function. The previously mentioned possessive *Sarah's book* may, within the minimal context of the sentence, also be interpreted as the book being written by Sarah (the genitive of origin). Since the semantic functions may be dependent on the researcher's personal understanding and interpretations, in some cases, a degree of subjectivity in observation and classification is admitted.
3. Do certain multiple interpretations occur more frequently than others? This question addresses the fact that some sentences perform multiple semantic functions, and some identical multiple interpretations are more frequent than others.

These questions will be tested and elaborated further in the research below.

4. Results

Based on the classification of semantic functions of the English genitive case by Quirk (1985), the frequencies of the genitive semantic functions under study are introduced in Table 1. One and the same genitive structure may fall into one, two, or multiple categories, i.e. it may perform multiple semantic functions.

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Table 1. Frequencies of genitive semantic functions (Own sourcing).

Type of semantic function	Number of cases
possessive genitive	216
descriptive genitive	212
attributive genitive	70
genitive of origin	66
subjective genitive	58
partitive genitive	52
objective genitive	10
genitive of measure	0
appositive genitive	0

The possessive function appears the most frequent, containing even such cases which express belonging rather than possession. This category is followed by the descriptive genitive, the one which expresses a quality, a characteristic, or a type, e.g., *the actor's smile charmed the audience,* where *the actor's* plays a substitutive role for an adjective, determining the type.

As introduced previously, the semantics of the English genitive may not be quite easy to grasp, and its interpretation may vary based on the speaker's / listener's subjective understanding and observation. Thus, many genitives may fall into two or even multiple categories, i.e. may enter multiple semantic functions, e.g. *the actor's script was difficult* may be interpreted as

1. Possessive genitive: the actor owns the script (possession).
2. Descriptive genitive: specifies the type of script (implying that other types of scripts may be easier).
3. Genitive of origin, referring to the script which was created by the actor.

The dataset of *'s*-genitive structures is tested for this kind of multiple implications, to examine the percentage of the genitives which may enter multiple semantic functions, i.e. may have multiple semantic implications as opposed to those structures which perform only one semantic function.

Table 2. The proportion of genitives with multiple semantic interpretations (own sourcing).

one semantic interpretation	multiple semantic interpretations
22 (4.3%)	268 (95.7%)

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The results indicate that the interpretability of genitives' semantic functions may vary, and often the same minimal context (the sentence in which the genitive structure is tagged) may be interpreted in multiple ways. To demonstrate the case in greater detail, some examples of multiple interpretations are presented below.

A. *The soldier's boots were heavy*: the genitive of *the soldier's boots* may well refer to the possession ("the soldier owns the boots") or a description where the "soldier's boots" describes the types of boots (syn. *combat boots*).
B. *The cat's whiskers twitched*: the genitive of *the cat's whiskers* may be interpreted as possession ("the whiskers that belong to the cat"), which semantically enters the role of possessive genitive. Equally, the interpretation may be the one of the partitive genitives where the whiskers refer to the part of the cat's body.
C. *The mother's smile calmed her baby*: the genitive of *the mother's smile* performs multiple semantic functions. It can refer to belonging ("the smile related to the mother"). It may be interpreted as a subjective genitive since the mother is the agent of smiling ("mother was smiling"). In a comparative context, it may refer to the descriptive genitive distinguishing "the mother's smile" from, e.g., "a teacher's smile".
D. *The city's streets were empty*: "the city's streets" may be interpreted as having a possessive function, i.e. "the streets belong to or are associated with the city". The partitive function, with the streets being interpreted as "a part of a whole", as well as the descriptive function where the "city" specifies the types of streets as opposed to, e.g., "village streets", are the other possible interpretations.
E. *The bird's feathers were colourful*: the genitive of "the bird's feathers" clearly demonstrates the possessive function (it expresses ownership – the bird owns the feathers). If focused on one of the many feathers, this genitive structure may be interpreted as having a partitive function. The genitive may also describe a type of feathers as contrasted to, e.g., "peacock's feathers", which implies the descriptive function.

The multiple interpretations will undergo a further quantitative analysis to identify the most common combinations of multiple semantic interpretations. The following combinations of interpretations are identified:

Table 3. Multiple interpretations of the English genitive (own sourcing)

possessive + descriptive	60
possessive + descriptive + attributive	26
subjective + descriptive + origin	22
possessive + partitive + descriptive	14

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possessive + subjective + descriptive + attributive	12
descriptive + origin	10
possessive + subjective + descriptive	10
possessive + partitive + descriptive	8
possessive + subjective + origin	6
subjective + partitive + descriptive + attributive	6
possessive + origin	4
possessive + partitive + descriptive + attributive	4
possessive + subjective + descriptive + origin	4
other	16

The multiple interpretability of the English genitive is evident, and the speaker's / listener's contribution to interpreting the semantic function significantly influences its semantics. As introduced in Table 3, an identical genitive structure together with its identical minimal context may acquire different interpretations and enter different semantic functions as introduced in A. – E. above. The most frequent cases of multiple interpretations include the possessive + descriptive genitives, represented by as many as 60 occurrences. A large number of the genitives may be interpreted as performing either the possessive or the descriptive functions. The following categories, which are also notable, are represented by the multiple interpretations of possessive + descriptive + attributive, represented by 26 occurrences, and the category of subjective + descriptive + origin, represented by 22 cases. The occurrences of the genitives which are potentially interpreted across multiple semantic functions are illustrated in the graph below, some genitives having two and others having multiple interpretations.

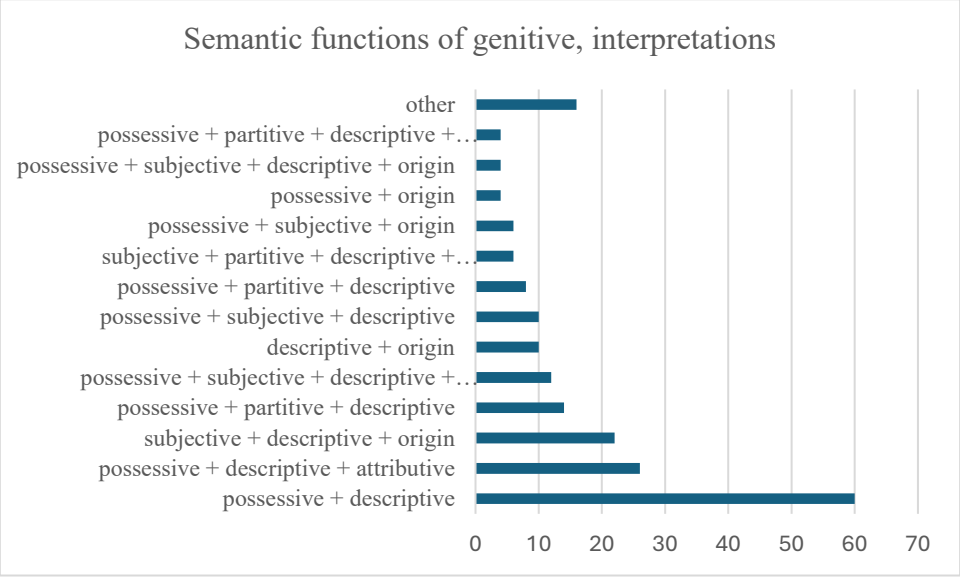

Figure 1. Interpretative variability of the English genitive (own sourcing).

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5. Discussion and conclusions

The semantics of the English genitive allows for a wide range of interpretations. Its semantic functions reflect the various contexts in which the genitive is used; thus, it can barely be interpreted without at least a minimal context. In this study, the minimal context is exemplified by a sentence in which the genitive structure is tagged.

In the most general terms, the English genitive is also called the possessive case, postulating possessiveness and belonging as its most typical semantic functions. Possessiveness and belonging are identified as the most frequent functions in this paper as well, followed by the descriptive genitive, the attributive genitive, and the genitive of origin.

The semantic functions of the English genitive are often subjected to multiple interpretations, depending on the speaker's or listener's understanding. In fact, over 95% of the genitives can potentially be interpreted in multiple ways, and the genitives with only one interpretation of their semantic functions are very rare. Since some combinations of the interpretations occur more frequently than would be expected by chance, certain patterns may be observed.

Some possessive genitives can largely be interpreted as descriptive genitives as well. The combination of the possessive and the descriptive genitives appears the most frequent. The ambiguity stems from the nature of the genitive structure and the surrounding sentence. The combination of the possessive and the descriptive interpretations confirms its importance. In some cases, even a triple interpretation is possible as the same genitive structure within the same sentence may be interpreted as possessive, descriptive, and attributive depending on the speaker's reasoning.

The third most frequent multiple interpretation does not include the possessive genitive. A large group of such genitives was identified, which may be assigned the subjective genitive function, where the genitive is the agent of the action expressed by the second noun phrase, the descriptive genitive, having a classifying function rather than a function expressing possession or belonging, and the genitive of origin, determining where a state or a process comes from.

On the other hand, some genitives do not allow the interpretation of the subjective function and can only be interpreted in two ways (the descriptive genitive and the genitive of origin). These combinations are followed by other function groupings, such as multiple combinations of the possessive + partitive + descriptive genitives, the possessive + subjective + descriptive + attributive

genitives, or the possessive + subjective + descriptive genitives. The combinations with minor occurrences were grouped into the category of "other".

The interpretations of the semantic functions of the genitive vary greatly and are subject to the individual's subjective judgements. Ultimately, the genitive is a highly flexible and multifunctional category whose boundaries remain fluid. Therefore, further research is needed to provide a more comprehensive picture of its semantic potential and contextual variability.

References

1. Akmajian, A., Demers, R.A., Farmer, A.K. & Harnish, R.M. (2001). *Linguistics. An introduction to language and communication.* 5th ed. Cambridge: The MIT Press.
2. Allen, C.L. (2003). Deflexion and the development of the genitive in English. In *English language and linguistics*, 7(1). Cambridge: Cambridge University Press.
3. Biber, D. (2003). Compressed noun-phrase structures in newspaper discourse. In *New media language*. London: Routledge, p. 169-181.
4. Biber, D., Conrad, S. & Leech, G. (2002). *Longman student grammar of spoken and written English*. Harlow: Pearson Education Limited.
5. Carlier, A. & Verstraete, Ch.J. (2013). *Genitive case and genitive constructions. An introduction*. Leuven: University of Leuven.
6. Carter, R. & McCarthy, M. (2006). *Cambridge grammar of English. A comprehensive guide spoken and written English grammar and usage*. Cambridge: Cambridge University Press.
7. Dušková, L. et al. (1988). *Mluvnice současné angličtiny na pozadí češtiny*. Praha: Academia.
8. Grafmiller, J. (2014). Variation in English genitives across modality and genres. In *English language and linguistics,* 18 (3). Cambridge: Cambridge University Press, p. 471-496.
9. Hinrichs, L. & Szmrecsányi, B. (2007). Recent changes in the function and frequency of standard English genitive construction: A multivariate analysis of tagged corpora. In *English language and linguistics*, 11 (3). Cambridge: Cambridge University Press, p. 437-474. DOI: 10.1017/S1360674307002342
10. Huddleston, R. & Pullum, G.K. (2002). *The Cambridge grammar of the English language*. Cambridge: Cambridge University Press.
11. Jucker, A.H. (2003). The genitive versus the of-construction in newspaper language. In *The noun phrase in English: Its structure and variability*. Jucker, A.H. (ed.). Heidelberg: Carl Winter, p. 121-136.
12. Kreyer, R. (2003). Genitive and of-construction in modern English: Processability and human involvement. In *International journal of corpus linguistics,* 8 (2). Amsterdam: John Benjamins.
13. Lančarič, D. (2020). *English grammar in theory and practice*. Bratislava: Comenius University.
14. Matthews, P.H. (1997). *The concise Oxford dictionary of linguistics*. Oxford: Oxford University Press.
15. Payne, J. & Berlage, E. (2011). The effect of semantic relations on genitive variation. In *Proceedings of the international society for the linguistics of English 2 (ISLE 2)*, Boston, p. 17-21. Available at: https://www.bu.edu/isle/files/2011/06/ISLE-Book.pdf

16. Piotrowska, A. (2021). Animacy and other determinants of genitive variation in Swedish: S-genitive vs. prepositional construction. In *Lege artis. Language yesterday, today, tomorrow.* Trnava: University of SS Cyril and Methodius in Trnava, VI (1), June 2021, p. 109-157.
17. Piotrowska, A. (2018). Group genitive in Swedish – s-genitive as a phrase marker. In *European journal of Scandinavian studies*, 48 (2). Berlin: De Gruyter, p. 231-252.
18. Piotrowska, A. (2023). Variation in nominal possessive expression: Case studies from Danish and Swedish. Leiden – Boston: Brill. Available at: https://books.google.sk/books?hl=en&lr=&id=YNT7EAAAQBAJ&oi=fnd&pg=PR5&dq=info:3T34TYKyu5oJ:scholar.google.com&ots=2Jn6RyM8DW&sig=5v530VJGtVTX4scOmEWHgvu_Hw&redir_esc=y#v=onepage&q&f=false
19. Quirk, R., Greenbaum, S., Leech, G. & Svartvik, J. (1985). *A comprehensive grammar of the English language*. London – New York: Longman.
20. Robins, R. H. (1964). *General linguistics. An introductory survey*. London: Longman.
21. Rosenbach, A. (2006). Descriptive genitives in English: A case study on constructional gradience. In *English language and linguistics,* 10 (1). Cambridge: Cambridge University Press, p. 77-118. DOI 10.1017/S1360674306001791
22. Rosenbach, A. (2002). *Genitive variation in English: Conceptual factors in synchronic and diachronic studies.* Berlin – New York: Mouton de Gruyter.
23. Vikner, C. & Jensen, P. A. (2002). A semantic analysis of the English genitive. Interaction of lexical and formal semantics. In *Studia linguistica*, 56 (2), p. 191-226. DOI: http://doi.org/10.1111/1467-9582.00092
24. Visan, N. (2011). *Some notes on the evaluation of the English synthetic genitive*. Bucharest: University of Bucharest.

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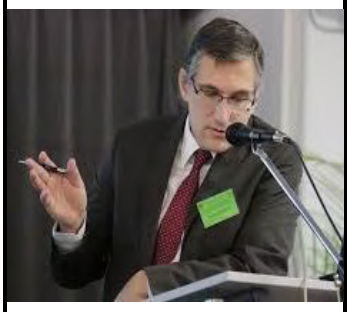

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THE LINGUISTIC IMAGE OF FISH IN SPANISH, ARABIC, AND JAPANESE. A COMPARATIVE STUDY[1]

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Abstract: This paper explores the linguistic and cultural significance of the term 'fish' across three languages: Spanish, Arabic, and Japanese. By analysing phraseological units (PhUs), including collocations and proverbs, the study integrates cultural linguistics and phraseology to show how fish-related PhUs reflect broader cultural values and beliefs, as well as the historical, religious, and social contexts. The research draws from a variety of dictionaries and linguistic sources to examine these representations, revealing how the symbolism of fish permeates worldviews in maritime cultures.

Keywords: fish; linguistic image of the world; phraseological unit; collocation; comparative linguistics.

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1. Introduction

Fish, as common vertebrate species, have been present and significant in human lives for as long as humanity has existed, leading to their symbolic importance in many areas. Historically, the concept of fish has occupied a central role in the world's dominant religions, many of which originated in regions with direct access to the sea. This geographic proximity may explain many societies' profound understanding of these aquatic creatures. In Christianity, the fish symbolises Christ, while in Judaism (and all Abrahamic religions), it is associated with the story of Jonah and the Whale. In ancient times, fish were also central to Babylonian (the fish god Oánes) and Egyptian (the legend of Osiris and Isis) mythology (Ogiso 2021: 161). In daily life, the fish is often seen as a symbol of fertility due to its association with the abundance of marine life (ibid).

Among animals that serve as symbols, many of which are frequent subjects of linguistic research and are explored through various methodologies and perspectives (e.g., Borkowska et al. [eds.] 2018 [studies of the cat]; Kochman-Haładyj 2024 [study of the dog]; Rychło et al. 2024), fish stand out in particular. As Ogiso (ibid., 162) notes, "fish have a very familiar and especially physical relationship to humankind in the sense that they become our blood and meat," and they appear to be the only symbol "edible in its entirety," unlike other animal symbols such as the lion, cow, or snake. Furthermore, the distinctiveness of fish as a symbol is amplified by the fact that some people do not consider it to be meat, as in Catholicism, where fish is exempt from the no-meat Friday fast.

Given that cultural linguistics greatly benefits from semantics, this study examines the denotations and connotations of the words for 'fish' as documented in multiple dictionaries across three languages: Spanish (the European variety), Arabic (Modern Standard Arabic and the Tunisian dialect), and Japanese. These languages were chosen because they belong to different language families, making them significantly distinct from one another. At the same time, they are spoken in countries with direct access to the sea, prompting the hypothesis that in all three languages, the term 'fish' will be found not only in reference to sea creatures but also in various phraseological units (PhUs), reflecting the cultural beliefs of the societies under study.

2. Theoretical framework

2.1 Linguistic units

Analysing the linguistic representation of fish across various languages requires us to consider all types of linguistic units within these language systems. This involves not only examining the simple words for 'fish' but also exploring PhUs that incorporate this lexical unit, given that the specific

linguistic worldview of each nation is shaped in part by its phraseology (Szerszunowicz et al. 2017: 30)[1]. The analysis encompasses various types of PhUs, especially collocations and proverbs. These units convey specific ways of thinking, valuing, and formulating judgments, which in turn shape our identity and cultural uniqueness (ibid., 24).

According to Amvela and Jackson (2007: 50), a word is "an uninterruptible unit of structure consisting of one or more morphemes, and which typically occurs in the structure of phrases." Words carry meanings that are studied by semantics, which builds upon two pivotal concepts introduced by Hjelmslev in the mid-20th century: denotation, which refers to a word's basic, literal meaning, and connotation, which encompasses the additional meanings and values a word acquires in specific contexts (Perusset 2020). Connotation, representing a secondary meaning, is less conventional than denotation and never supplants it. Instead, connotation adds an extra layer of meaning to a linguistic sign without diminishing its denotative, inherent significance (Eco & Pezzini 1982). Trask (1995) states that words do not exist in isolation with fixed meanings, but rather, that they are intricately connected to the meanings of other words.

Trask's statement enables us to move forward and define a PhU, which is a broad term that includes different types of structures. The PhU, holding a central place in the terminological framework of phraseological research, is a lexically established, multi-word linguistic unit that exhibits semantic and syntactic stability and is largely characterised by idiomaticity and opacity. Due to its optional connotative features, it can serve various pragmatic functions in discourse (Fiedler 2007). PhUs of all languages are considered one of the fundamental bases of information for constructing the linguistic image of the world. Multi-word units serve as significant means for expressing evaluations, enabling language users to convey subjective evaluative attitudes toward objects and phenomena. These units effectively encode an understanding of reality through images (Lagodenko 2013). Some of them are typical of certain languages, highlighting elements unique to those languages, while others are shared by several languages and are referred to as phraseological internationalisms (Golda et al. 2023). The phraseological meaning of fixed units is deeply connected to cultural and cognitive perspectives, highlighting the evolution of linguistic frameworks in different societies (Zykova 2016).

Two types of PhUs need to be defined here: collocations and proverbs. The first type represents combinations of two or more linguistic units that must stay together. They are the least prototypical type of PhU, composed of only two words, but they reflect cultural differences between countries and nations (Golda 2024a; 2024b; Golda & Roemer 2023; Golda & Zrigue 2023). As a binary structure,

a collocation consists of a main word, the base, and its co-occurrent, the collocate. This implies that one lexical element of a collocation is chosen freely, while the other is not. The boundary between collocations and more fixed PhUs is as blurry as the one between collocations and freely lexical associations. Collocational combinations are naturally chosen and preferred over free structures that carry similar meaning and are stored in the mental lexicon (Pęzik 2018: 27). When discussing proverbs, Ouerhani and Lajmi (2023) suggest that they be considered autonomous PhUs, arising from the collective wisdom of a linguistic community. Proverbs are minimal texts characterised by complete fixedness. They often possess an artistic form expressed through rhymes and syntactic and lexical archaism (Szerszunowicz 2011; Zrigue 2018a; 2018b).

Collocations and proverbs are worth examining due to their status as primary conveyors of worldview and because they illustrate cultural differences between nations (Golda et al. 2022; Golda & Zrigue 2023: 140; Szerszunowicz et al. 2017; Uberman 2023). The topic of cultural linguistics is elaborated on in the next subsection.

2.2 Cultural linguistics

In the 1970s and 1980s, linguists recognised that studying language in isolation was inadequate; it needed to be examined within the broader contexts of culture, society, and reality, considering their interdependencies. This realisation gave rise to cultural linguistics, also known as anthropological linguistics or ethnolinguistics. This field explores the intricate relationships between language and culture, viewing language not merely as a tool for expression and communication but as a vessel of a community's cultural heritage, which reflects social practices and the accumulated experiences of generations. Language stands as a pivotal cultural creation and a foundational element of culture. It is considered to be the richest and most universal repository of cultural knowledge, serving as a means to perpetuate, preserve, and transmit cultural content (Cholewa 2008: 72).

A fundamental analytical category within cultural linguistics is the linguistic image of the world, which refers to the perception of reality articulated through language. This concept is integrated into language as a set of judgments about the world (Bartmiński 2006: 12). These manifest in linguistic structures such as grammar (e.g., through various moods), vocabulary, and stereotyped expressions such as proverbs. The judgments can also be implicit, embedded in linguistic forms and rooted in social knowledge, beliefs, myths, and rituals.

When discussing the cultural image of the world, the concept of frame may also come to mind. A frame refers to a schematisation of experience, representing a knowledge structure at the conceptual level which is held in long-term memory. Frames relate elements and entities associated with particular culturally embedded scenes, situations, or events from human experience. They encompass various types of knowledge, including attributes and the relations between them, thereby providing a structured method to understand how language encodes cultural meanings (Evans 2007: 85-86). The concepts of frame, cognitive domains and cognitive idealised models are applied as synonymous by some scholars. However, they are not exactly equivalent (Dziekan 2024: 126-127). Langacker (2013: 46-47) clarifies that:

"*Domain has the greatest generality since neither frame nor ICM applies very well to basic domains (e.g. time or colour space). A frame may be roughly comparable to a nonbasic domain. If the words idealized and model are taken seriously, idealized cognitive model has the narrowest range of application*".

Another analytical category is profiling, a subjective linguistic and conceptual process that shapes how an object is perceived by describing it through specific aspects, within a particular field of knowledge and from a chosen point of view. Through profiling, a profile, i.e., a variant of how the object is perceived, is constructed (Bartmiński & Niebrzegowska 1998). Profiling, as defined by Evans (2007: 172), involves the conceptual 'highlighting' of some aspect of a domain. It is the process by which an aspect of a larger conceptual structure, or base, is selected and brought into focus.

The last term crucial for the methodology of cultural linguistics is the point of view, defined as a subjective and cultural factor that influences how an object is discussed. This includes its categorisation, the choice of the onomasiological base when naming it, the selection of the object's features emphasised in statements, and those embedded in its meaning (Bartmiński 2004: 103-105). The point of view serves as a lens through which language shapes and reflects cultural perceptions.

3. Method

The analysis focuses on cultural implications revealed through collocations involving the word for 'fish.' It must be noted that this analysis centres on the Spanish, Japanese, and Arabic equivalents of the word for 'fish' and their PhUs, rather than specific species names. However, an exception applies: if the lexical entries for 'fish' in these languages include PhUs containing names of specific fish species, they are integrated into the research. When it comes to Arabic, the data consists of proverbs and PhUs in both Modern Standard Arabic and Tunisian dialects. In Spanish, most of the dictionaries used in the analysis were published in Spain; therefore, the results concentrate on the peninsular

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variant of Spanish. We acknowledge the fact that there might be different results if variants of Spanish used in Latin America were analysed, and we encourage such a future study.

The data for this study were sourced from a variety of dictionaries, including monolingual, bilingual, collocation, and phraseological dictionaries, both in print and online. The resourcefulness of the dictionaries is recognised by various scholars who utilise them as the source material (e.g., Mężyk 2021; Ryszka et al. 2024). Moreover, dictionaries are one of the sources used in linguistic worldview analyses (cf. Bartmiński 2006) employed by various scholars (e.g., Golda et al. 2022; Jedziniak & Ryszka 2024). In Spanish, the analysis draws from four general monolingual dictionaries, two phraseological dictionaries, and one dictionary of Spanish proverbs. For Japanese, two collocation dictionaries and two monolingual dictionaries were consulted. The occurrences in Arabic are primarily sourced from two monolingual dictionaries specialised in paremiology and phraseology. The collected data, along with the full list of sources used to collect them, are available online: https://zenodo.org/records/17700396.

4. Lexical-semantic analysis of the collected data

4.1 Spanish

Spanish has two equivalents of 'fish': *pez* and *pescado*. The former refers to an aquatic vertebrate, and the latter to an edible kind of fish or fish meat (Sánchez 2001). Two other monolingual dictionaries used in the analysis (RAE and Moliner 1994) confirm this distinction, providing a different number of attributes in their descriptions of *pez*.

Seventeen nominal phrases referring to names of fish species that contain the word *pez* 'fish' have been identified. Moliner (1994) lists many fish species under the *pez* entry; however, these were not included in the analysis in the present paper as they are not indicated as forming any PhU.

The names of fish that include the word *pez* are based mostly on the physical features of different fish that cause them to resemble different animals (e.g., *pez zorro* lit. 'fox fish', *pez mujer* lit. 'woman fish') or objects (*pez ballesta* lit. 'crossbow fish', *pez martillo* lit. 'hammer fish', *pez luna* lit. 'moon fish', *pez sierra* lit. 'saw fish', *pez espada* lit. 'sword fish', *pez globo* lit. 'balloon fish'), or refer to their abilities or properties (e.g., *pez volador* lit. 'flying fish', *pez de pega* lit. 'fish that sticks'). In some cases, the names simply describe the physical properties of certain types of fish (e.g., *pez de colores* lit. 'colourful fish', *pescado blanco* lit. 'white fish', *pescado azul* lit. 'blue fish'). We have also identified two names of fish that derive from the Christian tradition (*pez de San Pedro* lit. 'St Peter's fish', *pez*

del diablo lit. 'devil's fish'). The etymology of *pez emperador* is uncertain. *Pez emperador* and its English equivalent *emperor fish* appear to have the same root as they are literal equivalents. The DECEL etymological dictionary points to the culinary appreciation of the fish, as well as to the fact that 'owning something as military and powerful as a sword might have contributed to the name of emperor fish'. The last fish name is *pez reverso* (lit. 'reverse fish'): this fish is able to attach itself to other marine species, such as whales or sharks. It has a dorsal fin that works like a suction cup and enables it to stick to other, bigger fish and ride along with them. While it is attached in this way, the underside of the fish is visible, and such an image might be the origin of its name.

Six other nominal phrases with *pez* or *pescado* have been identified. Three of them are based on the physical properties of fish and resemblance in other domains, e.g., *espina de pescado* and *espina de pez* (lit. 'fishbone') are based on the resemblance of the shape of a fishbone to a decorative pattern, *ojo de pescado* (lit. 'fish's eye') uses the resemblance of a fish´s eye and a wart (which is the meaning of this unit). The expressions *comida de pescado* (lit. 'fish food') and *día de pescado* (lit. 'fish day') are rooted in the Christian tradition. They function as metonymy, as fish is associated with fasting, and both these terms have come to denote 'fast' itself. The last of the retrieved nominal phrases, *cola de pescado* (lit. 'fish glue'), uses *pescado* to indicate the origin of the substance that the phrase names.

The analysis has also singled out 18 PhUs and 12 proverbs with *pez* or *pescado*. The majority of the identified PhUs are based on the correlation between the fish's physical condition and its metaphorical extension[3] to other domains, as presented in Table 1.

Table 1. Spanish PhUs with 'fish' and their meaning. Source: Own processing

PhU	**English literal translation**	**Metaphorical meaning**	**Explanation[2]**
como (el) pez en el agua	like a fish in the water	to feel comfortable, at ease in a place	correlates the physical condition of fish to other life situations (fish in the water = comfort)
pez gordo	fat fish	an important or influential person	correlates the physical condition of fish to other life situations (a big, fat fish eating a smaller one is similar to an important person having power over a less important one. Bigger = more powerful)
picar el pez	to bite (fish)	to be fooled	correlates the physical condition of fish to other life situations (taking the bait = being deceived)

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un pez que nada contra corriente	fish that swims against the current	sb that behaves in a way that is different to how the majority of people behave	correlates the physical condition of fish to other life situations (to act unlike others is like swimming against the current)
ahumársele a alguien el pescado	to get smoked (one's fish)	to get upset, angry	correlates the experience of cooking a fish to other life situations. Fish getting smoked = rage caused by something
como (el) pez fuera del agua	like a fish out of the water	to feel uncomfortable in a place	correlates the physical condition of fish to other life situations (fish out of water = discomfort)
reírse de los peces de colores	to laugh at the colourful fish	not to treat sth seriously or consider it important, to laugh at sth that does not have importance	uncertain origin, probably based on the idea of colourful aquarium fishes being small and therefore 'unimportant' and the same qualities attributed to other situations or things. The experience of observing a fish tank and laughing at it = considering something unimportant and unthreatening
ver menos que un pez frito	to see less than a fried fish	to see very little	humorous meaning, based on the image of a fried fish that is no longer able to see anything and the correlation of this condition and others in which somebody is unable to see
luego/aún dicen que el pescado es caro	later / still they say that fish is expensive	sth has taken a lot of work and effort despite the fact that it might not appear to be this way and that the effort might not get due credit	correlates the effort and hard work of fishermen not being appreciated and efforts in other fields
vender todo el pescado	to sell out all the fish	to be finished or solved	correlates fish trading with other kinds of business

Four other PhUs are based on the idea that fish have little mental capacity: *estar alguien pez en alguna materia* (to lack experience or knowledge, lit. 'be a fish in a certain matter'), *memoria de pez* (bad memory, lit. 'fish's memory'), *ser un besugo* (to be stupid, lit. 'to be a bream'), *diálogo de besugos* (lit. 'breams' dialogue'). One of the PhUs (*Ni carne ni pescado*, lit. 'neither meat nor fish') is based on the opposition between meat and fish as basic alimentary products and alludes to the Christian tradition of fasting.

