The Hemingway's Six-Word Story Effect: A Psycholinguistic Verification

Ефект оповідання Хемінгуея із шести слів: психолінгвістична перевірка

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ABSTRACT
Purpose. *An empirical verification of the Hemingway's "sad hypothesis" and study of some individual characteristics of a discourse formation in a process of short texts understanding.*
Methods and procedure of research. *The study was based on the principle of a standardized interview, which was carried out on a random sample (103 respondents) using the questionnaire. The subjects interpreted two proverbs and the short story by Hemingway ("For sale: baby shoes, never worn"). In each case, it was proposed to choose one of the six ready-made interpretations or to create an original one. Proverb explications were classified by experts as "normative" or "deviating", and interpretations of the story were evaluated into "sad" or "pragmatic" ones. Also, a "normativity index" was calculated for each respondent, reflecting the number of normative renditions of proverbs. The Psychogeometric test was used, and such socio-demographic characteristics were recorded as: gender, age, having children.*

Results. *This study refutes the "sad hypothesis" regarding Hemingway's six-word story affect. The prevalence of pragmatic type interpretation over sentimental one is statistically significant. The type of interpretation turned out to be not directly related to any of the considered socio-demographic characteristics. It was found that the sad interpretation of the story reliably corresponds to a high normativity of the proverbs explications. Conversely, respondents with deviating interpretations of proverbs were significantly more likely to interpret Hemingway's story in a pragmatic way. Differential psychological features, which were distinguished using the Psychogeometric test, turned out to be an insignificant predictor of the six-word story interpretations.*

Conclusions. *The analysis of the research results made it possible to argue the thesis that the differences in the formation of individual discourses are directly related to a worldview and indirectly determined by other factors in turn influencing the outlook. The interaction of the worldview with discursive practice that arises in the process of short texts understanding is carried out according to differential scenarios. These scenarios are conditioned by such individual characteristics as discursive conformity and discursive lability, which, in turn, correspond with high and low normativity, respectively. Above features are cognitive in nature. Their ontological localization coincides with the I-language (Chomsky).*

Key words: *discourse, discursive practice, worldview, Hemingway's story, proverbs, understanding, normative interpretation, deviating interpretation.*

Introduction

Among many reasons for the psycholinguistic interest towards short texts, we would like to highlight the following two. First, the telecommunications development provides an exponential growth in the number of generated, processed, and accumulated texts. This is accompanied by an obvious tendency towards a size decrease of messages according to used number of natural language signs criterion. The short-text feature has been actively researched and applied in a wide range of scientific and practical areas (Cavus & Ibrahim, 2009; Hall, Cole-Lewis & Bernhardt, 2015; Lyddy et al., 2014; Plana et al., 2016; Szell, Grauwin & Ratti, 2014; Tourimpampa et al., 2018; Välimäki et al., 2017).

Second, short texts are especially attractive for the study of discursive ontology. Discourse, as "meaning generated by the dispersion of other meanings" (Foucault, 1972), is viewed by us in a cognitive frame. The processwise and expressive aspects of discourse engage the means of a language, while the discourse itself is not an organic

part of it (Chomsky, 2006). We share the position that the generic category in relation to discourse is a *mind* (hereinafter – a synonym for consciousness), not language. The latter, as an information-sign system, acts as an instrument of the mind. Functionality and morphology of the mind – discursive ones (Shymko, 2018). We distinguish a discourse ontology in two dimensions of language – internal and external (*I-language* and *E-language*; Chomsky, 1986). E-language is mainly associated with discursive practices, the study of which corresponds to the competences of *grammar* and *pragmatics*. I-language correlates with a picture of the world (worldview) – the central category of the subject matter field of psycholinguistics, according to our position. Structurally, a worldview is conceptualized by us as a *complex discursive formation* (Foucault, 1972). At the same time, we proceed from the assumption that discourse is constituted by the relationship between I-language and E-language (Shymko, 2018).

Therefore, short texts are not only valid, but also convenient for the psycholinguistic study of discourses. Influences of an "external language" are minimized in them. Traditionally, short texts are the objects of research on *proverbs* and *idioms* (Abakumova, 2012; Bobuafor, 2021; Ivanova, 2002; Karasik, 2015; Kempler, Van Lancker & Read, 1988; Lomotey & Chachu, 2020; Maltese et al., 2012; Nippold, Allen & Kirsch, 2001; Rezaei, 2012; Temple & Honeck, 1999; Syzdykov, 2014). Also, short texts are in the focus of such a relatively new phenomenon as *memes* (Dawkins, 2016; Memetics, 2001). Interest in this issue grows in the framework of interdisciplinary studies of social networks communications (Dizikes, 2014; Hu & Liu, 2012; Singh et al., 2017). One of the niche research areas is concerned with the literary segment "*small prose*" (Flash fiction, 2004). A widely known didactic example of such prose is the "six-word story", which is related to the work of E. Hemingway (For sale: baby shoes, never worn, 2013). And although the issue of the original source of the story is still being debated, it is generally accepted that this text is one of the saddest and, at the same time, the shortest stories (Jones, 2015; Mathison, 2019 et al.).

