Theses of Doctoral (PhD) dissertation

Metaphorical Language Production in L2 Writing: A Case Study of Georgian EFL Essays

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1. Objectives of the dissertation

The aim of the dissertation is to investigate Georgian EFL learners' use of metaphorical language in argumentative essays and to explore how proficiency level affects the production of metaphorical expressions. First, in Case Study 1, the most suitable method for identifying metaphors in L2 texts is selected through a comparison of the advantages and disadvantages of existing approaches.

Next, Case Study 2 analyzes EFL argumentative essays written by 60 Georgian learners to address three main objectives: (i) to measure metaphor density across the B1, B2, and C1 proficiency levels, (ii) to examine the prevalence of various metaphorical error categories, and (iii) to investigate the crosslinguistic influences on these errors. The compilation of the corpus builds on previous work by Nacey (2013), Littlemore et al. (2014), and Turner (2014).

Lastly, Case Study 3 explores the effects of teaching metaphorical expressions in the L2 classroom by applying Conceptual Metaphor Theory (CMT). A four-week study is reported with advanced-level learners, including a pre-test, post-test, two-week delayed test, and a follow-up survey. The study examines how the metaphor production of Georgian EFL learners improves after being taught metaphorical expressions through the CMT-based approach, and how the integration of CMT within the task-based language teaching (TBLT) framework enhances the production of the taught metaphorical expressions.

Research on Georgian EFL learners is absent from the existing literature. No attention has been given to how they acquire and produce metaphorical expressions, the challenges they face due to linguistic and cultural differences between Georgian and English, and the pedagogical approaches best suited to their background. In response to these gaps, this dissertation provides an empirical analysis of metaphorical language used by Georgian learners and explores how a cognitive linguistic approach can raise the metaphoric competence of EFL learners. The overarching research questions guiding this dissertation are as follows:

1. How does metaphorical language production vary across proficiency levels in Georgian EFL learners' argumentative writing?
2. What types of metaphorical errors occur in Georgian EFL writing?
3. How does L1 transfer influence metaphorical errors in Georgian EFL writing?
4. How does the metaphor production of Georgian EFL learners improve after being taught metaphorical expressions through the CMT-based approach?

2. Case Study 1: Metaphor identification

Against the background of Conceptual Metaphor Theory (Lakoff & Johnson 1980) and its later extensions (Kövecses 2020), the present discussion considers several established linguistic metaphor identification procedures, including the Metaphor Identification through Vehicle terms (MIV) and the Metaphor Identification Procedure Vrije University (MIPVU). Table 1 outlines the major characteristics of the two metaphor identification procedures and allows their key features to be compared.

	MIV	**MIPVU**
Basic unit of analysis	Vehicle terms that can be either single words, multi-words, or phrases	Single words[1]
Number of the procedural steps	2	8
Types of metaphors identified	Strong, technical, animating, and comparison metaphors; metaphors of different grammatical forms	Indirect, direct, and implicit MRWs
Major validation strategies	Analysts' knowledge and inter-rater reliability	Dictionary and corpus information; inter-rater reliability

Table 1. Key features of the two metaphor identification procedures

Case Study 1 applies two established metaphor identification procedures, MIPVU (Steen et al. 2010) and MIV (Cameron 2003), to a corpus of 16 essays written by Georgian learners of English, revealing differences in metaphor usage patterns, including metaphor density, reuse rates, and distribution across word classes. A thorough manual examination of 2787 lexical units identified 304 instances of indirect metaphor-related words (MRWs) through the MIPVU procedure and 151 instances of Vehicle terms through the MIV procedure. Consequently, the results showed that MIPVU identified nearly twice as many metaphor-related words as MIV. This discrepancy suggests that MIPVU captures a broader range of metaphorical expressions, including subtler or less conventional ones, and was therefore adopted in this study for metaphor identification.

[1] Exceptions to the basic unit of analysis being a single word include phrasal verbs, compounds, and some proper names (Steen et al. 2010: 27–32).

3. Case Study 2: Metaphor production analysis

3.1 Data and methodology

In Case Study 2, the main study of this research, a corpus of 60 argumentative essays by Georgian EFL learners was compiled, including 20 essays from each of the B1, B2, and C1 proficiency levels. Since there were no other existing Georgian EFL essay corpora available, this corpus was specifically compiled for this study to ensure both the reliability and authenticity of the written samples. All participants were native Georgian speakers and had studied English as a foreign language for a minimum of six years. The participants' background data are summarized in Table 2.

