

跨學科視域下的臺灣翻譯專業發展



國家教育研究院 主編

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國家教育研究院主編

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序

人類文明愈進步，社會就愈尊重語文及文化的差異。通訊及交通科技越發達，人們的溝通交流就愈來愈頻繁。做為語言及文化溝通媒介功能的翻譯便愈來愈重要。翻譯也逐漸從工具導向轉為專業導向，相關的研討、研究也愈來愈多。本書即是收錄國家教育研究院(以下稱本院)民國 101 年舉辦的「2012 臺灣翻譯研討會—翻譯專業發展與品質提升」的 10 篇論文，每篇著作作者均依據研討會主持人、與談人及與會人士的建議修改後，再經兩位雙匿名審查者審查通過，作者再次修改後收錄。

本書的內容涵蓋翻譯發展的很多面向，包括翻譯制度、教育、科技應用、學術著作翻譯及翻譯資源。在翻譯制度方面，有臺灣翻譯發展策略、法律翻譯服務之專業與倫理及法庭口譯品質提升的功能視角等 3 篇。翻譯教育有口譯考試之評分行為模式及從眼動測量檢視英中逐步口譯筆記原則等 2 篇。科技應用有語料庫應用的研究等 2 篇。學術著作翻譯包括外文學術著作中譯重點領域及翻譯模式之分析及中文學術著作英文長摘推廣機制的探討等 2 篇。至於翻譯資源則探討兩岸中小學教科書名詞中文譯名的翻譯模式。內容多元豐富，是翻譯發展相關研究很好的參考資源。

本院於 2011 年整合國立編譯館(1932-2011)等單位成立。原國立編譯館於 2004 年首次辦理「建立臺灣翻譯人才評鑑制度—需求與方向」研討會，是國內第一次舉辦翻譯政策與制度的研討會，深獲各界肯定。此後每年持續辦理，主題依序為「建立臺灣翻譯人才評鑑制度：實施與交流」、「翻譯資源與人力」、「考試命名題與評分」、「翻譯能力評鑑經驗交流」、「翻譯能力評鑑新趨勢」、「翻譯能力評鑑與翻譯教育」、「翻譯政策與制度」，以及 2012 年的「翻譯專業發展與品質提升」。歷年均邀請國內外專家學者專題演講，提供產官學界對話交流與經驗分享。多年來，逐步開啟國家翻譯政策與制度的探討和研究，促進臺灣翻譯的專業發展。

最後，感謝本書各篇論文作者的努力，2 位審查人詳細的審查，及編輯小組精心的編輯排版，使本論文集得以順利出版。雖然我們對於本書已力求完善，若仍有不周之處，歡迎指教，並請持續支持，共同為臺灣翻譯專業發展而努力。

編譯發展中心主任 林慶隆

2014 年 7 月

臺灣翻譯發展策略之探討

林慶隆 陳昫萱 林信成

摘要

翻譯提升不同語言文化背景人們在生活、文化及學術交流溝通品質，愈進步文明的社會，翻譯就愈重要。很多先進的國家，都很重視翻譯。近年來，臺灣產官學各界亦積極從各面向致力於國際化並推動翻譯業務的發展。然而，對於臺灣翻譯發展非常重要的翻譯發展策略，卻僅有林慶隆等（2011）從分析中央各部會翻譯業務現況與問題，提出「制定國家翻譯發展政策」等 8 項可能的作法，惟其內容並未提出翻譯發展短中程具體策略作法，尚難提供政府相關單位作為實際推動翻譯發展之參考。因此，本研究目的包括：（一）探討世界主要經濟體之翻譯發展作法；（二）探討臺灣翻譯發展的問題；（三）探討未來 5 年臺灣翻譯發展的具體策略。

本研究採文件分析及焦點團體座談等方法，資料來源包括國內外相關文獻、政府相關單位推動翻譯發展之文書及報告書等資料。焦點團體座談代表包括產官學翻譯相關專家、學者及負責人員等。本研究結果包括：（一）探討歐盟、英國、中國大陸、日本及韓國等國家之翻譯發展作法概況；（二）探討臺灣翻譯發展的問題；（三）提出未來 5 年具體推動翻譯發展之策略。

最後，以上成果除了可作為研擬臺灣翻譯發展策略之參考，本研究亦將對未來研究內容及方向等提出建議。

關鍵詞：翻譯、翻譯發展、翻譯發展策略、翻譯政策

林慶隆，國家教育研究院編譯發展中心副研究員及中心主任。

陳昫萱，國家教育研究院編譯發展中心助理研究員。

林信成，國家教育研究院綜合規劃室研究助理。

本文部分初稿內容曾發表於「2012臺灣翻譯研討會－翻譯專業發展與品質提升」，作者在此向該場研討會主持人賴慈芸教授、與談人張上冠教授和陳彥豪教授及所有與會人士，以及本文的兩位匿名審查者所給予的修正意見致謝。

A Study of Translation Development Strategies in Taiwan

Ching-Lung Lin Yun-shiuan Chen Hsin-Cheng Lin

Abstract

The more civilized a given society has evolved, the more important its translation projects will become. Although many government agencies, academic institutions, and the industrial sectors have exerted noticeable efforts to translation works and internationalization schemes in recent years, no national translation policy has been proposed yet as a guide for the development of Taiwan's translation business. Specific and relevant strategies to Taiwan's translation development are discussed by only very few researches. For instance, Lin, etc. (2011) proposed eight possible approaches, including some rationales such as forming national translation policy. However, the proposals were not exhaustive enough for advising the government on its policy decisions due to its lack of short and middle term detailed plans for translation development strategies. In view of these critical issues, the present study focuses on investigating (a) what are other major countries' translation strategies? (b) What challenges is Taiwan confronting in translation development? (c) What should be the possible solid five-year strategies for translation development in Taiwan?

The research methods of the present study consisted of document analysis and focus group interview. The data sources are mainly from significant literatures on translation strategies as well as governmental reports and state papers on translation. The focus group interviewees include experts in the translation industrial circles, and officials in charge of T/I in the government. The research results are: First, a better understanding of respective translation strategies in the EU, UK, China, Japan, and Korea; Second, a disclosure of problems of promoting translation in Taiwan; Third, nine strategies with detailed plans for Taiwan translation development in the next five years are proposed.

Ching-Lung Lin, Associate Research Fellow, Development Center for Compilation and Translation, National Academy for Educational Research

Yun-shiuan Chen, Assistant Research Fellow, Development Center for Compilation and Translation, National Academy for Educational Research

Hsin-Cheng Lin, Research Assistant, Office of R&D and International Affairs, National Academy for Educational Research

Finally, some suggestions for the formulation of national translation strategies and future research on translation development are proposed.

Keywords: translation, translation development, translation development strategy, translation policy

壹、前言

翻譯提升具不同語言文化背景人們在生活、文化及學術交流的溝通品質；愈進步文明的社會，翻譯就愈重要。很多先進的國家，都很重視翻譯。近年來，臺灣產官學各界亦積極從各面向致力於國際化並推動翻譯業務的發展。然而，對於臺灣翻譯發展非常重要的翻譯發展策略，卻僅有林慶隆等（2011）從分析中央各部會翻譯業務現況與問題，提出「制定國家翻譯發展政策」等 8 項可能的作法，惟其內容並未具體的提出翻譯短中長程發展目標，難以提供政府相關單位作為推動翻譯發展之參考。

語言是人類文化的表徵、也是文明發展的基礎。各種不同語言與文化背景的人皆應受到公平的待遇。例如：聯合國曾於 1948 年通過「世界人權宣言」（Universal Declaration of Human Rights），又在 1966 年通過「公民及政治權利國際公約」（International Covenant on Civil and Political Rights）以及「經濟社會與文化權利國際公約」（International Covenant on Economic, Social and Cultural Rights）。我國政府也在 2009 年，由馬英九總統正式簽署後兩項中英文版批准書，由法務部訂定兩項國際人權公約施行法、經立法院通過，因此公約的內容已經變成我國國內法。兩項公約皆明文規定人民不應受族群、膚色、語言...等各種因素影響，享有該公約所保障之各項人權。我國憲法也明文規定，我國人民「無分男女、宗教、種族...，在法律上一律平等」。因而，語言作為人類發聲權的一種象徵，有其根本重要性。

此外，為了不斷因應社會變遷與發展，我國需要不斷引進新知；而作為地球村的一員，我國也有參與豐富人類知識內涵、分享臺灣學術與教育文化成果的責任。而我國的發展需要暨參與豐富人類知識內涵的責任皆凸顯翻譯的重要性。尤其，當前全球化的發展，造成了一個競合的世紀，世界各國彼此間必須不斷競爭以追求經濟利益；同時，也必須為了全球永續發展而攜手合作。處於這樣的國際社會脈絡中，我國自然難以置身事外，為了回應這些激烈的變遷與因此衍生的挑戰，我國教育部也於民國九十九年提出了「中華民國教育報告書 — 黃金十年百年樹人」，文中除了說明了我國當前所面臨的社會變遷與教育挑戰外，並據以提出了「新世紀~推動國家建設與人類永續發展」、「新教育~立足臺灣走向全球」、與「新承諾~發展精緻、創新、公義與永續」等三大願景，期以達成「精緻~提升教育全面品質」、「創新~激發教育多元活力」、「公義~彰顯教育深度關懷」與「永續~促進教育長遠發展」等四大目標。教育報告書並聚焦審視分析了當前「人才培育與教育產業」、「多元尊重與弱勢關懷」、「兩岸及國際交流與海外僑教」等社

會各界所關注的教育核心議題，最後提出了十大發展策略以及三十六項行動方案，期以達到所期許的願景與目標。

從以上聯合國與我國憲法對於人類基本權利的重視以及教育報告書「人才培育」、「多元尊重與弱勢關懷」與「國際交流」等核心議題，可知翻譯與人權、教育及國家發展間的密切關連性是不證自明的。翻譯，最基本的意涵是語言轉換，因而是促進跨文化理解、溝通與對話，以強化合作不可或缺的管道；從宏觀角度言之，更是型塑我國成為一個兼容並蓄多元文化社會之具體途徑。因此，翻譯作為一種全面性的服務事業，不僅是我國邁向國際的基石、是了解全球大趨勢發展動向以追求永續發展的管道，而針對外籍人士所提供的各項翻譯服務、更是尊重多元與少數的最佳體現，準此，翻譯發展的內涵非僅與教育報告書不謀而合，其實並已自不同角度回應了教育報告書的各種關注。

隨著翻譯產業界、政府部門的翻譯業務、以及翻譯學術研究的欣欣向榮發展，卻也存在一些常討論的問題，大致可歸納如下：

一、我國翻譯發展所衍生的挑戰為何？例如：

- (一) 學術著作譯者的專業貢獻是否受重視以及如何界定與認可？
- (二) 新住民增加所衍生的翻譯需求為何？
- (三) 哪些國外新知才是需要引進的？
- (四) 國內那些教育、文化及學術成就需要外譯分享全世界？
- (五) 資通訊科技如何應用於翻譯發展？
- (六) 翻譯專業教育與研究如何回應以上種種問題等？

二、我國應提出何種策略以回應處理以上各項問題，並做前瞻性規劃？

本研究希望從以上問題出發，經由借鏡世界主要經濟體之翻譯發展經驗、並分析臺灣翻譯發展的現況與面臨的問題，據以探討未來的發展策略。因此，本研究的目的包括：

- (一) 初探世界主要經濟體推動翻譯發展的現況。
- (二) 分析臺灣翻譯發展的問題。
- (三) 探討未來5年臺灣翻譯發展的具體策略。

研究成果將作為研擬臺灣翻譯發展策略建議書的基礎，期待在各界的增益與補充下，作為政府思考未來五年推動翻譯發展的參考。

貳、文獻探討

綜覽國內外翻譯研究的文獻，鮮有探討國家翻譯發展策略之研究。直接論及翻譯發展策略者有林慶隆等（2011）就國內翻譯發展相關議題進行探討後，提出八項翻譯發展策略，包括：「制定國家翻譯發展政策」、「擴充或建置各類翻譯資料庫」、「建構翻譯品質保證機制」、「培育各專業及各語種的翻譯人才」、「建構學術著作譯者貢獻制度」、「積極向外推廣國內學術文化成就」、「善用科技促進翻譯發展」、以及「進行翻譯發展基礎性研究」。以上八項雖已提出發展策略的方向，但仍顯籠統，必須提出更具體的行動策略。因此，本研究繼續檢視針對翻譯議題現況相關之研究及其建議，一方面據以彙整分析推展翻譯各面向之問題，同時做為彙整並發展具體策略之參考。

關於我國翻譯產業的發展，周中天等（2004）調查分析國內翻譯產業現況，發現口筆譯相關從業人員對於翻譯市場表現及未來發展抱持平審慎樂觀態度。同時，政府翻譯業務雖因推動整體國際化政策而導致翻譯需求巨幅成長，惟政府現行編制內專門翻譯人力不足且不穩定，因而經常需委託翻譯服務業者翻譯。另翻譯學術發展方面，一方面許多大專校院之外文系雖設有翻譯相關課程，但是翻譯專業師資將是決定增設翻譯專業課程之決定因素。最後，該研究指出國家專責翻譯機構應扮演制定標準與促進翻譯產業健全發展之角色，而翻譯證照建議採技能檢定、證書或執照方式辦理，就國家考試增設翻譯類科、則建議優先考慮以執照類進行。

整體而言，以上研究建議指出了翻譯領域的幾項重要課題：政府翻譯業務的需求、翻譯專業教育、翻譯能力檢定等。過去幾年來，部分建議也已被採納並實行。例如：教育部 2007 年開始推動中英文翻譯能力檢定考試，即是以提供翻譯能力證書之方式進行；值此同時，社會變遷與最近的政府組織改造，似乎也讓部分研究建議（如設置國家專責翻譯機構）需再行審慎規劃，然而針對其他如政府部門翻譯業務委外所衍生相關問題，如品質不一，以及中英文翻譯能力檢定考試作為一種能力評鑑策略之效益如何...等，都為本研究發展推動翻譯策略指出可能方向。

針對翻譯能力評鑑之相關研究，則有原國立編譯館委託學者進行 3 期之研究，從楊承淑等（2003）重點式的探討，至劉敏華等（2005、2006）鉅細靡遺地分析世界許多國家因不同國情所建立各種各類翻譯專業人才能力檢定機制、試題型態、考試方法，也研析了翻譯能力檢定做為證照或能力檢定之不同屬性、評量基準與方法，作為發展教育部中英文翻譯能力檢定考試機制，包括：翻譯檢定類

別（如：口、筆譯）、考試範疇、試題類型、評分機制、與發照方式等。檢定考試實施後，原國立編譯館亦再分別與劉敏華等（2007、2008、2009、2010）及賴慈芸等（2007、2008、2009、2010）合作進行4期的研究，調查分析考生意見，以精進考試的命題、評分及作業。這些研究累積的成果，都成為教育部中英文翻譯能力檢定考試的基礎。這項考試雖然扮演中英文翻譯能力的指標性鑑定機制，隨著該考試的辦理與經驗以及社會變遷發展，近來也有其他建言，成為本研究據以發展行動策略之參考。

有關翻譯產業的最近發展，陳子璋等（2012）探討中央政府、縣市政府的翻譯需求、暨譯者工作現況，該研究對吾人了解最近政府單位的翻譯需求暨譯者的工作現況相當有幫助。研究結果指出政策意涵包括（頁172）：「提高譯者能見度」、「型塑翻譯專業形象」、「提升大眾對於翻譯的正確認識」、「提倡譯評以增進對翻譯品質的了解及認同」、「提供譯者進修機會以鼓勵專業發展」、「訂定稿費最低標準並將稿費分級以防削價競爭」、「立法保障本土譯者工作權」，另有受訪譯者建議「由政府主導翻譯證照制度並強制譯者定期更新證照、作為品質保證機制」、以及如「結合翻譯證照制度與譯者聘用制度以增強翻譯產業正向風氣」等。該研究之優點除了一方面適切呈現公部門翻譯需求的各項最新動態、如實傳達翻譯從業人員與相關實務界的心聲，並提出可行建議。同時，該研究建議也進一步將許多問題更細緻的呈現，例如譯者能見度與專業形象的問題，譯者專業與進修教育、譯作品質、結合中英文翻譯能力檢定考試、譯者聘用與翻譯品質提升等層面，也都為本研究繼續深入思考行動策略奠立基礎。

另就學術著作翻譯發展方面，主要相關研究有賴慈芸等（2006）針對學術著作翻譯機制進行研究，該研究以調查了解國內學術著作翻譯出版現況為出發點，同時也參考國外政府部門獎補助學術著作翻譯的措施與辦法，最後了解當時出版業者與學術譯者在學術著作翻譯之需求與建言，彙整分析後提出了幾項研究建議包括：提升學術著作翻譯稿酬、進行具規模之譯評研究、建立翻譯資訊共享平台、出版譯者通訊並建置翻譯人才資料庫、獎補助學術著作外譯、出版雙語書摘、明定以譯作申請升等之審查辦法、成立國家專責單位主管上述事宜、同時與國外進行聯繫。本項研究明確指出推動學術著作翻譯之重要性、國外之作法、以及現行問題等，所提出之研究建議也反映出學術著作翻譯（無論是中文譯為外文或外文譯為中文）作為提升精緻文化之關鍵一環，特別需要審慎而周延的思考策略與資源投注。

與學術著作翻譯相關之研究，最近亦有教育部委託黃寬重等（2012）針對人文社會學科之評鑑制度研究，其中提及學術著作翻譯對學術界之重要性。該研究

一方面反映出學術著作「翻譯與西洋經典譯注對人文社會科學發展相當重要、同時也幫助學生學習，因此建議應該於學術評鑑時列入指標」(頁42)。研究並彙整列舉出包括如：加強歐陸經典作品與經典教科書的翻譯、翻譯應至少審查後列為研究成果、由政府協助取得經典作品版權方式，促進、強化專業翻譯人才培育...等15項針對學術著作翻譯之建議。這項研究一方面真切而多向度地反映出人文社科界對於學術著作翻譯的重視，同時也提出了可以推動學術著作翻譯的方向。

簡言之，以上幾項最近文獻，雖未直接就推動翻譯發展提出具體行動策略，然而皆自各種不同角度提出推展翻譯發展的方向，對於本研究思考於現行架構逐步建構臺灣翻譯發展策略有相當助益。

參、研究方法

本研究採文件分析及焦點團體座談等方法，資料來源包括國內外相關文獻、政府相關單位推動翻譯發展之文書及報告書等資料。焦點團體訪談邀請的受訪專家採立意抽樣，包括學者、譯者、出版業者及政府單位翻譯業務主辦人員等相關人員。

肆、結果與討論

從文件分析及焦點團體座談意見，歸納出歐盟等世界主要經濟體之翻譯發展策略、國內翻譯發展面臨的問題及未來5年臺灣翻譯發展策略。

一、世界主要經濟體之翻譯發展策略

歐盟、英國、中國大陸、日本與韓國等主要經濟體之翻譯發展策略分述如下。

(一) 歐盟

歐盟自其前身歐洲經濟共同體於1958年成立運作以來，即尊重主要會員國語言，並於會議中同時採用各國語言。2000年歐盟所簽署的《基本權利憲章》(Charter of Fundamental Rights)更指出其尊重文化、宗教及語言的多元性，禁止因語言或其他理由的歧視、與包容與接受異己是歐盟的核心價值。歐盟執委會(European Commission)的多語種主義政策有「推廣健全的多語經濟」、「鼓勵語言學習與推廣多語社會」、「讓公民使用自己的語言取得歐盟的法規、程序及資訊」等三項目標(中華民國外交部駐歐盟兼駐比利時代表處文化組，2006)。截至2012

