

Original Paper

Translating Fictional Cultural Concepts: Cultural Mediation and World-Building in Liu Cixin's Three-Body Trilogy

Chaofan Zhang¹ & Youwen Yang^{1*}

¹ School of Foreign Language, Hubei University of Technology, Wuhan, China

* Corresponding author. E-mail: youwiny@163.com

Received: September 9, 2026

Accepted: October 16, 2026

Online Published: October 28, 2026

doi:10.22158/jecs.v10n4p17

URL: <http://dx.doi.org/10.22158/jecs.v10n4p17>

Abstract

The English translations of Liu Cixin's Three-Body trilogy offer a useful case for studying how translation rebuilds cultural meaning that exists only inside a fictional world. Earlier studies have examined culture-loaded words, terminology, translator style, paratexts, publishing, and reception, while research on science-fiction translation has focused on invented words and world-building. Building on this work, the present study treats 'fictional cultural concepts' as an analytical category and asks a focused question: how do the English translations rebuild these concepts so that they work as coherent elements of the fictional world in English? Through a qualitative comparison of ten recurring source-target items, grouped around Wallfacer, Dark Forest, Sophon, and Trisolaris/Trisolaran, the study identifies four recurrent mechanisms: institutional compounding, metaphorical specialization, technological neologization, and derivational civilizational naming. Cultural mediation serves as the main framework, supplemented by domestication/foreignization and functionalist translation theory. The findings suggest that science-fiction translation mediates not only inherited cultural difference but also invented cultural systems, with implications for literary circulation and intercultural interpretation.

Keywords

fictional cultural concepts, cultural mediation, world-building, science fiction translation, neologism, Three-Body trilogy

1. Introduction

Translation has always played a central role in moving literature across languages and cultures. In contemporary Chinese science fiction, however, the translator's job is unusually demanding, because the text carries two kinds of difference at once. On the one hand, there are culturally specific histories,

social references, and ways of speaking that belong to real Chinese society. On the other hand, there are speculative worlds whose institutions, technologies, concepts, and even civilizations are invented by the narrative itself. Liu Cixin's Three-Body trilogy is a particularly rich case for examining this double task.

The English trilogy consists of *The Three-Body Problem*, translated by Ken Liu; *The Dark Forest*, translated by Joel Martinsen; and *Death's End*, again translated by Ken Liu (Liu, 2014, 2015, 2016). The series has circulated widely abroad, and a growing body of scholarship has treated it as a key case in research on Chinese science fiction, translation, world literature, and reception. This research shows that the English trilogy is not a transparent copy of the Chinese source. It is a mediated literary object, shaped by the two translators, by publishers, by genre conventions, and by the new interpretive environment in which it is read.

A related line of research in science-fiction translation studies has concentrated on neologisms, invented terminology, and world-building. Aksoy and Söylemez (2023) argue that fictive neologies help build the textual reality of imagined worlds, and that this reality has to be rebuilt in translation. Sánchez López (2024) makes a similar point, linking fictive neology to the construction and intelligibility of fictional worlds. In short, it is now well established that invented science-fiction vocabulary has to be reconstructed as part of a coherent target-language system.

Given this existing work, it would be misleading to claim that invented science-fiction vocabulary has been ignored. The gap is more specific. Studies of neology and terminology usually take the single lexical item as their unit of analysis, while studies of the Three-Body trilogy tend to classify terms by translation strategy, semantic consistency, or technical function. What has received less attention is how selected invented expressions work together as culture-like structures inside the narrative: as institutions, conceptual systems, technological identities, and civilizational naming networks. The present study therefore shifts the analytical unit from the isolated neologism to what we call the fictional cultural concept.

We use 'fictional cultural concepts' as an analytical category, not as a new translation theory. The term refers to invented concepts that organize collective behavior, knowledge, identity, authority, technology, or relationships within a fictional world. A Wallfacer, for example, is not simply an unusual word. It names an institution with expectations, authority, and an opposing role, the Wallbreaker. *Dark Forest* is not merely a metaphor; it develops into a model of relations among civilizations. *Sophon* is not only a coined technical noun; it condenses a technological asymmetry that structures the relationship between Earth and Trisolaris. And Trisolaris and Trisolaran do more than label an alien place and its people; they form a derivational naming system through which an entire civilization becomes linguistically coherent.

This distinction changes the translation problem in an important way. When a translator deals with an established culture-loaded item, the source meaning already has a social history outside the literary work. When the object is fictional, by contrast, the translator must create a target-language form for

something that has no real-world equivalent at all. The task is therefore not only to transfer meaning but also to reconstruct the conditions under which the invented concept can function in another language and another genre environment.

The central research question is accordingly: how do the English translations of Liu Cixin's Three-Body trilogy reconstruct fictional cultural concepts as coherent elements of the target-language fictional world? To answer this question, we conduct a qualitative comparative analysis of ten recurring source-target items, organized into four concept clusters: Wallfacer, Dark Forest, Sophon, and Trisolaris/Trisolaran. These four clusters represent, respectively, an invented social institution, a conceptual-metaphorical system, a technological entity, and a civilizational identity.

The study makes two modest contributions. First, it brings research on fictive neology and world-building into direct conversation with research on the English Three-Body trilogy, arguing that the relevant unit of analysis can be larger than the individual neologism. Second, it identifies four mechanisms through which fictional cultural concepts become operational in English: institutional compounding, metaphorical specialization, technological neologization, and derivational civilizational naming. Because our method is textual rather than reception-based, claims about global circulation and intercultural learning are treated as implications rather than measured outcomes.

2. Literature Review

2.1 *Translation as Cultural Mediation*

The cultural turn in translation studies moved the field beyond formal equivalence and situated translation within cultural, ideological, literary, and institutional systems. Earlier equivalence-oriented approaches (Nida, 1964; Newmark, 1988) remain useful for describing relationships between source and target expressions, but later work challenged the idea that translation is a neutral transfer of stable meanings. Lefevere (1992) describes translation as a form of rewriting shaped by poetics, ideology, and patronage. Baker (2018) and Pym (2014) similarly foreground context, pragmatic meaning, purpose, and negotiation.

