Cross-linguistic intelligibility of idiomatic phrases in Polish-Russian translation tasks

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Abstract

This paper presents the results of a translation task involving idiomatic phrases in closely related languages. The goal is to test auditory comprehension of idioms. The experiment was conducted with native speakers of either Polish or Russian, who were not professional translators. The translation equivalents were categorized according to three conditions: (1) semantic equivalent, found in a phraseological dictionary; (2) lemma-based referent, sharing a cognate component; and (3) literal translation of the source phrase. It is hypothesized that information-theoretic measures of surprisal in combination with lexical and syntactic distances between idioms can predict lay translators' preferences. The results suggest that the proposed measures are valid predictors for the type of translation native speakers will select. The outcomes reveal an asymmetry in preference for equivalent selection across the groups of lay translators.

Keywords

idiomatic phrases, receptive multilingualism, Polish, Russian, translation

1. Introduction

The comprehension of idiomatic phrases in a closely related language is a challenging task, especially if the perceiver has no previous training in philology or translation studies. However, the investment of this extra cognitive effort may be rewarded when an idiomatic meaning is successfully understood and a humorous or surprising cross-cultural connotation is discovered. The ability to understand the figurative meaning of an expression in a foreign language often corresponds with high linguistic proficiency and so far has been mainly investigated for second language learning (Boers and Demecheleer 2001; Cieślicka 2017; Kovecses and Szabco 1996).

The comprehension of idiomatic phrases from closely related yet unfamiliar languages is far more complicated. This phenomenon involves phonological, lexical, and syntactic correspondences between similar languages and not only raises questions of communicative competence, but also touches upon the abilities and limitations of linguistic transfer based on various associations. A possible strategy is to conceptualize the meaning of each constituent of an idiomatic phrase in Lx and, upon encountering difficulty, try to find a comprehensible lexeme (e.g., a cognate component) and then collocate the rest on the basis of native language (L1) structure. Another strategy involves the surface representation of a target phrase and attempts to match phonologically close units from one's L1 and the foreign language Lx. But even in one's native language, the comprehension of idioms requires a certain level of linguistic and cultural competence. Therefore, it is worth investigating what kind of cross-linguistic references play a key role in equivalent matching and how to measure the cues which are informative in such processes.

1.1. Aims and premises

In order to test intercomprehension of idiomatic phrases, we have conducted a translation experiment involving native speakers of Polish and Russian without any formal training in linguistics and philology. We adopt an information-theoretic approach (Shannon 1948) and interpret the experimental outcomes in terms of phonetic as well as lexical and syntactic distances between tested expressions. Thus, we combine cross-linguistic phrase (un)expectedness with measurable phonetic, lexical, and syntactic distances between idiomatic expressions to answer the following research questions.

Firstly, we assume that if the idiomatic meaning of a target phrase is not transparent enough, subjects tend to understand it literally. The phenomenon driving such a preference is the phonological resemblance between an idiomatic target and its literal translation. Hence, we hypothesize that the lower the mean phrase word adaptation surprisal (WAS) between the stimulus phrase and the literal translation, the stronger the subjects' preference is to select the literal interpretation.

Secondly, we assume that cognates can serve as cues when matching translations, which makes participants preferentially select expressions with recognizable lexical material. In order to quantify the influence of cognate-based correspondence, we introduce the measure of normalized lexical distance between the corresponding phrases. We assume that lower normalized lexical distances lead to stronger preferences for translations that share a cognate lemma with the stimulus, but still diverge from the idiomatic meaning on a phrase level.

Thirdly, we address the question of linear syntactic correspondences between idiomatic phrases and assume that a syntactic distance between the stimulus and the respective translation influences participants' preference. We hypothesize that the lower the syntactic distance, computed as the normalized sum of insertion and deletion operations, the stronger the preference for the semantic equivalent of the stimulus phrase.

