

The Knight in the Panther's Skin: Comparing corpora of image metaphors in the source text and its translations, spanning different cultural or temporal contexts

Khatuna Beridze, Batumi Shota Rustaveli State University
Tamta Nagervadze, Batumi Shota Rustaveli State University

Abstract

The corpus-based study analyzes image metaphors in the translations of Shota Rustaveli's 12th-century Georgian poem by Marjory Wardrop (20th-century British English) and Lyn Coffin (21st-century American English) drawing on the theoretical frameworks of cognitive linguistics, cognitive poetics, cognitive translation studies, social and anthropological theories. The study incorporates Atran's (1998) anthropological theory, lapping the phenomenon of adaptive radiation (AR) over the poetic image metaphor translation. Our findings position translation as an act of cultural-cognitive evolution, introducing AR as a model for poetic metaphor translation. By analyzing 37 image metaphors in 74 translations, we explore how mappings in the source and target texts interact within image clusters and with the underlaid image schemas (CONTAINER, PATH, FORCE). We summed up four critical pitfalls that AR shifts entail. The study contributes to cognitive metaphor studies, as well as corpus-based cognitive translation studies, situating translation as an act of cultural and cognitive evolution.

Keywords: *cognitive translation studies; corpus linguistics; poetry; image metaphors*

1. Introduction

The present corpus-based study presents an experimental analytical methodology focused on translated poetic image metaphors (IMs) in Shota Rustaveli's 12th-century Georgian poem by Marjory Wardrop (prosaic translation, 20th-century British English) and Lyn Coffin (poetic translation, 21st-century American English). While conceptual metaphors were given more spotlight, there is a dearth of corpus-based studies of poetic image metaphors. The study draws methodological inspiration from corpus-based approaches to metaphor analysis (e.g. Semino 2008 and Steen et al. 2010), however, the diachronic dimension of the translated poetic image metaphors in our analysis diverges from the predominant synchronic focus of earlier cognitive linguistic studies. The rationale behind the selection of the medieval poem and its translations is to examine translational procedures carried out across two different epochs, from the perspective of cultural, linguistic, and temporal variables. We draw on Atran's (1998) theory of anthropological adaptive radiation, extrapolating it to metaphor translation and positioning translators as agents who creatively adapt cognitive structures to diverse cultural and temporal contexts. This approach offers a new perspective on image metaphor (IM) translation by conceptualizing it as an evolutionary process rather than a static linguistic transfer. From a methodological point of view, we selected 37 IMs that universally contain the concept of *tear* in order to focus on the image's generative mapping capacity in the source language and its two translated versions (a total of 74 IMs across the two target texts (TT)). The key insights

into metaphor translation theories reveal a theoretical divide between descriptive and prescriptive approaches. According to Nida & Taber (1969/1982: 107), all figurative expressions involved in the transfer process undergo: (a) shifts from figurative to nonfigurative usage, (b) shifts from one type of figurative expression to another, and (c) nonfigurative expressions changing to figurative ones. Boase-Beier (2018: 199) argues against using “stylistic non-equivalence as a means to judge the translation,” suggesting instead studying and describing the changes made in the translation to explore “how these affect the reading of the text.” Boase-Beier (2018: 204) sees both stylistics and translation studies as typically descriptive rather than prescriptive. These approaches bring into focus translation theoreticians: Newmark (1988), who is “strongly prescriptive” with normative procedures in particular circumstances, and Toury, by contrast, who is “purely descriptive” in accordance with his focus on norms: “what translators do, not what they should do” (as cited in Dickins 2018: 227–28). As metaphor translation includes various strategies or shifts, Toury (1995: 109, as cited in Dickins 2018: 228) “recognises the possibility of nonmetaphors being translated by metaphors, as well as other tropes, such as simile.” Newmark (1988: 53–58) also recognizes translation of metaphor by simile and sense. Tabakowska’s (1997) analysis of spatial and temporal structures in Robert Frost’s “Nothing Gold Can Stay” and its Polish translation suggests a cognitive linguistics perspective on poetry translation; she posits that the shift from metaphor to simile, or between image schemas, impacts the perceptual experience of the poem. The perspectives of linguists and translators on metaphor translation vary significantly. For instance, Dickins (2018: 227) notes that Newmark’s metaphor categories are unified more by their attempt to solve translation problems than by their theoretical coherence.

Halverson (2007: 114) points out that the tentative S-universals underscore that shifts impacting image schemas include standardization/sanitization, simplification, increasing conventionality, and convergence; metaphors also undergo modulation as a type of shift. Simplification is one of the translation universals, identified among several others: explicitation, disambiguation, conventionalization, avoidance of repetition, exaggeration of target language features (referred to as “normalization” by Baker (1997: 183), as cited in Malmkjær (2018: 21)).

Shuttleworth (2017: 179) extensively studied translational “behaviour” of IMs in scientific texts by exploring them in the multilingual corpus. He verified that “a number of IM expressions are retained essentially unchanged” in the 45 examples, while “minor rewordings do not affect the metaphorical expression in any significant way, and the mapping is preserved unmodified.” While minor rewordings may not affect the mappings of mental images in scientific texts, and may instead enhance translation fluency, the mapping equivalence in his findings suggests a certain universality of mental images across languages, despite their general semantic distance.

Van den Broeck (1981: 77) identifies three possibilities for metaphor translation: Translation *sensu stricto*, Substitution, and Paraphrase or “plain speech.” Translation frequently results in “down-toning” (Dickins 2018: 229; Dickins 2005: 256–58), producing a toned-down version of the original. Laviosa (1998: 474–75), drawing on Kenny’s findings, explains this phenomenon as a “sanitized version of the original.” Kenny hypothesized that linguistic “down-toning” removes the emotional intensity of metaphors, rendering them psychologically divergent when literal and figurative meanings lose connection. Dickins observes that the metaphorical force—whether strong or weak plays a crucial role in translation. Strong metaphors pose significant challenges, whereas weak metaphors are typically less problematic (Dickins 2005: 229–30; Dickins 2018: 228–29). The reduction or

weakening (simplification, down-toning, plain speech) in translation often leads to emotional neutrality.

Based on the above arguments, one might draw a symbolic parallel between dead metaphors and translated metaphors, arguing that the “deadness” in translation results largely from the loss of connection between literal and figurative meanings. The ongoing theoretical debates, based on empirical findings, still leave many questions ambiguous regarding the ‘down-toning’ of metaphors in translation. Poirier (2003: 405), distinguishing phraseological units from metaphors, argues that phraseological units (PUs) are primarily defined by their lexicalized meaning, whereas metaphors do not necessarily entail lexicalization. Following Delisle (1993), who distinguishes two types of metaphors that are relevant to PUs: dead metaphors and frozen metaphors, Poirier (2003: 406) notes that in both cases, the metaphorical nature of a PU’s meaning does not contradict its lexicalization; dead metaphors are translated as lexical units rather than metaphorical expressions. Frozen metaphors, which can be considered PUs due to their fixed, lexicalized meaning, should be translated based on their precise delimitation within the PUs. Given that our research focuses on the challenges of translating IMs, the non-lexicalized nature of poetic metaphor is to be highlighted.

2. Interdisciplinary perspectives of image schema theory

Cognitive linguists and cognitive scientists have developed models of linguistic and cognitive behavior, including image schemas, conceptual metaphors, and prototypes (Lakoff & Johnson 1999: 119). Lakoff & Johnson coined the term *image schemas* in 1987, as Lakoff (1987: 280–81, 291) claims, since language is rooted in cognition and possesses a conceptualizing capacity its structure “uses the same devices used to structure cognitive models, i.e., (a by which are understood in terms of bodily functioning.”

Image schemas, as foundational mental structures derived from bodily experience, such as CONTAINER, UP/DOWN, or OVER/UNDER, serve as basic templates for understanding spatial, temporal, and metaphorical relationships. However, some spatial image schemas are “bipolar and bivalent” (Johnson 1987; Kövecses 2002: 36). As Johnson (1987: 118) stresses, “the image schema is not an image. It is, instead, a means of structuring particular experiences schematically, so as to give order and connectedness to our perceptions and conceptions.”

These recurring structures give order and connectedness to human perceptions and conceptions (Johnson 1987: 118). They arise from human perceptual interactions, bodily experiences, and cognitive operations (Johnson 1987: 122), and are claimed to be established during early childhood (Mandler & Cánovas 2014; Tay 2021: 161). Stockwell’s (2019: 14–25) interdisciplinary approach to cognitive poetics bridges literary and linguistic theories. He draws on the foundational theories of Gestalt psychology (Boring 1950; Beardslee & Wertheimer 1958), and cognitive linguistics (Lakoff & Johnson 1980; Gibbs & Colston 2006; Langacker 1987, 1990, 1991). Stockwell’s (2019: 18) analysis employs the Gestalt principle of figure and ground, reflecting on the image schemas. It explores how the figure (moving entity / trajector) moves or interacts with the ground (stationary entity / landmark). However, as he posits, in poetry, despite the same image schemas, due to the elegant and subtle variations and poetic elaborations, “the literary expressions of commonly understood image schemas are interestingly and poetically varied” (Stockwell 2019: 18).

