

A Theoretical Review of Eco-Translatology

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Abstract: Amid ongoing efforts to bridge theory and practice in translation studies, increasing attention has been paid to frameworks that emphasize the translator's role in complex contexts. Eco-translatology is explored through an examination of its theoretical evolution, current research landscape, and practical application routes. Attention is given to the theory's origins and underlying philosophy, particularly the concepts of "adaptation and selection" and the "three-dimensional transformation." The discussion extends to its core ideas, methodological framework, and research tools, with a focus on empirical significance and applicability. This study also identifies emerging trends in the development of Eco-Translatology, offering new perspectives for refining its theoretical structure and informing future empirical research.

Keywords: Eco-Translatology; Theoretical Review; Selection and Adaptation; Three-Dimensional Transformation

1. Introduction

In today's context of deepening globalization and increasingly frequent cross-cultural communication, translation activities are subject to complex interferences from multiple ecological factors, including language, culture, and communication. Traditional translation theories tend to focus on linguistic forms or textual equivalence, making it difficult to fully account for the dynamic adaptations and strategic choices faced by translators during the translation process. Against this backdrop, Eco-translatology emerged. Hu Gengshen introduced ecological principles into translation studies, reexamining translation practice from the perspective of an integrated ecological system. As a theory that emphasizes multidimensional interaction and dynamic balance, Eco-translatology not only explores the mechanisms of transformation between language and culture but also highlights the adaptive choices made by

translators in specific contexts and their impact on translation outcomes.

Eco-translatology, introduced by Hu Gengshen in the early 21st century, is centered on the core concepts of "adaptation and selection" and "three-dimensional transformation." The theory advocates for the coordination of linguistic, cultural, and communicative dimensions in the translation process, aiming to achieve dynamic balance within the translation ecosystem. In recent years, its growing integration into translation practice and empirical research has expanded both its explanatory power and scope of application. The theory has opened up new perspectives and methodological approaches in areas such as translation pedagogy, textual analysis, and intercultural communication. Building on this foundation, this study offers a systematic review of the theory's development, core concepts, and methodological significance, while also exploring its practical effectiveness and potential directions for future research.

2. The Emergence and Theoretical Basis of Eco-Translatology

Eco-translatology emerged at the turn of the 21st century against the backdrop of rising ecological awareness and the interdisciplinary shift within the humanities and social science. As ecological thinking gradually permeated fields such as language, culture, and communication, translation studies began to move beyond a language-centered approach toward a more multidimensional and interactive perspective^[9]. In 2001, Hu Gengshen formally introduced the concept of Eco-translatology, arguing that translation is not merely a linguistic transfer between languages, but a complex ecological process involving multiple elements such as language, culture, and communication. Drawing on the ecological principle of "adaptation and selection," the theory proposes a translation model—"three-dimensional transformation", advocating that translators dynamically balance various dimensions in accordance with contextual demands to maintain

ecological harmony in translation.

Since its inception, Eco-translatology has continuously expanded both its theoretical boundaries and scope of application. Theoretically, it has gradually developed an ecological logic framework centered on “adaptation and selection.” Methodologically, it has integrated insights from systems theory, evolutionary theory, and communication studies. The theory has been widely applied in diverse translation contexts, including classical Chinese texts, and international publicity, making it a significant component of China’s indigenous translation theories and enlarging to the global visibility of Chinese translation discourse.

A central concern of Eco-translatology is how translators identify the basis for transformation in complex translational environments and achieve effective meaning transmission. The theory holds that the translation process is primarily governed by the principles of “adaptation and selection” and “three-dimensional transformation.”

“Adaptation and selection” suggests that translators first adapt to the linguistic and cultural contexts of both the source and target languages, and then make context-sensitive choices that contribute to ecological balance. Specifically, translators tend to prioritize the cultural implications embedded in the text to determine translation strategies. When linguistic forms and cultural imagery can jointly convey the original meaning, the original imagery is usually retained; however, if a literal translation may cause cultural misunderstanding, an interpretive approach is adopted. Moreover, the treatment of cultural elements varies: non-redundant cultural features (e.g., tense) often receive more attention.

The “three-dimensional transformation” model posits that translators must process texts through the integrated dimensions of language, culture, and communication. In practice, however, this transformation is influenced by several factors. First, different text types emphasize different dimensions—for example, scientific texts prioritize linguistic accuracy. Second, the reader’s background shapes translation strategies; texts for audiences familiar with Chinese culture may retain more source-text expressions. Third, when the communicative purpose is clearly defined, communicative effectiveness becomes paramount—as in international publicity, where clarity and

acceptability often take precedence.

3. Research Paradigms and Methodological Approaches

Methodological research within Eco-Translatology is a key part of its theoretical framework, encompassing a range of approaches that reflect both traditional and emerging perspective^[3]. The first includes conventional approaches such as descriptive translation studies, inductive and deductive reasoning, comparative analysis, and corpus-based methods. These provide basic tools for analyzing differences in adaptation and selection across translations and identifying patterns in translational ecosystems.

