



“TISU IJTIMOIIY FANLARI VA INNOVATSION PEDAGOGIKA”

ILMIY JURNALI

“TISU Ijtimoiy fanlari va innovatsion pedagogika” jurnali – Respublikadagi ijtimoiy fanlar, pedagogika, psixologiya, sotsiologiya, falsafa va tarix yo‘nalishlarida izlanish olib borayotgan olimlar, doktorantlar va tadqiqotchilar, Oliy ta‘lim muassasalari professor-o‘qituvchilari, ilmiy izlanuvchilar hamda magistrantlar, maktab va texnikumlarda faoliyat yuritayotgan o‘qituvchilar, metodistlar va amaliyotchi pedagoglar, ta‘lim sohasida innovatsion yondashuvlarni joriy etishga qiziquvchi mutaxassislarining ilmiy salohiyatini namoyon etuvchi maqolalari e‘lon qilinadi.



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Mas'ul kotib:
Allamuratov Shuxrat Ashurovich

Dizayner:
Meyliqulov Shahboz
Xolmamatovich

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TAHRIR HAY'ATI A'ZOLARI:

Bosh muharrir, Qabulov Eshbolta Atamuratovich –
Termiz iqtisodiyot va servis universiteti
Tarix kafedrası professori, tarix fanlari doktori,
Termiz, O'zbekiston. eshbolta_qabulov@tues.uz

Bosh muharrir o'rinbosari – Salohiddinova Navro'za -
Termiz iqtisodiyot va servis universiteti
Pedagogika kafedrası dotsenti, pedagogika fanlari nomzodi,
Termiz, O'zbekiston. navruza_salohiddinova@tues.uz

Tarix fanlari muharriri Tursunov Nurillo Narzullayevich -
Termiz iqtisodiyot va servis universiteti
Tarix kafedrası professori v.b, tarix fanlari doktori,
Termiz, O'zbekiston. nurillo_tursunov@tues.uz

Ijtimoiy fanlar muharriri, Tursunov Muxiddin Boltayevich –
Termiz iqtisodiyot va servis universiteti
Ijtimoiy fanlar kafedrası dotsenti, sotsiologiya fanlari nomzodi,
Termiz, O'zbekiston. muxiddin_tursunov@tues.uz

Jismoniy madaniyat fanlari muharriri – Begimqulov Oltiboy
Jo'rayevich - Termiz iqtisodiyot va servis universiteti
Jismoniy madaniyat kafedrası professori,
Termiz, O'zbekiston. oltiboy_begimqulov@tues.uz

Pedagogika fanlari muharriri – Narboshova Maqsuda Achilovna -
Termiz iqtisodiyot va servis universiteti
Pedagogika kafedrası dotsenti, pedagogika fanlari nomzodi,
Termiz, O'zbekiston. maqsuda_narboshova@tues.uz

Rus tili va adabiyoti muharriri – Sattarova Elena Anatolevna –
Termiz iqtisodiyot va servis universiteti
Rus tili va adabiyoti kafedrası dotsenti, filologiya fanlari
falsafa doktori, Termiz, O'zbekiston. elena_sattarova@tues.uz

Ingliz filologiyasi muharriri – Urolova Oysuluv Poyon qizi -
Termiz iqtisodiyot va servis universiteti
Ingliz tili va adabiyoti kafedrası dotsenti, filologiya fanlari
falsafa doktori, Termiz, O'zbekiston. oysuluv_urolova@tues.uz

MUNDARIJA

G. E. TURAYEVA

Bo'lajak o'qituvchilarni ma'naviy tarbiyalashda o'quv jarayonini innovatsion texnologiyalar asosida rivojlantirish.....3

G.T. JUMAYEVA

Kasbiy kompetentlikni rivojlantirishda pedagogik yondashuv asoslari.....6

O.Ch.XOLOV

Yosh avlodni tarbiyalashda aksiologiyaning ahamiyati.....10

N.M. SALOXITDINOVA

Zamonaviy ta'lim sharoitida xorijiy tajriba va steam ta'limi.....14

B.X. ABRAYEV, I.N. XAYRULLAYEV

Matritsalar va odam anatomiyasida fanlararo integratsiya va funksional o'xshashliklar haqida tizimli yondashuv.....17

M.Y.MADIEVA

Translation strategies and linguistic adaptation of English brand names in Russian and Uzbek contexts.....22