Participants	Number	Male	Female	Mean age	Mean years of learning English	Proficiency level
High school students	40	17	23	18	6	B1 or B2
University students	20	2	18	19	7	C1

Table 2. Participants' background data

Proficiency levels were assessed using the *Oxford Placement Test*. Students were instructed to express their viewpoints on a variety of social and moral issues and to support their arguments with reasons and examples in essays with a word count of 150-200 words. This compilation resulted in a learner academic corpus where each essay represents the individual work of a different student. In total, 10250 lexical units from the Georgian EFL essay corpus were manually analyzed, which led to the identification of 1132 MRWs through the application of the MIPVU procedure.

One of the main objectives of this study is to identify and classify errors in Georgian EFL writing, focusing on metaphorical errors, their density, and distribution. It also examines whether higher-proficiency learners use more metaphors and whether certain metaphorical errors stem from L1-based conceptualizations, making some error types more common than others. To ensure a thorough analysis of errors, this study employed Nacey's (2010) error classification system, drawing upon James's (1998) typology. The errors were categorized into six major groups, suitable for both general and L1-influenced error classification. The corpus contained several errors that could not be readily classified within existing error taxonomies, as they involved incorrect combinations of lexical items at the phrase level. Therefore, a new type of error, called phrasal error or word sequence error, was introduced to indicate that the whole phrase is incorrect. The categories, along with their definitions and examples, are presented in Table 3.

Type	Name	Definition	Example
1	Synforms	Phonetic near-misses which share semantic features.	**economical/economic*
2	Confusion of sense relations	The selection of an inappropriate member from a set of near-synonyms.	**detect/notice*
3	Collocation errors	Semantically determined word selections, statistically weighted preferences, and arbitrary combinations.	**to do capital punishment/to carry out capital punishment*
4	Grammatical errors	Errors in syntax, use of tense, pluralization, articles, and suffixation.	**persons/people*
5	Substance level errors	Misspelling errors resulting from punctuation, oversight, mispronunciation, or confusibles.	**joint forces/joined forces*
6	Phrasal errors	The whole phrase/word sequence is incorrect and requires multiple corrections or total replacement.	**are not less in crime percentages/do not have lower crime rates*

Table 3. Error categories in the Georgian EFL essay corpus

As expected, the research encountered several limitations, ranging from initial data collection to the final empirical investigations. These include the relatively small size of the corpus, its focus on only three proficiency levels, and participant demographics, particularly the gender distribution. Nevertheless, these limitations were addressed as effectively as possible within the available time to ensure that the validity of the findings remained uncompromised.

3.2. Findings and discussion

The findings of Case Study 2, along with their interpretation, analysis, and discussion are presented in three stages: first, the research questions related to metaphor production are addressed; then, metaphorical errors are examined; and finally, L1 transfer is explored. The following section presents the research questions and the corresponding qualitative findings concerning metaphor production:

1. *How does metaphor density vary across proficiency levels?*

The calculation of metaphor density revealed a consistent pattern in which metaphor production increased with higher proficiency levels, as indicated in Table 4. The overall metaphor density in the Georgian EFL corpus was 11%, with the highest density observed at the C1 level (13.3%), followed by B2 (10.2%) and B1 (9.4%). This trend aligns with the findings of Littlemore et al. (2014), Iaroslavtseva and Skorczynska (2017), and Paris (2018), all of whom reported increasing metaphor densities with higher proficiency levels in essays written by German, Spanish, and French learners of English, respectively.

