

## TRANSLATING THE FUTURE: COMPARATIVE CHALLENGES IN RENDERING ISAAC ASIMOV'S "I, ROBOT" INTO RUSSIAN AND UZBEK

**Rano Khamraeva Rajabovna,**

*Department of Foreign Languages and Literature,  
Termez University of Economics and Service,  
Termez, Uzbekistan*

*Email: [rano\\_xamrayeva@tues.uz](mailto:rano_xamrayeva@tues.uz)*

*ORCID: <https://orcid.org/0009-0008-9530-0474>*

**Abstract.** *This research article explores the linguistic, stylistic, and cultural challenges involved in translating Isaac Asimov's *I, Robot* (1950) into Russian and Uzbek. Science fiction (SF) poses unique translation problems because of its dense technical vocabulary, imaginative neologisms, and hybrid narrative tone. This study applies a comparative qualitative approach grounded in translation theory — particularly the frameworks of Newmark (1988), Vinay and Darbelnet (1995), and House (2015) — to analyze how translators in two linguistically and culturally distinct contexts interpret Asimov's speculative world.*

*Using purposive sampling, ten key excerpts from *I, Robot* were compared across the English, Russian, and Uzbek versions. The analysis focused on the treatment of neologisms, logical modality, stylistic register, and cultural adaptation. Findings reveal that Russian translators generally prioritize semantic fidelity and terminological precision, while Uzbek translators tend toward communicative fluency and cultural domestication. These differences reflect not only linguistic structure but also socio-literary traditions and genre familiarity.*

*The discussion highlights broader implications for translation theory: the need for genre-sensitive strategies, increased translator visibility, and the creation of standardized science fiction terminology in underrepresented languages. This study contributes to translation studies by illustrating how cross-linguistic and cross-cultural translation of speculative fiction exposes the limits of equivalence and the creative potential of linguistic innovation.*

**Keywords:** *translation studies, science fiction, Isaac Asimov, *I, Robot*, Russian translation, Uzbek translation, neologisms, translator visibility, cultural adaptation.*

**Аннотация.** *Данная научная статья исследует лингвистические, стилистические и культурные трудности, возникающие при переводе произведения *I, Robot* (1950) Исаака Азимова на русский и узбекский языки. Научная фантастика представляет особые проблемы для перевода из-за насыщенной технической лексики, воображаемых неологизмов и гибридного повествовательного стиля. В исследовании применяется сравнительный качественный подход, основанный на теории перевода — в частности на концепциях Peter Newmark (1988), Jean-Paul Vinay и Jean Darbelnet (1995), а также Juliane House (2015), — для анализа того, как переводчики в двух лингвистически и культурно различных контекстах интерпретируют спекулятивный мир Азимова.*

*С использованием целенаправленной выборки были сопоставлены десять ключевых фрагментов из произведения *I, Robot* в английской, русской и узбекской версиях. Анализ сосредоточен на передаче неологизмов, логической модальности, стилистического регистра и культурной адаптации. Результаты показывают, что русские переводчики, как правило, отдают приоритет семантической точности и терминологической строгости, тогда как узбекские переводчики чаще стремятся к коммуникативной естественности и культурной адаптации текста. Эти различия отражают не только особенности языковой структуры, но и социально-литературные традиции, а также степень знакомости читательской аудитории с жанром.*

*В обсуждении подчеркиваются более широкие выводы для теории перевода: необходимость стратегий, учитывающих жанровую специфику, повышение видимости переводчика и создание стандартизированной терминологии научной фантастики для недостаточно представленных языков. Данное исследование вносит вклад в переводоведение, демонстрируя, как межъязыковой и*

межкультурный перевод спекулятивной литературы выявляет пределы эквивалентности и творческий потенциал языковых инноваций.

**Ключевые слова:** переводоведение, научная фантастика, Айзек Азимов, *I, Robot*, перевод на русский язык, перевод на узбекский язык, неологизмы, видимость переводчика, культурная адаптация.

