

A Study on the Applicability of Catford's Theory of Translation Shifts to Medical Guideline Texts

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ABSTRACT

Medical guideline texts (e.g., clinical practice guidelines, drug package inserts, diagnostic and treatment manuals) are characterized by strong prescriptiveness, high information density, and dual readership orientation (targeting both healthcare professionals and general patients). Their translation must strictly adhere to scientific accuracy while simultaneously accommodating the readability and cultural adaptability of the target language. Guided by Catford's Theory of Translation Shifts, this paper analyzes the practical application of level shifts and category shifts through typical translation examples, based on the stylistic function, terminology system, and communicative context of medical guidelines. It reveals the theoretical significance of Catford's model in resolving issues such as syntactic conflicts, terminology standardization, and cultural defaults in medical guideline translation.

KEYWORDS

Theory of Translation Shifts; Medical Translation; Medical Guideline Texts

1. INTRODUCTION

With the increasing frequency of global medical exchanges, the translation of medical guideline texts has become a critical link concerning human health and healthcare quality. Such texts include disease diagnosis and treatment guidelines issued by the World Health Organization (WHO), drug package inserts approved by national drug regulatory authorities, and various clinical operation manuals. Their core function is to guide medical practice, convey precise medical information, and mitigate medical risks [1]. Consequently, the act of translating these texts is far from simple interlingual transfer; it is a rigorous scientific practice that requires absolute conceptual accuracy, clear and standardized expression, and cultural adaptation to the local context in the target text.

Medical translation has always emphasized "accuracy first," but traditional notions of "equivalence" sometimes struggle to address the profound differences between English and Chinese in terms of grammar, syntax, thinking patterns, and medical systems. Mechanical word-for-word translation often results in stiff, awkward, or even ambiguous translations, potentially creating hidden dangers for medical practice [2]. Therefore, medical translation practice urgently requires a systematic, flexible, and highly operational theoretical tool to guide translators in navigating these differences.

The Theory of Translation Shifts, proposed by the British translation theorist J.C. Catford in his 1965 work *A Linguistic Theory of Translation*, systematically classifies formal shifts in translation from a linguistic perspective, providing a detailed descriptive framework for analyzing the translation process [3]. Although this theory originates from general linguistics, its profound insights into linguistic structure shifts hold significant applicability and guiding value for handling the structurally rigorous and logically meticulous texts of medical guidelines.

This paper aims to explore the application of Catford's Theory of Translation Shifts in the translation of medical guideline texts. By applying the theory's shift strategies—Level Shifts and Category Shifts—to the analysis of typical translation examples, this paper seeks to demonstrate how the theory provides translators with a set of effective micro-level operational solutions to address issues encountered in medical translation, such as syntactic conflicts, terminology standardization, and cultural defaults, ultimately achieving a unity of scientific rigor and readability.

2. LITERATURE REVIEW

2.1. Current State of Research on Medical Text Translation

Research on medical translation by domestic and international scholars has largely focused on terminology standardization, mistranslation analysis, and functionalist perspectives. Terminology studies emphasize adherence to international standard terminologies (e.g., SNOMED CT, MeSH) and domestic authoritative lexicons (e.g., Chinese Pharmacopoeia, Medical Terms) to ensure conceptual uniqueness. Functionalist research focuses on how text function constrains translation strategies, positing that medical guideline texts belong to "informative" and "operative" text types, and that the target text should prioritize the effective transmission of information and its acceptability to the reader [4]. While these studies establish principles for medical translation at a macro level, they often lack systematic operational guidance for realizing these principles at the micro-linguistic level.

2.2. Catford's Theory of Translation Shifts and Its Applications

Catford defined a "shift" as "departures from formal correspondence in the process of going from the SL to the TL." The core of his theory includes:

Level Shifts: Refer to shifts between components at different linguistic levels (grammar, lexis, phonology) in the source and target languages. The most common involves grammatical categories in English (e.g., tense, number) that must be expressed by lexical means in Chinese.

Category Shifts: Refer to formal changes occurring within the same language level, including:

- (1) **Structure Shifts:** Changes in grammatical structure, e.g., active to passive voice.
- (2) **Class Shifts:** Shifts in word class, e.g., noun to verb.
- (3) **Unit Shifts:** Changes in the rank of linguistic units, e.g., the interchange of sentences and phrases (rank lowering/raising).
- (4) **Intra-system Shifts:** Shifts occurring when source and target languages possess approximately corresponding systems, but where non-corresponding terms are selected in the target language, e.g., the absence of articles in Chinese corresponding to English [3].

Currently, this theory is often applied in translation studies of literary and journalistic texts, as it effectively explains shifts in style and rhythm. Although there are sporadic applications in scientific and technical translation, research that systematically applies it to the specific text type of medical guidelines and deeply analyzes its operational pathways remains insufficient. This paper aims to fill this gap, verifying the theory's explanatory and guiding power in highly standardized texts.