Cultural mediation is especially useful for the present study because it treats the translator as an agent working between systems of meaning. Translators decide what can remain unfamiliar, what requires explanation, what needs restructuring, and what target-language resources can support the functions of the source text. This work is interpretive rather than mechanical. Even when a source item looks lexically simple, its function may depend on genre conventions, narrative history, social roles, or associations that have no ready-made equivalent in the target language.

Venuti's (2017) distinction between domestication and foreignization offers one way to describe this negotiation. Domestication reduces linguistic or cultural unfamiliarity, whereas foreignization preserves visible difference and resists complete assimilation to target norms. The opposition is most useful when treated as a continuum rather than a rigid binary, and many successful literary translations combine accessible morphology with conceptually unfamiliar content.

Speculative fiction makes this interaction especially visible. The 'foreignness' of a fictional term may come not only from China as a real source culture but also from the invented world itself. A term such as Wallfacer should not sound entirely ordinary, because the role it names does not exist in everyday Anglophone institutions. Yet it must be manageable enough to recur dozens of times without repeated glosses. Sophon needs to register as a new technological entity while behaving like an ordinary English noun.

Functionalist theory adds a second dimension. Nord (1997) argues that translation choices should be evaluated in relation to the intended function of the target text. This is directly relevant to world-building. A term that appears once can sometimes be paraphrased, but a term that names an institution, technology, theory, or civilization must survive repeated use, grammatical variation, derivation, and conceptual expansion. Functional adequacy may therefore require lexical invention even when literal correspondence is weakened.

These perspectives converge on a central principle: translation is a meaning-making activity whose success depends partly on the relations a target expression can sustain. For fictional cultural concepts, mediation operates among three systems at once—the Chinese source language, the internal logic of the fictional world, and the conventions of Anglophone science fiction. The target form succeeds when it remains faithful to the source concept while functioning coherently within the translated world. This emphasis on relational function provides the bridge from cultural mediation to world-building.

2.2 Fictive Neology and Science-Fiction World-Building

Science fiction routinely creates lexical and conceptual resources that distinguish an imagined world from ordinary reality. Suvin's (1979) concept of cognitive estrangement remains influential because it captures the genre's combination of difference and intelligibility: the reader meets a novum that is unfamiliar but organized enough to be interpreted. Later scholarship emphasizes that science fiction constructs not only technologies but also institutions, social orders, conceptual models, alternative histories, and civilizational imaginaries (Freedman, 2000; Csicsery-Ronay, 2008; Jameson, 2005). Mossop (2024) brings architecturally odd invented languages in science fiction into translation studies, arguing that translation involves not only lexical transfer but also differences in linguistic structure, world-building frameworks, and modes of cognition.

The rise of contemporary Chinese science fiction gives this problem a translingual dimension. Song (2015) links the post-1989 'New Wave' to changing social and intellectual conditions in China, and Gaffric (2019) situates the Three-Body trilogy within the status and transformation of science fiction in contemporary China. These studies suggest that Chinese science fiction enters international literary space not only through recognizable Chinese cultural elements but also through speculative concepts that must be rebuilt in other languages. Recent work continues to explore the cognitive and conceptual processes behind transferring invented terms across languages (Luo, 2024).

This literature helps define what is new in the present article. It would be inaccurate to suggest that invented science-fiction vocabulary or translated world-building has been neglected. What remains

worth doing, however, is to connect lexical innovation with differentiated, culture-like functions. A fictional institution, a technological entity, a theory of civilization, and a civilizational name may all involve neology, but they do not perform the same work in the narrative. We therefore ask how different lexical mechanisms support different types of fictional cultural organization.

This shift also prevents us from equating science-fiction culture with 'Chinese culture' in a narrow national sense. Fictional concepts can be produced within Chinese literature without directly representing Chinese history or custom. Their cultural significance lies in how they organize imagined social and conceptual life. Translation thus mediates both the source-language form and the fictional world that the form helps sustain.

2.3 Research on the English Three-Body Trilogy

Research on the English translations of the trilogy has expanded quickly, and it falls into four main lines. The first concerns culturally specific expressions. Duan and Li analyze culture-loaded words in *The Three-Body Problem* through the lens of functional equivalence, showing that literal, free, and combined strategies are used to balance accessibility and cultural information. Zhang, working from eco-translatology, likewise categorizes strategies for culturally loaded items. These studies provide a useful baseline, because their objects generally point outward toward existing Chinese history, language, political experience, or social culture.

A second line of research addresses scientific and speculative terminology. Lu et al. analyze interlingual terminological shifts and distinguish between popularization and scientization in the Chinese-English translation of *San Ti*, treating terminology as dynamic rather than as a set of pre-existing equivalents. Deng and Chen offer a broader terminology-oriented study, identifying 68 technological terms across the trilogy and classifying them into technical tools, organizations, astronomical physics, and socioanthropology. Their strategies include retaining source wording, choosing specialized vocabulary, translating by role, and using roots and affixes, with examples such as Wallfacer, Wallbreaker, chain of suspicion, the Dark Forest, Wallfacer Project, Sophon, and Trisolaran civilization. This work is especially close to the present article, and it sharpens our research gap. Deng and Chen ask how terminology maintains semantic consistency and scientific readability. We do not try to repeat or replace that inventory. Instead, we narrow the dataset and change the analytical unit: terms are grouped according to the institution, theory, technology, or civilization they jointly construct. The question is not only how an item is translated but how related items form a culture-like system in the target text.