1.2. Related work

In intercomprehension, speakers of closely related languages opt to use their mother tongue under the assumption that similarities between their languages will allow for relatively unhindered communication (Golubović and Gooskens 2015; Jágrová et al. 2019). Previous studies into mutual intelligibility of closely related languages have shown that the strategy of using one's own L1 can be successful in practice (Gooskens 2018).

Several strategies relevant to comprehension of idioms have been proposed. In idiom comprehension, as pointed out by Vega-Moreno (2001), the computation of word meanings is exceptionally costly and, according to the Communicative Principle of Relevance (Grice 1974), should be avoided if an easier solution is available. Therefore, we consider an additional cross-linguistic difficulty and apply the information-theoretic measure of surprisal, which correlates to cognitive processing effort (Hale 2001; Levy 2008).

The classical 'non-compositional' model of comprehension of idioms describes idiomatic phrases as strings in the lexicon whose meaning is not derived from the sum of their components (Cutler 1982; Fraser 1970). In a translation task, the understanding of an isolated idiomatic phrase can depend on its syntactic structure. In this work, we selected the normalized InDel distance (Heeringa et al. 2018) as the distance measure, which corresponds to the degree of internal syntactic change calculated as the normalized sum of insertions and deletions between phrases.

Non-compositional accounts argue that the idiomatic meaning of phrases is not entirely arbitrary. In this line, Nunberg et al. (1994) proposed that idiomaticity is conveyed on the level of semantics rather than syntax and called this approach 'Decompositional Hypothesis'. In response to this theory, we propose a study which involves gradual changes on the syntactic level of the stimuli and measures their understandability to lay translators.

Alternatively, 'Phrase-induced Polysemy' does not reject the concept of string-like idioms stored in the mental lexicon and proposes a certain threshold at which the understanding of a phrase changes from a literal to an idiomatic one, often called the 'idiomatic key' (Vega-Moreno 2001). Given that cognates originate from common roots in an ancestral language and still share a semantic field in both daughter languages, cognates and partial cognates are the easiest units to understand in the cross-linguistic perspective. In our experiment, the idiomatic key is defined in terms of a lexical distance measure which quantifies the proportion of cognates and partial cognates in a phrase pair.

2. Method

To quantify cross-linguistic phraseological differences we have explored idiomatic phrases in isolation, e.g., occurring as entries in a bilingual dictionary (Chlebda 2016; Fedorov 1995; Lukszyn 1998). The subjects are Polish and Russian native speakers untrained in translation. Their preferences are revealed in both open and closed tasks. In the open task, the participants were asked to write their own translation of 43 idiomatic phrases that were presented

to them in the auditory modality, i.e., Polish native speakers listened to Russian phrases and were asked to translate them into Polish, and vice versa. In the closed task, participants were given three possible equivalents of the target phrases in their native language: (1) a lemma-based equivalent (LEM) that shares a lexical (cognate) component still differing in the rest of the phrase; (2) a literal translation of the source (LIT) that diverges from the target idiomatic interpretation; and (3) a proper semantic (SEM) equivalent, an entry from a phraseological dictionary.

2.1. Audio stimuli

In total, 43 target idiomatic phrases were tested. The selected idioms had equivalents in both directions of translation. The audio samples were read by female native speakers of the respective language and recorded in an acoustically controlled environment at a 48 kHz sampling rate to uncompressed format.

2.2. Participants

In total, 100 participants (50 native speakers per language) took part in the study. The subjects reported no hearing disorders, and no formal education in translation studies. The preselection of lay translators was motivated by addressing the field of receptive multilingualism rather than L2 competence.

2.3. Normalized InDel

We applied the normalized InDel (nInDel) measure of word insertions and deletions to quantify the syntactic alternations. Larger numbers of added or deleted words imply more negative effects on comprehension of a phrase. As an illustration of InDel computation, Polish and Russian semantic equivalents with idiomatic meaning ‘intoxicated, drunk’ are presented in Table 1.