We have held a study in order to carry out an empirical testing of Hemingway's "sad hypothesis", as well as to study some of the individual characteristics of discourse formation in the process of short texts understanding.

Methods and Techniques of the Research

The theoretical and methodological framework of the study are indicated above in the introduction of this article. Short texts, as noted, minimize the influence of the E-language on discourses, which are structurally dynamic units of the mind. Discursive activity is accumulated due to the mechanisms of memory. As a result, a worldview is gradually formed, localized in the ontological space of the I-language. It should be emphasized that above minimization does not imply the exclusion of the influences of the "external language" on discourses, the emergence of which is constituted by the interaction of worldview and discursive practice. Due to this interaction the normalization function of individual discourses semantics (hereinafter – *normalization*) is provided. This function presupposes the reduction of the authentic discursive activity of the mind to the collective norm or the formation of discourses alternative to the norm. In both cases, normalization acts as a system-forming factor in the described interaction (Shymko, 2018).

Deviations occurring in the normalization process qualitatively characterize the mind adaptation to the actual environment and tend to be considered in a psychopathological vein. An example that does not require ample comments is the use of proverbs for the diagnosis of mental illness, featured by a generalization process dysfunction. Leaving aside the clinical nuances of the issue under discussion, we note that "bad" normalization might be associated with "good" creative potential. Fundamentally new knowledge, innovative engineering, and cutting-edge technical solutions, etc., presuppose going beyond existing and deep-seated discursive practices. Less obvious are the "failures" of normalization that are caused by value contradictions. In such cases, maladjustment is essentially a protest. Here it is important to distinguish between situational adaptation and *adaptability*, as a qualitative parameter characterizing the individual features of the discourse-forming convergence of I-language and E-language.

To assess the respondents` adaptability (in the aspect discussed above), we used two proverbs in our study: *"When the forest is cut, some chips fly around"* (Yohansen, 1929: 27) and "*Dogs bark, but the caravan goes on*" (Simpson & Speake, 2008). The respondents were offered six options for interpreting each proverb, as well as the

opportunity to formulate their own version of the rendition. Note that in this article we combine under the general category of "understanding" such synonymous concepts as: interpretation, rendition, explanation, explication, etc. The essence of an understanding lies in the appearance of a discourse that structurally organizes the content which is being understood.

To analyze the results, four experts were involved: 2 practitioners in the field of applied psycholinguistics, 1 specialist in Slavic philology and 1 clinical psychologist; all experts with more than 10 years of practical experience and scientific degrees in their specialty, respectively. Interpretations of proverbs were collegially classified by experts as *normative* or *deviant*. At the same time, a "*normativity index*" was formed, which reflects the ratio of respective explanations: 0 – both interpretations are deviating; 1 – one of the proverbs is explicated normatively; 2 – both proverbs received a normative rendition (in the dataset, the corresponding variable has a numeric scale and is designated as "Normativity").

After working with proverbs, respondents were asked to interpret Hemingway's six-word story, the translation of which into Russian includes five words ("*Продаются: детские ботиночки, неношеные*"). Similar to the proverbs, the respondents had six ready-made interpretations to choose from and the opportunity to formulate their own version of the story understanding if no one of offered options was appropriate enough. The above-mentioned group of experts, after the initial analysis of the obtained results, derived the two types of interpretations, which are indicated in the dataset as: "*sad interpretation*" and "*pragmatic interpretation*". The collegiate opinion of experts is reflected by the binomial variable – "Baby_shoes". Additionally, the experts differentiated the respondents' pragmatic interpretations into those that reflected "*parental pragmatism*" and those that explicated the text as an advertising "*seller's trick*". Such grouping of answers was put into the multinomial variable indicated in the dataset as "Baby_shoes_multi".

The tasks listed above, together with the Psychogeometric test, were aggregated into the author's questionnaire "Diversity of meanings", in which also were being recorded such data as: gender, age, and having children. Our choice of mentioned personality test was mainly due to two following considerations. First, the compactness of the stimulus material and the simplicity of its use. We used the test`s

stimuli variant adapted by Alekseev and Gromova (1991). Second, the design, validation and adaptation of the test had been implemented in the context of interpersonal communication optimization under organizational activities (Dellinger, 2019). Obviously, such optimization presupposes the correlation and synchronization of respective intrapersonal factors (I-language) with group activities through verbal interactions (E-language).