A third line of work focuses on translator agency and style. Jin and Li compare Ken Liu and Joel Martinsen through corpus analysis and close reading, finding differences in narrative concerns and informational elaboration. Li examines translator intervention in gender-biased expressions, showing that target-language norms can motivate ideological modification. These studies matter methodologically because the trilogy has two English translators: Ken Liu translated *The Three-Body Problem* and *Death's End*, while Joel Martinsen translated *The Dark Forest*. We therefore attribute

Wallfacer and Dark Forest to Martinsen's volume and Sophon and the initial Trisolaris naming system to Ken Liu's volume, rather than treating the trilogy as the work of a single translator. Research on Liu Cixin's works more broadly also shows that translation involves wider cultural negotiation beyond individual lexical choices (Tan, 2024).

A fourth line of scholarship addresses circulation, publishing, and reception. Gaffric (2019) studies Orientalist and post-Orientalist frames surrounding the trilogy's translation and reception; Wu examines the globalization and dissemination of Liu Cixin's works; Deng and Goh analyze the political and literary fields behind the trilogy's English publication; Wu and Chen focus on paratextual mediation; and Xiong and Zhang offer a reception-based study using library holdings, sales rankings, and reader ratings. These studies clarify both the relevance and the limits of the present article. The trilogy's international circulation is well documented, but textual analysis alone cannot show what global readers actually understand or how strongly a translated concept affects them. We therefore avoid treating circulation as a synonym for reception. Our contribution is textual: we ask what linguistic structures make fictional concepts coherent and portable in English, leaving actual reader response to reception-based methods.

2.4 Research Gap: From Neologisms to Fictional Cultural Concepts

The category of fictional cultural concepts is designed to connect the two bodies of scholarship reviewed above. It does not replace established notions such as neologism, terminology, culture-loaded words, or world-building. Rather, it identifies a functional level at which invented expressions can be analyzed relationally.

A fictional cultural concept has three features. First, its referent is created primarily by the narrative rather than inherited directly from an existing social institution or material object. Second, it performs a culture-like function within the fictional world by organizing identity, authority, knowledge, social expectation, technological power, or relations among groups. Third, its translated form must remain stable enough to accumulate meaning across repeated use.

This definition distinguishes our study from both conventional culture-loaded-word research and purely lexical neology research. The question is not simply how a new word is formed, but what system the word helps to build. Wallfacer and Wallbreaker form an institutional opposition; Dark Forest and chain of suspicion belong to a conceptual network; Sophon and Project Sophon form part of a technological discourse; Trisolaris, Trisolaran, and Trisolaran civilization constitute a civilizational naming system.

The category is deliberately modest. It does not imply that fictional entities are 'cultures' in the same sense as real communities. It describes their narrative function: they create organized patterns of role, knowledge, affiliation, or interpretation. This functional definition suits a small qualitative study well, because it can be operationalized through observable lexical relations in the source and target texts. The analytical focus thus moves from individual lexical novelty to relational world-building, generating our central question: not merely whether a term is well translated, but whether the target form supports the wider institution, conceptual structure, technological identity, or civilizational network that gives the term its significance.

3. Theoretical Framework

3.1 Cultural Mediation and Target-World Coherence

Cultural mediation serves as our primary framework because it directs attention to how meanings are reconstructed across linguistic and interpretive systems. We use the concept in a practical analytical sense rather than as a single closed theory. Drawing on the cultural turn in translation studies (Bassnett & Lefevere, 1998; Lefevere, 1992), mediation refers to the translator's negotiation among source-language form, narrative function, and target-language intelligibility.

We evaluate mediation through four questions. First, how is the concept constructed in Chinese? Second, what narrative-cultural function does it perform? Third, what English resources reconstruct that function? Fourth, can the English form participate coherently in the wider translated world? These questions keep the analysis focused on relations rather than isolated lexical equivalence.

This approach also lets us separate 'source culture' from 'fictional culture.' A term such as Wallfacer may draw on Chinese linguistic imagery, but the institution it names belongs to the novel's imagined future. Cultural mediation therefore includes both interlingual movement and the reconstruction of an invented system.

3.2 Controlled Unfamiliarity

We use Venuti's (2017) domestication/foreignization distinction only as a supporting lens, because fictional terms often combine both tendencies. Wallfacer is unfamiliar as a social title but transparent enough in English morphology to be learnable. Dark Forest uses fully familiar words but assigns them a specialized conceptual meaning. Sophon is highly novel yet resembles scientific terminology. Trisolaran is invented but follows recognizable English derivational patterns.

These cases show why domestication and foreignization are better treated as interacting tendencies than as exclusive labels. Speculative fiction requires what we call controlled unfamiliarity: the target text must preserve enough novelty for the invented world to remain distinct, while reducing enough linguistic friction for readers to build a stable mental model of that world. The analytic issue is therefore not which strategy 'wins,' but how strangeness and usability are balanced.

3.3 Functional Sustainability and Four Analytical Mechanisms

We draw on Nord's (1997) functionalist perspective to examine whether a translation can sustain its role over time. Recurring fictional terms must support recurrence, derivation, conceptual explanation, and sometimes continuity across volumes. Functional adequacy therefore concerns the continued work performed by the target form, not only its first occurrence.

On this basis, we identify four mechanisms of fictional-cultural reconstruction. Institutional compounding creates role names and related institutional vocabulary. Metaphorical specialization preserves an accessible metaphor while allowing it to acquire a technical or theoretical meaning. Technological neologization constructs a new lexical item for an invented technology. Derivational civilizational naming builds a family of related forms through which a fictional people, place, and civilization become linguistically coherent. These mechanisms are not proposed as universal categories

for all speculative fiction; they are comparative findings from our sample. Their value lies in providing a common vocabulary for explaining why the four Three-Body clusters require different kinds of translational reconstruction.

4. Methodology

4.1 Research Design and Materials

This study adopts a qualitative comparative case-study design based on close textual analysis. Its purpose is interpretive rather than statistical: we examine how selected invented concepts are reconstructed in English and how the resulting forms contribute to target-language world-building.

We keep translator attribution explicit, because the four analytical clusters are distributed across different volumes. We treat the trilogy as an interconnected fictional world but not as a homogeneous translation product. Ken Liu's and Joel Martinsen's lexical choices are discussed only where they are responsible for the relevant English forms, and we avoid broader claims about personal translator style, which would require a separate corpus-based or biographical design.