The second type involves methods specific to the theory itself, such as interdisciplinary approaches, analogical reasoning, conceptual transplantation, and systemic holism. These reflect the theory’s integration of insights from ecology, linguistics, and cultural studies. For instance, analogies with natural ecosystems and borrowed ecological concepts (e.g., ecological niche) help explain the dynamics of translation, while systemic approaches emphasize the interaction among linguistic, cultural, and communicative elements.

The core principle of “adaptation and selection,” derived from evolutionary theory, guides analysis of translation across three dimensions—language, culture, and communication. Linguistically, research focuses on maintaining fluency and balance between source and target expressions. Culturally, it addresses how translators mediate between source culture and target acceptability, avoiding over-domestication or foreignization. From a communicative perspective, the emphasis is on achieving clarity and relevance for target readers, considering their cognitive and cultural backgrounds.

To advance methodological depth, future research may benefit from process-oriented studies that track translators’ real-time decisions, as well as interdisciplinary approaches incorporating communication studies and cognitive science to better understand the psychological mechanisms behind translation choices.

4. Theoretical Expansion, Empirical Applications, and Emerging Challenges

The development of Eco-translatology relies on

the dynamic interplay between theoretical construction and empirical validation, both of which are grounded in its evolving methodology. Traditional methods—such as descriptive research, induction, comparative analysis, and corpus-based approaches—have laid the foundation for theory building and data-supported research^[1]. Inductive reasoning has been applied to construct a multi-dimensional research paradigm^[4], while comparative methods have been used to emphasize the distinctiveness of Eco-translatology in contrast to Western translation theories^[5].

Empirical studies also reflect this methodological logic. Comparative analysis of five English versions of the Chinese poem has been conducted to evaluate the degree of adaptation and selection within the “three-dimensional transformation” model. Research on the English translation of *I Ching* has offered detailed insights into its cultural and linguistic features, affirming the theory’s explanatory potential for classical texts.

At the theoretical level, interdisciplinary approaches are central. The incorporation of ecological concepts into translation led to the formulation of key notions such as “translation as ecological balance^[3]. The innovation of eco-translatological terminology, analogical reasoning between translation and ecosystems, and systemic perspectives have further enriched the theory. A holistic systems view has been employed to analyze the ecological role of the translator^[11], and cross-disciplinary integration has expanded the theory, for example, Zhao (2012) integrated Eco-translatology and memetics to explore audiovisual translation.

The core methodological concepts address the essential question of “how to translate.” These concepts are grounded in evolutionary theory and offer actionable standards such as “degree of integrated adaptation and selection.” Empirical work has applied these concepts across three dimensions: linguistic, cultural, and communicative, demonstrating their practical utility.

Theory, methodology, and empirical research form a closed loop, in which each informs and enhances the others. The translator’s ecological niche has been explored to explain their central role^[6], and case studies such as Lin Yutang’s translation of *The Analects* have helped validate this claim. Similarly, theoretical modeling has been advanced using multi-dimensional

analytical data^[4].

Individual difference research, though still developing, shows that variables such as experience, language ability, and cultural identity influence translators’ adaptive strategies, while both novice and experienced translators benefit from the theory, the latter achieve transformation more efficiently. Despite significant progress, challenges remain. Current research over-relies on descriptive and comparative approaches, with limited integration of quantitative methods or interdisciplinary empirical tools. Applications are mostly limited to classical texts and cultural export, while dynamic contexts such as AI-assisted translation and digital media remain underexplored. Moreover, studies on individual translator differences lack systematic modeling and longitudinal data.

5. Conclusion

Building on the core concepts and representative findings of Eco-Translatology, this study outlines several promising directions for future research.

One area of interest involves the interplay between individual translator differences and ecological translation practices. Variations in knowledge structure, cognitive style, and decision-making patterns can significantly influence adaptive behaviors and selection strategies. Investigating these dynamics through case-based approaches may offer valuable insights into optimizing strategy alignment within specific ecological contexts.

Another important direction concerns the need for methodological innovation. Much of the current research remains grounded in post hoc textual analysis, which limits the ability to observe real-time translation dynamics. Incorporating process-oriented methods—such as think-aloud protocols, keystroke logging, or eye-tracking may reveal how translators negotiate linguistic, cultural, and communicative dimensions as decisions unfold during the act of translation.

Ultimately, advancing the theoretical framework of Eco-translatology will also benefit from stronger interdisciplinary integration. Perspectives from communication studies can help explain how translators manage audience accessibility and message reception, while insights from cognitive science may illuminate the psychological processes behind adaptation

and selection. By incorporating these dimensions, future research can deepen the theoretical foundations of Eco-translatology and expand its relevance across diverse translational and pedagogical contexts.

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