An interdisciplinary approach to basic-level structures and image schemas supports the idea that they function as universal cognitive tools across disciplines, from cognitive linguistics to sociology and anthropology, demonstrating their broad applicability in understanding human cognition, perception, and social behavior. According to Johnson (1987), Lakoff (1987), and Lakoff & Johnson (1999), there are at least two kinds of structures in our preconceptual bodily experiences: (a) basic-level structure: basic-level categories result from our Gestalt perception, capacity for bodily movement, and ability to form rich mental images; (b) image schemas. Johnson (1987: 11, 2005: 20) links image schemas as basic template structures to Gestalt structures, asserting that they integrate sensory-motor experiences into structured wholes, while Lakoff (1987: 272) views them as structured wholes composed of logically configured parts. Johnson uses a Kantian proposition that the image schema is preconceptual and its structure fits the general concepts to derive specific images; he also uses Kantian examples of schemas, though a Kantian schema is a mindful framework that helps sensory experience perceive the concept, while Johnson's image-schema is a repetitive, continuous process (Johnson 1987: 62).

Tay (2021: 161) relates the image schema theory to Gestalt theory as developed by Wertheimer (1938) and to Kantian schemas (1990), as well as other cognitive linguistic cornerstones, e.g., Langacker's (1991) cognitive grammar, Talmy's (1988) force dynamics, and Grady's (1997) primary metaphor theory.

Bourdieu's (1991: 52–65) Habitus theory describes how an individual's mental structures, or schemes, are shaped by social and cultural experiences. According to Bourdieu, an individual's life experience schematically integrates social structures into a general disposition. The concept of Habitus is defined as a combination of dispositions, tastes, and physical practices. Habitus denotes a "system of durable, transposable dispositions, structured structures predisposed to function as structuring structures" (Bourdieu 1991: 53). Bourdieu's (2010: 528) Habitus theory, understood here as disposition and closely linked to Gestalt, aligns with Johnson's (1987) concept of embodiment. Johnson (1987) defines embodiment as a formative model for schematic structures underlaid behavior and habitual patterns. Moreover, the patterned schemes in Habitus theory guide behavior and its interpretation in social situations through the sensory-motor system. Comparably, image schemas in cognitive linguistics structure the perceptual experience of concepts and generate cognitive patterns of time-spatial concepts.

Another theoretical domain that bridges social and linguistic theories on image schemas is cognitive anthropology. For example, Kimmel's (2005) study "Culture regained. Situated and compound image schemas" reflects on Johnson's approach that image schemas are not "fleshless skeletons" but can be conceived with qualities such as "our experience, understanding, and thought" (Kimmel 2005: 8), and expands on Bourdieu's (1977: 90–92) ethnography of the Algerian Kabyles, where gendered homologies in postures, practices, and social spaces define male and female schemas (though without using the term *image schema*). As Kimmel (2005: 298) notes: "Bourdieu's theory of embodied cultural knowledge couched in terms of generative principles called Habitus and concretely manifested in bodily hexis, i.e., posture and movement patterns – sees ritual and everyday activities as continuous structural exercises for particular schemas."

Social theory, cognitive linguistics, and cultural anthropology share critique of formal and structural linguistic paradigms, while putting the emphasis on the social, cultural, and embodied dimensions of cognition and language: Bourdieu (1991: 109–111), from his social studies perspective, was skeptical of formal and structural linguistics, which overlooked the

social and political contexts of language formation and use; Lakoff & Johnson (1999: 107) point out, that “the development of the field of Cognitive Linguistics has turned up ever more phenomena that cannot be accounted for by the formal-syntax-and-semantics paradigm.”

3. Anthropological extrapolations on conceptual and image metaphors, cognitive poetics and translation theories

To explore broader avenues for the poetic IM translation we take Kimmel’s (2005) idea that cognitive linguistics should be more concerned with social and cultural contexts as they influence cognitive processes and generate image schemas. In this regard, Atran’s (1998) study “Folk biology and the anthropology of science. Cognitive universals and cultural particulars” can be extrapolated upon both Habitus and image schema theories, extending the concept of cognitive universal to Habitus as “internalized structures, common schemes of perception, conception and action” (Bourdieu 1990: 60) and image schemas as structured cognitive models of embodied cognitive experience (Lakoff 1987: 272) and as templates for perception, interaction, and action (Johnson 1987: 11, 2005: 20). Atran’s observations resonate with the poetic mental image mappings and their translation; Atran situates cognitive universals within an evolutionary framework, viewing them as evolving adaptive tools that enable evolutionary cultural flexibility across ecological contexts: “[T]he uniform structure of taxonomic knowledge, under diverse socio-cultural learning conditions, arguably results from domain-specific cognitive processes that are panhuman” (Atran 1998: 30). Drawing parallels, Lakoff and Johnson also argue that our preconceptual bodily experiences operate at least two kinds of structures, including basic level structures and image schemas.

Since cognitive universals provide consistent ways of perceiving, categorizing, and reasoning about the world as shared foundational mental structures, they can be conceptually perceived as embodiment of both basic level structures and the image schemas. As Atran explores, culture, underpinned by cognitive universals as tools of evolutionary adaptation, is flexible to adapt to different ecological contexts; he introduces the term *adaptive radiation* to describe the evolutionary diversification of organisms into various forms that exploit different ecological niches. Adaptive radiation showcases that a core structure (the ancestral species) gives rise to variations (the new species), which are specialized adaptations to environmental demands. As a result, organisms exhibit broad patterns of adaptation to environmental constraints reflecting general morphological and behavioral adaptations to life in various habitats while keeping the core structure. We extrapolate this process to the process of poetic IM translation. The basic level structures and image schemas, as cognitive universals, are not culturally specific. Most importantly, in translation they both reveal adaptability and serve as adaptable tools of cultures. Hence, we can analogize the processes in evolutionary biology and translational elaborations of IMs on the basis of the comparability of cultural particulars underlaid by cognitive universals and the final outputs.

It is important to acknowledge that cultural elaborations in translation do not always lead to aesthetic simplification or down-toning. As Stockwell (2019: 18) argues, the principle of universality lies amidst diversity, highlighting both the creative and cross-pollinating nature of translation. Although the mapping is a general cognitive process, following Stockwell (2019: 18), “the creative elaboration of image schemas can be seen as the striking or unsettling re-cognition of familiar patterns: that is, defamiliarization,” the latter term taken from the Russian Formalists. Assumably, poetic elaborations as creative processes shall be considered

as extra aesthetic structural property of cognitive mapping. As Mathews (1959: 67) states: “One thing seems clear: to translate a poem whole is to compose another poem” (as cited in Nida 1964: 131), suggesting that a poet and a translator go through not only a cognitive, but also a creative performance that reshape, extend, and reinterpret mental images based on their cognitive and cultural contexts. Just as biological species evolve by adapting to new ecological niches, poetic metaphors evolve through translation, maintaining core structures while adapting to new cultural and linguistic environments. The processing of the poetic IMs in translation into the new poetic variants can be conceptualized as AR. It denotes the extra aesthetic property of poetic translation and an extra structure of image mapping as cognitive-creative poetic elaboration of mappings, we borrow Atran’s term *adaptive radiation*, which implies, more broadly, cultural evolution through translation.

Image schemas have conventionally been studied within the framework of conceptual metaphor theory. As Lakoff (1987: 146) states

Neither image schemata nor their metaphorical extensions exist only as propositions. They can be propositionally represented, but this does not capture their full reality as structures of our embodied understanding. This applies also to metaphors whose target and source domains are partially structured by image schemata.

The conceptual metaphors are categorized according to their cognitive function as structural, orientational, and ontological metaphors (Lakoff & Johnson 1980; Johnson 1987; Lakoff 1987; Kövecses 2002). By definition, the conceptual metaphors establish connections between two domains, mapping abstract structures in the source domain to conceptual structures in the target domain.

Brandt & Brandt (2005: 128) point out that “linguistic artefacts” are produced by means of the general cognitive capacities of the humans, therefore, what cognitive approaches can add to the study of literature and literary theory “is a new focus on the shared mental processes involved in and artistically expressed in literary language use.” In her much broader approach to tropes, Boase-Beier (2018:200 quoting Turner 1996: 5, 7–8) highlights that much of cognitive poetics, an approach to poetics that explores how the mind operates, is rounded in the idea that the “literary mind” underpins all human thought. These observations align with the cognitive approaches in translation studies (Rojo & Ibarretxe-Antuñano 2013) which explore how image schemas and conceptual metaphors guide meaning construction across languages, reinforcing Brandt & Brandt’s (2005) view that literature expresses shared mental processes.