年為止，歐盟一共有保加利亞語、捷克語、丹麥語...等23種實行中的官方語言（Witteveen, 2007）。

歐盟執委會翻譯總署（Directorate-General for Translation）轄下有歐盟執委會筆譯總署（Directorate-General for Translation DGT, SDT）及歐盟執委會口譯總署（Directorate General for Interpretation, DG SCIC）兩個單位。筆譯總署的職責在於將歐盟政策文件翻譯成23種官方語言，藉此讓人民能夠了解政策內容，並增進政策的合法性、效率及透明化。口譯總署擁有大約700名成員（其中500名為翻譯人員），是國際社會中規模最大的口譯服務機構，其提供執委會每天40至50場大型會議口譯及籌辦會議的服務，並確保與會人士能夠確實的相互了解。口譯總署也間接訓練翻譯人員，例如將訓練人員送至大學執教、每年接待600名學生及參與設計大學翻譯測驗。另外也提供財政援助，例如支援從事較少使用的語言的教學、與大學分享口譯教學的方法，提供經費補助修讀碩士班翻譯課程的學生（Witteveen, 2007）。

（二）英國

英國基於過去大英帝國的歷史，國內有許多來自殖民地的移民族群與語言，例如印度、巴基斯坦、香港中文、以及部分非洲國家與加勒比海國家等語言。伴隨各類追求政治庇護與經濟發展而移民到英國的多元族群，更使英國的翻譯需求廣泛包含了這些移民者的住宿需求、法律諮詢、健康、教育、工作等各項與這些移民良好生活品質相關的翻譯議題（Pellate, 2011）。當前英國的翻譯政策則回應了這樣的多元社會歷史背景，依據英國2010年公布的平等法案（The Equality Act, 2010），政府必須保證各族群可以享受到公平的公共服務、不因任何如族群、性別、信仰.....等個別因素受到歧視（Lambeth Council, 2012）。而語言因為是族群溝通理解的工具，為確保其國內各族群得以順利溝通以公平獲得各項公共服務的理念，提供新移民適當的翻譯/口譯服務因此成為政府所推動的翻譯作為之一。

例如，英國社區及地方政府部（Department of Communities and Local Government）則專就口筆譯服務，提供了一項「地方政府出版品翻譯準則」（Guidance for Local Authorities on Translation of Publications, 2012），其中載明：這項準則係根據「族群融合與團結委員會（The Commission on Integration & Cohesion, 2012）」所提出「我們的共同未來（Our Shared Future）」報告書，該報告書其中一部分特別反思了英國地方當局推動翻譯的各項實務問題，一方面重申英語作為族群融合主要語言的重要性、同時也認為：為避免語言形成族群間溝通的障礙，翻譯仍有其重要性。報告書指出：考量以不同語言全面翻譯政府文件所需的成本與可行性，建議地方政府當局重新反思其翻譯政策，並列舉出考慮是否

提供翻譯服務的一些指標，希望在鼓勵移民學習英語與兼顧各族群公平獲得翻譯服務之間取得一個平衡，最終期以達成促進族群融合團結的政策目標。「地方政府翻譯出版品準則」因而回應報告書的建議，一方面強調新移民學習英語作為共通語言的重要性；同時也建議了一些提供翻譯服務的範疇，例如法律相關資訊，確保少數族群不因語言障礙而遭受歧視或損害權益（頁 10）。這兩項文件也列舉出幾項其所認為的模範翻譯計畫，這些計畫主要包括了安全（警政）、法律、健康衛生、房屋等可能引起重大傷害的資訊。這些計畫的共同特色在於：強調跨機構共同合作，以間接增加翻譯語言的種類、共享翻譯資源、確保資源有效運用，及降低翻譯成本。其次，善用英語與圖片對照，一方面有效達成溝通目的、也鼓勵英語學習。

（三）中國大陸

中國大陸對於翻譯行業提出了筆譯、譯文品質及口譯等三項服務規範。其國家品質監督檢驗檢疫總局於 2003 年發布《翻譯服務規範 第 1 部分：筆譯》，這是中國大陸第一次對翻譯行業制定的國家標準，目的在於規範行業行為，提高翻譯服務品質。本標準將「為顧客提供兩種以上語言轉換服務的有償經營行為」訂定為「翻譯服務」的定義及內涵；並且對翻譯服務的業務接洽、標識、流程、保質期限、資料保存、顧客意見回饋及品質跟蹤等方面，提出規範性標準（中國翻譯協會，2012a）。

中國大陸國家品質監督檢驗檢疫總局於 2005 年發佈《翻譯服務譯文品質要求》，對於譯文品質要求忠實原文、術語統一、行文通順，強調信達雅是譯文品質的基本衡量標準，同時對於數字表達、專有名詞、計量單位、符號、縮寫、編排等制定處理規範。另外，要求以譯文使用目的作為譯文品質評定的基本依據（中國翻譯協會，2012b）。2006 年，該局也發布了《翻譯服務規範 第 2 部分：口譯》，定義口譯的種類、必須具備的設備、人員的資質、服務過程的控制和計費方法（中國翻譯協會，2012c）。

中國大陸除了針對翻譯服務提出規範，也制定了職務級別及其相關規範。1986 年由中央職稱改革工作領導小組所發佈的《翻譯專業職務試行條例》強調必須為社會主義四化建設服務，聘任或任命擔任翻譯職務的人員，必須擁護中國共產黨的領導、熱愛社會主義，顯見其翻譯服務結合了高度的政治意識形態。條例將翻譯專業職務分成譯審、副譯審、翻譯、助理翻譯四個等級；其適用於國家機關和事業單位的現職翻譯人員，企業單位則可參照該規定實行（中國翻譯協會，2012d）。

中國大陸目前有中國人力資源社會保障部委託中國外文局辦理的「全國翻譯專業資格（水平）考試」，中國教育部考試中心和北京外國語大學聯合舉辦的「全國外語翻譯證書考試」及上海市的三類口譯考試。人事部（現稱人力資源社會保障部）2003年發布的《翻譯專業資格（水準）考試暫行規定》；其基本精神就是為了滿足經濟發展的需要、對外開放、國際交流與合作以及國家職業資格證書制度之相關精神。該考試共劃分成資深翻譯、一級口譯及筆譯翻譯、二級口譯及筆譯翻譯、三級口譯及筆譯翻譯等四個等級。中國外文出版發行事業局（簡稱中國外文局）成立『翻譯專業資格（水準）考試』專家委員會，負責擬定考試語種、科目、大綱及命題（中國翻譯協會，2012e）。同一年人事部也發布《二級、三級翻譯專業資格（水準）考試實施辦法》，各級別翻譯專業資格（水準）考試均設英、日、俄、德、法、西班牙、阿拉伯等語種（中國翻譯協會，2012f）。一級口譯及筆譯翻譯考試於2012年開始招考，僅開設英語考科，資深翻譯等級考試尚未實施（中國外文局翻譯專業資格考評中心，2012）。中國大陸教育部考試中心和北京外國語大學於2001年合作舉辦全國外語翻譯證書考試，目前有英、日兩個語種，分為筆譯和口譯兩大類，分別包含一級、二級、三級及四級4個級別，考試合格者可獲得相應級別的筆譯或口譯證書（中華人民共和國教育部考試中心，2012）。

上海市的翻譯考試包括「上海外語口譯證書考試」，「上海市商務口譯（英漢互譯）專業技術水準認證考試」及「上海市外事聯絡陪同口譯（英漢互譯）水準認證考試」等三類口譯考試。「上海外語口譯證書」考試基本上是同時評估語言能力和口譯能力的測驗，目前有英語高級口譯、英語中級口譯、英語口譯基礎能力、日語高級口譯、日語中級口譯等五項考試（上海市高校浦東繼續教育中心，2012）。「上海市商務口譯（英漢互譯）專業技術水準認證考試」是為政府單位、企業事業單位、涉外單位，及外資企業等培訓和提供高級商務口譯人才，英語能力需達到大學英語六級（CET-6）或專業英語四級（TEM-4）水準，才可報名參加考試（林慶隆、張梅芬、楊國揚、丁彥平、劉敏華，2004）。「上海市外事聯絡陪同口譯（英漢互譯）水準認證考試」的考試內容涵蓋禮賓禮儀、會展會務、商務訪問、休閒娛樂及日常生活等主題。需具有相當於大學英語水準者，才可參加培訓及考試（上海市會議和商務口譯考核辦公室，2012）。上述三項考試主要是因應上海市緊缺人才的需要而辦理，因此，其特點是培訓與考試結合，人才培訓、考試及任用有很密切的關聯。

在人才培育方面，中國大陸設立了許多所外國語大學，一般大學也成立翻譯相關系所，其中比較著名的有北京外國語大學英語學院翻譯系及上海外國語大學高級翻譯學院。北京外國語大學翻譯系成立於2007年，為滿足大陸戰略需求及

社會發展急需的高等人才，培養具有扎實的英文和中文語言能力、深厚的雙語文學與文化修養、熟練的雙語轉換能力、寬廣的人文社科知識（北京外國語大學，2012）。2003年，中國大陸教育部批准在上海外國語大學建設同聲傳譯（臺灣稱同步口譯）基地，並成立高級翻譯學院，下設會議口譯系、翻譯專業碩士和翻譯學研究所，以培養能夠勝任國際組織、外交工作及各種國際會議同聲傳譯和交替傳譯（臺灣稱逐步口譯）工作的專業會議口譯人員為目標（新華社，2009）。

另外，在重要著作翻譯方面，成立於1953年的中國大陸中央編譯局，常年聘請英、德、法、西、俄、日等語種的外國專家協助工作，主要任務是編譯和研究馬克思主義經典著作，翻譯中共和國家重要文獻和領導人著作，並且研究馬克思主義基本理論及其在當代的發展以及國際社會主義運動的歷史和現狀、理論和實踐（中央編譯局，2012）。

（四）日本

日本翻譯傳統與歷史相當悠久，翻譯產業規模夠大，讀者也較能接受昂貴的學術書籍，因此各類翻譯工作，例如各類外文作品、學術著作的日文翻譯等，主要由民間單位辦理（賴慈芸，2006）。政府單位投入翻譯的主要理念為推廣其文化成就。例如，具官方色彩的日本國際交流基金（The Japan Foundation, 2012）為了在海外推廣日本文化與藝術，設立「贊助翻譯及出版日本相關作品計畫（Support Program for Translation and Publication on Japan）」，以提供獎勵補助海外出版商的方式，鼓勵其出版與日本相關之重要文化作品，在2010-2011年之間，以外語出版或翻譯之日本相關作品及包括中、俄、西、法、德、埃及、烏克蘭、羅馬尼亞、保加利亞、捷克、波蘭、挪威、越南...等不下數十種，可知其推動促進世界各國了解日本文化不遺餘力（賴慈芸，2006）。

（五）韓國

類似於日本，韓國翻譯傳統與歷史亦相當悠久，然而，翻譯產業規模不夠大，因此政府單位投入各類翻譯的作法稍有不同（賴慈芸，2006）。韓國政府於1978年由設立的韓國研究院（The Academy of Korean Studies, 2012）在世界各地推展韓國研究（Strategic Initiative for Korean Studies），而其中的重要策略之一即為「韓國經典英譯計畫（English Translation of Korean Classics Library 100）」，該計畫獎勵個別譯者英譯其所指定的韓國經典著作。至於外文學術圖書韓譯的工作，韓國國內學術圖書市場不大，因此韓國政府補助出版單位，進行外文學術圖書翻譯成為韓文的工作，更提供學術書籍免稅的優惠措施（賴慈芸等，2006）。

除了日本與韓國政府補助外譯該國文化作品外，相關研究亦指出（賴慈芸等，2006），在德國、法國、匈牙利、義大利、芬蘭等國家，也都有政府經費或間接以成立基金會方式，或是補助外國出版商或是個別譯者的方式，將各自國家的文化作品翻譯成外國語言，以促進強化其他國家對其文化之認識。

綜觀以上各國翻譯相關作法可知，其在推動翻譯發展時，因不同翻譯產業規模、社會歷史脈絡與政治制度，有其各自的關懷與特色，政府介入程度也因而有所不同，例如歐盟透過多語種主義的思維，以建構維持友善的生活環境；英國也強調尊重族群差異、以多語文提供與人權議題相關的政府資訊，確保維持一個公平、公正社會環境；中國大陸則由政府全面介入提供各項考試及翻譯服務品質規範；日本與南韓則著重於與國際社會分享其文化，並在不同程度上投入支持外文圖書譯為本國語的工作。這些各自的優點，對於我國思考推動全面性的翻譯政策，有相當助益。

二、國內翻譯發展問題分析

彙整歸納焦點團體座談專家學者所提意見，我國翻譯發展面臨之問題，主要包括以下各項。

（一）翻譯服務所需人才仍顯不足

臺灣雖然在國際交流對中英翻譯的需求最多（周中天等，2004），但在國內卻以新住民母語翻譯的需求最大，目前內政部移民署雖然已經建置了「通譯人才資料庫」，陸續針對五種東南亞語言進行通譯人才培訓，也有 300 餘人取得結業證書。然而，研究也指出這些通譯人才仍不敷所需。主要問題包括：此類人才主要以新移民為主，一方面因非屬專職口譯人員，且服務案數量不固定、同時必須兼顧家庭情況而無法於夜間或周末提供服務，再加上翻譯能力較好的人才，通常因收入考量而被人力仲介公司吸收（何森桂，2011）。移民署也指出：部份法律通譯，需要熟諳法律相關、開庭與訴訟流程等高度專業的通譯人員，而各單位支付通譯服務標準不一等制度性因素，更加劇了目前新住民翻譯服務的人才供給失衡的問題（何森桂，2011）。

法務部在推動法庭通譯時也指出幾項與專業翻譯服務人才不足的問題：涉外簽訂司法互助條約、檢察官承辦涉外案件日益增多，都亟需法律翻譯人才，而國內兼具法律與外語之專業通譯人才似不足因應。此外，現行人才是否能忠實原意翻譯，以及政府財政困難，難以提供較佳報酬吸引優秀人才擔任通譯等相關議題，都是司法翻譯服務品質常見的問題（林錦村，2011）。

因此，整合現行專業翻譯教育課程、相關語言專業團體、以及社福團體，培育分別具法律、醫療衛生、教育、以及警政相關專業的翻譯服務人才，以提升翻譯服務業品質並滿足所需服務，實有其必要性。

(二) 引進我國所需專業新知規模速度仍顯不足

目前我國外書中譯的工作大致可分為兩大範疇，一部分為民間出版社主動投入之中譯工作。此類中譯書籍多以市場取向之財經專業、散文、小說、漫畫等通俗性譯作為主，因其利潤較高、配合出版社之行銷策略、以及市場需求，本身即已蓬勃發展。然而，另一部分是專業學術與文化作品之翻譯亦有其重要性，例如許多學術研究者皆指出：學術性外文著作之中譯本對於我國學術發展有關鍵重要性，尤其是英文與日文以外的其他語文之學術作品，如法文、德文或西文...等(黃寬重等，2012)。

然而，此類譯作因市場較為小眾、且具備此類專業背景之翻譯專業人才也較少、翻譯過程又曠日廢時，以致翻譯成本較高，影響民間出版社主動投入之意願，再加上外部因素如中國大陸較低之翻譯成本，更促使這些出版社逐漸轉而向中國大陸購買已完成的學術譯作。以國家教育研究院過去推動合作翻譯外國學術著作之業務為例，2011年所公告補助外書中譯之370本書單中，僅有不到30本書的企劃案參與投標，每年也只有約20本補助翻譯出版之預算¹，一方面凸顯民間出版業者參與意願低落、同時也顯現出政府補助此類業務經費之捉襟見肘，類此情況間接導致我國引進學術專業新知之規模小、速度慢，長遠來說，將限制我國學術社群與國際學術社群的對話、以及參與詮釋與建構人類知識。

(三) 我國學術文化成果外譯規模速度仍顯不足

為了分享我國學術文化成就以貢獻人類整體知識，最直接的方式即是外譯我國經典作品，因為無論是文學經典、抑或是教育與學術經典，都是一國文化的精髓。過去我國雖陸續有國立編譯館與文化建設委員會分別推動中書外譯，近20年來已經累積約200本的成果，然而譯出之外語種類主要仍以英、日語為主，且相較於外國經典中譯的數量及速度、或是自我國經典外譯數量佔經典著作數量之比率等觀察之，都仍有極大的努力空間。以2011年國家教育研究院補助中書外譯之業務而言，每年建議可外譯之著作可達150本。然囿於預算、國內可從事專業翻譯之人才、與出版商之意願，真正參與外譯的著作僅有4本²，與我國積極分享學術文化成果的目標相距甚遠。

^{1,2} 國家教育研究院中書外譯內部業務報告分析。

隨著臺灣文學館成立，承接原來文建會「中書外譯計畫」，將其修訂為「臺灣文學翻譯出版計畫」，並考慮成立外譯中心，希望逐漸整合民間出版社的力量、有系統地外譯我國文學作品，應可以為臺灣文學經典外譯盡一份力量（陳慕真，2011），然而如何從更多元的角度整合更多資源，並進行單位分工，例如臺文館臺灣文學外譯、國教院學術著作、及國科會的經典譯著的分工。

（四）翻譯服務品質評鑑制度涵蓋範圍仍顯不夠全面

翻譯服務品質沒有一套好的評鑑制也是當前翻譯界最大的一項問題。例如，新北市教育處在推動相關業務時指出（李明芳，2011）：目前較大的挑戰為委外翻譯結果的品質不一，以致於讓實際閱讀的新住民無法了解，此也反映出建立一套完整的翻譯品質評鑑參照機制的重要性。以下從翻譯證照、翻譯業者品管機制、譯評機制、與學術譯作貢獻評估制度，分別討論之。

1. 翻譯證照

目前我國評鑑譯者翻譯能力的作法，僅有教育部中英文翻譯能力檢定考試。該項考試自民國 96 年開始，以一般文件筆譯與逐步口譯為主，雖然已為翻譯人才能力的評鑑機制奠立基礎，但是涉及與人民生命及權益相關的醫療及法律等專業領域之口筆譯能力評鑑機制，仍尚未建立。為了提升醫療、法律之專業翻譯品質，證照實有其必要。

2. 翻譯服務業品管機制

翻譯是一種專業服務，翻譯服務業（如翻譯社）的品管機制，是提升翻譯服務品質的關鍵環節，目前國內翻譯服務業眾多，然而並無一套評估翻譯品質的參考指標讓翻譯服務使用者參考。

3. 譯評

學術與文化譯作品質管理重要機制之一為譯評，其功能為評論學術與文化譯作的品質，然而國內譯評並不盛行，因此難以發揮功能。

（五）學術譯作貢獻仍不夠受重視

學術著作翻譯難以被接受為具體學術貢獻之一，是當前我國學術發展隱憂之一。近來一項針對人文社會科學發展評鑑機制之研究指出（黃寬重等，2012，頁 56-61），在 165 位受訪學者中，70%認為翻譯之學術作品對於人文社會科學領域很重要，主要理由包括如：外國文哲經典翻譯需要有詳實譯注；引進國內學者不熟悉之語系的經典作品之影響尤為重要；外文史料譯注對於史學研究甚為重要；中國大陸譯作品質不佳、引進新知與強化研究生實力等。然而，165 位受訪者中實際上有意願投入翻譯學術著作者僅有 38%，而真正從事過翻譯工作者僅有

14%。不願從事學術著作翻譯的主要原因，除了一般所認知的翻譯學術著作難度較高、學術著作市場太小之外，整體考量有限時間內學者們寧願投入投資報酬率較高之研究工作上；此外，翻譯在評鑑中不被認可則是關鍵的影響因素。