Two other identified PhUs have uncertain etymology and are considered both humorous and vulgar: *Anda y que te folle un pez* (bug off) and its alternative *que le folle un pez* are used to manifest

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contempt. Their literal meaning is absurd ('go and get fucked by a fish') or, as Buitrago Jiménez (2007) puts it, 'surreal', and that is probably the justification for this idiom. Lastly, the PhU *canguingos y patas de peces* also has an uncertain etymology and humorous overtone; however, its meaning can also be ascribed to the absurdity of the literal meaning. *Canguingos* seems to be a made-up word; nobody knows what it means (Buitrago Jiménez 2007), while *patas de peces* means 'fish paws'. Since fish do not have paws, the whole PhU refers to non-existent food, which might have been the motivation for this PhU as it is used when we want to keep a menu a secret and somebody asks about the meal.

As for the identified proverbs, some of them use the correlation between the physical properties of fish and their metaphorical extension to other domains, e.g., fish stinks after three days, and so do unwanted guests (*El huésped y el pece a los tres días hiede*), fish is best when fresh and so is love (*El enamorado y el pez, frescos han de ser*). The proverb *Por la boca muere el pez* (lit. 'a fish dies through its mouth') is based on the image of a dying fish that moves its mouth and the image of talking people. It means that a person who speaks too much or says inappropriate things ends up suffering the consequences. Other proverbs are based on the experience of fishing and a metaphorical extension to other domains, e.g., *El pez que busca el anzuelo, busca su duelo* compares a fish being caught on bait and a person being deceived. *Salga pez o salga rana a la capacha* (lit. 'be it fish or be it frog, into the basket') compares collecting fish and other aquatic creatures to sourcing other things; the proverb reprimands the avarice and thirst of people who collect everything they find, even if it is not worth much. Finally, *Pescador que pesca un pez, pescador es* (lit. 'a fisherman that catches a fish is a fisherman') is based on the idea of effort and hard work of fishermen and extends it to other areas. The proverb consoles a person whose effort achieves a part of what was sought. Fish in the retrieved proverbs is also depicted as a reward for hard work (*El pece para quien lo merece,* lit. 'a fish for him who deserves it'), a potential danger (*Mala boca, peces coma,* lit. 'a bad mouth should eat fish'), or a kind of food inferior to meat (*Carne, carne cría; y peces agua fría,* lit. 'meat rears meat and cold water rears fish'). The last group of proverbs reflects culinary traditions. In *Castellano viejo, ajo con pescado abadejo* (lit. 'an old Castillian eats garlic with pollock'), pollock fish is perceived as a very basic, unsophisticated food for the Castillian people. *De los pescados, el mero*; *de las carnes, el carnero* (lit. 'among fish, the grouper, among meats, mutton') sees the grouper fish as the best kind of fish, which might be conditioned by the rhyme of the proverb. Finally, *El arroz, el pez y el pepino nacen en agua y mueren en vino* (lit. 'rice, fish and cucumber are born in water and die in wine') presents wine as the best beverage to go with food to facilitate digestion.

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4.2 Arabic

In general, in Arab culture and specifically Tunisian culture [3], the fish, or السمك / الحوت *al-ḥūt / a-samak*, holds significant symbolic importance, which is why it appears in numerous proverbs and PhUs. This aquatic creature is associated with deep beliefs and ancestral practices still prevalent in many regions of the Arab world, despite its desert-like geography. Fish are often seen as symbols of fertility, prosperity, and protection from the evil eye (Gandouz 2023: 84). However, the fish is not merely an abstract symbol; it also plays a role in culinary practices and festive rituals. For example, during certain religious and family celebrations, specific fish dishes are prepared to attract luck and ensure a prosperous year, and in some North African regions, a bride might even be made to jump over a fish the day after her wedding. This connection between fish and luck is deeply rooted in the collective mentality and is reflected in daily rituals [3]. Table 2 presents more examples of proverbs with the word for 'fish'.

Table 2. Examples of proverbs with 'fish' in Arabic. Source: Own processing

PhUs	**English literal translation**	**Metaphorical meaning**	**Explanation**
PhUs related to the natural environment and biology of fish			
حوت يأكل حوت وقليل الجهد يموت *Hut ya'kul hut w'qlīl e-jihd y'mūt*	A fish eats another fish, and the one who makes little effort dies.	illustration of the law of the strongest in the world, where the most powerful or competitive survive and thrive, while those who do not put in enough effort or are weaker end up being overtaken or failing	highlights a form of struggle for survival, particularly in contexts where competition is fierce; can be used literally at the first level of interpretation in a marine context, or metaphorically, where the characteristics associated with fish (also reminiscent of the law of the jungle) are attributed to humans
السمكة الكبيرة تأكل السمكة الصغيرة *A-samaka al-kabīra ta'kulu a-ssamaka a-sṣaghīra*	The big fish eats the small fish.	same meaning as the previous proverb	literal Arabic version of the previous proverb

PhUs related to fatality, escape, and end			
مات البحر وصلى عليه الحوت *Māt al-baḥr wa ṣallā 'alayhi al-ḥūt*	The sea has died and the fish prayed for it.	something is completely finished or exhausted, often in a definitive manner	everything is over and there is nothing more to be done or saved: the fish symbolises the inevitable end and the acceptance of the situation by the involved parties
فلان كالحوت تخرجه من الماء يموت *Flān kāl-ḥūt tukhrijuhu min al-mā' yamūt*	He is like a fish: out of water, he dies.	describes a person who is completely dependent on their environment or usual situation to function well or feel comfortable	just as a fish cannot survive out of water, the person in question cannot thrive or feel at ease outside of their familiar context or conditions
اكتب على الحوت وسيب في البحر *Iktib 'alḥūt w sayīb fīlbḥar*	Write on the fish and leave it in the sea.	refers to not keeping one's promises or failing to fulfil commitments	just as the fish quickly slips away and disappears into its aquatic environment, unfulfilled promises quickly vanish and have no lasting impact
السمك في البحر والطبيخ في البر *Al-samak fī al-baḥr wa al-ṭabīkh fī al-barr*	The fish is in the sea, and the cooking is on land.	for something to work optimally, it needs to be in the right environment or context	fish belong in the water, and cooking happens on land. This separation suggests that each thing or activity should be performed in its appropriate setting to function properly
سيب الحوت في الماء واقعد اجري وراه *Sayīb-il-ḥūt fīl-mā' wuq'ud ijrī wrāh*	Leave the fish in the water and run after it.	if you let something go unattended, you will have to chase after it to recover it, but it will often be too late to succeed	the fish in the water symbolises something left to its own devices, without proper management or oversight; running after the fish symbolises the desperate efforts to correct past neglect, often with little chance of success
PhUs inspired by biblical, Quranic, and legendary imagery			
بلعه بلعان كما بلع الحوت سيدنا يونس *Bal'u bal'ān kimā bla' il-ḥūt sayyidnā Yūnus*	He swallowed it as the fish swallowed Prophet Jonah.	description of a total disappearance, irreversible, difficult to recover	reference to the biblical story of Jonah being swallowed by a big fish
فلان أصابه الغم كيونس في بطن الحوت	He was struck by sadness like	description a state of deep sadness or distress	reference to the biblical story of Jonah, in which he is swallowed by a large fish

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Flān asābah al-ghammu kamā Yūnus fī baṭn al-ḥūt	Jonah in the belly of the fish.		and finds himself in a situation of confinement and anxiety
PhUs related to deception, decadence, and corruption			
شكيت همي للبحر خرج الحوت يندب فيهم *Shkit hammī lil-bḥar khraj al-ḥūt yindib fihim*	I shared my worries with the sea, and the fish came out to mourn them.	emphasises the intensity or severity of a dire situation	if one shares one's worries with the sea, the fact that the fish comes out to cry symbolises the extent of the distress or misfortune; the fish, usually associated with trivial or unexpected reactions, becomes a metaphor to accentuate the depth of the situation
يا صاحبي ما تغرك ضحكاتهم ما يدومو، الحوت في البحر عوام وهما من غير ماء يعوموا، يتوضوا وما يصلوا، يتسحروا وما يصوموا *Yā ṣāḥibi mā taghurrik ḍaḥkātuhum mā yadūmū, al-ḥūt fī al-baḥr 'awwām wa humā min ghir mā' y'ūmū, yitwaddū w mā ysallū, yitasahharū wa mā yṣūmū*	Don't be deceived by their laughter; it doesn't last; the fish swims in water, but they try to swim without water, wash but don't pray, eat before dawn but don't fast.	used to comfort and reassure someone who is suffering from injustice or unfair treatment by others	fish trying to swim without water is correlated to the deceptive appearances and superficial behaviours of others which are not lasting and should not therefore deeply affect the person who is suffering
الأسماك التي تعيش في البركة الفاسدة، يسري عفن رائحة ماء البركة في دمائها *Al-asmāk allatī ta'īsh fī al-birka al-fāsida, yasrī 'afn rā'iḥat mā' al-birka fī dimā'ihā*	Fish that live in a rotten pond have the rotten smell of the pond water in their blood.	the environment in which a person exists can influence and corrupt their own characteristics or behaviour	the fish living in a rotten pond symbolise individuals who are situated in a degrading or toxic environment: just as fish are affected by the quality of the water they live in, people are influenced by their surroundings
السمكة الفاسدة تفسد كل سمك السلة *A-samaka al-fāsida tufsid kulla samaki-salla*	A rotten fish corrupts the whole basket.	one negative or corrupt element can spoil or affect an entire group or system	just as a single rotten fish can spoil the entire batch in a basket, one bad influence or element can have a detrimental impact on everything around it

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PhUs related to wisdom and knowledge			
الصياد يعرف السمك من رأسه *Al-ṣayyād ya'rifu a-samak min ra'sihi*	The fisherman recognises the fish by its head.	an expert or someone knowledgeable can easily identify or understand something by examining its most crucial or distinctive part	a skilled fisherman signifies someone with deep knowledge and experience, and the head of a fish signifies key features or indicators that allow for accurate judgments
إذا أردت أن تعرف ما في أعماق البحار اسأل صياد السمك *Idhā aradta an ta'rif mā fī a'māq al-biḥār is'āl ṣayyād a-samak*	If you want to know what's in the depths of the sea, ask a fisherman.	similar to the previous one: those with experience or expertise in a particular field are best suited to provide detailed and accurate information on the subject	fishermen, having spent many hours at sea and having direct experience, possess in-depth knowledge of the marine environment that others may not: to obtain reliable and detailed information on a complex or specific subject, it is essential to consult individuals with specialised knowledge
PhUs related to effort and perseverance			
إلي عينه في الحوت يطوّل في الصنارة... وإلى عينه في اللحم يصاحب الجزّارة. *Ilī 'inuh fī-l-ḥūt yṭawwil fī-ṣunāra... w-li 'inu fīl-ḥam yṣāḥib el-jazzāra*	He who aims for the fish must lengthen his line, and he who aims for meat must accompany the butcher.	the importance of aligning one's efforts and methods with one's goals	if one wants to catch fish (achieve a goal), one needs to be prepared to extend one's fishing line (careful and tailored approach, making specific adjustments to one's strategy or efforts), but if one wants to eat meat (achieve a different goal), one needs to accompany the butcher (do something else)
من أراد السمكة فعليه أن يبتلّ بالماء. *Man arāda al-samaka fa'alayh an yabtall bi-l-mā'.*	He who wants a fish must get wet.	to achieve a goal or obtain what one desires, it is often necessary to put in effort or be willing to engage in uncomfortable or demanding situations	a fish signifies a particular goal, and getting wet – the means and efforts to achieve this goal

There are also PhUs that are related to protection from envy and the evil eye:

- الحوت عليك و خمسة وخميس عليك *L-ḥūt 'alaik w khamsa wi-khmīs 'alik* (lit. 'The fish and the hand of Fatima will protect you')
- حوتة و خمسة و قرن غزال *Ḥūta w khumsa w garn ghzāl* (lit. 'a fish, a hand of Fatima, and a deer horn')

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- حَوّتْ يا حوّات *Ḥawwit ya ḥawwāt* (lit. 'Fish, oh fishmonger!')

These Tunisian PhUs use specific cultural elements to convey ideas related to protection, luck, and admiration. The PhU الحوت عليك و خمسة وخميس *L-ḥūt 'alaik w khamsa wi-khmīs 'alik* (lit. 'The fish and the hand of Fatima will protect you') combines traditional protective symbols in Tunisian and Arab cultures. In several Mediterranean and Arab cultures, the fish (الحوت) is a symbol of luck and protection against evil (Gandouz, ibid). خمسة وخميس *khamsa wi-khmīs* (lit. 'the hand of Fatima'), also known as the 'Khomsa', is a widely used symbol in the Arab world to ward off the evil eye and harmful influences. By using this PhU, one wishes protection and luck to someone, providing the symbolic safety that these elements represent. It is a benevolent formula to express wishes for well-being and protection. The PhU حوتة و خمسة و قْرن غزال *Ḥūta w khumsa w garn ghzāl* (lit. 'the fish, a hand of Fatima, and a deer horn') adds several protective symbols to the previous list. The deer horn (قْرن غزال) *garn ghzāl*: The deer horn is also a symbol of protection against the evil eye and evil spirits in Arab culture. It represents a way to multiply sources of protection to ensure security and luck. This PhU can be used to offer enhanced protection to someone or to express a desire for maximum safety. The PhU حَوّتْ يا حوّات *Ḥawwit ya ḥawwāt* does not directly translate into other languages as it is specific to Tunisian culture. It is used literally to ward off the evil eye and to express great admiration for someone or something. حَوّتْ *Ḥawwit* is derived from the root related to fish; this verb does not possess direct meaning but refers to a form of protection or expression against the evil eye. Finally, يا حوّات *Ya ḥawwāt* addresses the fishmonger, and is used in Tunisian culture to express admiration or to ward off the evil eye. This PhU is deeply rooted in Tunisian culture and lacks a direct equivalent in other languages due to its specific cultural connotations. It is used to protect against the evil eye and to express sincere admiration. The use of this phrase illustrates how local culture integrates elements of protection and admiration into everyday language.

The symbolism of protection from the evil eye is particularly strong in coastal regions where fishing is an integral part of daily life. In popular beliefs, the fish is also a protector against the evil eye and malevolent spirits. This idea is reflected in the widespread use of fish representations hung on house doors or incorporated into traditional building decorations and even jewellery. Such customs are often reinforced by other symbols like the hand of Fatima, as illustrated by the above formulas.

The next category relates to the characteristic geography of Arab countries:

- صحيح الحوت عوّام امّا في الصحراء تبلعو الرمال *Ṣḥīḥ el-ḥūt 'awwām ammā fī-ṣaḥrā' tabl'u e-ramāl* (lit. 'The fish swims well, but in the desert, it is swallowed by the sand')

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- حتى أعظم حيتان البحر ليس لديها أي قوة في الصّحراء *Ḥattā a'ẓam ḥitān al-baḥr laysa ladayhā ay quwwa fī al-ṣaḥrā'* (lit. 'Even the greatest sea fish has no strength in the desert')

These PhUs use metaphors related to specific environments to convey ideas about the limitations of skills or attributes depending on the context:

The PhU صحيح الحوت عوّام امّا في الصّحراء تبلعو الرمال *Ṣḥīḥ el-ḥūt 'awwām ammā fī-ṣaḥrā' tabl'u e-ramāl* (lit. 'The fish swims well, but in the desert, it is swallowed by the sand') highlights the idea that skills or qualities specific to a particular environment or context can become useless or ineffective in a completely different context. The fish is perfectly adapted to life in water and excels in that environment. However, once it is out of its natural habitat, such as in the desert, its skills become useless, and it is vulnerable. This PhU illustrates that even the best in a particular field may be unable to succeed or function in conditions for which they are not suited. The fish symbolises someone or something that is an expert in a specific domain. This PhU is used to emphasise that specialised skills are not always transferable to completely different situations. For example, an expert in an aquatic environment might not succeed in a desert environment.

The PhU حتى أعظم حيتان البحر ليس لديها أي قوة في الصحراء *Ḥattā a'ẓam ḥitān al-baḥr laysa ladayhā ay quwwa fī al-ṣaḥrā'* (lit. 'Even the greatest sea fish has no strength in the desert') reinforces the idea that attributes or skills specific to a given environment can become entirely ineffective in another setting to which they are not adapted. Even the greatest sea fish, with all its impressive swimming abilities, cannot survive in the desert, where its characteristics are of no value. The fish, representing great power or notable skill in its natural environment, is used here as a metaphor for something that loses all utility in another context. This PhU can be used to illustrate that even the most powerful or capable in a specific field can find themselves disadvantaged in a completely different environment. It reflects the idea that success is often contextual and dependent on appropriate conditions.

These last two idioms offer insight into how geography influences culture and phraseology in the Arab world, where the sea and the desert often coexist closely. They illustrate the dichotomy between coastal regions, where the sea and fishing play a crucial role, and vast desert expanses, where these maritime elements hold no power. The studied PhUs show that, in the desert, the fish, even though a symbol of power and prosperity in other contexts, loses all its strength and utility. This reflects a desert environment to which fish culture is foreign and maritime skills are unsuited. Thus, these PhUs highlight an awareness of the inadaptability of maritime elements in a desert context, while reinforcing the idea that each environment has its own strengths and weaknesses. They display an

understanding of environmental realities, where symbols of power in one region can become metaphors of weakness in another.

4.3 Japanese

Because neither of the consulted Japanese collocation dictionaries, i.e., *Nihongo korokēshon jiten* (Kindaichi 2007) and *Kenkyūsha Nihongo korokēshon jiten* (Himeno & Kashiwazaki 2012), provided us with any results while searching for 魚 *sakana* 'fish', we decided to focus on the definitions and proverbs provided by two regular Japanese monolingual dictionaries, *Kōjien* (Shinmura 2008; KO) and *Sūpā Daijirin* (Matsumura 2006; SUDA).

Both SUDA and KO as the first definition of the word 魚 *sakana* 'fish' provide 酒を飲む時に添えて食べる物 *sake o nomu tokini soete taberu mono* 'food served while drinking alcohol.' The strong association with alcohol preserved in these definitions, stems from *sakana's* etymology. In the past, fish was frequently served during celebrations accompanied by alcohol (Ogiso 2021), Jap. 酒 *sake* 'alcohol.' At that time, the character 魚 was also read as *na* (GaDa), i.e. the same as the character 菜 *na/sai*, which denotes both vegetables and side dishes; thus, fish served with alcohol was called 酒のな *sake no na* (lit. 'alcohol side dish'), which ultimately turned into the modern reading of the character 魚, i.e. *sakana* (KB).

Unfortunately, neither SUDA nor KO provides any fish species as a prototypical example. The dictionary user is merely provided with the synonymous reading of the 魚 character, うお *uo*. Nowadays, this reading is perceived as archaic and is mostly found in Japanese proverbs. Usually, these proverbs convey valuable lessons referring to the close relationship between fish and water e.g., 魚と水 *sakana to mizu* (lit. 'fish and water') and 水魚の交わり *suigyo no majiwari* (lit. 'a relation of water and fish', i.e. 'close friendship'), focusing on the fish's dependence on water, e.g., 魚の水に離れたよう *sakana no mizu ni hanareta yō* (lit. 'like a fish out of water') which expresses helplessness. This close association of fish with water is also present in the compound 水魚 *suigyo*, which simply denotes 'water and fish', and is also frequently used in phrases that express relationships, affection, or emotional bonds, e.g., 水魚の思い (lit. 'the thought of water and fish'). In our corpus, the compound 水魚 appears four times.

We can also find several proverbs that are deeply rooted in Japanese (or Chinese) culture and

literature, and cannot be easily understood based solely on knowledge of the physical world (see Table 3). More precisely, the proverbs and expressions listed below rely on Confucian, Daoist, or Japanese poetic and philosophical traditions, requiring more than basic biological knowledge to interpret.

Table 3. Japanese proverbs and expressions with 'fish' rooted in culture. Source: Own processing

PhU	English literal translation	Metaphorical meaning	Explanation
手池の魚	a fish in a pond	a woman who has been redeemed (bought out) and taken as one's wife or concubine	metaphor for possession; originates from the idea of a fish raised and kept in one's own pond by one's own hand
魚氷に上る	fish rise to the surface of the ice	the arrival of spring	this poetic phrase describes the time of year when the ice begins to thaw, and fish beneath it become visible or start to move upward again, signalling the very first signs of spring's arrival
木に縁りて魚を求む	to fish by climbing a tree	if your method is wrong, you will never reach your goal	from Mencius (Chinese classic); it compares the absurdity of trying to catch fish by climbing a tree to the futility of using an ill-suited approach to accomplish something.
魚は江湖に相忘る	fish mutually forget [everything] in the rivers and lakes	carefree existence in harmony with nature	from Zhuangzi (Chinese classic); it expresses the ideal of carefree existence in harmony with nature, free from worldly troubles.
魚を得て筌を忘る	having caught the fish, one forgets the trap	forgetting about the means of people who helped you reach the goal	from Zhuangzi (Chinese classic); it serves as a metaphor for ungratefulness or neglecting the contributions of others after accomplishing something
呑舟の魚	a fish that swallows boats	great person	from Zhuangzi (Chinese classic); a fish so large that it can swallow an entire boat whole. By extension, it refers to a great person, a big figure, or an important individual.
魚は鯛	fish is sea bream	the best or most excellent thing within a certain category or group	relies on Japanese culinary/cultural context (e.g., sea bream as celebratory fish); derived from the idea that the sea bream is the finest among fish species.

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However, further analysis of the proverbs reveals some traits associated with certain fish species. For instance, the above 魚は鯛 *uo wa tai* (lit. 'fish is sea bream'), denoting being the best of one's kind, points to the superiority of the sea bream over other species. According to KO, sea bream, especially the red sea bream, is associated with good fortune, and as the proverb 腐っても鯛 *kusatte mo tai* (lit. 'it is still sea bream even if it is rotten') suggests, it also connotes something valuable. This fish is also put in opposition to sardines as in 鯛の尾より鰯の頭 *tai no o yori iwashi no atama* (lit. 'a sardine head is better than a sea bream's tail'), where 鯛 *tai* 'sea bream', denotes something better and bigger. In contrast, 鰯 *iwashi* 'sardine' denotes something inferior and smaller. The association of sardines with something irrelevant is also visible in other proverbs: 鰯で精進落ち *iwashi de shōjin'ochi* (lit. 'celebrate shōjin'ochi with a sardine') and 鰯の頭も信心から *iwashi no atama mo shinjin kara* (lit. 'the head of a sardine is also a symbol of faith'). However, according to SUDA, despite being a small fish, the sardine is still significantly important for fisheries.

To sum up, we retrieved: twenty-four phrases using the word '魚' (including one mentioning sea bream); four phrases with 水魚 *suigyo* 'water and fish;' two proverbs solely about sea bream, one about both sea bream and sardines; and three just about sardines. That gives us thirty-four proverbs in total. Notably, there are many other Japanese proverbs that are about other species of fish, e.g., the eel as in 鰻の寝床 *unagi no nedoko* (lit. 'eel's bed') and the carp as in 鯉の滝登り *koi no taki nobori* (lit. 'carp waterfall climbing'). However, other species were not mentioned in searches for 魚 *sakana*, and later for 鰯 *iwashi* and 鯛 *tai*. Moreover, it should also be noted that many Japanese proverbs were borrowed from the Chinese, e.g., 魚の釜中に遊ぶが如し *uo no kamachū ni asobu ga gotoshi* (lit. 'as a fish playing in a pot'), who, like the Japanese, are attentive to the environment and base many sayings on natural phenomena.

5. Discussion and conclusions

The above analysis of 53 Spanish, 22 Arabic, and 34 Japanese PhUs gives insight into the significance of fish among Spanish-, Arabic-, and Japanese-speaking cultures. From the analysis, a few conclusions can be made.

As for Spanish, fish is deeply rooted in Spanish culture, and its manifestation is found in Spanish phraseology. Fish and its physical conditions and properties, as well as fishing, are used as source domains that correlate with many other domains to explain different situations metaphorically, e.g., feelings of comfort or discomfort, human relations, business relations, and emotional states. Fish is

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also an important part of Spanish cuisine, which is reflected in Spanish phraseology. Fish is depicted as a reward for hard work, a potential danger, or a basic kind of food. Several PhUs refer to Christian traditions. Fish is used in colloquial language, sometimes in insulting expressions or with a humorous undertone. It may additionally symbolise lack of mental capacity, that is, stupidity. All things considered, fish appears to be an important aspect of reality reflected in the Spanish language, used to symbolise many different qualities and explain various experiences.

In Arabic, the role of the fish in PhUs also reveals a cultural symbolism that goes beyond mere representation. The fish, السمك / الحوت *al-ḥūt / a-samak* is much more than just an aquatic animal: it is deeply embedded in both the symbolic and practical aspects of life across Arab cultures. Its significance spans generations and transcends its biological existence. It is a symbol that carries multiple meanings that touch upon spiritual, social, and material life, intertwining with beliefs about fertility, prosperity, and protection from misfortune. The prominent presence of the fish in proverbs and PhUs underscores its ongoing importance in the collective consciousness, illustrating how cultural symbols can influence language and daily practices.

In contrast, while fish plays a vital role in Japanese culture as an element of various ceremonies, e.g., *Naorai* and *Okuizome*, and as an animal present in various important historical books, e.g., *Kôjiki* and *Nihon Shoki*, and legends, e.g., *Muô-no-Rigyo* (Ogiso 2021), the extracted material shows a very general picture of a fish, without any associated specific traits or characteristics. This picture is understandable if we consider the geographical position of Japan, which is surrounded by water. Most likely, due to the natural abundance of fish in their environment, the Japanese tend to associate specific traits with specific types of fish rather than with fish in general.

Based on the analysis, among the specific fish that carry symbolic meaning, we may note the sea bream (鯛 *tai*) and the sardine (鰯 *iwashi*). The sea bream, commonly served during various Japanese celebrations, is associated with wealth and longevity (Ogiso 2021: 167). The sardine, a widely consumed fish, symbolises weakness, humility, and something "fishy"; however, it is also praised for its taste and can connote nobility (Ogiso 2021: 168). However, it should be noted, that many associated Japan with the carp, which is regarded there as noble and associated with femininity and motherhood (Ogiso 2021: 170). The significance of the sea bream and sardine is evident in the analysis, while the carp, despite appearing in many proverbs, presumably due to its noble status, does not appear in any of the analysed linguistic units or definitions of the word fish, and was therefore excluded from the analysis.

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In conclusion, the analysis identified substantial correlations between the words for 'fish' and the investigated cultures, thereby validating the hypothesis presented in the introduction. The findings demonstrate that in societies with direct access to the sea, fish occupies a central position in both language and belief systems. It would be worthwhile exploring whether the opposite is true for societies lacking access to the sea. Consequently, a dedicated study examining this aspect is encouraged.

Notes and abbreviations

1. It has to be noted that linguistics has not yet adopted an operational theory of phraseology, and no rigorous definition of what constitutes a PhU has been universally accepted by the linguistic community (Mel'čuk 2013: 129). According to Pęzik (2018: 24), the variety of definitions of PhUs arises from multiple factors inherent to the phenomenon of idiomaticity, and, furthermore, these "tend to be complementary at best and largely incompatible at worst."
2. The basis for the metaphor, that is to say, what the correlation is between the two domains involved.
3. The data includes proverbs and PhUs in both Modern Standard Arabic and Tunisian dialect. Several Tunisian artists have addressed this issue in their work, as is the case with the paintings of Leila Allagui (a Tunisian painter), many of which have been portrayed on stamps.

DECEL – Anders, V. et.al. (n.d.) Diccionario Etimológico Castellano en Línea. Available at https://etimologias.dechile.net/?emperador/

GaDa – monolingual Japanese dictionary: Tōdō, A. (ed.). (2001). 学研漢和大字典 (Gakken hanwa daijiten). Tokyo.

KB – monolingual Japanese dictionary: 改訂新版　世界大百科事典 「魚」の意味・わかりやすい解説 (kaitei shinpan sekaidaihyakkajiten 'sakana' no imi wakari yasui kaisetsu). Available at https://kotobank.jp/word/%E9%AD%9A-430759#w-1168566

KO – monolingual Japanese dictionary: Shinmura, I. (ed.). (2008). *広辞苑* (*Kōjien*). Tokyo.

PhU(s) – phraseological unit(s)

RAE – monolingual Spanish dictionary: REAL ACADEMIA ESPAÑOLA (s.a). *Diccionario de la lengua española*, 23.ª ed., [version 23.7 online]. Available at: https://dle.rae.es

SUDA – monolingual Japanese dictionary: Matsumura, A. (ed.). (2006). *スーパー大辞林* (*Sūpā Daijirin*). Tokyo.

