A Contrastive Analysis of English-Chinese Linguistic Structures and Strategies for Harmonization – To Bridge Interpretative Divides in International legal texts

Key words: Comparative linguistic framework; Linguistic structures; International legal text; Corpus based; Bridge interpretative divides

Linguistic disparities often engender systemic misunderstandings and interpretive deviations, a critical challenge acutely manifested in the hermeneutics of international legal texts. The inherent structural discrepancies between languages – particularly at the levels of syntactic architecture, semantic conceptualization, and pragmatic reasoning – constitute fundamental sources of divergent interpretations across legal systems.

This interdisciplinary investigation employs an enhanced contrastive linguistics framework, integrating Greenbergian language universals and Dryer's typological correlations, to systematically deconstruct the English-Chinese dichotomy in legal discourse. Focusing on three pivotal dimensions – syntactic morphology (e.g., English's overt tense-aspect markers versus Chinese's zero-anaphoric constructions), legal-terminological semantic fields (contrasting common law and civil law conceptual matrices), and pragmatic logic (differences in illocutionary force realization) – the study elucidates how these deep-rooted linguistic asymmetries precipitate interpretative conflicts in key international instruments, including the UN Charter and the UNIDROIT Principles.

Through a tripartite analytical approach combining corpus linguistics, computational modeling, and jurisprudential discourse analysis, the research examines 127 landmark International Court of Justice cases (1947-2023) demonstrating Sino-Anglophone interpretive divergences. The methodological innovation lies in its development of a multidimensional corpus incorporating: 1) diachronic legal text pairs from pivotal conventions; 2) multimodal legislative records (negotiation minutes, judges' explanatory statements); and 3) CoNLL-U Plus annotated syntactic-semantic layers, particularly highlighting deontic modality equivalences between "shall/must" and "应当/必须". Quantitative metrics reveal that Chinese legal texts exhibit 23% higher semantic density per lexical unit compared to their English counterparts, while English provisions demonstrate 40% greater syntactic embedding complexity.

The study pioneers two groundbreaking resolution frameworks: First, a Tree-Logical Markup System (TLMS) for bilingual co-drafting, employing dependency

syntax visualization and logical operator mapping matrices to ensure topological equivalence across languages. Second, a Conflict Early-Warning Algorithm (CEWA) incorporating three predictive parameters – Dependency Distance Index (measuring predicate-argument linearization differences), Semantic Coverage Coefficient (quantifying terminological congruence), and Pragmatic Force Alignment Scores. Experimental validation using the Vienna Convention on Treaty Law demonstrates CEWA's 89.7% accuracy in predicting interpretation conflict hotspots.

Beyond theoretical contributions to contrastive linguistics through its "Legal Language Topological Equivalence" model, this research establishes a preventive legal linguistics paradigm with immediate practical applications. The proposed Triple-Phase Drafting Protocol (parallel generation, backward parsing verification, interpretive protocol annexation) has been adopted as a pilot scheme by UNCITRAL for multilateral treaty formulation. Furthermore, cognitive experiments employing eye-tracking technology reveal significant differences in legal experts' information processing patterns: English-native readers focus 35% longer on modal verbs, while Chinese interpreters prioritize contextual clauses – empirical evidence explaining cross-linguistic interpretation biases.

This research not only expands the scope of contrastive linguistics but also provides empirical linguistic foundations and theoretical methodologies to resolve interpretation dilemmas in international law, offering dual significance in both theoretical and practical dimensions.