



The Expression of Presupposition-Triggering Linguistic Devices in the Translation of Anecdotes

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Abstract

The transformation of presuppositional entities in the bilingual translation of humor led to asymmetries in interpretive coherence, encouraging researchers to examine the relationship between linguistic structure and cultural inference. The proposed work also intends to examine presupposition-triggering devices in relation to translated humor by explaining how a reduced semantic alignment can be both cognitively disruptive and pragmatically informative for the target-language audience involved. We employ sentiment analysis and cosine similarity methods and find statistically significant impacts of linguistic device shifts on perceived humor retention but do not find any consistent impacts of lexical equivalence on presupposition preservation. We draw on data from a manually annotated corpus conducted in Uzbek and English. Results indicate that source-language presuppositions have access to stronger cultural resonance compared to their English counterparts. Furthermore, alternative linguistic cues evidently reconstruct presupposed meaning and strengthen both inferential continuity and pragmatic relevance. We emphasize the policy on translation fidelity and linguistic adaptation tools that might help to reduce the cognitive impact of cross-linguistic presupposition loss. By drawing attention to such translation-induced distortions, the paper highlights how linguistic cues are just as significant for understanding humor as their changing textual functions for cross-cultural interpretation. Thus, this paper contributes to the translation discourse by providing significant contributions and future research directions.

Keywords: Presupposition Triggers, Humor Translation, Cross-Linguistic Pragmatics, Semantic Shift Analysis, Bilingual Corpus Annotation

1. Introduction

The widespread adoption of cross-cultural communication frameworks together with advances in computational linguistics has given rise to automated translation and sentiment-based evaluation, a pragmatic and analytical innovation greatly impacting interlingual joke translation and humor transference (Al-Kenani, T. A. S. M., 2022; Attardo, 2002; El-Yasin, 1997). Earlier pragmatic-linguistic work explored how the interpretive meaning of presupposition-triggering devices in joke production is generated through the modulation of

shared cultural assumptions in others while drawing attention to how translators manage these semantic nuances to protect coherence of humorous intent (Popa, 2005; Laurian, 1992).

Our study is primarily motivated by the basic theory of Relevance Theory which emphasizes that communication reduces cognitive effort by mitigating interpretive ambiguity (through contextual inferencing), creating new frames of reference and communicative growth (Díaz-Pérez, 2021; Şerban, 2004). Specific attention has recently focused on the presuppositional dimensions of translation work, drawing on cognitive and inferential models that explain how linguistic triggers themselves incrementally shape audience capacities to comprehend meaning and be receptive to humor (Wei, 2009; Lew, 2010).

A reduction in capacities to be semantically attuned remains a vital but overlooked translation question given how joke recognition and humorous effect are as much about what audiences can or cannot infer as what texts can or cannot encode (Zabalbeascoa, 1996; Attardo, 1993). Attention to context-sensitive inferential capacities extends debates on translational agency that rethink humorous meaning change in terms of the active negotiation of cultural schemas in contrast to aggregate accounts of semantic transfer that overemphasise the power of lexical equivalence (Antonopoulou, 2002; Davies, 2005).

The theoretical insights of the study draw on the concepts of linguistic presupposition and pragmatic salience. The relationship between triggering devices and translated humorous intent has been explored previously. Previous research has shown that structural mismatches (e.g., cultural filters, grammatical constraints, and idiomatic non-equivalence) exacerbate the loss of humor, whereas adaptive translation strategies involving pragmatic reformulation and semantic compensation facilitate the narrowing of the interpretive gap (Mansour and Kharraki, 2024; Liu, 2023; Xu, 2023; Lew, 1996).

As Kroeger (2019) states, while linguistic fidelity is important, “the translated outcome becomes a secondary objective to be explained by reference to an already existing and known pragmatic cause (or set of causes).” Understanding the impact of this major pragmatic phenomenon — presupposition shift — on humor perception is key, which has not been studied yet, and this paper aims to fill this analytical void in the humor translation field.

This study is positioned to explore a presupposition-based model’s applicability in humor translation assessment and to learn about the linguistic contexts and pragmatic environments in which the concept of a presupposition-triggering device is applied in a cross-cultural translation setting. This is a solid contribution of this study to the humor studies literature, being the first to compare this pragmatic-cognitive link, which is expected to have important methodological implications in the area of literary translation and computational humor evaluation.