(六) 翻譯發展基礎研究仍顯不足

除了各大專校院翻譯系所從事之研究外，我國政府部門有對翻譯議題進行研究的單位有原行政院新聞局、原國立編譯館、與 2011 年整合原國立編譯館、國立教育資料館及國家教育研究院籌備處成立之國家教育研究院等單位。大專校院翻譯相關系所進行之研究，屬性主要為文學翻譯、文化議題、翻譯教學、翻譯科技等議題。政府單位則主要就翻譯產業調查（周中天等，2004）、翻譯發展制度、人才評鑑制度等議題進行研究。綜觀以上相關研究，多為點狀式各自發展研究主題，似乎尚未能形成翻譯領域的基礎與系統性知識，除了因學術研究議題多側重文學與文化，而政府單位之研究則少有持續性長期性基礎研究。陳子瑋等（2012）最近亦對翻譯產業界之自由譯者與政府翻譯需求進行調查，該研究雖已大幅更新吾人對於政府部門翻譯業務需求之了解，然而在翻譯教育與翻譯學用落差等範疇，也都需要有後續研究持續探討，以培養符應社會與產業需求的翻譯人才。

(七) 翻譯服務應用資通訊科技整合仍顯不足

我國很多政府部門：如行政院、內政部移民署、行政院新聞局、國家教育研究院等皆已分別建置各類翻譯資料庫系統，移民署更設置移民輔導人員，以英、泰、越、菲、印尼、柬埔寨等多語電話服務，提供外籍配偶在臺生活的重要資訊，諸如法律、醫療、金融、生活適應等，也分別就議題提供多線外國人（含外籍配偶與外國人）服務電話，彙整通譯人才資料庫，以期建構友善的多元語文環境。然而，如何利用資訊科技整合現有服務，成立新住民全國性單一翻譯服務窗口，亦是我國當前推展翻譯發展的挑戰之一。

三、翻譯發展策略

為了解決上述我國翻譯發展面臨的問題，焦點團體座談學者專家紛紛建議各種可能發展策略，如設置國家級翻譯中心、政府編制設翻譯職系、設立外國語大學、各大學增設東南亞語種翻譯學程、培育外籍學生參與翻譯等策略等，屬較長期發展的策略，將進一步深入研究探討可行性，本文僅對未來五年之翻譯發展，建議主要策略如下。

(一) 提供外籍人士與新住民醫療及法律翻譯服務

針對短期造訪我國的外籍人士如洽商與留學，除了可由政府單位編印各項英文聯絡資訊，例如政府服務、銀行、飲食、交通與通訊、租屋、與醫療等，亦可推廣目前各相關單位（如內政部移民署與國教院）所建置雙語網站，方便其利用查詢，同時也可在醫療院所、法庭與警察局及派出所提供英日語翻譯服務。另外就新住民之翻譯服務，除了內政部移民署提供東南亞主要語言的幾項重要生活資訊外，另外也建議衛生署、司法院、法務部等單位，與翻譯系所進行合作訓練東南亞語言譯者，結合理論與實務，在公立醫學中心、警察分局、法院等，以東南亞主要語言提供醫療與法律相關翻譯服務，並以現場輪值或全國單一窗口電話服務中心方式設立口譯服務。

(二) 獎補助重要外文學術著作中譯

獎補助外文學術著作可從設置翻譯獎及補助著作中譯等兩面向進行。政府過去曾設置翻譯相關獎項目前多已取消。目前僅有民間出版社與基金會主導的「梁實秋文學翻譯獎」與「林語堂文學翻譯獎」。參與焦點團體座談之專家學者指出，此類獎項事實上有其鼓勵成效。因此為了促進國內外文學學術著作中譯產業發展，政府單位可再次建立設立各類翻譯獎以鼓勵譯者積極投入翻譯，同時也可設立優良譯作出版獎或獎金，激勵出版社參與出版各類優秀翻譯作品。此外，由國教院補助經費翻譯最新外文學術著作，以5年翻譯150本書籍為目標，積極與民間通力合作投入學術著作中譯，刺激學術著作中譯產業之發展，進而解決國內引進專業新知太慢的問題。

(三) 獎補助重要臺灣教育學術文化著作外譯

分享國內各項學術文化成就最直接的方式，即是外譯我國圖書，然而從前述國內現況的分析，發現目前做的並不多。因此，我國除了可於現有補助中書外譯基礎上，繼續擴大補助中文學術文化圖書的外譯工作，由文化部之臺灣文學館主責推廣我國文學作品外譯，並由國教院成立專家小組，選擇我國值得分享的學術著作，進行長英摘或摘譯重要篇章，並彙整成集，以五年翻譯三百本書（篇）為目標。

(四) 培育各語種及各類專業翻譯人才

人才是一切發展的根本，翻譯人才的質與量，直接影響翻譯專業的發展。雖然目前國內每年翻譯系所在學學生總數約在1,000人左右，從數量上看中英翻譯人才供應似乎很充沛，然而針對有翻譯服務需求之政府機關與民間企業所作調查

卻顯示，翻譯人員有其他專業知識不足之現象。此外，為滿足臺灣社會新住民日增，培育東南亞語系的翻譯人才亦屬必須。

考量有限資源，解決此問題的具體策略，可從加強培育英日語以外之常用語種翻譯人才與加強學術專業領域翻譯人才等兩大面向。就前者而言，可於現行德、法、西（或東南亞語種等）系所中增設翻譯學程或翻譯組，同時增設法律、財經、醫療等之專業課程，由教育部提供獎學金鼓勵。就後者而言，可增設短期筆譯專業訓練課程，訓練具學科專業知識者之翻譯能力，每年培訓各語種以及具備各種專業的翻譯人才至少 5-10 名。此外，針對學術翻譯人才，可善用各領域現在充沛的博士人力，針對學術翻譯開辦短期翻譯培訓班、建立翻譯導師制度，有計畫的培養譯者，如此可發掘並培育優秀的學術翻譯人才（陳東升，2011）。

（五）建構翻譯服務者及譯作品質評鑑機制

翻譯品質評鑑的範圍包括翻譯業者、譯者、譯作及爭議處理機制。翻譯業者是翻譯品質良窳的第一層，因此對於翻譯社的設立，可參酌其他國家作法、研擬制定具體明確標準。

在譯者能力評鑑方面，我國雖已有「教育部中英文翻譯能力檢定考試」，但是僅有一般文件筆譯及逐步口譯項目，尚無專業文件筆譯及同步口譯項目，尤其與人民生命財產相關的醫療及法律翻譯，目前僅有司法院及法務部所培訓之通譯，以及民間基金會與大學翻譯系所合作進行之培訓課程，而焦點團體座談與會專家皆建議政府優先考慮建立考試制度，鼓勵從事醫療與法律之翻譯人員取得證書作為其執業參考。因此，建議 5 年內在「中英文翻譯能力檢定考試」增加同步口譯及專業文件筆譯兩個項目，專業文件筆譯項目設立醫療、法律等兩個專業科別，五年內先鼓勵從事該兩項翻譯工作者參與，逐步推行專業領域翻譯證照化。

關於推動譯評，以提升譯作品質方面，可建構譯評平台，一方面初步了解那些作品對於譯評有特別需求，提供發表、回饋的園地，逐漸促進專業譯評的發展。

最後，針對委託者與譯者之間對於翻譯文件品質認定之爭議，可由國教院、翻譯相關專業團體及專業學者研議建構明確的評鑑指標，諸如：信達雅、忠於原文、術語統一、文句流暢等，並組成委員會評議。

（六）建構學術著作譯者貢獻評估制度

學術著作是專業著作，翻譯學術著作除了需要翻譯專業，尚需學科專業知識，因此，翻譯學術書籍所費的時間與精力並不少於撰寫專書或期刊論文。然而

經常被視為類似語文轉換的一般翻譯，所以，學術譯者的專業貢獻未被大多數的學術社群所認可，影響所及，學術研究人員不願投入翻譯工作，對於國外最新知識引進與激發建構本土性知識都有所影響，因此，建構適切的譯者貢獻評估制度，以促進專業翻譯的良性發展有其必要性（賴慈芸等，2006）。建構學術著作譯者貢獻評估制度的具體做法有二：一為制度面，建議教育部與各大學校院將通過審查之學術譯作納為學術貢獻的項目之一，以肯定學術著作翻譯的學術貢獻；另一為譯作審查制度，如許多學者所建議（黃寬重等，2012），可參考期刊論文或著作審查方式，建立學術譯作審查機制。

（七）持續進行翻譯制度及政策研究

為了解決翻譯相關基礎性研究不足問題，建議可由分工的角度，由國教院與設有翻譯系所的大專校院合作，就五年內翻譯關鍵議題：例如各國翻譯發展策略作法，國內翻譯產業狀況、或各部門之翻譯需求等相關議題進行分工研究，以持續系統化累積研究成果，同時將有限資源做最有效的運用。

（八）擴充或建置各類翻譯服務資料庫

我國對專業名詞翻譯有關的資料庫目前有：「國家教育研究院學術名詞、雙語辭彙暨辭書資訊網」提供學術名詞英文中譯、機關名稱英譯；「國際生活環境整合網」提供地址姓名英譯等資料，另外「國家教育研究院學術著作翻譯資訊網」則提供如學術著作、譯者與翻譯業者等資料查詢。因此，未來五年除了持續擴充現有資料庫，同時將「學術著作翻譯資訊網」發展為翻譯專業發展資料庫，涵蓋翻譯產業發展的基礎資料、翻譯業者、譯者及出版者等資訊。另外，中英雙語語料庫是翻譯的基礎建設，因此建議整合現有語料庫並擴充建置中英雙語語料庫，提供各界使用。

（九）應用雲端科技整合強化翻譯服務

資訊與通訊科技的進步，影響人類交流及學習的方式，臺灣網際網路的普及更是幾乎達到處處可上網的境地。因此，建議可善用資訊與網路科技的進步，例如，對少數語種或新住民翻譯的服務，可透過網路即時線上服務中心或 24 小時視訊電話服務中心的方式，由專業口譯人員常駐服務中心，運用各類科技提供遠端翻譯服務，以強化針對外籍人士及新住民全天候之通譯、口譯及筆譯服務。此外，也可強化現行各項資料庫功能，讓行動裝置亦可透過雲端科技上網查詢中英互譯語料庫之翻譯服務，使翻譯服務更方便、迅速及完整。

伍、結論與建議

綜合上述，以下提出本研究之限制，另外續提出研究結論與建議，希望作為日後相關研究參考。

一、研究限制

本研究限制主要有二。世界上的國家很多，而且期刊或圖書文獻幾乎沒有翻譯制度政策的研究，因此，對於世界主要經濟體之翻譯發展策略探討，只能從個別學者的報告或從網站資料分析，基於有些國家因國情不同，並無明確的政策，及研究期程的限制，本研究無法涵蓋世界各國，現階段僅選擇具完善翻譯制度的歐盟、必須回應眾多殖民地移民翻譯服務需求的英國、同樣使用華文的中國大陸、以及我國鄰近的日本與韓國等，提供概略性介紹。

此外，翻譯已是生活的一部分，與各面向的生活息息相關，也可能需要各面向的發展策略，有些是局部，有些是全面；另外，有些是民間團體已在進行。本研究探討的策略，係從五年內政府、永續及基礎的面向進行探討。以上這些限制，也為日後有志繼續從事相關研究者，提出一些另外可發展的研究議題。

二、結論與建議

本文探討歐盟，英國，中國大陸，日本及韓國等主要經濟體之翻譯發展策略，發現各經濟體（國）基於本身的歷史及社會發展需要，而對翻譯的發展有不同的重點，歐盟基於各會員國平等的概念，所以有多達 23 種實行中的官方語言，可以說是最友善的環境。英國基於族群融合團結的目標並考慮成本與可行性，所以著重在與人民密切相關的安全（警政），法律及醫療等的翻譯，並且，經由跨機構的合作，以共享翻譯資源，增加翻譯語言的種類，及降低成本。中國大陸在翻譯服務提供者的翻譯社有設置標準，有 4 種譯者的檢定考試，人才培育亦有語言專門的大學或一般大學的翻譯系所，另外，引進新知或推廣其文化成果亦頗具規模。日本長久以來具有悠久的翻譯傳統，文化上重視藉由翻譯吸收各國的專長，因此其民間的翻譯蓬勃發展，而政府政策則著重於其本國文化成果的推廣。至於韓國，雖亦有長久的翻譯傳統，很重視翻譯，然而，其人口規模不夠大，所以，外文學術著作的引進亦需政府經費的補助，此外韓國也將其文化向國外推廣列為重要的工作，因此補助韓國的作品外譯工作。這些主要經濟體或國家的翻譯，其內涵包括歐盟及英國友善語文環境，增進溝通理解，中國大陸，日本及韓國的內涵除了增進溝通理解外，亦涵納了其促進國內知識發展及豐富人類知識內涵的意

圖。

國內翻譯發展面臨的主要問題包括：翻譯服務所需人才、引進我國所需專業新知規模速度、我國學術文化成果外譯規模速度、翻譯發展基礎研究等都仍顯不足。此外，翻譯服務品質評鑑制度有待強化；加強善用資訊科技整合翻譯服務也都還有空間。這些不同程度之挑戰由來已久，難以一夕之間就解決，

考慮以上各項問題，本研究綜合歸納出未來五年推動翻譯發展策略的建議，包括提供外籍人士與新住民醫療及法律翻譯服務、獎補助外語學術著作中譯、獎補助臺灣教育學術文化作品外譯、培育各專業及語種的翻譯人才、建構翻譯品質評鑑機制、建構學術著作譯者貢獻評估制度、持續進行翻譯制度及政策研究，以及擴充或建置各類翻譯資料庫及應用雲端科技強化翻譯服務等策略。

翻譯的基本功能，在於跨越語文障礙，增進不同語言背景人士的溝通與理解，提升國家的文明度；因而翻譯發展的程度，也象徵一國政治多元化的程度、與整體社會文化的尊重開放程度。尤其，臺灣目前有四十六萬多的新住民（移民署，2012），如何應用翻譯，運用這難得的機緣，營造多語多文化環境，除了創造文化優勢，未來亦可能成為國家永續發展的主力之一。翻譯進一步的功能為引進世界各國的新知，促進國內知識發展，及分享國內學術、教育及文化成果，豐富人類知識內涵。因此，翻譯發展攸關國家知識基礎建設及產業升級，影響國家的永續發展與經濟競爭力，在政府財政有限情況下，我國應亟思整合各項具體策略之道，以持續推動翻譯，確保基本人權並促進國家發展。因此，本研究建議相關單位永續的進行各國翻譯策略及作法，翻譯產業發展，翻譯科技與資料庫，翻譯與國家發展等研究，以長期、系統性的建構資料，才能更清楚全面了解問題及解決策略，做為國家翻譯發展政策的重要基石。

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法律翻譯服務之專業與倫理

吳建林

摘要

本文旨在探討法律翻譯服務（含口筆譯、手語翻譯等各式法律翻譯）是否滿足專業構成要件，以及是否有其特有之服務理念，未見於其他翻譯服務。對於何謂專業，雖似無普遍公認之定義，但可總結為「訓練相當廣泛」、「智能成分重大」、「在社會上提供重要服務」三大特徵。本文自香港公開大學與加拿大渥太華大學法律翻譯碩士課程設計，說明法律翻譯服務可符合前兩項要件。法律翻譯在加拿大、香港、歐盟等地，有其法定需求，在臺灣之《民事訴訟法》、《法院組織法》、《原住民族基本法》等法律，亦有法源基礎。此等規定，乃反映聯合國國際人權法典所揭示之語言權、公平審判權等基本人權。語言正義及司法程序正義精神，正是法律譯者所滿足的社會基本價值，在社會提供的重要服務。本文認為法律翻譯工作應視為整體司法的一環，並可自此勾勒其服務理念。如果說法官、檢察官、律師為司法正義之能動者，促進司法正義之遂行，那麼，法律譯者可視為跨語言司法正義之能動者，其最高目標，不在服務特定人，而在服務司法正義。本文亦指出，專業之本質，即在宣示與承諾。法律譯者標榜自己為專業人員，即表公開宣示，涉及公共信賴與公共倫理。因此，專業法律譯者尤應反思其社會職能與意涵。

關鍵詞：法律翻譯、專業、倫理、服務理念

吳建林，國立臺灣師範大學翻譯研究所博士候選人。

本文部分初稿內容曾發表於「2012 臺灣翻譯研討會—翻譯專業發展與品質提升」，作者在此向該場研討會主持人李憲榮教授、評論人張嘉倩教授及所有與會人士，以及本文的兩位匿名審查者所給予的修正意見致謝。

Profession and Ethics of Legal Translation Service

Chien-lin Wu

Abstract

This paper aims to explore whether legal translation service (here an umbrella term for all legal translation services provided through oral, written, sign language and other means) may qualify as a profession and has a specific service ideal not shared by other translation services. Although there seems to be no generally accepted definition of what constitutes a profession, its central features can be summarized as including: (1) a rather extensive training, (2) a significant intellectual component, and (3) the provision of an important service in society. Legal translation service meets the first two criteria, as can be seen from the curriculum of the master's degrees in legal translation offered by the Open University of Hong Kong and the University of Ottawa. As to the third, the use of legal translation services is statutorily required in jurisdictions like Canada, Hong Kong, and the European Union, and a similar legal basis is also specified in Taiwan's laws such as the Code of Civil Procedure, the Court Organization Act, and the Indigenous Peoples Basic Act. These statutory requirements reflect the two basic human rights enshrined in the International Bill of Human Rights of the United Nations: the right to language and the right to fair trial. These two spirits, language justice and justice in judicial proceedings, are indeed the basic social values served by legal translators, which provides an important service to society. This paper also suggests that legal translation work should be seen as a part of the judicial and legal system, and its service ideal can be outlined accordingly. If judges, prosecutors, and lawyers are agents of justice promoting its administration, then legal translators can be said to be agents of justice across languages, whose utmost goal is to serve, not specific persons, but justice. Lastly, this paper points out the performative nature of "profession" as professing and promising: when identifying themselves as professionals, legal translators are making a public declaration that involves public trust and ethics. Therefore, as professionals they should above all reflect on the function they fulfil in society and its social ramifications.