Lakoff (1987, 1993: 229) distinguishes IMs from conceptual metaphors as a different class of metaphors; they “function to map one conventional mental image onto another.” This perspective is further layered by Lakoff & Turner (2006: 124), positing that IMs map a rich mental image to another rich mental image. Image schemas, on the other hand, lack richness, being general structures. Although Kövecses (2002: 50–51) and Shuttleworth (2017: 175) question image metaphor’s relatedness with image schemas, maintaining that they are not based on image schemas and propositional knowledge but on rich images primarily operating

through perceptual resemblance,¹ we find that the rich images may secondarily interact with underlaid image schemas. This aligns with Lakoff (1987: 221) stating that “image metaphors are nonetheless structure mappings at the conceptual level. As such they can interact in interesting ways,” and “image metaphors still involve conceptual metaphor” (Brandt 2009: 80); Importantly, as Kimmel (2002: 37) also observes, image schemas and rich images “flow into one another, varying with the amount of detail.” Moreover, Gibbs & Colston (2006), whose embodiment principle covers poetic image metaphors, argue that metaphor comprehension requires embodied simulations of schemas (e.g. PATH, CONTAINER), i.e. recruiting of sensorimotor schemas. IMs can evoke and reinforce metaphors that connect different domains through conceptual knowledge and logical structures (Lakoff & Turner 2006: 117). As far as image schemas and their metaphorical projections are primary patterns of the “blending” (Lakoff 1987: 147), and blending also attributes to the image metaphors, we assume that even the “purest” image metaphors rely on latent schemas. Revisiting Lakoff’s (1987: 221) “hourglass-waist” metaphor, overly quoted elsewhere, reveals that perceptual resemblance is schema-guided, e.g. of SYMMETRY and BALANCE. Comparably, in the example where Rustaveli maps *agate* → *eyelashes*, perceptual resemblance is scaffolded by embodied schemas of MATERIAL (natural element), CONTAINER (body is a CONTAINER of emotions); in another pattern of mapping, *blood* → *tears* blend FORCE, CONTAINER, and EMOTIONS are LIQUIDS schemas.

Poetic IMs provide richer pre-existing mental images, operating with deeper sensory-rich connections, what perhaps better fall under the category of “private metaphors,” the so-called “bold, innovating creations of individual poets” (van den Broeck 1981: 75). As Stockwell (2019: 18) notes, in poetry, “[i]n each case, the image schema is basically the same, but the elaboration is specified in slightly different ways.” Per Shuttleworth’s (2017: 190–91) recommendation, we carried out “a close textual analysis of specific extracts to examine metaphorical texture.” However, instead of “a single common mapping” (Shuttleworth 2017: 190–90), we traced its various mappings, which proved helpful to gauge the mapping range, i.e. mental images *tear(s)* is mapped onto. As we hypothesize, a poetic IM from culture 1 underpinned by cognitive universals (= embodying basic-level structures and image schemas) is flexible to adapt to a new cultural context; to adapt the IMs from culture 1 to culture 2, the basic-level structures generate new rich mental images (= the new species) through cognitive-creative elaborations which serve as active tools of cultural adaptation. Just as Stockwell underscored regarding the variance of poetic imagery within the same image schemas, we can argue that the process of translational elaboration of IMs into culturally fit poetic version reflects adaptive radiation mirroring the anthropological process.

In order to assess the analogy as a system, we distinguish four key shared variables: 1) core structure; 2) adaptations (identifying evolutionary biological adaptations, in parallel of cultural, conceptual, and linguistic shifts); 3) functionality (identifying morphological or behavioral fitness in Atran’s work, and cognitive efficiency and poetic expressiveness in translation); 4) underlaid mechanisms to draw comparison and indicate that the fundamental or core image schema undergoes translational elaboration to fit specific linguistic, cultural, and conceptual contexts just as Atran describes adaptive radiation of biological species. Table 1 represents the four key shared variables.

¹As Lakoff (1987: 219) distinguishes image metaphors from the conceptual metaphors, he argues that image metaphor is “another major type of metaphor that maps conventional mental images onto other conventional mental images by virtue of their internal structure.”

Table 1: Comparison of AR in evolutionary biology and translation of IMs

Key shared variables	Adaptive Radiation	AR and image schemas in translation
Core Structure	An ancestral species/common ancestor	An image schema (e.g., CONTAINER)/common in the ST and TT image metaphors
Adaptations	Specialized forms suited to niches	Elaborations of mental image in image metaphors
Functionality	Morphological or behavioral fitness	Conceptual or linguistic fitness
underlaid Mechanism	Evolutionary processes	Cognitive and creative processes

4. Description of the corpus composition

The corpus comprises the epic 12th-century poem “The Knight in the Panther’s Skin” by Shota Rustaveli and its two translations by Marjory Wardrop (20th century British English) and Lyn Coffin (21st century American English). From a genre perspective, for the poem under scrutiny, we could refer to Biel (2018: 156) who points out that “[s]ome genres are not only remote culturally from the target discourse community, but may also be remote in time”, quoting Bassnett (2006: 92) on the problem of translating a “dead genre,” e.g. an epic poem such as *The Iliad*, for a new generation of readers.”

Rustaveli’s poem, as a piece of classical poetry, is based on a double dichotomy of symmetry and asymmetry. This is evident in its short meter, as Gatserelia (1955: 63) points out, a symmetrical 16-syllable line is divided into two equal 8-syllable halves. In contrast, the division of the stanzas into unequal segments often follows a ratio of maximum harmony, the so-called “golden section” (Khintibidze 2009: 33–39; 2019-229).

The poem reflects the medieval Georgian cultural, philosophical contexts, and linguistic norms of its time featuring archaisms and elaborate imagery. The selected translations include a prosaic translation by Marjory Wardrop, first published in 1912, during the height of Victorian/Edwardian scholarship. It reflects early 20th-century English norms, which might exhibit formal, archaic structures differing from the contemporary linguistic norms. From a translation perspective, it enables an analysis of the translation philosophy, adapting the poem over time and culture, reflecting shifts. We referred to the 1977 edition of the translation for the current project. The second one is the poetic translation by Lyn Coffin, published in 2015. Her translation might reflect contemporary American English, with higher relatability to modern poetic sensibilities, cultural values and aesthetic appeal for modern readers, transporting the medieval poem to the present-day literary landscape. The potential perspectives the corpus offers include diachronic, genre, and linguistic variation, comparative analyses of lexical richness, syntactic structures, and semantic density of the prose and poetic formats, temporal shifts in translation norms, linguistic norms, and cultural framing over a century in two English versions. From the cognitive translation’s perspective, the corpus allows an examination of how poetic tropes, especially metaphors and epithets, are rendered or transformed across time and genre.

5. Methods of corpus-building, annotation, filtering, data extraction, sampling and preliminary analysis

“The Knight in the Panther’s Skin” comprises 1669 stanzas, while Wardrop’s translation consists of 1576 stanzas presented in prose form, divided into 52 chapters. Despite being a prose translation, the translator adhered to the stanza numbering of the original text. Lyn Coffin’s poetic translation consists of 1661 stanzas and is divided into 54 chapters. When tagging the manually curated corpus, the tag <Stl_mtf> was applied to the metaphors related to the noun ცრემლი (*c’remli* ‘tear’). To mark up linguistic elements, custom XML tags were created specifically for the BSU corpus platform (www.corpus.bsu.edu.ge). The TagSet does not inherently follow the standards with regards to the tag-assignment process (custom tags API – POST tags). During the manual tagging process of the source language (SL) text we did not discriminate conventional metaphors, conceptual metaphors, and image-metaphors. However, we have not tagged (a) the collocations similar to *tear is bad, how bitter are the tears*; (b) composites such as *tear-flow, tear-poured, tear-shed*; (c) metaphors that express the cessation of crying, for instance *it occurred to me that tears would not flow*, *tears have dried up, tears have stopped, tears are drying up*. In the target language (TL) texts, we tagged those parallel constructs, which retain image schemas and metaphoricity, but omitted those that fail to be translated with a metaphor, as in (1).