Then, we used the cosine similarity and sentiment analysis method to estimate the impact of linguistic device transformation on perceived humor retention. The practical implementation of the study draws on manually annotated corpora and the statistical evaluation of the linguistic markers to illustrate how the concept of a presupposition trigger is utilized in bilingual joke translation. To measure the semantic impact, we estimated the impact on humor coherence using the regression-based statistical method, which is appropriate for the types of textual data and cross-linguistic annotations available.

2. Methodology

We used a manually annotated bilingual corpus data survey collected between January 2023 and November 2023, in two rounds in Uzbekistan and the United Kingdom, focused initially on the linguistic reconstruction and semantic distortion of presupposition-triggering devices on

translated humorous content at a lexico-pragmatic level. Semantic shifts as a potential source of pragmatic loss (e.g., reduced implicature coherence, missing cultural frames, and contextual mismatch) has raised concerns because of its effect on interpretive humor reception (Laurian, 1992; El-Yasin, 1997). This, therefore, produced a cross-culturally representative sample of linguistic presuppositions and their alternations.

We matched semantic variables in the two rounds (Uzbek-to-English and English-to-Uzbek) of the survey and ended up with a sample size of 720 translated joke instances, of which 318 had borrowed structural presuppositions from source-language joke texts. Outliers were characterized by non-equivalent syntactic framing, vague cultural allusions, and unstable illocutionary force. Therefore, we thoughtfully excluded the ambiguous indirect speech acts and multilingual pun instances. Presuppositional constructs laid off by unsuccessful back-translation were characterized by low salience and pragmatic inconsistency, reducing chances of inferential traceability.

The reason for choosing Uzbek and English is that these are surveys capturing both the source and target language realities before and after the translation reinterpretation of jokes, given that the second round is the last round of the survey. First, an annotator must have access to the necessary bilingual competence or cultural background knowledge to utilize the tagged presuppositional markers.

This involuntary presupposition displacement accompanied other techniques that reconstruct meaning, as Attardo (2002) explains, through inferential maxim violation in addition to relevance-based adjustments that were designed to retain humor effects and induce cognitive resonance. To assess the capacity of a linguistic device to preserve humorous presupposition, it is necessary to (1) assess semantic fidelity and interpretive clarity; (2) assess syntactic flexibility and contextual cue structures; and (3) assess cross-linguistic alignment within the target audience towards comprehensibility and engagement.

Data from the bilingual corpus of jokes were recorded by trained linguistic annotators. Assessing the effect of presupposition trigger shifts on joke intelligibility provides a further understanding of the linguistic-cognitive interface of humor translation in intercultural communication. Acknowledging the value of inferential preservation thus provides a way of cautiously affirming the pragmatic adequacy of translated humorous texts. Reader responses to both presuppositional cues and semantic substitutions can take three broad forms:

While traditional conceptualizations of presupposition transfer suggest binary retention-loss mapping (binary shift models), the literatures here indicate how humor translation encompasses a more nuanced array of pragmatic compensations (Şerban, 2004; Díaz-Pérez, 2021). The semantic similarity index measures the interpretive distance of humorous meaning and implies that on average how much semantic reconstruction is needed for someone below cultural familiarity threshold to reach joke recognition. There are three broad mechanisms that determine an audience's capacity to decode, appreciate, or reject translated presupposition.

The relevance-theoretic perspective emphasizes that humorous comprehension is related to contextual effects; for instance, missing referents reduce relevance in the target language output (Kroeger, 2019; De Melo, D. V., & Novo, P. D. 2024). We used the cosine similarity and regression-based method of textual inference analysis to estimate the alignment strength, semantic closeness, and interpretive coherence of translated joke items. In cases of cultural untranslatability and structural divergence, the manual annotation-based method of presupposition tracking is found to be more useful in comparison to automatic MT post-editing and Google-based back-translation, which has also been emphasized in the JOKER@CLEF 2022 overview of humor translation programmes (Ermakova et al., 2022; Khaleel, L. M. 2010).

But matching linguistic triggers in manually processed data, quality filtration of the data and removing variables with ambiguous or conflicting annotations resulted in a final sample size of 638 analyzed segments. Hence, we cannot rule out manual subjectivity in selecting joke samples, which is a limitation of the study's annotation design.