Participants

The survey was conducted in February – March 2021 on a random sample of 103 Russian-speaking residents of Kyiv aged 20 to 64 years. Proportion of women was 64.1% (66 people). 61.2% (63 people) having children. An example of the questionnaire used, detailed characteristics of the sample, as well as the full results of the mathematical and statistical data processing (IBM SPSS Statistics V 26) have been published in the repository and are available for review (Shymko, 2021).

Results

Checking the dataset using the One-sample Kolmogorov-Smirnov test confirmed the null hypothesis only with respect to the age of the respondents (p = 0.088), and in other cases, the deviation from the normal distribution turned out to be statistically significant (p < 0.001). This led to the choice of the proper tools for further mathematical and statistical processing of the empirical results.

The discrepancies between the observed and expected frequencies, as well as the status of the null hypothesis for each variable, are systematized in Table 1. As you can see, the thesis about the "saddest story" is not supported by the results of our study. The higher frequency of pragmatic interpretation is significantly different from the sentimental view on a six-word story. Note that the null hypothesis is rejected for both variants of grouping this parameter – binary and multinomial.

At the same time, it is necessary to pay attention to the acceptance of an alternative hypothesis regarding the gender distribution of the respondents. In other words, the sample turned out to be significantly female. With this in mind, we cross-tabulated the variables "Baby_shoes" and "Gender" and calculated Fisher's exact test, which confirmed

that there was no difference between the female and male interpretations of Hemingway's story (p = 0.535). Similar actions were taken for the variable "Children", since the sample turned out to be predominantly "childless". No significant differences were found (p = 0.578) for this case as well (Shymko, 2021).

Table 1

Frequencies, Proportions, Chi-Square, and Null Hypothesis Status

	Variables	f	%	χ^2	*p*	H_0
Baby_shoes	• Sad interpretation • Pragmatic interpretation	26 77	25.2 74.8	25.252	0.000	–
Baby_shoes_multi	• Sad interpretation • Parental pragmatism • Seller's trick	26 55 22	25.2 53.4 21.4	18.893	0.000	–
Forest_is_cut	• Normative interpretation • Deviant interpretation	79 24	76.7 23.3	29.369	0.000	–
Caravan_goes	• Normative interpretation • Deviant interpretation	68 35	66 34	10.573	0.001	–
Normativity	• 0 • 1 • 2	13 33 57	12.6 32.1 55.3	28.272	0.000	–
Psychogeometry	• Circle • Squiggle • Triangle • Square • Rectangle	21 21 22 27 12	20.4 20.4 21.4 26.2 11.6	5.689	0.224	+
Gender	• Female • Male	66 37	64.1 35.9	8.165	0.004	–
Age	from 20 to 64			31.903	0.571	+
Children	• Yes • No	40 63	38.8 61.2	5.136	0.023	–

Application of the Mann-Whitney test to data grouped by the variable "Baby_shoes" reveals the only statistically significant difference between respondents with the sad and pragmatic view on Hemingway's story by the interpretation type of proverb: "When the forest is cut, some chips fly around" (Table 2). It is noteworthy that the distribution of the variables "Caravan_goes" and "Normativity" for this case corresponds to the null hypothesis (Table 2). However, "Normativity" is an arbitrarily introduced second-order variable that directly generalizes the parameters of two other variables, the distribution of which is

statistically approximated. Namely, both proverbs are significantly more often interpreted by the respondents in the normative way (Table 1). Such a mismatch is possible only if the variables "Forest_is_cut" and "Caravan_goes" differ significantly from each other, which was verified and confirmed by Fisher's exact test (p = 0.026).

Table 2

Criteria U, W and Z (grouping variable – "Baby_shoes")

	Forest_ is_cut	Caravan_ goes	Norma-tivity	Gender	Age	Psycho-geometry	Children
Mann-Whitney **U**	792	958	831	983.5	985	846.5	996
Wilcoxon **W**	1143	1309	3834	3986.5	3988	3849.5	3999
Z	-2.167	-0.398	-1.447	-0.160	-0.122	-1.201	-0.045
Asymp. Sig. (2-tailed)	0.030	0.691	0.148	0.873	0.903	0.230	0.964
H_0	–	+	+	+	+	+	+

The stated statistical nuance actualizes an important methodological aspect that we often observe in discourse research. Namely, the functional uniformity of short texts, the unity of the quantification system of the corresponding discourses, and the approximation of the data distribution characteristics do not correlate with the homogeneity of the studied features array. As a result, the created linear models require a lot of adjustments and additions, which makes them cumbersome and complicates their application (for example, in the field of computer algorithms for Natural Language Processing issues). This feature, among other arguments, raises the question of the importance of nonlinear relationships in the discourse scope along with linear ones and their respective balance. In this vein, the search for modernization of widely popular in computational linguistics Markov chain methodology due to unconventional uncertainty models looks very promising (Nendel, 2021).

