

**A COMPARATIVE AND COGNITIVE STUDY OF SYNAESTHETIC EXPRESSIONS
IN THE UZBEK AND ENGLISH LANGUAGE**

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Abstract. Synesthetic metaphors make up a type of metaphors where the both domains pertain to perception. There are some attempts to develop concepts explaining translation patterns for encoding linguistic synesthesia in target languages, however there is lack of translation strategies and models. Thus, the study proposed to fill the gap and elicit cognitive patterns and strategies used by English-speaking translators when confronted with Uzbek synesthetic metaphors. Synesthetic metaphors make up a specific class of metaphors where the both domains pertain to perception. Despite the attempts to develop concepts explaining translation patterns for encoding linguistic synesthesia in target languages, there are still no well-designed classifications of translation strategies. Thus, the study aimed to fill the gap and elicit cognitive patterns and strategies used by English-speaking translators when confronted with Uzbek synesthetic metaphors. The paper also focuses on the problem of detecting universals and shifts in understanding intermodal relations across languages and across individual translators. The novelty of the study consists in the development of the original typology of translation patterns and strategies used for synesthetic metaphors.

Keywords: synesthetic metaphor, translation strategies, cognitive model, intermodal relations, cultural frame, conceptual mapping.

Annotatsiya. Sinestezik metaforalar — bu ikkala domen ham sezgi bilan bog‘liq bo‘lgan metafora turidir. Hozirga qadar tilshunoslikdagi sinesteziyani boshqa tillarga kodlash jarayonlarini tushuntirish uchun ayrim konsepsiyalar ishlab chiqilgan bo‘lsa-da, tarjima strategiyalari va modellari bo‘yicha to‘laqonli tasniflar mavjud emas. Shu sababli, mazkur tadqiqot ingliz tilida so‘zlashuvchi tarjimonlarning o‘zbek sinestezik metaforalari bilan ishlash jarayonida qo‘llaydigan kognitiv naqshlari va strategiyalarini aniqlashga qaratildi. Shuningdek, maqolada turli tillar va tarjimonlar o‘rtasida intermodal munosabatlarni anglashdagi universallar va siljishlarni aniqlash masalasi ham ko‘rib chiqiladi. Tadqiqotning yangiligi sinestezik metaforalarni tarjima qilishda qo‘llanilgan naqshlar va strategiyalar tipologiyasining yaratilishida namoyon bo‘ladi.

Kalit so‘zlar: *sinestezik metafora, tarjima strategiyalari, kognitiv model, intermodal munosabatlar, madaniy freym, konseptual xaritalash.*

Аннотация. Синестетические метафоры представляют собой особый тип метафор, в которых обе сферы относятся к восприятию. Несмотря на существующие попытки разработать концепции, объясняющие модели перевода и кодирования лингвистической синестезии в целевых языках, до сих пор не создано полноценной классификации переводческих стратегий. В связи с этим данное исследование направлено на выявление когнитивных моделей и стратегий, применяемых англоязычными переводчиками при работе с узбекскими синестетическими метафорами. Кроме того, в статье рассматривается проблема выявления универсалий и сдвигов в понимании

интермодальных отношений между языками и индивидуальными переводчиками. Новизна исследования заключается в разработке оригинальной типологии переводческих моделей и стратегий, применяемых при переводе синестетических метафор.

Ключевые слова: *синестетическая метафора, переводческие стратегии, когнитивная модель, интермодальные отношения, культурный фрейм, концептуальное отображение.*

Introduction. In language, synesthetic expressions (sharp taste, warm color) refer to blending and as a part of Conceptual Metaphor Theory CMT, it postulates one sensory domain through of other triggered sensory modalities. This is linguistic phenomenon highlights the brain ability to formulate links between unrelated sensory or conceptual loads. So, linguistic synesthesia is rooted from embodied cognition. Metaphoric conceptualization means cross domain mappings following a unidirectional pattern – from source to target domain (Lakoff, Johnson, 2003). The most debated issues posing challenge to translation researchers is that, synesthetic expressions often vary across languages and cultures. They usually do not have direct equivalent in the target culture. Translators render them intuitively or by basing on their cultural knowledge. This involves leveraging their linguocognitive models to achieve appropriate equivalence and adaptation.

Literature review. Research on metaphors has a long tradition within cognitive linguistics, beginning with the seminal work of Lakoff and Johnson (1980), who argued that metaphors are not merely stylistic devices but fundamental to human thought and conceptualization. Within this framework, synesthetic metaphors have attracted scholarly attention as they cross sensory domains, for example when sounds are described as “bright” or colors as “loud” [Ullmann, 1957]. Synesthesia in language illustrates the complex interplay between sensory modalities and conceptual mapping, making it a fertile area for translation studies.