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References

1. Amvela, E.Z. & Jackson, H. (2007). *Words, meaning and vocabulary: An introduction to Modern English lexicology*. London: Cassell.
2. Bartmiński, J. (2006). *Językowe podstawy obrazu świata*. Lublin: UMCS.
3. Bartmiński, J. (2004). Punkt widzenia, perspektywa, językowy obraz świata. In *Językowy obraz świata*. Bartmiński, J. (ed.). Lublin: UMCS, p. 103-120.
4. Bartmiński, J. & Niebrzegowska, S. (1998). Profile a podmiotowa interpretacja świata. In *Profilowanie w języku i tekście.* Bartmiński, J. & Tokarski, R. (eds.). Lublin: UMCS, p. 211-224.
5. Buitrago Jiménez, A. (2007). *Diccionario de dichos y frases hechas*. Madrid: Espasa.
6. Cholewa, J. (2008). *Image encyclopédique et linguistique du chat et du chien en français et en polonais contemporains*. Białystok: Wydawnictwo Uniwersytetu w Białymstoku.
7. Dziekan, K. (2024). Neutralisation of non-standard language in literary translation and its influence in the character's image, a cognitive perspective. In *Academic journal of modern philology*, 22, p. 125-142.
8. Eco, U. & Pezzini, I. (1982). La sémiologie des mythologies. In *Communications*, 36, p. 19-42.
9. Evans, V. (2007). *Glossary of cognitive linguistics*. Edinburgh: Edinburgh University Press.
10. Fiedler, S. (2007). *English phraseology. A coursebook*. Tübingen: Narr.
11. Gandouz, Z. (2023). Poisson, cinq doigts et corne de gazelle: Entités matérielles aux pouvoirs surnaturels. In *Culture populaire*, 61, p. 84-93.
12. Golda, P. (2024a). Infedeltà nel trasferimento delle collocazioni nella traduzione dei romanzi di Michel Houellebecq dal francese all'italiano. In *Italica Wratislaviensia*, 15, p. 195-216.
13. Golda, P. (2024b). *Transfert des unités phraséologiques (collocations) dans la traduction littéraire: Etudes sur un corpus du français et sur ses équivalents en italien et en polonais*. Unpublished doctoral thesis, Sorbonne Paris North University & University of Silesia in Katowice.
14. Golda, P., Jedziniak, A., Mężyk, J., Ryszka, J. & Uchman, T. (2022). Colour terms in five linguistic images of the world: The semantic perspective. In *GEMA Online journal of language studies*, XXII (4), p. 39-58.
15. Golda, P., Karabag, O. & Ryszka, J. (2023). Sésame, ouvre-toi: Internationalisme phraséologique à contenu universel. In *Studia linguistica*, 42, p. 37-58.
16. Golda, P. & Roemer, J. (2023). Collocations et représentation féminine dans les œuvres de Colette: Une analyse linguistique et littéraire. In *Academic journal of modern philology*, 19, p. 85-103.
17. Golda, P. & Zrigue, A. (2023). Dictionnaires bilingues, patrimoine culturel et enseignement du français. *Les cahiers du dictionnaire*, 15, p. 137-152.
18. *Gran diccionario de uso del español actual*. Sánchez, A. (ed.). (2001). Madrid: Sociedad General Española de Librería.
19. Himeno, M. & Kashiwazaki, M. (eds.). (2012). 研究社日本語コロケーション辞典 (Kenkyūsha nihongo korokēshon ji). Tokyo: Kenkyūsha.
20. Jedziniak, A. & Ryszka, J. (2024). Słownikowe obrazy podróży w językach polskim, angielskim i japońskim w perspektywie analizy synonimii leksykalnej. In *Prace językoznawcze*, XXVI (1), p. 147-163.
21. Kindaichi, H. (ed.). (2007). 日本語コロケーション辞典 (Nihongo korokēshon jiten). Tokyo: Gakken.
22. Kochman-Haładyj, B. (2024). A cognitive contrast of Polish and English proverbs with dog components. In *Lege artis. Language yesterday, today, tomorrow.* Trnava: University of SS Cyril and Methodius in Trnava, IX (1), p. 35-66. DOI: https://doi.org/10.34135/lartis.24.9.1.03

23. *Kot w literaturze, kulturze, języku i mediach*. (2018). Borkowska, E., Borkowski, A., Długołęcka-Pietrzak, M. & Sobieraj, S. (eds.) Siedlce: Wydawnictwo Naukowe IKR[i]BL.
24. Lagodenko, J. (2013). Semantic interpretation of idioms: Cross-linguistic approaches. In *Research on phraseology across continents.* Szerszunowicz, J., Nowowiejski, B., Yagi, K. & Kanzaki, T. (eds.). Białystok: University of Białystok Publishing House, p. 266-277.
25. Langacker, R.W. (2013) *Essentials of cognitive grammar*. New York: Oxford University Press.
26. Matsumura, A. (ed.). (2006). スーパー大辞林 (Sūpā Daijirin). Tokyo.
27. Mel'cuk, I. (2013). Tout ce que nous voulions savoir sur les phrasèmes, mais… In *Cahiers de lexicologie*, CII (1), p. 129-149.
28. Mężyk, J. (2021). Znajomość frazeologii języka polskiego u młodzieży. In *Nasz język ojczysty: polszczyzna ostatniego trzydziestolecia.* Mazur, R. & Żebrowska-Mazur, B. (eds.). Kraków: Libron, p. 119-129.
29. Moliner, M. (1994). *Diccionario de uso del español*. Madrid: Editorial Gredos.
30. Ogiso, Y. (2021). Duality of the Japanese 'fish' symbol. Standing at the edge of life and death. In *Jungian perspectives on indeterminate states. Betwixt and between borders.* Brodersen, E. & Amezaga, P. (eds.). London – New York: Routledge, p. 161-174.
31. Ouerhani, B. & Lajmi D. (2023). Le dictionnaire bilingue de Biberstein Kazimirski et patrimoine. In *Les cahiers du dictionnaire*, XV, p. 107-124.
32. Perusset, A. (2020). Le rapport connotation/dénotation à l'épreuve des mythologies de Barthes. In *Estudos semióticos*, XVI (3), p. 133-147.
33. Pęzik, P. (2018). *Facets of prefabrication*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
34. Rychło, M., Kaczyńska, E., Kowalski, A. & Witczak, K.T. (2024). Milk-sucking 'thieves' in Indo-European folklore: An etymological analysis of zoonyms. In *Lege artis. Language yesterday, today, tomorrow.* Trnava: University of SS Cyril and Methodius in Trnava, IX (1), June 2024, p. 84-103. DOI: https://doi.org/10.34135/lartis.24.9.1.05
35. Ryszka, J., Jarosz, S., Ryś, A. & Dziekan, K. (2024). Yiddish footprints: The silent influence on American English, standard Japanese, regional Polish, and Argentinian Spanish. In *Lege artis. Language yesterday, today, tomorrow.* Trnava: University of SS Cyril and Methodius in Trnava, IX (2), p. 75-90. DOI: https://doi.org/10.34135/lartis.24.9.2.05
36. Shinmura, I. (ed.). (2008). 広辞苑 (Kōjien). Tokyo.
37. Szerszunowicz, J. (2011). *Obraz człowieka w polskich, angielskich i włoskich leksykalnych i frazeologicznych jednostkach faunicznych*. Białystok: University of Białystok Publishing House.
38. Szerszunowicz, J., Frąckiewicz, M.K. & Awramiuk, E. (2017). *Frazeologia w kształceniu językowym.* Białystok: University of Białystok Publishing House.
39. Tōdō, A. (ed.). (2001). 学研漢和大字典 (Gakken hanwa daijiten). Tokyo.
40. Trask, R.L. (1995). *Language: The basics*. London: Routledge.
41. Uberman, A. (2023). Colour naming: Semantics of the colour white in English and Polish lexicon. In *Lege artis. Language yesterday, today, tomorrow*, Trnava: University of SS Cyril and Methodius in Trnava, VII (1), p. 147-162. DOI: https://doi.org/10.34135/lartis.23.8.1.10
42. Zrigue, A. (2018a). De l'ancien au nouveau proverbe. In *Estudos linguísticos e literários*, 60, p. 216-228.
43. Zrigue, A. (2018b). Le fonctionnement des locutions proverbiales dans le discours. In *Phraséologie et discours*. Soutet, O., Sfar, I. & Mejri, S. (eds.). Paris: Honoré Champion. p. 357-368.

44. Zykova, I. (2016). The phraseological meaning construal in the traditional vs. cognitive culture-oriented perspectives. In *Lege artis. Language yesterday, today, and tomorrow*, Trnava: University of SS Cyril and Methodius in Trnava, I (2), p. 253-286. DOI: https://doi.org/10.1515/lart-2016-0015

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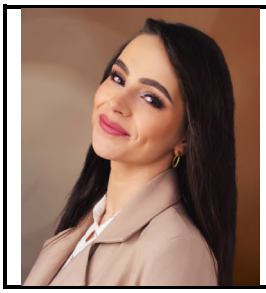

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INTERPRETING GLOBAL EVENTS LOCALLY: GLOCALIZATION OF TRUMP'S TARIFF ANNOUNCEMENT IN AMERICAN, SLOVAK, AND UKRAINIAN NEWS[1]

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Abstract: The paper explores the accounts of President Trump's 2025 tariff announcement, treated as a worldwide viral event, in the media outlets with differing status: global (American), glocal (Slovak), and local (Ukrainian). The analysis shows that the outlets' headlines, as mini texts, vary in their choice of verbs and dependent units to cover the viral event, while reports on its consequences differ in their rendering of assessment, causal relations, support vs challenges ranging from criticism to countermeasures.

Key words: global media, glocal media, local media, headline, President Trump's 2025 tariff announcement, text.

1. Introduction

Digitization has accelerated the mass distribution and consumption of media products on a global scale. In recent decades, however, we have seen the opposite trend in the media sector, namely the

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glocalization of media and its content (Pravdová et al. 2024). Glocalization is not merely an adjustment of global forms to local conditions, but also a crucial indicator of how local and regional dimensions are reclaiming prominence within an increasingly globalized media environment. Rather than viewing global media flows as one-directional, media glocalization underscores the agency of local cultures, which actively reshape and reinterpret global formats within their own linguistic, political, and social frameworks. It is a two-way process in which global trends take on a specific local form and meaning. Theorists (Handbook … 2022; Musa 2020) point out that glocalization captures the process of cultural hybridization brought about by media globalization, especially in the digital age. Glocalization thus influences and changes the nature of local identities, media production, and cultural diversity (Pravdová et al. 2023). Understandably, glocalization encompasses the entire spectrum of media production, including news reporting, which is currently global in nature and reflects the dynamics of exchange between global forces and local actors in the mediatized environment (Greguš & Kačincová Predmerská 2020). Such dynamics move beyond the older paradigm of hybridization. While hybridization stresses mixture, glocalization highlights negotiation and reconfiguration, showing that local actors play a decisive role in shaping how global trends are received and understood (Talavira et al. 2024: 38).

Roudometof (2023) observes how digital technologies enable the parallelism of global and local processes (i.e., glocalization) in news, culture, and society, with "glocalization" primarily referring to the active creation of local versions of global content. In the era of digital media and social platforms, news and content are becoming globalized, but, at the same time, they are adapting to local values, norms, and language. These phenomena can be observed, for example, in local mutations of global news formats (Osovska & Višňovský 2023), in the adoption of foreign agency reports by local media and their translation into domestic contexts, or in changes made with regard to local specifics.

Reyaz (2016) points out that technological advances, particularly digitization and platformization, have enabled the media to effectively link global issues with domestic perspectives, mostly through the creation of specific glocal news stories. This is done, for example, by adapting global issues to the domestic political situation, value frameworks, and language (Panasenko & Greguš 2022). The reason for this is that global news media have realized that ignoring the local dimension leads to a loss of audience (Zabuzhanska & Furtáková 2024). Streaming companies are also using similar strategies. Netflix has invested heavily in the production of local content, such as TV shows and movies tailored to specific regional markets, and has produced Spanish-language series, including Narcos and Gran Hotel, which have been hugely successful in Latin America and Spain (Rusňáková & Kvetanová 2024). To understand contemporary media landscapes, it is therefore not enough to

study glocalization in the abstract; we must examine how it operates in practice – particularly in news reporting, where global issues acquire new meaning when filtered through local lenses, actors, and contexts.

The paper aims to examine how a global, or viral, event is reported in the news outlets with differing international status, drawing on President Trump's 2025 tariff announcement, which took place on 2 April 2025 and is covered throughout the 24 hours after its occurrence in the headlines of CNN (USA), SME.sk (Slovakia), Українська правда [Ukrainska Pravda] (Ukraine) published on the same day. CNN enjoys global status since it is put out in English, a lingua franca, and based in the USA, a country which boasts a leading world economy. SME.sk and Ukrainska Pravda (UP) have non-global status since they are published in national languages and meant for domestic audiences. The research question of the paper is: What are the linguistic and structural factors affecting the glocalization status of the news outlets?

The research question involves the following tasks: to select units for analysis, to apply adequate methodology, to classify the singled-out units, to reveal the linguistic signals of media glocalization in the American, Slovak and Ukrainian news outlets.

2. Material and methods

The material of the study involves news headlines as mini texts on President Trump's 2025 tariff announcement in CNN (56 headlines), SME.sk (23) and UP (29). Currently, headlines are analyzed in terms of syntax as an important aspect of style (Nickl et al. 2025: 4) and as little, or mini texts (Halliday 1990: 372) because they are similar to such items as telegrams, product labels, signboards, certain kinds of instructions etc. (Halliday 1990: 373) and operate as autonomous units (Ifantidou 2023: 17). This paper treats headlines as mini texts underlying the organization of media discourse. Functionally, they can be regarded as summaries of news items (Van Dijk 1988) and considered from the pragmatic and rhetorical perspectives. Pragmatically, they are treated as relevance optimizers, directing readers to construct the optimal context (Dor 2003: 708), as means of luring the addressee into reading the article (Kuiken et al. 2017: 1303) or creating an impression (Ifantidou 2023: 17). Rhetorically, headlines are defined as means of attracting readers (Bednarek & Caple 2019: 119) or as tools of forward reference to something identified in the text (Scott 2021). This paper combines the two rhetorical interpretations distinguishing three headline constituents (Potapenko 2021: 3). The attractor grabs the audience's attention foregrounding the units referring to entities close to them. The keeper holds the reader's attention by the predicative units characterizing the referent named initially. The nudger compels the reader to turn to the text body (1):

(1) *Here's how US lawmakers are reacting to Trump's tariff policy* (CNN).

The attractor (1) is filled in with the subject group *US lawmakers,* the keeper contains the predicate *are reacting* while the part related to it – *to Trump's tariff policy* – occupies the nudger and performs two textual functions: returns the addressee to the previous headlines on the topic and sends forward to the content of the forthcoming text.

In addition to the three main attention-distributing positions headlines may have primary and secondary attractor (2) and nudger (3):

(2) *Fact Check: Trump's claim about Canada's dairy tariffs* (CNN).

(3) *Trump's tariffs will probably plunge the global economy into recession this year, JPMorgan analyst says* (CNN).

The primary attractor (2) is filled in by the unit *Fact Check* while the secondary one placed after the colon (2) contains the phrase *Trump's claim.* The primary nudger (3) accommodates the phrase *plunge the global economy into recession this year* while the secondary nudger includes the clause *JPMorgan analyst says.*

The rhetorical tripartite attention-distributing pattern of headlines differs from their syntactic structure because those positions are filled in by longer units than parts of the sentence. Therefore, the paper analyzes the headlines in terms of morphosyntactic constructions, i.e., arbitrary pairings of form and meaning stored in the speaker's mental lexicon as a result of frequent input (Hoffmann 2022: 4), cf., *Canada's dairy tariffs* (2) and *Trump's tariffs* (3). The two constructions hinge on the fixed element *tariffs* while the units *dairy* and *Trump's* fill in the open mental slots.

The meaning of the linguistic units characterizing the viral event is analyzed with the help of the conceptual metaphor which involves understanding one domain of experience in terms of a different domain (Lakoff 2006: 190). Consequently, the construction *plunge the global economy into recession* (3) can be interpreted in terms of three metaphors: orientational, causal, and CONTAINER. The orientational metaphors MORE IS UP / LESS IS DOWN (ibid., 226) and GOOD IS UP / BAD IS DOWN (Lakoff, Johnson 1980: 16) negatively assess the possible deterioration of economy implied by the verb *plunge*. The treatment of causes as FORCES (Lakoff 2006: 210) also gives grounds to understand the construction *plunge economy* as a means of expressing CAUSE since the verb *plunge* denotes compulsion. In its turn, the construction *into recession* refers to the CONTAINER as a bounded region (ibid., 196).

This paper applies cognitive-rhetorical methodology which treats news headlines as autonomous mini texts luring the addressee into reading the forthcoming news story by morphosyntactic constructions used in the attractor, keeper, and nudger positions. Consequently, news outlets with distinct glocalization statuses are expected to differ with respect to the rhetoric of headline patterns applied and the units used.

3. Results

The news outlets under discussion structure their headlines on President Trump's 2025 tariff announcement according to two mini textual patterns: focusing, which reports on the viral event (i.e., the procedure of tariff proclamation), and consequential, which foregrounds the results of the viral event for different regions of the world. However, the three positions of the headlines in the American, Slovak, and Ukrainian news outlets are filled differently.

3.1 Focusing pattern

Focusing headlines in CNN, SME.sk, and UP direct the addressee's attention to Trump's tariff announcement. It is achieved in the headlines of the three outlets by fronting the President's name.

CNN offers such headlines on the tariff announcement:

(4) *NOW: Trump delivers remarks on his tariff plans* (CNN).

(5) *Trump announces sweeping new tariffs on all imports* (CNN).

(6) *Trump says US will impose 25% tariff on all foreign automobiles effective at midnight ET* (CNN).

(7) *Trump says new tariffs are a "declaration of economic independence"* (CNN).

(8) *Trump's tariffs aim to break down other countries' trade barriers* (CNN).

(9) *Trump: "We are finally putting America first"* (CNN).

(10) *Trump claims tariff actions signify US "standing up for our great farmers and ranchers"* (CNN).

(11) *Trump declares a national economic emergency* (CNN).

The keepers of the CNN headlines (4-11) contain the units *deliver remarks* (4), *announce* (5), *say* (6, 7), *claim* (10), *declare* (11) denoting the performative aspect of speech (Allington 2021) or its purpose: *aim* (8). The nudgers in the CNN headlines (5-11) construct an us-versus-them opposition rallying supporters to Trump's side (Kravchenko et al. 2024: 262). The "them" constituent of the opposition is implied in (4) since the tariffs are imposed on foreign countries and named by the

constructions *all imports* (5), *all foreign automobiles* (6), *other countries* (8). The "us" constituent is evoked by the units *independence* (7), *America first* (9), *our* (10), *national* (11).

Only the Ukrainian outlet offers headlines about the tariff announcement (12-15) which correlate with those published by CNN (5, 6, 11) and one additional heading (15). It reflects the audience's interest in the Ukrainian-American relations testifying to the UP local status:

(12) Ukr.: *Третього квітня Трамп запроваджує 25% мит на усі іноземні авто* (UP). – [Engl.: *On April 3, Trump will impose 25% tariffs on all foreign automobiles*].

(13) Ukr.: *Трамп запроваджує "взаємні мита" проти усіх країн світу* (UP). – [Engl.: *Trump is imposing "reciprocal tariffs" against all countries in the world*].

(14) Ukr.: *США в режимі надзвичайного стану: Трамп бореться з дефіцитом торгівлі* (UP). – [Engl.: *US in state of emergency: Trump fights trade deficit*].

(15) Ukr.: *Масштабні тарифи Трампа: у Білому домі розповіли, коли вони почнуть діяти* (UP). – [Engl.: *Massive tariffs of Trump: The White House said when they will take effect*].

One UP headline (12) repeats the CNN information (5) word for word while two others add the constructions *проти усіх країн світу* (13) instead of CNN's *all imports* (5) and *Трамп бореться з дефіцитом торгівлі* "Trump fights trade deficit" (14) missing in the CNN counterpart (11).

Both the Slovak and Ukrainian outlets adapt the information about the global viral event to fit the national worldviews using three common headline patterns: supernational, state-oriented, and ironical.

The supernational pattern structures two headlines in SME.sk (16, 17) and one in UP (18) reporting on the influence of the viral event on the EU since Slovakia is its member and Ukraine is striving to join the bloc which testifies to SME.sk' glocal and UP's local status. The EU or its leaders are indicated by proper names *EU* (16) and *Lagarde* (17) as well as by the abbreviation *ЄС* (18) in the nudgers of the headlines to compel the readers to turn to the text bodies:

(16) Sk.: *Urobíme im to, čo robia nám. Trump rozpútal globálnu obchodnú vojnu, na EÚ uvalí clo 20 percent* (SME.sk). – [Engl.: *We will do to them what they do to us. Trump has unleashed a global trade war, imposing a 20 percent tariff on the EU*].

(17) Sk.: *Americké clá pocíti celý svet. Po eskalácii ale môže prísť k ústupkom, tvrdí Lagardová* (SME.sk). – [Engl.: *US tariffs will impact the whole world. However, Lagarde believes that concessions may follow the escalation*].

(18) Ukr.: *Трамп запровадив понад 30% мита для чотирьох країн-кандидатів у члени ЄС* (UP). – [Engl.: *Trump imposes over 30% tariffs on four EU candidate countries*].

The state-oriented pattern of headlines underlies SME.sk's reporting on the tariff impact on China (19) as the second world economy and UP information on the states allowing more US imports (20):

(19) Sk.: *Trump zrušil bezcolnú výnimku pre malé balíky z Číny* (SME.sk). – [Engl.: *Trump has revoked the duty-free exemption for small packages from China*].

(20) Ukr.: *У Трампа допускають зниження мит для країн, які дозволять більший імпорт з США* (UP). – [Engl.: *Trump allows reducing tariffs for countries that allow more imports from the US*].

The ironical headlines in Slovak and Ukrainian render amusement at imposing tariffs on the penguin-inhabited islands (21, 22, 23) with UP underscoring the fact that unlike small isles Russia is exempt from the tariffs (24):

(21) Sk.: *Biliónové škody napácha školácky vzorec. Ako Trump zavádzal a uvalil clá aj na tučniaky* (SME.sk). – [Engl.: *A schoolboy formula causes billions in damage. How Trump misled and imposed tariffs even on penguins*].

(22) Sk.: *Neobývaný ostrov sa môže pochváliť kolóniami tučniakov aj clami od Trumpa* (SME.sk). – [Engl.: *The uninhabited island boasts colonies of penguins and even Trump's tariffs*].

(23) Ukr.: *Тарифи Трампа зачепили безлюдні острови біля Антарктиди, де мешкають пінгвіни* (UP). – [Engl.: *Tariffs of Trump hit uninhabited islands near Antarctica, home to penguins*].

(24) Ukr.: *Нові мита Трампа торкнулися навіть малих острівних територій, але не зачепили РФ* (UP). – [Engl.: *New tariffs of Trump affected even small island territories, but did not affect Russia*].

Unlike CNN, which places the verbs of speaking in the performative function in the keeper positions, Slovak and Ukrainian headlines underscore the process of imposing tariffs by the verbs of doing. SME.sk uses the units *rozpútal* "unleashed" (16), *pocíti* "impact" (17), *uvalil* "imposed" (21) while UP employs the verbs *запроваджувати* "impose" (12, 13, 18), *бореться* "fights" (14), *зачепили* "hit" (23), *торкнулися* "affected" (24). The verbs of speech – *розповіли* "said" (15) and *допускають* "allow" (20) – occur only in two UP headlines.

3.2 Consequential patterns

Consequential headlines inform readers about the outcomes of the global viral event in two ways. Referentially, they use particular units to name the affected spots of the world: US, as the source of

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the viral event; the world as a whole; EU as a supernational bloc; individual states. Semantically, they express the assessment of the viral event, its results, support for it or challenge against it.

3.2.1 Assessment patterns

Assessment is carried out by the use of orientational metaphor and media monitoring in the headlines of the three outlets, by negation in CNN and miscellaneous linguistic means in Ukrainska Pravda.

3.2.1.1 Common orientational metaphor pattern

The orientational metaphors MORE IS UP / LESS IS DOWN (Lakoff 2006: 226) and GOOD IS UP / BAD IS DOWN (Lakoff, Johnson 1980: 16) assess the consequences of the viral event at all referential levels and in all the outlets under analysis.

CNN reports on the consequences for the US by the construction *highest tariff rates* (25) and for the country's households by the pairing *$5,000* (26) which evoke MORE IS UP and the inverted BAD IS UP metaphors:

(25) *"It's not even close": The US will have the highest tariff rates in the world, economist says* (CNN).

(26) *Trump's tariff expected to cost $5,000 per American household per year, economist says* (CNN).

The orientational metaphors LESS IS DOWN and BAD IS DOWN are expressed in the CNN headlines by combining the fronted nouns *markets*, *stock*, etc. with the verbs *plunge, tumble, fall* (27):

(27) *Stock markets fall around the world after Trump unveils new tariffs* (CNN).

SME.sk evokes the orientational metaphors referring to the global fall of stocks by the verb *padajú* "are falling" (28) and to the decline of the European stocks by the verbs *poklese* "decline" and *klesli* "fell" (29) in two headlines since Slovakia is an EU member:

(28) Sk.: *Akciové trhy padajú. Čo sa teraz oplatí nakupovať? (tipy expertov)* (SME.sk). – [Engl.: *Stock markets are falling. What is worth buying now? (expert tips)*].

(29) Sk.: *Európske akcie klesli po oznámení recipročných ciel na dvojmesačné minimum* (SME.sk). – [Engl.: *European stocks fell to a two-month low after the announcement of reciprocal tariffs*].

Both Slovak and Ukrainian outlets report on the fall of oil prices (30, 31) and of company shares (32, 33) which is not the case with CNN dwelling on more general issues due to its global status.

SME.sk and UP structure headlines on oil prices differently. The former fronts the construction referring to the viral event (30) backgrounding the reference to oil. Conversely, the two UP headlines on the topic foreground the nouns referring to oil (31) and use the inverted GOOD IS DOWN metaphor to render the Ukrainians' expectation that the fall of prices may contribute to the aggressor's defeat:

(30) Sk.: *Oznámenie USA trhy prekvapilo, ceny ropy klesli. Finálne rozhodnutie je podstatne tvrdšie* (SME.sk). – [Engl.: *The announcement of US surprised markets, causing oil prices to fall. The final decision is significantly tougher*].

(31) Ukr.: *Нафта падає: ринок чекає, що мита Трампа скоротять закупівлі* (UP). – [Engl.: *Oil falls: market expects Trump tariffs to reduce purchases*].

The fall of international companies' shares is implied only once in SME.sk by the construction *USA zverejňovať informácie o nových clách* "information about new tariffs on price tags in the US" (32) while UP refers to this phenomenon four times by the construction *різко впали* "plunge", the verbs *обвалилися* "plummeted" and *падають* "fall" (33) which evoke the BAD IS DOWN metaphor:

(32) Sk.: *Volkswagen bude na cenovkách v USA zverejňovať informácie o nových clách* (SME.sk). – [Engl. *Volkswagen will publish information about new tariffs on price tags in the US*].

(33) Ukr.: *Акції Apple падають через нові мита Трампа* (UP). – [Engl.: *Shares of Apple fall on Trump's new tariffs*].

Unlike the other two outlets UP reports on the fall of the dollar exchange rate fronting the construction *долар на мінімумі за пів року* "dollar at six-month low" (34) to grab the readers' attention since the Ukrainians use it as the main international currency which is not the case with the Slovaks:

(34) Ukr.: *Долар на мінімумі за пів року, акції у мінусі: як ринки реагують на мита Трампа* (UP). – [Engl.: *Dollar at six-month low, stocks in the red: how markets react to Trump's tariffs*].

3.2.1.2 Common monitoring patterns

The monitoring headlines in the American, Slovak and Ukrainian outlets draw on media sources to assess the viral event and its outcome but do so differently due to their distinct status.

The CNN monitoring headlines have a rigid structure with two attractor units: *Fact Check,* opening four headlines, and *Analysis* in two headings:

(35) *Fact Check: Trump falsely claims the US took in money China paid in previous tariffs* (CNN).

(36) *Fact Check: Trump's claim about trade deficit with Canada* (CNN).

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(37) *Analysis: Trump's right on one thing — the country is about to look very different* (CNN).

(38) *Analysis: This is the dubious way Trump appears to have calculated his "reciprocal" tariffs* (CNN).

The keepers in the *Fact Check* headlines use either the verb *claim* (35) or the derivative noun (36) casting doubt on Trump's statements with the proper names *China* (35) and *Canada* (36) in the nudger denoting the country under surveillance. The CNN *Analysis* headlines display a more varied structure: the secondary attractor contains Trump's name (37) or refers to an analyst's opinion backgrounding the reference to the President (38).

SME.sk indicates monitoring headlines by the *Finančný analytik* (39) or *Index newsletter* (40) constructions, which are foregrounded or backgrounded to change the perspective of representation:

(39) Sk.: *Finančný analytik: Ak nebude v colnej vojne ochota, treba byť tvrdý* (SME.sk). – [Engl.*: Financial analyst: If there is no willingness to compromise in the trade war, we must be tough*].

(40) Sk.: *Transakčná daň je realita, aj Trumpove nezmyselné clá (Index newsletter)* (SME.sk). – [Engl.: *Transaction tax is a reality, as are Trump's nonsensical tariffs (Index newsletter)*].

The UP-monitoring headlines cite international media outlets to raise the status of the information delivered which underscores the outlet's local status. The name of *Bloomberg* occupies either the primary attractor (41) or the secondary nudger (42) with the verb *вдарила* "hit" in the keeper of the latter headline representing the information through the STATE/ECONOMY IS A BODY metaphor:

(41) Ukr.: *Bloomberg: У США застерегли інші країни від відповіді на мита* (UP). – [Engl.: *Bloomberg: US warns other countries against responding to Trump's tariffs*].

(42) Ukr.: *Торгівельна політика Трампа вдарила по США найсильніше – Bloomberg* (UP). – [Engl.: *Trade policy of Trump hit the US hardest – Bloomberg*].

In its turn, the *Financial Times* quotation gives a negative assessment of the tariffs by fronting the construction *безглузді розрахунки* "ridiculous calculations" (43):

(43) Ukr.: *"Безглузді розрахунки": журналісти FT пояснили, звідки взялись мита Трампа* (UP). – [Engl.: *"Ridiculous calculations": journalists of FT explained where Trump's tariffs came from*].

3.2.1.3 CNN negation assessment pattern

The CNN headlines citing the world leaders who evaluate the viral event (45-48) mainly use negation with only one case of positive attitude expressed by the participle *delighted* (44):

(44) *New Zealand foreign minister is "delighted" tariffs were imposed at the lowest rate* (CNN).

(45) *New Zealand prime minister says trade war is not good for global economics* (CNN).

(46) *"This is not the act of a friend," Australian leader says about Trump's tariffs* (CNN).

(47) *Taiwan calls Trump's 32% tariff "highly unreasonable and regrettable"* (CNN).

(48) *Japan calls Trump tariffs "extremely regrettable" but holds off on any immediate retaliation* (CNN).

CNN expresses evaluation by different forms of negation. The graphically salient particle *not* combines with the adjective *good* (45) and the noun *friend* (46). One attribute – *unreasonable* – has a prefix (47) while the adjective *regrettable* (47, 48) implies a negative assessment of the viral event.

3.2.1.4 UP miscellaneous assessment patterns

UP uses two specific assessment patterns: adjectival in two headlines on the viral event's consequences for EU expressed by the units *велика* "big" (49) and *жахливі* "terrible" as well as quotational, citing Trump (50) and a Ukrainian official (51):

(49) Ukr.: *Президент Євроради вважає, що тарифи Трампа – "велика економічна помилка"* (UP). – [Engl.: *President of European Council says Trump's tariffs are a "big economic mistake"*].

(50) Ukr.: *Трамп про тарифи: Була операція, як на пацієнті, я казав, що все буде саме так* (UP). – [Engl.: *Trump on tariffs: There was an operation, as if on a patient, I said everything would be exactly like this*].

(51) Ukr.: *"Складно, але не критично": що означають нові мита від США для України* (UP). – [Engl.: *"Difficult, but not critical": what new US tariffs mean for Ukraine*].

The UP evaluates the viral event consequences at the US (50) and Ukrainian (51) national levels by the construction *була операція, як на пацієнті* "there was an operation, as if on a patient" (50), which evokes STATE/ECONOMY IS A BODY metaphor with the projection TARIFF POLICY IS SURGERY, and by the adverbs *складно* "difficult" and *не критично* "not critical" (51), respectively.

3.2.2 Causal patterns

The causal patterns portraying the viral event as a source of unfavorable consequences are found in CNN (52, 53) and SME.sk (54) indicating their more global status than that of UP:

(52) *Trump's tariffs will hurt Americans who love Australian beef, economist says* (CNN).