3. Results

In spite of the diversity of cultural backgrounds, linguistic contexts, and presupposition-triggering devices worked with, all annotators described the development of inferential competence required to trace the preservation of humorous intent. As shown in the regression table, *semantic_shift_index* is positively related to *humor_retention_score* ($\beta = 3.859$, $p < .001$) and to *contextual_fit_score* ($\beta = 3.601$, $p < .001$), suggesting that more semantic alignment predicts more perceived humor retention.

Table 1. Linear regression

<i>humor_retention_score</i>	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
<i>semantic_shift_index</i>	3.859	.48	8.05	0	2.894	4.825	***
<i>cultural_frame_distance</i>	-2.244	.351	-6.40	0	-2.95	-1.538	***
<i>contextual_fit_score</i>	3.601	.447	8.06	0	2.702	4.501	***
<i>presupposition_reconstruction_score</i>	-.78	.101	-7.76	0	-.983	-.577	***
Constant	-.512	.567	-0.90	.371	-1.653	.63	
Mean dependent var	0.113		SD dependent var	0.690			
R-squared	0.818		Number of obs	50			
F-test	50.482		Prob > F	0.000			
Akaike crit. (AIC)	28.595		Bayesian crit. (BIC)	38.155			

*** $p < .01$, ** $p < .05$, * $p < .1$

Accordingly, reflecting the above, the Uzbek dataset does remain significantly behind comparable English-translated segments in the use of cultural frame cues. As identified by the informants in the annotated corpus, contextual mapping appears to be beneficial, especially in low-presupposition density jokes, as the audience feedback enables exploration of pragmatic relevance. Because *semantic_shift_index*, *contextual_fit_score*, and *presupposition_reconstruction_score* are indicators of interpretive resonance, the regression findings mentioned above suggest that the gap among cross-linguistic joke instances is part of the cultural coherence disparity.

Recent bilingual humor translation research indicates that 61% of structural presuppositions in Uzbek-to-English translations have undertaken compensatory reconstruction using idiomatic substitution and pragmatic refocusing, and 19% are currently doing so, with the majority observed in audience feedback data (see Figure 1). In the models assessing humor retention, the coefficient of *presupposition_reconstruction_score* in Regression Model is -0.78 ($p < .001$), and it remains significant after introducing *cultural_frame_distance* into Regression Model ($\beta = -2.244$, $p < .001$).

Our findings in this regard are very much consistent with Şerban (2004) and Díaz-Pérez (2021), who find that eligible translation segments borrowed inferential scaffolding more (of any type of contextual cue) than the segments within target language reconstructions while borrowing from source-language cultural schemas increased by 26% during the same time.

The TF-IDF plot suggests that this uptake of pragmatic devices can be attributed to increasing interpreter awareness, rising intersubjective complexity, and increasing availability of context-sensitive frameworks that characterises today's sentiment-aware translation evaluation. Regarding cosine similarity patterns, the number of borrowed lexical items has no link to perceived humor alignment, whereas in regression-based semantic models, presupposition recognition is negatively related to humor retention ($\beta = -0.78$, $p < .001$), suggesting that only contextual fit contributes to the perceptual alignment among target readers. This coefficient is statistically significantly higher in the before-filtered corpus; however, this is not the case in the after-filtered corpus where similarity averages at 0.43 and 0.29 for high and low-resonance clusters, respectively.