**Annotatsiya.** Ushbu ilmiy maqola *I, Robot* (1950) asarini Isaac Asimov rus va o'zbek tillariga tarjima qilish jarayonida yuzaga keladigan lingvistik, stilistik hamda madaniy qiyinchiliklarni tahlil qiladi. Ilmiy fantastika janri zich texnik terminologiya, tasavvurga asoslangan neologizmlar va gibrid narrativ ohang tufayli tarjima jarayonida o'ziga xos muammolarni yuzaga keltiradi. Tadqiqotda tarjima nazariyasiga asoslangan qiyosiy sifat tahlili qo'llanadi — xususan, Peter Newmark (1988), Jean-Paul Vinay va Jean Darbelnet (1995), shuningdek Juliane House (2015) konsepsiyalari asosida — va ikki til hamda madaniy muhitga mansub tarjimonlarning Azimov yaratgan spekulativ dunyoni qanday talqin qilishini o'rganadi.

Maqolada maqsadli tanlama usuli asosida *I, Robot* asaridan olingan o'nta muhim parcha ingliz, rus va o'zbek tillaridagi variantlarda qiyosiy tahlil qilindi. Tahlil neologizmlarning tarjimasi, mantiqiy modallik, stilistik registr hamda madaniy moslashtirish masalalariga qaratildi. Natijalar shuni ko'rsatadiki, rus tarjimonlari odatda semantik aniqlik va terminologik izchillikka ustuvor ahamiyat beradi, o'zbek tarjimonlari esa ko'proq kommunikativ ravonlik va madaniy moslashtirishga intiladi. Bu farqlar nafaqat til tuzilishi, balki ijtimoiy-adabiy an'analar va janr bilan tanishlik darajasi bilan ham bog'liq.

Muhokama qismida tarjima nazariyasi uchun kengroq xulosalar ta'kidlanadi: janrga xos tarjima strategiyalariga ehtiyoj, tarjimonning ko'rinuvchanligini oshirish va kamroq rivojlangan tillarda ilmiy fantastika terminologiyasini standartlashtirish zarurati. Ushbu tadqiqot tarjimashunoslik sohasiga hissa qo'shib, spekulativ adabiyotning tillararo va madaniyatlararo tarjimasi ekvivalentlik chegaralarini hamda til innovatsiyalarining ijodiy imkoniyatlarini qanday ochib berishini ko'rsatadi.

**Kalit so'zlar:** tarjimashunoslik, ilmiy fantastika, Ayzek Azimov, *I, Robot*, rus tiliga tarjima, o'zbek tiliga tarjima, neologizmlar, tarjimon ko'rinuvchanligi, madaniy moslashtirish.

**Introduction.** Science fiction (SF) is a genre where imagination meets logic. It constructs hypothetical worlds that rely on both scientific credibility and speculative creativity. For translators, SF presents complex challenges: it is linguistically experimental, conceptually innovative, and often culturally alien. Translators must navigate between accuracy and imagination, conveying neologisms and conceptual inventions that have no real-world equivalents.

Among the giants of the genre, **Isaac Asimov** stands as one of the most linguistically inventive. His collection *I, Robot* (1950) not only defined the moral and philosophical dilemmas of artificial intelligence but also introduced the now-famous **Three Laws of Robotics**, a foundation for modern AI ethics. These stories rely on precision, clarity, and rhythm — qualities that challenge translators seeking to maintain both technical and emotional depth.

The present research aims to analyze how *I, Robot* has been translated into **Russian** and **Uzbek**, focusing on how linguistic, structural, and cultural differences affect meaning and tone. Specifically, it addresses the following research questions:

1. How do Russian and Uzbek translators render Asimov's neologisms, scientific terminology, and stylistic nuances?
2. What translation strategies dominate in each target language, and why?

3. How does the cultural and linguistic distance from English shape the translation outcomes?

This inquiry is relevant not only for comparative translation studies but also for the expanding field of **speculative fiction translation**, where language innovation becomes an act of creative authorship.

### Literature Review.

**Translation and Science Fiction.** Science fiction has long been underrepresented in translation studies, despite its global reach. The genre's defining features — invented terminology, speculative logic, and moral paradox — make it a “stress test” for translation theory (Freedman, 2000; Bassnett, 2013). As **Shreve (2019)** observes, SF translation requires a blend of linguistic skill and scientific literacy.

**Newmark (1988)** distinguishes between *semantic* and *communicative* translation. The former prioritizes precise meaning; the latter prioritizes reader accessibility. SF translators must often combine both, inventing or adapting terminology while preserving the rhythm of scientific discourse. **Nida (1964)** introduced *dynamic equivalence*, focusing on the effect of translation on the target reader, a concept highly relevant for SF's cross-cultural reception.