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(53) *Middle class car buyers "can't afford that kind of bump," Pennsylvania dealership owner says of Trump tariffs* (CNN).

(54) Sk.: *Trumpove clá budú mať negatívny vplyv na globálny obchod celého sveta, upozorňuje Saková* (SME.sk). – [Engl.: *Trump's tariffs will have a negative impact on global trade worldwide, Saková warns*].

The CNN causal headlines have two variants: canonical, when reference to the source is followed by that to the target, and non-canonical, when the target is named first. The former is represented by the sequence of the constructions *Trump's tariffs* and *Americans who love Australian beef* (52). The non-canonical pattern is implemented by the order of the constructions *middle class car buyers* and *Trump tariffs* (53). SME.sk uses only two canonical causal headlines which follow the CNN pattern, fronting the construction *Trumpove clá* "Trump's tariffs" (54) and using *budú mať negatívny vplyv* "will have a negative impact" (54) in the keeper.

The CNN seven causal headlines hinge on the verbs *hurt*, *plunge*, *send*, *face*, *damage*, *spark*, *warn* denoting unfavorable consequences from different perspectives while the two SME.sk headlines employ the construction *budú mať negatívny vplyv* "will have a negative impact".

Both outlets insert causal patterns into a larger macropattern referring to the forecasters in the nudger which is exemplified by the constructions *economist says* (52) and *upozorňuje Saková* "Saková warns" (54). The prediction function of the macropattern is intensified by the future tense forms (52, 54) or the modal verb *can / could* (53).

3.2.3 Support and challenge patterns

The support and challenge patterns structure the headlines about the events which reinforce or condemn the tariff announcement respectively.

The support pattern is represented by four CNN headlines which report on the US Treasury Secretary's statements arguing for the viral event (55):

(55) *Treasury Secretary warns foreign countries not to escalate trade war* (CNN).

The challenge headlines split into those dwelling on criticism within the US and international countermeasures.

The four CNN and one UP headlines on criticism within the US report on the struggle against the viral event by American legislators denoted by the units *Senate, House Democrats, US lawmakers, 4 Senate Republicans* (56) in CNN and *чотири республіканці в Сенаті разом з демократами* "four Senate Republicans join Democrats" (57) in UP:

(56) *4 Senate Republicans join with Democrats to rebuke Trump tariff policy in key vote* (CNN).

(57) Ukr.: *Чотири республіканці в Сенаті разом з демократами голосували проти тарифної політики Трампа* (UP). – [Engl.: *Four Senate Republicans join Democrats in voting against Trump's tariff policy*].

The countermeasure headlines in the three outlets represent EU and national oppositions to the viral event though omit the global level which has no governing bodies to oppose Trump's initiative. Unlike the criticism patterns with the verbs of speaking (56, 57), the countermeasure headlines use actional units or the verbs of speaking in the performative function. The noun *blow* (58) evokes the ECONOMY IS A BODY metaphor while the noun *vojny* "war" (61) and the verb *боротися* "fight" (67) refer to ECONOMIC POLICY IS WAR.

CNN reports on two kinds of countermeasures: the planned, concerning the EU level, denoted by the verb *prepare* (58), and the immediate, taken at the levels of individual countries and expressed by the verbs *take* in the construction *take countermeasures* (59) and *order* (60):

(58) *Europe prepares countermeasures to Trump's tariffs, calling them a "major blow to the world economy"* (CNN).

(59) *China says it will take countermeasures "to safeguard its own rights and interests"* (CNN).

(60) *South Korea's acting president orders government to "exert all its capabilities to overcome the trade crisis"* (CNN).

SME.sk reports on EU countermeasures from two perspectives indicating its glocal status: internal, referring to the officials within the bloc (61-63), and external, covering its international actions as a whole body (64):

(61) Sk.: *Cár obchodnej vojny. Šefčovičovi sa nepodarilo zastaviť Trumpove clá, obracia sa aj k Číne* (SME.sk). – [Engl.: *The tsar of the trade war. Šefčovič failed to stop Trump's tariffs and is now turning to China*].

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(62) Sk.: *Šefčovič sa v piatok pokúsi presvedčiť amerických partnerov, aby nezaviedli clá* (SME.sk). – [Engl.: *On Friday, Šefčovič will try to convince his American partners not to impose tariffs*].

(63) Sk.: *SNS vyzýva premiéra Fica, aby odvolal eurokomisára Maroša Šefčoviča* (SME.sk). – [Engl. *The SNS calls on Prime Minister Fico to dismiss European Commissioner Maroš Šefčovič*].

(64) Sk.: *Ako Trumpovi vrátiť clá? Technologické giganty sú dlho tŕňom v oku EÚ (rozhovor)* (SME.sk). – [Engl.: *How to retaliate against Trump's tariffs? Tech giants have long been a thorn in the EU's side (interview*)].

The EU internal relations are rendered by the name of *Šefčovič* (61, 62) and metaphoric reference to him as *cár* "tsar" (61). The difference between the two headlines consists in the use of the verbs denoting the EU officials' attempts to combat Trump's tariffs: *sa nepodarilo* "fail" (61) and *presvedčiť* "convince" (62). In accordance with the EU internal activities, headline (63) fronts the name of a political party (*SNS*) and puts the units *Fica* and *eurokomisára Maroša Šefčoviča* referring to the target in the nudger. Conversely, the EU external perspective on the international countermeasures against the tariffs is denoted by the verb *vrátiť* "retaliate" and the construction *EÚ* (64).

Both SME.sk and UP cover the countermeasures of China as the second world economy by the constructions *dodatočné dovozné clá* "additional import duties of 34 percent" (65) and *негайно скасувати тарифи* "to immediately lift tariffs" (66) with the CNN dwelling on that country in the Fact-check section (35):

(65) Sk.: *Čína uvalí na výrobky z USA dodatočné dovozné clá vo výške 34 percent* (SME.sk). – [Engl.: *China will impose additional import duties of 34 percent on US products*].

(66) Ukr.: *Китай закликає США негайно скасувати тарифи, обіцяє помсту* (UP). – [Engl.: *China urges US to immediately lift tariffs, vows retaliation*].

UP covers Canada's countermeasures by the units *вводить 25% мита* "imposes 25% tariff" and *пообіцяв боротися* "vows to fight" (67) in two headlines since Ukraine is close to that country ideologically while CNN dwells on Canada in the Fact-check section (36):

(67) Ukr.: *Прем'єр Канади пообіцяв боротися з тарифами Трампа* (UP). – [Engl.: *Prime Minister of Canada vows to fight Trump's tariffs*].

4. Discussion

The results of the study reveal that the news coverage of a global viral event, affecting the whole world, is determined by three main factors: an outlet's status which depends on the geopolitical place

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of the country it operates in, its reporting patterns and the language employed. Accordingly, CNN based in the US acts as a global news outlet offering in English original information on the viral event and its world-wide consequences. SME.sk and UP display the features of glocal and local news outlets, respectively: they adapt the information about the global viral event and its consequences to the EU supernational and Slovak national levels, on the one hand, and to the Ukrainian national level, on the other. The latter is specified by the reference to the Ukrainian-American and Ukrainian-EU relations with the country posed as an outsider of the bloc.

The three outlets' headlines as mini texts underlying the organization of news stories are structured according to focusing and consequential patterns.

The focusing headlines in the three news outlets front the references to the tariff announcement but differ in the linguistic units in the subsequent positions. CNN uses the verbs of speaking in the performative function raising the global status of President Trump and his initiative while SME.sk and UP prefer the verbs of action reflecting the world-wide evolvement of the viral event. In the nudgers, CNN emphasizes the American benefits from the viral event filling its focusing headlines with linguistic units reflecting the us-versus-them opposition. Meanwhile both the Slovak and Ukrainian outlets employ three semantically similar units in the nudger: supernational, referring to the EU from internal and external perspectives, respectively; state-oriented, naming China; and ironical, expressing amusement over some of the points of the tariff announcement.

The consequential headlines outline the outcome of the global viral event according to the patterns which denote assessment, cause, support and challenge, with the latter splitting into criticism and countermeasures.

The assessment of the viral event is expressed in all the outlets by the orientational MORE IS UP / LESS IS DOWN and GOOD IS UP / BAD IS DOWN metaphors, the inverted variant of the latter, by negation in CNN and miscellaneous means in UP. The orientational metaphors differ in the use of the linguistic units denoting referents affected by the viral event. Global CNN applies the metaphors to the evaluation of the world markets and stocks. Glocal SME.sk assesses the state of the European market and like UP characterizes specific referents comprising oil and companies, while UP alone dwells on the dollar exchange rate because of its importance for Ukraine. The monitoring headlines citing the media are structured differently in the three outlets due to their distinct status: CNN is engaged in fact-checking and analysis of its own, SME.sk focuses on invited specialists' views, UP cites international media to raise the status of the information delivered. CNN assessment headlines use

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explicit and implicit means of negation to deliver the opinion of the leaders of different countries while the UP miscellaneous units mildly assess the outcome of the viral event for EU, US, and Ukraine.

The causal patterns in two outlets – CNN and SME.sk – hinge on the verbs expressing negative influence. The CNN causal pattern splits into canonical, denoting source's impact on the target, and non-canonical, representing evolvement of activity in the opposite direction, while SME.sk employs only the former one. The causal relations are inserted into the prediction macropattern with reference to the forecasters in the attractor or nudger and the use of the verbs in the future tense or in combination with the modal *can* in CNN.

The support headlines in CNN and UP cite the US Treasury Secretary while the challenge pattern splits into criticism by American lawmakers covered in the two outlets and international countermeasures expressed by the verbs of action and speech in the performative function in all the outlets. Both CNN and SME.sk refer to the EU countermeasures though the latter outlet functioning in Europe covers them from two perspectives: internal, referring to the bloc's politicians, and external, naming its united activity world-wide. As for countermeasures at the level of individual states, SME.sk and UP refer to China as the second world economy and UP dwells on Canada which is friendly to Ukraine.

Table 1. Typology of headline patterns in global (CNN), glocal (SME.sk), and local (UP) news outlets.

Source: Own processing

Outlets / **Patterns**	**CNN (global)**	**SME.sk (glocal)**	**UP (local)**
Focusing	Performative verbs: e.g., *deliver remarks, announce, say, claim, declare*	Action verbs: e.g., *unleashed, impact, imposed*	Action verbs: e.g., *imposes, hit, affected, fights*
	Emphasis on "us" (American benefits) vs "them" (the rest of the world)	Sub-patterns: supernational (*EU*), state-oriented (*China*), ironical (*penguins*)	Sub-patterns: supernational (*EU*), state-oriented (*Canada*), ironical (*penguins*), US tariff announcement
Consequential			
Assessment	Orientational metaphor: e.g., *highest tariff rates, stock plunge*	Orientational metaphor: e.g., *European stocks, oil prices*	Orientational metaphor: e.g., *oil, companies, dollar rate*
	Negation in evaluation: (e.g., *not good, unreasonable, regrettable*)	None explicit	Miscellaneous: e.g., *big mistake, quotations, mild assessments*
Cause	Verbs denoting negative influence: e.g., *hurt, plunge, damage*	Similar negative verb construction: e.g., *will have negative impact*	None explicit

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Support	US Treasury Secretary warnings	None	US Treasury Secretary warning
Criticism	US legislature criticism	None	US legislature criticism
Countermeasures	international countermeasures	EU internal / external and China countermeasures	China and Canada countermeasures

5. Conclusions

Glocalization understood as the influence of a media outlet's status on reporting about a viral event which affects the whole world depends on the geopolitical standing of a particular country and the language used. The news outlets under analysis – CNN, SME.sk, UP – enjoy the global, glocal, and local media status respectively which is reflected in the structure of headlines as mini texts and the linguistic units used. Though differing in status, the three news outlets use headlines structured according to two common patterns: focal, covering the viral event, and consequential, dealing with its outcome. The focal headlines are similar in fronting constructions referring to the viral event but differ in the choice of verbs and the dependent units which results in a more varying structure of the headlines in the non-global outlets. The three outlets share the use of the orientational metaphors to express assessment and of the negative action verbs to highlight challenges to the viral event though they differ in the choice of units naming the affected referents. Assessment is expressed by different forms of negation in CNN and miscellaneous means in UP while the global and glocal outlets render causal relations by the verbs with similar semantics. The perspectives of further research consist in applying the results of this study to the analysis of reports on other viral events in other languages as well as to the investigation of the influence of glocalization on the composition of news texts.

Notes

Translation from Slovak into English is done by Ján Višňovský.

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Sources of the illustration material

CNN. 2-3 April 2025. Available at: https://edition.cnn.com/business/live-news/tariffs-trump-news-04-02-25

SME.sk. 2-3 April 2025. Available at: https://index.sme.sk/arch/2025-04-01?page=29

UP: Ukrainska pravda [Українська правда]. 2-3 April 2025. Available at: https://www.pravda.com.ua/archives/date_02042025/

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Abbreviation

UP – Ukrainska Pravda [Ukr.: Українська правда]

References

1. Allington, D. (2021). Speech acts and performative utterances. In *Oxford research encyclopedias.* Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acrefore/9780190201098.013.120
2. Bednarek, M. & Caple, H. (2019). *News discourse*. London – New York: Bloomsbury.
3. Dor, D. (2003). On newspaper headlines as relevance optimizers. In *Journal of pragmatics*, 35, p. 695-721.
4. Greguš, Ľ. & Kačincová Predmerská, A. (2020). The foreign news and media image of the European Union in current television news production. In *Communication today,* 11 (2), p. 84-102.
5. Halliday, M. (1990). *An introduction to functional grammar*. London: Edward Arnold.
6. *Handbook of culture and glocalization.* (2022). Roudometof, V. & Dessì, U. (eds.). Cheltenham: Edward Elgar Publishing.
7. Hoffmann, Th. (2022). *Construction grammar*. Cambridge: Cambridge University Press.
8. Ifantidou, E. (2023). Newspaper headlines, relevance and emotive effects. In *Journal of pragmatics,* 218, p.17-30.
9. Kravchenko, N., Prokopchuk, M. & Yemets, N. (2024). Contrasting visions of unification: Discourse analysis of Ronald Reagan's and Donald Trump's inaugural addresses. In *Cogito*, 16 (2), p. 254-276.
10. Kuiken, J., Schuth, A., Spitters, M. & Marx, M. (2017). Effective headlines of newspaper articles in a digital environment. In *Digital journalism,* 10, p. 1300-1314. DOI: https://doi.org/10.1080/21670811.2017.1279978
11. Lakoff, G. (2006). The contemporary theory of metaphor. In *Cognitive linguistics*: *Basic readings*. Geeraerts, D. (ed.). Berlin – New York: Mouton de Gruyter, p. 185-238.
12. Lakoff, G. & Johnson, M. (1980). *Metaphors we live by*. Chicago: University of Chicago Press.
13. Musa, B.A. (2020). Africa at development policy and practice crossroads in the digital era: Navigating decolonization and glocalization. In *Digital communications at crossroads in Africa.* Langmia, K. & Lando, A. (eds.). Cham: Palgrave Pivot.
14. Nickl, P., Moussaïd, M. & Lorenz-Spreen, P. (2025). The evolution of online news headlines. In *Humanities & social sciences communication,* 12, p. 1-13. DOI: https://doi.org/10.1057/s41599-025-04514-7
15. Osovska, I. & Višňovský, J. (2023). The post-war vision in the collective cognitive space of Ukrainians and Europeans (based on contemporary mass media discourse). In *Lege artis. Language yesterday, today, tomorrow.* Trnava: University of SS Cyril and Methodius in Trnava, VIII (2), p. 15-34. DOI: https://doi.org/10.34135/lartis.23.8.2.02
16. Panasenko, N. & Greguš, Ľ. (2022). *Media text in the mirror of linguistics.* Praha: Wolters Kluwer.
17. Potapenko, S. (2021). Globalising and localising translation strategies from rhetorical perspective: Rendering English headlines into Ukrainian. In *SHS web of conferences,* 105, p. 1-14. DOI: https://doi.org/10.1051/shsconf/202110502001
18. Pravdová, H., Hudíková, Z. & Macák, M. (2024). *Digitalisation as the tsunami of a new civilization: Industries, digital games, players.* Praha: Wolters Kluwer.
19. Pravdová, H., Radošinská, J. & Mago, Z. (2023). *Year monetization in creative industries: Culture, media, digital games*. Praha: Wolters Kluwer.
20. Reyaz, M. (2016). Glocalization and the media: Studies from the South. In *International studies,* 50 (3), p. 240-254.

21. Roudometof, V. (2023). Digital glocalization: theorizing the twenty-first-century ICT revolution. In *Frontiers in communication*, 8, p. 1-8. DOI: https://doi.org/10.3389/fcomm.2023.1244614
22. Rusňáková, L. & Kvetanová, Z. (2024). Reality show and its adaptation in Slovak television production. In *European journal of transformation studies,* 12 (1), p. 24-53.
23. Scott, K. (2021). You won't believe what's in this paper! clickbait, relevance and the curiosity gap. In *Journal of pragmatics*, 175, p. 53-66. DOI: https://doi.org/10.1016/j.pragma.2020.12.023
24. Talavira, N., Potapenko, S. & Mishchenko, T. (2024). News reporting of public speeches in English on-line media: a constructional perspective. In *Studies about languages*, 44 (1), p. 38-52. DOI: https://doi.org/10.5755/j01.sal.1.44.34866
25. Van Dijk, T. (1988). *News as discourse*. Hillsdale: Lawrance Erlbaum.
26. Zabuzhanska, I. & Furtáková, L. (2024). Novel anglicisms in modern media sport coverage. In *Lege artis. Language yesterday, today, tomorrow.* Trnava: University of SS Cyril and Methodius in Trnava, IX (2), p. 106-124. DOI: https://doi.org/10.34135/lartis.24.9.2.07

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LEXICAL ANALYSIS OF DISEASE NAMES BASED ON ZOONYMS IN MEDIEVAL ARMENIAN MEDICAL BOOKS

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Abstract: The article discusses zoonymic disease names used in eight Middle Armenian medical books (12th – 16th centuries), which, according to dictionary data, were not attested in Classical Armenian. These words were used during medieval period with the meaning of medical terms. The article demonstrates the path of emergence, formation, and development of these disease names in Middle Armenian. It also considers their transmission to contemporary Armenian as medical terms or their replacement with new equivalents.

Keywords: disease name, zoonym, Middle Armenian, medieval medical book, vocabulary, medical term, meaning, calque, word-formation pattern.

1. Introduction

Disease-indicating words occupy a distinct place in the vocabulary of languages worldwide. They reflect not only each nation's mindset, worldview, and traditions, but also intercultural and interlingual interaction. These words are used both in scientific discourse and in everyday speech.

Disease names are generally studied across multiple disciplines. In medicine, terminological research focuses primarily on the clarification and systematization of disease names (Fung & Richesson 2014). This terminology also plays a crucial role in biomedical research, for instance, the development of disease corpora (e.g., a database with 6,892 disease references) enables automatic disease name detection (Doğan et al. 2014) and facilitates the use of machine learning methods for disease name

normalization (Leaman et al. 2013), which can also benefit linguistic studies of disease nomenclature. Social scientists and sociologists address the social dimensions of disease, particularly how language and metaphor are used in public discourse surrounding infectious diseases (Wallis & Nerlich 2005), as well as the psychological factors that influence public response during crises (Jaspal & Nerlich 2020). Similarly, cognitive linguists study metaphorical conceptualizations of disease, strategies for overcoming illness, and figurative uses of disease terms (Kamalu 2020; Williams Camus 2009).

From a linguistic perspective, research has examined the etymology and origin of disease names (Jassem 2015; Kazmi 2022; Sykes 1896), as well as word-formation patterns and stylistic variation in different languages (Galstyan & Abrahamyan 2017; Hernina et al. 2023). In recent years, the COVID-19 pandemic has generated new linguistic interest in disease terminology, including neologisms (Asif et al. 2021; Semerdzhidi 2022; Tallarico 2023), the metaphorical framing of COVID (Lu & Yu 2024; Semino 2021), and translation-related features (Gasparyan & Ohanyan 2022).

Several studies have also explored the terminological field of "animal diseases" in English. Researchers have investigated their structural and morphological patterns (Rozhkov 2020a), outlined key semantic categories (Rozhkov 2020b), and classified diseases by both anatomical location and animal species (Syrotina et al. 2022: 260-262).

Some disease names across languages are linked to animal names (zoonyms). While many studies examine zoonyms from semantic or metaphorical perspectives (Davranoglou & Embirikos 2023; Rychlo et al. 2024; Varlamova et al. 2017), our study focuses specifically on disease names of zoonymic origin.

Zoonymic disease names form a distinct lexical layer that reflects the interplay between language, metaphor, and cultural conceptions of illness. These associations are often based on animals' physical features, behavioural traits, or assumed disease transmission from animals to humans (Kubitsch 2017: 91-93). Moreover, the same disease in different languages may be designated through metaphors containing either similar or different zoonym components (Naumenko & Zolotukhin 2020).

Zoonym-based disease names also serve as linguistic markers of cultural cognition and historical knowledge transmission. Their comparative study can shed light on naming strategies across languages and historical periods. However, the historical development of such terms in pre-modern languages, particularly in Middle Armenian, has not received special attention. Middle Armenian is the intermediate stage of development of the Armenian language, which forms a separate branch of the Indo-European language family, covering the 12^{th} – 16^{th} centuries and serving as a connecting link

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between Grabar (Classical Armenian) and New Armenian. Being based on the vernacular language and dialects of the time, Middle Armenian exhibits characteristics typical of colloquial-dialectal language. The study of zoonymic terminology in a particular historical period is important for showing how different languages (such as Greek and Arabic) have influenced Armenian, and what linguistic connections have existed historically. In this context, zoonymic disease names used in medieval Armenian medical books (12^{th} – 16^{th} centuries) are of particular interest. These medical books attest to a distinct semantic group of disease names absent from Classical Armenian, revealing semantic and word-formation innovations in medical vocabulary. While a few of these terms were discussed in an earlier study (Tadevosyan 2020), the present article offers a more comprehensive investigation. It seeks to trace their emergence, formation, and evolution as part of the broader history of Armenian medical terminology.

2. Aim, material, and methods

This research aims to analyze zoonymic disease names that functioned as medical terms in medieval Armenian medical books, in order to trace their emergence, semantic structure, formation, and further development, and to determine the contemporary usage of these terms in Armenian based on the "Explanatory dictionary of Modern Armenian language" and the "Eastern Armenian National Corpus".

The article examines 17 disease names derived from 15 animals (mammal, bird, amphibian, arthropod, reptile, insect), which denote various human and animal diseases in Middle Armenian. The words that form the material of the article are not found in the literature of Classical Armenian and were used in eight medieval Armenian medical books of the 12^{th} – 16^{th} centuries: Mkhitar Heratsi's "Relief of fevers ", Abusaid's "About the human structure" (12^{th} c.), Grigoris' "Analysis of the nature of man and his ailments", translational "Book of horse cures" (13^{th} c.), Amirdovlat Amasiatsi's "The benefits of medicine", " Useless for the ignorant" (15^{th} c.), Asar Sebastatsi's "The book of medical art", Buniat Sebastatsi's "Medical calendar book" (16^{th} – 17^{th} c.). All of these were created by famous physicians of the time in different regions of historical Armenia – Cilicia, Amasia, and Sebastia (Vardanian 2000: 93-155). Besides being valuable medical monuments, they have been of great importance for presenting the vocabulary of Middle Armenian.

This research employs a comprehensive approach that combines analytical, descriptive, historical-comparative, and etymological methods. Each zoonymic disease name is analyzed in terms of its semantic structure, morphological formation, presumed source language (Arabic, Greek, or Persian), and its status in Modern Armenian (preserved, replaced, or obsolete). The analysis utilizes Classical

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Armenian, Middle Armenian, etymological, dialectological, and Modern Armenian dictionaries, as well as the Eastern Armenian National Corpus (EANC). The methodology allows for tracing cultural-linguistic contact and calquing patterns in medieval Armenian medical vocabulary.

3. Discussion and results

Middle Armenian employed a number of medical terms that are not attested in Classical Armenian sources. This lexical expansion was conditioned by the broader development of medicine and medical science in medieval Armenia. During this period, under the growing influence of Arabic medicine, a series of foreign terms, particularly from Greek and Arabic, entered Armenian medical terminology (Vardanian 2000: 176). Medical terms of Greek, Latin, and Eastern origin, especially Arabic, came into use both in medical books and other written sources. Although these borrowings have not been studied comprehensively, certain semantic categories, such as terms related to medicine and disease, have been partially explored (Khachatryan 2024). Armenian physicians, well-acquainted with Greek, Arabic, and Persian medical traditions, used a variety of foreign medical terms in their writings. Alongside Greek, Arabic, and Persian borrowings, they also employed equivalent Armenian terms. Among these are zoonym-based disease names, which appear as simple, compound, or derivative words. These terms were formed according to Armenian word-formation patterns, by calquing the meaning or structural model of Greek and Arabic terms, or by creating words that reflect folk mentality. In the case of semantic calquing, a native word acquires the meaning of a foreign word without any change in form. Word-formation calques, on the other hand, are compound or derivative words created by translating the components or the morphological structure of a foreign term.

Thus, the zoonym-based disease names found in Middle Armenian medical texts can be classified according to the principles of their formation. The seventeen medical terms under analysis fall into three groups: semantic calques, word-formation pattern calques, and folk-colloquial formations.

3.1 Semantic calques

This group includes disease names that coincide with the names of individual animals. Imitating a trend in some other languages, Middle Armenian medical books also used these names to designate certain diseases, thus preserving the native form while acquiring a new, medically specialized meaning.

The noun *գոլւն* (frog) appears in Classical Armenian exclusively as the name of an amphibian. In two medical books (Book of horse cures 1980: 156; Grigoris 1962: 98*)*, however, it is also used as the medical term "ranula", denoting an inflammatory swelling under the tongue (Ghazaryan &

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Avetisyan 2009: 149). According to Grigoris, this oral tumor was called "gort" due to its visual resemblance to a frog (Grigoris 1962: 98).

The great Armenian linguist Hrachya Acharyan, following the Armenologist Norayr Byuzandatsi, interprets the term *gort* as "a membranous fold under the tongue of a horse or ox", which corresponds to the French *grenouillette* (little frog) meaning "a swelling under the tongue" (Acharyan 1971: 585). A similar semantic link exists in Greek (βάτραχος–vátrachos), Latin (rana), and Arabic (ضفدع ḍafdae). While the exact source language of this calque is uncertain, Greek is often regarded as the original source from which other languages likely borrowed the meaning. However, considering the more significant influence of Arabic during the medieval period, it is more plausible that Middle Armenian borrowed the term directly from Arabic. The medical sense of *qnqun* did not gain widespread usage and remained confined to Middle Armenian books.

The word *խէչափառ* "cancer" used in various phonetic forms in the Middle Armenian period (e.g. *խէչէփար, խէչիփար,* etc.) is derived from *խէչ* "side" and dialectal *փառ* "wing", possibly alluding to the crab's limbs on either side of its body (Acharyan 1973: 359). The word is still used today in a number of Armenian dialects (Dialectological dictionary of the Armenian language 2002: 313).

In medieval medical books, *խէչափառ* was primarily used as a calque for the Latin *cancer*, whose original meaning is *crab* (Haubrich 2003: 39). This zoonymic-motivated designation parallels a widespread semantic phenomenon, where the name of the aquatic animal also denotes the disease "cancer", as seen in Russian (*рак*), Greek (*καρκίνος*), Arabic (سرطان *saraṭān*), and Persian (*sarātān*). In the 12th century, the great Armenian physician Mkhitar Heratsi translated this disease name from Greek using the literary form *խեցգետնիկ* (crab) (Heratsi 1832: 113). In the 13th century, Grigoris rendered it from Arabic سرطان *saraṭān*, as *խէչիփար* (Grigoris 1962: 33). While Arabic may have served as an intermediary, we consider Greek a more likely source of the calque, given its earlier attestation and broader influence on medieval Armenian medical terminology

The term is attested from the 12th century (Abusaid 1974: 201) and occurs more frequently in 13th-century medical books (Book of horse cures 1980: 158; Grigoris 1962: 80, 138). It remained in use through the 15th century (Amasiatsi 1926: 556; 1940: 52б), but it has not been preserved in the vocabulary of Modern Armenian. The currently used medical term is *քաղցկեղ* (Aghayan 1976: 1548), which is not of zoonymic origin and derives from *քաղց* "hunger" and *կեղ* "wound, tumor" (Acharyan 1979: 546).

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Another semantic calque is *խnqp* (pigs) "parotitis", the Classical Armenian plural form of *pig*, often used in medieval medical books as a disease name meaning "swelling of the neck glands" or "inflammation of the parotid gland". This meaning corresponds to the Latin *scrofula*, Russian *свинка*, and Arabic داء الخنازير *da-al-xanīzīr* (Acharyan 1973: 382). Given that *khanazir* is also the Arabic plural for "pig", the Armenian form is likely a semantic calque from Arabic (Acharyan 1973: 382). This is further supported by Amasiatsi's own usage (1940: 479), particularly since he frequently employs the Arabic term *khanazir* in parallel (Amasiatsi 1926: 52).

The term *խnqp* appears regularly in Middle Armenian medical texts from the 12th century onward (Abusaid 1974: 137; Amasiatsi 1926: 52; Grigoris 1962: 32; Sebastatsi 1987: 122). Though recorded in Modern Armenian dictionaries as a synonym, it is now replaced in medical usage by *խnqnıկ* (*piglet*), formed with the diminutive suffix *-nıկ* (Aghayan 1976: 590; EANC).

Thus, these three examples of semantic calques illustrate how animal names came to denote diseases, often through analogy or translation. While Greek and Arabic are the most likely sources, Arabic appears to have had a stronger influence in the medical context of medieval Armenia. All three terms remained confined to Middle Armenian and did not enter the core vocabulary of Modern Armenian medical terminology.

3.2 Word-formation pattern calques

The second group of zoonymic disease names comprises compound words formed through the calquing of word-formation patterns. It is well established that Armenian medicine of the 12th – 16th centuries was significantly influenced by Arabic medicine, a fact that is also reflected in the Middle Armenian medical vocabulary and terminology formation (Vardanian 2000: 176). Alongside numerous Arabic loanwords found in medical books, disease names directly translated or calqued from Arabic were also in use. Middle Armenian, in particular, features lexical calques modelled after Arabic and Greek word-formation patterns (Ghazaryan 2001: 89).

This section presents disease names in medieval medical books that follow the pattern *animal name + guı* (pain), where *guı* functions as a disease marker. The compounds denote diseases associated with or resembling traits of the named animal. This pattern, typical of Arabic, served as the basis for several Middle Armenian calques through literal or morphological translation.