3. STYLISTIC FEATURES OF MEDICAL GUIDELINE TEXTS AND TRANSLATION CHALLENGES

The unique attributes of medical guideline texts determine the complexity of their translation, mainly manifested in the following three aspects:

Strong Prescriptiveness and Accuracy: The texts carry strict medical instructions and scientific facts. Any ambiguity or mistranslation may lead to serious consequences. Terminology must be unique and accurate, and conceptual systems must be consistent.

High Information Density and Logicity: Heavy use of nominalizations, passive voice, and complex sentences to compress information, with rigorous logical relationships. Translation requires deconstructing source language information and reconstructing it according to target language conventions, ensuring explicit logic and clear hierarchy.

Dual Readership Orientation: The same text often needs to target both professional healthcare workers (seeking precise, professional expression) and general patients or relatives (seeking clear, understandable guidance). Translators must strike a balance between academic rigor and public readability [5].

These characteristics mean that "formal equivalence" in medical translation often gives way to "dynamic equivalence" or "functional equivalence." Catford's shift theory serves as precisely the micro-linguistic tool for achieving this "functional equivalence."

4. ANALYSIS OF THE APPLICATION OF CATFORD'S SHIFT THEORY IN MEDICAL GUIDELINE TRANSLATION

4.1. Level Shifts: The Lexical Expression of Grammatical Categories

Belonging to different language families, English and Chinese have fundamental differences in their grammatical systems. Many grammatical categories in English have no direct equivalents in Chinese and must be expressed at the lexical level, which is where Level Shifts come into play.

Example 1: Shifts in Tense and Voice

ST: The patient should be monitored for signs of hepatotoxicity during treatment.

Initial Translation: 患者应该被监测治疗期间肝毒性的迹象 (Unidiomatic Chinese passive)

Applying Level Shifts: Convert the English passive voice (grammatical level) and modal verb "should" (grammatical level) into Chinese active voice and action verbs (lexical level).

Optimized TT: 须在治疗期间监测患者的肝毒性体征

Analysis: The grammatical meaning constructed by the passive voice and modal verb in English is realized in Chinese through the lexicon "须" (expressing necessity) and the active verb "监测". This not only conforms to Chinese expression habits but also conveys the directive tone of the original.

Example 2: Shifts in Number

ST: Patients with diabetes are at increased risk of infection.

Initial Translation: 糖尿病患者们处于感染的风险增加中 (The "们" suffix is unnecessary here in Chinese).

Applying Level Shifts: Convert the English plural grammatical concept (-s) into the Chinese lexical concept (the word "患者" itself denotes category, requiring no plural marker).

Optimized TT: 糖尿病患者感染风险较高

Analysis: The plural form of "patients" and the corresponding verb "are" in English need not be reflected in Chinese. Using the category term "患者" and the phrasing "较高" naturally implies the plural meaning, resulting in more concise text.

4.2. Category Shifts – Structure Shifts: Reorganization of Syntactic Structures

Structure Shifts are among the most common and crucial types of shifts in medical translation, aimed at resolving fundamental differences in English-Chinese syntactic structures.

Example 3: Passive Voice to Active Voice

ST: It is recommended that gloves be worn when handling the specimen.

Initial Translation: 被推荐手套被佩戴当处理标本时 (Completely unacceptable)

Applying Structure Shifts: Convert the English passive structure ("It is recommended that...be done") into a Chinese active voice sentence with an implied subject (imperative or generic active sentence stating a norm).

Optimized TT: 处理标本时，应佩戴手套

Analysis: Passive voice is heavily used in medical guidelines to reflect objectivity, but active voice is more effective for expressing directives in Chinese. Converting to a subjectless sentence or one with a generic subject ("应") conveys the original meaning while conforming to the expression conventions of Chinese normative documents.

Example 4: Deconstruction and Shifting of Nominalizations

ST: Early diagnosis and treatment of the condition is crucial for preventing complications.

Initial Translation: 疾病的早期诊断和治疗对预防并发症是至关重要的 (Top-heavy structure)

Applying Structure Shifts: Convert the English nominalized subject ("Early diagnosis and treatment") into a Chinese verbal clause, restructuring the entire sentence.

Optimized TT: 尽早诊断并治疗该疾病，对预防并发症至关重要

Analysis: English prefers nominalizations to package key information, making them static subjects. Chinese tends to sequence verbs according to temporal and logical flow. Converting the nominalization "diagnosis and treatment" into verbs "诊断并治疗", and "early" into the adverb "尽早", makes the translation more dynamic and fluent.

4.3. Category Shifts – Unit Shifts and Class Shifts: Adjusting Information Density

Unit Shifts are often used in conjunction with Class Shifts. By changing the rank of linguistic units (e.g., downgrading a clause to a phrase) or changing word class, they adjust information density to suit the cognitive load of the target language reader.

Example 5: Clause Downgraded to Phrase (Unit Shift)

ST: If you experience a rash that does not resolve, discontinue the medication.

Initial Translation: 如果你经历一个不消退的皮疹，停止用药

Applying Unit Shift + Class Shift: Downgrade the conditional adverbial clause ("If you experience") and the relative clause ("that does not resolve") into Chinese prepositional phrases and verbal phrases.