S.Q. ESHBOYEVA

4K yondashuv samarali ta'lim kafolati.....26

N.N. SHODIYEVA

Erta nikoh qurishning oila mustahkamligiga ta'siri.....30

K.Sh.OLTIBOYEVA

Shaxs intellektual rivojlanishi - pedagogik muammo sifatida.....34

U.A. TASHBAYEVA

Talabalarda emotsional intellektni rivojlantirish orqali kommunikativ tayyorgarligini takomillashtirish texnologiyalari.....37

M.Y.MADIEVA

Brend nomlarining medialingvistik tahlili: o'zbek tilidagi milliy leksik birliklar asosida....41

R.D. NORQOBILOVA

Pedagogik konfliktlarda gender omilining roli.....47

G'.A. MAMARAJABOV

Surxon vohasi amaliy san'atning rivojlanishida hunarmandlar faoliyati.....50

F.A. ABDURAZZOQOV

Mamlakatda maktabgacha yoshdagi bolalarning kuchli zilzila bilan bog'liq favqulodda vaziyatlarda to'g'ri harakatlanishga tayyorlashning ta'sirchan va samarali mexanizmlari.....54

A.Ch. QOSIMOV

Surxon vohasida an'anaviy qo'ychilik va ularning vohaga xos xususiyatlari.....58

M.X. FAYZULLAYEVA

Tarixiy yozma manbalar va ilmiy adabiyotlar qimmatli manba sifatida.....62

S.A. JABBOROVA

Tarixiy yozma manbalar va ilmiy adabiyotlar qimmatli manba sifatida.....67

F. YORMATOV

Mamlakatimizda nuroniylarni ijtimoiy himoyalashning ustivor yo'nalishlari70

R. R. KHAMRAEVA

Linguistic Creativity in Science Fiction Translation: from Asimov's Robots to Modern AI Narratives.....76

I.H. JUMAYEV

"Qutadg'u bilig" dostonida insoniy nuqsonlarning badiiy ifodasi.....80

N.A. UMAROVA

Boshlang'ich ta'lim yo'nalishi talabalarining kasbiy kompetentli shakillantirish.....84

I.B. QARSHIYEVA

Talabalarga jadidchilar asarlaridagi ma'rifiy qadriyatlarini o'rgatishning pedagogik shart-sharoitlari.....89





Termez University of Economics and Service
Department of Foreign Languages and Literature
Rano Khamraeva Rajabovna
E-mail: hamraevasirin26@gmail.com

LINGUISTIC CREATIVITY IN SCIENCE FICTION TRANSLATION: FROM ASIMOV'S ROBOTS TO MODERN AI NARRATIVES

ABSTRACT

This article explores the role of linguistic creativity in translating science fiction (SF) literature, focusing on how translators mediate between technological innovation and literary imagination. The analysis spans from Isaac Asimov's mid-20th-century works such as *I, Robot* to modern AI-centered narratives like Ted Chiang's *The Lifecycle of Software Objects* and Ann Leckie's *Ancillary Justice*. Science fiction, as a hybrid genre, often merges scientific discourse with speculative storytelling, resulting in unique linguistic challenges that require creative solutions in translation. Through comparative textual analysis of English originals and Russian and Uzbek translations, this study identifies key strategies used to render neologisms, technolects, and metaphorical constructs. The findings show that while Russian translations prioritize lexical fidelity and genre precision, Uzbek translations tend to favor cultural readability and emotional accessibility, reflecting differing linguistic traditions and technological lexicons. The study argues that translation of SF is inherently creative, demanding the invention of new words, syntactic flexibility, and cross-disciplinary understanding. It concludes that linguistic creativity in SF translation not only preserves the integrity of speculative worlds but also extends the expressive capacity of target languages, fostering cultural adaptation to technological modernity.

Keywords: science fiction translation; linguistic creativity; neologisms; Isaac Asimov; Ted Chiang; Ann Leckie; artificial intelligence; translation strategies; Russian and Uzbek translation; translator visibility.

АННОТАЦИЯ

В данной статье рассматривается роль лингвистического творчества при переводе литературы научной фантастики (НФ), с акцентом на то, как переводчики выступают посредниками между технологическими инновациями и литературным воображением. Анализ охватывает работы Айзека Азимова середины XX века, такие как *Я, робот*, и современные повествования, сосредоточенные на ИИ, например, *Жизненный цикл программных объектов* Теда Чана и *Вспомогательная справедливость* Энн Лекки. Научная фантастика, как гибридный жанр, часто объединяет научный дискурс с спекулятивным повествованием, что создаёт уникальные лингвистические трудности, требующие творческих решений в переводе.