Most disease names formed through this pattern are based on mammalian zoonyms. A representative example is the Middle Armenian medical term *աղվուհացաւ* (fox disease), denoting "hair loss"

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(alopecia). This compound is a literal calque of Arabic داء الثعلب dā' al-ṣa'lab, (disease of the fox) which metaphorically refers to the patchy fur loss observed in foxes. The term *առվեսացալ* is widely attested and was actively used in medical books of the 12th – 16th centuries (Grigoris 1962: 42; Heratsi 1832: 94; Sebastatsi 1993: 117.). Although it has been preserved and recorded in Modern Armenian dictionaries (Aghayan 1976: 27), the standard medical term currently in use is *մազաթափություն* (hair loss) (ibid., 951; EANC).

The disease name *առյուծի գաւ* (lion disease) was also formed through calquing the *animal name + disease* pattern and refers to *leprosy*, an infectious disease that causes skin and tissue deterioration, leading to facial deformation resembling that of a lion. While no longer encountered today, in the past leprosy was perceived with fear and horror, and contracting it was often regarded as a curse. The term is a literal calque of Arabic داء الأسد *dā' al-'asad* (disease of the lion) and corresponds to the Latin *lepra* and Russian *проказа.* The compound *առյուծի գաւ*, or *առյուծի նեղ* (lion's distress), functions here as a synonym for "disease". It was used by Grigoris, the 13th century physician, who described in detail the symptoms and progression of the illness (Grigoris 1962: 36).

However, the Middle Armenian term *առյուծի գալ* did not have widespread use, as the Arabic term was primarily used in its phonetic form *տայուլասատ* (*tayulasat*) in medical books (Amasiatsi 1926: 554). As a result, *առյուծի գաւ* was neither preserved in common usage nor included in the Middle Armenian Dictionary**.**

Based on the mammal name *elephant*, the 13th-century medical term *փղայգաւ* (elephant disease) is attested, denoting "elephantiasis", and corresponding to the Latin *elephantiasis*. The Armenian term was most likely calqued from Arabic **داء الفيل** *dāʾ al-fīl* (disease of the elephant). This disease name is recorded only in the "Middle Armenian Dictionary". The term *փղայգաւ*, along with its variants *փեղցաւ* (*p'eghtsav*) and *փղի գաւ* (*p'ghi tsav*), appears in the medical book of Grigoris, who explains the origin of the term by noting that the disease is called "elephant disease" because the legs swell and thicken like those of an elephant (Grigoris 1962: 41).

No other instances of *փղացալ* have been found in medical books of later centuries. Instead, the synonymous form *փղախտ* has been adopted in Modern Armenian vocabulary (Aghayan 1976: 1520; EANC), where, as before, *ախտ* denotes "disease".

The disease name *պախտէգաւ* (cattle disease) was also used twice in the "Book of horse cures". The word *պախտա*, borrowed from Syriac, was already polysemous in Classical Armenian, denoting: 1. money, coin, 2. livelihood, provisions, 3. cattle, livestock (Avetikean et al. 1836-1837: 584). In

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medieval medical books, it was primarily used with the meaning "cattle." Mkhitar Heratsi, for instance, employed the neologism *պախրեմիս* (cattle meat) with this sense (Ghazaryan & Avetisyan 2009: 635).

According to Acharyan, the Middle Armenian *պախրա* is a colloquial form of the Arabic loan بقرة *baqara* (Acharyan 1979: 7). The term *պախրեցավ*, attested only in the "Book of horse cures" (1980: 39, 112), is most likely a calque of the Arabic داءالبقر dā'al-baqar (disease of the cow). It manifests itself by severe abdominal pain and diarrhea, although it is not entirely clear which disease is being referred to.

It should be noted that in Modern Armenian usage, *տավխրացավ* is attested as a general disease name. The phrase *տավխրի ցավ* (cattle disease) is also used and carries the metaphorical meaning of "worthless person" (Aghayan 1976: 1415).

In medieval medical books, the term *օձացաւ* (snake disease), composed on the basis of the reptile name *օձ* (snake), is frequently attested with its variants *օձցաւ / օձի ցաւ /օձիկ ցաւ* (snakelet or little snake disease), and denotes a skin disease. The term is again a literal calque of the Arabic داء الحية *dā'-al-ḥayya* (disease of the snake). Notably, *օձացավ* was used to refer to two different diseases; in one case, "acute skin inflammation", popularly known as *erysipelas* (from Greek "red skin"), and in the other, *ichthyosis* (from the Greek "fish condition"), "a disorder in which the skin becomes scaly and flaky" (Ghazaryan & Avetisyan 2009: 824). The first meaning derives from the perceived resemblance between the reddish rash and a snake's skin. This disease name appears in the medical book "Relief of fevers" (Heratsi 1832: 94).

In Asar Sebastatsi's medical book, the noun *սողուն* (reptile) is also attested as a designation for snake disease:
Arm.: «*Բայց պատրաստ կացիր, որ զայս օձիկ ցաւս, որ սողուն կոչ անուանեն*» (Sebastatsi 1993: 205) – [Eng.: "But be careful, for this snakelet disease, which they call reptile"].

The second meaning, "ichthyosis", derives from the snake's characteristic of shedding its skin and the partial peeling of human skin. This sense of the disease name is attested in the medical books of Grigoris, Amasiatsi, and Buniat Sebastatsi (Amasiatsi 1940: 113; Grigoris 1962: 42; Sebastatsi 1987: 117).

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However, the Middle Armenian term *օձացալ* has not been preserved in modern Armenian in either of its meanings. The first meaning (erysipelas) survives today in the folk-medical term *կարմիր քամի* (red wind) (Aghayan 1976: 709), while the dialect variant *օձիկ* (little snake) remains in limited use (Dialectological Dictionary of the Armenian Language 2012: 168). For the second meaning (ichthyosis), the term *ձկնամաշկություն* (fish skin) is used in Modern Armenian as well (Aghayan 1976: 925). Modern Armenian uses the descriptive neologism *ձկնամաշկություն* (fish skin), alongside the borrowed internationalism *իխտիոզ*.

Thus, instead of the Arabic-derived Middle Armenian term *օձացալ*, Modern Armenian employs two different disease names, both of which begin with components corresponding to Greek etymons.

Some disease names, in Middle Armenian, coined analogically according to *name + disease* pattern, have no equivalents in Arabic medical terminology.

One such term is *արծվեացաւ* (eagle disease), used to denote dropsy, a condition characterized by abnormal fluid accumulation in the abdomen. The Latin equivalent of the term is *ascites*, the Russian is *водянка,* and the Arabic equivalent is استسقاء *istisqa*, which literally means "thirst". In these languages, the disease name is linked to water or thirst, as patients often experience intense thirst. This raises the question: what connection does the eagle have with this condition? A possible explanation is that the eagle can go for days without drinking water, because it is satiated by the blood of its prey animals.

The variant *արծվեացալ* is attested only in the "Book of horse cures" (1980: 138) and in other medieval medical books (Amasiatsi 1940: 307; Book of horse cures 1980: 40; Grigoris 1962: 31,150; Heratsi 1832: 145; Sebastatsi 1993: 192). This disease name is mainly used in the form *արծուիք* (eagles**)**, which is the plural form of the noun *արծիվ* (Acharyan 1971: 320). The latter also appears in Grigoris' medical book in its singular form *արծիվ* (Grigoris 1962: 210).

Both versions of the term have not been preserved; only *արծվիք* is recorded in the *Armenian explanatory dictionary* with the notation "rare" (Malkhasyants 1944: 271). Instead, Modern Armenian uses the disease name *ջրգողություն* (dropsy) (Aghayan 1976: 1250; EANC).

Another mammal name is engaged in the disease name *գայլացաւ* (wolf-disease) "lupus", which is associated with the *wolf*. Notably, the Arabic equivalent of this term is not found in medical books, and the word was perhaps coined by analogy with other zoonymic disease names, following the

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principle of similarity. Aside from Norayr Byuzandatsi's dictionary (2000: 127), the word is attested only in the "Middle Armenian Dictionary" with the meaning "wolf disease" (Ghazaryan & Avetisyan 2009: 133). The name of the disease in both Greek (*λύκος,*) and Latin (lupus) literally means "wolf", and in several other languages it is similarly linked to the wolf. This is due to the characteristic facial rash caused by the disease, which can resemble a wolf's mask, especially when the redness spreads across the nose and cheeks in a butterfly-shaped pattern). The disease is characteristic of both humans and many other animals. The term *գայլցավ*, denoting this disease, appears in two medical books from the 13th century, in one case referring to humans, and in the other – to horses:
(1) Arm.: *«Մարդ, որ նեղ ունի, զոր ասեն գայլցաւ»* (Grigoris 1962: 213) – [Eng.: "A human with a disease, which is called wolf-disease"];
(2) Arm.: *«Յաղագս գայլցաւի: Նշանքն է. լարի շլնիքն և ակընջուին. քաշուի աչիցն սևուցն, որ սպիտկուցն շատ երեւնայ»* (Book of horse cures 1980: 120) – [Eng.: "Regarding wolf-disease, the signs are that the lips and ears become tense; the black part of the eyes recedes, making the white part more visible"].

The last example is also cited by Norayr Byuzandatsi (2000: 127), who notes that the term was used in the work "Medical book of pack animals" (from which "Book of horse cures" was compiled) translated from Arabic.

Instead of the disease name *գայլցավ*, Modern Armenian medical terminology now uses its synonym *գայլախտ* (where *ախտ* is a synonym of *disease*) (Aghayan 1976: 218-219; EANC).

Two disease names, also based on mammals and constructed using the animal name + disease pattern, are attested only in the "Book of horse cures" (13th c.). These terms have no connection with Arabic and were likely coined by analogy with other disease names denoting conditions specific to horses. The first is *ղղտացաւ* (camel disease) "pack horse disease", which is most likely a muscular affliction of the horse and is thus connected with the limping camel; it appears only twice (Book of horse cures 1980: 39, 126). The second term is *քուռկցաւ* (foal disease), referring to a foal's glandular disease, which is *parotitis*, occurring in horses (ibid., 40, 137).

The two disease names mentioned above are attested in "Middle Armenian Dictionary" based on the citations from the "Book of horse cures" (Ghazaryan & Avetisyan 2009: 816) and have not been preserved in Modern Armenian.

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Thus, by calquing the Arabic animal's name + disease word-formation pattern, nine zoonymic disease names were coined in Middle Armenian, four of which were formed analogically without direct Arabic counterparts. None of these terms remain in active use in Modern Armenian, having either fallen into disuse or been replaced by alternative designations.

3.3 Folk-colloquial formations

This group of zoonymic disease names comprises formations of folk-colloquial origin, appearing in medieval medical books as Armenian equivalents for borrowed terms. These terms reflect folk conceptualization, are structurally compound or derivational, and are typical of Armenian dialects. These are primarily words expressing folk thinking, complex or derivative in structure, and are largely characteristic of Armenian dialects.

The disease name *հաւկոյր / հաւկուր* (chicken blind), meaning "night blindness" or "a person suffering from night blindness" can be considered an expression of folk thinking. *Night blindness* is a type of visual impairment characterized by diminished or absent vision in low-light conditions (e.g., twilight or nighttime). In modern medical terminology, this disease is known as *hemeralopia*, which is derived from the Greek term, ἡμεράλωψ and is composed of *hemera* "day", *alaos* "blind", and *opia* "eye". (Taber's® Cyclopedic Medical Dictionary 2017). In Russian, an equivalent phrase is used: *дневная слепота* (day blindness). Note that in some languages, the term may refer to the opposite condition: "blind at night". In Middle Armenian, however, the word *գիշերակոյր* (night-blind), also appears, specifically in reference to animals (Ghazaryan & Avetisyan 2009: 142). In contrast to the standard scientific terms, the zoonymic designation *հաւկուր,* attested in various dialects (Dialectological dictionary of the Armenian language 2004: 251), is used in medieval Armenian medicine based on the folk observation that chickens are unable to see at night. This Armenian term has been attested since the 13th century as an equivalent to the Persian شب کوری *šab-kuri* (night blind) (Book of horse cures 1980: 152; Grigoris 1962: 88).

The word is also attested in its derivative form *հաւկուրութիւն* "chicken blindness" in later medieval medical books (Amasiatsi 1940: 219; Amasiatsi 1926: 605; Sebastatsi 1993: 150). It has remained in use and is established in Modern Armenian medical vocabulary (Aghayan 1976: 837; EANC).

Among the skin diseases circulating in the medieval period is *մկնատամ* (mouse tooth) which is a folk designation for *lichen* (from Greek "to lick"), a fungal infection of the skin. The name is likely derived from the visual resemblance between the skin rash and the fine, tooth-like markings attributed to a mouse bite. The term *մկնատամ,* characteristic of several Armenian dialects (Dialectological

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dictionary of the Armenian language 2007: 64), has been attested in medical books since the 12th century (Abusaid 1974: 136; Amasiatsi 1926: 72, 227; Amasiatsi 1940: 483). It survives in Modern Armenian with the same meaning (Aghayan 1976: 1018; EANC).

Another skin disease, urticaria, is attested in medieval medical texts under the Classical Armenian name *մրջմնց* "anthill", derived from the name of the insect *ant*. In Classical Armenian, in addition to its primary meaning "ant nest, anthill", the word also referred to a skin condition, presumably due to the visual similarity between the rash and an anthill (Avetikean et al. 1836–1837: 308-309). H. Acharyan, citing Yeremia Meghretsi's dictionary, interprets the term as "blistered swelling" and notes its dialectal variants, describing a skin disease in which the skin becomes scaly, persistently inflamed, and itchy (Acharyan 1977: 371). Notably, while the name of this condition in other languages is associated with the nettle plant (cf. Latin *urticaria*, Russian *крапивница*), in Middle Armenian and several dialects, it is linked to the *ant* (Dialectological Dictionary of the Armenian Language 2007: 89), reflecting the appearance of the rash as it spreads over the body like ants. Interestingly, in Arabic, this disease is also called نملة namla, which literally means *ant*.

In medieval medical books, the disease appears not only in the Middle Armenian phonetic variant *մրջմց* (Book of horse cures 1980: 101; Sebastatsi 1993: 229), but also in the diminutive form *մրջմնուկ* (ant + the suffix -uk) (Grigoris 1962: 30). This zoonymic disease name has not been preserved in Modern Armenian. Instead, the terms *եղնջացան* "nettle rash" and *եղնջատենդ* "nettle fever" (Aghayan 1976: 325) are used, both likewise connected to the nettle plant as in Latin, and the dialectal *մղոքոր* "severe itching" (ibid., 1023).

The final zoonymic disease name under discussion is *գորտնուկ* (*frog* + diminutive suffix *-uk*, meaning "little frog"), which is attested in medieval Armenian books and refers to a *wart*, a small, lentil-shaped growth that typically appears on harder areas on the skin such as the hands or feet. The equivalent Latin term *verruca* is etymologically linked to the word *hill*, whereas in Russian, the corresponding word *бородавка* is related to beard (борода). In Armenian, the condition is metaphorically associated with the amphibian frog, likely due to the resemblance between a frog's skin and the surface of the wart. The term *գորտնուկ* was used once in the 13th century in Grigoris' medical book:

Arm.: «*….և առաջին իմաստունքն եղունդ ասեն, որ է գորտնուկն. և լինի բոլորն ի պինտ*» (Grigoris 1962: 33) – [Eng.: "….and the first wise men call it a protrusion, which is wart: and they all are hard"].

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Preserved in the later stage of Middle Armenian (Ghazaryan & Avetisyan 2009: 149), as well as in dialects (Dialectological dictionary of the Armenian language 2001, p. 284), the disease name *գորտնուկ* has been established in the vocabulary of Modern Armenian and continues to be used today as a medical term (Aghayan 1976: 259; EANC).

4. Conclusions

Medieval Armenian medical books, composed in Middle Armenian (12th–16th centuries), provide an opportunity to form an understanding of the formation and historical development of Armenian medical terminology. The article uncovers the origin and traces the development of disease names based on zoonyms and coined in Middle Armenian according to different patterns.

The study reveals seventeen disease names that were formed from fifteen different zoonyms in Armenian, designating diseases that affect humans, as well as certain animals. These terms were not attested in Grabar (Classical Armenian) literature. These medical terms, characteristic of Middle Armenian, were created through three main pathways:

1. *Semantic calques*: certain zoonyms (*գորտ* "frog", *խեչափառ* "cancer", *խոզք* "pigs") were also used as disease names under the influence of Greek and Arabic.

2. *Word-formation pattern calques*: the majority of the examined terms (nine) follow the Arabic pattern of *animal name + disease* (*աղուեսացաւ* "fox disease", *առյուծի ցաւ* "lion disease", *պախրէցաւ* "cattle disease", *փղայցաւ* "elephant disease", *օձացաւ* "snake disease"). This pattern was also employed to create Middle Armenian terms unrelated to Arabic (e.g., *արծվեցաւ* "eagle disease", *գայլցաւ* "wolf disease", *ղտուացաւ* " camel disease", *քուռկցաւ* "foal disease").

3. *Folk-colloquial formations*: four terms of vernacular origin, characteristic of Armenian dialects, appear as Armenian equivalents of borrowed medical terms (*հավկուրությիւն* "chicken blindness", *մկնատամ* "mouse tooth", *մրջմնուկ* "little ant", *գորտնուկ* "little frog"), as Armenian equivalents of borrowed terms.

The zoonyms *գորտ* and *օձ* each yielded two disease names. *Գորտ* produces two terms (*գորտ* "ranula", *գորտնուկ* "wart"), while *օձ* forms one term (*օձացալ* "snake disease") with two distinct medical meanings "erysipelas" and "ichthyosis".

The following features of animals served as the basis for naming the discussed disease names: (a) outward appearance (*գորտ*, *գորտնուկ* (frog), *խեչիփար* (cancer), *խոզք* (pigs), *գայլցալ* (wolf disease), *առյուծացաւ* (lion disease), *մկնատամ* (mouse tooth), *օձացալ*[1] (snake disease "erysipelas")), (b) outstanding idiosyncrasies (*աղուեսացաւ* (fox disease), *հավկուրությիւն* (chicken

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blindness), *մրջմնուկ* (ant), *փղացավ* (elephant disease), *օձացավ*[2] (snake disease "ichthyosis")), (c) species-specific diseases (*պախրեցավ* (cattle disease), *ղոտացաւ* (camel disease), *քուռկցաւ* (foal disease)), (d) aptitude (*արծվեցավ* (eagle disease)).

The results indicate that among the examined disease names, only three folk-colloquial terms have survived in contemporary Armenian, namely *գորտնուկ* (little frog) "wart", *հաւկուրություն* (chicken blindness) "night blindness", and *մկնատամ* (mouse tooth) "lichen". The remaining terms have either stayed within the boundaries of Middle Armenian or have been replaced by new equivalents.

Notes and abbreviations

1. Etymological explanations for some terms are presented according to *Armenian root dictionary* by H.H. Acharyan, vol. I–IV. Yerevan: Yerevan University Publishing House, 1971; 1973; 1977; 1979. / *Հայերեն արմատական բառարան*, Աճառյան Հ.Հ., հ. I–IV. Երևան, Երևանի համալսարանի հրատարակչություն, 1971, 1973, 1977, 1979: (in Armenian)
2. The explanations of the terms used in Middle Armenian are presented according to *Middle Armenian dictionary* by R.S. Ghazaryan & H.M. Avetisyan. Yerevan: Yerevan State University Publishing House, 2009. / *Միջին հայերենի բառարան*, Ղազարյան Ռ.Ս., Ավետիսյան Հ.Մ., Երևան, ԵՊՀ հրատարակչություն; *Dictionary of Middle Armenian according to bibliography of XIth–17th centuries by* Byuzandatsi, N.N. Geneva, 2000. / *Բառգիրք ստորին հայերէնի ի մատենագրութեանց ԺԱ-ԺԷ դարուց*, Բյուզանդացի Ն. Ն., Ժնև, 2000: (in Armenian)
3. The usage of certain disease names in Armenian dialects has been verified according to *Dialectological dictionary of the Armenian language.* Sargsyan, A.E. (ed.). Vol. I– IV, VII. Yerevan: "Gitutyun" Publishing House. 200l; 2002; 2004; 2007; 2012. / *Հայոց լեզվի բարբառային բառարան*, Սարգսյան Ա. Ե. (գլխ. խմբ.), հ. I–IV, VII, Երևան, «Գիտություն» հրատարակչություն, 200l; 2002; 2004; 2007; 2012: (in Armenian)
4. The current usage of terms in Modern Armenian has been verified according to *Explanatory dictionary of Modern Armenian language,* Aghayan, E.B. Yerevan: "Hayastan" Publishing House, 1976. / *Արդի հայերենի բացատրական բառարան,* Աղայան Է.Բ., Երևան, «Հասպյստան» հրատարակչություն, 1976: (in Armenian)
5. The meanings of certain words in Classical Armenian are presented according to *New dictionary of the Armenian language*. Avetikean, G., Siwrmelean, K. & Avgerean M., vol. II. Venice: Saint Lazar.1836-1837 / *Նոր բառգիրք հայկազեան լեզուի,* հ. II, Աւետիքեան Գ., Սիւրմէլեան Խ., Աւգերեան Մ., Վենետիկ: Սուրբ Ղազար: (in Armenian)
6. The rare usage of the term *արծուիք* "eagles" has been checked with *Armenian explanatory dictionary* by St. Malkhasyants, vol. I. Yerevan: Armenian SSR State Publishing House: 1944. /

 ISSN 2453-8035

Հայերէն բացատրական բառարան, հ. I, Մալխասյանց Ստ., Երևան, Հայկական ՍՍՌ պետական հրատարակչություն, 1944: (in Armenian)

7. The contemporary usage of certain terms in Armenian is also attested in the *Eastern Armenian National Corpus* (EANC). Available at: http://web-corpora.net/EANC/search/

8. Translation from Armenian into English was done by H. Tadevosyan.

EANC – Eastern Armenian National Corpus

LI – Language Institute

RA – Republic of Armenia

SSR – Soviet Socialist Republic

References

1. Abusaid. (1974). *About the human structure.* Yerevan: Armenian SSR Academy of Sciences Publishing House. / Abusaid. *Haghags kazmut'ean mardoyn,* Yerevan: HSSH GA hratarakch'ut'yun. / Աբուսաիդ, *Յաղագս կազմութեան մարդոյն*, Երևան, ՀՍՍՀ ԳԱ հրատարակչություն: (in Armenian)
2. Amasiatsi, A. (1940). *The benefits of medicine.*Yerevan*:* Armfan. / Amasiats'i A. *Ogut bzhshkut'yan.* Yerevan: Armfan. / Ամասիացի Ա., *Օգուտ բժշկութեան*, Երևան, Արմֆան: (in Armenian)
3. Amasiatsi, A. (1926). *Useless for the ignorant.* Vienna: Mkhitaryan Publishing House. / Amasiats'i A. Angitats' anpet. Vienna: Mkhit'aryan tparan. / Ամասիացի Ա., *Անգիտաց անպէտ*, Վիեննա, Մխիթարեան տպարան: (in Armenian)
4. Asif, M., Zhiyong, D., Iram, A. & Nisar, M. (2021). Linguistic analysis of neologism related to coronavirus (COVID-19). In *Social sciences & humanities open*, 4 (1), p. 1-6. DOI: https://doi.org/10.1016/j.ssaho.2021.100201
5. *Book of horse cures* (13th c.). (1980). Chukaszyan, B.L. (ed.). Yerevan: Armenian SSR Academy of Sciences Publishing House. / *Bzhshkaran dzio* (XIII d.). Ch'uk'aszyan, B. L. (khmb.). Yerevan: HSSH GA hratarakch'ut'yun. /*Բժշկարան Ձիոյ և առհասարակ գրաստնոյ,* (ԺԳ դար), Բ. Լ. Չուգասզյանի աշխատասիրությամբ, Երևան, ՀՍՍՀ ԳԱ հրատարակչություն: (in Armenian)
6. Davranoglou, L.R. & Embirikos, L. (2023). Toad zoonyms mirror the linguistic and demographic history of Greece. In *PLoS one*, 18 (3), p. e0283136. DOI: https://doi.org/10.1371/journal.pone.0283136
7. Doğan, R.I., Leaman, R. & Zhiyong, Lu. (2014). NCBI disease corpus: A resource for disease name recognition and concept normalization. In *Journal of biomedical informatics*, 47, p. 1-10. DOI: https://doi.org/10.1016/j.jbi.2013.12.006
8. Fung, K.W., Richesson, R. & Bodenreider, O. (2014). Coverage of rare disease names in standard terminologies and implications for patients, providers, and research. In *AMIA Annu Symp Proc.* Nov 14, p. 564-572.
9. Galstyan, A. & Abrahamyan, C. (2017). The influence of English on the Armenian medical vocabulary. In *Foreign languages in higher education*, 21, 1 (22), p. 19-26. DOI: https://doi.org/10.46991/FLHE/2017.21.1.019
10. Gasparyan, N. & Ohanyan, M. (2022). Metaphoric COVID neologisms and their translation peculiarities. In *Armenian folia anglistika*, 18, 2 (26), p. 132-145. DOI: https://doi.org/10.46991/AFA/2022.18.2.132
11. Ghazaryan, R.S. (2001). *The vocabulary of Middle literary Armenian.* Yerevan: Yerevan State University Publishing House. / Ghazaryan, R. S. *Mijin grakan hayereni barapasharě.* Yerevan: EPH hratarakch'ut'yun. / Ղազարյան Ռ., U. *Միջին գրական հայերենի բառապաշարը*, Երևան, ԵՊՀ հրատ: (in Armenian)

12. Grigoris. (1962). *Analysis of the nature of man and his ailments.* Yerevan: Armenian SSR Academy of Sciences Publishing House. / Grigoris. *K'nnut'yun bnut'ean mardo ev norin ts'avots'*. Yerevan. HSSH GA hratarakch'ut'yun. / Գրիգորիս, *Քննութիւն բնութեան մարդոյ եւ նորին ցաւոց*, Երևան, ՀՍՍՀ ԳԱ հրատարակչություն: (in Armenian)
13. Haubrich, W.S. (2003). *Medical meanings: A glossary of word origins*. Philadelphia: American college of physichians.
14. Heratsi, M. (1832). *Relief of fevers*. Venice: Saint Lazar. / Herats'i M. *Jermants' mkhit'arut'yun.* Venetic. Surb Ghazar. / Հերացի Մ., *Ջերմանց մխիթարութիւն*, Վենետիկ, Սուրբ Ղազար: (in Armenian)
15. Hernina, H., Karlina, Y. & Puspitasari, D.A. (2023). The Indonesian terms of disease names: A corpus linguistic study. In *OKARA: Jurnal bahasa dan sastra*, 17 (1), p. 14-31. DOI: https://doi.org/10.19105/ojbs.v17i1.8571
16. Jaspal, R. & Nerlich, B. (2020). Social representations, identity threat, and coping amid COVID-19. In *Psychological trauma: Theory, research, practice, and policy,* 12 (S1), p. S249-S251. DOI: https://doi.org/10.1037/tra0000773
17. Jassem, Z.A. (2015). The Arabic origins of English and Indo-European "Medical terms": A radical linguistic theory approach. In *Journal of English language and literature*, 2 (1), p. 18-47.
18. Kamalu, I. (2020). The metaphorical naming of selected dreaded diseases and medical conditions in Igbo language and thought. In *Topics in linguistics*, 21 (2), p. 28-40. DOI: http://dx.doi.org/10.2478/topling-2020-0008
19. Kazmi, S.Y. (2022). The etymology of microbial nomenclature and the diseases these cause in a historical perspective. In *Saudi journal of biological science*, 29 (11), 103454. DOI: https://doi.org/10.1016/j.sjbs.2022.103454
20. Khachatryan, V. (2024). The use of Middle Armenian borrowings in 14th century works. In *Issues on Armenian language history. Proceedings of the international conference.* Katvalyan, V. (ed.). Yerevan, LI Publishing, p. 144-157. / Khach'atryan, V. Mijinhayerenyan p'okharut'yunneri gortsatsut'yunĕ XIV dari erkerum. *Hayots' lezvi patmut'yan himnakhndirner. mijazgayin gitazhoghovi nyut'er.* Katvalyan V. (gl. khmb.). Yerevan, LI hratarakch'ut'yun, ēj 144-157. / Խաչատրյան Վ., Միջինհայերենյան փոխառությունների գործածությունը XIV-րդ դարի երկերում, *Հայոց լեզվի պատմության հիմնախնդիրներ. միջազգային գիտաժողովի նյութեր*, Կատվալյան Վ.(գլ. խմբ.), Երևան, ԼԻ հրատարակչություն, էջ 144-157. Available at: https://language.sci.am/sites/default/files/doi-2024-12-18_hlp-gitazhoghovi_nyowter-18.12_1.pdf (in Armenian)
21. Kubitsch, R. (2017). Lexical review of disease names in the Udmurt language. In *Studia Uralo-altaica*, 51, p. 89-105.
22. Leaman, R., Doğan, R.I. & Lu, Z. (2013). DNorm: disease name normalization with pairwise learning to rank. In *Bioinformatics*, 29 (22), p. 2909-2917. DOI: https://doi.org/10.1093/bioinformatics/btt474
23. Lu, G. & Yu, Y. (2024). The use of metaphors to construct crisis discourses in describing COVID-19 vaccines in the Chinese and the American news media: A corpus-assisted critical approach. In *Journal of language and politics*, 23 (4), p. 520-543. DOI: https://doi.org/10.1075/jlp.22153.lu
24. Naumenko, Yu.N. & Zolotukhin, V.O. (2020). Metaphoric medical terms with zoonym component in English and Russian medical discourses. In *International journal of humanities and natural sciences*, 7-3 (46), p.75-78. DOI: https://sciup.org/170188001
25. Rozhkov, Y. (2020). Representation of key categories in the English terminological field "animal diseases". In *Euromentor journal*, 11 (2), p. 146-160.
26. Rozhkov, Y. (2020). Structural and word-building analysis of English "animal diseases" terminological field. In *Euromentor journal-studies about education*, 11 (1), p. 126-137.