(1) ცრემლსა ვარდი დაეთრთვილა, გულსა მდუღრად ანატირსა (SL, 84 stanza)

c’remlsa vardi daetrivila, gulsa mdugrad anatisra (Georgian/Kartvelian language transliterated (KA))

‘The rose (meaning *cheeks*) was soaked in frost-dew of tears, and the heart wept bitterly;’

TL 84 stanza in Wardrop’s translation was tagged as it retained the image schema and metaphoricity: “The rose (of his cheek) was frozen in tears that welled up from his woe-stricken heart.” The parallel construct in Coffin’s translation is found in TL 86 stanza; it was not tagged as a non-metaphorical one: “His ruddy cheeks were wet with tears: they had never seen such a sight.” (TL 86 stanza)

In order to calculate type-token distribution across the three texts, we used AntConc and charted Table 2 for comparison of the extracted data:

Table 2: Total number of stanzas and comparative type-token ratio of all SL and TT texts extracted from AntConc

SL and TL texts	Total number of stanzas	Total number of tokens/word-forms	Total number of types
“The Knight in the Panther’s Skin”	1669	45107	14742
Wardrop’s translation	1576	74340	6303
Coffin’s translation	1661	84749	6955

The comparison of the type-token distribution in the SL and the two TL texts indicates richness and diversity of the SL vocabulary and fewer lexical repetitions. Admittedly, both translations have significantly lower distribution of different words/types indicating repetition in vocabulary and employment of functional equivalents.

Table 3: Comparative data of the type-token ratio extracted from AntConc

Comparative data of the type-token ratio from AntConc		
SL poem “The Knight in the Panther’s Skin”	TL Wardrop’s translation	TL Coffin’s translation
approximately 32.7% TTR= (14,742 type / 45,107 tokens)×100≈32.7%	approximately 8.5% TTR= (6,303 type / 74,340 tokens)×100≈8.5%	approximately 8.2%. TTR= (6,955 type / 84,749 tokens)×100≈8.2%

Based on the data, we can argue that the translated language (of the poem) is more formulaic, assumably, due to the greater extent of repetitions. To measure the lexical diversity across the original poem and two translations, we compared the type-token ratio (TTR), given in Table 3. The TTR data suggests that, despite being a prosaic translation, the TTR in Wardrop’s translation is 8.5%, which is slightly higher than Coffin’s poetic translation, with a TTR of 8.2%; Comparably, the TTR in the Georgian poem is significantly higher with a TTR of 32.7%. These differences point to translation shifts, where the style, tone, or expressiveness of the original text is altered in the process of making it more accessible or comprehensible in English. Further, since the TTR analysis highlights formulaicity, or surface-level repetition, we have selected for analysis the most frequent noun *გრემლი* (*c’remli* ‘tear’), used in the source text (ST) IMs. To analyze Georgian case morphology, specifically the declension of nouns using suffixes as case markers, we extracted all word-forms of the noun *გრემლი* (*c’remli* ‘tear’) from AntConc. The extracted tokens cover the nominative, ergative, dative, genitive, instrumental, adverbial, and vocative cases in both singular and plural forms. Table 4 shows the variation in the number of the noun across the original text and the translations.

Table 4: N-gram word data of the noun *გრემლი* (*c’remli* ‘tear’) in SL and TL texts

N-gram data for the noun <i>გრემლი</i> (<i>c’remli</i> ‘tear’)	Singular	Plural	Total
SL poem “The Knight in the Panther’s Skin”	160	50	210
Wardrop’s translation	19	192	211
Coffin’s translation	15	221	236

Table 4 allows us to infer the linguistic and translation strategies. Evidently, while the SL does not emphasize plurality, both Wardrop and Coffin chose to amplify the concept. The translators aligned with English norms, preferring explicit plurality and overt emotional expression, while the SL uses subtler forms to evoke emotions. The strategy of pluralization of the noun *tear* as a linguistic and cultural adaptation renders the translated poem into an even more emotional or expressive version. As a result, according to the statistical data of the analyzer, we extracted 106 metaphors from the SL text, reflected in Figure 1.

ი შეცდომა

ება

ქცევის არასწორ

რები - დამატებ

ალმნიშვნელი მ

ხსენების აღმნიშ

ები (Hedges)

ს აღმნიშვნელი

ს აღმნიშვნელი

ტორიკული შეკო

რსონიფიკაციები

არა

ვეფხისტყაოსანი ცრემლი კოფინი სრულად ცრემლის მეტაფორები

ქართული

ინგლისური

რუსული

გერმანული

ფრანგული

ტეგი: stl_mtf, რაოდენობა: 106

ნაპოვნი ტექსტი

ქალი ტირს და ცრემლთა აფრქვევს, | ჰხრის ყოვნისა ბოლო-ფრთათა
ამად ტირს, ბალი ვარდისა | ცრემლითა აივსებოდა
ცრემლსა ვარდი დაეთრთვილა
წვიმს წვიმა ბროლისა
ცრემლსა სისხლი ერეოდა
თვალთათ ცრემლი | გისეტყვია
ბროლსა სეტყვს და ვარდსა აზრობს, | ტანსა მჭევრსა ათრთოლებდა
ცრემლსა ვითა მარალიტსა | სწვიმს ვარდისა დასანაზოდ
ვარდი დათრთვილა
მუნ ეძებს, ცრემლი მტირალსა
ღანვისა ბანანი
ბროლმან, ლალსა გარეულმან , | ვარდნი თხელნი ანატიფნა
მათ თვალთა ცრემლნი სდიოდეს, | მინდორთა მოსალამენი
ცრემლითა, | ზღვათაცა შესართავითა
ცრემლნი გარდმოსცივდეს
სისხლით სწვიმდეს
დაიწყო ცრემლთა ფრქვევა
ვარდისა ბაღსა მოგუბდა | ცრემლისა საგუბარია
ას-კეცთა ცრემლთა დინება
ვისთვისმე ხელი უცილოდ, | მას ცრემლი ემალმალეების
ვარდსა ნუ აზრობ, | ცრემლითა ნუ ითოვნების
მალლად ცრემლითა, | ზღვათაცა შესამალითა
ამარტის ფერად შეცვალა | ბროლი ცრემლისა ბანამან
ცრემლთა მილისა
თქვენ მორტყმულნი სთამაშობდით, | ჩვენ მტირალნი ღანვთა ვჰბანდით
სისხლისა ღვართა დენასა
დაჟდა და მწარედ სულთ-ითქვანა, | ქრემლი მინასა გარია

Figure 1: Metaphors from the SL text

The comparison of the extracted data from the BSU corpus indicates higher rate of translated metaphors from Wardrop's translation with 101 cases, and lower rate of translated metaphors from Coffin's translation with 87 cases. Figure 2 and Figure 3 display the extracted data from Wardrop's and Coffin's translations.

იხი

თი შეცდომა

ბატება

რუქის არასწორ

კერები - დამატებ

ას აღმნიშვნელი მ

შესენების აღმნიშ

ნები (Hedges)

ბის აღმნიშვნელი

ბის აღმნიშვნელი

ნითორიკული შეკო

შერსონიფიკაციები

ვორა

ვეფხისტყაოსანი ცრემლი უორდროპი ცრემლის მეტაფორები სრულად

ქართული

ინგლისური

რუსული

გერმანული

ფრანგული

ტეგი: stl_mtf, რაოდენობა: 101

ნაპოვნი ტექსტი

The maiden wept, she shed many tears; she drooped her raven eyelashes (the tail feathers of the raven

therefore she weeps, filling the rose-garden (of her cheeks) with tears

the rose (of his cheek) was frozen in tears that welled up from his woe-stricken heart

tears were mingled with blood, and flowed forth as from floodgates

I know that without pause the hail has fallen from thine eyes upon thy cheek

crystal hails down and freezes the rose, his graceful form was trembling

Tears like pearls were shed upon the rose, making it tender

Fresh snow had fallen, and, freezing on the rose, blasted it

There seeks he the shedder of tears which flowed to increase the sea

his cheeks will be bathed (in tears)

