

奠基於雙語自動對齊之  
動介片語翻譯改進

Improving Phrase Translation Based on Sentence Alignment  
of Chinese-English Parallel Corpus

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摘要

本研究呈現片語查詢的雛形系統 PrecisePhraseBook，能從雙語語料庫中，自動擷取英文名詞與介系詞搭配的中文翻譯及例句，可輔助語言學習者學習語言，亦可改善機器翻譯或提供語言研究者撰寫文法規則之參考。本方法利用雙語語料庫擷取英文片語的中文翻譯。其方法為使用統計方法由雙語語料庫中的詞彙自動對齊，分別擷取名詞及介系詞的翻譯，再根據由中文語料庫統計而來的中文高頻搭配詞，將名詞及介系詞的翻譯做適當調整，並產生例句。系統執行時，使用者輸入一組英文名詞與介系詞的搭配，系統會呈現資料庫中此搭配的翻譯及例句。本研究的評估方式是隨機抽取三十組名詞及介系詞的搭配，人工評估本研究方法產生的翻譯。

關鍵詞：雙語句子對齊、文法規則、搭配詞、動介片語翻譯

## Abstract

This thesis presents a phrases searching system, PrecisePhraseBook, which provides Chinese translations and example sentences of English phrases with a noun and preposition to assist learners in learning English or Chinese. PrecisePhraseBook provides researchers a reference tool for generating grammar rules. We propose a method for extracting Chinese translations of English phrases from bilingual parallel corpora. We use statistical methods to extract translations of nouns and prepositions from bilingual parallel corpora with sentence alignment, and then adjust the translations according to the Chinese collocations extracted from a Chinese corpus. Finally, we generate example sentences for the translations. At run-time, the user enters an English phrase with a noun and a preposition, and the system retrieves translations and example sentences from the database and presents the results to the user. The evaluation is done using randomly 30 selected phrases. We used human judge in assess the translations.

Keywords: Sentence Alignment, Grammar Patterns, Collocations, Phrase Translation