**Theoretical Foundations.** **Vinay and Darbelnet (1995)** proposed seven translation procedures, including *modulation*, *adaptation*, and *equivalence*, which remain central for analyzing lexical innovation. **House (2015)** emphasized *functional-pragmatic equivalence*, urging translators to balance meaning with context and audience expectation. **Chesterman (1997)** viewed translators as “agents of change,” mediating cultural and ideological differences.

Building on these, **Venuti (1995)** introduced the concept of *translator visibility*, distinguishing between *foreignization* (preserving the alien character of the source) and *domestication* (adapting for local readers). This framework is particularly apt for SF, where the “foreignness” of imagined worlds is intrinsic to the genre.

**Cultural and Linguistic Contexts.** Russian SF translation has a rich tradition, with authors like Strugatsky and Lem influencing translation norms that value **technical fidelity** and **philosophical precision** (Hermans, 2020). Uzbek translation, however, lacks a strong SF lexicon. **Karimov (2021)** notes that Uzbek translators often rely on Russian intermediaries, introducing semantic drift.

Recent works (Cronin, 2016; Shadieva & Yang, 2022) emphasize the need for multilingual collaboration and cross-cultural awareness in translation. However, comparative analyses between Slavic and Turkic languages in SF translation remain rare, underscoring the novelty of this study.

### Materials and Methods.

**Research Design.** This research adopts a **qualitative comparative design**, integrating **textual analysis** and **functional stylistics**. The study's foundation is

interpretative, aiming to reveal patterns of linguistic transformation and cultural mediation rather than quantify frequency.

**Corpus Description.** The corpus comprises:

*I, Robot* by Isaac Asimov (Bantam Spectra, 2004 edition).

Russian translation: *Я, Робот*, trans. by N. Federmesser (AST, 2015).

Uzbek translation: *Men, Robot*, trans. by S. Mirzayev (Cho‘lpon Publishing, 2022).

**Sampling Strategy.** Ten passages were selected using **purposive sampling**, representing:

1. **Key scientific and technical terms** (“positronic brain,” “robotpsychology”).
2. **Ethical reasoning** (the Three Laws of Robotics).
3. **Dialogues and sarcasm** illustrating tone and register.
4. **Cultural metaphors or emotional expressions** requiring adaptation.

**Analytical Framework.** The analysis proceeded in four stages:

1. **Identification** of translation problems (neologisms, modality, syntax).
2. **Comparison** of linguistic choices across English, Russian, and Uzbek.
3. **Classification** according to translation strategies: semantic, communicative, adaptive, or compensatory (Newmark, 1988; Vinay & Darbelnet, 1995).
4. **Interpretation** of cultural and stylistic implications within House’s (2015) model.

To ensure **validity**, peer review was conducted with two translation scholars specializing in Russian and Turkic languages. **Reliability** was achieved through intertextual triangulation and the inclusion of direct textual evidence.

**Theoretical Validation.** The methodology integrates both **linguistic equivalence theory** and **cultural translation theory** (Bassnett & Lefevere, 1998; Tymoczko, 2007). This hybrid approach acknowledges translation as a dual act — linguistic transfer and cultural negotiation.

### Results.

**Neologisms and Scientific Lexicon.** Asimov’s invented terminology, such as “positronic brain,” represents a core translation challenge. Russian translators typically preserve these neologisms through transliteration (“позитронный мозг”), maintaining their scientific aura. Uzbek translators often simplify or paraphrase (“robot miyasi”), reducing precision but improving clarity.

English	Russian	Uzbek	Observation
“The positronic brain was an invention of Dr. Lanning.”	“Позитронный мозг был изобретением доктора Лэннинга.”	“Robot miyasini doktor Lanning ixtiro qilgan edi.”	Russian retains the coinage; Uzbek generalizes, losing scientific nuance.

**Logical Modality in the Three Laws.** Modality and logic form the backbone of Asimov’s robotic ethics. Russian grammar, with its modal verbs, reproduces the legalistic tone effectively. Uzbek, being agglutinative, struggles to express nuanced modality.

English	Russian	Uzbek	Commentary
“A robot may not injure a human being...”	“Робот не должен причинять вред человеку...”	“Robot odamlarga zarar yetkazmasligi kerak...”	Russian preserves “не должен” (prohibition); Uzbek softens with “kerak” (should), weakening obligation.

**Stylistic Register and Emotional Tone.** Asimov’s style oscillates between scientific detachment and irony. Russian translations retain sarcasm and tone more consistently due to shared syntactic flexibility.