Proficiency level	Number of lexical units	Number of Metaphor-Related Words	Metaphor density
B1	3111	292	9.4%
B2	3490	355	10.2%
C1	3649	485	13.3%
Total	**10250**	**1132**	**11%**

Table 4. Metaphor density across proficiency levels

2. *How are MRWs distributed across word classes, and how prominent are their reuse patterns?*

The classification of MRWs by word class revealed that prepositions had the highest frequency, as they accounted for 35.9% of MRWs, followed by verbs at 24.5% and nouns at 22.3%. This finding aligns with Nacey's (2013) MIPVU-based analysis of essays from the Norwegian component of the International Corpus of Learner English, in which prepositions were also dominant, followed by verbs and nouns. Such an abundance of metaphorical prepositions can be explained by the highly polysemous nature of this word class, due to which they can convey various semantic meanings. For further quantitative insights, the metaphor reuse rate was calculated to be approximately 2.7. This suggests that each MRW appears, on average, nearly three times in the corpus, which highlights a notable tendency toward metaphor reuse. Consistent with their status as the most frequent MRWs overall, prepositions were also the most frequently reused, which suggests a strong reliance on preposition-based metaphorical expressions among Georgian EFL learners. These results underline the pivotal role of prepositions in L2 metaphor production.

Next, the discussion turns to the research questions that address metaphorical errors in L2 writing:

3. *How are errors distributed between metaphorical and non-metaphorical categories?*

To explore the differences between general writing errors and metaphorical errors, 10250 lexical units were analyzed, of which 907 (8.8%) contained errors. Of the 907 erroneous items, 153 (16.9%) were metaphorical errors, which were divided into six subcategories. Grammatical errors were the most frequent, followed by confusion of sense relations, phrasal errors, substance level errors, collocation errors, and synforms. The remaining 754 (83.1%) erroneous items were classified as non-metaphorical errors and were further divided into subcategories based on type and frequency. A closer examination revealed that metaphorical errors posed a significant challenge. Confusion of sense relations, phrasal errors, and collocation errors appeared more frequently with metaphorical expressions, which suggests that these expressions are semantically and lexically more difficult to process. Non-metaphorical errors, on the other hand, typically involved grammatical mistakes or misspellings,

which are easier to identify and correct with the help of straightforward rules. Therefore, it was found to be essential to identify and address metaphorical errors in L2 writing to improve language proficiency and ensure effective communication.

4. *How are metaphorical errors distributed across proficiency levels?*

A contrastive analysis of 153 metaphorical errors across proficiency levels revealed distinct distribution patterns among B1, B2, and C1 learners, as shown in Table 5. The highest proportion of metaphorical errors (18.6%) was observed at the B2 level, which suggests that learners at this stage actively experiment with figurative language, which results in a higher error rate. The B1 learners also demonstrated significant engagement with metaphorical language, and their errors accounted for 14.7% of the total proportion. In contrast, the C1 learners exhibited fewer errors (9.1%), which suggests that they are more refined and accurate with metaphorical expressions. These findings align with previous research by Littlemore et al. (2014) and Iaroslavtseva and Skorczynska (2017), which found that metaphorical errors peak at the B2 level and decrease with proficiency development. Based on these observations, it can be concluded that the B2 level represents a critical stage in which learners explore metaphorical language more creatively but with a higher susceptibility to errors.

Proficiency level	Total metaphors	Metaphorical errors	Metaphorical errors %
B1	292	43	14.7%
B2	355	66	18.6%
C1	485	44	9.1%

Table 5. Distribution of metaphorical errors by proficiency level

5. *What specific categories of metaphorical errors are prevalent at each proficiency level?*

Grammatical errors were more prevalent at the B1 and B2 levels than at the C1 level. This finding suggests that intermediate-level learners struggled with the grammatical complexities of figurative language, likely because they were still at the developmental stage of learner language. The persistence of confusion concerning sense relations at all three levels indicates that it was consistently difficult for learners to understand and effectively apply sense relations to metaphors, regardless of their proficiency. This suggests that even advanced learners find it challenging to process the metaphorical meanings of the target language. Notably, phrasal errors were more frequent at the C1 level but less common at B1 and B2 levels. This pattern suggests that higher-proficiency learners tend to employ more complex phrasal expressions and integrate sophisticated language structures into their writing, which may lead to a higher likelihood of errors. On the whole, the findings highlight that

although grammatical proficiency improves at higher proficiency levels, challenges related to metaphorical meaning persist and call for targeted and explicit instructional support in this area.