Ruby mingled with crystal beautified the pale roses (of his cheeks

from their eyes tears flowed, moistening the plains

she wept aloud, her tears uniting with the sea

the tears rained down

they wiped each other's tears of blood

he began to shed tears

In the rose-garden the pool of tears is dammed up

with heart sobs she began to shed tears a hundredfold snore

doubtless her tears flow faster (for that) she is mad for someone

They wept aloud, their tears flowing even to the sea

The bath of tears turned the crystal to the colour of jasper

the jetty eyelashes are plaited by tears of blood

The maiden's tears sprang forth an hundredfold, ten thousandfold more

She told me that for three years the stream of tears was to flow without her

You, mighty, were sporting; we bathed our cheeks in tears

for whom flow streams of blood, from her I never expect comfort

Figure 2: Metaphors from the TL text, Wardrop's translation

ვეფხისტყაოსანი ცრემლი კოფინი სრულად ცრემლის მეტაფორები

ქართული ინგლისური რუსული გერმანული ფრანგული

ტეგი: stl_mtf, რაოდენობა: 87

ნაპოვნი ტექსტი

With each tear that streaked the rose garden of her cheeks
 From the jets of his eyelashes, clear waters could be seen to flow
 Tears mingled with blood, and flowed forth as from floodgates, wave after wave
 Hail rained down and froze the rose; in his body, he felt trembling start
 He shed pearl tears: his cheeks softened, and seemed then of a paler sort
 Snow had fallen, freezing and bruising the rose so young and slender
 He cries while searching, his tears a river flowing into the sea
 Ruby and crystal made the pale roses of his face seem to dim
 From their eyes, hot tears flowed, moistening the plains. They rode as if blind
 Her abundant tears were like a river flowing wave after wave
 his tears raining down, so spoke he
 shedding tears that seemed to flow from her heart's core
 Doubtless her love for someone is the cause of her copious tears
 They wept together. Tears could have flowed to the sea from either face
 His crystal face darkened to amber as he let his hot tears go
 His jet lashes seemed plaited together with tears of blood and gore
 The maiden's tears sprang forth a hundredfold. She cried as in despair
 I feel great grief for her: that is the reason I readily bleed
 The queen poured forth enough tears over my body to make a sea
 I mounted my horse; as I left, tears flowed down my face in a stream
 Narcissus tears must have tormented you. You must have felt spurned
 It was as if I were a pale rose and heavenly dewdrops wore
 Though you have shed a stream of tears, those tears have not flowed uselessly
 Again and again she groaned, and cried such tears as would hollow stone
 She said nothing to me, but her tears kept cascading to the ground
 A shower of tears bedewed her face, brilliant with radiant shine

Figure 3: Metaphors from the TL text, Coffin's translation

6. Research methodology of IM translation and data output

Following the data extraction, we manually filtered the SL data and identified six conventional metaphors, 53 conceptual metaphors with a concept of *tear*, ten conceptual metaphors including an additional concept *blood* metaphorized as *tear*. As a result, we selected 37 IMs featuring the noun *ცრემლი* (*c'remli* 'tear') with the underlaid image schema CONTAINER and their parallels in TT1 and TT2. The steps of the analysis included:

1. V/P or visual (the mental images on the surface with visual mappings) and perceptual (since the IMs are not based on the propositional knowledge) interpretation of the ST data in English, as shown in the Table 5.
2. Analysis of TT1 and TT2 based on the pre-selected translation procedures. We referred to Shuttleworth's (2017: 179–82) taxonomy of procedures and added standardization/sanitization and simplification where necessary as referred to by Halverson (2007: 114), shown in the Table 5, column: "Translation Analysis (including TT1 and TT2)."

3. Identified underlaid image schemas and the emotional ratio of AR in TT1 and TT2, displayed in the Table 6.
4. Classified groups of mappings in the ST, TT1 and TT2 according to the recurring imagery, recurring themes and underlaid image schemas, as represented in Table 7.
5. Measured distribution of recurring imagery and recurring themes in ST, TT1 and TT2 for a comparative analysis of the proportions/ratio of the AR, as in Tables 8 and 9 at the end of this section.

Table 5: Examples of analysis of the ST, TT1 and TT2

Source Text (ST)	V/P Interpretative Translation (EIT)	Underlaid Image Schemas (UIS)	Target Text 1 (TT1)	Target Text 2 (TT2)	Translation Analysis (including TT1 and TT2)
1. ღვარმან, ზედათ მოდენილმან, გააწყალნა ფიფქნი თხელნი	The flood of [tears] melted the thin snowflakes [of his cheeks].	CONTAINER VERICALITY FORCE	the spring (of tears) flowing down from above melted the slight new-fallen snow (of the cheek).	Their white cheeks had an added pallor as their tears downward did race.	TT1: Change to different mental images but image metaphors retained. Same UIS TT2: Non-image metaphorical translation - Simplification. Same UIS
2. ას-ნაკეცი წყარო ვნახე ცრემლთა, მისგან მონაწილომა.	His falling tears were hundredfold of springs, those I saw	CONTAINER FORCE	I saw a hundred springs of tears dropping from her eyes.	I saw a hundredfold spring of tears fall from her eyes, scared and wild.	TT1: Change to different mental images but image metaphors retained. Same UIS TT2: IM retained. Same UIS
3. მონაქროლმან ვარდი დაზრა, წამწამთაგან ბუქი ბუქდა;	The eyelids are blasting whirled snowstorms, upon the frozen roses [the cheeks]	CONTAINER FORCE PATH	a blast froze the rose, from his eyelids whirled snowstorms (of tears).	From his eyelids whirled snowstorms of tears; this blast froze the rose so fine.	TT1: Retention of the image metaphors with the mental images kept intact. Same UIS TT2: Retention with the mental images kept intact. Same UIS
4. ვიცი, რომე გაუწყვედლად თვალთათ ცრემლი გისეტყვია	I know the tears shed from your eyes are incessant hail.	CONTAINER FORCE	I know that without pause the hail has fallen from thine eyes upon thy cheek.	I know that on my account your eyes from tears have seldom been free.	TT1: Retention with the intact mental images. Same UIS; TT2: Change to a different mental image; Non-image metaphorical translation. UIS Only CONTAINER
5. ცრემლსა ვითა მარგალიტსა სწვიმს ვარდისა დასანაზოდ	[The] tears are pearls dropping like raindrops to make tender the roses [the cheeks].	CONTAINER FORCE PATH	Tears like pearls were shed upon the rose, making it tender.	He shed pearl tears: his cheeks softened, and seemed then of a paler sort.	TT1: Retention with the intact mental images. Same UIS; TT2: Retention with the 1 intact mental image and 1 changed mental image. UIS only CONTAINER and FORCE

Source Text (ST)	V/P Interpretative Translation (EIT)	Underlaid Image Schemas (UIS)	Target Text 1 (TT1)	Target Text 2 (TT2)	Translation Analysis (including TT1 and TT2)
6. დაჯე წერად ჭირთა ჩემთა, მელნად მოგცემ ცრემლთა ტბასა	I'll give you the lakes of my tears [which you can] use as ink to write about my woes.	CONTAINER	down to write my woes! For ink I give thee a lake of tears.	For ink, I have a lake of my woes, that all may learn.	TT1: Retention with the intact mental images. Same UIS; TT2: Simplification; Explication IMretained. Same UIS
7. ბროლ-ლალსა ღვარი ნარგისთა მოსდის გიშრისა ღარითა	The [cheeks which were like] crystal and ruby were flooded with flows of tears shedding from the agate [of the] lashes.	CONTAINER PATH	a stream flowed through the jetty trough (of her lashes) from the narcissus (eyes).	A narcissus stream overflowed her jetty lashes for its part.	TT1: Retention with the change of the mental image. Same UIS; TT2: Simplification. UIS only CONTAINER
8. მუნით წყარონი გამოხდეს, მოწსა ვამსგავსენ ფერითა	From there [the eyes which were like] the springs flowed [tears were shedding] which were like coral in hue.	CONTAINER	thence issue streams which I likened to coral in hue.	Streams of a coral hue issue from his eyes, whence they have been born.	TT1: Retention with the intact mental images. Same UIS; TT2: Shifted mental images; explication. Image metaphors retained. Same UIS.
9. ბროლმან, ლალსა გარეულმან, ვარდნი თხელნი ანატიფნა	The [tears were] crystal mingled with ruby, that refined the pale rose [the cheeks]	CONTAINER PATH FORCE	Ruby mingled with crystal beautified the pale roses (of his cheeks).	Ruby and crystal made the pale roses of his face seem to dim.	TT1: Retention with the intact mental images. Same UIS; TT2: shift to different mental image. Image metaphors retained. Same UIS.
10. სისხლისა ღვარმან შედება წითლად გიშრისა ტევრები	The flow of blood [his tears] has dyed the thicket of the agate [black eyelashes] in red.	CONTAINER FORCE PATH	the tear of blood dyed the jetty thickets crimson.	The jet-black strands of his mustache, stained by his bloody tears, turned red.	TT1: Retention with the intact mental images. Same UIS; TT2: Cultural reinterpretation weakened image metaphor. Same UIS

Drawing on the analysis of TT1 and TT2, we noticed stability of the UIS CONTAINER despite the translational elaborations of mental images. However, the shifts modified other UIS in other cases. For instance, consider the V/P interpretations of Metaphor 4, “ვიცი, რომე გაუწყვედლად თვალთათ ცრემლი | გისეტყვია” (‘I know the tears shed from your eyes are incessant hail.’). The metaphor evokes hail as a relentless, harsh force, symbolizing overwhelming emotional turmoil. The UIS CONTAINER is central, with tears spilling forcefully from the eyes, while FORCE schemas emphasize the tears’ intensity. In TT1, the translation to “I know that without pause the hail has fallen from thine eyes upon thy cheek” retains the image *hail*, preserving the original’s emotional intensity. The imagery of *hail falling from the eyes* conveys the tears’ unstoppable force, maintaining the UIS CONTAINER and FORCE; the emotional tone remains strong, capturing the relentless sorrow of the original. In TT2, the translation to “I know that on my account your eyes from tears have seldom been free” shifts away from the forceful hail image, offering a literal concept of tears. Retaining only

one UIS CONTAINER out of two, the translation loses the nexus of the ST imagery, thus reducing the emotional intensity. In comparison, TT1 retains the metaphor's emotional depth and vividness, while TT2 simplifies it, focusing on a literal description.