Посредством сравнительного анализа текстов английских оригиналов и их переводов на русский и узбекский языки, исследование выявляет ключевые стратегии передачи неологизмов, технолектов и метафорических конструкций. Результаты показывают, что русские переводы делают упор на лексическую точность и жанровую достоверность, тогда как узбекские переводы чаще ориентируются на культурную читаемость и эмоциональную доступность, отражая различные лингвистические традиции и технологические лексиконы.

Исследование утверждает, что перевод НФ по своей природе является творческим процессом, требующим изобретения новых слов, синтаксической гибкости и междисциплинарного понимания. Делается вывод, что лингвистическое творчество при переводе научной фантастики не только сохраняет целостность спекулятивных миров, но и расширяет выразительные возможности целевых языков, способствуя культурной адаптации к технологической современности.

Ключевые слова: перевод научной фантастики; лингвистическое творчество; неологизмы; Айзек Азимов; Тед Чан; Энн Лекки; искусственный интеллект; стратегии перевода; русский и узбекский перевод; видимость переводчика.

Introduction. Science fiction has long served as a laboratory for linguistic experimentation. From Isaac Asimov's robots and Arthur C. Clarke's

interstellar engineers to Ted Chiang's artificial intelligences, the genre thrives on invention—of both ideas and language. Translating such works is

a demanding act of creative negotiation between linguistic innovation and semantic precision. Asimov's famous term "positronic brain," for instance, has no real-world counterpart, yet it conveys scientific plausibility through linguistic ingenuity.

The translator's task is not only to convey meaning but to reimagine entire conceptual systems in another language. When translating into languages such as Russian and Uzbek, which differ typologically and culturally from English, the challenge becomes multidimensional: how to reproduce neologisms, maintain the tone of scientific rationalism, and ensure readability without eroding genre identity.

The goal is to highlight the translator's creative agency and the ways linguistic invention enables speculative fiction to thrive across linguistic and cultural boundaries.

Materials and Methods. This study employs a qualitative comparative methodology grounded in textual and linguistic analysis. The primary corpus includes:

- I, Robot (Isaac Asimov, 1950; Bantam Spectra edition, 2004)
- The Lifecycle of Software Objects (Ted Chiang, 2010)
- Ancillary Justice (Ann Leckie, 2013)
- Russian translations published by AST (Moscow)
- Uzbek translations published by Cho'lpon (Tashkent)

Passages were selected according to three criteria:

1. Presence of invented terminology (e.g., "positronic brain," "software consciousness")
2. Use of hybrid scientific-literary syntax
3. Thematic centrality of AI and machine ethics

The analysis proceeded in three stages:

1. Identification of linguistic creativity markers (neologisms, metaphorical extensions, syntactic innovations).
2. Comparison of English originals and their Russian and Uzbek translations.
3. Evaluation using theoretical models by Vinay & Darbelnet (1995) for translation procedures and Venuti (1995) for visibility and strategy.

This framework reveals how creativity functions both as a necessity and as a stylistic signature in SF translation.

Results. Asimov's "positronic brain" exemplifies linguistic creativity: a plausible yet fictional term

that fuses scientific terminology ("positron") with human anatomy ("brain").

- Russian translation: "ПОЗИТРОННЫЙ МОЗГ" — a direct transliteration preserving both form and meaning.
- Uzbek translation: "robot miyasi" ("robot brain") — semantically accurate but conceptually diluted.

In contrast, modern AI fiction often uses abstract terminology like "conscious algorithm" (Chiang) or "networked identity" (Leckie). Russian translators tend to retain these terms, while Uzbek translators paraphrase for clarity ("tarmoqqa ulangan ong"), illustrating differing cultural thresholds for neologism adoption.

In Chiang's fiction, AI beings are described with human emotional vocabulary—"They learned to love as code learns to evolve." Translating such metaphorical blends requires sensitivity to both technical and affective registers.

- Russian translation: "Они научились любить, как код учится развиваться" — maintains parallelism and rhythm.
- Uzbek translation: "Ular sevishni o'rgandilar, xuddi kod rivojlangandek" — literal, but less metaphorically potent.

This reveals a broader pattern: Russian translation emphasizes stylistic fidelity; Uzbek translation prioritizes semantic transparency.

Asimov's prose oscillates between technical exposition and narrative dialogue. Russian translators preserve formal register using compound syntax, while Uzbek versions simplify clauses for readability.

For example:

"Logic is the key to survival."

- Russian: "Логика — ключ к выживанию."
- Uzbek: "Mantiq — omon qolishning kaliti."

