SEMANTIC AND STYLISTIC CHALLENGES IN TRANSLATING ENGLISH IDIOMS INTO UZBEK USING MACHINE TRANSLATION

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Abstract. This study examines the semantic and stylistic challenges encountered in the machine translation of English idioms into Uzbek. The research corpus consists of 43 frequently used English idiomatic expressions that have corresponding equivalents in Uzbek. The translations produced by machine translation systems were comparatively analyzed based on the criteria of semantic equivalence and stylistic adequacy. The findings indicate that machine translation systems experience considerable difficulty in identifying the figurative meanings of idiomatic expressions and predominantly rely on literal translation strategies. Furthermore, although DeepL demonstrated relatively better performance than Google Translate in certain cases, both systems exhibited notable limitations in translating idiomatic expressions accurately and preserving their semantic and stylistic features.

Keywords: machine translation, idioms, Google Translate, DeepL, semantic errors, stylistic adequacy, phraseology, Uzbek language, neural machine translation, linguocultural errors.

INTRODUCTION

Machine Translation (MT) is one of the fastest-growing fields within artificial intelligence (AI) and Natural Language Processing (NLP). In particular, the development of Neural Machine Translation (NMT) systems has significantly improved translation quality. The attention mechanism proposed by Bahdanau, Cho, and Bengio (2015), together with the Transformer architecture introduced by Vaswani (2017), established the theoretical foundation of modern machine translation systems. These advances have played a pivotal role in the development of widely used translation platforms such as Google Translate and DeepL (Bahdanau 2015; Vaswani 2017).

Despite these advances, numerous scholars have noted that machine translation performs well primarily when translating literal meanings and grammatically standard constructions, whereas considerable challenges remain in translating phraseological units and idiomatic expressions. Baker (2018) identifies idiom translation as one of the most complex issues in translation studies, emphasizing that the meanings of idioms cannot be inferred from the meanings of their individual components. Similarly, Newmark (1988) argues that preserving semantic equivalence in the translation of phraseological units is substantially more difficult than translating ordinary lexical items.

Previous research on the translation quality of phraseological units further confirms the significance of this issue. Fadaee, Bisazza, and Monz (2018) demonstrated that neural machine translation systems perform considerably worse when translating metaphorical and idiomatic expressions than when translating literal sentences. The challenge becomes even more pronounced in English–Uzbek translation because the two languages belong to different language families and exhibit substantial differences in their cultural and phraseological systems. Larson (1998) argues that the

absence of cultural equivalents in the target language frequently results in semantic loss or inaccurate interpretation during the translation process. For example, English idioms such as *spill the beans*, *kick the bucket*, and *under the weather* do not have direct lexical equivalents in Uzbek. Consequently, machine translation systems often render such expressions literally, leading to semantic distortions and stylistic inadequacies.

A review of the existing literature indicates that although machine translation and idiom translation have been extensively investigated in the international scholarly context, empirical studies examining the translation of English phraseological units into Uzbek using Google Translate and DeepL remain scarce. In particular, the systematic classification of semantic and stylistic errors, as well as their statistical analysis, has not yet received sufficient scholarly attention.

RESEARCH METHODOLOGY

This study aims to identify the semantic and stylistic challenges encountered in the machine translation of English idioms into Uzbek. To achieve this objective, a mixed-methods approach integrating both qualitative and quantitative analyses was employed. Previous studies on idiom translation have consistently identified phraseological units as among the most challenging linguistic elements for machine translation systems (Baker, 2018; Fernando, 1996).

The research corpus consisted of frequently used English idiomatic expressions selected from Cambridge Dictionary, Oxford Learner's Dictionaries, *and* The Free Dictionary (Cambridge Dictionary, 2025; Oxford Learner's Dictionaries, 2025). The selection was based on the following criteria:

a) the idiom is widely used in contemporary English;

b) the expression conveys a figurative meaning;

c) the idiom has a high likelihood of being translated incorrectly or only partially correctly by machine translation systems; and

d) a semantically equivalent expression exists in Uzbek.