Having analyzed the corpus data in a similar manner, we compared the AR in TT1 and TT2 against the UIS using the following four variables:

1. emotional intensity and scale of tears
2. embodiment of tears and their impact
3. contrasts in emotional tone
4. variation in expression and subtle shifts in meaning, i.e. dynamicity of interaction of the ST and TT imagery. The qualitative data summary of the image schema emphasis and schema shifts in TT1 and TT2 can be viewed Table 6.

Comparatively, Table 6 indicates that the emotions distributed within the same related image schemas are not homogeneous in Wardrop's and Coffin's translations. The image schema emphasis indicates limited interplay (nature and tears) in TT1, and dynamic, emphasized interaction (tears blend with nature) in TT2.

Table 6: Image schemas and emotional ratio of AR in TT1 and TT2

UIS	Wardrop (early 20 th century)	Coffin (21 st century)
CONTAINER	Restrained emotions, focus on containment	Minimal containment; focus on flow
PATH	Rarely used; static depictions	Streams and rivers; dynamic imagery
FORCE	Tears melting snow; subtle imagery	Tears hollowing rocks; vivid imagery
Dynamic Interaction	Limited interplay (nature and tears)	Emphasized; tears blend with nature

Since mappings of the analyzed IMs develop themes and imageries, we analyzed the themes and imagery in the IMs and classified them using three variables: recurring imagery, recurring themes, and image schemas. For recurring imagery we identified four categories, for recurring themes we identified five categories, and for image schemas, we distinguished three main types: PATH, FORCE, and CONTAINER. Within the FORCE and CONTAINER schemas, we further identified different categories of meaning. All classifications are detailed in Table 7.

Table 7: Classified groups of mappings in the ST, TT1 and TT2

Recurring imagery	Recurring themes	Image Schemas
1. Tears as elements of nature: Springs, streams, rain, hail, fountains, snow	1. Tears as water sources / natural elements Tears as natural, flowing sources of water	1. PATH / motion: Directional movement (e.g. <i>flowing</i> ; <i>falling</i>)
2. Tears as precious materials:	2. Tears as transformative forces	2. FORCE /contact: interaction between elements (e.g. <i>tears meeting cheeks</i>)
		3. CONTAINER /boundaries: inside-outside distinctions (e.g. <i>pool</i> ; <i>sea</i>)

Recurring imagery	Recurring themes	Image Schemas
Pearls, rubies, crystals	Tears as elements that evoke change or transformation	4. FORCE / interaction of energy (e.g. <i>melting; hollowing</i>)
3. Tears as geographic features:	3. Tears in conjunction with nature	5. CONTAINER/continuity of emotions: gradual, unbroken phenomena (e.g. streams, rivers)
Lakes, seas, rocks	Tears as part of a natural landscape or environment	
4. Other unique imagery	4. Tears as emotional symbols	
Ink, cauldrons, narcissus	Tears representing emotions or inner experiences	
	5. Tears as blending forces / persistence and fragility	
	Tears as forces combining fragility and endurance	

We measured frequency of the occurrences of the noun *tear* in the IMs to calculate the ratio of the image mappings in the IM in the ST and TT. From a methodological point of view, we aligned the ST and TT data using the variables ‘recurring imagery’ and ‘recurring themes’ in the Excel spreadsheet to calculate mappings under the categories.

Table 8: Comparison of recurring imagery distribution

Recurring Imagery	ST (%)	TT1 (%)	TT2 (%)
1. Tears as natural imagery	40%	35%	30%
2. Tears as precious materials	25%	30%	25%
3. Tears as geographic features	20%	20%	25%
4. Other unique imagery	15%	15%	20%

Table 9: Comparison of recurring themes distribution

Recurring themes	ST (%)	TT1 (%)	TT2 (%)
1. Tears as water sources / natural elements	30%	25%	20%
2. Tears as transformative forces	20%	25%	20%
3. Tears in conjunction with nature	15%	15%	20%
4. Tears as emotional symbols	15%	15%	20%
5. Tears as blending forces / persistence and fragility	10%	10%	10%
6. Tears as symbols of sorrow and beauty	10%	10%	10%

7. Discussion

We selected 37 instances of IM with the concept of *tear*. The UIS CONTAINER was mapped as *flood* in five examples and as *stream* in three cases. The other mappings of *tear* included *blood*, *pearls*, *crystal*, *coral* etc., and 23 examples contained *tear* with no mappings. Almost each ST stanza contained double blends. The ST IMs exemplify multi-modal blending, integrating visual, perceptual, and conceptual schemas, e.g. *agate thicket* for *eyelashes* fuses mineral hardness (tactile), blackness (visual), and cultural valuation of agate (conceptual). Let us examine Example 1 from Table 5 and its visual interpretation.

(1) ღვარმაზ, ზედათ მოდენილმაზ, | გააწყალნა ვიფქნი თხელნი

The flood melted the thin snowflakes.

(Lit. ‘the rain, flowing from above, | has turned the thin snowflakes into water’)

The example illustrates that the image clusters in the stanza rely on nested blends, where one IM feeds into another:

1. Image-image blend:

Input 1: Tears (liquid, downward movement)

Input 2: Flood (destructive force)

Blend: Tears take on the destructive power of a flood

2. Image-material blend:

Input 1: Cheeks (visual: pale, smooth)

Input 2: Snowflakes (visual: fragile, white)

Blend: Cheeks gain the transience of snow

The verb *გააწყალნა* (‘melted’) acts as the pivot that blends the two metaphors: *flood* (tears) as heat source → *snow* (cheeks) as melting material. The same verb creates a cause-effect chain: *tears* (flood) dissolve the *cheeks* (snow). As we observe, the interaction of the rich image with the UIS enhances their poetic generativity. The perceptual interpretation of the IM is: “his cheeks are thin snowflakes melted by the downpour of flood of tears.” The imagery draws on the UISs CONTAINER, FORCE (flood affecting snowflakes melting them), and VERTICALITY (tears flowing downward). The ST stanza produces a vivid emotional and visual landscape. The IM employs hyperbole to express the number of tears, extent of emotion and its effect. The cheeks imaged as snowflakes represent an implicit personification. Observably, this instance is enriching for the previous findings on stylistic functionalities of IMs; for instance, Semino & Steen (2008: 238–39) point to the cases when “a simile is used to map the visual image of a human face onto that of the moon,” while Miller (1993: 367) argues that “metaphor is an abbreviated simile” and Lakoff’s (1987: 220–21) examples of IMs represent similes (e.g. “My horse with a hoof like a striped agate”). The same image of the cheeks as snowflakes represents a symbol of fragility, coldness, and innocence, reinforcing the emotional depth of the metaphor. The image of the *melting snowflakes* evokes a sensation beyond the visual, such as warmth or sadness blending. While both TT1 and TT2 retain the UIS, they adapt the ST mental images to produce their new visual, perceptual, and sensory to interpretations. In TT1, the translation to “The spring (of tears) flowing down from above melted the slight new-fallen snow (of the cheek),” preserves the cluster: It keeps both metaphors + a causal link (*flood* → *melted* → *snowflakes*) but softens the original imagery. By

replacing *flood* with *spring*, TT1 suggests a gentler, more natural outpouring of tears, the *slight new-fallen snow* also softens the fragility of the original *thin snowflakes*, diminishing the emotional intensity. In contrast, TT2 decouples the cluster: *White cheeks* = a static snow metaphor (no melting); *tears race* = a weakened flood metaphor with no force interaction.

The imagery “Their white cheeks had an added pallor as their tears downward did race” visually departs from the ST. The mental images of the thin, melting snowflakes as cheeks are shifted with the focus on the pallor of the cheeks. Moreover, TT2 lexicalizes the mental imagery of cheeks and tears imagery, thus simplifying the metaphor and its emotional depth. Comparing the two, TT1 preserves more of the original’s emotional depth and imagery, albeit with reduced intensity, while TT2 simplifies the metaphor, focusing on physical description rather than poetic richness. The gain of TT2 is increased readability for English readers who are unfamiliar with Georgian metaphor blending. The ARs illustrate the challenges of translating IMs, where shifts in imagery can alter emotional and conceptual tones.