Finally, the study examined the research questions concerning the L1-influenced errors:

6. *How are L1-influenced errors distributed across proficiency levels?*

One of the most challenging aspects of the analysis was identifying the influence of learners' L1 on metaphorical and non-metaphorical errors, which in turn revealed distinct error patterns. The results indicate that L1 influence is more prevalent in metaphorical than non-metaphorical errors. Of the 82 metaphorical errors in the confusion of sense relations, phrasal, and collocation categories, 32 (39%) were influenced by L1, compared to only 13 (10.5%) of the 124 non-metaphorical errors in the same categories. The most frequent error type in both groups was confusion of sense relations, followed by phrasal and collocation errors. For illustration, in (1), *heart* serves as an example of an L1-influenced metaphorical error that arises from the confusion of sense relations. Here, the author opted for a direct translation of a Georgian idiomatic expression, *heart thoughts*, instead of using its English counterpart, *innermost thoughts*. The relevant entry for *heart thoughts* is available in the *Online Dictionary of Georgian Idioms* and is illustrated in (2).

(1) Friends are crucial part of humans' life and everybody is trying to make true friends with who they can share their ***heart thoughts***. (B1)

(2) *gulis* *ts'adili*
heart.GEN thought.NOM
'*thought of a heart* (*a heart's thought*)'

To illustrate phrasal errors, in (3) the author directly translated the Georgian idiomatic phrase as *on a hot heart* instead of using its English equivalents, *with a hot head* or *without thinking*. The entry relevant to *on a hot heart* is also accessible in the *Online Dictionary of Georgian Idioms*, as demonstrated in (4).

(3) Nevertheless, there are many cases when a person happens to use a gun ***on a hot heart*** and takes somebody's life… (C1)

(4) *tskhel* *gulze*
hot.NOM heart.on
'*on a hot heart*'

These findings suggest that L1 influence has a greater impact on metaphorical language due to its abstract and complex nature. In contrast, non-metaphorical language, which involves more concrete concepts, is easier to interpret directly.

7. *How does L1 transfer impact learners' metaphorical errors across different proficiency levels?*

To address the final research question of this study, a total of 32 L1-influenced metaphorical errors were analyzed across different proficiency levels. L1 influence was highest at the B2 level and represented 27.3% of errors. This indicated that learners actively experiment with metaphorical language while they still rely on native language patterns. Even at the advanced level C1, L1 influence remained significant at 22.7%, which highlights its persistent impact despite increased L2 skills. These findings align with Littlemore et al. (2014), who reported that L1-influenced metaphorical errors increased significantly (≈25%) from B1 to B2 and then decreased slightly (≈5%) from B2 to C2. Thus, their study identified B2 as a pivotal level for metaphor production. These findings highlight the need to focus on metaphorical language processing in L2 instruction in order to improve learners' proficiency and reduce errors.

4. Case Study 3: Teaching metaphors in the EFL classroom

Finally, Case Study 3 shifts focus to the pedagogical implications, based on data collected from 24 Georgian EFL learners. Building on Saaty's (2016) experimental study, this investigation extends her approach and evaluates the effectiveness of the task-based language teaching method (TBLT) that involves explicit instruction of conceptual metaphors. The research design overcomes key limitations of previous studies with the introduction of several novel elements. It focuses on advanced C1 learners and offers a further perspective beyond the intermediate and elementary levels examined in previous research. Unlike most prior studies that lacked a structured teaching framework, this study combined a comprehensive TBLT approach with CMT-based teaching for more effective classroom instruction. Additionally, the study assessed the cued production of metaphorical expressions with the help of an open-ended cloze task, which required participants to generate responses independently rather than select words from a provided list.

An analysis of data from this four-week experiment—including the pre-test, post-test, two-week delayed test, and participant evaluation survey—revealed that Georgian EFL learners' ability to produce metaphors significantly improved following explicit instruction on conceptual metaphors, as illustrated in Figure 1. Notably, the metaphor group outperformed the control group and achieved nearly twice the score in the immediate post-test and more than double in the delayed test. These results contrast with previous studies, such as those by Saaty (2016) and Condon (2008), which

reported a decline in long-term retention. However, the present study demonstrated sustained benefits for advanced learners and indicated that CMT is an effective addition to the teaching in both the short and long term. This suggests that CMT-based teaching is a valuable pedagogical method for EFL instruction, particularly at the C1 level, where enhancing metaphor awareness can significantly contribute to overall language proficiency. Furthermore, the lesson plan and assessments developed for this case study provide a practical framework to combine CMT instruction with a TBLT approach and equip teachers with concrete strategies to enhance metaphoric competence in the classroom.