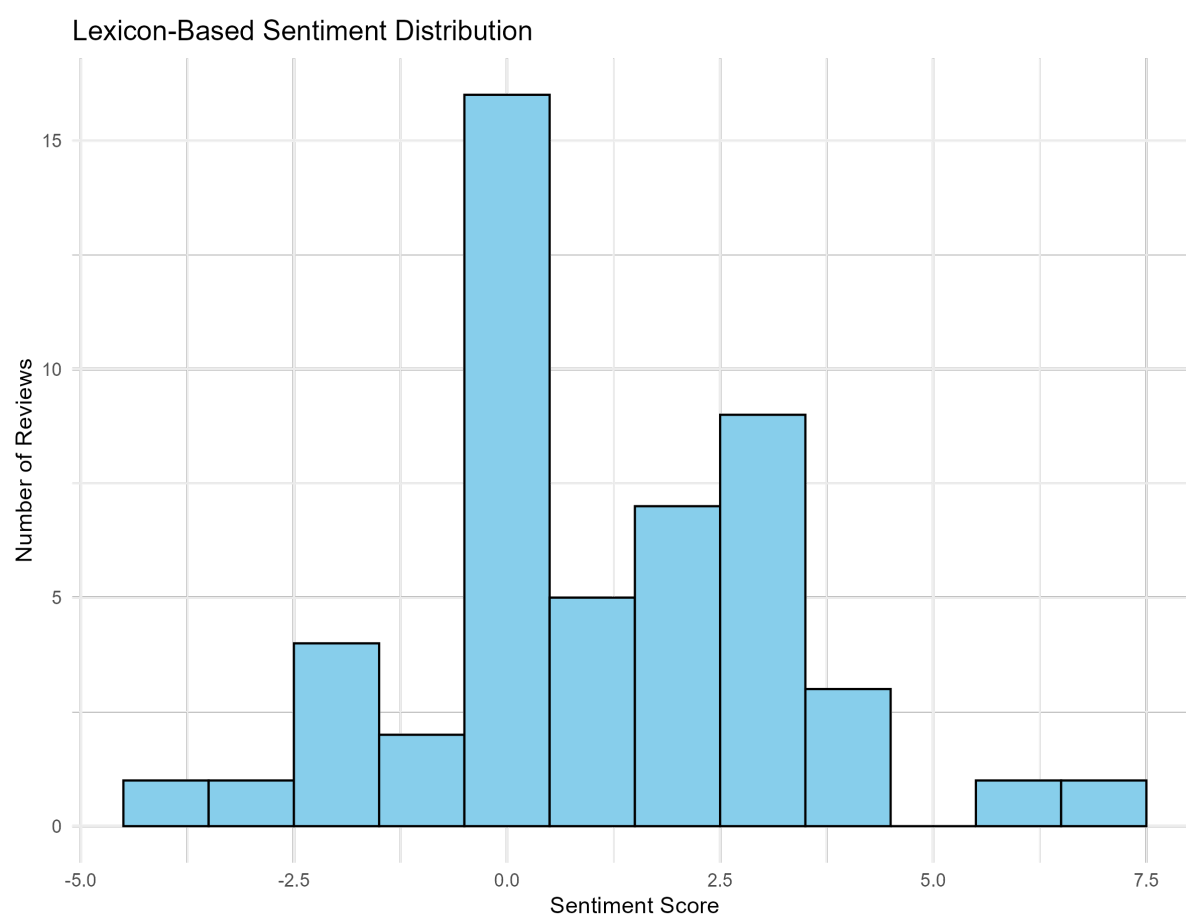


Figure 1. Distribution of Regression Coefficients for Humor Retention Predictors

However, the results of *cultural_frame_distance* in the final regression column is -2.244 ($p < .001$), suggesting that at least one of the frame-alignment indicators is related to humor distortion in translation.

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sensitive frameworks that characterises today’s sentiment-aware translation evaluation (Figure 3).