4.2 Case Selection

Our analytical sample consists of ten recurring source-target items organized into four concept clusters. Selection proceeded in three stages. First, through close reading and comparison with published terminology studies, we identified recurring invented terms that contribute directly to the trilogy's social organization, conceptual systems, technology, or civilizational naming. Second, we excluded items that function mainly as ordinary descriptive language or as pre-existing culture-loaded references. Third, we grouped the remaining items by narrative function.

We then cross-checked the final sample against existing research on the trilogy's terminology. This does not turn the study into a corpus analysis; it simply reduces the risk of treating a one-off expression as representative. The sample is purposive rather than exhaustive, and we do not present it as a frequency-based inventory.

The ten items provide more than one data point for each major cluster. The Wallfacer cluster includes Wallfacer, Wallbreaker, and Wallfacer Project; the Dark Forest cluster includes Dark Forest and chain of suspicion; the Sophon cluster includes Sophon and Project Sophon; and the Trisolaris cluster includes Trisolaris, Trisolaran, and Trisolaran civilization. This structure allows us to examine lexical networks rather than one-word examples.

4.3 Analytical Procedure and Scope

We analyze each cluster through the same four dimensions: source construction, narrative-cultural function, translational reconstruction, and target-world function. Source construction considers morphology, metaphor, and lexical relations in Chinese. Narrative-cultural function asks what the term organizes inside the fictional world. Translational reconstruction considers compounding, semantic specialization, neologization, and derivation. Target-world function examines whether the English form can recur, combine with related terms, and support a coherent conceptual network.

We strengthen analytical consistency in three ways. First, the same four dimensions are applied to every cluster. Second, source-target forms are checked against the published Chinese and English editions and against recent terminology research. Third, interpretive claims are limited to textual function unless external research provides evidence for reception or dissemination.

The study does not measure reader reception, educational outcomes, or the translators' intentions. Claims about circulation are therefore limited to what published reception research documents, while claims about the four clusters concern textual affordances rather than actual psychological effects. This prevents target-language readability, memorability, or lexical productivity from being treated as direct evidence of reader response.

4.4 Replicability and Edition Control

The design also addresses replicability within the limits of qualitative literary research. Our selection rules are explicit enough for another researcher to identify comparable cases: an item must be invented or substantially resemanticized by the fiction, recur or generate related expressions, and organize one of the four target functions used in this study. A future study could expand the sample by applying the same criteria to all recurring invented terms in the trilogy and then testing the four mechanisms quantitatively.

Edition differences are a practical issue as well. Page numbers vary across hardcover, paperback, and electronic versions, so we treat the lexical forms and their volume-level locations as the stable unit of comparison, rather than presenting edition-specific page numbers as if they were universal. Where published terminology research provides page-level documentation, we use it as corroborating evidence rather than as a substitute for the primary texts. This favors reproducible lexical identification while avoiding false precision across editions.

5. Analysis

Table 1 summarizes the ten source-target items used in the close analysis. The table is not a frequency list; it is a purposive sample designed to show how each cluster extends beyond a single isolated word. The forms are drawn from the cited Chinese and English editions and cross-checked against terminology research on the trilogy.

Table 1. Selected Source-target Items and Analytical Mechanisms (Purposive Sample, not a Frequency Inventory)

Cluster	Source form	Target form
Wallfacer	面壁者	Wallfacer — institutional compounding
Wallfacer	破壁人	Wallbreaker — institutional compounding
Wallfacer	面壁计划	Wallfacer Project — institutional compounding
Dark Forest	黑暗森林	Dark Forest — metaphorical specialization

Dark Forest	猜疑链	chain of suspicion — metaphorical specialization
Sophon	智子	Sophon — technological neologization
Sophon	智子工程	Project Sophon — technological neologization
Trisolaris	三体世界	Trisolaris — derivational civilizational naming
Trisolaris	三体人	Trisolaran — derivational civilizational naming
Trisolaris	三体文明	Trisolaran civilization — derivational civilizational naming

5.1 Wallfacer: Institutional Compounding

The Wallfacer cluster is the clearest example of an invented social institution becoming a target-language lexical system. In the Chinese source, 面壁者 names individuals appointed under the 面壁计划, while 破壁人 names those assigned to expose a Wallfacer's hidden strategic intentions. These three terms form a relational set rather than three independent labels.

The narrative function of this set is institutional. The Wallfacer Project exists because sophons can observe external human actions but cannot read private thought. The selected Wallfacers receive extraordinary authority to develop strategies whose true purposes remain concealed, and the role is meaningful only because the fictional society attaches rules, expectations, resources, secrecy, and suspicion to it. The opposing role of the Wallbreaker further stabilizes this system. In other words, these words are not decorative labels placed on a self-explanatory plot; they help organize how characters understand authority and strategy inside the fictional world.

The key mechanism is institutional compounding. 'Wallfacer' compresses the source image into a compact English role noun, 'Wallbreaker' creates a structurally parallel opponent, and 'Wallfacer Project' extends the lexical base into the name of an organized policy. This compactness matters. A descriptive rendering such as 'person who faces the wall' would make the image explicit but would be hard to sustain as an official title repeated throughout the novel. 'Wallfacer,' by contrast, works as a countable noun, a title, and the head of a larger noun phrase. Its morphology is unusual enough to signal an invented role, yet familiar enough to parse without an explanatory note.

The pair Wallfacer/Wallbreaker is especially revealing, because the translation creates symmetry. The opposition is not only semantic but visible in form: the repeated 'Wall-' element binds the two roles into one institutional vocabulary, while '-facer' and '-breaker' distinguish strategic concealment from strategic exposure. Target readers can therefore infer a structured relationship between the two roles before they understand all the narrative details.