Optimized TT (for patients): 若出现皮疹且持续不退，应停药并咨询医生

Analysis: English builds logic through clauses, while Chinese is adept at using concise phrases and short clauses to express the same meaning. "If you experience" is downgraded to "若出现", "that does not resolve" is downgraded to "且持续不退" (verbal phrase), and "discontinue" is rendered more specifically as "停药并咨询医生". The resulting translation has clear instructions and a brisk rhythm, well-suited for patient reading.

Example 6: Class Shift (Interchange of Verbs and Nouns)

ST: This drug is indicative for the treatment of hypertension.

Initial Translation: 这种药是指示性的用于高血压的治疗

Applying Class Shifts: Convert the adjective "indicative" into the verb "适用于", and the noun "treatment" into the verb "治疗".

Optimized TT: 本品适用于治疗高血压

Analysis: English often uses static nouns, while Chinese favors dynamic verbs. Converting adjectives and nouns into verbs aligns with the "verb-centric" characteristic of Chinese expression, making professional statements more direct and forceful.

4.4. Intra-system Shifts and Cultural Adaptation

Intra-system Shifts deal with the absence of categories within a language system, often manifesting in medical translation as the adaptation of culture-specific concepts.

Example 7: Conversion of Measurement Units and Standards

ST: The recommended dose is 2 teaspoons (10 mL).

Applying Intra-system Shift: "Teaspoon" is a common household measurement unit in the US, but "milliliters" or analogies to everyday items (the latter not recommended for strict guidelines) are more common in Chinese culture. Retaining the international unit with the conversion noted is the best practice.

Recommended TT: 推荐剂量为10毫升（约2茶匙） (Or include 'teaspoon' as a note)

Analysis: This is not merely a unit conversion but also a cultural adaptation to medical practice habits. Emphasizing the standard unit "milliliters" avoids potential dosage errors due to varying sizes of "teaspoons", reflecting the rigor required in medical translation.

Example 8: Cultural Defaults and Reader Expectations

ST: Contact your primary care physician.

Applying Intra-system Shift: "Primary care physician" is a core concept in the Western tiered healthcare system, corresponding roughly to "社区医生" or, more broadly, "医生" in China. The cognitive environment of the target reader must be considered.

Recommended TT: 咨询您的主治医生/社区医生, Or more directly: 请咨询医生

Analysis: The shift here is not word-for-word but concept-for-concept. Selecting the expression closest to the target culture's medical system ensures the instruction can be accurately understood and followed.

5. DISCUSSION AND IMPLICATIONS

The analysis above clearly shows that Catford's Theory of Translation Shifts is not a rigid set of rules, but rather a diagnostic tool and descriptive framework for analyzing and solving translation problems. Its applicability in medical guideline translation is evident in the following aspects:

(1) Provides a Systematic Operational Pathway: It makes the often-intuitive process of adjustment in translation explicit and categorized, enabling translators to make decisions consciously and with justification, rather than relying solely on linguistic intuition.

(2) Enhances TT Accuracy: Through level and category shifts, the scientific information and logical relationships of the source text can be more precisely reproduced in the target language, avoiding mistranslations or ambiguities caused by formal rigidity.

(3) Improves TT Readability and Standardization: The shift strategies guided by this theory (e.g., Structure Shifts, Unit Shifts) can effectively produce translations that conform to the expressive conventions of Chinese medical texts, achieving the goal of "reading like a professional document originally written in Chinese."

(4) Assists in Terminology and Cultural Adaptation: Intra-system Shifts remind translators to pay attention to differences between language systems and cultural frameworks, providing a direction for thought towards achieving genuine "functional equivalence."

However, applying this theory requires caution: shifts are a means, not an end. All shifts must serve the core requirements of medical translation: scientificity, accuracy, and safety. Any shift that sacrifices accuracy for the sake of fluency is putting the cart before the horse. Translators must first deeply understand the medical meaning of the source text, and then flexibly apply shift tools to produce the optimal translation.

6. CONCLUSION

This paper has explored the applicability of Catford's Theory of Translation Shifts to the translation of medical guideline texts. The research indicates that although this theory was proposed decades ago, its profound analysis of the micro-processes of linguistic shift enables it to provide strong and practical theoretical support for modern medical translation practice.

Faced with the prescriptive nature, high density, and dual readership orientation of medical guideline texts, Catford's system of shift strategies—Level Shifts and Category Shifts (Structure Shifts, Class Shifts, Unit Shifts, Intra-system Shifts)—can effectively guide translators in breaking free from the formal constraints of the source language and systematically addressing issues such as syntactic conflict, terminology unification, and cultural adaptation. Through a series of conscious and justified transformations of linguistic form, translators can accurately reconstruct medical information in the target language, ultimately producing translations that are both scientifically rigorous and fluent and readable. This ensures that medical knowledge can safely and effectively cross linguistic and cultural barriers.

Therefore, introducing Catford's Theory of Translation Shifts into medical translation teaching and practice can help cultivate translators' deep language contrastive awareness and strong text reconstruction abilities, thereby enhancing the overall quality and professional level of medical translation.

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