27. Rychło, M., Kaczyńska, E., Kowalski, A. & Witczak, T.K. (2024). Milk-sucking "thieves" in Indo-European folklore: An etymological analysis of zoonyms. In *Lege artis. Language yesterday, today, tomorrow*. Trnava: University of SS Cyril and Methodius in Trnava, IX (1), June 2024, p. 84-103. DOI: https://doi.org/10.34135/lartis.24.9.1.05
28. Sebastatsi, B. (1987). *Medical calendar book.* Yerevan: Armenian SSR Academy of Sciences Publishing House. / Sebastats'i B. *Girk' bzhshkut'ean tumari.* Yerevan: HSSH GA hratarakch'ut'yun. / Սեբաստացի Բ., *Գիրք բժշկութեան տումարի,* Երևան, ՀՍՍՀ ԳԱ հրատարակչություն: (in Armenian)
29. Sebastatsi, A. (1993). *The book of medical art.* Yerevan: Armenian SSR Academy of Sciences Publishing House. / Sebastats'i A. *Girk' bzhshkakan arhesti.* Yerevan: HSSH GA hratarakch'ut'yun. / Սեբաստացի Ա., *Գիրք բժշկական արհեստի*, Երևան, ՀՍՍՀ ԳԱ հրատարակչություն: (in Armenian)
30. Semerdzhidi, V.N. (2022). Neologisms of coronavirus pandemic era: Lexema "corona" as productive element of coroneologisms. In *International scientific congress "Knowledge, man and civilization". The European proceedings of social and behavioural sciences.* Vol 129. Bataev, D.K., Gapurov, S.A., Osmaev, A.D., Akaev, V. K., Idigova, L.M., Ovhadov, M.R., Salgiriev, A.R. & Betilmerzaeva, M.M. (eds.). European publisher, p. 960-968. DOI: https://doi.org/10.15405/epsbs.2022.12.123
31. Semino, E. (2021). "Not soldiers but fire-fighters" – metaphors and Covid-19. In *Health communication*, 36 (1), p. 50-58. DOI: https://doi.org/10.1080/10410236.2020.1844989
32. Sykes, W. (1896). On the origin and history of some disease-names. In *The lancet*, 147 (3789), p. 1007-1010.
33. Syrotina, O., Rozhkov, Y. & Lashkul, V. (2022). Semantic phenomena in English clinical terminology of veterinary medicine. In *Cogito*, 14 (3), p. 247-265.
34. *Taber's® Cyclopedic Medical Dictionary*, 23rd ed. (2017). Venes, D. (ed.). F.A. Davis Company. Available at: https://fadavispt.mhmedical.com/content.aspx?bookid=2132&sectionid=174262841.
35. Tadevosyan, H. (2020). Diseases named after animals in the work "Book of cures of horses" (13th c.). In *Problems of modern Armenian language studies.* Katvalyan, V., Hovsepyan, L., Galstyan, A. & Mkhitaryan, G. (eds.). Yerevan: LI Publishing, p. 81-95. / Tadevosyan, H. Kendanineri anvanumnerov akhtanunnerě "Bzhshkaran dzioy" (XIII d.) erkum. *Ardi hayerenagitut'yan khndirner.* Katvalyan V., Hovsep'yan L., Galstyan A. & Mkhitaryan, G. (khmbr.). Yerevan: LI hratarakch'ut'yun, ēj 81-95. / Թադևոսյան Հ., Կենդանիների անվանումներով ախտանուները «Բժշկարան ձիոյ» երկում (XIIIդ.), *Արդի հայերենագիտության խնդիրներ*, Կատվալյան Վ., Հովսեփյան Լ., Գալստյան Ա., Մխիթարյան Գ. (խմբր.), Երևան, ԼԻ հրատարակչություն, էջ 81-95: Available at: https://language.sci.am/sites/default/files/ardi_hayerenagitowtyan_khndirnere_0.pdf (in Armenian)
36. Tallarico, G. (2023). COVID-related new words in French dictionaries. In *Lexicography*, 10 (2), p. 138-160. DOI: https://doi.org/10.1558/lexi.26349
37. Vardanian, S. (2000). *History of medicine in Armenia: from ancient time until now.* Yerevan: Qnnaser. / Vardanian, S. *Hayastani bzhshkut'yan patmut'yun. Hnaguyn zhamanaknerits' minchev mer orerě.* Yerevan: Qnnaser / Վարդանյան Ս., *Հայաստանի բժշկության պատմություն. հնագույն ժամանակներից մինչև մեր օրերը*, Երևան, Քննասեր: (in Armenian)
38. Varlamova, E.V., Rakhimova, A.E & Shingareva, A.S. (2017). Representation of phraseological units with a zoonym component in the German and English linguistic views of the world. In *Revista publicando*, 4 (13) (2), p. 477-486. DOI: https://revistapublicando.org/revista/index.php/crv/article/view/907

39. Wallis, P. & Nerlich, B. (2005). Disease metaphors in new epidemics: The UK media framing of the 2003 SARS epidemic. In *Social science & medicine*, 60 (11), p. 2629-2639. DOI: https://doi.org/10.1016/j.socscimed.2004.11.031
40. Williams Camus, J.T. (2009). Metaphors of cancer in scientific popularization articles in the British press. In *Discourse studies*, 11 (4), p. 465-495. DOI: https://doi.org/10.1177/1461445609105220

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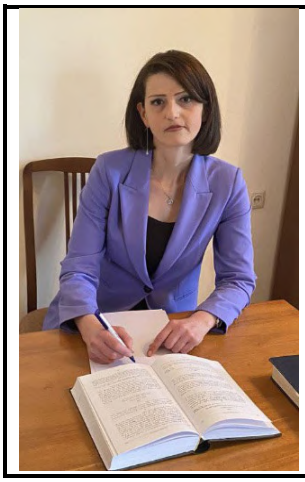	*name:*	**Hasmik Tadevosyan**
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HUMAN INTELLECTUAL ABILITIES THROUGH THE CONCEPTUAL PRISM OF VEGETABLE NAMES IN ENGLISH, FRENCH, AND POLISH

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Abstract: Rooted in cognitive linguistics, the study examines how speakers of three different languages, English, French, and Polish, use vegetable names to metaphorically refer to the intellectual domain. The analysis is based on conventionalised lexical units and identifies certain unique perceptual, sociocultural, and linguistic factors that shaped the analysed figurative senses in each of these languages as well as the cross-linguistic patterns of thought underlying these senses.

Keywords: cognitive linguistics, cross-linguistic analysis, figurativity, motivation, phytonym, vegetable name.

1. Introduction

The present study is situated within a more general framework of research that aims to uncover the shared mental representations, conceptual processes, and cultural knowledge that underlie language, which is also one of the research areas of cognitive linguistics. The objective of this exploration is to investigate how people speaking different languages make use of certain elements of their environment to refer to the intellectual domain.

To talk about human intellectual abilities, people often make use of figurative language, evoking various elements from other domains of their experience, such as light, vision, digestion, or plants (e.g., Allan 2017; Kövecses 2010; Sommers 1988; Taraszka-Drożdż 2014). In this study, the focus is

on one of the tangible aspects of our environment – vegetables, one of the subgroups of plants, which are commonly understood as 'any plant whose fruit, seeds, roots, tubers, bulbs, stems, leaves, or flower parts are used as food' (DIC).

This means that the object of our analysis is one of the types of phytonyms – vegetable names or, in particular, those senses of vegetable names that extend to the intellectual domain. Among all possible figurative senses of this kind, the analysis scrutinises those that are conventionalised in three languages from three different language groups: English from the Germanic group, French from the Romance group, and Polish from the Slavic group.

The goal of the study is to identify the similarities and differences in the figurative usage of vegetable names in the analysed languages. Specifically, the study investigates which names are employed to describe intellectual experience, what senses are assigned to them, what factors motivated the creation of these senses, and what mental processes were involved.

The paper is structured as follows: after a brief introduction of the cognitive perspective on topics such as motivation and figurative language, we discuss the methodology employed in the present study. Subsequently, we present an analysis of the figurative senses of vegetable names across three languages, followed by the conclusions.

2. Theoretical and methodological background

2.1 The theoretical framework

Research on linguistic motivation conducted within the framework of cognitive linguistics helps to uncover the complex relationships between language and a wide array of factors that influence its formation and use. While such relationships can be approached differently (e.g., Gibbs 2005; Heine 1997; Radden & Panther 2004), in our study we rely on the model proposed by Panther and Radden (2011). Its essence is that "cognition relates to and mediates among other human systems, which we refer to as 'peripheral'" (ibid., 1): bodily experiences, emotions, perception, actions, social/ communicative interactions, culture, and language. Each of them influences and, at the same time, is influenced by cognition. Because in the analysis our primary focus is on the relationship between language and cognition, it must be noted that while the influence of language on cognition leads to Whorffian effects, the reverse direction of influence, of cognition or peripheral systems, via cognition, on language is what these scholars call linguistic motivation (ibid., 8-9).

It is essential to emphasize that "language draws upon, and inherently embodies within its structure,

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a diverse range of independently existing cognitive processes" (Langacker 2008: 16). Among the various processes that Panther and Radden (2011: 2-3) classify as components of cognition, there are processes such as categorization, associative reasoning, and analogy. They also underlie figurative meanings that serve as the object of our study. In particular, associative thinking forms the foundation of metonymy, while analogizing underpins metaphor. Actually, metonymy and metaphor, along with more complex structures integrating them, for instance, metonymic, metaphorical, or metonymic-metaphoric chains, are cornerstones of figurativity and, as such, have been thoroughly explored in cognitive linguistics (e.g., Barcelona 2000; Benczes et al. 2011; Brdar & Brdar-Szabó 2022; Drożdż 2014; 2022; Kövecses 2015; 2020; Lakoff & Johnson 2003; Panther & Radden 1999; Ruiz de Mendoza Ibáñez & Galera Masegosa 2014, etc.).

Our analysis focuses on a specific area, which Sommers (1988: 666) calls *biomorphism* or *botanomorphism* – the study of human characteristics through fruit and vegetable metaphor. At the same time, Kleparski (2008: 45-46), discussing the transfer of plant names to characterize human qualities, uses the term *plantosemy*. Cottez (1982), in turn, who analyses metaphorical correspondences DU VÉGÉTAL A L'HOMME [from plants to people], talks of a *phytomorphic model*. This kind of metaphor has also been scrutinised within Conceptual Metaphor Theory, e.g., Lakoff and Turner (1989) propose the PEOPLE ARE PLANTS metaphor, later expanded to other plant-based metaphors (e.g., Borys 2023b; Kövecses 2010).

From the perspective of Cognitive Grammar (Langacker 2008; Taraszka-Drożdż 2014; 2018), the above-mentioned metaphorical patterns represent a categorising relationship between two schematic entities: the standard, which evokes the prototypical meanings of plant names, and the target, which activates various elements of knowledge concerning people. This relationship, which is one of the types of extension, is marked with a dashed arrow, resulting in the following notation: PLANTS ⇢ PEOPLE. This notation will be consistently applied throughout the article.

2.2 Research questions and methodology

The study aims to answer three questions:

1. Which vegetable names are used by the three linguistic communities to figuratively depict experience from the domain of intellect?
2. What exactly is designated by these figurative extended senses of vegetable names and the expressions they appear in in the given languages?
3. What factors motivated the formation of the analysed figurative senses and which mental processes underlie them?

In order to answer these questions, we adopted a methodology that consisted of several stages. First, a corpus of 54 English vegetable names was compiled, along with their semantic counterparts in French and Polish. At the second stage, all of the collected terms in the three languages were analysed from the perspective of their semantic extensions to the intellectual domain, understood as evoking 'the power or faculty of the mind by which one knows or understands [...]; the faculty of thinking and acquiring knowledge' (DIC).

Because the object of our analysis is conventionalised figurative senses, we carried out a thorough analysis of general, monolingual dictionaries – 10 dictionaries for each language. Their selection was guided by their academic prestige and recognition within each of the respective languages. For English, the analysis incorporated dictionaries from distinguished publishers, including Oxford, Cambridge, Longman, Collins, Chambers, and Webster. Regarding French, the selected dictionaries were those published by, among others, Le Robert, Larousse, the French Academy, and the Centre National de la Recherche Scientifique. In the case of Polish, the study relied on dictionaries published by Wydawnictwo Naukowe PWN, as well as those compiled by the Polish Academy of Sciences, and prominent Polish linguists, such as Doroszewski, Bańko, Dubisz, and Dunaj.

In each of the languages, we scrutinised the senses of each phytonym and collected those that refer to the intellectual domain. What is more, taking into consideration the fact that figurative senses often occur in idiomatic expressions, we scrutinised 6 idiom dictionaries for each of the languages. This stage finished with compiling the ultimate list of vegetable names (see Table 1 below) and their senses to be analysed in the study, collected from 48 dictionaries overall.

Since some of the examined definitions were ambiguous or incomplete and, at the same time, one of our goals was to determine the motivation behind these figurative senses, at the last stage of our analysis the determined senses had to be cross-referenced with more specialised resources, such as historical, etymological, and slang dictionaries (though at this stage no new senses were added). In English, these were three slang and one etymological dictionary, in French – three slang and two historical dictionaries, and in Polish – three slang and one etymological dictionary. Because of such a large number, when we characterise the given sense in the analytical section, we provide maximally two sources at a time, and in the Abbreviations section we only enumerate some exemplary ones.

3. Figurative senses of vegetable names in the intellectual domain

An analysis of the semantic extensions of the vegetable names enables us to address the first research question: which names, across the different languages, are figuratively used to describe human

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intellectual abilities (Table 1). As can be seen, all the three languages make use of such phytonyms in order to refer to the discussed abstract domain, though the French language clearly dominates – it has as many as 21 vegetable names, while English and Polish, respectively, 10 and 4.

Table 1. The analysed vegetable names in the three languages
Source: Own processing

Vegetable family	English	French	Polish
Brassicaceae (the mustard family)	*cabbage, turnip*	*chou, navet*	*kapusta*
Cucurbitaceae (the gourd family)	*pumpkin, gourd, squash, melon*	*concombre, cornichon, courge, courgette, potiron, citrouille, coloquinte, calebasse, melon, cantaloup, pastèque, gourde, cucurbitacé*	
Solanaceae (the nightshade family)	*potato*	*patate, tomate*	*kartofel*
Fabaceae (the pea family)	*pea, bean*	*petit pois, pois chiche*	
Amaranthaceae (the amaranth family)		*betterave*	*burak*
Amaryllidaceae (the amaryllis family)	*onion*	*ciboule*	*szczypior*

3.1 The mustard family

The cabbage is a vegetable whose name is used figuratively to refer to the intellectual domain in all the three languages. In **English**, some of the metaphorical extensions that *cabbage* has acquired refer to someone who is perceived as unintelligent, dull, or lacking vitality (OED, CH) or, in a more recent sense, to a person who, due to a brain injury, is unable to think, move, or speak (LD, DIC). Additionally, the expression *cabbage head*, which in the literal sense refers to a vegetable part, metaphorically describes a dull-witted or foolish person (OED, CLD). This emphasises the root of the discussed association: a similarity between two dimensions shared by the human head and the cabbage – their shape and size.

Another expression, *cabbage-looking*, which also refers to an unintelligent person, is defined as 'stupid, green' (OED). This directs us to an intriguing aspect of this sense's motivation – the color of cabbage, as, in English, green is either associated with being 'immature in age or judgment' or being 'simple, unsophisticated, gullible, easily fooled' (DIC).

In **French**, the noun *chou* [cabbage] is also associated with a derogatory attitude to human intellectual abilities. This association is encoded in, for instance, the expression *bête comme (un) chou* [stupid as a cabbage] (TLFI, GL). However, today this sense is considered outdated. Instead, *bête comme chou* is more commonly used to mean something that is easy to understand, to do, or childishly simple (PR, L). One of the possible factors behind this negative association between cabbage and lack of

intelligence or simplicity is the fact that, in the past, cabbage was peasants' staple food. As a result, it was conceived as common, rudimentary, and coarse, which has extended the association of stupidity to human properties, such as coarseness and rusticity (Amerlynck 2006: 42).

Moreover, just like English, the French language also draws a connection between the cabbage and the human head, possibly playing on the literal and figurative senses of *head* – a single cabbage can be named *tête de chou* [head of cabbage]. This expression was used to metaphorically describe an imbecile and, as DLF suggests, this sense may have emerged quite simply as a joke from the fact that a cabbage has a head, but does not think. Hence *tête de chou* is also defined as the head of a foolish person (DLF), or a head without a brain (Amerlynck 2006: 43), which is based on the folk assumption that a full, filled head is an intelligent head and, conversely, an empty head suggests stupidity (ibid., 45-46).

Interestingly, in its contemporary usage, *chou* is used as one of the synonyms of the word *head*, and can replace the word *tête* [head] in the expressions *ne rien avoir dans la tête* [have nothing in the head] or *en avoir dans la tête* [have it in the head] (ibid., 45; cf. PR, DLA). As a consequence, in French we find such expressions as *ne rien avoir dans le chou* [have nothing in the head], which metaphorically designates stupidity (PR), and *en avoir dans le chou* [have it in the head], which means being intelligent (DLA).

Finally, in French, we find two metaphorical expressions related to the intellectual domain. The first, *aller à travers choux* [go through cabbages], evokes an image and refers to acting carelessly or absent-mindedly (TLFI). The second, *s'entendre à quelque chose comme à ramer des choux* [be familiar with sth like trellising cabbages], brings to mind the idea of an absurd activity, particularly in the rural context (as cabbages are not trellised). It is used metaphorically to mean not knowing how to do something, undertaking something ridiculous, and carries connotations of foolishness (TLFI, DEL).

Similarly to the languages discussed above, in **Polish** the expression *głowa kapusty* [a head of cabbage] is used in reference to the vegetable and, metaphorically, to foolishness and lack of intelligence. This metaphorical sense is seen in expressions such as *kapuściana głowa* [a cabbage head] – a stupid person (SFJP, SPP), or in the rhyming comparison *głowa pusta jak kapusta* [a head as empty as a cabbage]. Polish is thus another language in which the head is depicted as empty. Additionally, a part of the word *kapusta* is a homonym of the adjective *pusta* [empty, Nom, sg., fem.]. This metaphorical association is both deeply rooted and widely recognized in Polish, partly due to its reinforcement through such cultural elements as Jan Brzechwa's (1938) poem "Na straganie" ["On

the Stall"], commonly introduced to children as early as in preschool.

A specific part of the cabbage – its *głąb* [core] – also carries connotations of intellectual deficiency; *głupi jak głąb kapuściany* [as stupid as a cabbage core] or simply *głąb kapuściany* [a cabbage core] refer to a dull, narrow-minded, or unintelligent person (SFJP, SJP). These negative associations stem from an implicit analogy between the cabbage and its core, on the one hand, and the head and its brain, on the other. At the same time, the core's size, which is disproportionately small relative to the overall size of the vegetable, metaphorically corresponds to the image of a small brain. And such a brain, by metonymy, implies limited intellectual abilities or a complete lack of them.

The turnip is another vegetable associated with the intellectual domain. In **English**, *turnip* refers to a stupid or foolish person, which often implies 'a naive or unsophisticated person from the countryside' (OED, cf. GDS). A similar sense is carried by *turnip-head* and *turnip-headed* (OED, GDS), which are based on one of the senses of *turnip* – 'head' (GDS). The connection between rural life and lack of sophistication is reinforced by the expressions *turnip-eater* and *turnip-eating* (GDS), drawing on the imagery of a person eating (predominantly) turnip, which was one of the foods characteristic of rustic life in the past.

In **French**, the noun *navet* [turnip] can designate a person who is stupid, foolish, or imbecilic (TLFI). A similar sense is carried by the expression *fleur de nave* [flower of turnip], in which the derived word *nave* was created by apocope from *navet* (TLFI). At the same time, an additional intellectual characteristic can be observed – being naive or easily deceived. This is highlighted in the slang usage, where *navet* and *nave* refer to someone silly, naive, or foolish. This idea is also reflected in the interjection expressing refusal, often accompanied by disdain or incredulity, *Des navets*! [Turnips!] – that one is not fooled by what has just been said (TLFI, GL). The pejorative senses listed here are just some of many negative extensions of *navet*, rooted in a more general perception of this vegetable as unappreciated and coarse (Amerlynck 2006: 100).

3.2 The gourd family

Unlike *cabbage* and *turnip*, which can be observed both in British and American **English**, the names of gourd vegetables, namely *pumpkin*, *gourd*, *squash*, and *melon*, are more characteristic of American English (and *melon* – also of Australian English). These names as well as the expressions *pumpkin head*, *gourd-head*, *squash-headed*, and *melonhead* or *melonheaded* (OED, GDS) based on them are used in reference to empty-headed, ignorant, or foolish people. An allusion to the head can also be observed in the expression *out of (one's) gourd*, meaning 'crazy' (WEB, OED; cf. Borys 2023a: 13).

As for stupidity, it is evoked by another expression, *make gourds*, which means 'make a fool of someone' (GDS).

Moreover, one of these names, *pumpkin*, carries two further contemptuous associations: with someone who is 'conceited or self-important' (OED) and with 'a fool, a rustic' (GDS). The first of them originates from the fact that *pumpkin head* is defined as 'a large or round head' (OED), and someone with a big head, *big headed*, is characterised as 'someone who thinks they are very important, clever' (LD) or conceited (DIC). Rusticity, in turn, may come from the fact that pumpkins were a common vegetable grown in the USA. First, as the major ingredient of the first settlers' diet (OED), then – as a crop and foodstuff characteristic of people from Boston, Massachusetts (GDS), hence the derivative name *Pumpkinshire* (GDS) for it.

In **French**, references to intellectual abilities can be found in the senses of quite a number of vegetables from the gourd family. The first of them, *courge* [squash], can be applied to people who are stupid or imbecilic. At the same time, it carries a strong pejorative value: it is used as an insult (TLFI, L). The same sense and the same use as an insult can be observed in the case of *concombre* [cucumber] and *cornichon* [gherkin] (TLFI). As for the former of them, its strongly pejorative association may be a result of its phonetic structure – its first two syllables are homophones of the offensive word *con* (originally, a vulgar term for a woman's genitals), which is also used to designate an idiot. Among the names of vegetables from the gourd family, dictionaries enumerate some further ones that refer to a foolish person – *citrouille* [pumpkin] (GL), *melon* [melon] (TLFI, DLA), *gourde* [bottle gourd] (TLFI), as well as the hyperonymic term *cucurbitacé* [cucurbit] (TLFI).

In French, all the aforementioned gourd vegetables can metaphorically designate the human head. However, this list is not limited to them – it also includes other vegetables from this family, for instance *potiron* [butternut squash], *cantaloup* [cantaloupe], *coloquinte* [bitter gourd], *calebasse* [calabash], *courgette* [courgette], and *pastèque* [watermelon]. In fact, all these terms, just like the *chou* [cabbage] discussed earlier, can replace the word *tête* [head] in the expressions *ne rien avoir dans la tête* or *en avoir dans la tête* (Amerlynck 2006: 44-45), as well as in other, similar expressions, e.g., *se casser le melon* (DLA), which is parallel to *se casser la tête* [break one's head], and means 'seek to understand'.

It is worth noting that French vegetable names from this family constitute the first group of metaphors that were used in slang to designate the head, which humorously compared it to a large, round vegetable (19th century) (Amerlynck 2006: 45). Their motivation was probably the structure of gourd

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vegetables or, more specifically, their hollow interiors, which were associated with an empty and, therefore, foolish head (cf. DH: *courge*; Amerlynck 2006: 55).

3.3 The nightshade family

The name of another vegetable linked to human intellectual abilities, the potato, is present in all the three languages. In **English**, the noun *potato* appears in expressions such as *potato head*, *potato-headed*, and *potato-brained*, which refer to 'a stupid person, a fool' (OED, GDS). A hint concerning the motivation of this sense is provided in the definition of *potato-headed*, that is, adjectives 'thickheaded' and 'dull' (OED). Both of them evoke the image of an entity that is difficult to penetrate because of the density or thickness of the substance that it is made of. In the domain of intellectual abilities, this difficulty underlies the sense 'slow to think or understand' (DIC).

Potato head also refers to a different type of stupidity – that attributed to people from 'an area known for the cultivation of potatoes, esp. Ireland', which implies being 'an unsophisticated person from a rural area' or 'a hick' (OED). This definition is rooted in specific associations that people have with potatoes – those of rusticity and simplicity, which come from a stereotypical view of people who are preoccupied with growing potatoes.

In **French**, the name of this vegetable, *patate*, is another term employed to describe a foolish or unintelligent person (L, R). This association has been present in French since the 19th century (QRR), and it was additionally reinforced by Marcel Achard's successful comedy titled "Patate" (1957), where the main character, Mr Patate, behaved in a bumbling and unintelligent manner. Actually, the pejorative dimension of this word is so strong that it even functions as an insult (TLFI, DH).

Similarly to English, this noun also evokes rusticity and the coarseness and simplicity negatively associated with it. Actually, *patate* is one of the several terms used pejoratively to refer to peasants (TLFI, DH), reinforcing its derogatory connotations. Additionally, this word also belongs to the category of vegetables that, together with the cabbage and all the gourd vegetables, can metaphorically refer to the head. Finally, it is worth noting that in Canada one more expression is used: *être dans les patates* [be in the potatoes], which translates as 'be mistaken' (TLFI, R).

A prominent characteristic of the **Polish** denomination of potato is what we could also observe in English and French – the association with people perceived as rustic. Actually, *kartofel* [potato] is used as a pejorative term that describes a foolish and primitive individual (WSJP), and it functions as an insult. As a matter of fact, in Poland the potato was one of the staple foods in peasant cuisine,

which implied something of little value or something plain (Słownik stereotypów i symboli ludowych. Rośliny 2018: 149, 163).

In **French**, *tomate* [tomato] is used adjectivally in the expression *avoir l'air tomate* [have a tomatoey look] to describe a person perceived as imbecilic and stupid. Furthermore, *tomate*, similarly to the previously discussed *patate*, functions as an insult (TLFI). Also, just like the names of the previously discussed vegetables (e.g., *chou*, *courge*, or *patate*), *tomate* can metaphorically designate the head, appearing instead of the noun *tête* in expressions such as *ne rien avoir dans la tête* or *en avoir dans la tête* (Amerlynck 2006: 45).

3.4 The pea family

The next vegetable associated with stupidity is the pea, though this association is only present in two out of the three languages: in English and French. In **English**, a wide range of expressions describing an individual lacking intelligence can be found: *pea-brain*, *pea-brained*, and *peahead* or *peaheaded* (CLD, LD). All of them are based on one of the senses of *pea* – 'head, brain' (WEB, CH). What the noun *pea* evokes in these expressions is a small size, which is metaphorically imposed on the notion of the human head or brain. The sense 'lack of intelligence' is achieved due to a further metonymic relationship between a small head/brain and, as a result, low intellectual capacity.

Comparably to English, **French** offers the expression *avoir un petit pois dans la tête* [to have a small pea in the head], used to characterize someone as unintelligent (PR). A variation of this phrase, *avoir un pois chiche dans la tête* (where *pois chiche* translates as *chickpea*), makes the same comparison. This reinforces the idea that a small-sized brain is insufficient for rational thought.

In the analysis, the pea family contains one more member – the bean. In **English**, an interesting expression involving the name *bean* is *know how many beans make five*, meaning 'be sensible and aware, have one's wits about one' (CH) and 'be a clever fellow' (ETYM). It is the first vegetable-based expression with positive axiology. However, in this case, *beans* refers to beads on an abacus, being one of the possible names for them, and the positive value comes from the ability to count, which was necessary to be educated and, more generally, clever.

3.5 The amaranth family

Within this family, there are not many vegetables whose names extend to the intellectual domain. In fact, beetroot stands as the sole example, appearing in both French and Polish. In **French**, the noun *betterave* [beetroot] refers to an individual who is not intelligent, or stupid. Moreover, this association

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is only menitoned by two of the analysed sources: QRR and DLA. Interestingly, as suggested by QRR, the association of this term with foolishness might stem from the structure of the word – the first syllable *bette-* is a homophone of *bête* [foolish].

In **Polish**, *burak* [beetroot] is a contemptuous term that is commonly used to describe a person with a rural background. Additionally, it refers to a person who possesses characteristics stereotypically associated with people from rural areas, such as being primitive or uncultured. Among the enumerated characteristics are those related to intellectual abilities, including a lack of education (ISJP) or backwardness (SPP).

3.6 The amaryllis family

In the last of the analysed families, the names of three vegetables have extended senses in the intellectual domain, a different vegetable from each language. Regarding the **English** language, it is the noun *onion*, which, firstly, means 'the head' and, in this sense, it is used especially in the expression *off one's onion*, which means 'mad, crazy' (OED). At the same time, the noun *onion* can designate a foolish person, but, as noted by OED, these are all slang senses. This is confirmed by GDS, which additionally provides the expressions *onionhead* and *onion-headed*, meaning a foolish person (GDS).

Similarly, in **French**, *ciboule* [spring onion], by analogy with the shape of the bulb, can refer to the human head (TLFI, GL) or the brain (DLA). However, instead of *ciboule*, nowadays it is more common to use its diminutive derivative, *ciboulot*, which can be found in *se creuser le ciboulot* [dig one's onionlet], meaning 'to think or to search in memory', *se casser le ciboulot* [break one's onionlet], meaning 'to think deeply to find a solution' (e.g., DAF, TLFI), as well as others, in which it replaces the noun *tête*.

As for **Polish**, a still different vegetable name must be mentioned – *szczypior*, which designates both green onion leaves and chives. Colloquially, it is used to describe a person lacking adequate knowledge or skills in a particular field (WSJP). This sense stems from a chain of associations: the green color of this vegetable is associated with being unripe and young. Youth, in turn, is often associated with the lack of experience or knowledge (Słownik stereotypów i symboli ludowych. Rośliny 2018: 313).

4. Discussion and conclusion

Our analysis shows both numerous similarities as well as differences between the languages and the ways in which they make use of knowledge about vegetables to refer to the intellectual domain.

When it comes to the similarities, the first thing to notice is the presence, in all the three languages, of the metaphorical pattern VEGETABLE ⇢ HEAD, which draws upon the similarity between the rounded form, and sometimes the size, of certain vegetables, on the one hand, and the human head, on the other. However, the way in which this pattern is realized differs across the languages. French stands out in this regard, as it employs a significantly large group of names of vegetables from the cucurbit family that instantiate this metaphor: *courge*, *concombre*, *cornichon*, *citrouille*, *melon*, *gourde*, *potiron*, *courgette*, *cantaloup*, *coloquinte*, *calebasse*, *pastèque*, *cucurbitacé*, as well as *chou*, *patate*, *tomate*, and *ciboule*. In English, the vegetable names referring to the head are *pumpkin*, *gourd*, *squash*, *melon*, *cabbage*, *potato*, *onion*, and *pea*; as we saw in the analysis, often in the construction *-head*/*-headed*. Polish, by contrast, is only represented by one vegetable, *kapusta*, which is used in this sense.