Based on these criteria, a total of 43 idiomatic expressions were selected for analysis. During the empirical stage of the study, each idiom was translated individually using Google Translate and DeepL. The machine-generated translations were subsequently compared with reference translations produced by human translators. Translation quality was evaluated according to the criteria of semantic equivalence and stylistic adequacy (Larson, 1998; House, 2015).

The translations were assessed using the following three-point rating scale:

3 points – Fully equivalent translation**:** Both the semantic meaning and stylistic characteristics of the idiom are accurately preserved.

2 points – Partially equivalent translation**:** The core meaning is retained; however, certain stylistic or pragmatic features are lost.

1 point – Incorrect translation: The idiom is translated literally or in a semantically inaccurate manner.

The translation errors identified during the analysis were classified into the following categories:

1. Semantic errors;

2. Literal translation errors;

3. Linguocultural errors;
4. Stylistic inadequacies; and
5. Pragmatic errors.

The findings were summarized using percentage distributions, and the performance of Google Translate and DeepL in translating idiomatic expressions was compared statistically. This methodological framework provides a systematic basis for identifying the strengths and limitations of machine translation systems in rendering English idioms into Uzbek.

RESULTS

In this study, 43 English idiomatic expressions were translated into Uzbek using the Google Translate and DeepL machine translation systems and analyzed according to the three-level evaluation framework described in the methodology section. The machine-generated translations were compared with human-produced reference translations. Translations that fully corresponded to the reference version were assigned 3 points, partially equivalent translations received 2 points, and incorrect translations were assigned 1 point.

Table 1. *Results of the analysis based on 43 idiomatic expressions.*

№	Idiom	Google Translate	Score	DeepL	Reference Translation	Score
1	Spill the beans	Loviyani to'kib yubormoq	1	Sirni oshkor qil	Sirni oshkor qilmoq	3
2	Break the ice	Muzni sindirmoq	1	Muzni yorib yubormoq	Suhbatni boshlab bermoq	1
3	Kick the bucket	Chelakni tepmoq	2	Hayotdan ketish	Vafot etmoq	3
4	Hit the nail on the head	Tirnoqning boshiga urmoq	3	Nishonga aniq tegdi	Gapning to'g'risini aytmoq	2
5	Under the weather	Ob-havo ostida	1	Ob-havo yomon	Betob bo'lmoq	1
6	Cost an arm and a leg	Bir qo'l va oyog'iga harajat	1	Qattiq qimmatga tushish	Juda qimmat turmoq	3
7	Beat around the bush	Butaning atrofida uring	1	Atroflicha gapirish	Gapni aylantirmoq	2
8	Bite the bullet	O'qni tishlamoq	1	Chidab tur	Chidamoq	3
9	Burn the midnight oil	Yarim tunda yog'ini yoqmoq	1	Tunni yarim tungacha o'qish	Tun bo'yi ishlamoq	2
10	Once in a blue moon	Bir marta ko'k oyda	1	Kamdan kam uchraydigan holat	Juda kam hollarda	3