Previous studies have focused on cataloguing the patterns of synesthetic metaphors across languages. Williams proposed one of the earliest taxonomies, highlighting the directional tendencies of sensory transfer (e.g., tactile → visual, auditory → visual). Later, Yu (2003) explored synesthetic metaphors in Chinese, demonstrating that cultural cognition strongly influences the acceptability and direction of metaphorical mappings. In translation studies, however, synesthetic metaphors remain relatively understudied. Applying this to synesthetic metaphors suggests that translators must reconstruct sensory associations in ways that are both cognitively and culturally resonant. Yet, few systematic models exist to guide this process. Mandelblit (1995) argued that cultural and cognitive frames significantly influence metaphor translation, a claim echoed by Kövecses (2010), who demonstrated that while some metaphorical mappings are universal, their linguistic realizations differ.

More recently, scholars have attempted to integrate cognitive models into translation studies. Tabakowska (1993) emphasized the role of mental imagery in translation, arguing that metaphors require the translator to engage in “mental re-modeling.” Despite these contributions, there remains a lack of comprehensive typologies that categorize strategies for translating synesthetic metaphors. Most existing studies are either descriptive or confined to single languages, leaving a gap in comparative and applied frameworks. This research therefore seeks to contribute by developing an original typology of translation strategies based on empirical analysis of English renderings of Uzbek synesthetic metaphors. Such a typology not only enriches theoretical understanding but also offers practical guidance for translators dealing with complex multimodal and cross-sensory phenomena.

Research methodology. This study employs a multi-methodological approach grounded in linguo-cognitive translation theory. Contrastive analysis of metaphorical structures in English and Uzbek, focusing on cross-modal and intra-modal mappings to identify cognitive shifts during translation. Analytical tools derived from Frame Semantics [Fillmore, 1982], which allow for systematic examination of how metaphorical meanings are structured and interpreted across languages. The cognitive paradigm of Descriptive Translation Studies (DTS) as articulated by Toury, which facilitates the analysis of how translation decisions reflect underlying conceptual and cultural patterns.

This integrated methodological framework enables a detailed examination of metaphor translation not only at the lexical level, but also at the level of conceptual frames and cognitive domains, which is central to linguo-cognitive models of the translation process.

Analysis and results. The aim of the study is to elicit translation patterns used for synesthetic imagery by contrasting synesthetic metaphors from Uzbek literary discourse with their English translations. As an important part of the study, investigation of regularities in cross-modal mappings both in the source language and in the target text using frame-based analysis is provided. It is assumed that, metaphor translation analysis will assist on the strategies of synesthetic translation in different languages. This paper is concerned with metaphor understanding, decoding and interpretation.

Many scholars have analyzed synesthetic, that there are clear preferences as concerns which sensory modalities are connected in synesthetic metaphors. Transfers go from ‘lower’ senses (taste, smell, touch) to higher senses (hearing, sight). For example, ‘sweet voice’ (from taste to hearing) has more chances to occur in texts than something along the lines vocal sweetness. In addition, transfers that follow the low to high direction seem to be more natural and easy to recall. [Shen Y., 199:55]

Many cultures share the same synesthetic expressions due to shared human sensory experiences. However, some are culturally specific. For instance, ‘*cold shoulder*’ (indifference) has no direct equivalent in the Uzbek language. ‘*Shirin damlar*’ (sweet moments) conveys emotional tone, which might be translated ‘cherish memories’.

Cognitive mapping	Uzbek metaphors	English equivalents	Translation strategy
Taste→sound (pleasantness)	shirin ovoz, shirali ovoz	sweet voice	Frame preservation
Vision→cognition (clarity)	yorqin fikr	bright idea	Frame preservation
Touch →sound (mildness)	yumshoq ovoz	soft voice	Frame preservation
Taste →sound (emotional impact)	achchiq haqiqat	bitter truth	Conceptual shift or cognitive reframing
Touch →vision (dimness)	mayin yorug’lik	soft light	Lexical shift
Taste → cognition (emotional impact)	achchiq xotira	bitter memory	Frame preservation
Physical sensation →emotion (distance)	sovuq qarash	cold gaze	Metaphor substitution
Physical force →weather (strength)	qattiq shamol	hard wind	Conceptual shift or cognitive reframing

Sound →volume(intensity)	baland ovozlar	loud voices	Frame preservation
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Frame semantic analysis was applied for modelling the mappings to translate. Metaphor Translation Studies and Frame-based analysis assist to detect language universals and linguistic typology in comprehending cross-modal relations in the Uzbek and English language the contrastive analysis revealed two or three different translations of the same Uzbek synesthetic metaphor.