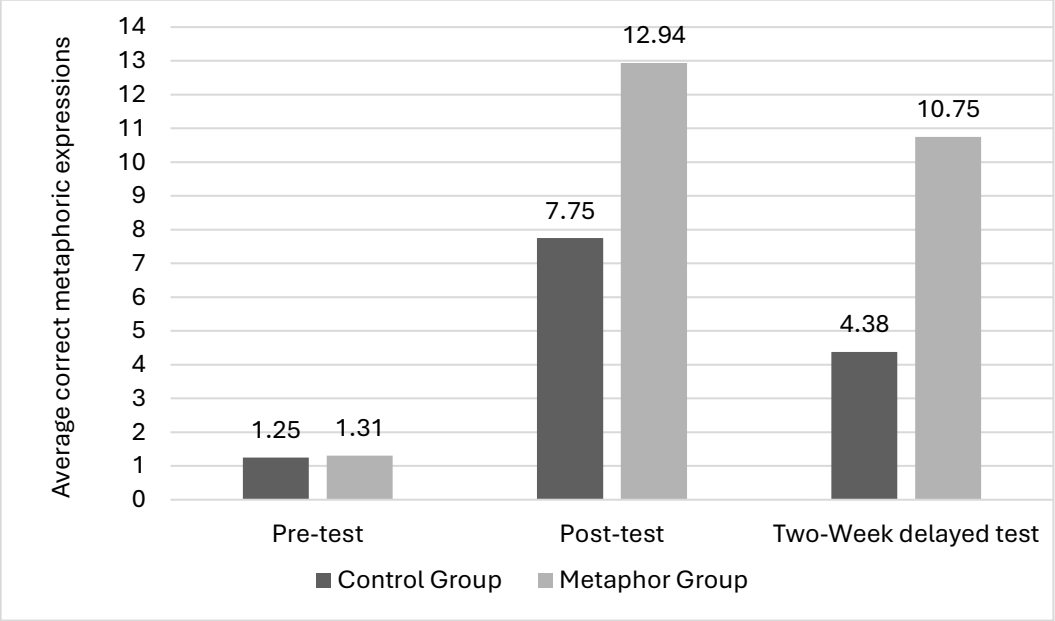

Figure 1. The differences in average scores across the three tests

5. Conclusion and future research

To sum up, this research explored the production of metaphorical language in a second language through the written products of EFL learners, including argumentative essays and open-ended assignments. It addressed the overarching questions formulated at the beginning of this research, regarding variation in metaphor production across proficiency levels, the types of metaphorical errors, the role of L1 transfer, and the pedagogical implications of metaphor-focused instruction. In particular, the three case studies offer valuable theoretical, practical, and pedagogical implications for metaphorical language production in L2. Case Study 2 contributes to theoretical understanding of the complex relationship between L2 proficiency, L1 influence, and metaphorical language production among Georgian EFL learners. The findings indicate that metaphor production tends to increase with

proficiency, with prepositions being the most commonly used and frequently reused metaphor-related words. Categorizing metaphorical errors into six distinct types provides a deeper understanding of the challenges learners face at different proficiency levels, such as semantic and grammatical difficulties at the intermediate level and increased phrasal errors at the advanced level. Additionally, the study highlights how L1 continues to influence metaphorical errors, particularly at the B2 level, where learners tend to experiment with metaphorical language while they still rely on L1 patterns. Regarding practical applications, Case Study 2 demonstrates that MIPVU provides the most comprehensive and systematic approach to metaphor identification, which ensures greater accuracy and consistency in learner corpus research.

In terms of pedagogical insights, Case Study 3 supports the integration of Conceptual Metaphor Theory into EFL instruction and shows that targeted metaphor-focused instruction enhances metaphor retention and production at advanced proficiency levels. The study emphasizes the potential of task-based approaches to foster metaphor awareness and long-term retention. These implications extend beyond the context of Georgian EFL learners and contribute to broader reflections on L2 metaphor production.

Nevertheless, several open questions remain for future research, including how the metaphoric competence of L2 learners evolves over time and across proficiency levels, and how they use metaphors across a broader range of genres and modes of language production, such as spoken communication. Further research is also needed to explore the influence of factors such as age and gender on metaphor use, as well as the role of individual cognitive styles or learning styles on the comprehension and production of metaphors by EFL learners.

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