It is this metaphor that forms the foundation for further figurative extensions into the intellectual domain, as observed in the analysis. Its basis lies in the entire metonymic chain VEGETABLE ⇢ HEAD ⇢ BRAIN ⇢ INTELLECT. The figurative senses observed in the analysis point to the conceptualisation of the head as a type of container, an instantiation of one of the highly schematic structures known as image schemas (Johnson 1987) – CONTAINER. The notion of CONTENTS, which is evoked in this context, refers, on one hand, to the brain – a physical part of the head. In this case, the meaning in the intellectual domain arises as a result of further reasoning based on the second part of this metonymic chain, between the BRAIN and INTELLECT, which are linked through the relationship: ORGAN ⇢ ITS FUNCTION (as in, e.g., *pea-brain*, *avoir un petit pois dans la tête*, *kapuściany głąb*). On the other hand, many expressions based on the same conceptualisation of the head as a container directly invoke the last element of the chain, INTELLECT, as the head's CONTENTS (e.g., *cabbage head*, *ne rien avoir dans la citrouille*, *kapuściana głowa*) (cf. e.g., Allan 2017: 51 for a comparable metaphor that captures this relationship: KNOWLEDGE IS PHYSICAL CONTENTS OF THE HEAD).

The next similarity is that in all the three languages the figurative senses of the analysed phytonyms in the intellectual domain are motivated by different elements of knowledge arising from human **perceptual experience**, primarily **visual**, which can be illustrated by the following metaphorical relationship: A VISUALLY PERCEIVED DIMENSION OF A VEGETABLE ⇢ A DIMENSION IN THE INTELLECTUAL DOMAIN. However, this schematic structure is realised differently in the analysed languages.

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The first vegetable dimension is **hollowness**, evoking the idea of lack. In the intellectual domain, it emphasises a certain deficit, which is evident in, for instance, the extended senses of Polish (*kapusta*) and French (*chou* and the whole gourd family) vegetable names. Such a metaphorical relationship can be phrased as HOLLOWNESS OF A VEGETABLE -→ LACK IN THE INTELLECTUAL DOMAIN.

Another element of the vegetable structure is its **density** (cf. Allan 188-203), linked to the concept of difficulty (of penetration). This aspect is characteristic only of English, and it is transferred to the intellectual domain, signifying slowness in cognitive processing, which can be illustrated as: DENSITY OF THE VEGETABLE STRUCTURE -→ SLOWER INFORMATION PROCESSING IN THE INTELLECTUAL DOMAIN.

A further dimension is the **size**. Apart from *pumpkin*'s largeness, metaphorically associated with conceit, this dimension concerns the small size. Two types of imagery are observed here. First, the depiction of a small part of a vegetable in relation to the whole, relatively large vegetable, which is transferred to the image of a small brain in the head. In Polish, this is the case of *głąb*. The other type of imagery, encoded in English (*pea*) and French (*petit pois* or *pois chiche*), evokes the small size of the vegetable, which metaphorically refers to the brain and, consequently, designates a deficit of thinking in the intellectual domain. They can be couched in the respective metonymic-metaphoric chains: SMALL ELEMENT IN THE CENTER OF A VEGETABLE -→ SMALL BRAIN IN THE HEAD -→ INABILITY IN THE INTELLECTUAL DOMAIN and SMALL DIMENSION OF THE VEGETABLE -→ SMALL BRAIN -→ INABILITY IN THE INTELLECTUAL DOMAIN.

A still different element of knowledge is the vegetable **colour**. Such a dimension is noted both in English and Polish, where the green colour – the colour of the cabbage and spring onions – evokes youth, lack of experience and, more generally, underdeveloped intellectual abilities or a deficiency in knowledge. The metonymic-metaphoric chain that shows it is GREEN COLOUR OF A VEGETABLE -→ YOUNG AGE -→ LACK OF EXPERIENCE IN THE INTELLECTUAL DOMAIN.

Another type of knowledge that motivates figurative usage of vegetable names is sociocultural knowledge. First, all the languages perceive vegetables as **common, inexpensive goods**, which leads to vegetables' **negative value**. This value is then transferred to the intellectual domain through the following metonymic-metaphoric chain: COMMONNESS, INEXPENSIVENESS OF VEGETABLES -→ LOW VALUE OF VEGETABLES -→ NEGATIVE VALUE IN THE

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INTELLECTUAL DOMAIN.

This negative axiology is further reinforced by another chain: the fact that the **countryside** is the place where vegetables are grown. Metonymically, this place evokes the people living there (PLACE -→ PEOPLE), engaged in cultivating vegetables and eating them. Peasants, in turn, from the perspective of the middle and upper class, are stereotypically attributed one particular characteristic, namely, lack of education (CATEGORY -→ SALIENT PROPERTY). All these relationships can be articulated by the following metonymic chain: VEGETABLES -→ PLACE OF VEGETABLE CULTIVATION (COUNTRYSIDE) -→ PEOPLE LIVING IN THE COUNTRYSIDE -→ PEOPLE'S LACK OF EDUCATION.

As a result, almost all of the discussed senses across all the examined languages are negative – referring to someone perceived as a fool or idiot. What is more, the intensity of this value is so high that many of the vegetable names have become insults (ENG: *pumpkin*, *cabbage*, FR: *courge*, *concombre*, *cornichon*, *patate*, and *tomate*, PL: *kartofel*, *głąb*).

Analysing motivation, it is essential to consider one more layer, present in both Polish and French, which influences the discussed semantic extensions: the **relationship between the form and the content** of the linguistic sign. In the case of vegetable names, this pertains to situations where the phonetic form of a word motivates its extended, figurative meaning or, more specifically, a part of the vegetable's name homonymously evokes another linguistic unit, whose meaning is either already present in the intellectual domain (as discussed in *concombre* and *betterave* in French) or can easily be integrated into it (see *kapusta* in Polish).

Concluding, we need to note the predominantly negative value attributed to vegetables, which is clearly observable in the intellectual domain – in the three languages, the vast majority of all the extended senses of the analysed phytonyms have pejorative associations, and none of the vegetable names possesses extensions that refer strictly to wisdom or intelligence. Even if there are some exceptions where vegetable names can appear in positively valued expressions (see, e.g., *en avoir dans le chou* in French or *know how many beans make five* in English), this value does not come from the positive axiology attributed to these vegetables but, rather, the axiological charge carried by the meaning of the whole expressions.

Abbreviations

CH – *The Chambers dictionary.* Available at: https://chambers.co.uk/

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CLD – *Collins English dictionary*. Available at: https://www.collinsdictionary.com/

DAF – *Dictionnaire de L'Académie française.* Available at: https://www.dictionnaire-academie.fr/

DEL – *Dictionnaire des expressions et locutions*. (1989). Rey, A. & Chantreau, S. (eds.). Paris: Le Robert.

DH – *Dictionnaire historique de la langue française*. (2010). Rey, A. (ed.). Paris: Dictionnaires Le Robert.

DIC – *Dictionary.com.* Available at: *https://www.dictionary.com/*

DLA – Colin, J-P. & Mevel, J-P. (1994). *Dictionnaire de l'argot*. Paris: Larousse.

DLF – Littré, É. (1873-1874). *Dictionnaire de la langue française*. Paris: L. Hachette. Available at: https://www.littre.org/

ENG – the English language

ETYM – *Online etymology dictionary.* Available at: https://www.etymonline.com/

FR – the French language

GDS – *Green's dictionary of slang.* Available at: https://greensdictofslang.com/

GL – *Grand Larousse de la langue française*. (1989). Guilbert, L., Lagane, R. & Niobey, G. (eds.). Paris: Libraire Larousse.

ISJP – *Inny słownik języka polskiego*. (2000). Bańko, M. (ed.). Warszawa: Wydawnictwo Naukowe PWN.

L – *Dictionnaire de français Larousse.* Available at: https://www.larousse.fr/dictionnaires/francais

LD – *Longman dictionary of contemporary English online.* Available at: https://www.ldoceonline.com/

OED – *Oxford English dictionary*. (2024). Oxford: Oxford University Press. Available at: https://www.oed.com/

PL – the Polish language

PR – *Le petit Robert: dictionnaire alphabétique et analogique de la langue française*. (2015). Rey-Debove J. & Rey A. (eds.). Paris: Dictionnaires Le Robert.

QRR – Colin, J-P. (2006). *Quand la raison n'a plus raison. Les mots de la bêtise à la folie*. Limoges: Editions Lambert-Lucas.

R – *Dico en ligne le Robert.* Available at: https://dictionnaire.lerobert.com/fr/

SFJP – *Słownik frazeologiczny języka polskiego*. (1999). Skorupko, S. (ed.). Warszawa: Wiedza Powszechna.

SJP – *Słownik języka polskiego PWN.* Available at: https://sjp.pwn.pl/

SPP – *Słownik polszczyzny potocznej*. (2006). Czeszewski, M. (ed.). Warszawa: PWN.

TLFI – *Le Trésor de la langue française informatisé*. Available at: http://atilf.atilf.fr/

WEB – *Merriam-Webster.* Available at: https://www.merriam-webster.com/

WSJP – *Wielki słownik języka polskiego.* Available at: https://wsjp.pl/

References

1. Allan, K. (2017). *An examination of metaphor from old English to present day English, focusing on notions of intelligence/cleverness and stupidity*. Ann Arbor: ProQuest.
2. Amerlynck, J. (2006). *Phraséologie potagère: les noms de légumes dans les expressions françaises contemporaines*. Leuven: Peeters.
3. Borys, D. (2023a). Sensory metaphor in English slang phytonyms. In *Lege artis. Language yesterday, today, tomorrow.* Trnava: University of SS Cyril and Methodius in Trnava, VIII (1), p. 5-20. DOI: https://doi.org/10.34135/lartis.23.8.1.01
4. Borys, D. (2023b). Conceptual metaphor in English slang phytonyms. In *SKASE journal of theoretical linguistics*, 20 (2), p. 79-98. Available at: http://www.skase.sk/Volumes/JTL53/pdf_doc/04.pdf
5. Cottez, H. (1982). Un va-et-vient entre l'homme et la nature: Propositions pour une lecture anthropologique du lexique français. In *Raison présente*, 62 (1), p. 39-55.

6. *Defining metonymy in cognitive linguistics. Towards a consensus view*. (2011). Benches, R., Barcelona, A. & Ruiz de Mendoza Ibáñez, F.J. (eds.). Amsterdam: John Benjamins.
7. Drożdż, G. (2022). Metonymic patterns of count-to-mass and mass-to-count changes and their implications for metonymy research. In *Figurativity and human ecology*. Bagasheva, A., Hristov, B. & Tincheva, N. (eds.). Amsterdam: John Benjamins, p. 251-272.
8. Drożdż, G. (2014). The development of the theory of metonymy in cognitive linguistics. In *Linguistica Silesiana*, 35, p. 119-152.
9. *Figurative thought and language in action*. (2022). Brdar, M. & Brdar-Szabó, R. (eds.). Amsterdam: John Benjamins.
10. Gibbs, R. (2005). *Embodiment and cognitive science*. Cambridge: Cambridge University Press.
11. Heine, B. (1997). *Cognitive foundations of grammar*. Oxford: Oxford University Press.
12. Johnson, M. (1987). *The body in the mind*. Chicago: University of Chicago Press.
13. Kleparski, G. (2008). The joys and sorrows of metaphorical consumption: Mozarellas, prositsciuttos, muttons and yum-yum girls – Foodsemy with a Romance accent. In *Studia Anglica Resoviensia*, 5, p. 41-55.
14. Kövecses, Z. (2020). *Extended conceptual metaphor theory*. Cambridge: Cambridge University Press.
15. Kövecses, Z. (2010). *Metaphor. A practical introduction.* Second Edition. Oxford: Oxford University Press.
16. Kövecses, Z. (2015). *Where metaphors come from. Reconsidering context in metaphor*. Oxford: Oxford University Press.
17. Lakoff, G. & Johnson, M. (2003). *Metaphors we live by*. Chicago: University of Chicago Press.
18. Lakoff, G. & Turner, M. (1989). *More than cool reason: A field guide to poetic metaphor.* Chicago: University of Chicago Press.
19. Langacker, R.W. (2008). *Cognitive grammar. A basic introduction*. Oxford: Oxford University Press.
20. *Metaphor and metonymy at the crossroads. A cognitive perspective*. (2000). Barcelona, A. (ed.). Berlin: Mouton de Gruyter.
21. *Metonymy in language and thought*. (1999). Panther, K.-U. & G. Radden (eds.). Amsterdam: John Benjamins.
22. *Motivation in grammar and the lexicon*. (2011). Panther, K.-U. & Radden, G. (eds.). Amsterdam: John Benjamins.
23. Ruiz de Mendoza Ibáñez, F.J. & Galera Masegosa, A. (2014). *Cognitive modeling. A linguistic perspective*. Amsterdam: John Benjamins.
24. *Słownik stereotypów i symboli ludowych. Rośliny*. (2018). Bartmiński, J. & Niebrzegowska-Bartmińska, S. (eds.). Lublin: Wydawnictwo UMCS.
25. Sommers, R. (1988). The personality of vegetables: Botanical metaphors for human characteristics. In *Journal of personality*, 56, p. 665-683.
26. *Studies in linguistic motivation*. (2004). Radden, G. & Panther, K.-U. (eds.). Berlin: Mouton de Gruyter.
27. Taraszka-Drożdż, B. (2018). Extension sémantique de l'unité lexicale dans la perspective de la grammaire cognitive – cas du *corps* des instruments de musique**.** In *Linguistica Silesiana*, 39, p. 237-248.
28. Taraszka-Drożdż, B. (2014). *Schémas d'extension métaphorique. À partir de l'analyse des contenus et des organisations conceptuels de certaines unités lexicales se référant à la lumière.* Katowice: Wydawnictwo Uniwersytetu Śląskiego.

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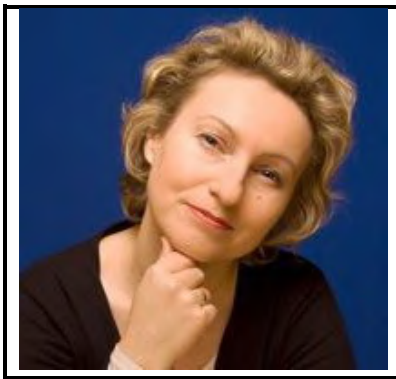	*name:*	**Barbara Taraszka-Drożdż**
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SELECTIVE FOREGROUNDING OF CONTEXTUAL ELEMENTS AS A FORM OF MESSAGE ENRICHMENT IN ADVERTISING

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Abstract: Advertising communication draws very heavily on multiple elements of context in order to present the message in a brief and maximally persuasive manner. The present study delves into the intricate ways in which contextual information is incorporated into advertising spots in order to enhance their communicative appeal. For this purpose, a new Stratified Model of Context, offering a more detailed representation of it, is proposed as a supplement to Kecskes' (2008) Dynamic Model of Meaning.

Keywords: advertising communication, Stratified Model of Context, Dynamic Model of Meaning, multimodal meaning encoding, selective content analysis.

1. Introduction

Contemporary advertising is a product of technologically supported media development and advances in communication technologies. We have travelled a very long way from the world of spatially constrained real-time oral communication, supported by various forms of writing of more or less transient nature, into the realm of an electronically based, practically uninhibited communicative network, thanks to which information can be stored, shared and transmitted between billions of people around the globe. Additionally, technology allows for multimodal encoding of messages, combining various forms of textual, pictorial, auditory, and sometimes even olfactory stimuli, which advertising keenly embraces in order to maximise their persuasive impact. What is more, technological development complicates the participant structure of many communicational events: it is enough to mention such recently developed platforms of contact as chat rooms, topic-related fora or opinion/comment sections, resulting in the emergence of multiple parallel conversations with extremely complicated role and turn structure, moderators, opinion/comment elicitators, and even

opinion/comment developers. The new communicational environments escape traditional modelling, even by models including such third parties as overhearers or bystanders, which has been noted by some scholars (Dynel 2010; 2014; Foulger 2004), who postulated revision and updating of traditional models and suggested a number of interesting solutions. For example, Dynel convincingly argues for the necessity of distinguishing between several subtypes of third parties in a conversational setting: "the third-party enjoying rights equal to the addressee's, the third party as the primary listener with the use of the dummy addressee, the third party as a spectator or referee/judge, and the seemingly neglected third party" (2014: 42). Her suggestions were formulated on the basis of the analysis of the conversations between the protagonists of the American comedy series "House MD", but they also seem applicable to the discourse of advertising. This issue, however, will not be developed further here, as it is outside the scope of the present paper.

A complicated participant structure is, however, only one of many other aspects of contextual embedding guiding the interpretation of textually communicated messages, and one of the primary features of advertising communication is in fact the extensive exploitation of widely understood context. This feature has been frequently commented on and described by many scholars. One of the most influential elaborations of contextual embedding of advertising messages can be found in Cook's widely cited "The Discourse of Advertising", where the author enumerates and discusses eight different elements which can be subsumed under the heading 'context': substance, music and pictures, paralanguage, situation, co-text, intertext, participants and function (1992 [2001]: 4). A more recent theoretical model of context can be found in Kecskes' Dynamic Model of Meaning (2008), a conceptualisation reconciling the externalist (assuming that the meaning is inherited by lexical items 'from the outside') (Barsalou 1993; 1999; Evans 2006) and internalist (seeing lexical items as repositories of prior contexts of use and creators of the present context) (Gee 1999; Katz 2005; Violi 2000) perspectives on the role of context in language comprehension, focusing on its dynamic and changing nature.

The above-mentioned models, in spite of pointing to the heterogeneous nature of context (Cook 1992 [2001]) or acknowledging its paramount contribution to the emergence of new meanings (Kecskes 2008), are lacking in sufficiently conspicuous characterisation of different levels of connection between its particular aspects and the core message expressed in textual form. The point is that some elements of context cannot be separated from the text, because they constitute the physical form of the text itself, while some others depend on various external triggers in order to make their contribution to the ultimate message being communicated. In connection with the above, the aim of

the present paper is to suggest a new perspective on the conceptualisation of context, in which the different ways in which it contributes to the emergence of the intended meaning can be conspicuously presented. The model of context proposed in the present paper will reflect a hierarchical structure of the strength of connection between various contextual elements and the textual message, and in order to demonstrate its explanatory value it will subsequently be employed in the illustration of how context contributes to the reception and comprehension of advertising messages.

2. Conceptualisations of context in advertising communication – theoretical perspective

As evidenced by contemporary research, context plays a very important role in language processing (e.g., Ferstl 2021; Sadeghi 2021), although we are still far from understanding the mechanisms of context effects in terms of their potential variability (Knoeferle 2019). Nevertheless, new conceptualisations of context have the potential of introducing new perspectives, allowing for a better understanding of how context is employed by the senders of messages in order to profile the way in which these messages are received and understood.

As mentioned above, one of the most widely known and most influential elaborations of contextual factors in advertising discourse is the typology of context designed by Cook. It is the result of the author's strong conviction that advertising communication should be viewed as discourse which necessarily incorporates the text, its widely understood context, and the intricate ways in which the two interact with each other, "perceived as meaningful and unified by the participants" (Cook 1992 [2001]: 4). At first, rather than attempting to arrange the elements of context in any form of hierarchy, Cook chooses to identify and enumerate its most salient aspects or manifestations, explaining what they contribute to and how they may interact with the basic text. Only later, at the very end of the introductory chapter, does he suggest a certain hierarchical arrangement in which the elements of text and context can be viewed and analysed, starting from the bottom level labelled 'materials' (substance, music and pictures, paralanguage), 'text' (connected text, grammar and prosody, words and phrases), and 'people' (social/psychological function, observers and addressees, senders and narrators) (ibid.: 19). As we can see, this arrangement differs in some ways from the initially suggested list of contextual elements, because the hierarchy incorporates both text and context, compromising slightly the distinctions between some components of context as identified earlier: for example, the intermediate, textual level, contains both the text and its intertextual connections, and the top level (people) combines the contextual elements identified earlier as situation, participants and function. The reason is that this hierarchical representation is intended as a model of advertising discourse as a whole, rather than an alternative depiction of contextual components.

The model of text-context interaction, known as the Dynamic Model of Meaning (Kecskes 2008), was not intended to represent any specialised use of discourse; it attempted to cover instances of ordinary conversations. Its primary value lies in the new conceptualisation of context, presented as a dynamic construct, which draws upon previous instances of language use, but at the same time builds new and previously non-existent patterns, which are capable of being exploited in the future. The model was later redesigned and expanded in order to incorporate several important features of advertising discourse (Wojtaszek 2011; 2016), such as the multimodal design of advertisements and the purposeful use of ambiguity. Kecskes' original diagram representing the interaction of speaker's utterances with the elements of context can be found in the original publication (2008: 389), while the modified version is presented in Figure 1.

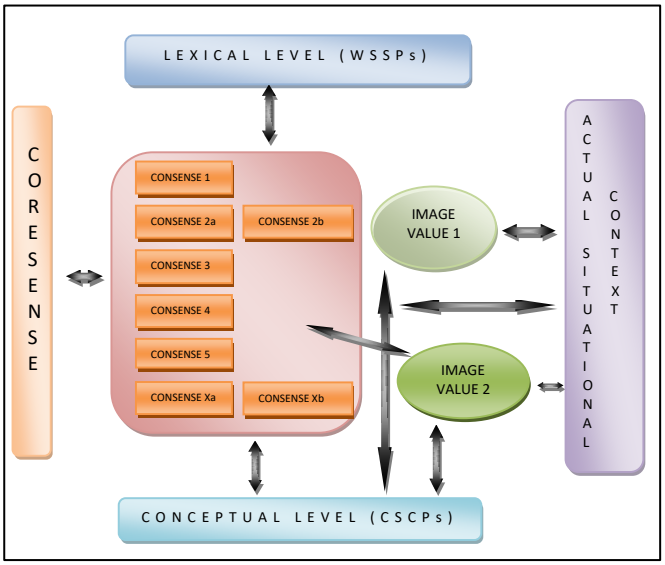

Figure 1. Dynamic Model of Meaning for advertising communication. Source: Wojtaszek (2016: 81)

The model presents the flow of communication as a sequence of elements labelled as *consenses*, defined as situated meanings of items (words or phrases) in actual situational context, which in the diagram above represents advertising discourse. These elements necessarily draw upon their *coresense*, defined as earlier instances of use, diachronically shaped language conventions, and denotational meanings which are perceived as constant and objective. At the same time, however, they enter into complicated interactions with various aspects of actual situational context, such as accompanying images, perceived social relationships between senders and receivers of advertising communication, social roles represented by fictitious characters appearing in the advertisements, selectively foregrounded aspects of culture, etc. This often results in the activation of parallel senses of such elements, which may be sufficiently strong for them to be actively processed by the advertising audience. Ambiguities which are highlighted in such a way significantly increase the

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richness and attractiveness of the communicated messages. Additional components of the model, namely Word-Specific Semantic Properties (WSSPs) and Culture-Specific Conceptual Properties (CSCPs), are borrowed from Kecskes' original conceptualisation. The former are more lexical in nature and consist of aspects of emotive colouring, stylistic value and typical contextual embedding that are conventionally tied with the items, while the latter are more conceptual, more dynamic, and prone to the socio-cultural changes that affect a given speech community. However, the distinction between the above two components is not of primary importance for the present discussion, and they can both be treated as certain kinds of connotational colouring of the items sequentially used in utterances.

The two models presented above (Cook 1992 [2001] and Kecskes 2008) highlight two very important aspects of advertising discourse: the first focuses on the multifaceted and intricate nature of contextual clues which have to be considered in the analysis of advertising communication, while the second conveniently captures its dynamic, up-to-date characteristics and its heavy dependence on the activation of parallel meanings, inventive allusions and original connections. Schematic representation of the complicated interactions between the text and context of any advertising message is probably a chimera of scientific modelling, because it would have to be significantly different for each particular instance. However, it seems possible to construct a certain visualization of the textual and contextual elements which could facilitate our understanding of how they actually contribute to the shaping of the meanings that are conveyed not only in advertisements, but also in many other types of discourse. This visualization can be referred to as a Stratified Model of Context (Figure 2), because this name conveniently suggests the strength of the dependencies and links between the textual core and the surrounding strata.

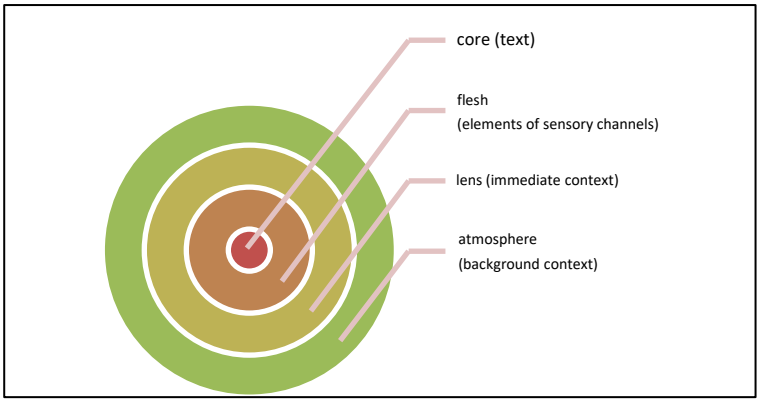

Figure 2. The Stratified Model of Context (modified version). Source: Wojtaszek (2011: 197)

The model was first proposed by Wojtaszek (2011) as a convenient form of representing the

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contextual elements relevant for the interpretation of press advertisements. In its construction, it resembles in a way the levels of context outlined by Cook (1992 [2001]: 19), but there are a couple of important differences, which will be pointed out in the discussion below.

The central area, labelled *core*, represents the actual text of the message, which in Cook's model (1992 [2001]: 18-19) occupies the middle level, between the contextual 'top' and 'bottom'. It does not belong to the context, although, following Kecskes' ideas, we could argue that every linguistic item, analysed as its *coresense* (2008: 393-394), constitutes a repository of the previous contexts of its use. Additionally, the units into which the text can be divided display a number of grammatical features and are intrinsically linked to their culture-specific conceptual properties (CSCPs) and word-specific semantic properties (WSSPs) (Kecskes 2008: 394-395), so their meanings are linked to the regular and typical contexts of use which are collectively recognised and shared by a given speech community. Cook seems to understand it in a similar way, because in his description of the text level he mentions such properties as 'connotations', 'linguistic parallelism' or 'linguistic features which create cohesion' (1992 [2001]: 18). It would be a mistake, however, to reduce the text to its most basic, literal and standardised meaning. The text is often composed in a way that opens up multiple options for its interpretation, for example, allowing for the recognition of allusions, playing with double meanings and offering intriguing riddles to be solved. However, such interpretative pathways often depend on the presence of certain triggers in the surrounding contextual layers.

The aspects of context which are inseparably linked to the core, because they actually either constitute or accompany the text in the most immediate sense, are labelled *flesh*. We could enumerate here such variables as prosodic features of spoken language, facial expressions and gestures, the form, font type, colour and size of written language, and include text layout, animations, symbols, or emojis used. All of these constitute the form in which language is presented to us, either in a spoken or written mode. They are often (although not always) deliberately chosen by the senders of messages in order to assist with our interpretation, highlight certain items or senses and provide additional information. Moreover, multimodal communication involves exploitation of other elements which accompany language, such as music, sound effects, pictures, animations, films, and sometimes even olfactory or tactile stimuli. All of the above are also intrinsically linked to the textual message, because in an advertising copy, they are all brought together to form a complete and indivisible unit of informational and persuasive communication. It is often the case, for example, that a certain illustration boosts the salience of a certain textual element which would otherwise go unnoticed.

As far as the *lens* layer is concerned, it includes most of the elements that would be referred to as context in traditional pragmatics, i.e. the particular communicational situation that advertising typically involves, where the senders of the advertising messages, be they producers, endorsing celebrities or representatives of institutions, communicate directly with the viewers of the advertisements. In such situations the setting could be roughly described as a presentation of a certain offer to the potential users, which takes place in a socially well-established and recognised form and manner. Very often, however, advertisements blend the so-called primary address with secondary participant communication in which either the whole plot or a slice-of-life act supports and illustrates the main primary narration. The viewers' familiarity with the genre, their awareness of the rules governing advertising communication in the contemporary world, their repeated exposure to the same advertising copies or clips, and even the topic of a particular advertisement definitely influences the way they understand and process the informational and persuasive content of commercials. Technically speaking, these more stable principles, which define the way advertising works in the contemporary world, constitute a border territory between the *lens* and the next level of context. On the one hand, they are part of the background world knowledge of the recipients of advertisements, but, on the other hand, they constitute the frames for the communicative roles relevant for any particular instance of advertising persuasion, so it is better to include such factors at this level.

Finally, we encounter the outermost contextual layer, the *atmosphere*, which encompasses all of the social, cultural, communicative, and world knowledge background against which advertising communication occurs. The important thing is that this enormous body of background information participates in the construction of communicated meanings in a very selective manner. Only carefully chosen aspects are exploited in order to guide the understanding and interpretation of advertisements, although the ways in which these are foregrounded, pointed out or alluded to may be very different. This is the domain of the secondary participants, their relative status, relationships and social roles, perceived aims and needs, emotional attitudes, and biological and cognitive conditions. They do not have to represent the real world, as human beings have a known ability to project and conceive imaginary scenarios that have little to do with the surrounding reality, although we are usually capable of clearly separating the fantastic from the real. This contextual layer shows the greatest level of variability between different speech communities, defined not only by a shared language, but also by such factors as nationality, sex, age, social status, profession, religion, and cultural identity, among many others. For this reason, commercials produced for a narrowly defined target group may not be transparent or comprehensible for other advertising audiences, because some aspects of the selectively foregrounded elements of background knowledge or cultural environment, which may be

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essential for proper understanding, are unknown to a given group of people.

3. Material and methods

The purpose of the study presented in this paper is to demonstrate the way in which the models presented above, especially the Stratified Model of Context, can be employed in an explanation of how advertising messages are constructed and how the advertisers design their narrations to make advertisements maximally persuasive. The illustration is based on 20 TV commercials for erection stimulants, which were broadcast in Poland in the years 2007–2015. The sample includes commercials for the following products, available for purchase at the time of their being advertised in Poland: *Braveran, Erekton, Erekton Fast, Liderin, Penigra, Permen, Permen Go, Permen King, Stymen* and *Vitasteron*. Only one of these pharmaceuticals (*Stymen*) was registered as a medicinal product; all the others fall within the subcategory of dietary supplements, which is relevant in the context of the slightly different regulations pertaining to the form and content of the advertising. For example, advertisements for dietary supplements do not to have to include the obligatory formula recommending the advice of a doctor or a pharmacist and a careful use of the product according to the instructions in the leaflet, while the Regulation of the Minister of Health of 21 November 2008 on the advertising of medicinal products specifies the size and orientation of the text, the line spacing and the contrasting background requirement, the minimal duration (8 seconds), and reading speed of such a formula. Apart from this, the medicinal product advertisements must contain information on the composition of the drug.

