

THE INFLUENCE OF L1 (MOTHER TONGUE) ON
TRANSLATING SCIENTIFIC TERMINOLOGY INTO L2 (SECOND
LANGUAGE)

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Annotation: This article investigates the linguistic impact of a translator's first language (L1) on rendering scientific terminology into a second language (L2). It focuses on specific types of transfer and interference observed in the translation process, including lexical calques, syntactic mismatches, and phonetic transliterations. Emphasis is placed on how these phenomena manifest among Uzbek native speakers translating scientific texts into English. The article identifies key patterns in cross-linguistic influence and highlights the structural and semantic shifts caused by L1.

Keywords: L1 interference, cross-linguistic transfer, scientific terminology, calque, transliteration, syntactic mismatch

Annotatsiya: Ushbu maqolada tarjimonning birinchi tili (L1) ilmiy terminlarni ikkinchi tilga (L2) tarjima qilish jarayoniga ko'rsatadigan lingvistik ta'siri tahlil qilinadi. Matnda transfer va interferensiya turlariga e'tibor qaratiladi — xususan, leksik kalkalar, sintaktik mos kelmasliklar va fonetik transliteratsiya misollarida. O'zbek tilida so'zlashuvchilarning ingliz tiliga ilmiy tarjima qilishdagi tipik xatoliklari va ularning sabablari ochib beriladi. Maqola ona tilining tarjima strukturasi va semantikasiga bo'lgan ta'siri doirasida olib boriladi.

Kalit so'zlar: L1 interferensiyasi, tilaro transfer, ilmiy terminologiya, kalka, transliteratsiya, sintaktik xatolar

Аннотация: В статье рассматривается влияние первого языка (L1) переводчика на передачу научной терминологии на втором языке (L2). Анализируются конкретные случаи межъязыкового переноса и интерференции, такие как калькирование, синтаксические несоответствия и

фонетическая транслитерация. Основное внимание уделяется ошибкам, совершаемым носителями узбекского языка при переводе научных терминов на английский. Статья рассматривает, как родной язык влияет на структуру и семантику перевода.

Ключевые слова: интерференция L1, межъязыковой перенос, научная терминология, калька, транслитерация, синтаксические ошибки

Scientific translation requires high terminological accuracy and adherence to domain-specific language conventions. When rendering scientific texts into L2, the translator's native language (L1) often exerts a subconscious influence. This influence can result in structural transfers, lexical borrowings, or semantic shifts that may deviate from target language norms. The role of L1 is especially noticeable in non-native English contexts, such as Uzbek-English translation, where linguistic systems differ significantly.

Vinay and Darbelnet define such influence as “transfer of linguistic habits from one language into another,” which can result in systemic deviation when unchecked [1, p. 89].

Types of L1 Influence in Scientific Translation

Lexical Calques

Literal translations of terminology elements often result in unnatural or incorrect structures in L2. **Example:**

- Uzbek: “*ma'lumotlar bazasi*” → “*base of data*” (instead of *database*)

This occurs due to linear translation based on Uzbek syntax.

Syntactic Transfer

Uzbek sentence structure often places verbs at the end, whereas English prefers Subject-Verb-Object word order. **Example:**

- Uzbek: “*U eksperiment o'tkazdi*”
- Incorrect L2: “*He did the experiment*”
- More suitable: “*He conducted an experiment*”

Such transfer is driven by syntactic expectations of L1, leading to reduced fluency in L2.

Phonetic Transliterations

Scientific terms borrowed into Uzbek from Russian or other languages are sometimes re-transliterated into English incorrectly.

Example:

- Uzbek: “*antibiotik*” → “*antibiotik*” instead of “*antibiotic*”

Observed Patterns in Uzbek-English Scientific Translation

Morphological Simplification

When a concept in English has a compound structure (e.g., “*air pollution monitoring system*”), L1 speakers may simplify or reorder it:

- “*monitoring system of air pollution*”

Semantic Ambiguity

Some Uzbek scientific terms are broader in meaning and lack one-to-one English equivalents. **Example:**

- Uzbek: “*tekshiruv*” can mean *inspection*, *study*, *test*, or *examination*, depending on context. Improper selection causes ambiguity.

Interference Typology Table

L1 Influence Type	Example (Uzbek > English)	Deviation Category
Lexical Calque	<i>base of data</i>	Terminological error
Syntactic Transfer	<i>did experiment</i>	Structural misalignment
Phonetic Transliteration	<i>antibiotik</i>	Spelling/lexical mismatch
Semantic Broadness	<i>tekshiruv</i> → <i>checking</i>	Semantic inaccuracy

Comparative Perspective

Compared to languages with grammatical similarities to English (e.g., German, Dutch), agglutinative languages like Uzbek present distinct challenges in term formation and clause structure. The suffix-based grammatical organization often leads to misinterpretation of compound scientific terms in L2.

Newmark emphasizes that “when translating scientific content, even partial semantic overlap can mislead the target reader if structural norms are violated” [2, p. 64].

The mother tongue remains a persistent cognitive filter in the translation process, particularly in rendering scientific and technical terminology. Lexical calques, syntactic mismatches, and phonetic transfers are the most common forms of L1 interference among Uzbek L1 translators working into English.

These influences, while natural in multilingual cognition, require awareness and careful navigation during scientific translation tasks to avoid compromising precision and clarity. This investigation highlights patterns of linguistic interference without prescribing pedagogical measures, focusing instead on descriptive observation of common translation tendencies in bilingual contexts.

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