The addition of 'Project' performs a different function. 'Wallfacer Project' places the invented role inside the recognizable discourse of state or military planning—a small domestication at the institutional level, since 'Project' is a conventional English organizational label. Yet the core term remains unfamiliar. The expression thus combines recognizable bureaucratic syntax with a conceptually foreign role.

This cluster shows why lexical novelty alone is not an adequate analytical unit. The cultural

significance of Wallfacer lies in what the term allows the narrative to do: classify actors, distribute authority, establish norms of secrecy, and construct an official counter-role. Institutional compounding makes these relations economical and repeatable in English. From a functionalist perspective, the translation succeeds because it stays productive across the narrative: the target forms can appear in official announcements, dialogue, description, and evaluation without renewed explanation. That is target-language world-building in action.

The case also illustrates controlled unfamiliarity. A fully domesticating translation that replaced Wallfacer with a familiar role such as 'strategist' would lose conceptual specificity, while a highly literal explanatory phrase would create too much linguistic friction. Martinsen's compound preserves the novelty of the invented institution while making it grammatically sustainable. The result is not simple equivalence but functional reconstruction.

5.2 Dark Forest: Metaphorical Specialization

The Dark Forest cluster differs from Wallfacer because its central term is not morphologically novel. 黑暗森林 consists of ordinary Chinese words, and Martinsen's 'the Dark Forest' preserves the image with similarly ordinary English vocabulary. The novelty lies not in the lexical material but in the specialized conceptual meaning the term accumulates through the narrative.

Within the novel, the dark-forest image becomes a model of inter-civilizational relations, developed together with 猜疑链, translated as 'a chain of suspicion.' These expressions belong to the fictional discourse of cosmic sociology: uncertainty about other civilizations, limits on communication, the possibility of rapid technological change, and existential risk are organized through a metaphor and its associated reasoning.

The principal mechanism is metaphorical specialization. 'Dark forest' initially evokes a familiar physical environment of limited visibility, hidden actors, and potential danger; the narrative then specializes this ordinary expression into a theoretical label. Translation preserves the metaphor instead of replacing it with an explanatory technical phrase, allowing the target text to reproduce the same movement from image to concept. The use of familiar English words keeps the conceptual load in the narrative rather than in a glossary. Readers do not need to decode new morphology; they need to learn a new relation between the words and the fictional theory. The translation thus creates novelty semantically rather than lexically.

The relation between 'the Dark Forest' and 'a chain of suspicion' further shows that the metaphor is not self-contained. The chain of suspicion supplies part of the reasoning through which the metaphor becomes a system, and the word 'chain' is itself relational, suggesting recursion and continuation. The conceptual network therefore includes both a vivid spatial image and a more abstract account of mistrust. This combination matters for world-building because fictional theories need both memorability and explanatory structure: 'Dark Forest' provides a compact conceptual label, while 'chain of suspicion' articulates the logic that sustains it.

This case complicates any assumption that science-fiction world-building depends mainly on

neologism. Here, two ordinary English expressions become specialized through narrative recurrence. A dictionary would not define 'dark forest' as a theory of interstellar civilization, yet within the translated novel the phrase acquires exactly that function. Semantic specialization can therefore be as important as lexical invention.

In domestication/foreignization terms, the cluster looks highly accessible at the level of vocabulary, yet its conceptual content remains radically unfamiliar—another instance of controlled unfamiliarity. We should also be cautious about the concept's apparent portability. The phrase is compact and memorable, which makes it capable of being cited or reused beyond the novel, but what our analysis can demonstrate is a textual affordance: the translation produces a stable conceptual label that can support later discussion. The Dark Forest cluster thus represents a different mode of fictional-cultural reconstruction from Wallfacer. No new English word is necessary; instead, translation preserves the source metaphor and lets familiar target-language words become specialized components of an invented conceptual system.

5.3 *Sophon: Technological Neologization*

Sophon represents technological neologization. The Chinese 智子 is itself an invented term, drawing meaning from the association between intelligence and the proton, 质子. The source form is compact, technically suggestive, and tied to a fictional transformation of a proton into a highly advanced computational and surveillance entity.

Within the trilogy, a sophon is more than a device. It embodies Trisolaran scientific superiority, surveillance capacity, and the ability to interfere with human scientific development. The term therefore carries consequences for institutions and knowledge: human research becomes vulnerable because the technological gap between civilizations becomes an epistemic gap. The fictional technology participates in a broader technological culture rather than functioning as a neutral gadget.

Ken Liu's 'Sophon' creates a new English lexical item instead of translating the concept through a descriptive phrase. Existing research has repeatedly noted its neological character and its compatibility with scientific word formation. We avoid claiming a single definitive etymology; what matters is the target form's observable function. 'Sophon' looks and behaves like a technical noun: it can be repeated, pluralized, modified, and embedded in explanatory discourse. This technical behavior matters because naming converts explanation into a stable object of reference. A phrase such as 'intelligent proton' would describe part of the concept but remain semantically transparent and descriptive. 'Sophon' instead creates a lexical boundary around the fictional technology, so that once the term has been introduced and explained, the target text can use it as if it belonged to the internal scientific vocabulary of the world.

The related expression 'Project Sophon' extends this process. The Chinese 智子工程 places the invented entity inside an organized scientific program, and the English form does the same. The cluster thus moves from object naming to institutionalized technological practice, which strengthens the argument that fictional cultural concepts are relational: a technology belongs to a program, a

civilization, and a strategic conflict.

Technological neologization creates controlled unfamiliarity in a different way from Wallfacer. Wallfacer is built from familiar English words in a new combination; Sophon is a new lexical sign whose meaning must be learned from narrative explanation. Yet both become easy to reuse after introduction, so the translation front-loads unfamiliarity and then reduces it through repetition. The target form's compactness also adds to scientific plausibility. Science-fiction prose often relies on dense technical discussion in which repeated descriptive phrases would be cumbersome; a short noun can enter causal explanations, dialogues, and strategic descriptions without interrupting narrative flow. This is a functional advantage, not merely an aesthetic preference.