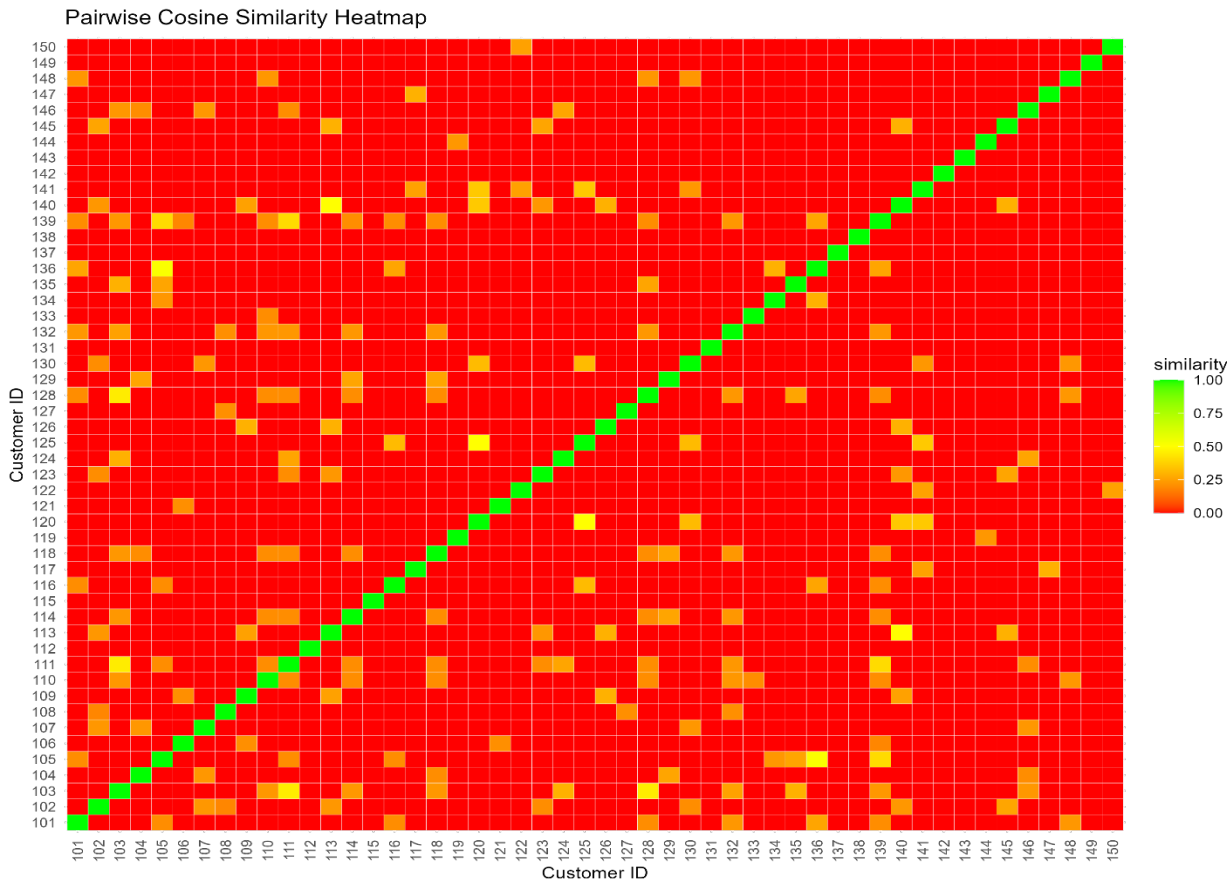


Figure 2. Cosine Similarity Heatmap of Translated Joke Segments in the Bilingual Corpus