Language	1	2	3	4	5	Literal translation
Polish	pijany	jak	bela			drunk as a log
Russian	пьяный			в	дым	drunk into smoke

Table 1. Example of the alignment for InDel distance computation between two semantic equivalents

For InDel calculation, the phrases are aligned, i.e., corresponding elements occur in the same column, while gaps represent elements missing in one of the languages. For instance, the Polish *pijany* is aligned with the Russian *пьяный*, both meaning ‘drunk’, whereas the remaining words in each language do not have equivalents in the other. We can thus observe two deletions (Polish *jak* ‘as’ and *bela* ‘a log’) and two insertions (Russian *в* ‘into’ and *дым* ‘smoke’). This alignment results in an InDel value of 4. Normalizing the InDel distance by

the number of the alignment slots (in this case 5), equals to 0.8, that is, 80% of the alignment consists of elements which have no equivalent in the corresponding phrase (Gooskens and Swarte 2017). Overall nInDel distances from source to target alignments for each condition equaled to: LEM (0.49), SEM (0.56), LIT (0.20) in Russian to Polish direction and LEM (0.44), SEM (0.56), LIT (0.18) in Polish to Russian direction.

2.4. Mean phrase Word Adaptation Surprisal (WAS)

The information-theoretic notion of surprisal (Shannon 1948) was applied to model the predictability of a particular cross-linguistic correspondence for a given language pair. The basic assumption is that a native speaker of L1 understands a word from a related Lx and so can predict a word of L1 which is the best equivalent for the word of Lx. In the case of cognates, such a prediction can be based on regular sound correspondences between the related lexemes. The more cognate pairs are shared by two languages, the better intercomprehension is expected. However, phonetic and morphophonological aspects of cognate words are subject to diachronic changes and may no longer be transparent to a language user. To counterbalance the cognate recognition effect, the tested phrases contained cognates and non-cognates. This metrics was based on all aligned word pairs, including referents both with and without regular sound correspondences (Moberg et al. 2007). WAS refers to the sum of the phone adaptation surprisal values and is calculated by the following equation:

$$\mathrm{WAS}(\mathrm{L1} = \mathrm{c1} | \mathrm{L2} = \mathrm{c2}) = -\log_2 \mathrm{P}(\mathrm{L1} = \mathrm{c1} | \mathrm{L2} = \mathrm{c2})$$

where L1 = native language, c1 = phone of the native language, L2 = stimulus language, and c2 = phone of the stimulus language. Individual phone transformation probabilities were extracted with Lidstone smoothing from the corpus of phonetically aligned cognate words used in the study, yielding probabilities of encountering individual phones given their aligned equivalent in the other language (e.g., the probability of /tɕ/ in Polish given /tʲ/ in Russian). WAS is computed in bits according to these phone transformation probabilities (see Table 2) and normalized by the number of alignment slots for the word pair (Mosbach et al. 2019).

RU orthography	отплатить	той		же	монетой
PL orthography	odpłacić	tą	samą		monetą
RU IPA	/ətpɫɐtʲitʲ/	/toɪ̯/		/ʐɨ̯/	/mɐnʲ'etəɪ̯/
PL IPA	/ɔtpwˈatɕitɕ/	/tɔ̃w/	/sˈamɔ̃w/		/mɔnˈɛtɔ̃w/
WAS	0.8361	1.4840	5.4919	8.2036	1.4066
Total Phrase Surprisal:	3.4844				

Table 2. Example of Mean Phrase WAS calculation in bits

Mean phrase WAS values were calculated by averaging the nWAS values for each alignment position, including both aligned word pairs and words aligned with gaps. The nWAS values for words aligned with gaps were calculated using the surprisal of each segment in the

word aligned with a gap character. Such a procedure provides a quantification of the overall (un)expectedness of the respective phrase. The mean phrase WAS (in bits) equaled to LEM (5.78), SEM (6.01), LIT (4.08) in Russian to Polish direction and LEM (5.82), SEM (6.12), LIT (4.74) in Polish to Russian direction.