Both retain meaning, but Uzbek adds poetic rhythm through genitive construction, showcasing creative compensation.

Across all texts, translator visibility increases when linguistic invention is required. In *Ancillary Justice*, where the narrator is an AI collective voice, the translator must decide how to handle pronouns and plural consciousness. Russian translation ("мы" form) preserves collective identity, while Uzbek alternates between singular and plural, reflecting cultural tendencies toward individualization.

Such creative decisions are not mere linguistic adjustments—they reshape narrative identity.



This exemplifies Venuti's (1995) claim that the translator becomes a co-author in meaning creation.

Analysis. Linguistic creativity in SF translation functions structurally, not decoratively. Translators generate new lexemes, syntactic hybrids, and metaphorical mappings that sustain speculative plausibility. These inventions often precede linguistic standardization, making translation a driver of linguistic modernization.

Comparative tendencies reveal Russian translation as an institutionalized practice emphasizing terminological stability and genre fidelity, while Uzbek translation remains exploratory, marked by paraphrase, loan adaptation, and cultural localization. Both strategies expand their linguistic ecosystems—one through controlled innovation, the other through adaptive creativity.

Translating AI-centered fiction involves cognitive shifts: converting digital metaphors (“machine empathy,” “code consciousness”) into human conceptual frames. This demands translators navigate cognitive linguistics and cultural semiotics, blending science with affect to sustain plausibility.

The creative freedom required in SF translation raises ethical issues—how far can translators reshape meaning without betraying authorial intent? Balancing Venuti's “foreignization” and Baker's “creative equivalence” is essential: maintaining otherness while ensuring accessibility.

The study's findings suggest integrating creative translation training into SF pedagogy. Future translators should master both terminological engineering and cultural narrativity, supported by bilingual SF glossaries and AI-assisted tools to model stylistic innovation.

Discussion. Translating science fiction is impossible without creativity. Neologisms, speculative metaphors, and shifting syntactic norms demand imaginative problem-solving. As Newmark (1988) asserts, translation of new realities often precedes language evolution itself. In SF, translators act as linguistic pioneers, coining terms that later enter common usage (e.g., “robot,” originally coined by Čapek, gained international currency through translation).

Russian SF translation operates within a mature tradition that values terminological precision and scientific credibility. Its creative acts are often internal—adapting syntax or

coining logical derivatives. Uzbek, as a younger participant in SF translation, demonstrates overt creativity through semantic paraphrase, cultural adaptation, and hybridization with Russian loanwords. This visibility, rather than a weakness, signals linguistic expansion and modernization.

From Asimov's rationalism to Chiang's emotional machines, linguistic creativity reflects genre evolution. Asimov's language builds technological authority; Chiang's evokes empathy; Leckie's destabilizes identity through pronoun ambiguity. Translators must therefore navigate not only linguistic but also philosophical transformations.

For instance, translating “ancillary” (Leckie) required inventing a term signifying both servitude and autonomy—a conceptual oxymoron. Russian used “вспомогательная” (auxiliary), while Uzbek coined “yordamchi ong” (“assistant mind”), expanding its metaphorical scope.

Creative translation raises ethical questions: how much liberty can a translator take before altering the author's vision? Venuti's (1995) foreignization model supports maintaining strangeness to honor the speculative essence of SF. Yet excessive fidelity can alienate readers. The balance lies in what Baker (2018) calls “creative equivalence”—maintaining effect rather than form. Translating “machine empathy” as “машинное сочувствие” (Russian) versus “mashina hissi” (Uzbek) demonstrates how each culture negotiates the boundaries between technology and humanity.

This analysis suggests that SF translation should be taught as a creative and interdisciplinary practice, combining linguistics, literature, and science. Translators must be trained not just as language specialists but as inventors capable of lexical innovation and genre adaptation. Developing bilingual SF glossaries and shared databases could standardize terminology while encouraging individual creativity.

Conclusion. This study demonstrates that linguistic creativity is not an auxiliary skill but the core mechanism of science fiction translation. Translators of Asimov, Chiang, and Leckie act as linguistic innovators who extend the expressive limits of their languages. Russian translations exemplify controlled innovation through scientific precision, while Uzbek translations display adaptive creativity that bridges linguistic and cultural gaps.

Ultimately, translating speculative fiction

entails more than transferring words—it means reconstructing worlds. By forging new linguistic pathways, translators ensure that the imaginative frontiers of science fiction remain accessible and dynamic across cultures. Future research should explore computational tools, AI-assisted translation, and cross-linguistic corpora to examine how creative translation evolves in the digital era.

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