Considering that the distribution frequencies of the variable "Normativity" in the general sample corresponds to the alternative hypothesis (Table 1), we asked whether there are any gender trends in the normative and deviant interpretations of proverbs. To clarify this, a simple cross-tabulation of proverbs interpretations and gender was carried out, as well as the same cross-tabulation with distinguishing of "Normativity" layers. For this purpose, the Fisher,

Tau Goodman-Kruskal, chi-square and Cramer's V tests were used. No statistically significant differences and associations were found. At the same time, "Normativity" turned out to be strongly correlated with the age of the respondents. Each of these variables is an interval one, but the distribution of "Normativity" was not normal, therefore, along with Pearson (R = 0.263, p ≤ 0.01), the Spearman test was also calculated (r_s = 0.262, p ≤ 0.01). In both cases, a two-way positive connection was found, i.e., normativity increases with age and vice versa (Shymko, 2021).

The relevance of the null hypothesis for the frequency distribution of the Psychogeometric test (Table 1) indicates a relatively uniform allocation of respondents by the criterion of individual discrepancies. At the same time, the calculation of the Mann-Whitney (Table 2) and Kruskal-Wallis (Table 3) criteria indicates the absence of differential psychological tendencies in the respondents` interpretations. This is also confirmed by the negative results of attempts to detect the connection between the corresponding variables (the Lambda test was used) and the results of multinomial and logistic regression analysis series. In some regression models the variable "Psychogeometry" was involved as a dependent one and in other cases was used as the predictor of such dependent variables as: "Baby_shoes" and "Baby_shoes_multi" (Shymko, 2021).

Table 3
Criterion H (grouping variable – "Psychogeometry")

	Forest_ is_cut	Caravan_ goes	Norma- tivity	Baby_ shoes	Gender	Age	Children
Kruskal-Wallis **H**	2.077	1.302	2.234	2.203	1.849	.828	1.013
df	4	4	4	4	4	4	4
Asymp. Sig.	.722	.861	.693	.698	.764	.935	.908
H_0	+	+	+	+	+	+	+

In general, the regression analysis turned out to be of little informative also in relation to other features. The exception is the prediction of the binary variable "Baby_shoes" (regression with the multinomial variable "Baby_shoes_multi" did not reveal any noteworthy results). Table 4 shows the characteristics of binary logistic regressions, which we selected according to the significance parameter

of the Omnibus Tests of Model Coefficients. Note that the specifics of the data distribution did not allow us calculating the Hosmer and Lemeshow fit test, therefore the quality of the models was assessed by the chi-square and Nagelkerke R square test (Table 4).

As you can see, within the full sample, the "Forest_is_cut" variable acts as a reliable predictor indicating a certain tendency of the respondents to give sad interpretations of Hemingway's story subject to normative renditions of the proverb and tendency to pragmatically understand the story in case of deviating explications of this proverb. A similar trend persists for respondents who gave at least one deviating interpretation when working with both proverbs ("Normativity" ≤ 1), as well as for women`s part of the sample. At the same time, for the males, another one proverb used in our study proved to be such a predictor (Table 4).

Table 4

Binary logistic regression (dependent variable – "Baby_shoes")

Predictors and model parameters / Dependent variable "Baby_shoes"	Whole sample	Males	Females	Norma-tivity ≤ 1
	Regression coefficient B / significance p / odds ratio $Exp(B)$			
Forest_is_cut	1.569/0.044/ 4.800		1.954/0.069/ 7.059	1.636/0.060/ 5.133
Caravan_goes		2.079/0.065/ 8.000		
Constant	-0.739/0.404/ 0.477	-1.520/0.265/ 0.219	-1.201/0.316/ 0.301	-0.874/0.458/ 0.417
(*) Model coefficient, χ^2 (sig. p)	5.599 (0.018)	4.865 (0.027)	5.139 (0.023)	4.187 (0.041)
(**) Model Summary (Nagelkerke R Square)	0.078	0.184	0.110	0.139
(***) Predictive value (overall % correct)	74.8%	75.7%	74.2%	80.4%

Note: (*) – displays the significance of improving the regression model;
(**) – part of the dispersion covered by logistic regression (max = 1);
(***) – the proportion of reliable predictions based on the model.

Although, when assessing the stated results of the regression analysis, it is necessary to take into account the low proportion of

the predictors influence on the dispersion of the dependent variable (Nagelkerke R Square, Table 4). It is also important to count that only for the whole sample has been found an acceptable level of the predictor "Forest_is_cut" significance ($p < 0.05$). In other cases, only some approximation to the threshold of statistical significance is observed. Nevertheless, the corresponding regression models can be heuristically useful in discussing the research results and for planning further studies.