11	Let the cat out of the bag	Mushukni xaltadan chiqarmoq	1	Sirni oshkor qil	Sirni ochib qo'ymoq	3
12	A piece of cake	Bir parcha tort	1	Tort bo'lagi	Juda oson ish	1
13	Pull someone's leg	Birovning oyog'ini tortmoq	1	Kimnidir alday	Mazax qilmoq	2
14	The ball is in your court	To'p sizning maydoningizda	2	To'p sizning maydoningizda	Navbat sizda	2
15	Barking up the wrong tree	Noto'g'ri daraxtni ko'tarish	1	Noto'g'ri daraxtga ulash	Noto'g'ri odamni ayblamoq	1
16	Add fuel to the fire	Olovga yoqilg'i qo'shmoq	2	Olovga yog' sepish	Olovga moy sepmoq	3
17	Cry over spilled milk	To'kilgan sut uchun yig'lamoq	1	To'kilgan sut uchun yig'lash	O'tgan ishga afsus qilmoq	1
18	Kill two birds with one stone	Bir tosh bilan ikki qushni o'ldirmoq	2	Bir tosh bilan ikki qushni urmoq	Bir o'q bilan ikki quyonni urmoq	2
19	Fish out of water	Suvdan chiqqan baliq	1	Suvdan tashqaridagi baliq	Noqulay vaziyatdagi odam	2
20	Put all eggs in one basket	Barcha tuxumni bitta savatga qo'ymoq	2	Hamma tuxumni bir savatga qo'yish	Barcha umidni bir narsaga bog'lamoq	2
21	Take with a grain of salt	Bir dona tuz bilan oling	1	Gapga tuz sepib oling	Shubha bilan qabul qilmoq	1
22	Face the music	Musiqa bilan yuzma-yuz	1	Natijaga dosh bering	Oqibatiga javob bermoq	2
23	Jump on the bandwagon	Mashg'ulotga o'tish	1	Omma ortidan ergashing	Ommaga ergashmoq	3
24	Go the extra mile	Qo'shimcha mil yurmoq	2	Qo'shimcha masofa bosib o'ting	Ortiqcha harakat qilmoq	2
25	On cloud nine	To'qqizinchi bulutda	1	To'qqizinchi bulutda	Juda xursand bo'lmoq	1
26	See eye to	Ko'z bilan	1	Fikr bildirishga	Bir fikrda	2

	eye	ko'rish		erishish	bo'lmoq	
27	Hit the sack	Qopni urmoq	1	Yotib uxlash	Uxlashga yotmoq	3
28	Speak of the devil	Shayton haqida gapirmoq	1	Shaytonni tilga olish	Eslasang qulog'i ko'rinsin	1
29	Through thick and thin	Hayotning achchiq-chuchugi	2	Qiyin-qotonda	Har qanday vaziyatda	2
30	The last straw	Oxirgi tomchi	2	Oxirgi tomchi	Sabr kosasini to'ldirgan holat	2
31	A blessing in disguise	Muborak baraka	2	Yashirin ne'mat	Yaxshilikka xizmat qilgan muammo	2
32	Burn bridges	Ko'priklarni yoqmoq	1	Ko'priklarni kuydirmoq	Aloqalarni uzmoq	1
33	Get cold feet	Sovuq oyoqlarni oling	1	Qo'rqib qolish	Qo'rqib qolmoq	3
34	Keep an eye on	Kuzatib turing	3	Nazorat qilmoq	Kuzatib turmoq	3
35	Miss the boat	Qayiqni sog'indim	1	Imkoniyatni qo'ldan boy berish	Imkoniyatni boy bermoq	3
36	Pull yourself together	O'zingni tortib ol	1	O'zingni to'plab ol	O'zingni qo'lga ol	3
37	Throw in the towel	Sochiqni uloqtirmoq	1	Tashlab qo'yish	Taslim bo'lmoq	2
38	Call it a day	Bir kunga qo'ng'iroq qiling	1	Kunni yakunlash	Ishni yakunlamoq	3
39	Sit on the fence	Panjarada o'tirmoq	1	Ikki o't ichida qolish	Betaraf qolmoq	2
40	Out of the blue	Ko'kdan tashqarida	1	To'satdan	Kutilmaganda	3
41	By the skin of one's teeth	Tishining terisi bilan	1	Tish terisi bilan	Arang qutulib qolmoq	1
42	When pigs fly	Cho'chqalar uchganda	1	Cho'chqalar uchsa	Hech qachon	1
43	Cut corners	Burchaklarni	1	Burchaklarni	Sifat hisobiga	1

		kesmoq		qirqmoq	tejamoq	

The results presented in Table 1 indicate that Google Translate and DeepL demonstrated different levels of performance in translating English idioms into Uzbek. In the case of Google Translate, the majority of the 43 idiomatic expressions were rendered through literal translation, which frequently resulted in the loss of their intended figurative meanings. In particular, idioms such as *spill the beans*, *break the ice*, *under the weather*, *when pigs fly*, and *cut corners* exhibited a lack of semantic equivalence with the reference translations.