2.5. Lexical distance

A large proportion of cognates in the aligned phrases can facilitate comprehension of the stimulus. As non-cognates (etymologically unrelated words) tend to be unintelligible to lay listeners, we assume that larger proportions of non-cognates impede intercomprehension. According to Gooskens (2018), the percentage of non-cognates determines the lexical distance between related languages. Phonologically close but semantically distant equivalents, so-called 'false friends', e.g., Russian [ʊrˈot] 'monster' and Polish [urˈɔda] 'beauty' may cause even larger difficulties than non-cognates. Aligned phrase pairs are scored for lexical distance by assigning distances to word-form pairs of each type (see Table 3). Non-cognates and false friends are assigned a distance of 1 and cognates have 0 distance. Words in the stimulus without aligned equivalents are also assigned a distance of 1. The lexical distance for a phrase is then yielded by dividing the sum of word pair distances by the number of words contained in the phrase. The lexical distances can be asymmetric. For example, Russian *собака* [sɐbˈakə] 'dog' translates to Polish *pies* [pʲjɛs] 'dog', forming a non-cognate pair. Nevertheless, a Russian listener understands the spoken Polish word *pies* because a phonetically close synonym *пёс* [pʲos] 'dog' exists in Russian. As the Russian word *собака* does not have any cognate synonym in Polish, a Polish listener cannot understand it without prior knowledge of Russian.

The mean lexical distances as the aggregate distance for all parallel phrases in the corpus equaled to LEM (0.62), SEM (0.68), LIT (0.42) in Russian to Polish direction and LEM (0.62), SEM (0.69), LIT (0.52) in Polish to Russian direction.

Polish	koń	w	mydle
Russian	лошадь	*в*	*мыле*
English	horse	in	soap
Cognate/non-cognate	non-cognate	cognate	cognate
Scores	1	0	0
Lexical distance	0.33		

Table 3. Example of the alignment for lexical distance calculation

2.6. Experimental procedure

The test consisted of two parts. The open translation task preceded the closed set question task to avoid bias towards already seen equivalents. The participants were instructed to

provide a translation of each idiomatic phrase into their L1. In the first part, the phrases were presented only in the auditory modality and subjects were instructed to provide a written translation. The listening task was then followed by the closed set question, in which participants were given three possible written equivalents in their native language. The audio recording of the phrase was automatically played at the beginning of each question, and subjects could replay the audio if they desired. To avoid fatigue, subjects were allowed to self-pace themselves through the experiment. However, they were instructed to remain at the experimental screen and not to use external resources.

3. Results

To answer the research questions, multinomial logistic regression models were run with the significance level set at $\alpha = 0.05$. The results from the open set tasks were classified into four main categories: (1) translations motivated by phonetic equivalence, where a strong sound resemblance between the stimulus phrase and the provided translation was taken as a cue; (2) identification of a specific component of the stimulus phrase and its L1 equivalent, where the answers were motivated by the correct identification of one unit of the stimulus phrase and then complemented with plausible collocates; (3) dictionary based, often close to a literal translation and not directly referring to the idiomatic interpretation of the stimulus phrase; and (4) other type of equivalence.

The results of the closed set translation section were quantitatively analyzed with respect to the established distances. Such an approach helps us understand whether native speakers' preferences for selecting a particular equivalent are guided by semantics, lexical similarity, or a surface-oriented interpretation.

3.1. Open set

In the Russian to Polish direction, 2528 translations were classified, and in the Polish to Russian direction 2451. Incomplete translations typed as a random string of symbols, question marks, or ellipses were discarded from the analyzed data.