Metaphor 10 in Table 5, “სისხლის ღვარძან შეღება | წითლად გომრის ტევრები,” depicts blood-stained tears dyeing the *thicket of the agate* (eyelashes) red, symbolizing emotional pain. The UIS CONTAINER is evident, with tears spilling from the eyes, while the imagery of blood emphasizes the intensity of emotion. In TT1, the translation to “The tear of blood dyed the jetty thickets crimson” retains the metaphor’s vividness and emotional weight but shifts the image of the agate with the jet, or tourmaline. The phrase *tear of blood* conveys the tears’ intensity, and *jetty thickets* (eyelashes) stained crimson partly preserves the original’s visual and emotional depth, although it shifts the SL imagery. In TT2, the translation to “The jet-black strands of his mustache, stained by his bloody tears, turned red” dismantles the ST metaphor cluster into a looser, more literal description. The metaphor’s intensity diminishes with the shift that accentuates the mustache, diluting the metaphor’s power. The original blends of eyelashes as a *thicket of agate* is lost, and the emotional resonance weakens. While the ST implies that “tears feel like blood due to grief’s intensity,” TT2 suggests less poetic, literalized, or physical blood, which feels grotesque.

Interpretation of the data in Table 8 shows that tears as natural imagery decline from ST (40%) to TT1 (35%) and TT2 (30%). The translators opted for alternative conceptualizations and found it challenging to retain the natural imagery. Tears as precious materials increase slightly in TT1 (30%) compared to the ST (25%) but keep to 25% in TT2. The fluctuation indicates cultural preferences in translations. Tears as geographic features are equal in TT1 (20%) and the ST but rise in TT2 (25%). This suggests a tendency to emphasize landscape-related metaphors. Other unique imagery also increases in TT2 (20%), diverging from conventional imagery, while it remains equal to TT1 (15%).

The data from Table 9 suggests that *tears as natural elements* gradually decline (ST: 30% → TT1: 25% → TT2: 20%) and are de-emphasized in translations. *Tears as transformative forces* show increased emphasis in TT1, while TT2 maintains the same level as the ST, reflecting a more literal translation approach. Compare: ST, 20% → TT1, 25% → TT2, 20%. *Tears in conjunction with nature*, and *tears as emotional symbols* (ST, 15% → TT1, 15% → TT2, 20% in each category) show an increase of the theme in the poetic adaptation of TT2, reinforcing the interconnection between tears and the natural world and favoring explicit emotional imagery. The themes *tears as blending forces/persistence and fragility* and *tears as symbols of sorrow and beauty* remain consistent with 10% across the ST, TT1 and TT2. The conceptualization of tears as both enduring and delicate and the poetic balance of grief and aesthetic value in tear imagery is equally emphasized.

Comparing the data of Table 6, 8, and 9, we can argue that TT1 aims for balance, performing minor shifts but staying relatively close to the ST's distribution. TT2 exhibits greater divergence, particularly in using more geographic metaphors and introducing unique imagery. The decline in *natural imagery* across both translations could suggest that this category is more culturally bound or harder to transfer without adaptation.

Key differences in adaptive radiations (ARs) reflect Wardrop's tendency to focus on static, contained structures, evoking a formal, literary tone, and reflecting British cultural norms of restraint and formality, aligning with Edwardian literary aesthetics. For instance, *Pools of tears stood before her* retains the containment schema but formalizes the metaphor to fit early 20th-century British literary aesthetics. Tears as motion in Wardrop's translation evoke static, restrained, and linear motion, as in *Tears slowly falling like gentle rain*. *Tears as Force* in Wardrop's translation reflects subtle interaction between tears and nature, as in *Tears melting the frost*. While Wardrop's prosaic, early 20th-century translation remains more loyal to the original in transferring the emotional degree, she reaches it by keeping to the same rich mental images. Coffin's poetic rendering emphasizes dynamic, motion-based transformations, reflecting a shift toward vivid and emotionally immediate imagery. Coffin's translation reflects American cultural norms of immediacy and emotional expressiveness, aligning with contemporary literary styles. For instance, *Her tears wore channels in the rocks* shifts from CONTAINER to a PATH UIS, emphasizing dynamic transformation and persistence. Summing up critical points of AR operations, there are four key trade-offs in image metaphor translation:

1. The shifts in the poetic mental imagery in IMs and decoupling of the image clusters also affect the underlaid image schemas and often cause their omission.
2. Reconceptualization of non-lexicalized mental images occurs due to their flexibility and cultural adaptability; however, lexicalization, or explicitation of the multi-modal blends, simplifies the IMs, e.g., "thin snowflakes" is translated as "white cheeks," and "crystal shower" becomes "clear waters."
3. In case of cluster mappings, an invariant universal UIS is maintained but shifts affect the image clusters within a stanza.
4. Shifting on emotional emphasis in translation is ensued from the shifts in images.

Notably, shifts in the poetic IMs, even minor modification of the images might be meaningful as it affects the aesthetic rendering of surreal into real. The studied patterns of the translated IMs outlined that one of the translation challenges is decoupling of the blends, as this practice causes loss of perceptual synergy. Another noteworthy point, as the data suggests, is that IMs are not purely one-shot, because schemas provide reusable scaffolding for repeated mappings (e.g. Georgian *tear*→*flood*; *tear*→*stream*, *tear*→*pearl*, etc. variants). The evidence of repetition of the mappings aligns with Shuttleworth's (2017: 176) argument that "the identification of IMs with one-shot metaphors is probably inappropriate," while challenging Lakoff's (1987: 221) classification of IMs as purely one-shot, or 'ad hoc or fleeting'² (Caballero 2003: 87–88, as cited in Shuttleworth 2017: 177). One more point to make is that the data challenge the claim by Dobrovol'skij & Piirainen (2005: 142) that one-shot rich-image mappings are purely conventional and lack systematic ontological structuring. The recurrence of poetic image mappings such as 'tear' being repeatedly conceptualized as blood, pearl,

² Caballero quotes Lakoff & Turner (1989: 89): "more fleeting metaphors which involve not the mapping of concepts but rather the mapping of images."

crystal, coral, lake, flood, blizzard, etc. demonstrates that the mappings cannot be considered as isolated instances. Besides, the rich images interact with underlaid image schemas, such as CONTAINER, reinforcing their cognitive and poetic coherence, rather than being strictly tied to concrete frames.

The poetic IMs can be seen as cognitive-creative elaborations, while translation process can be metaphorically viewed as a behavioral adaptation of mental images through cultural reconceptualization and poetic re-mappings for adjustment; The process is as well an elaborative evolution, when a translator's sensory system employs cognitive universals as adaptive tools for adaptive radiation with higher or lower progress.

8. Conclusion

To the best of current knowledge, no major study has systematically analyzed how the same image metaphors undergo adaptive transformations across two different time periods. Using a custom corpus and corpus methodology, we grounded our study in a conceptual framework that combines various approaches, such as cognitive linguistics, cognitive anthropology, and cognitive poetics. By analyzing Rustaveli's "The Knight in the Panther's Skin" we sought to determine whether underlaid image schemas exhibit fundamental invariance across translations while allowing for poetic variance. We analyzed 37 IMs and 74 translations that instantiate invariant universal UISs, image clusters, and multimodal blending. The ST examples reuse mappings with the same UIS, while the translations retain the latter but modify the former. We classified the recurring imagery and recurring themes of the IMs and measured their statistics, which helped the overall analysis of their distribution and the effects of their fluctuation. The dynamically shifting mental imagery in the TTs reflects cultural and temporal adaptations. Analyzing the translated IMs, we observed how shifts of the visual imagery alter their conceptual networking and how this affects the rise and fall of emotional intensity, often due to milder or more dynamic visual effects. The findings suggest that adaptive radiation of IMs affects the UISs. The tendency toward simplification and explicitation found in the translations aligns with the broader trend in translation studies, where complex or culturally specific metaphors are often rendered in a more straightforward manner to ensure comprehension, causing down-toning and sometimes plain speech.

We acknowledge limitations in this study. For instance, the analysis is confined to a single poetic work and its two English translations, and we cannot be sure if the findings on IM translations are universal across all text genres. Nevertheless, we hope the methodology is replicable, answering Olalla-Soler's (2020) call to enhance replicability in research and improve descriptive methodologies, thereby bolstering the credibility of empirical studies (as cited in He et al. 2022: 19–20). Our explorations of poetic IMs in translation throw new light on the IMs and contribute to cognitive translation studies, while reliance on corpus-based methods provides valuable quantitative insights.