Discussions

As can be seen, the research does not support the thesis about the "saddest story". However, the level of generalization of such a conclusion should be restricted according to the socio-geographical, linguo-cultural, quantitative, and other limitations of the study. Of course, for any broad extrapolation of the discussed "de-mythologization" additional cross-cultural measurements are clearly needed. However, we expect the pragmatic understanding of Hemingway's six-word story to dominate in a wide range of ethnolinguistic groups.

This anticipation is based on the fact that the sentimentality of the interpretation was not associated with such socio-demographic characteristics as age, gender and having children – universal culture-forming factors. At the same time, the ontology of these factors is not limited by the cultural framework only and has an obvious biological origin. In a sense, these variables relate to pre-cultural extra-linguistic (and therefore *pancultural*) conditions and determinants of social life. At first glance, one should assume their "interference" in the respondents' interpretations, for example, in the form of "echoes" of the fear of death actualization (age), maternal instinct (gender), parental experience (having children), etc. However, our research indicates the absence of respective relationships.

Somewhat less obvious, the above arguments fully apply to those respondents' characteristics that were studied using the Psychogeometric test. Let us clarify that Psychogeometric approach was used by us not so much for accurate personal measurements, but as an indicator of probable differential psychological effects in the interpretations of the respondents. Being a non-verbal projective technique, this test registers individual differences, which are mainly localized on the

psychophysical level, i.e. pre-cultural one. Nevertheless, the question of the linguistic and cultural impact on the choice of geometric figures by the respondents remains open (compare, for example, the idiomatic equivalents in English and Russian: "*Back to square one*" and "*Вернуться на круги своя*"). An indirect but convincing answer is the fact that the Psychogeometric test has been adapted and used over the past 30 years in 24 countries covering seven language zones (Psycho-Geometrics, 2021).

Also, according to our long-term observations, cross-cultural differences in figurative meanings of verbal equivalents of physical stimuli (geometric shapes, color shades, bodily sensations, etc.) are mainly due to discursive practices, and not to individual psychological characteristics. At the same time, an important characteristic of discursive practice, along with its socio-geographical coverage, is the frequency of its reproduction. We associate the latter parameter with the expected cross-cultural predominance of the pragmatic interpretation of Hemingway's story.

Thus, the frequency of a discursive practice can be estimated by direct counting of the linguistic equivalents in texts, which becomes theoretically possible with the development of global telecommunications. At the same time, a respective practical implementation would require solving a colossally laborious task of creating an appropriate cross-language data array that would unite dozens of national linguistic corpora. The issue of collecting, marking up, synchronizing and processing such an array of data, obviously, has yet to be realized. An available alternative to assessing the frequency of a discourse reproduction is conditional-event analysis. The global statistics of sad interpretation event triggers (infant mortality) have fortunately decreased by an order of magnitude since the appearance of Hemingway's story (Roser, Ritchie & Dadonaite, 2013; UNICEF, 2020).

Among other things, the truthfulness of such an assumption would mean that the immediate causes of differences in individual discourses formation are localized in the scope of the worldview and indirectly related to other differential factors that in turn determine or influence the picture of the world. In this respect, the differences in the regression equations of the male and female parts of the sample are indicative (Table 4). Strictly speaking, it is technically incorrect to define discourse as masculine or feminine. In our opinion, it is more valid to talk about

a discourse in the worldview of an individual with certain socio-demographic features.

There are also grounds for yet another line of differential feature comprehension of discourse origination. Interestingly, normative interpretations of proverbs increase the likelihood of a sad interpretation of a six-word story (Table 4). It is logical to assume that the sad interpretation in the era of Hemingway was prevalent, i.e. normative. Let us also assume that the normative field of proverb interpretations has not changed significantly since then either. If so, then the respondents with sad interpretations of "baby shoes" behave normatively from the past era linguistic culture point of view. In other words, they can be viewed as conservative carriers of the worldview (or at least its elements) of a century ago. This indirectly indicates of their compliance, low criticality and, in a certain sense, rigidity in the process of discursive normalization, which accompanies a personality socialization process and leads to the formation of an individual picture of the world. The combination of the above features can be described as – *discursive conformity*. The existence of such an individual characteristic would explain among other things the mechanism for maintaining cultural traditions.

In turn, respondents with a pragmatic understanding of "baby shoes" reveal a more adequate position from the current linguistic and cultural realities point of view. They react more critically and independently to changes of discursive practice, revealing – *discursive lability*. Note that, according to the results of our study, this property is associated with low normativity (Table 4). Does this mean that more productive adaptation is achieved through "poor" normalization? Is worldview traditionalism a sign of quality adaptability?