The case shows why terminology studies and fictional-cultural analysis complement each other. Building on such work, we ask what the term organizes beyond denotation. Sophon helps define the relationship between Trisolaran knowledge and human vulnerability; its translation contributes to the cultural imagination of technological power. In target-world terms, the result is a reusable technical sign that accumulates narrative meaning: the word begins as unfamiliar terminology and becomes an ordinary part of the fictional world. Technological neologization is thus not only the creation of a new word but the creation of a linguistic anchor for a recurring system of power, knowledge, and conflict.

5.4 Trisolaris/Trisolaran: Derivational Civilizational Naming

The Trisolaris cluster demonstrates derivational civilizational naming. The Chinese source uses 三体 across several related expressions, including 三体世界, 三体人, and 三体文明. The repeated element creates a strong lexical connection among world, inhabitants, and civilization, and it coexists with the scientific 三体问题 and the title of the fictional game, showing that the same Chinese base operates across several semantic domains.

English cannot simply reproduce 'three-body' in every context without awkwardness or ambiguity. 'The three-body problem' is an established scientific expression, while 'three-body people' would not work naturally as a demonym. Ken Liu therefore differentiates scientific reference from civilizational reference through Trisolaris and Trisolaran; published studies document this pattern and its extensions, including Trisolaran civilization and other phrases built from the same base.

The principal mechanism is derivational civilizational naming. 'Trisolaris' functions as a proper name for the alien world, while 'Trisolaran' serves as an adjective or demonym, allowing the target text to produce phrases such as 'Trisolaran civilization' without repeatedly explaining the relationship to the three-sun system. This strategy supports target-world coherence in two ways. First, it differentiates scientific and civilizational meanings that Chinese connects through the repeated form 三体: English keeps 'three-body problem' for celestial mechanics while using Trisolaris/Trisolaran for the alien collective. The translation thus does not preserve surface repetition, but it preserves functional differentiation. Second, the derivational family supports lexical productivity. Once readers learn the base, they can interpret new combinations: a Trisolaran fleet, civilization, or technology is immediately categorized as belonging to the same fictional collective, much as real-world demonyms organize

relations among place, people, institutions, and objects.

This cluster shows that civilizational identity is partly constructed through grammar. Naming a people is not equivalent to naming a device: a civilizational label must work across many contexts and allow the target text to classify multiple entities as members or products of the same collective. 'Trisolaran' performs that relational work.

The translation also demonstrates a form of semantic redistribution. Chinese concentrates several meanings around 三体; English distributes them across 'three-body,' 'Trisolaris,' and 'Trisolaran.' Viewed at the word level, this could look like formal loss; at the systemic level, however, it produces a clearer target-language taxonomy in which scientific problem, world, people, and civilization can be distinguished without losing their conceptual relation. This is a strong example of functional reconstruction. The translator does not reproduce the source lexical network by copying one form everywhere; he builds a new network using English derivational resources. The resulting system is invented, and thus visibly unfamiliar, but follows recognizable naming patterns.

The cultural dimension here is collective identity. A fictional civilization becomes textually legible when its members, institutions, technologies, and actions can be marked as belonging together, and Trisolaris/Trisolaran provides that organizing principle. Derivational civilizational naming thus contributes directly to world-building by giving the target text a stable grammar of affiliation.

5.5 Cross-Case Synthesis

The four clusters reveal four different mechanisms of fictional-cultural reconstruction. Institutional compounding creates a usable social vocabulary from Wallfacer, Wallbreaker, and Wallfacer Project. Metaphorical specialization lets ordinary words such as Dark Forest acquire a stable theoretical meaning in relation to a chain of suspicion. Technological neologization produces a compact technical sign in Sophon and extends it through Project Sophon. Derivational civilizational naming reorganizes the repeated Chinese element 三体 into Trisolaris, Trisolaran, and related noun phrases.

Three features are shared across the mechanisms. First, they are relational: each core term gains force from neighboring terms and repeated narrative use. Second, they balance unfamiliarity with target-language functionality: the translated concepts remain marked as belonging to an invented world, yet they are compatible enough with English morphology or semantics to be learnable. Third, they support accumulation: as the story progresses, each term carries more institutional, conceptual, technological, or civilizational meaning.

The findings refine the relationship between neology and world-building. Neologism research rightly emphasizes lexical invention, but not all world-building concepts are surface neologisms. Dark Forest is lexically ordinary but functionally specialized; Sophon is a true neologism, yet its importance lies in the system of technological and civilizational relations it anchors. Fictional-cultural analysis therefore asks both how a term is formed and what larger structure it helps maintain. Nor can any single translation strategy explain the trilogy's invented vocabulary: literal metaphor retention works for Dark Forest, compounding for Wallfacer, neologization for Sophon, and derivation for Trisolaran. Functional

coherence emerges from differentiated solutions, which supports a mediation-based account in which translation choices are evaluated by the work they perform within the target world.

The four mechanisms can also be arranged along two dimensions. One concerns lexical novelty: Sophon and Trisolaris require highly visible lexical creation, while Dark Forest uses existing vocabulary. The other concerns systemic reach: Wallfacer and Trisolaran generate families of related social or civilizational terms, whereas Dark Forest specializes a conceptual label and Sophon anchors a technological discourse. These differences explain why a single label such as 'literal translation' or 'free translation' cannot capture the cultural function of the terms.

The cross-case comparison further suggests that target-world coherence is produced through both sameness and differentiation. Wallfacer/Wallbreaker rely on formal symmetry; Trisolaris/Trisolaran on derivational relatedness; Dark Forest/chain of suspicion on conceptual association; Sophon/Project Sophon on lexical extension. Translation world-building thus depends on patterned relationships rather than isolated equivalents. In practical terms, compounding works best when a fictional society needs stable role labels; semantic specialization when an ordinary image must become a theory; neologization when the fiction requires a unique technical entity; and derivation when the target language must organize multiple expressions around a collective identity. These are not prescriptive rules; their explanatory value lies in showing how different linguistic resources answer different world-building needs.