There were two reasons for choosing this particular sample of commercials. Firstly, it was assumed that commercials for erection stimulants would naturally invite less direct forms of expression, given the area of taboo related to sex, leading to a wider exploitation of contextual elements. Secondly, the advertisements in the corpus represent the period when this particular type of product was very new to the viewers; this was when the first commercials for erection stimulants were broadcast on Polish TV (Zalewski 2020).

The commercials were downloaded from https://www.youtube.com/ and carefully transcribed and analysed, with the assistance of video-processing software featuring a stop-frame function, so that proper illustrations could be extracted and all textual content, including the text of the disclaimers in small print, was available for analysis. The analytic procedure applied in the present study is a selective qualitative content analysis, mostly inductive in nature, with the exception of a preliminary classification of the contextual factors into the layers identified in the Stratified Model of Context.

Content analysis is one of the procedures very often applied in scholarly work on the discourse of advertising, where the main interest of the investigator is focused on the advertising copy itself, without any attempts to investigate viewer responses or reactions. It is described here as selective, but this word is probably superfluous, as every content analysis is selective by definition: it is neither possible nor practicable to focus on all possible aspects of the gathered material (see the discussion in Wojtaszek 2011: 47-55), there must always be some concrete point of focus, be it the use of borrowings in the advertisements (Ryszka et al. 2025), the structure of the slogans (Skračić et al. 2025) or the interplay between the textual and the pictorial content (Gardner & Luchtenberg 2000), to mention but a few. The qualitative nature of the present analysis was determined partly by the relatively small size of the sample material, but also by the need to focus on many details which often make their contribution in unique and exceptional ways, thus excluding the quantitative approach.

In the present study, the content of the advertising copies was carefully inspected for interesting examples of possible links between the *core* items and the *flesh, lens* and *atmosphere* elements of contextual embedding, described earlier in Section 2. Whenever some triggers of context-based enrichment of the textual message were recognised, they were noted down and classified as links to one of the layers of contextual embedding specified in the Stratified Model. As earlier indicated, it often depended on a bottom-up identification of the mechanisms of information concentration and the construction of new conceptual frameworks involving the incorporation of the contextual elements. In particular, the discussion below will illustrate the way in which the visual and the linguistic components interact with each other to yield intriguing, informationally rich and maximally persuasive communication.

4. Results and discussion

The *core* level is represented by the text, which in the analysed video commercials occurs in both spoken and written forms. The spoken form is usually linked to the video plot and is delivered by both primary and secondary participants. The written form is typically reserved for the para-medical description of the advertised products or of the medical condition that the advertised substance is supposed to cure. The small print disclaimers and standing details are usually in sentence form, while the slogans and the product features occur most often as single words and short phrases.

A common feature of many of the commercials in the analysed sample is a kind of suspended ambiguity of the spoken narration in the initial frames of the videos. The metaphorical, sexually related senses of selected words and expressions become evident only when the commercial itself

reveals its true relevance and objective. More than half of the analysed videos begin as short clips of scenes completely unrelated to matters of sex, showing, e.g., a camp in the mountains, a yachting trip, a baseball game, or a space flight to the International Space Station. The discovery of the sexually related senses is the effect of the reanalysis of the text against all three contextual layers: the *flesh* in form of the pictorial illustrative elements, the *lens* encompassing the display of the intended identity and relations between the secondary participants, and the *atmosphere* in the sense of selective pointing to our knowledge of various aspects of sexual life. The following excerpts offer the illustration:

(1) Pol.: *Prawdziwy mężczyzna radzi sobie nawet w trudnej sytuacji. Wie, jakiej* ***rozpałki*** *użyć kiedy* ***konar*** *nie chce* ***zapłonąć***. (https://www.youtube.com/watch?v=3suB9y_KIXk). – Eng.: *A real man can cope even with a difficult situation. He knows what* ***kindling*** *should be used when the* ***log*** *won't* ***catch fire***.[1]

(2) Pol.: *Każdy mężczyzna miewa problemy by* ***złapać wiatr w żagle***. (https://www.youtube.com/watch?v=387Sfc101io – video currently unavailable). Eng.: *Every man sometimes has problems with* ***catching wind in the sail***.

(3) Pol.: *Gdy ona chce wejść do* ***gry***, *to* ***sprzęt*** *musi być* ***gotowy***. (https://www.youtube.com/watch?v=_0Q2Ecq3Rb8) Eng.: *When she wants to enter the* ***game***, *the* ***gear*** *must be* ***ready***.

The fragments highlighted in bold type gain their second, sex-related sense when it becomes obvious that the scenario in fact is meant to refer to sexual activity. Interestingly, both *consenses* of the highlighted fragments in all three examples are supported by and valid in these commercials, one by the "innocent" plot, and the other by the real purpose of the ad, so we are dealing with the activation of parallel senses, which often renders a commercial more attractive (Arakelyan 2021; Konovalova & Petrova 2023).

A slightly different message processing mechanism is usually involved in the case of slogan texts, because they are presented towards the end of the commercial, when the advertised product has already been revealed and the sex-related associations have acquired their intended salience. At this point, the recipients are already sensitive to sexual innuendo and they immediately recognise the ambiguities and wordplay employed by the advertisers. Since in such contexts the salience of sexually related meanings is already very high (Crespo-Fernández 2018), the non-sexual meanings are likely to be discovered and processed later. The perceived attractiveness of the slogans designed in such a

way derives from the discovery of parallel senses, which are simultaneously relevant to two different scripts or scenarios, sexual and non-sexual. Let us have a look at some examples:

(4) Pol.: ***Wal*** *do apteki!* – Eng.: ***Dash*** *to the chemist's!* (*Erekton-On*)
(5) Pol.: *Erekton Fast* – ***potencjalnie*** *najmocniejszy i najszybszy.* – Eng.: *Erekton Fast* – ***potentially*** *the strongest and the fastest!* (*Erekton Fast*)
(6) Pol.: ***Stanę*** *na wysokości zadania!* – Eng.: *I'll* ***rise*** *to the challenge!* (*Liderin*)
(7) Pol.: *Pokaż jej, że wciąż jesteś* ***wielki****!* – Eng.: *Show her that you're still* ***big****!* (*Erekton Fast*)
(8) Pol.: *Liderin to skuteczna broń w walce o szybką erekcję. Zawsze* ***wypala****!* – Eng.: *Liderin is an effective weapon in the battle for fast erection. It always* ***fires****!* (*Liderin*)
(9) Pol.: *Jeśli twój facet jest bez formy, w kilka dni* ***podniesie*** *go Penigra.* – Eng.: *If your fellow is out of shape, Penigra will* ***raise*** *him in a few days.* (*Penigra*)

The elements marked in bold type all allude to the more or less metaphorically expressed effects of the advertised medicaments, but at the same time they are syntagmatically embedded in phrases which are denotationally non-sexual.

The discussion of the *flesh* level will be divided into two parts: the exploitation of visual illustrations accompanying the textual message, and the application of marked forms of text presentation (written and spoken). The video clips may be roughly divided into two categories: those in which the theme of sexual performance and activity is evident from the very start and those that employ various forms of metaphorical disguise. The latter usually bring in the sexually related scenario at some point and their persuasive appeal rests upon the discovery that the apparently innocent introduction is, in fact, a more or less distant sexual allusion. Although the advertised products are targeted at men, the visual representation of sexual activity is very heavily dependent on depictions of women. The commercials analysed in the present study include a lot of close-ups of women's faces, always very beautiful, their eyes, lips, hips or breasts, or images of their whole bodies wearing luxurious lingerie or tight clothes that expose their attractive figures. Significantly less often do we see male faces or torsos, which also tend to be shown at a distance, in the dark or out of focus. Legal restrictions and decency do not allow the advertisers to present genitalia, so various secondary imaging is employed in order to render the visualization of the effect of the advertised medicaments. The most frequent form this takes involves an image of an arrow pointing upwards (Figure 3), but there are also some more inventive ones, such as a space shuttle docking with the International Space Station (Figure 4).

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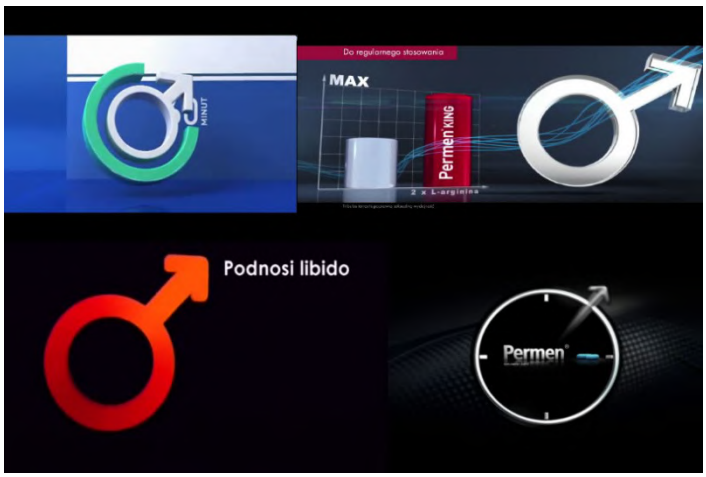

Figure 3. Standard representation of erection. Source: *Liderin, Permen King, Vitasteron, Permen* commercials

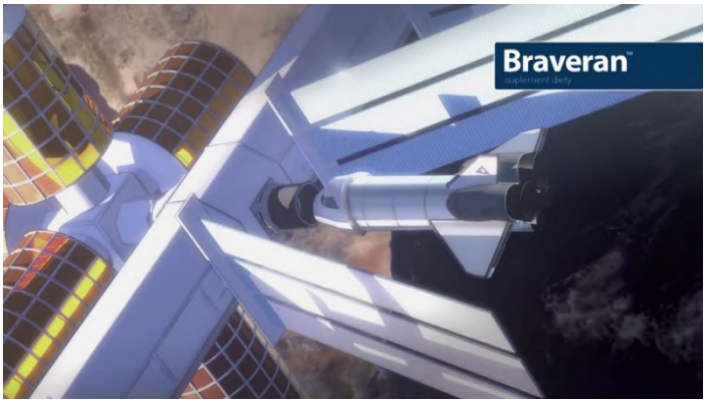

Figure 4. Non-standard representation of erection. Source: https://www.youtube.com/watch?v=FDPPX5eHAxQ

Interestingly, the visual representation of both the problem which the advertised drugs are supposed to tackle, and the effect of their application, may include the form of font design. In two of the selected advertisements, we can find texts written in letters either leaning downwards, visually representing erectile problems, or rising upwards, picturing the effect of the medicament (Figure 5).

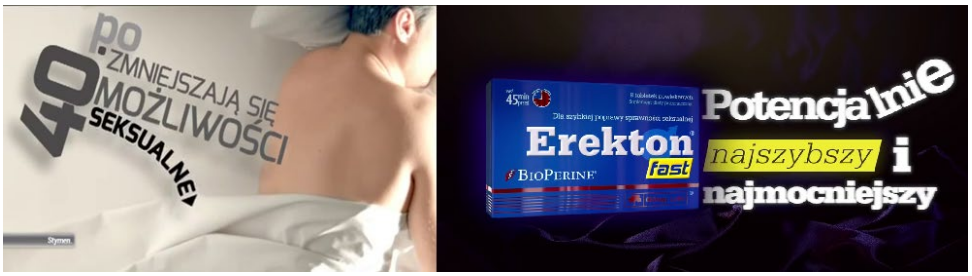

Figure 5. Font manipulation as illustration. Source: *Stymen* and *Erekton Fast* commercials

The standard male gender symbol ♂, originally representing the planet Mars, which was mentioned above as a symbolic representation of erection, is also sometimes used as a substitute for the letter

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'O', for example in the brand name of one of the advertised products, *Vitaster♂n*. In four commercials the arrow in the symbol initially points downwards, and later turns upwards in order to symbolise the intended effect of the drug.

The spoken form of the language used in the commercials is also affected by the sexually related theme of the advertisements, especially when female voices are heard: they are often sensually modulated, raspy, ecstatic, or even moaning. Male voices are usually very low and sound confident, controlled, and poised. Other elements of prosody are employed in order to highlight the expressions or words which are vital for the proper understanding of the message. For example, intentionally ambiguous expressions are often preceded by a short pause, or hesitation sound, and they typically receive a heavy stress.

The *lens* level of contextual embedding provides the viewers with the proper perspective for the interpretation of the commercials. Since all advertisements in the collection contain at least in part primary address (i.e. messages addressed directly to the viewers of commercials conceived as potential targets by the advertiser), the analysis will focus on this aspect first.

One of the characteristic features of advertising communication in Polish is that viewers of commercials are almost always addressed with the forms of the second person singular, which is typically reserved for communication between family members, close friends, and acquaintances, or used to address children or people of lower social status. In ordinary communication between adults who do not know each other very well, the forms of the third person singular combined with the title Pol.: *Pan/Pani* Eng.: *Mr./Ms.* are expected. However, the use of the familiar forms in advertising became standard long ago, and no one perceives it as inappropriate. Moreover, the use of such forms of direct address creates an atmosphere of closeness, inclusion, and familiarity, which seems to be particularly suitable when talking about matters of intimacy. On the other hand, however, direct second person address could be interpreted as stigmatising the viewer as someone who suffers from an erectile problem, which is not very pleasant. In many advertisements primary participants directly address the viewers who are the intended users, but in the case of certain dysfunctions still regarded as very private and embarrassing such a strategy seems unwelcome. Although erectile dysfunction is precisely the ailment which the advertised products are designed to cure, the advertisers tend to avoid direct address here. It turns out that only seven out of the 20 commercials in the sample contain second person singular forms of verbs, while the rest adopt various ways of talking about the advertised product, about the problems experienced by some unspecified men, and about the results of the use

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of the products. In this way, the possibility that any particular viewer actually suffers from erectile dysfunction is only implied, and not suggested directly by the advertisers. There is one more explanation, however, namely that women are also conceived as potential targets of such commercials. Since male performance is directly linked to their own satisfaction, it is not difficult to perceive women as indirect beneficiaries of the successful therapy offered by the advertised products. In this context, the application of the neutral forms of narration, without direct second person singular address, receives an additional explanatory dimension.

The issue that advertising communication involves a very complicated participant structure has already been addressed in the literature (Cook 1992; Doliński 2003; Leech 1966; Wojtaszek 2011). The collection of commercials studied here highlights one particular aspect of this complexity. Namely, in many of the advertisements we witness a peculiar switch or perhaps even a blend of address between primary and secondary modes. Sometimes it is unclear whether the secondary participants are looking at or talking to the other secondary participants or to the viewers. There are many frames in all the sample videos in which the secondary characters (usually women) gaze seductively into the lens of the camera, which represents at the same time a look at the other secondary character, but in effect also at the viewer. Their words can also be interpreted as being directed to the other fictitious characters or to the viewers. This ambivalence adds to the difficulty of clearly separating the primary address from the secondary, and creates a favourable atmosphere for the identification of the viewer with the attractive secondary participants, no matter how unrealistically they are presented.

Finally, the fact that the commercials present sex-related content undoubtedly boosts their attention-grabbing potential, no matter under what actual conditions the advertisements are encountered by the viewers. Almost all human beings are sensitive to sexual stimuli, so even indirect references to sex can be expected to induce curiosity and interest. For this reason, some of the commercials in the collection can apply very abstract and distant metaphors related to sex and still be properly understood and interpreted. Most of the advertisements can be described as involving a combination of sexual fantasising with the presentation of informational and persuasive input. It is very likely that the sexual overtones will weaken the viewer's rational reception of the content, so that they may increase the persuasive power of the advertisements. Of course, this is not to say that the recipients are likely to believe whatever they are told, because their knowledge of how advertising works induces a proper dose of scepticism to the reception of claims presented in commercials. Nevertheless, as Wojtaszek (2023) has shown in an earlier study, the viewers of four advertisements for erection-boosting

products were completely blind to the persuasive and manipulative tricks applied by advertisers.

As briefly outlined above, the *atmosphere* layer of contextual embedding encompasses those aspects of context that are selectively picked out from the viewers' entire cognitive environment and foregrounded in order to direct the mental processing of a given message. These aspects are neither inseparably bound to the text (as are the fonts or articulatory features which constitute its form, or illustrative elements like sounds, music, and visuals which prompt the intended denotation) nor connected with it as its situational embedding. The most frequently applied foregrounding mechanism is the design and composition of the video clip that accompanies the spoken and written text. The sequence of frames, the story plot, the way the characters look and behave, the presented settings and locations – all are best interpreted as belonging to *atmosphere*. As indicated above, however, certain visual elements must be analysed as elements of *flesh*, because they constitute the form of the text (e.g., the upward or downward sloping font) or they signal a parallel reference of a given expression (e.g., a baseball bat held by a woman in one of the commercials for *Vitasteron* shown at the same time that the announcer says Pol.: *Gdy ona chce wejść do gry, to* ***sprzęt*** *musi być gotowy.* Eng.: *When she wants to enter the game, the* ***gear*** *must be ready*).

One of the mechanisms directing the interpretation of the commercials is frequent recourse to stereotypical representations of male and female roles. Males are typically shown as active, self-confident, satisfied, well-dressed, fit, professionally active and occupying high positions in the social hierarchy. If they are presented otherwise, it is typically in the initial parts of the commercials, when such presentation constitutes an illustration of the problems they experience. However, even in such circumstances, males are shown to be physically attractive and affluent, and the negative element of their image is limited to expressions of sadness or fatigue. When it comes to female characters, they are almost always attractive and young, and they display seductive behaviour and a desire for pleasure without any indication of shame or reserve. As for their social roles, we can see them portrayed as secretaries, assistants, housewives (although never mothers), or sportswomen, but most frequently as lovers. Their representation as sex objects, manifested typically by the way they are dressed (or undressed) and by the close-ups of certain parts of their bodies, is directly linked to the nature of the advertised products.

The scenarios that the video plots unfold typically represent slice-of-life stories focusing on the indispensable sex-life component. Short frames displaying human shapes between the sheets or couples entering bedrooms, exchanging seductive looks, and embracing or approaching each other

are preceded by scenes of various outdoor activities or images from the office, the laboratory, the theatre, or the kitchen. The common denominator is that the transition from non-sexual to sexual behaviour is typically very fast. Sometimes the non-sexual scenarios are slightly more extended, especially when they support the intentional ambiguity of certain words or expressions. For example, the authors of the *Braveran* series devote almost the entire length of their commercials to the presentation of such illustrative scenarios as an evening camp in the mountains, a yachting trip, or a space station docking.

More attentive watchers of the above-mentioned slice-of-life scenarios will note, however, that the apparently commonplace home, leisure, and work settings are, in fact, highly unnatural and include elements absent from our everyday experience. The reason is that they must provide a sufficiently salient connection to the major theme of the commercials, i.e. how to attain satisfying sexual experiences. For example, in one of the *Stymen* advertisements we can see a couple dressing up for a night out at the theatre, but these preparations quickly evolve into quick bedroom action. Perhaps this would not be totally strange to some, but when the same couple leave the theatre audience in the middle of the play to go and hide somewhere backstage in order to make love there, the air of absurdity becomes visibly thick. Similar vibrations of oddness are felt when we watch provocatively dressed young secretaries in the office, giving lustful looks to the smartly dressed male manager, or a woman preparing a meal in the kitchen, wearing elegant but provocative lingerie. Viewers are aware that such visualisations have little to do with real life, but at the same time they may accept them because they realise that such exaggerations are distinctive features of advertising communication. The tolerance for hyperbolic presentation is the *lens* effect, the result of our familiarity with the genre.

The authors of these commercials are also sometimes very inventive in their indirect visual presentation of the erectile problem. Apart from the iconic imagery of downward pointing arrows, we are shown a picture of a sitting rodeo bull, who refuses to get to his feet in spite of the efforts of a woman rider, or a camera capture slowly changing from horizontal to vertical view while showing a woman taking off a blouse (Figure 6). The representations enter more metaphorical domains when we see a log which does not want to catch fire or a sail which won’t catch the wind. We are even demonstrated very abstract-looking scenes of sex avoidance by problem-ridden men, who engage in such untypical night-time activities as hanging lamps, mending cars, repairing taps, or even mowing the lawn in their pyjamas. Again, due to the *lens* effect, rather than rejecting these as absurd, the viewers may well appreciate the advertisers' inventiveness in providing ingenious and unique visualisations.

Figure 6. Inventive visualisations of the erectile problem. Source: *Penigra* and *Permen* commercials

Yet another form of foregrounding supportive contextual information is making references to survey results or published research. Five of the twenty commercials in the sample include such references, and they are presented only in the form of small-print texts displayed for a very short time, making these texts virtually impossible to read, let alone remember. As far as the spoken text is concerned, the viewers hear phrases like Pol.: *badania pokazują, że…* Eng.: *research shows that…*, or certain statements about erectile problems, such as Pol.: *w Polsce dotyczą one półtorej miliona mężczyzn* Eng.: *in Poland they are experienced by one and a half million men*, for which the small print messages provide reference. These can be more carefully studied only when the commercials are recorded and analysed with software enabling the stop frame function. When individual frames were carefully inspected, the references could be copied and checked, which showed that the sources of information are real, but often contain evidence which is not fully conclusive or which does not in fact support the claims being made. For example, one of the commercials for *Stymen* refers to the publication of Reiter et al. (1999), allegedly confirming the effectiveness of DHEA (dehydroepiandrosterone) treatment of erectile dysfunction, which concludes with the following remark: "Our results suggest that oral DHEA treatment may be of benefit in the treatment of ED. Although our patient data base is too small to do relevant statistical analysis, we believe that our data show a biologically obvious trend that justifies further extended studies." (Reiter et al. 1999: 594). There is a lot of modality in this statement (*our results suggest*, *treatment may be of benefit*, *we believe that…*), and the authors themselves acknowledge the insufficient size of the patient data base and the need for stronger experimental confirmation of their claims. This does not really sound like very sound scientific support. Nevertheless, it may be claimed that the advertisers believe that the mere inclusion of references to surveys, reports, and studies is sufficient for their persuasive purpose, and that the viewers will never take the trouble to check the validity and strength of this allegedly supportive evidence. The general practice shows that advertisers are right when they make such an assumption.

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5. Conclusion

The analysis of the sample of commercials presented in the previous section applied the separation of contextual layers, identified within the Stratified Model of Context. The linguistic message, in both spoken and written forms, was juxtaposed with its contextual embedding in order to demonstrate how the text and the context interact and complement each other in the construction of the meanings communicated in the commercials. It has also been shown how the Dynamic Model of Meaning (Kecskes 2008), in its expanded version (Wojtaszek 2016), can be used together with the Stratified Model of Context to provide an explanation of how advertisers design their messages in order to construct maximally effective persuasive communication.

Not all contextual cues interact with the text in the same way. Some of them (*flesh*) are strictly bound to the linguistic message and, as such, can never escape inclusion in the interpretative mechanism, and their processing is likely to be similar with all addressees, simply because such cues either constitute the form of the language of the advertisement or illustratively direct the interpretation of the words being shown or spoken. Other elements of context (*lens*) are responsible for providing a certain bias in the interpretation, which is consistent with the interpretation of messages sharing similar speech event characteristics. Here it primarily involves the recognition of the genre by the viewers, the conditions and environments in which we encounter commercials, the specific participant structure of advertising discourse and the forms of address applied in the advertisements. Such factors are responsible for the different mental processing of, for example, advertisements, public announcements, wine tasting notes, bank statements, and wedding invitations. Each of these genres has a distinct function in the speech community to which its addressees belong, each invites a different reaction, and each is interpreted following a diverse, but at the same time familiar and frequently repeated pattern. Any departures from the commonly recognised paradigms are likely to result in modified interpretations. Finally, there are contextual cues (*atmosphere*) which have to be deliberately alluded or pointed to by the authors of the message in order to be mentally present in its interpretation by the target audience. Such cues are clearly relevant and essential for the communicated meaning, but, without explicit activation, their contribution cannot be guaranteed. Such elements are responsible for the specific content of a given message and determine its final shape, and they are also responsible for the uniqueness, originality, and distinctiveness of a given act of communication. The infinite realm of choices available to the author of the message allows him/her to explore this wealth for his/her own advantage. Because such inventiveness has virtually no limits, the separation of the *atmosphere* layer for analytical purposes allows for better identification of an author's creativity, which, in the case of advertising communication, can sometimes be really

impressive.

Finally, the applied analytic procedure is also capable of demonstrating that the overall communicated meaning is not a simple addition of new meanings, each rendered in a given mode, but the result of a multi-faceted juxtaposition of differently communicated meanings in different modes, which very often profile, support, or even cancel each other, resulting in complicated meta-interpretative constructions. This only goes to show how complex and fascinating meaning construction is, not just in the discourse of advertising, but indeed in any type of communication.

Notes

All the examples have been translated by the author.

References

1. Arakelyan, H. (2021). The pun-group of linguistic devices in advertising media discourse. In *Armenian folia Anglistika*, 17 (1), p. 73-84. DOI: https://doi.org/10.46991/AFA/2021.17.1.073
2. Barsalou, L.W. (1993). Challenging assumption about concepts [commentary]. In *Cognitive development*, 8 (2), p. 169-180. DOI: https://doi.org/10.1016/0885-2014(93)90012-T
3. Barsalou, L.W. (1999). Perceptual symbol systems. In *Behavioural and brain sciences*, 22 (4), p. 577-180. DOI: 10.1017/s0140525x99002149
4. Cook, G. (1992) [2001]. *The discourse of advertising*. London: Routledge.
5. Crespo-Fernández, E. (2018). Taboos in speaking of sex and sexuality, In *The Oxford handbook of taboo words and language*. Allan, K. (ed.). Oxford: Oxford University Press, p. 41-60. DOI: https://doi.org/10.1093/oxfordhb/9780198808190.013.3
6. Doliński, D. (2003). *Psychologicznze mechanizmy reklamy*. / *Psychological mechanisms of advertising*. Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
7. Dynel, M. (2010). On 'Revolutionary Road': A proposal for extending the Gricean model of communication to cover multiple hearers. In *Lodz papers in pragmatics*, 6 (2), p. 238-304. DOI: https://doi.org/10.2478/v10016-010-0014-x
8. Dynel, M. (2014). On the part of ratified participants: ratified listeners in multi-party interactions. In *Brno studies in English*, 40 (1), p. 27-44. DOI: https://doi.org/10.5817/BSE2014-1-2
9. Evans, V. (2006). Lexical concepts, cognitive models and meaning construction. In *Cognitive linguistics*, 17 (4), p. 491-534. DOI: https://doi.org/10.1515/COG.2006.016
10. Ferstl, C.C. (2021). Chapter two: Context in language comprehension, In *Psychology of learning and motivation*, Federmeier, K.D. & Sahakyan, L. (eds.). London: Academic Press, p. 37-77. DOI: https://doi.org/10.1016/bs.plm.2021.07.002
11. Foulger, D. (2004). Models of the communication process. Brooklyn College/CUNY. Available at: https://www.academia.edu/24701926/Models_of_the_Communication_Process
12. Gardner, R. & Luchtenberg, S. (2000). Reference, image, text in German and Australian advertising posters. In *Journal of pragmatics*, 32 (12), p. 1807-1821. DOI: https://doi.org/10.1016/S0378-2166(99)00117-4

13. Gee, J.P. (1999). *An introduction to discourse analysis*. London: Routledge.
14. Katz, A. (2005). Discourse and sociocultural factors in understanding nonliteral language. In *Figurative language comprehension*. Colston, H. & Katz, A. (eds.). Mahwah: Lawrence Erlbaum, p. 183-232.
15. Kecskes, I. (2008). Duelling contexts: A dynamic model of meaning. In *Journal of pragmatics*, 40 (3), p. 385-406. DOI: https://doi.org/10.1016/j.pragma.2007.12.004
16. Knoeferle, P. (2019). Predicting (variability of) context effects in language comprehension. In *Journal of cultural cognitive science* 3, p. 141-158. DOI: https://doi.org/10.1007/s41809-019-00025-5
17. Konovalova, A. & Petrova, T. (2023). Pun processing in advertising posters: evidence from eye tracking. In *Journal of eye movement research*, 16 (3), p. 1-17. DOI: https://doi.org/10.16910/jemr.16.3.5
18. Leech, G. (1966). *English in advertising. A linguistic study of advertisements in Great Britain*. London: Longman.
19. Reiter, W.J., Pycha, A., Schatzl, G., Pokorny, A., Gruber, D.M., Huber, J.C., Marberger, M. (1999). Dehydroepiandrosterone in the treatment of erectile dysfunction: A prospective, double-blind, randomized, placebo-controlled study. In *Urology*, 53 (3), p. 590-594. DOI: https://doi.org/10.1016/s0090-4295(98)00571-8
20. Ryszka, J., Stwora, A., Moskal, M., Jakubowski, D. & Supernak, N. (2025). Say *Gesundheit* to the *Bagel*-eating *Paparazzi*. The role of borrowings in Super Bowl commercials. In *English world-wide*, 46 (2), p. 186-212. DOI: https://doi.org/10.1075/eww.24026.rys
21. Sadeghi, K. (2021). Language, contest and comprehension. In *Assessing second language reading*, Sadeghi, K. Cham: Springer, p. 51-64. DOI: https://doi.org/10.1007/978-3-030-84470-7_3
22. Skračić, T., Glavinović, R. & Vukić, L. (2025). Key messages of advertising slogans in the maritime industry. In *Transportation research procedia*, 83, p. 457-464. DOI: https://doi.org/10.1016/j.trpro.2025.03.013
23. Violi, P. (2000). Prototypicality, typicality and context. In *Meaning and cognition*, Albertazzi. L. (ed.). Amsterdam: John Benjamins, p. 103-123.
24. Wojtaszek, A. (2023). Does the small print really matter? The influence of explicit exposure to disclaimers on the perception of TV commercials. In *Lege artis. Language yesterday, today, tomorrow*. VIII (2), p. 70-93. Trnava: University of SS Cyril and Methodius in Trnava. DOI: https://doi.org/10.34135/lartis.23.8.2.05
25. Wojtaszek, A. (2016). Multimodal integration in the perception of press advertisements within the Dynamic Model of Meaning. In *Lodz papers in pragmatics*, 12 (1), p. 77-101. DOI: https://doi.org/10.1515/lpp-2016-0005
26. Wojtaszek, A. (2011). *Theoretical frameworks in the study of press advertisements: Polish, English and Chinese perspective*. Katowice: Wydawnictwo UŚ/Oficyna Wydawnicza WW.
27. Zalewski, D. (2020). Marketing farmaceutyczny w Polsce – badanie przekazów reklamowych leków, suplementów diety i wyrobów medycznych / Pharmaceutical marketing in Poland – research on advertising messages of medicines, dietary supplements and medical devices. In *Rozprawy społeczne / Social dissertations*, 14 (2), p. 107-127. DOI: https://doi.org/10.29316/rs/124415

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