These contradictions are difficult to verify within a single local study. However, in our opinion, the results obtained testify in favor of the existence of differential scenarios of the relationship between worldview and discursive practice. We believe justified to consider these scenarios as the individual characteristics of a discourse formation process. The conducted research points on to the cognitive nature of these features and their autonomy from direct biological factors impact. We also believe the results obtained indirectly indicate in favor of the ontological localization of these individual mechanisms of discourse formation. Such localization coincides with I-language.

Conclusions

This study refutes the "sad hypothesis" for Hemingway's six-word story affect. The pragmatic interpretation prevalence of the respective short text is statistically significant over the sentimental one. The type of interpretation turned out to be not directly related to such socio-demographic characteristics as: age, gender and having children. It was found that the sad interpretation reliably corresponds to a high normativity of the proverbs interpretations. Conversely, respondents with deviating proverbs interpretations were significantly more likely to understand Hemingway's story in a pragmatic manner.

Differential psychological differences, which were discovered using the Psychogeometric test, turned out to be an insignificant predictor of the interpretation type of a six-word story. The analysis of the research results made it possible to argue the thesis that the differences in the individual discourses formation process are directly related to the worldview and indirectly determined by other factors in turn influencing a picture of the world.

The interaction of the worldview with discursive practice arising in the process of short texts understanding is carried out according to differential scenarios. These scenarios are conditioned by such individual characteristics as discursive conformity and discursive lability, which, in turn, correspond with high and low normativity, respectively. These features are cognitive in nature. Their ontological localization coincides with the "internal language" (Chomsky).

The stated conclusions and other results of this study should be considered in the context of socio-geographical, linguo-cultural, and quantitative limitations of the sample. We believe the prospects for further studies should be concerned with the validity and reliability verification of the possible cross-cultural extrapolation of the above hypotheses pertaining the individual mechanisms of discourse formation.

ADHERENCE TO ETHICAL STANDARDS

Ethics Declarations. Prior to the start of the study, informed consent was obtained from all participants for voluntary participation. The study was conducted in compliance with domestic (Ethical code, 2009) and international ethical standards

(American Psychological Association, 2002). The study was approved by the Scientific Ethics Committee of the Hryhorii Skovoroda University in Pereyaslav (Ukraine).

Data Availability Statement. The empirical results of research were presented in the repository "*Harvard Dataverse*": https://doi.org/10.7910/DVN/FDLVES

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References

Abakumova, O.B. (2012). *Poslovicy v jazyke, soznanii i diskurse [Proverbs in Language, Mind, and Discourse]*. St.-Peterburg: Izd. Dom "Alef-Press" [in Russian].

Alekseev, A.A., & Gromova, L.A. (1991). *Psihogeometrija dlja menedzherov [Psychogeometry for Managers]*. Izd-vo "Znanie" [in Russian].

American Psychological Association. (2002). Ethical principles of psychologists and code of conduct (Amended February 20, 2010). *American Psychologist, 57,* 1060–1073. https://doi.org/10.1037/0003-066X.57.12.1060

Bobuafor, M. (2021). Cultural values and the pragmatic significance of proverbial sayings in Tafi and Ewe. *Journal of Pragmatics, 178,* 192–207, https://doi.org/10.1016/j.pragma.2021.03.013

Cavus, N., & Ibrahim, D. (2009). m-Learning: An experiment in using SMS to support learning new English language words. *British Journal of Educational Technology, 40,* 78–91. https://doi.org/10.1111/j.1467-8535.2007.00801.x

Chomsky, N. (1986). *Knowledge of Language*. New York: Praeger

Chomsky, N. (2006). *Language and Mind* (3rd ed.). Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511791222

Dawkins, R. (2016). *The Selfish Gene* (40th anniversary ed.). Oxford; New York: Oxford University Press.

Dellinger, S. (2019). *Communicating Beyond Our Differences: Introducing the Psycho-Geometrics System*. Kindle Edition.

Dizikes, P. (2014). *Social Media's 'Law' of Short Messages*. MIT News Office. URL: https://news.mit.edu/2014/social-medias-law-of-short-messages-0226

Ethical Code. (2009). *Etychnyi kodeks uchenoho Ukrainy [Code of ukrainian scientist`s ethics]*. URL: https://zakon.rada.gov.ua/rada/show/v0002550-09

Flash fiction. (2004, July 19). In Flash fiction. https://en.wikipedia.org/wiki/Flash_fiction

For sale: Baby shoes, never worn. (2013, April 14). In Wikipedia. URL: https://en.wikipedia.org/wiki/For_sale:_baby_shoes,_never_worn

Foucault, M. (1972). *Archaeology of knowledge and the discourse on language*. New York: Pantheon.