Finally, the analysis suggests a criterion for evaluating fictional-cultural translation: systemic sustainability. A target form is sustainable when it can be repeated without awkwardness, related to neighboring terms, and expanded as the narrative develops. This avoids reducing evaluation to whether a single term is 'literal' or 'creative,' and instead asks whether the translation keeps working after the reader has learned the term and the fictional world has grown more complex.

6. Discussion

6.1 From Neologisms to Fictional Cultural Systems

The first implication is that research on speculative translation benefits from moving between lexical and systemic levels. Our category of 'fictional cultural concepts' does not replace neology, terminology, or culture-loaded-word research; it links lexical form to culture-like narrative function. This distinction matters because the four analyzed clusters are not culturally significant for the same reason. Wallfacer organizes social authority; Dark Forest organizes explanation; Sophon organizes technological power; Trisolaran organizes collective identity. Their translation problems therefore differ even though all four are invented. Treating them simply as 'new words' would flatten these functional differences.

The findings also clarify our contribution relative to existing Three-Body terminology studies. Our analysis is intentionally smaller but more relational: it asks how lexical choices become components of institutions, conceptual systems, technologies, and civilizational identities. The contribution lies not in discovering these terms but in the comparative framework used to explain what they do inside the

translated world.

This distinction further separates fictional cultural concepts from conventional culture-loaded words. A culture-loaded item is difficult because its referent belongs to an existing social world that target readers may not know; a fictional cultural concept is difficult because the target reader must learn a system that no community literally inhabits. The translator mediates not only prior cultural knowledge but also the process by which new knowledge is created within the story. The result is a more precise account of cultural mediation in speculative literature: translation can transmit historical memory and real cultural difference, but it can also reconstruct invented patterns of authority, explanation, technology, and identity—a function especially visible in genres where world-building is central.

A further consequence is that the concept of culture in translation studies can be handled more flexibly without becoming limitless. Calling every invented object 'culture' would weaken the category, so our framework requires evidence of organization: the concept must structure roles, relations, knowledge, affiliation, or repeated practices. This criterion excludes one-off decorative inventions while retaining terms that participate in the social and conceptual architecture of the world.

6.2 Translation as Target-Language World-Building

A second implication concerns translation as world-building. Science-fiction world-building is usually attributed to the author, but translated world-building necessarily depends on target-language lexical infrastructure. Aksoy and Söylemez (2023) describe fictive neologies as part of the target text's reconstructed reality, and the Three-Body cases support this view while showing that reconstruction can operate through several lexical mechanisms.

The English trilogy is revealing here because two translators contribute to a shared world. Ken Liu establishes forms such as Sophon and Trisolaris/Trisolaran in the first volume, while Joel Martinsen translates the Wallfacer and Dark Forest systems in the second. Target-world coherence is therefore not identical with uniform translator style; it can emerge from a stable network of terms even when the translators differ in broader textual preferences. Methodologically, this matters because a study centered only on individual style might treat the volumes separately, whereas a world-building approach must also ask how the translated trilogy remains conceptually continuous. We do not investigate editorial coordination, but the lexical evidence shows that English readers encounter one interconnected universe rather than three unrelated translation projects.

The analysis also supports a flexible account of domestication and foreignization. Fictional unfamiliarity cannot be eliminated without damaging the speculative world, but neither can it remain linguistically unstructured. The translations often foreignize at the conceptual level while domesticating at the morphological or grammatical level: Wallfacer is conceptually strange but morphologically legible; Trisolaran is invented but derivationally familiar; Dark Forest is lexically ordinary but conceptually unfamiliar. World-building depends on this controlled unfamiliarity, and a functional perspective explains it better than a simple preference for one strategy over the other. The key question is whether the target form can carry its narrative load over time.

Target-language world-building is also cumulative. Readers do not learn the entire system at first occurrence; meaning grows through repetition, contrast, and derivation. Translation choices made early in a volume therefore create constraints for later passages: a compact, productive term reduces later explanatory burden, while an awkward initial choice could make subsequent world-building increasingly difficult. This diachronic dimension is another reason to evaluate recurring invented terms functionally rather than sentence by sentence.

6.3 Textual Portability and Literary Circulation

What our analysis can show is that the English forms possess properties that make circulation possible: brevity, recurrence, derivational productivity, conceptual stability, and the ability to participate in related phrases. These are textual affordances rather than reception outcomes. They allow a fictional idea to be named and discussed in English, after which actual circulation and interpretation become empirical questions for other research designs.

This distinction matters because it prevents 'global meaning' from being treated as a direct textual fact. Translation creates conditions for circulation without determining how every reader will interpret a term. Dark Forest, for instance, may be applied differently in criticism, fan discourse, political commentary, or adaptation; such variation is part of reception and should be studied through reception data, not inferred from the translated novel alone. Cultural mediation, in this sense, concerns interpretive availability: the translator provides a stable form through which an invented concept can enter later discourse. The success of that later discourse is not guaranteed by the translation, but it would be difficult without a target-language form that is memorable and functionally coherent.

6.4 Pedagogical Implications

The findings also carry a limited pedagogical implication for teaching intercultural literature and translation. Fictional cultural concepts are useful teaching material because they ask students to interpret unfamiliar systems without reducing another real society to a set of simplified cultural facts. Comparing 面壁者/Wallfacer, 智子/Sophon, or 三体人/Trisolaran in the classroom can show how morphology, metaphor, and naming mediate conceptual difference. Such activities could support the interpretive dimension of intercultural competence (Byram, 1997; Deardorff, 2006; Liddicoat & Scarino, 2013) by encouraging students to compare assumptions, infer meaning from context, and reflect on how translation shapes access to imagined worlds. They could also help translation students distinguish lexical equivalence from functional world-building: the 'closest word' is not always the form that best sustains a fictional system.

Because this study does not test learning outcomes, the educational point remains a pedagogical possibility rather than an empirical finding. Future classroom research would be needed to determine whether guided analysis of speculative translation produces measurable changes in intercultural awareness, translation competence, or genre literacy.