Keywords: legal translation, profession, ethics, service ideal

Chien-lin Wu, Ph.D. Candidate, Graduate Institute of Translation and Interpretation, National Taiwan Normal University

壹、前言

在現代科技進步、全球化、網路時代、社會型態改變等多重因素推動下，許多領域都面臨新的倫理挑戰。在翻譯方面，隨著翻譯方式的改變，例如機器翻譯、歐盟集體翻譯、全球化機構翻譯等，以及翻譯社會功能的改變，例如加拿大、香港的雙語立法、歐盟的多語立法等，新的倫理問題也浮如檯面，翻譯研究也就有了 Snell-Hornby 所說的「倫理轉向」(ethical turn) (2006, p. 78)，或者 Pym 所說的「回歸倫理」(return to ethics) (2001)。

在臺灣，一般討論法庭通譯或法律翻譯時，常將譯者定位在「傳聲筒」、「溝通媒介」(例如監察院，2012，頁 28、42)。本文試圖以不同角度切入，重新探討法律翻譯工作的專業與倫理。本文旨在凸顯法律翻譯服務的社會職能，因此，語言、文本等其他面向，乃略而不談。「法律翻譯專業倫理」此一議題，所涉層面亦廣，故本文進而限定在根本問題的探討，亦即：一、法律翻譯服務是否得以滿足專業構成要件？二、法律翻譯服務是否有其特有之服務理念，未見於其他翻譯服務？一如標題所示，本文將「法律翻譯服務專業倫理」切割為兩議題：「專業」與「倫理」。如果法律翻譯服務不屬專業，自無討論其專業倫理之必要。因此，本文將第一議題設定在「專業」的探討。專業涉及諸多倫理議題，囿於篇幅，難以一一細究。揆諸醫師、律師之倫理規範，開宗明義即揭禁該等專業之服務理念或使命。服務理念之重要，在於可作為專業行為及專業倫理規範的最高指導原則與評判標準。如能清楚界定，倫理理論與實務的諸多問題，即有最終依歸。職是，本文僅論究法律翻譯服務之核心理念，其他倫理規範或原則，亦省而不論。法律翻譯工作包含口譯、筆譯、手語翻譯等不同類別，工作內容互有不同。細究其各自工作倫理時，或有區分之必要。但本文旨在探索法律翻譯服務業之共同使命，故所論範疇乃涵蓋全體法律翻譯工作。

本文認為「法律翻譯專業倫理」中所謂的「專業」，並非單純只是翻譯專業。法律翻譯雖係橫跨法律、翻譯兩個主要領域，受到此二領域話語的影響，並涉及此二領域的倫理議題，但更宜置於法律領域，因為如下所述，法律翻譯服務成為專業的前提要件，與社會對法律翻譯之需求息息相關。

貳、法律翻譯服務專業要件

對於何謂「專業」，並無普遍公認之定義 (Banks, 2004, p. 18)。Bayles 指出，各家論述幾乎都包括下列主要特徵 (1989, p. 8)：

- 一、執業前須接受相當廣泛之訓練，例如醫師、律師。專業人員大多擁有高等學位，可能至少需要大學文憑。

- 二、所受訓練，智能成分重大。例如泥水匠、理髮師、工藝匠為勞力技術，會計人員、教師、工程人員、律師、醫師、護士則為智能技術。智能成分此一特徵，彰顯於專業人員乃主要就平常人不知道或不懂的事，向他人提供建議。因此，專業其中一項特徵，為提供建議或服務，而非物品。
- 三、所訓練之能力，乃在社會上提供重要服務。例如醫師、律師、教師、會計人員、工程人員、建築師提供之服務，對社會組織化運作至為重要，棋藝大師則無此特徵。

此外，專業另有一共同特徵：資格認證（credentialing），通常為證書或執照之頒發。但持有執照者，不一定為專業人員（如駕駛執照），且有許多專業並不要求證書或執照。不過，即使無專業證照，其成員也常須具備特定資格，如高等學位文憑（Bayles, 1989, p. 8）。專業尚有兩項共同特徵：成員組織（如醫師公會）及工作自主（Bayles, 1989, pp. 8-9）。Bayles 更引述社會學家觀點，歸納出現代社會的專業，在六方面與過去有別（1989, pp. 12-13）：

- 一、由個人執業轉為團隊執業。
- 二、知識之運用，由單一學科轉為多學科。
- 三、報酬由勞務計費（fee-for-service）轉為薪水制。
- 四、因專業人員從事個人執業而受之利他因素（altruism）限制（基於吸引客戶、謀生之考量），正逐漸減少。
- 五、同儕評量機會逐漸增加。
- 六、專業人員與客戶關係之私密性，正逐漸減少。

至於專業在當代社會所扮演之角色，Bayles 指出有三項基本特質（1989, pp. 11-12）：

- 一、滿足社會基本價值（basic social value），即對社會提供重要服務。
- 二、壟斷，即對於服務之提供及成員加入，具有重大或壟斷性之控制力。
- 三、自律，即外界無法妥適評估其專業行為，故專業大多自律自管，且通常能控制執業情形（如收費標準）。

前列各項，除主要特徵外，其他可視為專業的次要或附加特徵。專業證照、專業組織、自律、自主、壟斷等，更涉及專業化（professionalization）過程中諸多政治、權力運作，例如遊說、排他、獨佔社會資源、爭取社經優勢。本文在此僅論究法律翻譯成為專業的前提條件。

就Bayles所歸納的三大主要特徵而言，法律翻譯服務可符合「訓練相當廣泛」與「智能成分重大」兩項。此二要件涉及法律譯者的翻譯能力（translation competence）與翻譯專長（translation expertise），其中也包括專門領域知識（從事法律翻譯工作所需的法律知識）。問題在於：法律譯者對專門領域知識需有多全面、多深入的瞭解？就此，香港公開大學（Open University of Hong Kong，下稱香港公大）與加拿大渥太華大學（University of Ottawa，下稱渥大，英文簡稱uOttawa）的法律翻譯碩士課程，可供對照參考。¹

¹ 探討此二校專設法律翻譯碩士學位課程，亦需考量香港、加拿大兩地因實施雙語立法所生的

香港公大法律翻譯文學碩士課程（Master of Arts in Legal Translation）隸屬人文社會科學院。凡持有該校認可的高等院校所頒授的學士學位或同等資格，即可報讀。該課程設立宗旨，在滿足香港法律界日益成長的翻譯需求。教學目標主要為：提供學生法律文書寫作、翻譯及雙語草擬（bilingual drafting）的專業技巧。預期學生完成學業時，即對普通法制，以及憲法、行政法、刑法、合約法、公司法、財產法的一般概念，能有深入的瞭解，並具備各類法律文書的翻譯技巧，以迎接香港由單語法制轉向雙語法制所生的種種挑戰（香港公大人文社會科學院，2012）。

依其《法律翻譯文學碩士課程規例》，學生必須修滿 60 學分，並自下表所列 11 個必修科目取得至少 50 學分（香港公大，2011）：²

科目名稱	學分
翻譯原理	5
香港法制與英文法律	5
翻譯與中文法律	5
雙語法律文書	5
香港法律翻譯	5
香港高級法律翻譯	5
碩士論文	10
憲法、行政法及刑法雙語研究	5
合約法雙語研究	5
公司法雙語研究	5
財產法雙語研究	5

社會需求。除此二校外，其他開設法律翻譯碩士課程的大學，例如法國普瓦提埃大學（Université de Poitiers）法律暨語言碩士（Master Juriste-Linguiste；課程簡介參 <http://ll.univ-poitiers.fr/masterjuli/spip.php?page=sommaire&lang=en>）、英國倫敦城市大學（City University London）法律翻譯碩士（Legal Translation MA；<http://www.city.ac.uk/courses/postgraduate/legal-translation#course-detail=0>）、西班牙柯米亞斯宗座大學（Universidad Pontificia Comillas）法律財金翻譯碩士學位（Máster Universitario en Traducción Jurídico-Financiera；http://www.upcomillas.es/eng/estudios/estu_mast_trad_juri.aspx）等。另，香港中文大學由翻譯系與法律學院共同開設的法律及翻譯雙學位課程，有兩種攻讀選擇：「法學士及文學士（翻譯）」（LLB-BA(Translation)；http://trservertra.cuhk.edu.hk/eng_programmes_llb.html、<http://www.cuhk.edu.hk/334/chinese/double-degrees/programmes/law-trans.html>）、「文學士（翻譯）及法律博士」（BA(Translation)-JD；http://trservertra.cuhk.edu.hk/eng_programmes_jd.html、<http://www.cuhk.edu.hk/334/chinese/double-degrees/programmes/trans-jd-study-scheme.html>）。此處香港中大的「法律博士」（Juris Doctor, JD），是供非法律系學士畢業生就讀的法律學位，一般歸為法律碩士學位，類似東吳大學的法律專業碩士班。

² 該碩士課程除此處所列必修科目外，另有三科選修科目（不得在其中取得多於 10 學分）：「文選評析（英文）」（5 學分）、「文選評析（中文）」（5 學分）、「高級翻譯」（10 學分）。

渥大法律翻譯碩士課程則要求申請者必須：一、具備法學士或同等資格，畢業成績至少平均 70 % (B)；二、通過該校翻譯學院 (School of Translation and Interpretation) 入學考試。此專業導向課程的目標，旨在訓練法律譯者或審校者 (reviser)，以滿足加拿大實施雙法制所生的需求。主要招生對象為有志於專門從事英到法法律翻譯、審校工作的法學士畢業生。預期教學成效為：學生畢業後，即有能力在政府、業界或律師事務所擔任法律翻譯或審校工作。有鑑於加拿大當地對法律翻譯及審校人員的需求，是以英到法為主，因此，主要招生對象是以法語為主要使用語言的學生。授課語言為法語 (uOttawa, n.d.)。

該課程要求 51 個畢業學分。內容偏向翻譯／審校及雙語訓練，且僅提供英到法走向課程。除「實習」(6 學分) 外，其餘 15 個必修科目為 (uOttawa, n.d.)：

科目名稱	學分
一般筆譯英譯法 (L1) (一)	3
術語研究與工具介紹	3
一般筆譯英譯法 (L1) (三)	3
專門領域翻譯英譯法 (L1) (一)	3
翻譯與雙語草擬書面表達技巧	3
跨法系術語與文書－雙法制及雙語	3
法令翻譯英譯法 (一)	3
司法翻譯英譯法 (一)－聯邦法院	3
專門領域法律翻譯英譯法 (一)－有價證券	3
電腦與翻譯	3
法令翻譯英譯法 (二)	3
法律及法務翻譯與審校 (英到法)	3
司法翻譯英譯法 (二)－最高法院	3
專門領域法律翻譯英譯法 (二)－公開說明書	3
專門領域法律翻譯英譯法 (三)－企業併購	3

細審此二碩士學位課程設計，自不難瞭解其所勾勒出的知識藍圖。香港公大法律翻譯碩士課程未要求入學者須具備法學相關學士學位，課程內容就包含許多法律知識入門科目，例如以研習法律語言為主的「香港法制與英文法律」、「翻譯與中文法律」，以及以研習重要法律的術語及雙語文本比較為主的「憲法、行政法及刑法雙語研究」、「合約法雙語研究」、「公司法雙語研究」、「財產法雙語研究」。反觀渥大法律翻譯碩士課程，在入學申請時即要求法學士或同等資格，且須通過翻譯學院入學考試，因此就較不開設以介紹法制、法律概念、法律語言為主的基礎科目，而提供更專門的「司法翻譯英譯法 (一)－

聯邦法院」、「專門領域法律翻譯英譯法（一）—有價證券」、「司法翻譯英譯法（二）—最高法院」、「專門領域法律翻譯英譯法（二）—公開說明書」、「專門領域法律翻譯英譯法（三）—企業併購」。此二碩士課程的授課內容，其實是以法律知識為主，翻譯技能為輔。但無論是以法律知識或翻譯知識為主，其訓練廣泛，且主要屬於智能活動，當屬無疑。

法律翻譯是否符合專業構成的另一項要件，即「在社會上提供重要服務」？這點可自社會對法律翻譯的需求尋求解答。例如加拿大、香港、歐盟等地，法律翻譯的「法定需求」，即以法律定之。

加拿大以英、法雙語為官方語言，實施普通法、民法雙法制。《加拿大權利與自由憲章》（Canadian Charter of Rights and Freedoms, 1982）第 16 條第 1 項即賦與加拿大雙語位階，第 18 條第 1 項規定雙語法律文書之印製發布，第 14 條則明定法律程序中之口譯使用權：

14. 法律程序中之當事人或證人，如不通曉或不能使用程序進行所用之語言，或為聾人者，有權獲得通譯之協助。
16. （1） 英語及法語為加拿大之官方語言，於加拿大國會及政府各級機關使用時，地位均等，並享有平等權利與特權。
18. （1） 國會法律、紀錄、紀事之印製與發布，應以英、法二語為之；此二語言版本具同等效力。

香港則以普通法為基礎，實行中、英雙語立法。《中華人民共和國香港特別行政區基本法》（1990）即確定香港法系，《法定語文條例》（1974）並確立中英雙語地位與立法：

《中華人民共和國香港特別行政區基本法》

第 8 條

香港原有法律，即普通法、衡平法、條例、附屬立法和習慣法，除同本法相抵觸或經香港特別行政區的立法機關作出修改者外，予以保留。

《法定語文條例》

第 3 條

（1） 現予宣布：在政府或公職人員與公眾人士之間的事務往來上以及在法院程序上，中文和英文是香港的法定語文。

第 4 條

（1） 所有條例均須以兩種法定語文制定及頒布。

歐盟則採取多語言政策（multilingualism），亦即「所有官方語言，皆享有同等權利」（Wagner, Bech, & Martínez, 2002, p. 1）。正如 Wagner et al.所言：多語言政策，簡單而言，即為民主議題。這項政策，是法律義務，也是民主的

必要：用歐洲公民自己的語言，讓他們知悉歐盟法律，如此可保障法律之前的平等。我們不能說不知道法律規定，就不算犯法。因此，要強課法律規定，就不可以用公民不懂的外國語言（2002, p. 3）。歐盟採取多語言政策，是基於歐盟本身的特質，及其對會員國官方語言的尊重。新國家加入歐盟，該國語言就會列為歐盟官方語言。這是因為歐盟法律會成為新會員國的國內法，對其公民具有拘束力。因此，歐盟法律必須以全體會員國的官方語言頒布。新會員國的公民——以及其國內法院——必須能夠以自己的語言閱讀並瞭解法律規定（European Commission, Directorate-General for Translation, 2009, p. 1）。

加拿大、香港、歐盟此種「法定翻譯需求」，一方面在確保語言平等，踐履語言正義，一方面則在保障程序平等，實現司法正義。此等精神，乃反映聯合國國際人權法典（International Bill of Human Rights）所揭示之語言權、公平審判權等基本人權。在公平審判權方面，《世界人權宣言》（Universal Declaration of Human Rights）第 2 條即明定人人不分種族、膚色、語言等區別，皆享有該宣言所載之一切權利與自由；第 10 條明定受刑事控告者，人人完全平等，均有權受公正、公開之聽審；第 11 條第 1 項則明定受刑事控告者，於公開審判前應已獲得答辯所需之一切保障（聯合國，1948）。此公平審判之精神，《公民與政治權利國際公約》（International Covenant on Civil and Political Rights）（1966）第 14 條第 3 項訂之更詳：

審判被控刑事罪時，被告一律有權平等享受下列最低限度之保障：

（一）迅即以其通曉之語言，詳細告知被控罪名及案由；

（二）給予充分之時間及便利，準備答辯並與其選任之辯護人聯絡；

.....

（六）如不通曉或不能使用法院所用之語言，應免費為備通譯協助之；

.....

語言權之規定，則見於該公約第 27 條：

凡有種族、宗教或語言少數團體之國家，屬於此類少數團體之人，與團體中其他分子共同享受其固有文化、信奉躬行其固有宗教或使用其固有語言之權利，不得剝奪之。

此等條文內容，業經臺灣納入國內法。³立法院於 2009 年 3 月 31 日通過此公約及《經濟社會文化權利國際公約》（International Covenant on Economic, Social and Cultural Rights），並於同年 4 月 22 日公布《公民與政治權利國際公約及經

³ 香港亦將《公民與政治權利國際公約》中對其適用之規定，納入《香港人權法案條例》（1991）。此二條文見於該條例第 11 條第 2 項及第 23 條。

濟社會文化權利國際公約施行法》(2009)，其第2條明定：「兩公約所揭示保障人權之規定，具有國內法律之效力」。⁴ 此外，臺灣亦將公平審判權、語言權之保障，落實於相關法律。《法院組織法》(2011)第98條、《民事訴訟法》(2009)第207條、《刑事訴訟法》(2012)第99條即針對語言不通者或聾啞人士，明定法院處置方式，《法院組織法》第99條、《民事訴訟法》第203條另有附具譯本之規定：

《法院組織法》

第98條

訴訟當事人、證人、鑑定人及其他有關係之人，如有不通國語者，由通譯傳譯之，其為聾啞之人，亦同。

第99條

訴訟文書應用中國文字。但有供參考之必要時，應附記所用之方言或外國語文。

《民事訴訟法》

第203條

法院因闡明或確定訴訟關係，得為下列各款之處置：

.....

二、命當事人提出圖案、表冊、外國文文書之譯本或其他文書、物件。

.....

第207條

參與辯論人如不通中華民國語言，法院應用通譯；法官不通參與辯論人所用之方言者，亦同。

參與辯論人如為聾、啞人，法院應用通譯。但亦得以文字發問或使其以文字陳述。

《刑事訴訟法》

第99條

被告為聾或啞或語言不通者，得用通譯，並得以文字訊問或命以文字陳述。⁵

《原住民族基本法》(2005)第30條則規定應尊重原住民族之族語，以及應用通譯之情形：

政府處理原住民族事務、制定法律或實施司法與行政救濟程序、公證、調解、仲裁或類似程序，應尊重原住民族之族語、傳統習俗、文化及價值觀，保障其合法權益，原住民有不諳國語者，應由通曉其族語之人為傳譯。

其他如《智慧財產法院組織法》(2011)第44條準用《法院組織法》規定、

⁴ 此處有關《世界人權宣言》、《經濟社會文化權利國際公約》與司法通譯及公平審判之內容，亦可參監察院(2012)報告。

⁵ 《刑事訴訟法》此處之「得用」(而非強制性之「應用」)，賦與法院、檢察官是否命通譯傳譯之裁量權，有違前揭《公民及政治權利國際公約》第14條第3項第6款規定，實有礙被告公平受審之權利。雖法務部、司法院向監察院表示，在實務上，當事人若不懂國語，均強制使用通譯，但確實有未使用通譯之案例存在(監察院，2012，頁78、277-278)。行政院2012年四月通過的《刑事訴訟法》部分條文修正草案，已將「得用」改為「應用」(行政院，2012)。

《公證法》(2009)第5條、第74條、《仲裁法》(2009)第25條等，亦見有類似之法律翻譯規定。此等法律條文之精神，在於對國語以外其他語言族群及聾啞等語言弱勢族群之尊重與保障，以及司法正義不該因語言隔閡而受阻礙。此等社會目的，唯有藉由口譯、筆譯、手語翻譯等法律翻譯工作者，方得遂行。因此，法律翻譯工作不僅僅是表面上之減少或排除語言溝通阻礙，更在於其深層所隱含之語言正義與司法正義精神。此等精神，正是法律翻譯工作者之使命，所滿足的社會基本價值，為社會提供的重要服務。

參、法律翻譯服務理念

Airaksinen 指出「專業」兩大特徵，為個別成員知識能力 (scientific competence) 及集體服務理念 (collective service ideal)，專業人員之所以能主張權威 (authority) 與社會權力 (social power)，即在於此 (1994, pp. 1-2)。Airaksinen 所言「服務理念」，即為該專業所肩負之使命，亦為其客觀、核心之價值，相當於 Bayles 所言「社會基本價值」或「重要服務」，以及 Koehn 所言「專業之目標」(professions' ends)，其專業人員所追求之「善」或「益」(good, goodness) (1994, pp. 69-88)。也就是說，專業的服務理念或使命，即表彰該專業所滿足的社會基本價值，以及該專業為社會提供的重要服務。各門專業，各有其服務理念，例如醫療的服務理念在於健康，法律在於正義，教育在於學習，社工在於福祉，建築在於安全，會計、稽核在於社會財富，新聞在於知識與資訊。專業之服務理念，常揭繫於相關倫理規範甚或法律之內，如《醫師倫理規範》前言部分即揭示「醫師以照顧病患之生命與健康為使命」(中華民國醫師公會全國聯合會，2009)，《律師法》(2010)第1條及《律師倫理規範》(中華民國律師公會全國聯合會，2009)前言部分，也明示「律師以保障人權、實現社會正義及促進民主法治為使命」。法務部2012年訂定的《法官倫理規範》及《檢察官倫理規範》，亦分別於第2條載明法官之使命，在於「捍衛自由民主之基本秩序，維護法治，保障人權及自由」(法務部，2012a)，於第3條載明檢察官之使命，在於「保障人權、維護社會秩序、實現公平正義、增進公共利益、健全司法制度發展」(法務部，2012b)。核心理念的重要性，在於可作為專業人員倫理行為決策的最高指導原則，也是他人評判個別專業行為是否符合專業倫理的最高指標。因此，許多論述者才將其列入專業構成要件。