Cognitive mapping	Uzbek metaphors	English equivalents	Cognitive mapping shifts
Touch →Physical sensation	sharp pain	o'tkir og'riq	Touch →Physical sensation
Vision→cognition	dark thoughts	Tashvishli o'ylar	Vision→cognition
Physical sensation → emotion or Temperature → Emotion	cold shoulder	sovuq qarash	Physical sensation → Emotion
Physical sensation → social interaction	warm welcome	iliq kutib olish	Physical sensation → Social interaction
Sound →intensity	loud colours	yorqin ranglar	Vision →intensity
Sound →social action	Silent protest	Sassiz norozilik	Sound → Action (communication/social behavior)
Sound→volume	loud voices	baland ovozlar	Sound → Intensity (volume) — Preserved
Sound → Tone/Emotion	sharp voice	keskin ovoz	Sound → Emotion/Attitude (via tone)
Temperature → Personality	sovuqqon	cold-blooded	Temperature → Emotion/personality
Vision→Taste	yorqin ta'm	bright flavor	Vision → Taste

This table illustrates how cognitive metaphors in Uzbek and English function similarly across

different sensory domains (touch, vision, sound, etc.), but with some subtle cognitive mapping shifts—where the metaphorical meaning is carried over from one sensory domain to another or reinterpreted.

Let's focus more on the row:

One particularly intriguing example of metaphorical divergence between English and Uzbek is found in how intensity is metaphorically mapped across sensory domains. This can be seen clearly in the metaphor “*loud colours*”, which is commonly used in English to describe bright, striking, or visually intense colours. At first glance, this phrase appears counterintuitive since “loud” is a term typically associated with sound, not vision. However, it operates as a metaphor grounded in cross-modal cognitive mapping, where qualities of auditory perception (loudness) are metaphorically extended to visual intensity (brightness, vividness).

In English, this metaphor exemplifies a Sound → Vision mapping: a high-intensity sound (loudness) is used to convey a high-intensity colour (brightness). The perception of intensity is abstract, and because humans often experience loud sounds as overwhelming or hard to ignore, this same intensity schema is extended metaphorically to the visual domain to describe certain colours as “loud”.

In contrast, the Uzbek equivalent, “*yorqin ranglar*”, which literally translates to “bright colours,” stays entirely within the visual modality. This reflects an intra-modal mapping, where visual intensity is described using visual terms, preserving the domain alignment. The preference for domain-consistent metaphors in Uzbek may indicate a cultural-linguistic tendency to avoid perceptual blending between sensory categories, relying instead on direct experiential associations.

This divergence suggests an important cognitive mapping shift between the two languages:

Conceptual Target	English Domain	Source	Uzbek Domain	Source	Cognitive Type	Mapping
Visual Intensity	Sound (loud)		Vision (bright)		Cross-modal (EN), Intra-modal (UZ)	

Implication for Translation strategies. Frame-based analysis provides a systematic approach to understanding and translating synesthetic and cross-modal metaphors within the linguo-cognitive model. In the context of translation between English and Uzbek, three core strategies emerge that reflect varying degrees of cognitive and cultural alignment:

1. **Direct Mapping (Cognitive Universals).** Some metaphors are grounded in shared human sensory experience and can be translated directly because the conceptual mappings are cognitively universal. For example, *sharp pain* → *o'tkir og'riq* and *cold stare* → *sovuq qarash* maintain both linguistic and cognitive integrity across languages. These metaphors require minimal cognitive restructuring during translation.
2. **Linguistic Adaptation (Cognitive Reframing).** When metaphorical mappings differ between source and target languages, translators must adapt the metaphor to align with the target language's conceptual domain preferences. For instance, translating “*loud colours*” to “*yorqin ranglar*” involves shifting from a cross-modal (Sound → Vision) to an intra-modal (Vision → Vision) mapping. This demands careful attention to how intensity is conceptualized in each culture, reflecting a reframing of the metaphor while preserving the core semantic intent.

3. Cultural Substitution (Context Sensitivity and Creativity). Some metaphors are culture-specific and have no direct or even analogous counterpart in the target language. In these cases, translators must employ creative substitution strategies to ensure the metaphor resonates with the target audience. For example, *achchiq haqiqat* is better rendered as *harsh truth* than *bitter truth* in certain contexts, reflecting an intensity-based emotional frame more appropriate in English. Similarly, *shirin damlar* becomes *cherished moments*, as the metaphorical use of "sweet" for time does not align with English conceptual norms.

These strategies reflect the core mechanisms of linguo-cognitive translation models: conceptual mapping, frame alignment, and cultural-contextual sensitivity. Translators act as cognitive mediators, navigating between divergent metaphorical systems to maintain not only semantic meaning but also the cognitive and emotional impact intended by the original language.

Conclusion. These findings reinforce that metaphors serve as cognitive bridges in translation—tools that reveal how humans conceptualize the world and how these conceptualizations can shift across linguistic boundaries. Accurately translating such metaphors demands not only linguistic competence but also a high degree of cognitive awareness and intercultural sensitivity. It reinforces the view that successful translation depends on the translator's ability to navigate and realign divergent metaphorical frameworks, ensuring both semantic fidelity and cognitive resonance.

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