7. Conclusion

This study examined how the English translations of Liu Cixin's Three-Body trilogy reconstruct fictional cultural concepts as coherent elements of the target-language fictional world. Building on research on cultural mediation, fictive neology, terminology, and science-fiction world-building, we used 'fictional cultural concepts' as a functional analytical category rather than a new translation theory. The comparative analysis identified four mechanisms. Wallfacer, Wallbreaker, and Wallfacer Project illustrate institutional compounding, through which an invented social role becomes an internally related institutional vocabulary. Dark Forest and chain of suspicion illustrate metaphorical specialization, in which familiar lexical material develops a stable theoretical function. Sophon and Project Sophon illustrate technological neologization, producing a reusable technical sign for an invented entity and program. Trisolaris, Trisolaran, and Trisolaran civilization illustrate derivational civilizational naming, which reorganizes the source naming network into a productive English family. These findings suggest that speculative translation should be evaluated at both lexical and systemic levels. The relevant question is not only whether a new word is accurately translated, but whether the target form can sustain the institution, conceptual relation, technology, or collective identity the term helps construct. Translation thus participates in world-building by supplying part of the linguistic infrastructure through which an imagined system becomes coherent in another language.

Our contribution is deliberately limited. We do not claim to be the first study of science-fiction neologisms, nor do we demonstrate global reception. Instead, we link prior work on fictive neology with a comparative functional analysis of four kinds of fictional cultural organization in the Three-Body trilogy, distinguishing institutional compounding, metaphorical specialization, technological neologization, and derivational civilizational naming as four mechanisms observed in our sample.

The study is limited by its purposive sample, its focus on one trilogy, and its textual method. It does not measure reader reception, educational effects, or translator intention, and it offers no corpus-level account of every invented term in the series. Future research could test the analytical category across other speculative works, languages, and media, or combine textual analysis with corpus and reception methods.

Within these limits, the Three-Body trilogy shows that translation mediates not only inherited cultural difference but also cultural meanings created by imagination. By reconstructing relations among invented roles, theories, technologies, and civilizations, literary translation becomes part of the process through which a fictional world is made linguistically habitable in another language.

Acknowledgement

All authors listed have made a substantial, direct and intellectual contribution to the work and approved it for publication.

References

- Aksoy, Ö., & Söylemez, A. S. (2023). Translation of neologisms in science fiction: The textual reality or unreality of the target text. *Istanbul University Journal of Translation Studies*, 18, 107-122. <https://doi.org/10.26650/iujts.2023.1255932>
- Baker, M. (2018). *In other words: A coursebook on translation* (3rd ed.). Routledge. <https://doi.org/10.4324/9781315619187>
- Bassnett, S., & Lefevere, A. (1998). *Constructing cultures: Essays on literary translation*. Multilingual Matters. <https://doi.org/10.21832/9781800417892>
- Byram, M. (1997). *Teaching and assessing intercultural communicative competence*. Multilingual Matters.
- Csicsery-Ronay, I., Jr. (2008). *The seven beauties of science fiction*. Wesleyan University Press.
- Deardorff, D. K. (2006). Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of Studies in International Education*, 10(3), 241-266. <https://doi.org/10.1177/1028315306287002>
- Freedman, C. (2000). *Critical theory and science fiction*. Wesleyan University Press.
- Gaffric, G. (2019). Liu Cixin's Three-Body trilogy and the status of science fiction in contemporary China. *Science Fiction Studies*, 46(1), 21-38. <https://doi.org/10.1353/sfs.2019.0002>
- Jameson, F. (2005). *Archaeologies of the future: The desire called utopia and other science fictions*. Verso.
- Lefevere, A. (1992). *Translation, rewriting, and the manipulation of literary fame*. Routledge.
- Liddicoat, A. J., & Scarino, A. (2013). *Intercultural language teaching and learning*. Wiley-Blackwell. <https://doi.org/10.1002/9781118482070>
- Liu, C. (2014). *The Three-Body Problem* (K. Liu, Trans.). Tor Books.
- Liu, C. (2015). *The Dark Forest* (J. Martinsen, Trans.). Tor Books.
- Liu, C. (2016). *Death's End* (K. Liu, Trans.). Tor Books.
- Luo, J. (2024). Sci-fi neologism translation: A conceptual blending theory perspective. *Theory and Practice in Language Studies*, 14(6), 1828-1837. <https://doi.org/10.17507/tpls.1406.24>
- Mossop, B. (2024). Translation and architecturally odd invented languages in science fiction. *Translation Studies*, 17(2), 265-281. <https://doi.org/10.1080/14781700.2023.2261943>
- Newmark, P. (1988). *A textbook of translation*. Prentice Hall.
- Nida, E. A. (1964). *Toward a science of translating*. E. J. Brill. <https://doi.org/10.1163/9789004495746>
- Nord, C. (1997). *Translating as a purposeful activity: Functionalist approaches explained*. St. Jerome Publishing.
- Pym, A. (2014). *Exploring translation theories* (2nd ed.). Routledge.
- Sánchez López, A. C. (2024). *The translation of fictive neology through the decades: A case study*. Estudios de Traducción. <https://doi.org/10.5209/estr.98213>

- Song, M. (2015). After 1989: The New Wave of Chinese science fiction. *China Perspectives*, 2015(1), 7-13. <https://doi.org/10.4000/chinaperspectives.6618>
- Suvin, D. (1979). *Metamorphoses of science fiction: On the poetics and history of a literary genre*. Yale University Press.
- Tan, Y. (2024). Exploring feminist translation in Liu Cixin's The Three-Body Trilogy. *Asia Pacific Translation and Intercultural Studies*, 11(1), 57-71. <https://doi.org/10.1080/23306343.2024.2350841>
- Venuti, L. (2017). *The translator's invisibility: A history of translation* (3rd ed.). Routledge. <https://doi.org/10.4324/9781315098746>