美國國會於1978年通過《法庭口譯人員法》(Court Interpreters Act of 1978，1988年修正；28 U.S.C. §§ 1827-1828)，強制法庭通譯之使用，相關機構也訂定法庭通譯倫理守則。紐約州統一法院系統 (New York State Unified Court

System，下稱 NYSUCS）所定之《法庭口譯人員專業責任規範》（Canons of Professional Responsibility for Court Interpreters），即明定法庭通譯之職責：

口譯員身為法院執事（officer of the court），有義務遵守高度專業行為標準，以有效執行職務，並確保司法之公共信任。（NYSUCS, 2005）

美國紐澤西州最高法院（New Jersey Supreme Court，下稱 NJSC）核定之《口譯人員、轉譯人員、筆譯人員專業行為守則》（Code of Professional Conduct for Interpreters, Translators, and Translators），也勾勒出法庭口筆譯及轉譯人員之服務理念：

有許多出庭者，因英語非為母語，或因言語或聽覺障礙，而遭部分或完全之排斥，無法全面參與所涉程序。該等人士所受之溝通阻礙，必須儘可能予以排除，使其所處地位，與未具該等阻礙者於類似情境下所處地位相同。口譯人員、轉寫人員、筆譯人員等法院執事，有助於確保上述人士享有司法機會均等（equal access to justice），以及法院程序與法院支援服務之有效運作。口譯人員、轉寫人員、筆譯人員為高度技能之專業人員，踐履司法之必要職能。（NJSC, 1994）

此服務理念，也見於美國全國法律口筆譯協會（National Association of Judiciary Interpreters & Translators，下稱 NAJIT）所定之《倫理及專業責任守則》（Code of Ethics and Professional Responsibilities）：

有許多出庭者，無法講說英語或講說能力有限。法庭口譯人員及筆譯人員之職能，即在儘可能排除此項語言阻礙，使該等人士之司法機會，與會講說英語而無該阻礙者於類似情境下所享之司法機會相同。有鑑於法庭口譯人員所受之信賴程度，及其責任之重大，因而須有一套高度、一致之倫理標準，以指引並保護執行職務時之法庭口譯人員，並維護整體專業之標準。（NAJIT, n.d.）

在此值得再度強調：司法機會均等，不該因語言隔閡而遭阻卻。法庭翻譯工作者有助於確保司法機會均等，實現司法程序正義，此精神與法官、檢察官、律師倫理規範所明示或默示之「實現社會正義」精神，實無二致。如果說法官、檢察官、律師為司法正義之能動者（agent），促進司法正義之遂行，那麼，法律譯者可視為跨語言司法正義之能動者，其最高目標，不在服務特定人，而在服務司法正義。

姚孟昌認為「凡從事與法律制定、解釋、執行與教導者，均可被稱為法律人」（2009，頁 17）。就司法分工而言，法律專業可分為審、檢、辯與其他法律實務工作四部分，工作內容雖各自不同，彼此角色殊異，但皆屬法律專業，

而「其適用之倫理規則或有些許差異，但論到核心價值與法律人應有之素質卻無二致」（2009，頁20）。前文雖將法律譯者與法官、檢察官、律師並列，但本文「暫」不敢美其名，將其置於同等專業高度（畢竟臺灣尚無法律翻譯專業認證），但將其列入「其他法律實務工作」，當屬合理。

事實上，法律翻譯工作者的職銜不一定為「譯者」。海牙國際法庭（International Court of Justice）的法律譯者，稱為「法律秘書」（legal secretary），因其實際參與司法工作；加拿大參與立法擬定的譯者，稱為「立法顧問」（legislative counsel，法語為 *conseiller législatif*），以茲與其他法律譯者區別，而橫跨法律語言與翻譯之跨領域專家則稱為「法律語言專家」（*jurilinguist*，法語為 *jurilinguiste*）；歐盟的法律譯者為跨學科專家，亦稱為「法律語言專家」（*lawyer-linguist*，法語為 *juriste-linguiste*）（Šarčević, 1997, pp. 113-115）。從此等職銜看來，翻譯只是其工作內容的一部分。對這些人員而言，翻譯並不是單純的語際轉換，而有更廣之任務屬性，如雙語或多語法律文書草擬、法律條約協調（*harmonization*）等。此外，法律翻譯也不一定是由「譯者」擔任，有些律師事務所是由律師、法務等兼任翻譯工作。在歐盟等組織，翻譯更是涉及跨部會、跨領域的協商與協調。

因此，法律翻譯工作實應視為整體司法運作之一部分，法律翻譯工作者則為整體司法工作團隊之一員。司法之遂行，有賴法律專業者之推動，法律譯者則協助跨語際司法之遂行。法律語言之特色、解釋，法律文本之製作，均與他類語言、文本有別，法律譯者解釋、翻譯法律語言及法律文本時，亦應有與法律人一致之思維方式。法律譯者之工作，乃受法律運作機制之制約，法律譯者之核心倫理，勢難跳脫法律人核心倫理。

將法律譯者視為法律人，有助於辯證法律翻譯工作之社會功能。法律翻譯服務即使不符合嚴格專業定義，但至少仍是社會分工下之特定職能，並以專業服務（現代社會指標之一）為其標榜。能釐清法律翻譯服務之核心價值——即社會需要法律翻譯之根本緣由——方可作為後續討論實務倫理議題之最高指導原則，也可使法律譯者體認工作意義，並在某些倫理困境下，得以作出倫理決定。

肆、專業話語

當然，我們也可爭論：台灣尚無法律翻譯之「專業」分工（例如尚無專業認證），甚至臺灣司法體系可能也未賦與或冀望法庭口譯員有如此崇高的理想。《臺灣高等法院通譯、庭務員管理要點》規範法庭通譯工作內容，其第4點規

定「通譯、庭務員均應熟悉法庭各項電源開關，開、閉庭時，除不斷電系統外，均應確實開、關各項電源，並注意安全」，第5點則言「通譯、庭務員執行職務時，均應服裝儀容端莊，精神抖擻」（臺灣高等法院，2007）。按其所定，似難以將法庭通譯與專業口譯人員聯想在一起。

此管理要點凸顯臺灣現行法院體系對編制內通譯之定位。根據監察院（2012）人權調查報告，臺灣司法及行政機關在使用通譯實務上，發生許多「不專業」的案例。其原因，一方面來自通譯服務使用者未將通譯視為專業，另一方面則來自通譯本身不專業，而追根究底，後者問題根源可能還是來自前者。在司法及行政機關使用通譯方面，例如無適當之甄選、訓練、檢驗機制，編制內通譯與特約通譯之語種、人數均稱不足，使用不適任者擔任通譯，特約通譯支給報酬低，不尊重通譯人員，歧視通譯專業性等。在通譯人員本身方面，則如經驗、能力不足，不清楚公部門行政、訴訟等程序，不瞭解本身角色定位與職責，無專業及專業倫理意識等。之所以說通譯人員本身問題係源自司法及行政機關，乃因既然渠等機關隨意選用通譯人員（外籍配偶、女性當事人的街坊姐妹等），自然無法期待這些通譯具備專業能力與專業倫理。

這些通譯問題反映出來的，不只是體制結構上的「共犯」問題，同時也是社會對翻譯常見的迷思：會兩種語言，即會翻譯。本文不否認「通曉」兩種語言，即可能有「基本」翻譯能力，但專業翻譯，甚或一般翻譯情境，並非「通曉」或「基本」即已充足。此種社會迷思，源自於對語言及語言轉換過程的誤解，將譯者視為透明載體，視為自動轉碼機。司法及行政機關的通譯問題，透露出特定意識型態與權力關係，彰顯渠等機關忽視非國語人士所享公正偵訊、審判等程序正義之權利，對基本人權的輕忽。我們也從這些案例，看到臺灣的語言弱勢者，如何成為權力弱勢者，成為司法弱勢者。如果司法通譯只是被壓抑的角色，司法聽到的，將只是被壓抑的聲音，我們看到的，將只是被壓抑的正義。司法通譯不應只是語言的能動者，司法的被動者，更應是正義的積極促成者。誠如紐澤西最高法院守則所示：司法翻譯工作者踐履司法的必要職能，司法翻譯是司法分工的必要環節。輕忽司法翻譯，即輕忽跨語際司法遂行的必要要件（*sine qua non*），欲實現司法正義，殆無可能。

從上述案例看來，臺灣法律翻譯服務在實務上似乎仍未享有充分專業的地位。但即使法律翻譯服務尚未獲認可為專業，或不符合嚴格專業定義，依其廣義解釋，凡標榜為專業，並思考何為專業精神的職業，皆屬專業（Kultgen, 1988, p. 5）。就個人而言，凡從事專門職業，並具有該職業所需知識或能力的人（專業人員，1994），即可廣泛稱為專業人員。

「專業」是一相對概念，似難有絕對定義與標準，而且有許多經賦與「專

業」地位的職業，也未必完全滿足學者所列各項標準。有些「專業」，亦可歸為「準專業」(quasiprofession)、「半專業」(semiprofession)、「類專業」(paraprofession)、「偽專業」(pseudoprofession)。在社會話語中，專業代表一定的意識型態、形象與身分認同：專業可與職業(occupation)、業餘(amateur)區隔，專業人員享有一定的社會地位、工作自主、獨立性、判斷力、名聲、權威、權力、形象、服務壟斷、高報酬、特權(privilege)等。因此，才有許多職業汲汲欲躋身專業之列，以提高其社經地位與工作自主。個別服務提供者標榜自己為專業人員，具有專業精神，提供專業服務，即在於專業與業餘、非專業之區別，其背後動機也經常圍繞在此種社會話語結構之下。

就某方面而言，專業的本質，即在於宣示與承諾。「專業」的英文 profession⁶，源於拉丁語名詞 *professio*，動詞 *profiteri*，即有公開宣示、承諾之意。Koehn特別強調專業的公開宣示屬性。他指出，社會學家，歷史學家、哲學家均認為所謂專業人員，係代表他人或客戶從事特定行為的人。理性的成年人，通常不會將自己的健康、自由、資金等託付予陌生人，所以必然有某種因素，使他人或客戶信賴專業人員(1994, p. 15)。此種信賴的基礎，即在於專業人員公開宣示願向有需要者提供專業協助，專業人員並因而肩負未宣示者所未有的特別責任。欲定義專業人員，專業的其他特徵，非屬必要，亦不充分(p. 56)。因此，專業人員是公開承諾會服務特定對象(如病者)的人。易言之，專業人員之所以成為專業人員，就是因為他們在缺乏特定福祉(如健康)的對象前，公開宣示自己能促進其福祉(p. 59)。Hughes也認為他人或客戶信賴的基礎，在於專業人員的公開宣示，但提出不同解釋。他指出專業人員乃公開宣示自己比他人更知道某些事的本質，比客戶更知道何者對客戶或對其事務有益，此即為「專業」此一概念及其專業主張之精要(1963/1988, pp. 31-32)。

Koehn 將公開宣示視為專業構成的唯一充要條件，其論點或有可議。本文所言「公開宣示」，並非如同醫師「希波克拉提斯宣言」(Hippocratic Oath)般的宣示，而較偏 Hughes 的解釋面向。此處採專業的廣義解釋，欲指出專業人員既然自稱為專業，或以專業為工作理想，即有某種公開宣示的意味：認同這份工作，認同這份工作具有專業性，選擇這份工作作為職涯發展，願投入更多心力發展專業知識與能力等等。更為要者，此公開宣示行為，為一公共行為，涉及公共倫理，以及社會對專業人員的信賴。就法庭通譯而言，如前述美國倫理規範所示，更涉及社會對整體法庭通譯專業及整體司法的信任。作為「專業人員」，法律翻譯工作者是否曾捫心自問：其理念為何？客戶或社會信賴基礎為何？所提供服務，是否有報酬、名聲等外在價值無法滿足之內在價值？

⁶ Banks 指出，「profession」此一概念，為英美所特有，許多歐洲國家並無完全對應之概念(2004, p. 18)。

伍、結語

如前言所述，一般對法庭通譯之定位常為「傳聲筒」、「溝通媒介」，本文希望能賦與法律翻譯工作者更積極的角色定位。法官經常代表司法體制表述意見，但我們不會將法官定位在司法傳聲筒；律師經常代表當事人表述意見，我們也不會認為律師只是當事人的傳聲筒——這是因為我們在界定此二職的社會意義時，不會考量表面的言語活動。我們經常看到法律翻譯工作者周旋在不同個體間(如法官—受審人、來源文本—讀者)，因此就比較容易注意其「傳聲」、「溝通」等言語面向，甚或譯者可能也是如此自我定位。本文欲強調法律翻譯並非只是語言服務，更是社會服務；法律翻譯工作者的角色定位不應停留在語言層面，更應擴大到社會層面。

正因如此，本文探討法律翻譯服務核心理念時，並非以語言或文本為出發點，而是思考其社會職能為何。也正因如此，本文認為法律翻譯服務的社會意義，較偏法律範疇，而非翻譯領域。儘管如此，本文並非認為法律翻譯活動中的語言、文本層面無關緊要，但限於篇幅，只能略而不談，同時也藉以凸顯其社會面向。本文以法律人的角度界定法律翻譯服務的社會職能，認為其最終目標也在促進司法正義之實現。如此，法律翻譯工作者在面對法官、檢察官、當事人等對象時，更能清楚自己的角色分際，更能抱持「專業」倫理立場，更瞭解法律翻譯服務的獨立性與自主性。此角色定位，或許也能在法律翻譯服務專業化過程中，提供一項合理、有效的說詞。

其實，從專業的角度談法律翻譯服務，即已隱含社會意涵。專業作為一種社會建制，能控制成員加入(如大學教育、專業組織等篩選機制)，規範成員行為(如專業倫理守則)，排擠他人參與(如專業執照)，此等控制力量，即影響社會運作方式。專業服務、專業精神作為一種意識型態，亦在於所牽涉的社會含義。更為要者，專業是一種社會公器，為滿足特定社會價值而存在。專業形塑於社會，服務於社會，故不應停留在少數人利益。民間司法改革基金會觀察法庭內通譯使用情形後，提出：「無論那一國人在何處接受審判，當發生有語言障礙之情形時，有權運用正確與有效的通譯是獲得公平審判所不可或缺的要件，而這不僅僅是基本人權，更是國家的當然義務」，且「專業通譯應為一般人民而存在，是屬於人民的基本人權，不是便利法院審判的工具」(監察院，2002，頁 29-30)。民間司改會此論乃針對法庭通譯而言，但就司法精神而論，也適用於整體法律翻譯界。當然，或許並非每項法律翻譯工作都直接涉及最高司法精神，一如並非每一法律文本都直接涉及司法正義。但每一法律文本都隱含司法

正義，否則即失其最終依歸。同理，每一法律翻譯工作都隱含司法正義，否則即失其最終意義。

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法庭口譯品質提升的功能視角

陳雅齡 陳子瑋

摘要

進入二十一世紀一口譯界明顯已經開始注意到會議口譯外的多重面貌。口譯質量評估的研究從 1980 年代開始，不過多集中在會議口譯方面。其中，Pöhhacker(2001)主張：口譯品質評估有許多層面及不同立場，評估時不能只針對語言層面，應同時衡量整體溝通效果及對當時翻譯情境及機構因素所造成的影響。Nord 根據 Vermeer 有關目的論，於著作《翻譯是一種目的性活動》提出幾種概念，包括「翻譯是行動」(translation as an action)、「翻譯綱要」(translation brief)、「功能加忠誠」(function plus loyalty)、「功能對等」(functional equivalence)及「適切原則」(adequacy principle)等。筆者因此應用這些概念，作為提升法庭口譯品質的準據，並對照筆者在法庭上觀察或親身經歷的例子。結論提出，法庭口譯是一種極具目的性及溝通性的活動、主要是用來協助法官在法庭上審理案件，口譯員若能應用 Nord 功能理論之行動概念，譯前規畫「翻譯綱要」、過程中恪守對各講者「忠誠」及代表國家法律-法官的「最高忠誠」；法律術語上把握諾德的「適切」原則，如此將有助於確保或提升口譯員的翻譯品質。本研究結果期望有助於日後法庭口譯人員的訓練，甚或為整體的口譯品質評估研究引進新作法與新方向。

關鍵字：法庭口譯、功能論、忠誠、翻譯綱要、適切原則

陳雅齡，真理大學英美語文學系講師，國立臺灣師範大學翻譯研究所博士生。

陳子瑋，國立臺灣師範大學翻譯研究所副教授。

本文部分初稿內容曾發表於「2012 臺灣翻譯研討會—翻譯專業發展與品質提升」，作者在此向該場研討會主持人李憲榮教授、與談人張嘉倩教授及所有與會人士，以及本文的兩位匿名審查者所給予的修正意見致謝。

Enhancing the Quality of Court Interpretation— A Functionalist Approach

Brenda Yaling Chen Tze-wei Chen

Abstract

The increasingly diversified nature of the field of interpretation has drawn more attention in the twenty-first century than ever before. In particular, the quality of interpretation has come into new focus. Scholars began to research the methods of assessing the quality of interpretation in the 1980s, but mostly targeted conference interpretation. Pöchhacker (2001) indicates that to assess the quality of interpreting activities involves many perspectives, and that genuine assessment cannot be confined to a linguistic substrate but must be conducted also at the level of its communicative effect and impact within a particular situational and institutional environment. Based on Hans Vermeer's skopos theory, Christiane Nord (1997) discusses the multiplicity of mediated intercultural communication activities including translating and interpreting, in terms of 'translation as an action', 'translation brief', 'function plus loyalty', 'functional equivalence' as well as the 'adequacy principle'. In this study, the authors adopt Nord's ideas as the criteria for quality enhancement in court interpreting and explain them by providing concrete examples based on the authors' own observations and experience. In the conclusion, the authors state that since court interpreting is a highly purposeful and communicative event, the interpreter is able to assure or enhance interpretation quality if he/she applies concepts of 'interpretation brief', 'loyalty' to each speaker and 'supreme loyalty' to the judge entrusted by the judicial institution, and adheres to the 'adequacy' principle when dealing with the translation of legal terms. Results of the study are expected to improve the training procedures for court interpreters and even to contribute to the study of quality assessment for the field of interpretation.

Keywords: court interpreting, functionalist approach, loyalty, translation brief,
adequacy

Brenda Yaling Chen, Lecturer, Aletheia University Department. Of English; National Taiwan Normal University, Graduate Institute of Translation and Interpretation, Ph.D. Student.

Tze-wei Chen, Associate Professor, National Taiwan Normal University, Graduate Institute of Translation and Interpretation.

1.Introduction

1.1 Purpose of Study

Today's global village raises the needs and demands for investigations of other modes of interpretation such as medical interpreting and legal interpreting. These new kinds of interpreters are engaged in situations involving a dialogical mode and usually have to pay attention to the manner and style of more than one speaker at a time. In particular, court interpreters are advised to follow a professional code of ethics based on human rights as stipulated by Human Right Law and International Covenant on Civil and Political Rights of United Nations in 1948 and 1966 respectively. All these factors then contribute to the level of risks due to improper interpretation. While at the same time, these concerns highlight the importance of quality assessment or assurance of interpretation, in particular court interpreting which plays an important role in the ruling of court judges.