Hall, A.K., Cole-Lewis, H., & Bernhardt, J.M. (2015). Mobile text messaging for health: A systematic review of reviews. *Annual Review of Public Health, 36*, 393–415. https://doi.org/10.1146/annurev-publhealth-031914-122855

Hu, X., & Liu, H. (2012). *Text Analytics in Social Media*. In C. Aggarwal, & C. Zhai (Eds.). Mining Text Data. Springer, Boston, MA. https://doi.org/10.1007/978-1-4614-3223-4_12

Ivanova, E.V. (2002). *Poslovichnye kartiny mira (na materiale anglijskih i russkih poslovic) [Sayings worldviews (based on the materials of the Russian and English sayings)]*. St. Petersburg: Filol. f-t SPbGU [in Russian].

Jones, J. (2015). *The (Urban) Legend of Ernest Hemingway's Six-Word Story: "For sale, Baby shoes, Never worn." Open Culture*. URL: https://www.openculture.com/2015/03/the-urban-legend-of-ernest-hemingways-six-word-story.html

Karasik, V.I. (2015). Dramatization in Proverbs. *Procedia-Social and Behavioral Sciences, 200,* 26–32. https://doi.org/10.1016/j.sbspro.2015.08.005

Kempler, D., Van Lancker, D., & Read, S. (1988). Proverb and idiom comprehension in Alzheimer disease. *Alzheimer Disease and Associated Disorders, 2*(1), 38–49. https://doi.org/10.1097/00002093-198802010-00005

Lomotey, D.F., & Chachu, S. (2020). Gender ideologies and power relations in proverbs: A cross-cultural study. *Journal of Pragmatics, 168*, 69–80. https://doi.org/10.1016/j.pragma.2020.07.001

Lyddy, F., Farina, F., Hanney, J., Farrell, L., & O'Neill, N.K. (2014). An Analysis of Language in University Students' Text Messages. *Journal of Computer-Mediated Communication*, *19*(3), 546–561. https://doi.org/10.1111/jcc4.12045

Maltese, A., Scifo, L., Fratantonio, A., & Pepi, A. (2012). Linguistic Prosody and Comprehension of Idioms and Proverbs in Subjects of School Age. *Procedia-Social and Behavioral Sciences, 69,* 2027–2035, https://doi.org/10.1016/j.sbspro.2012.12.161

Mathison, S. (2019). *"For sale: Baby shoes, never worn."* Qualitative Research Cafe. URL: http://blogs.ubc.ca/qualresearch/for-sale-baby-shoes-never-worn/

Memetics. (2001). In Wikipedia. https://en.wikipedia.org/wiki/Memetics

Nendel, M. (2021). On nonlinear expectations and Markov chains under model uncertainty. *International Journal of Approximate Reasoning, 130,* 226–245. https://doi.org/10.1016/j.ijar.2020.12.013

Nippold, M.A., Allen, M.M., & Kirsch, D.I. (2001). Proverb Comprehension as a Function of Reading Proficiency in Preadolescents. *Language, Speech, and Hearing Services in Schools, 32*(2), 90–100. https://doi.org/10.1044/0161-1461(2001/009)

Plana, M.G., Gimeno, A., Appel, C., & Hopkins, J. (2016). Improving Learners' Reading Skills Through Instant Short Messages: A Sample Study Using WhatsApp. In A. Gimeno, M. Levy, F. Blin, & D. Barr (Eds.), *WorldCALL: Sustainability and Computer-Assisted Language Learning* (Advances in Digital Language Learning and Teaching, pp. 266–281). London: Bloomsbury Academic. http://dx.doi.org/10.5040/9781474248327.0027

Psycho-Geometrics. (2021). Psycho-geometrics. Retrieved May 11, 2021. URL: http://www.psycho-geometrics.com/

Rezaei, A. (2012). Rhetorical Function of Proverbs Based on Literary Genre. *Procedia-Social and Behavioral Sciences, 47,* 1103–1108, https://doi.org/10.1016/j.sbspro.2012.06.786.

Roser, M., Ritchie, H., & Dadonaite, B. (2013). *Child and Infant Mortality.* Published online at OurWorldInData.org. URL: https://ourworldindata.org/child-mortality [Online Resource].