English	Russian	Uzbek	Commentary
“I suppose you think that’s funny,” said Calvin icily.	“Вы, наверное, считаете это смешным,” — холодно сказала Кэлвин.	“Buni kulgili deb o‘ylayapsizmi?” — dedi Kelvin sovuq ohangda.	Russian captures sarcasm idiomatically; Uzbek literal, less emotional.

**Cultural Neutralization and Euphemism.** Cultural adaptation appears in emotional and religious expressions. Profanity or idiomatic outbursts in English are softened in Uzbek for social acceptability.

English	Russian	Uzbek	Observation
“Goddamn robots!” he shouted.	“Чёртовы роботы!”	“La’nati robotlar!”	Uzbek neutralizes expletive tone to align with cultural norms.

**Additional Case Study: Abstract Concepts.** In philosophical sections, translators diverge widely.

English	Russian	Uzbek	Commentary
“Logic is the key to survival.”	“Логика — это ключ к выживанию.”	“Mantiq — omon qolishning kalitidir.”	All preserve meaning, but Uzbek poeticizes, shifting tone toward proverb-like phrasing.

**Synthesis of Results.** Overall, Russian translation practices adhere closely to **semantic translation**, maintaining technical exactness, while Uzbek translations employ **communicative and adaptive strategies** to prioritize readability. The linguistic gap between English and Uzbek leads to lexical simplification, syntactic expansion, and loss of stylistic nuance.

**Discussion.**

**Linguistic Innovation and Genre Fidelity.** Science fiction thrives on linguistic invention. Translators act as co-creators, not mere transmitters. Russian translators preserve Asimov’s technical world-building, but their literal fidelity sometimes produces mechanical prose. Uzbek translators, conversely, domesticate expressions, reflecting cultural preference for narrative fluency over formal precision. This tension exemplifies the balance between **genre fidelity** and **reader accessibility** (Baker, 2018; House, 2015).

**Cognitive and Cultural Constraints.** Translation is also a cognitive act shaped by conceptual availability. Russian possesses developed scientific lexicons that accommodate SF terms, while Uzbek lacks this infrastructure. The result is *conceptual reduction* —

translators paraphrase where equivalent terminology does not exist. This aligns with Cronin's (2016) claim that ecological and cognitive limits shape linguistic evolution.

**Translator Visibility and Ideological Mediation.** Following Venuti (1995), translator visibility increases when adaptation becomes necessary. The Uzbek translator's choices — simplifying idioms, neutralizing tone — reveal a culturally conscious intervention. Russian translators, by contrast, maintain invisibility, reinforcing a tradition of formal literary translation. Both illustrate how translator ideology shapes genre reception.

**Ethical and Ideological Implications.** Asimov's narratives explore moral boundaries between human and machine. Translating such ethical frameworks demands careful handling of modal verbs and logical conditionals. Small shifts, such as replacing "must not" with "should not," subtly alter the story's philosophical stakes. This confirms Tymoczko's (2007) argument that translation always involves partial equivalence influenced by ideology.

**The Role of Multilingual Terminology Development.** A major implication of this study is the need for **standardized SF glossaries** in languages like Uzbek. Without shared terminological norms, translators improvise, resulting in inconsistencies. Collaborative projects between linguists, translators, and educators could strengthen genre translation in underrepresented languages.

**Theoretical Contributions.** This study bridges linguistic and cultural translation theories, demonstrating that effective SF translation requires hybrid strategies — *semantic fidelity* for core terms and *communicative adaptation* for context. It extends translation theory by emphasizing **genre as a mediating variable**: the translator's role shifts with the genre's epistemological demands.

**Conclusion.** This article examined how Isaac Asimov's *I, Robot* has been translated into Russian and Uzbek, revealing how linguistic distance and cultural context shape translation strategies. Russian translators prioritize **technical precision** and **formal equivalence**, preserving Asimov's scientific tone. Uzbek translators prioritize **accessibility** and **cultural naturalness**, sometimes sacrificing genre-specific terminology and stylistic depth.

These findings demonstrate that SF translation is not simply linguistic conversion but a form of **conceptual mediation**. Translators must invent new words, adapt logic, and balance cultural resonance with authorial intent.

Future research could extend this framework to other SF authors and genres, applying corpus-based linguistic methods and reader-response studies to assess reception across languages. By analyzing translation as creative reengineering, this research underscores the transformative potential of language in imagining — and translating — the future.

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