3.1.1. Polish to Russian

The similarity of syntactic structure and straightforward identification of cognates allowed for a consistent recognition of the idiomatic phrase pair *odpłacić tą samą monetą* (Polish) and *отплатить той же монетой* (Russian), whereby 72% of the answers belonged to the semantically equivalent category. The provided equivalents preserved the idiomatic meaning of the target phrase and maintained its syntactic structure. Such an outcome, however, was relatively rare in the remaining phrases. Overall, the interpretation based on phonetic correspondences between target phrase and selected translation accounted for 31% of all responses. The second most frequent strategy was cognate identification combined with strong collocates in Russian. This type of responses accounted for 23% of all equivalents in the

free translation task. Only 10% of translations preserved the idiomatic meaning of the target phrase. The remaining 36% of responses were unclassified.

3.1.2. Russian to Polish

Only 15% of open set task responses were classified as equivalents with a preserved idiomatic meaning. The most frequent pattern in the free translation part was inspired by the surface phonetic representation of the target phrase (26%). Another common technique was lemma-based identification accompanied by frequent collocates in Polish, which constituted 24% of all answers. The remaining 35% of translations given in the open set task could not be classified. A closer look at the translation pairs revealed that the exception to these patterns were phrase pairs with equal syntactic structure in both languages supplemented by cognate tokens, e.g., Russian *здоров как бык* and Polish *zdrowy jak byk*, where 85% of open set translations belonged to the third category which preserved the idiomatic meaning.

3.2. Closed set

The results from the closed set were analyzed by modeling the impact of lexical indices on the probability of choosing one of three given translation equivalents. In Russian to Polish direction overall translation preferences equaled to 21% LEM, 51% LIT, 28% SEM and 27% LEM, 40% LIT, 33% SEM in Polish to Russian translation.

The overall patterns of translations in the closed set do not match the tendencies from the open set. Being provided with three options, more participants tended to select one of the non-literal translations, as compared to the open set. However, the literal translation equivalent was still the single most dominant selection, in both directions. The literal equivalents without idiomatic meaning accounted for more than half of all selections in the Russian to Polish direction, and 40% in the opposite direction. Since the translations in both language groups diverge, the detailed analysis of the results should be conducted for both directions separately.

3.2.1. Polish to Russian

In the Polish to Russian direction, the likelihood of choosing the LEM, LIT, and SEM equivalents was predicted by mean phrase WAS, nInDel and lexical distance. For the comparison, first the LEM was used as the reference category coded (0) and another model was run with LIT as reference category coded (0) to allow a contrastive analysis between LIT and SEM. Compared to the null model (with no applied predictors), the tested model showed significant improvement based on likelihood ratio test ($\chi^2(6) = 515.89$, $p < 0.001$), however Pearson ($\chi^2(224) = 4238.86$, $p < 0.001$), and Deviance ($\chi^2(224) = 4127.79$, $p < 0.001$) tests both indicated that the model does not fit the data well. All predictors included in the model were significant: mean phrase WAS ($\chi^2(2) = 65.33$, $p < 0.001$), nInDel ($\chi^2(2) = 58.65$, $p < 0.001$), and lexical distance ($\chi^2(2) = 28.60$, $p < 0.001$). The odds of choosing LIT compared to preference of LEM equivalent decreased, with increase in mean phrase WAS, and nInDel,

but increased with increase in lexical distance. The odds of choosing SEM compared to choosing LEM decreased, with increase in mean phrase WAS, but increased with increase in nInDel, and lexical distance. The odds of choosing SEM compared to choosing LIT increased with increase in mean phrase WAS, and nInDel. The lexical distance did not differentiate between SEM and LIT (see Table 4). Overall, choosing the LEM equivalent was correctly predicted by the model in only 11% of cases. Preference towards the LIT equivalent was correctly predicted 71.3% of the time, whereas choosing SEM equivalent was correctly predicted 59.3% of the time. The mean correct prediction was 50.5%.