Shymko, V. (2018). In Pursuit of the Functional Definition of a Mind: The Pivotal Role of a Discourse. *Available at SSRN.* https://ssrn.com/abstract=3290217

Shymko, V. (2021). Psycholinguistic research into the impact of few word stories. *Harvard Dataverse.* https://doi.org/10.7910/DVN/FDLVES

Simpson, J., & Speake, J. (2008). *Dogs bark, but the caravan goes on. The Oxford Dictionary of Proverbs* (5th ed.). Oxford University Press. https://www.oxfordreference.com/view/10.1093/acref/9780199539536.001.0001/acref-9780199539536-e-583

Singh, T., Kumari, M., Pal, T.L., & Chauhan, A. (2017). Current Trends in Text Mining for Social Media. *International Journal of Grid Distributed Computing, 10*(6), 11–28. http://dx.doi.org/10.14257/ijgdc.2017.10.6.02

Syzdykov, K. (2014). Contrastive Studies on Proverbs. *Procedia-Social and Behavioral Sciences, 136*, 318–321. https://doi.org/10.1016/j.sbspro.2014.05.336

Szell, M., Grauwin, S., & Ratti, C. (2014). Contraction of Online Response to Major Events. *PLoS ONE 9*(2), e89052. https://doi.org/10.1371/journal.pone.0089052

Temple, J.G., & Honeck, R.P. (1999). Proverb Comprehension: The Primacy of Literal Meaning. *Journal of Psycholinguistic Research, 28*, 41–70 https://doi.org/10.1023/A:1023287420088

Tourimpampa, A., Drigas, A., Economou, A., & Roussos, P. (2018). Perception and Text Comprehension. It's a Matter of Perception! *International Journal of Emerging Technologies in Learning (IJET), 13*(07), 228–242. http://dx.doi.org/10.3991/ijet.v13i07.7909

UNICEF. (2020). Under-five mortality. URL: https://data.unicef.org/topic/child-survival/under-five-mortality/

Välimäki, M., Kannisto, K.A., Vahlberg, T., Hätönen, H., & Adams, C.E. (2017). Short Text Messages to Encourage Adherence to Medication and Follow-up for People with Psychosis (Mobile.Net): Randomized Controlled Trial in Finland. *Journal of Medical Internet Research, 19*(7), e245. https://doi.org/10.2196/jmir.7028

Yohansen, M. (1929) *Praktychnyi rosiisko-ukrainskyi slovnyk prykazok [Practical Russian-Ukrainian dictionary of proverbs].* Kyiv: State Publishing House of Ukraine [in Ukrainian and Russian]. URL: http://encyclopedia.kiev.ua/vydaniya/files/slovnyk-prykazok-rosiisko-ukrainskyi.pdf

АНОТАЦІЯ

Мета дослідження. *Емпірична перевірка "сумної гіпотези" Хемінгуея, а також вивчення деяких індивідуальних особливостей утворення дискурсу в процесі розуміння коротких текстів.*

Методики дослідження. *Вивчення побудовано за принципом стандартизованого інтерв'ю, яке реалізовано на випадковій вибірці (103 респондента) за допомогою анкети. Досліджувані інтерпретували два прислів'я і коротку оповідь Хемінгуея ("Продаються: дитячі черевички, неношені"). У кожному разі пропонувалося вибрати одне з шести готових тлумачень або запропонувати своє власне. Інтерпретації прислів'їв були класифіковані експертами на "нормативні" і такі,*

що "відхиляються", а трактування оповідання на – "сумні" та "прагматичні". При цьому для кожного респондента був підрахований "індекс нормативності", який відображає кількість нормативних інтерпретацій прислів'їв. Також використовувався Псіхогеометричний тест і враховувалися соціально-демографічні характеристики: стать, вік, наявність дітей.

Результати. *Проведене дослідження спростовує "сумну гіпотезу" щодо оповідання з шести слів Хемінгуея. Прагматичне тлумачення даного короткого тексту статистично достовірно переважає над сентиментальним. Тип інтерпретації виявився не пов'язаним безпосередньо з жодною із врахованих соціально-демографічних характеристик. З'ясовано, що сумне тлумачення надійно кореспондується з високою нормативністю при інтерпретації прислів'їв. І навпаки, респонденти з низькою нормативністю прислів'їв достовірно частіше інтерпретували оповідання Хемінгуея прагматично. Диференційно-психологічні відмінності, які фіксувалися за допомогою Психогеометричного тесту, виявилися незначним предиктором типу тлумачення оповідання з шести слів.*

Висновки. *Аналіз результатів дослідження дозволив аргументувати тезу про те, що відмінності щодо утворення індивідуальних дискурсів безпосередньо пов'язані з картиною світу і вже опосередковано обумовлені іншими факторами, що впливають на світогляд. Взаємодія картини світу з дискурсивної практикою, що виникає в процесі розуміння коротких текстів, здійснюється згідно з диференціальними сценаріями. Ці сценарії обумовлені такими індивідуальними особливостями, як – дискурсивна конформність і дискурсивна лабільність, які, в свою чергу, кореспондуються з високою і низькою нормативністю, відповідно. Зазначені особливості мають когнітивну природу. Їх онтологічна локалізація збігається з "внутрішньою мовою" (Chomsky).*

Ключові слова*: дискурс, дискурсивна практика, картина світу, оповідання Хемінгуея, прислів'я, розуміння, нормативна інтерпретація, відхилення інтерпретації*