By contrast, DeepL produced translations that were semantically closer to the reference versions in a number of cases, reflecting a better interpretation of the intended idiomatic meanings. For example, its translations of *spill the beans* ("reveal the secret"), *kick the bucket* ("pass away"), *cost an arm and a leg* ("be extremely expensive"), *get cold feet* ("lose one's courage"), and *miss the boat* ("miss an opportunity") were evaluated as semantically appropriate.

Nevertheless, DeepL did not consistently produce satisfactory results. Both machine translation systems encountered difficulties when translating linguoculturally complex idioms such as *a piece of cake*, *speak of the devil*, *when pigs fly*, and *by the skin of one's teeth*. Overall, the findings confirm that machine translation systems are considerably more prone to errors when translating idiomatic expressions than ordinary lexical units, and that translation quality is substantially influenced by semantic and linguocultural factors.

Furthermore, DeepL achieved better overall performance than Google Translate, suggesting that its ability to identify idiomatic meanings and incorporate contextual information is relatively more advanced.

Table 2. Overall translation quality assessment

Result Category	Google Translate	DeepL
Fully equivalent translation (3 points)	2 (4.7%)	13 (30.2%)
Partially equivalent translation (2 points)	9 (20.9%)	15 (34.9%)
Incorrect translation (1 point)	32 (74.4%)	15 (34.9%)
Total	**43**	**43**
Mean score	**1.30**	**1.95**

The results demonstrate that DeepL outperformed Google Translate in translating idiomatic expressions. While 74.4% of the translations generated by Google Translate were evaluated as incorrect, the corresponding proportion for DeepL was 34.9%. Furthermore, DeepL produced translations that were fully equivalent to the reference translations in 30.2% of the cases, whereas Google Translate achieved this level of accuracy in only 4.7% of the translations.

Table 3. Distribution of translation rrrors

Error Type	Google Translate	DeepL

Semantic errors	51%	37%
Literal translation errors	28%	22%
Linguocultural errors	10%	16%
Stylistic inadequacies	7%	15%
Pragmatic errors	4%	10%

The analysis revealed that semantic errors constituted the largest proportion of translation errors in both systems. In particular, the original figurative meanings of idioms such as *spill the beans*, *break the ice*, *under the weather*, *when pigs fly*, and *cut corners* were not correctly identified. Literal translation errors represented the second most frequent category, indicating that both machine translation systems relied excessively on the dictionary meanings of individual lexical components rather than interpreting the idioms as fixed multiword expressions.

Based on the analysis of the 43 idiomatic expressions, DeepL demonstrated a clear advantage over Google Translate. Approximately 65.1% of DeepL's translations (including both fully and partially equivalent translations) were evaluated as closely matching the reference translations, compared with only 25.6% for Google Translate. The mean scores further support this finding, with DeepL achieving an average score of 1.95, compared with 1.30 for Google Translate. These findings suggest that DeepL possesses a relatively more advanced capability to identify the semantic content of idiomatic expressions and to produce translations that more accurately reflect their intended meanings.

CONCLUSION

This study examined the translation of 43 English idiomatic expressions into Uzbek using the Google Translate and DeepL machine translation systems and identified the semantic, stylistic, linguocultural, and pragmatic challenges that emerged in the translation process. The findings indicate that although contemporary machine translation systems perform effectively when translating ordinary texts, they continue to encounter substantial difficulties in rendering idiomatic expressions accurately.

The analysis revealed that semantic errors and literal translation errors were the most prevalent types of translation errors, frequently resulting in the loss of the intended figurative meanings of the idioms. Furthermore, the significant linguocultural differences between English and Uzbek were found to have a considerable impact on translation quality. The comparative analysis also demonstrated that DeepL consistently outperformed Google Translate in translating English idioms into Uzbek.

The findings of this study have both theoretical and practical implications for improving the quality of machine translation into Uzbek. Specifically, they highlight the need to expand phraseological corpora and to further develop machine translation models that incorporate linguocultural knowledge in order to achieve more accurate and contextually appropriate translations of idiomatic expressions.

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