Comparison	Predictor	*B*	*SE*	Wald	*df*	Significance	Exp(*B*)
LEM (0) LIT (1)	Intercept	2.239	0.177	160.154	1	< 0.001	
	Mean phrase WAS	-0.572	0.072	62.432	1	< 0.001	0.564
	Normalized InDel	-0.681	0.277	6.029	1	0.014	0.506
	Lexical distance	1.628	0.331	24.211	1	< 0.001	5.092
LEM (0) SEM (1)	Intercept	0.332	0.181	3.375	1	0.066	
	Mean phrase WAS	-0.264	0.067	15.351	1	< 0.001	0.768
	Normalized InDel	1.267	0.261	23.580	1	< 0.001	3.552
	Lexical distance	1.261	0.307	16.915	1	< 0.001	3.528
LIT (0) SEM (1)	Intercept	-1.907	0.168	129.212	1	< 0.001	
	Mean phrase WAS	0.308	0.069	19.836	1	< 0.001	1.361
	Normalized InDel	1.948	0.263	54.786	1	< 0.001	7.017
	Lexical distance	-0.367	0.322	1.297	1	0.255	0.693

Table 4. Model predicting the type of chosen equivalent based on Mean phrase WAS, nInDel, and Lexical distance in Polish to Russian translation

3.2.2. Russian to Polish

A similar analysis was conducted to interpret the results in the Russian to Polish direction. Compared to the null model, the tested model showed significant improvement based on likelihood ratio test ($\chi^2(6) = 773.85$, $p < 0.001$), however Pearson ($\chi^2(218) = 4337.91$, $p < 0.001$) and Deviance ($\chi^2(218) = 3933.85$, $p < 0.001$) tests indicated that the model does not fit the data well. All predictors included in the model were significant: mean phrase WAS $\chi^2(2) = 27.87$, $p < 0.001$), nInDel ($\chi^2(2) = 114.18$, $p < 0.001$) and lexical distance ($\chi^2(2) = 61.63$, $p < 0.001$). The odds of choosing LIT compared to choosing LEM decreased, with increase in mean phrase WAS, nInDel, and lexical distance. The odds of choosing SEM compared to LEM decreased, with increase in lexical distance, but increased with increase in nInDel. The mean phrase WAS did not differentiate between SEM and LEM. The odds of choosing SEM compared to choosing LIT increased with increase in nInDel. The lexical distance did not differentiate between SEM and LIT (see Table 5).

Comparison	Predictor	*B*	*SE*	Wald	*df*	Significance	Exp(*B*)
LEM (0) LIT (1)	Intercept	3.580	0.219	267.458	1	< 0.001	
	Mean phrase WAS	-0.287	0.061	22.470	1	< 0.001	0.750
	Normalized InDel	-1.276	0.243	27.469	1	< 0.001	0.279
	Lexical distance	-1.900	0.253	56.571	1	< 0.001	0.150
LEM (0) SEM (1)	Intercept	0.972	0.245	15.749	1	< 0.001	
	Mean phrase WAS	-0.059	0.063	0.872	1	0.350	0.943
	Normalized InDel	1.243	0.240	26.749	1	< 0.001	3.466
	Lexical distance	-1.502	0.263	32.532	1	< 0.001	0.223
LIT (0) SEM (1)	Intercept	-2.609	0.185	197.892	1	< 0.001	
	Mean phrase WAS	0.229	0.057	15.970	1	< 0.001	12.412
	Normalized InDel	2.519	0.243	107.284	1	< 0.001	1.489
	Lexical distance	0.398	0.236	2.850	1	0.091	1.257

Table 5. Model predicting the type of chosen equivalent based on Mean phrase WAS, nInDel, and Lexical distance in Russian to Polish translation