Studies on quality assessment for interpretation began with conference interpreting in the 1980s. Generally, two types of quality assessment emerged--one is an expectation/assurance study (e.g. Bühler, 1986; Kurz, 1989), and the other is actual performance analysis (e.g. Gile, 1990; Meak, 1990). Many scholars (e.g. Pochhacker, 2001; 蔡小紅, 2006), however, indicate that quality assessment for interpretation is difficult to conduct, and may lead to conflicting results due to different factors and perspectives in the study.

On the other hand, research on quality insurance of court interpreting has been focused on a pragmatic and linguistic perspective (e.g. Hale, 2004; Gonzalez,Vásquez & Mikkelson,2012; Mason 2008). Hale (2004) has discussions of interpreters' treatment of discourse markers like 'see', 'well', 'now'; Mason (2008) has examinations of interpreters' additions or omissions of politeness markers such as 'sir' , 'please', which may cause false impressions to the audience. Different from these analyses, the authors adopt a perspective of German Functionalism in this study. They first review the nature and development of legal translation from literalness to communicative trend during the past years. Next, the authors discuss Nord's functionalism with its theoretical framework in Vermeer's *skopos* theory. Nord's main ideas of 'translation as an action', 'translation brief', 'loyalty', 'functional equivalence', and 'adequacy principle' are established as the standards of quality assurance to be applicable to court interpreting regardless of cultures and language combinations. It is

then hoped that the results of this study are helpful to establish a theoretical base for self-improvement and overall training of court interpreters, and even useful to the research of quality assessment for interpretation in the future.

1.2 Legal Translator/Interpreter as Communicator

Translation or interpretation of legal texts is said to be among the oldest and most important activities in the world (Šarčević, 1997, p. 23). In Canada and Switzerland, there is a constant task for bilingual or multilingual drafting and translation of national laws. Also in the European Union where there are more than twenty official languages, member states heavily rely on translation as well as interpretation to understand each other. Hong Kong, after the change of sovereignty in 1997, has become a bilingual jurisdiction where bilingual legislative drafting and laws are the norm involving a lot of translation practice (Cao, 2007, p.2). Currently, globalization has resulted in a rapid rise in the need for quality translation or interpretation of this type of document. This paper focuses on communicative approaches in court interpretation. It is important for us to review the characteristics of legal discourse and translation strategies including the communicative approach adopted by linguists and lawyers in the past years.

Considered a special language for special purposes (LSP), legal texts are a 'communicative occurrence' (like even literary texts) produced at a given time and place and intended to serve a specific function (Šarčević, 1997, p.55). Generally, the function of legal translations can be divided into three areas: (1) primarily prescriptive, e.g. laws, regulations, codes, contracts, treaties, and convention; they are normative texts; (2) primarily descriptive and also prescriptive, e.g. judicial decisions and legal instruments used to carry on judicial and administrative proceedings such as actions, pleadings, briefs, appeals, requests, petitions, and so forth; and (3) purely descriptive, e.g. scholarly works written by legal scholars such as legal opinions and law textbooks (Šarčević, 1997, p.11). Some scholars, however, comment that Šarčević's classification does not include a large part of the legal translator's workload in real life such as private agreements and correspondence between lawyers and clients. Cao (2007) in her *Translation Law* broadens Šarčević's scope of legal translations and emphasizes that legal language does not just cover the language of law alone, but all communication in legal settings (Cao, 2007, p.10).

For a long time, linguists and lawyers have attempted to apply theories of general translation to legal texts such as Catford's concept of situational equivalence and

Nida's theory of formal correspondence (Šarčević, 1997, p.17). Many jurilinguists in Canada maintain that special techniques must be used for languages for special purposes, yet they rely heavily on contrastive linguistics (Šarčević, 1997, p.2). It was not until in the twentieth century that literal translation was replaced by a more idiomatic approach when translators of lesser used official languages finally began to demand equal language rights; thus the stage was set for the development from literal to near idiomatic translation (Šarčević, 1997, p.23). By applying a general translation theory from a lawyer's view point, W.E. Weisflog then draws upon Nida's theory, prominent during the 1970s, of formal and dynamic correspondence. He explains that in regard to the translation of national legislation, "there is little or no room for free translation; but in regard to textbooks, articles in legal journals, and lectures, the translator's task is to 'get the author's message'—meaning here his thoughts and ideas rather than his words—over to the receptor" (Weisflog, 1987, p.195).

Continuing with Nida's study, Newmark brings up the notions of "semantic translation" and "communicative translation", which somehow corresponds to Nida's formal and dynamic equivalence. Regardless of Nida's or Newmark's distinctions, Hatim and Mason (1997) from a communicative perspective suggest that it is the notion of *skopos* (purpose of translating) which affects the translator in his/her selection of translation strategy (Hatim & Mason, 1997, p.11). Also according to them, both translators and interpreters work as source text receiver and target text producer at the same time—they are both communicators. This communication theory can therefore serve as a common ground for researchers of both translation and interpretation studies. We are further justified to adopt more communicative translation theory to interpretation study.

On the other hand, when translating legal texts or interpreting in legal settings, one great problem stems from the fact that the elements of the national legislation in the source system cannot be simply transposed into the target legal system due to differences in history and cultural background in establishing laws, (Šarčević, 1997, p.9). In response to this issue, Hans J. Vermeer emphasizes a functionalist approach by making a shift from interlingual to cultural transfer based on *skopos* theory (Vermeer, 1986, p.33). To prove that function is a key factor in specialized translation, Vermeer presents an example of an insurance contract which in his opinion should be translated in different ways depending on the communicative function in each situation. Below is a discussion of Vermeer's *skopos* theory with Nord's expansion of

it in more detail.

1.3 German functionalism translation

Vermeer's skopos theory breaks with traditional perspective of linguistics, which can be traced as far as back to Reiss' functionalism. Reiss argues that the traditional equivalent of concepts should not stay at the level of word or phrase unit, but instead be expanded to the level of the whole text, taking factors other than the text into consideration as well. Her student, Hans Vermeer, formally proposes the *skopos* theory, which regards translation as an action. As cited by Nord (1997), Vermeer states:

*Any form of translational action, including therefore translation itself, may be conceived as an action, as the name implies. Any action has an aim, a purpose. [...] The word **skopos**, then, is a technical term to represent the aim or purpose of a translation.* (Nord, 1997, p.12)

Apart from the term *skopos*, Vermeer brings up related words such as 'aim' and 'purpose', 'function' and 'intention'. He defines 'aim' as the final result and 'purpose' as a provisional stage in the process of attaining an aim. According to Vermeer, 'function' refers to what a text means or is intended to mean from the receiver's point of view; and 'intention' is conceived as an aim-oriented plan of action on the part of both the sender and the receiver. In applying these terms to a court interpretation setting, the aim is to protect the human rights of litigants or participants who speak a different language in a court setting as required by international laws. The purpose is for the interpreter to help the judge carry out a hearing or trial without language barriers. Next, the function is for the interpreter to play an intermediary role in the process of communication. Finally, the intention is to transfer as much message as possible for the speaker and other participants.

Nord continues this line of functional analysis and includes interpretation in her functionalist approach as shown below:

Translation as a Form of Mediated Intercultural Communication

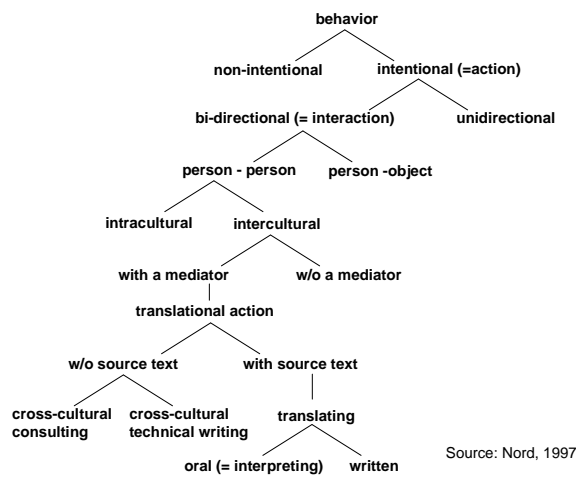


Fig. 1 *Translation as a form of mediated intercultural communication* (Nord, 1997, p.18)

According to the chart above, translating, either oral or written, is a kind of mediated intercultural communication. To complement Reiss and Vermeer’s *skopos* functionalist approach, Nord adds the loyalty principle to her theory to ensure the quality of each translation assignment. Nord differentiates ‘loyalty’ from ‘fidelity’, stating that ‘fidelity’ is to emphasize the reproduction of the original text, but that ‘loyalty’ requires translators to be responsible to the original author, the recipient (receiver), the task initiator, and all other partners involved in the translation process.

2. Translation Brief

As Vermeer suggests, translation is an intentional action: a choice to act one way or another; to refrain from acting in a particular way; or to not act at all. In the process of translation, there generally includes a commissioner or an initiator at the beginning of the process. The initiator is the person or group that starts off the translation process and determines its course by defining the purpose for which the target text is needed. The commissioner asks the translator to produce a target for a particular purpose/addressee and perhaps demands a particular text format or terminology. In the experience of one of the author, a court clerk representing the court (initiator) usually contacts the interpreter by telephone about a forthcoming interpretation task appointed by the judge (commissioner). The clerk explains the purpose of this interpreting activity and checks if the task/date is agreeable to the interpreter. The interpreter then usually requests a simplified indictment document to be sent to him/her for preparatory measures. A court interpreting activity therefore starts with a very

purposeful interactional communication in the first place.

To continue this line of investigation, Nord explains that there are at least three types of actions involved in a translation activity: communicative, intercultural, and text-processing. Let's proceed to discuss these types of actions in detail in the following instances (Nord, 1997, p.23).

Communicative – Vermeer and Nord indicates that translating, including either oral or written means, is a kind of mediated intercultural communication. The process of communication generally includes a commissioner or an initiator at the beginning of each assignment. To be more explicit, the initiator is the person or group that initiates the translation process and determines its course by defining the purpose for which the target text is needed. The commissioner asks the translator to produce a target for a particular purpose by demanding a particular text format or terminology. In translation, the translator produces signs for the target audience. The meaning of the signs might be known, although there might be a possibility of misinterpretation from a target-culture point of view.

Intercultural – As language is an intrinsic part of a culture, translation involves the translation of different cultural markers. Regardless of verbal or nonverbal elements in an oral or written communication, they are culture-specific and require scrutiny.

Text-processing – 'Text' is a term to indicate a broad concept that combines verbal and nonverbal elements, situational clues, and hidden information. In Vermeer's terminology, a translation is a new offer of information in the target culture about some information originating from the source language and culture.

To prepare this kind of intentional communication, Nord recommends the translator to use a "translation brief"—to first analyze the purpose, the addressees, time, place, and occasion as well as the medium of communication and the function of the source text. After analyzing the text, the translator then creates a translation brief based on the above six elements to facilitate his/her understanding of the translation task so as to reach the purpose of communication for target readers. Differing from the preparation period of a translation brief, when an interpreter generates a brief, there is usually no time for the interpreter to analyze the features of each source text as required by Nord's brief. This is the major difference between Nord's type of

translation brief and an actual interpretation brief. Upon receipt of an interpreting notice (口譯傳票), court interpreters can acquire most details for a target text by listing out details including (1) the function of the interpreting task (interpreting for a criminal or civil case); (2) date of the interpreting task, audience of the interpretation (usually judges, prosecutors, litigants, and witnesses); (3) time of interpretation; (4) place of reception of the interpretation (court, prosecutor's office, mediation room); (5) media of transmission (mainly oral to oral, or sight translation for reports and paper documents); and (6) motive of production (normal judicial proceedings, prosecutor interrogation, or mediation). All instructions serve as guidelines for an interpreting assignment. Below, the authors have created three interpretation briefs based on authentic interpreting notices to show what a real interpretation brief may look like:

Example 1

- (1) Function of the interpreting task - interpretation for a criminal fraud case
- (2) Audience of the interpreting task - prosecutors
- (3) Time of interpretation – 2010 March 22
- (4) Place of reception of the interpretation – interrogation room in Banqiao District Court
- (5) Medium of transmission – oral/spoken
- (6) Motive of production - prosecutor's interrogation

臺灣板橋地方法院檢察署刑事傳票			
被傳人 地 址	244 臺北縣新莊鄉 [Redacted]	籍 貫 (出生地)	[Redacted]
姓 名	[Redacted]	先 生 女 士	性 別 出 生 年 月 日
案 號	達 股	98年度他字第 [Redacted]	詐 欺 案
應 到 日 期	99年3月22日下午3時0分		
應 到 處 所	臺北縣土城市青雲路138號本署偵查大樓由本署法警室指引 至第 [Redacted] 偵查庭/訊問室		
下 次 應 到 日 期	年	月	日 午 時 分
備 註	<p>一、被告無正當理由不到場者，得命拘提。</p> <p>二、此傳票不收取任何費用。</p> <p>三、被傳人應攜帶此傳票及國民身分證向法警室報到。</p> <p>四、遞送書狀應記明卷號及股別。</p> <p>五、當事人如有證據物提調，請攜帶到庭；如有書證，請備複本影本一份到庭；如有證人請來調查，請信到庭或查明姓名、住址，以利傳訊。</p> <p>六、訴訟案件應靜候檢察官公平處理，不要聽信不法份子招搖詐騙。</p> <p>七、訴訟程序有不明瞭之處請向「為民服務中心」詢問，詢問電話：(02)2261-6192轉6116或逕撥分機 6578。</p> <p>八、如有親屬本署名義行騙或本署人員涉有賄賂情事，請向政風室檢舉，檢舉專線(02)2262-4063。</p>		
注 意 事 項	附 本件被傳人係 通 譯		註
審 記 官	[Redacted]	檢 察 官	[Redacted]
中 華 民 國	9 9	年 3 月 1 8 日	
(本傳票由法警室負責送達，法官簽名或蓋章者無效) 28.4.102.010			
<p>附註：庭審狀況不佳時有「庭中調解」程序，由「調解委員會」協助，電話：(02) 66328282。板橋分署：第一股 258 號 10 樓，電話：(02) 22527778。</p> <p>「省時、便民、快速」— 請多利用本署各項線上申請案件 網址：http://www.nuth.moj.gov.tw</p>			

Fig. 2 Interpretation brief (1)

Example 2

- (1) Function of the interpreting task - interpretation for a criminal case caused by negligent injury
- (2) Audience of the interpreting task – mediators and two-party litigants
- (3) Time of interpretation – 2012 July 3
- (4) Place of reception of the interpretation – mediation room in Taipei District Court
- (5) Medium of transmission – oral/spoken
- (6) Motive of production – reconciliation

臺灣臺北地方法院刑事庭傳票

法院電話：(02)2314-6871 分機：5359 股別： 股

被傳喚人	郭進區號：244 住新北市 [redacted]		
姓名	特約通譯 1 [redacted]	委生	
地址	[redacted]		
案號	101年度審 [redacted]		
案由	[redacted] 過失傷害		
被傳喚人	被傳喚人	被傳喚人	被傳喚人
性別	女	年齡	出生地
應到	民國 101年7月3日		應到
時間	下午3時20分		處所
待證之	[redacted]		備註
事由	[redacted]		附記
注意	<p>一、被告經合法傳喚，無正當理由不到場者，得拘提之。</p> <p>二、證人經合法傳喚，無正當理由不到場者，法院得以裁定科新臺幣3萬元以下之罰鍰，並得拘提之，再傳不到者，亦同。</p> <p>三、被傳喚人出庭應訊時，請誠實答覆，並應攜帶國民身分證及此傳票準時報到。此傳票不取任何費用，如提出書狀應記明案號、股別。</p> <p>四、被告或自訴人如有新證據提供調查，請攜帶到院；如有新證人請求調查，務請查明姓名、住址，以便傳喚。</p> <p>五、證人得請求法定之日費(新臺幣伍佰元)及旅費(交通費、住宿費)，於訊問完畢即向承辦書記官索取「日旅費申請書兼領據」後領取(但被拘提或無正當理由由指稱者，請勿索取)。</p> <p>六、如遇颱風或假日，請向本案承辦書記官查詢。</p> <p>七、訴訟案件應於訊問前，將本案卷宗及證據資料送交本院承辦書記官。</p> <p>八、訴訟程序應於訊問前，將本案卷宗及證據資料送交本院承辦書記官。</p> <p>九、非法定強制到案，本院已提供相關資訊請至本院網站 (http://www.tjicourt.gov.tw)</p>		
事項	<p>市政府宣布停止辦公時 即撥電話(02)23812285 電話為(02)23813674 人者，得聲請法院指定 相關資訊請至本院網站</p>		
中華民國	101	年	21
書記官	法官		法官

101.2.200.000 (本傳票無本院審判長或法官及書記官簽名或蓋章者無效) 股別： 股
101年6月21日

Fig. 3 Interpretation brief (2)

Example 3

- (1) Function of the interpreting task - interpretation for a criminal case caused by bigamy
- (2) Audience of the interpreting task – judge, prosecutors, litigants
- (3) Time of interpretation – 2010 April 22
- (4) Place of reception of the interpretation – courtroom in Taipei Shilin District Court
- (5) Medium of transmission – oral/spoken (including sight translation)
- (6) Motive of production – judge’s investigation

臺灣士林地方法院刑事庭傳票

法院電話：(02)2831-2321 分機：599 級別： 級

被傳喚人	郭進區號：241 住台北縣林口鄉 [REDACTED] 通譯 1陳雅齡		
姓名	[REDACTED]		
地址	[REDACTED]		
案號	98年度訴字第 [REDACTED]		
案由	[REDACTED] 等 重婚等		
被傳喚人	被傳喚人	被傳喚人	被傳喚人
性別	年齡	出生地	特徵
應到時間	民國 99 年 4 月 12 日 下午 2 時 30 分	應到處所	臺北市士東路190號 本院 二樓 第六法庭
待證之事由	備註 附記 調查		
注意事項	<p>一、被告無正當理由不到場者，得命拘提。</p> <p>二、證人受命傳喚，無正當理由不到場者，法院得以裁定科罰新台幣3萬元以下罰鍰，並得拘提，再傳不到者，亦同。</p> <p>三、被傳喚人出庭時，請攜帶印章，並應攜帶國民身分證及此傳票準時親到。此傳票不收任何費用，如提出書狀應註明案號、級別。</p> <p>四、被告或自訴人如有新證物提供調查，請攜帶到院；如有新證人請求調查，應提供證明姓名、住址，以便傳喚。</p> <p>五、證人得請求法院支付費用旅費，於訊問完畢時向承辦書記官索取「自啟書申請書」填明，由法院核發，於訊問完畢時向承辦書記官領取，才准出發。</p> <p>六、如遇困難，可向本法院查詢。</p> <p>七、傳票係由法院發出，如有錯誤，請向本法院查詢。</p> <p>八、訴訟程序，請向本法院查詢。</p> <p>電話：(02)2834-1590</p>		
中華民國	9	年	15 日
書記官	法官	法官	

Fig. 4 Interpretation brief (3)

3. Function plus loyalty

As previously stated, to complement Reiss and Vermeer’s *skopos* functionalist approach, Nord adds the loyalty principle to her theory to ensure the quality of each translation assignment. Nord differentiates ‘loyalty’ from ‘fidelity’, stating that ‘fidelity’ is to emphasize the reproduction of the original text, but that ‘loyalty’ requires translators to be responsible to the original author, the recipient (receiver), the task initiator, and all other partners involved in the translation process. This ‘function plus loyalty’ principle then serves as a more practical guiding standard to produce a successful transmission of messages between different speakers than adhering to the traditional ‘fidelity’ and ‘equivalence’ standards.