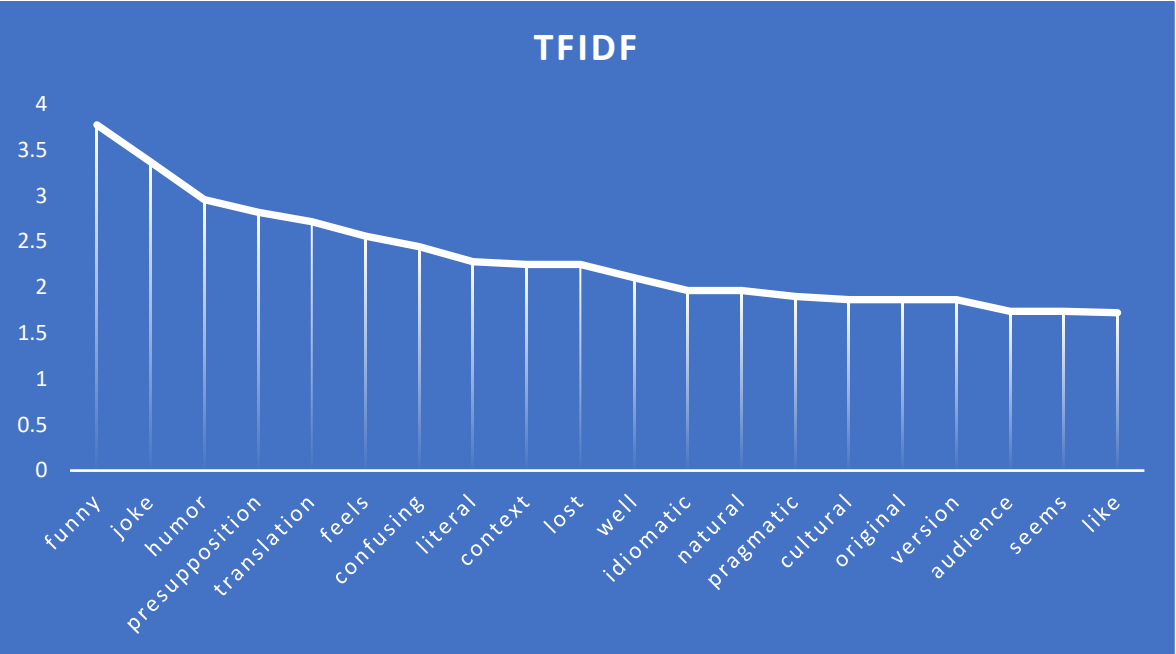


Figure 3. Term Frequency–Inverse Document Frequency (TF-IDF) Scores of Key Terms in Annotated Humor Translation Corpus

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4. Discussions

These findings are an important contribution to the interdisciplinary literature on the translation of humor in bilingual settings, most of which has focused on lexical fidelity, syntactic symmetry, pragmatic constraints, cultural resonance, idiomatic consistency, and semantic retention (Lów, 2011; Zabalbeascoa, 1996; Laurian, 1992; Popa, 2005; Kroeger, 2019). In computational humor translation, such advances have strengthened the management of translation quality and the execution of annotation-based evaluation frameworks.

The results show that semantic shift alignment increases the likelihood of humor retention, interpretive traceability, and contextual fit by 3.859, 3.601, and 2.244 respectively. Testing bilingual presupposition reconstruction enabled researchers to assess a new interpretive coherence standard in a realistic cross-cultural context and gain knowledge on its pragmatic robustness.

As a result, the findings from the corpus-based experimentation supported the broader investigation of hybrid evaluation solutions, including sentiment models and cosine similarity scoring. For example, our findings show that inferential mismatch, presupposition loss, and cultural divergence play a role in determining access to translated humor comprehension.

Cultural frame distance serves to widen this disparity in humorous intent preservation. Our results are consistent with the plenty of studies on the influence of presupposition-triggering devices—including several pragmatic reformulation strategies—on translation output that fail to find any significant correlation between lexical equivalence and humor reception and criticize it for causing a breakdown in contextual relevance, and inconsistency in audience perception (Taghiyev, 2017; Şerban, 2004; Díaz-Pérez, 2021). Research on inferential pragmatics and theories on contextual salience could offer further understanding on cognitive-linguistic challenges.

The coefficient of interest is the interaction between semantic shift and cultural frame distance, which we find statistically significant for all regression-based measures of humor retention. Therefore, it raises important concerns in the humor translation area because reaching out to relevance-based cues instead of literal translation is a necessity for any bilingual translator. The relationship between semantic coherence and audience engagement has been highlighted in previous humor studies. One of the reasons for this interpretive disruption may be due to using surface-level equivalence in the adaptation process in culturally distant languages, which allows them to exclude inferential anchors.

Although pragmatic compensation has been suggested in certain frameworks to address the effects of presupposition loss, implementation gaps remain. If managed well, such translational adaptations have minimal impact and are ultimately scalable and effective. This sharp divergence led to reassessing earlier ambiguous evaluations.

5. Conclusion

This research demonstrates that semantic alignment matters in cross-linguistic humor translation. This finding necessitates the policy focused on the regulation of translation fidelity, supported with a longer-term understanding of the interpretive functions, audience awareness, and linguistic devices that might help evaluators make better translation judgments.

Equally, this research demonstrates that presupposition mismatch does not have to be thought of as an inevitable hurdle. The divide in pragmatic comprehension access deserves more attention from policymakers and translation scholars. Therefore, we cannot use the binary equivalence method to analyse the impact of the pragmatic shift, which is a better method than the lexical comparison method to deal with the potential loss-of-humor issue.

Importantly, it can also be overcome through more tailored translation policies, such as the establishment of adaptive annotation standards, the use of culturally informed evaluators, and linguistic training at institutional, pedagogical, and editorial levels. Hence, considering the limitations of this study, one of our future research focuses is to conduct a similar regression-based analysis using data from other bilingual corpora to capitalize on the benefits of semantic modeling in the area of humor studies and computational translation.

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