4. Discussion

The data obtained from the translation experiments showed different strategies in providing translation equivalents across the open set and closed set tasks. In the open set, most of the answers were motivated by a phonetic interpretation of the stimulus phrase, with the notable exception of obvious semantic equivalents which shared both cognate cues and exhibited similar syntactic structure. Another frequent strategy involved translation guided by cognate identification, which often resulted in a translation that diverged from the idiomatic meaning of the stimulus phrase. This tendency can also be explained by phonetic and phonological neighborhood density which can supplement the process of equivalent matching in translation tasks. The results of the closed task contribute to understanding the preference of native speakers to select a particular equivalent guided by semantics, lexical similarity, or surface-oriented interpretation. Several dependencies were discovered across the two groups of tested subjects. In both directions of translation, the proposed measures appeared to be significant predictors of which translation equivalent Slavic lay translators would select. However, across the L1 groups, the hypotheses were not supported to equal extents in the collected data. Due to these differences, the interpretation of the results is conducted separately for both directions of translation.

4.1. Polish to Russian

The first hypothesis referred to the preference to select a literal translation equivalent when it exhibits a lower mean phrase WAS. The obtained data support the hypothesis that the mean phrase WAS is an accurate predictor of subjects' preference towards selecting the literal translation equivalent without idiomatic meaning. The second hypothesis predicted that lower lexical distance corresponds to a higher preference for the equivalent sharing a cognate lemma. A strong effect was observed, suggesting that a decrease in lexical distance correlates with an increased preference for selection of the equivalent which shares a cognate word but does not entirely correspond to the phrase idiomaticity. The third hypothesis attempted to explain the preference for the semantic equivalent through the syntactic distance between the two phrases computed as nInDel measure. The data do not support this hypothesis. In fact, the relation between the preference for the semantic equivalent and the nInDel measure appears to oppose this assumption. That is, the higher nInDel values, the stronger the preference for the phrase with actual idiomatic meaning.

4.2. Russian to Polish

The first hypothesis was also supported in the Russian to Polish direction. The mean phrase WAS was an accurate predictor of the preference for the literal translation equivalent. The comparison with the LEM and SEM variants, however, did not reach the threshold of statistical significance. The second hypothesis referring to cognate-based selection predicted by lexical distance was rejected in the Russian to Polish direction, namely, the opposite effect to that in the Polish to Russian direction was observed. Comparison with the LIT and SEM conditions did not reach the threshold of statistical significance. The third hypothesis was rejected. The greater the syntactic divergence between the target phrases, the stronger the preference for the selection of the idiomatic equivalent.

5. Summary and outlook

In this study, an attempt to quantify intercomprehension of idiomatic phrases in closely related languages was made with the application of information-theoretic measures. The results shed light on the importance of phonetic, lexical, and syntactic cues in the process of translation of idioms. The conclusions are drawn on the outcomes from a quantitative analysis of the closed set results. An interesting asymmetry was observed in the translation direction. Different strategies were discovered in the open set and in the closed set tasks. The effect of strong surface phonetic similarities of phrases seems to motivate the equivalent matching, especially with respect to literal translation equivalents. Cognate lemma-based identification also seems to play a role in naïve translation, with lexical distance often serving as an idiomatic key. Overall, the data suggest that phonetic, lexical, and syntactic measures between corresponding idioms can provide an explanation for strategies used by native speakers of closely related languages in the selection of phrasal equivalents.

Even though comprehension of idiomatic phrases is known to be difficult, the gathered data show how idiomatic expressions tend to be comprehensible for listeners whose L1 is closely related to the stimulus language. The preference to choose a particular type of translation equivalent, which serves as an indicator of intercomprehension, can be predicted by phonetic, lexical, and syntactic similarities. The nature of mutual intelligibility is asymmetric and different idiomatic keys were discovered for Polish and Russian native speakers. Directions for future work might involve an experimental design with more language pairs. Examining less closely related languages would entail a paradigm shift from intercomprehension to L2 studies and could also create an interesting parallel to this experiment. The analysis would also benefit from the implementation of additional predictors as well as further data collection.

Acknowledgments

Research funded by the Deutsche Forschungsgemeinschaft (German Research Foundation). Project ID 232722074 – SFB 1102.

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