For a court interpreting assignment, there is even a one-sheet document the interpreter is required to read aloud and sign at the bottom to swear his/her loyalty for a fair and faithful delivery (See Appendix including an English translation). Any impartiality or dishonesty detected in the interpretation data may result in perjury

punishable by seven years in prison.¹

The interpreting oath then serves as a guarantee of loyalty for the interpreter to all participants involved. In court, the interpreters' loyalty to the judge entrusted by the judicial system certainly surpasses his/her loyalty to other participants if any conflict occurs. We may consider this kind of supreme loyalty as a role morality in ethical theory. The notion of 'role morality' suggests individuals may adopt a different morality depending on the roles they undertake. According to Gibson, we wear two moral hats—one is for work (role morality) and the other is for everywhere else (Gibson, 2003, p.17). In one of the author's experience, she once encountered a situation where the defendant told the interpreter to conceal part of his statements from the judge. Based on the above oath statement, the interpreter consequently chose to deliver exactly what the defendant said, including the defendant's request to withhold a complete translation, At that time, the author experienced quite a great deal of tension between common-sense morality and role morality as a court interpreter, quite corresponded to one of diagrams on ethical dilemmas as illustrated by Drongelen & Fisscher in 2003:

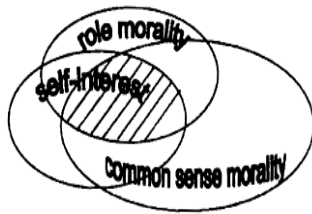


Fig. 5 Potential areas of tension between self interest, role morality, and common-sense morality (Drongelen & Fisscher, 2003, p.53)

In this regard, the authors compare Nord's loyalty and the court interpreter's loyalty. According to Nord's functionalism, her "loyalty" pertains more to a common moral sense as quoted below:

[...] Yet there is a moral responsibility not to deceive them. Of course, it may be difficult to know exactly what readers expect of a translation, since this is a field where extensive research remains to be done....Loyalty

¹As a reference, an English translation for Witness Protection Act according to <http://db.lawbank.com.tw/Eng/FLAW/FLAWQRY03.asp?lsid=FL000851&keyword=perjury>: Any protected witness will be considered to have committed the perjury by making a false statement on the material facts of the criminal case or gangster case at issue, and shall be sentenced to imprisonment between one year and seven years.

commits the translator bilaterally to the source and the target sides. It must not be mixed up with fidelity or faithfulness...Loyalty is an interpersonal category referring to a social relationship between people. (Nord, 1997, p.125)

Note the use of the words ‘*moral*’ and ‘*social*’ in the above quotation. In court interpreting, Nord’s loyalty as a common moral responsibility should therefore be modified to a role morality type with legal consequences if any violation of the fair and faithful principle happens. Due to the role morality issue, the interpreter should hold supreme loyalty to the judge on behalf of the judicial system if any conflict occurs; loyalty to other participants in court takes secondary place in the event of any conflict, as shown below:

Nord’s loyalty and Court Interpreter’s loyalty – A comparison

	Type	Ranking if conflict occurs
Nord	common morality	Not specified
Court interpreter	role morality	Supreme loyalty to the judge

Fig. 6 A comparison on Nord’s loyalty and court interpreter’s loyalty

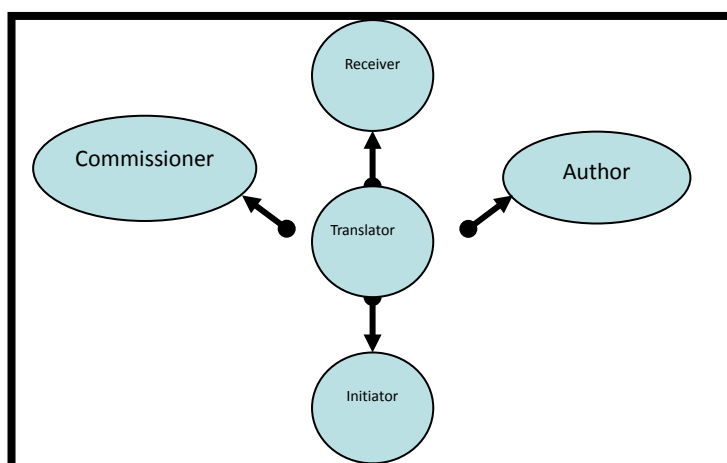


Fig.7 Nord’s loyalty

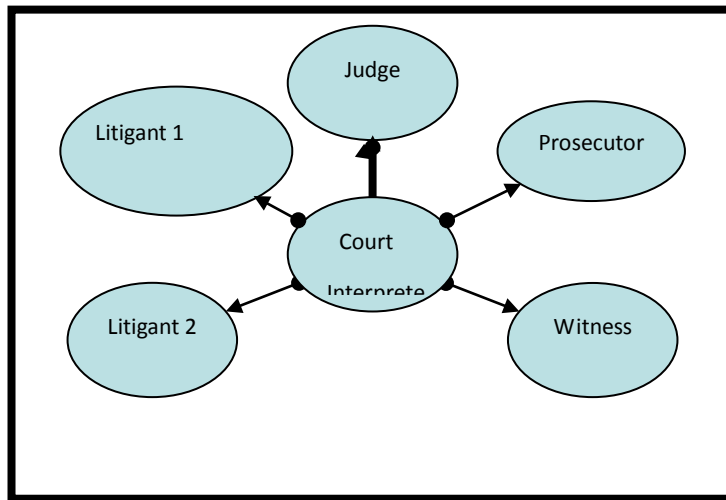


Fig. 8 Court interpreter's loyalty

In introducing her loyalty principle in the same book, Nord mentions “radical functionalism”. This term actually concerns the relationship between the source-text author and the translator. She emphasizes the need for trust.

Normally, as authors are rarely experts in translation, they are likely to insist on a faithful rendering of the source text in surface structures. Only if they trust the translator's loyalty will they consent to any changes or adaptations needed to make the translation work in target culture. (Nord, 1997, p.125)

Regarding this ‘radical functionalism’, in terms of special characteristics possessed by legal language and high expectations of faithfulness in court interpretation, the phenomenon of ‘radical functionalism’ with any participant, in the author’s opinion, is not going to happen automatically to court interpreters. More discussions are needed in this regard in the future.

4. Adequacy principle

A court interpreter must deal with the interpretation of legal concepts which is both a process of language transfer and legal transfer. According to Pierce’s semiotics, a legal concept includes linguistic, referential, and conceptual dimensions. The relationship between each of them, in the currently accepted terminology—the sign, concept, and object—can be illustrated by the diagram below:

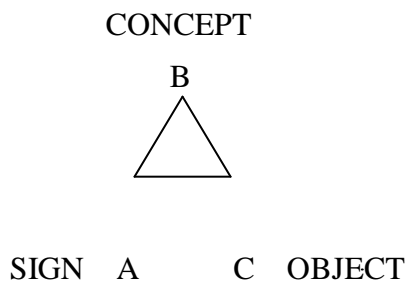


Fig. 9 *Triangle of Signification* (Šarčević, 1997, p.230)

As seen in the diagram above, C represents the indirect relationship between the sign and its object; and AB and BC represent the two basic relationships of signification--the sign signifying the concept and the concept signifying the object. To ascertain whether a legal concept in one language can be translated as a concept in another language, we need to consider whether they are equivalent or similar in these three dimensions. Yan Fu (1854-1921), one of the most influential Chinese thinkers and translators in Chinese history, in his translation of Montesquieu's *De l'esprit des lois* published in 1913, warns readers about conceptual differences between the Chinese term *fa* ('law') and the western term 'law' (Cao, 2007, p.1). As cited by Cao, Yan Fu considers that the word 'law' in western languages actually has at least four different interpretations in Chinese as in *li* [order], *li* [rites, rules of propriety], *fa* [man-made laws], and *zhi* [control] (Cao, 2007, p.1). The main challenge to the legal communicator is therefore the incongruence of legal systems. For example, European countries and Taiwan use the civil law system, while English-speaking countries such as the United States and the United Kingdom use the common law system. Both law systems have passed down different concepts and establish different legal terminology as a result. As Lee, Shane explains,² countries following civil laws would not understand what 'Allen charge' or 'dynamite charge' refers to under their particular jury systems. 'Allen charge' or 'dynamite charge' actually refers to the judge's advice and/or request to the jury for a reconsideration when the trial comes to a stalemate.³ In terms of general translation theory here, Nida proposes to use 'formal equivalence' and 'dynamic equivalence (functional equivalence)', suggesting the latter one is better than the former in his later works (Nord, 1997, p.36). To continue with this 'equivalence' study, Nord defines 'equivalence' as a static and result-oriented concept to describe a relationship of equal communicative value between two texts, two words, two phrases, and so on. The term 'adequacy' in her functionalist approach is a

²2012/6/24 <http://www.taiwantati.org/?p=359>

³2012/6/24 <http://www.taiwantati.org/?p=359>

dynamic concept to reach the communicative purpose in its goal-oriented selection of signs. In other words, ‘adequacy’ is the same as ‘functional equivalence’ (Nord, 1997, p.36). Šarčević (1997) emphasizes ‘functional equivalence’ in the field of comparative law as well. According to his definition, ‘functional equivalence’ is a term designating a concept or institution of the target legal system having the same function as a particular concept of the source legal system (Šarčević, 1997, p.236). There are three types of translation equivalence in legal terms: near equivalence, partial-equivalence, and non-equivalence. Near and partial equivalences are both “functional equivalence”. However, in order to determine the acceptability of a partial equivalent, translators must compare the target and source concepts to establish their degree of acceptability (Šarčević 1997, p.237). In other words, court interpreters have to exercise great caution in the selection of functional equivalents. For instance, the term ‘jail’ and ‘prison’ are not functionally equivalent. We may interpret the former one as kan-shou-suo (看守所) or ju-liu-suo (拘留所) and the latter one as jian-yu (監獄). Also, the word ‘verdict’ (jury’s decision) is different from ‘decision’, ‘judgment’, and ‘sentence’, although they might all be translated as pan-jue (判決) in Chinese.

Many times interpreters cannot recall on the spot a proper functionally equivalent term during the act of interpreting. In these instances, the interpreter is advised to use lexical expansion, descriptive paraphrase, neutral terms as alternative equivalents to solve terminological problems (Šarčević, 1997, pp.250-259). For example, the French term “hypothèque” applies only to immovables; as a result there is no adequate equivalent for the common law term “chattel mortgage”. Šarčević suggests filling this gap by expanding the sense of hypothèque to include movables as well, thus creating ‘hypothèque mobilière’ (Šarčević, 1997, p.251). The term ‘ting-wai-he-jie’ (庭外合解) can be interpreted through a descriptive paraphrase and becomes ‘settlement through mediation’; The term ‘gong-ran-wei-xie’ (公然猥褻) can be paraphrased as ‘publicly commits an indecent act’. Moreover, ‘depose’ or ‘deposition’ indicates the process of collecting evidence outside of the court proceedings which is not applicable to the Taiwan court systems. When translating into Chinese, we had better translate them into neutral terms, such as ting-wai-cai-zheng (庭外採證). to avoid any confusion with the common translation of ‘zheng ci’ (證詞), which suggests ‘testimony’. In revising Nord’s idea of ‘adequacy’, the authors suggest that the above alternative equivalence strategies should be considered in the scope of an adequacy principle to be more practical in rendering a legally equivalent outcome. In short, the adequacy principle in legal translation and interpretation should cover both functional

equivalents and alternative equivalents.

Being a researcher of interpretation studies and himself a conference interpreter, Pöchhacker (2001, p.412) draws upon Vermeer's *skopos* theory and takes a functionalist approach to the study of interpretation by treating the whole conference interpreting as a communicative event. His diagram of quality assessment for interpretation is as follows:

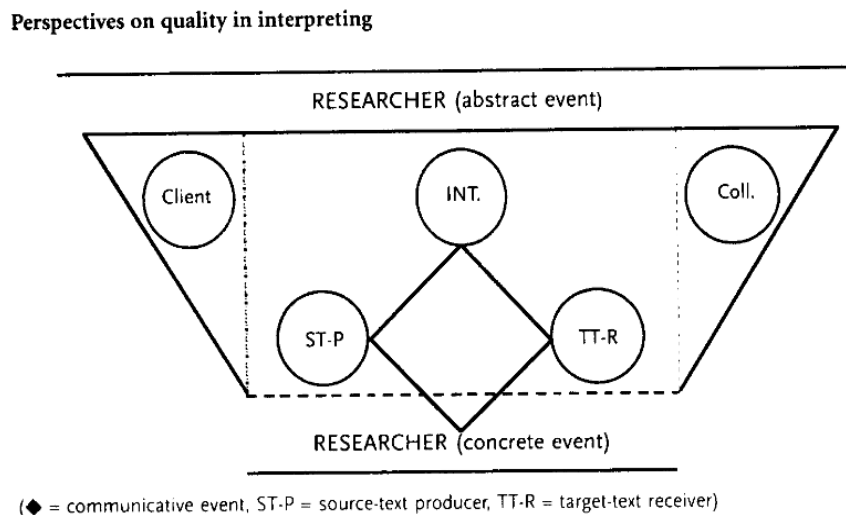


Fig. 10 *Perspectives on quality assessment in interpretation* (Pöchhacker, 2001, p.412)

As seen, there are many roles played in the whole event, such as client, source text producer, and target text receiver as well as colleagues in the above diagram. Pöchhacker (2001, p. 412) further explains that the external observers investigate the various actors either on site for a concrete communicative event or off-site with regard to an abstract interpretation event. This concrete event is represented in Fig. 12 by the broken rather than continuous line separating their researcher from the constellation of participants. Regardless of whether on site or off-site, the research on quality in an interpreting event may focus either on the recordable product or on the overall process of communicative interaction as shown in another of Pöchhacker's diagrams.

Quality standards for the product and service of interpreting

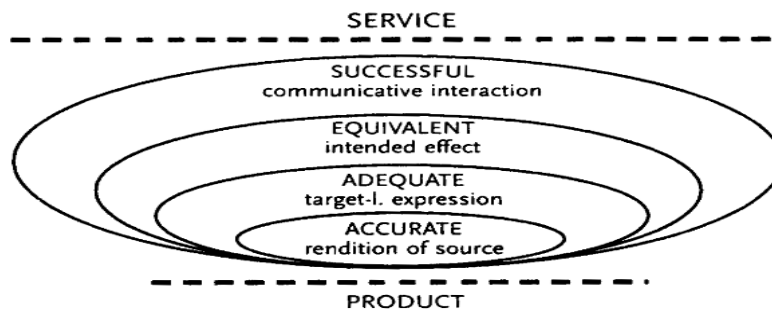


Fig. 11 *Pöchhacker’s quality standards for conference interpreting based on skopos theory* (Pöchhacker, 2001, p.413)

Note that the ultimate *skopos* of an interpreting event is a successful communicative interaction from a service perspective, or an accurate rendition of source text from a product perspective. In this paper, the authors devise quality enhancement standards for court interpreting according to Nord’s functionalist approach. The authors explain each standard along with examples the authors has experienced or observed in actual practice. To conclude discussions on these quality standards, a revised chart based on Pöchhacker’s standards diagram is presented by considering both product and interaction dimensions as Pöchhacker suggests.

To conclude this section on the adequacy principle, the authors would like to demonstrate their standards for quality enhancement in court interpreting by revising Pöchhacker’s diagram on quality standards (as shown previously) to the following model:

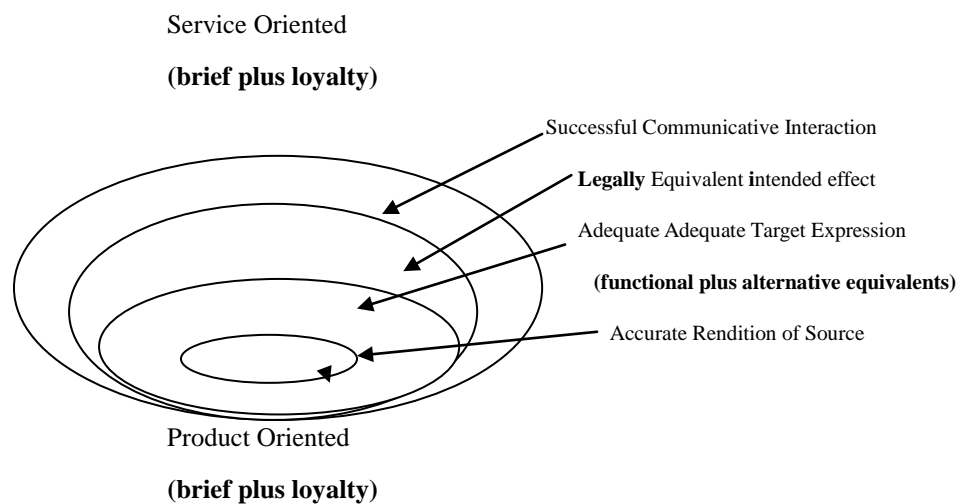


Fig. 12 *Court interpreting quality enhancement standards*

Note that the authors have included additional standards of “brief” and “loyalty” principle to court interpreting toward both the service and product perspective. The boldface characters on the right side of the diagram demonstrate the authors’ complements to Pöchhacker’s original device. The authors also add “legally” to the standard of “equivalent intended effect” to make it more specific to a legal setting. Finally, by including both functional and alternative equivalents to the standard of “adequate target expression”, the definition of ‘adequate’ is more pertinent to court interpreting events. Otherwise the framework remains the same.

5. Conclusion

This paper first reviews the nature of legal translation and application of translation strategies in the past. Next, the authors discuss the theoretical framework of Nord’s functionalist approach with its framework on *skopos* theory. From part two to part four, the authors explore three major ideas of Nord’s functionalist approach, including translation brief, function plus loyalty, and the adequacy principle. To make each standard more specific to a court setting, the authors revise some elements of Nord’s concept. On the other hand, Šarčević maintains that a functionalist approach needs to consider whether the signs in the target text refer to objects and concepts in the source legal system (Šarčević, 1997, p.236). To conclude the discussion on standards, the authors in particular demonstrate the relationship of these standards by modifying Pöchhacker’s diagram on quality standards for conference interpretation. As the court setting is usually not a public place and the data is confidential, it is difficult for outsiders to perform a quality assessment at the scene. We establish these three standards for the interpreters’ self enhancement as well as for training programs regardless of cultural differences and language combinations. It is hoped that these results might even add insights to the study of quality assessment for the whole interpretation field in the future.

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Appendix

通譯結文

結 文

茲於

貴院 年度 字第 號

事件為鑑定人，謹本所知必為公正誠實之鑑定，
案件為通譯，謹當為公正誠實之譯述，

此結。

鑑定人

通 譯

中 華 民 國 年 月 日

注意事項：
刑法第 168 條規定「於執行審判職務之公署審判時，或於檢察官偵查時，
證人、鑑定人、通譯於案情有重要關係之事項，供前或供後具結，而為
虛偽陳述者，處七年以下有期徒刑」。
(民刑通用)

Interpreting Oath

Here I am entrusted by this court and interpreting for case number ____ in the year ____ . I swear I will interpret accurately, completely, and impartially, using my best skill and judgment in accordance with the standards prescribed by law and follow all official guidelines established by this court for legal interpreting or translating.

Year ____ Month ____ Day _____.

Note: According to Criminal Code Article 168, during public trials, a penalty of seven years in prison shall be incurred if there is any dishonesty detected in the oral statement of witnesses, expert witnesses, or interpreters.