References

- Atran, Scott. 1998. Folk biology and the anthropology of science. Cognitive universals and cultural particulars. *Behavioral and Brain Sciences* 21(4): 547–69.
- Biel, Łucja. 2018. Cognitive translation studies and the merging of empirical paradigms. The Case of ‘Literal Translation’. *Translation Spaces* 4(2): 310–40.
- Boase-Beier, Jean. 2018. Stylistics and translation. In Malmkjær, Kirsten (ed.), *The Routledge handbook of translation and linguistics*. London: Routledge. 194–207.
- Bourdieu, Pierre. 2010. *Distinction. A social critique of the judgment of taste*. London: Routledge.
- Bourdieu, Pierre. 1991. *Language and symbolic power*. Cambridge: Polity Press.
- Bourdieu, Pierre. 1990. *The logic of practice*. Stanford: Stanford University Press.
- Bourdieu, Pierre. 1977. Outline of a theory of practice. Translated by Richard Nice. Cambridge: Cambridge University Press. doi: 10.1017/CBO9780511812507.
- Brandt, Line & Brandt, Per Aage. 2005. Cognitive poetics and imagery. *European Journal of English Studies* 9(2): 117–30.
- Brandt, Line. 2009. Metaphor and the communicative mind. *Cognitive Semiotics* 5(1–2): 37–107.
- Caballero, Rosario. 2003 Talking about space. Image metaphor in architectural discourse. *Annual Review of Cognitive Linguistics* 1: 87–105.
- Coffin, Lyn. 2015. The knight in the panther’s skin. Tbilisi: Poezia Press.
- Dickins, James. 2005. Two models for metaphor translation. *Target* 17(2): 227–73.
- Dickins, James. 2018. Tropes and translation. In Malmkjær, Kirsten (ed.), *The Routledge handbook of translation studies and linguistics* (1st edition). London: Routledge.
- Dobrovol’skij, Dmitrij & Piirainen, Elisabeth. 2005. *Figurative language. Cross-cultural and cross-linguistic perspectives* (Volume 13). Oxford: Elsevier. 419–32.
- Gatserelia, Akaki. 1955. *Georgian poem*. Tbilisi: Scientific-Methodological Cabinet Publishing House.
- Gibbs Jr, Raymond W. & Colston, Herbert L. 2006. The cognitive psychological reality of image schemas and their transformations. In Geeraerts, Dirk (ed.), *Cognitive linguistics. Basic readings* (Volume 34). Berlin: Walter de Gruyter. 347–78. doi: 10.1515/9783110199902.347.
- Grady, Joseph Edward. 1997. Foundations of meaning. Primary metaphors and primary scenes. Berkeley: University of California. (Doctoral dissertation.)
- Halverson, Sandra L. 2007. A cognitive linguistic approach to translation shifts. *Belgian Journal of Linguistics* 21(1).
- He, Sui & Shuttleworth, Mark & Wang, Caiwen. 2022. Translating cognitive and linguistic metaphors in popular science. A case study of scientific discoveries. *transLogos* 5(2): 1–26.
- Johnson, Mark. 1987. *The body in the mind. The bodily basis of meaning, imagination, and reason*. Chicago: University of Chicago Press.
- Kimmel, Michael. 2005. Culture regained. Situated and compound image schemas. In Hampe, Beate & Grady, Joseph E. (eds.), *From perception to meaning. Image schemas in cognitive linguistics*. Berlin: De Gruyter Mouton. 285–311.

- Kimmel, Michael. 2002. *Metaphor, imagery, and culture: Spatialized ontologies, mental tools, and multimedia in the making*. Vienna: University of Vienna. (Doctoral dissertation.)
- Khintibidze, Elguja. 2009. *The ideological and worldview world of The Knight in the Panther's Skin*. Tbilisi: Kartveliolologist.
- Kövecses, Zoltán. 2002. *Metaphor. A practical introduction*. Oxford: Oxford University Press.
- Lakoff, George. 1987. Image metaphors. *Metaphor and Symbol* 2(3): 219–22.
- Lakoff, George. 1993. "The contemporary theory of metaphor." In Ortony, Andrew (ed.), *Metaphor and Thought*. Cambridge University Press. 202–52.
- Lakoff, George & Johnson, Mark. 1999. *Philosophy in the flesh. The embodied mind and its challenge to Western thought*. New York: Basic Books.
- Lakoff, George & Turner, Mark. 1989. *More than cool reason. A field guide to poetic metaphor*. Chicago: University of Chicago Press.
- Lakoff, George & Turner, Mark. 2006. *The way we think. Conceptual metaphor and the mind*. New York: Basic Books.
- Lakoff, George & Johnson, Mark. 1980. The metaphorical structure of the human conceptual system. *Cognitive science* 4(2): 195–208.
- Langacker, Ronald W. 1987. *Foundations of cognitive grammar. Volume 1. Theoretical prerequisites*. Stanford, CA: Stanford University Press.
- Langacker, Ronald W. 1990. *Concept, image, and symbol. The cognitive basis of grammar*. Berlin: Mouton de Gruyter. doi: 10.1515/9783110857734.
- Langacker, Ronald W. 1991. *Foundations of cognitive grammar. Volume 2. Descriptive application*. Stanford, CA: Stanford University Press.
- Malmkjær, Kirsten. 2018. *The Routledge handbook of translation studies and linguistics*. London: Routledge.
- Mandler, Jean M. & Cánovas, Cristóbal Pagán. 2014. On defining image schemas. *Language and Cognition* 6(4): 510–32.
- Miller, Hildy. 1993. Metaphoric components of composing processes. *Metaphor and Symbol* 8(2): 79–95.
- Nida, Eugene Albert. 1964. *Toward a science of translating. With special reference to principles and procedures involved in Bible translating*. Leiden: Brill.
- Nida, Eugene Albert & Taber, Charles Russell (eds.). 1962. *The theory and practice of translation* (2nd edition published in 1982). Leiden: Brill.
- Newmark, Peter. 1988. *A textbook of translation* (Volume 66). New York: Prentice Hall.
- Newmark, Peter. 1985. The translation of metaphor. In Paprotte, Wolf & Dirven, René (eds.), *The ubiquity of metaphor*. Amsterdam: John Benjamins. 295–326.
- Poirier, Éric. 2003. Conséquences didactiques et théoriques du caractère conventionnel et arbitraire de la traduction des unités phraséologiques [Didactic and theoretical consequences of the conventional and arbitrary nature of the translation of phraseological units]. *Meta* 48(3): 402–10.

- Rojo, Ana & Ibarretxe-Antuñano, Iraide. 2013. Cognitive linguistics and translation studies. Past, present and future. In Rojo, Ana & Ibarretxe-Antuñano, Iraide (eds.), *Cognitive linguistics and translation*. Berlin: De Gruyter Mouton. 3–30.
- Rustaveli, Shota. 1957. *The knight in the panther's skin*. Tbilisi: Sakhelgami.
- Semino, Elena. 2008. Metaphor in discourse. Cambridge: Cambridge University Press. doi: 10.1017/CBO9780511575273.
- Semino, Elena & Steen, Gerard. 2008. Metaphor in literature. In Gibbs Jr, Raymond W. (ed.), *The Cambridge handbook of metaphor and thought*. Cambridge: Cambridge University Press. 57–70.
- Shuttleworth, Mark. 2017. *Studying scientific metaphor in translation*. London: Routledge.
- Steen, Gerard J. & Dorst, Aletta G. & Krennmayr, Tina & Kaal, Anna A. & Herrmann, J. Berenike (eds.). 2010. *A method for linguistic metaphor identification*. John Benjamins Publishing Company. doi: 10.1075/celcr.14.
- Stockwell, Peter. 2019. *Cognitive poetics. An introduction*. New York: Routledge.
- Tabakowska, Elżbieta. 1997. Translating a poem from a linguistic perspective. *Target. International Journal of Translation Studies* 9(1): 25–41.
- Talmy, Leonard. 1988. Force dynamics in language and cognition. *Cognitive Science* 12(1): 49–100.
- Tay, Dennis. 2021. Image schemas. In Wen, Xu & Taylor, John R. (eds.), *The Routledge handbook of cognitive linguistics*. London: Routledge. 161–73.
- Toury, Gideon. 1995. *Descriptive translation studies and beyond*. Amsterdam: John Benjamins.
- Turner, Mark. 1996. *The literary mind: The origins of thought and language*. Oxford University Press.
- Wardrop, Marjory Scott. 1912. *Shot'ha Rust'haveli. The man in the panther's skin*. London: Royal Asiatic Society.
- Van den Broeck, Raymond. 1981. The limits of translatability exemplified by metaphor translation. *Poetics Today* 2(4): 73–87.

Khatuna Beridze
35 Ninoshvili Street, Batumi, Ajara,
Georgia, 6010
e-mail: beridze@bsu.edu.ge

Tamta Nagervadze
35 Ninoshvili Street, Batumi, Ajara
Georgia, 6010
e-mail: Tamta.nagervadze@bsu.edu.ge