口譯考試之評分行為模式

吳紹銓

摘要

本文以一同步口譯考試之整體研究為本 (Wu, 2013)，報告主題為探索並瞭解口譯考試中的評分行為模式。經研究分析，本文整理出考官的各種評分行為模式，例如，使用考題講稿與記筆記等外顯可觀察的評分行為，還有內在的種種思考模式，包括注意力分配、喜好偏向、職業習慣等，諸如此類之種種評分行為模式皆影響了本研究中三十位考官評分結果的一致性與差異。本研究之成果希望有助於瞭解我們如何評量口譯考生，並進行更多研究，以完善口譯考試設計。

關鍵詞：同步口譯，口譯考試，評分行為模式

吳紹銓，英國新堡大學現代語言學院副教授。

本文部分初稿內容曾發表於「2012 臺灣翻譯研討會—翻譯專業發展與品質提升」，作者在此向該場研討會主持人李憲榮教授、與談人張嘉倩教授及所有與會人士，以及本文的兩位匿名審查者所給予的修正意見致謝。

Examiners' Assessment Behaviours In The Interpreting Examinations

Fred S. Wu

Abstract

Based on a larger study on issues of assessing simultaneous interpreting (Wu, 2013), the aim of this paper focuses on exploring and understanding the examiners' assessment behaviours. A range of assessment behaviours was identified among the thirty examiners in this study. In addition to the more observable external behaviours, such as the use of speech script and note-taking as assessment tools, this study also identified some internal behaviour, such as examiners' attention, bias, and professional habits, which may explain the consistent and inconsistent test results of the thirty examiners. These findings may hopefully lead to a better understanding on how we assess student interpreters for more future research, and contribute to a better test design of the interpreting examinations.

Key words: simultaneous interpreting, interpreting examination, assessment behaviour

1. Introduction

The evaluation of the appropriateness of a test and its application requires the judgement of professionals for validity reasons. Professional judgement and practice in the field is an important source for developing and validating performance tests such as interpreting assessments. Test developers need to draw knowledge and experience from the profession of interpreting for test constructs in order to make the tests valid. However, when making a judgment in a performance assessment such as interpreting, it is in nature a subjective one, and subjective judgment has long been criticized as less reliable (Campbell and Hale, 2003: 212). Professional judgement alone, therefore, may not be a sufficient basis for decision-making in the examinations. Professional judgement “should be wielded with considerable care and circumspection” by using empirical data to reduce subjectivity when selecting test content and developing assessment criteria (ibid: 104).

The test design and assessment criteria for evaluating interpreters’ performance, nevertheless, have been considered as “intuitive” (ibid: 211); the way interpreter examiners apply assessment criteria has also been described as “fuzzy” (Sawyer, 2004: 185). The test items and test procedures in many interpreter educational institutions have been often designed and administered with little or no basis of empirical studies (Liu, M., Chang, C. and Wu, S., 2008: 35). Some institutions in Liu et al.’s survey study recognised the need to reduce the risk of subjective judgement and put in place guidelines for setting the difficulty level of the examination tasks and the marking criteria. In general, these guidelines and principles specify the subject areas, speech types, inclusion of specialised terms, density of information in the speech, and difficulty level of the speech, and so on. There were common grounds and there have been efforts to improve the assessment methods. However, the guidelines were often found to be difficult to follow because of the need to retain the authenticity of the task in the performance-based assessment, especially in live panel examinations. The methods and instruments for interpreting assessment varied among different interpreter teachers, examination boards and training institutions, and the approaches have often been based on subjective judgement rather than on empirical data (ibid: 17-18, 34-35).

Therefore, the concern about how consistent the examiners in the interpreting examinations judge interpreting performances, especially within the educational

context, still remains. It is necessary to look into these concerns in the interpreting examiners with more systematic studies.

In order to systematically investigate the issues of interpreting assessment, some researchers in the field of translating and interpreting have advocated making use of the knowledge of well-established disciplines, such as language testing and educational assessment in general, and seeking insights from them (Sawyer, 2004: 93; Hatim and Mason, 1997: 165-166). For example, the similarities between language speaking tests and interpreting tests are high in terms of the element of subjective judgement and the requirement of spoken language authenticity in the test input and response; both are performance-based assessment. Being a performance assessment, the design and development of interpreting examinations may benefit considerably from the experiences of the disciplines in educational assessment and language testing (Campbell and Hale, 2003: 221).

Researchers in various performance settings statistically modelled and demonstrated “the pervasive and often subtle ways in which raters exert influence on ratings” (see e.g. in Eckes, 2005: 198). These subtle ways of influences are referred to as the *rater characteristics* or *rater effect*. Rater characteristics were conceptualised “in terms of the difference between an idealized judge (the 'perfect' examiner) and actual judges ('ordinary' examiners)” (Lumley and McNamara, 1993: 3). A perfect examiner that is always consistent and reliable is almost impossible to find, and it is the ordinary examiners that may present problems in a test, such as halo, overall severity/leniency, central tendency, and random errors in their judgement (ibid). These problems, or rater effect, will have an influence on the results of many performance-based assessments, making the assessment procedure become less reliable and threatening the validity of the test (Eckes, 2005: 197).

Being a performance-based assessment, examiners in language testing, and interpreting assessment in the case of the present study, are not immune to the rater effect. As “the reliability of any test of spoken language hinges on the role of oral examiners or raters” (Breeze, 2004: 2), many empirical studies have been carried out to understand the effect of the role of examiners in language testing (Bachman, Lynch, and Mason, 1995; Eckes, 2005; Fulcher, 2003; Lumley and McNamara, 1993; Upshur and Turner, 1999) so that “human errors”, i.e. the unsystematic test errors, can be reduced by applying suitable examination procedures, such as the training of

examiners that allows the examiners to become familiar with the marking systems and apply them consistently (Alderson, Clapham, and Wall, 1995: 105).

Since subjective judgement is at the core of current assessment practice of the interpreting examinations, a logical step for study is to explore and understand the examiners' assessment behaviours. Taking the background and rationale above, a research study was conducted to explore and understand how individual examiners perceive the interpreting performances in a simultaneous interpreting examination, such as the use of assessment criteria and how they make the judgments. The overall study method and main findings are published in a book chapter (Wu, 2013), including a summarisation of the assessment behaviours of the examiners in the interpreting examinations as part of the main study findings of the research study (ibid: 26-28). Based on the findings, this paper aims to discuss in more details the examiners' assessment behaviours and expand the basic conceptual model of interpreting examinations (ibid: 29) in order to have a better understanding of how we assess students in the interpreting examinations.

2. Study method and results

For data collection, the study conducted a simulated exam of simultaneous interpreting and invited thirty examiners to judge five postgraduate student interpreters' performances from video recordings, and recorded the examiners verbal comments during and immediately after they made a judgement on the students' interpreting performances. The study method and procedures were described in Wu (2013: 17-20) as part of the main study. This paper summarises here the participant examiners' background below, and explains the study method for analysing the examiners' behaviours.

There are in total thirty examiners who participated in this study. For contrastive analysis, the thirty examiners came from three professional backgrounds as below.

- Professional interpreters with substantial experience in SI teaching
- Professional interpreters with little or no experiences in SI teaching
- Professional translators and/or translation teachers with some or no interpreting training

They included 19 interpreter examiners and 11 non-interpreter examiners. All of their working languages are Mandarin Chinese and English, with Mandarin being the first language of all the examiners except one who was based in the UK. The examiners were asked to listen to five examination recordings of student interpreters, which were selected from an exam archive. The selection was based on a mark range from 50s (pass) to 70s (distinction) in the hope to illicit a wider range of responses of judgments from the participant examiners. The five students were coded from A to E.

Thurstone's Method of Paired Comparison (Thurstone, 1959) was adopted to monitor the consistency level of the examiners' judgment results; the examiners were asked to compare the student interpreters in pairs, and to think aloud their judgment processes, and interviewed when deciding which performance was better. Then, the examiners' verbal comments were recorded, transcribed and coded for analysis in order to extract any salient assessment behaviours during the judgment process (see Wu, 2013: 24).

Some behaviours are easy to observe, and can be referred to as the examiner's external behaviour, for example using the assessment tools. However, it is more difficult to observe internal behaviours, i.e. how people think. One of the widely used methods for psychologists "to explore the previously inaccessible domains of cognitive processing" and to analyse human thoughts, is verbal report analysis (Kucan and Beck, 1997 in Whittington, López, Schley and Fisher, 2000). Just like expressing ideas and emotions, people can verbally report what they are aware of when performing a task. According to the theory of verbal protocols (Ericsson and Simon, 1980, 1993), when performing a task – mental or physical – people may temporarily store their thoughts of the processes in their working memory, and can articulate their thinking, i.e. think aloud, that leads to the solution of a problem at hand. Analysing such verbal reports may help researchers to understand how people think in relation to the task that they do.

Some scholars (Conrad, F., Blair J., and Tracy E., 1999) also discussed the possibility that the act of verbal report may alter the thinking being reported, which may in turn lead to degrading or distorting the main task being performed. They presented a counter-argument that although thinking aloud may slow down the task being performed, it should not change fundamentally if the task is primarily verbal, such as only verbalising the content of working memory, and if the person is not asked to explain or evaluate his or her thinking. Ericsson and Simon (1980, 1993)

tested the validity of this argument and they found that the act of introspection did not affect their test subjects' mental processes: subjects went through the same steps whether they concurrently described what they were doing, retrospectively described it, or did neither. This test result suggested that introspection can be practiced in reliable ways as a research method (ibid in Conrad et. al., 1999).

There are different types of introspective verbal reports, and the simplest and most natural type is descriptive introspection (Farthing, 1992). In such verbal report, people describe their conscious experience in natural language terms, such as what I perceive, think, or feel. This kind of verbal report concerns meaningful events, objects, people, and thoughts about them rather than abstract generalizations or unnatural analyses of the tasks being performed (ibid). In this study, the interview comments of the participant examiners belong to this type of descriptive introspection. The examiners were asked to verbalise their judgement process while.

Table 1 Types of Examiner Behaviour

Types	Conceptual properties
External Behaviour	<p>the use of assessment tools</p> <p>notes on scripts, examination recordings, notes (with/without scripts), recording reviews, examination script (slide), give me the script because I forgot, not many lines on notes so she might not have made serious mistakes, I didn't write it down, review recordings, noting errors on the script, judging from notes, let me compare them from notes</p>
Internal Behaviour	<p>a general judgement approach (FCD approach)</p> <p>marking strategy, Fidelity/Completeness/Delivery approach, from past experiences as the audience, difficult to decide, reverse decision, criteria priority (accuracy cover rush delivery)</p> <p>examiner attention</p> <p>attention, examiner memory lag, pay attention to EVS lags, forgot the wording but knew it's wrong, she might have said it and I didn't hear it, give me the script because I forgot, I was too nervous when I first listened to the interpretations, I didn't hear clearly but I felt she missed a lot, overall is good, I don't know if she made the same mistake, can't be bothered to listen, my impression, did not hear clearly why, not sure in some parts, judge by personal impression</p> <p>examiner bias</p> <p>bias, accent, know students, personal preferences, first impression not good due to fabrication, personal preferences, couldn't stand fillers, being subjective, could not tell due to regional differences, primacy/recency effect, different impressions between the first and second reviews, reverse judgement, guessing the interpreters' country or origin, can't be bothered to listen because her interpretation was all wrong – definite fail, influenced by</p>

(continued)

Table 1 (continued)

<p>Internal</p> <p>Behaviour</p>	<p>interpreter’s background – word choice</p> <p>professionally-referenced standards</p> <p>guessing comprehension, interpreter preparation, interpreter tired, training levels, judgement pattern, quick/slow decisions, weightings of criteria, quality consistency, warm-up time, look for potentiality, guessing interpreting strategies, better background knowledge, not enough training in numbers, give student suggestions, she didn’t hear the number but felt that...(guessing), I guess she noticed a logical error..., I feel that she was summarising and not doing SI, if I could not hear speaker how could she hear it (multi-tasking), doesn’t make much sense commenting on too much details (focusing on business sense, etc.), become better and better vs. poor interpretation throughout, do less damage, anticipate interpreter to perform better, look for potential= give more training, aptitude vs. delivery/accuracy, less dangerous = less errors, overall trainable, more complete more errors, lost a lot of messages but less errors, prefer omissions than errors, guessing possible causes, problem less serious, negative impression from the interpreter’s booth manner – use of microphone, delivery is more important than accuracy, more from audience point of view, consider on-site situation</p>
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comparing the students’ interpreting performances, i.e. a concurrent introspective verbal report of their thoughts. The examiners were not asked to evaluate their own judgement approach or the assessment criteria being used, but only to describe them as it happens.

Based on the coding principle of the Grounded Theory (Bryman 2004: 401-408), therefore, when a distinctive idea or concept was identified in the examiners’ comments in this study, the conceptual property was coded by using a key word or phrase. The idea or concept was the subjective articulation of the examiners’ thinking during the judgements. In achieving the study aim, the coding process focused on any conceptual key words from which inferences can be drawn on how the examiner judged the interpreting performances. After the line-by-line coding of the thirty examiners’ comments, the coded concepts were then compared and collated with one another; similar concepts were grouped into categories. Table 1 presents how the conceptual properties are sorted into the various types of examiners’ assessment behaviours. The conceptual properties are a mixture of both key words and phrases of real extracts of the examiners’ verbalisations (see Table 1 and Wu, 2013: 23-26). Through verbal report analysis and the coding process in this study, therefore, the examiners’ interview comments and the concepts extracted from the interview data may provide a window to explore and understand the examiners’ internal behaviours as well as various factors that may affect them.

The assessment behaviours are closely linked to the use of criteria for judgement in the interpreting examinations. Wu (2013) proposed a basic conceptual model of interpreting examinations (the IE model) to illustrate two dimensions in the interpreting examinations: assessment criteria dimension and assessment behaviour dimension. The examiners' behaviours are illustrated as the Speaker-Examiner-Audience triangle in the lower part of the model as shown in Figure 1.

Based on the identified conceptual properties as shown in Table 1, the behaviour triangle of the IE model (Figure 1) will be further discussed and expanded in the hope to better understand the examiners' assessment behaviours in the interpreting examinations.

Figure 2 shows the revised behaviour triangle of the IE model, which illustrates in details how the identified assessment behaviours relate to and interact with each other. The judgement of the interpreting performance is influenced by various types of behaviours in the process of assessment, including a general *Fidelity-Completeness-Delivery* (FCD) judgement approach, and two professionally-referenced behaviours – the *condensation norm* (i.e. interpreter's reduction strategy), and *situational weighting*

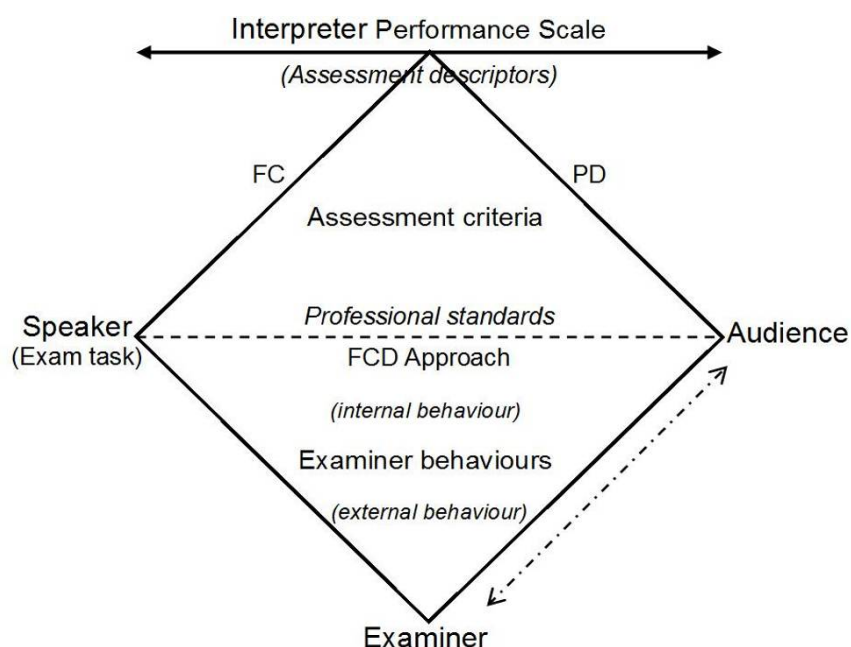


Figure 1 The basic conceptual model of interpreting examinations (Wu, 2013: 29)

FC: Fidelity and Completeness, PD: Presentation and Delivery

FCD Approach: Fidelity-Completeness-Delivery Approach

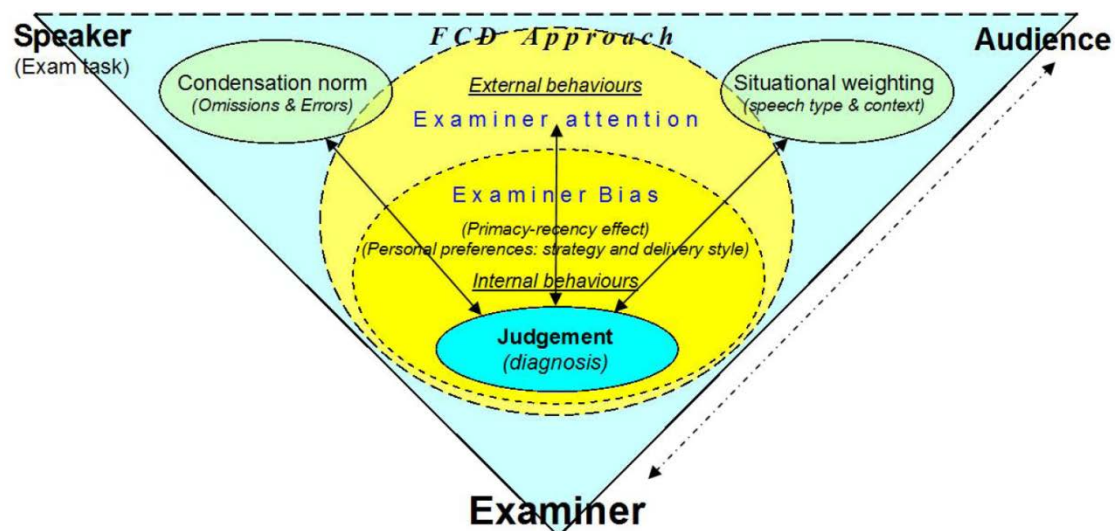


Figure 2 Revised behaviour dimension of the IE model

of the source speech type and context. These assessment behaviours have a direct impact on the use of assessment criteria when making judgements. Other factors that may also affect the judgements are *examiner attention* and *examiner bias*, which includes the *primacy-recency effect* and *personal preferences* (see Table 1). In addition, the examiners may assess the students from the audience point of view, thus, playing a dual role in an interpreting examination (Wu, 2013: 26-28).

As noted before, the assessment behaviours range between the observable external behaviour and the less straightforward internal behaviour. The discussions below will be based on these two broad types of behaviours, referring to Figure 2 for illustration.

3 Internal assessment behaviour

The internal assessment behaviour relates to the examiners' ways of interpreting as well as receiving and perceiving the messages based on their professional experiences, and on their personal preferences as individuals.

3.1 FCD approach and professionally-referenced behaviours

The general FCD approach and professionally referenced behaviours, i.e. condensation norm and situational weighting, are illustrated at the upper part of the behaviour triangle in Figure 2, which is close to the Professional standard in the

criteria dimension as illustrated in Figure 1. They may be considered as the examiners' collective assessment behaviours in the interpreting examinations.

Fidelity and Completeness (FC) and Presentation and Delivery (PD) are the two primary assessment criteria that the examiners used when assessing student interpreters, which are illustrated on the two slops of the criteria triangle as shown in Figure 1. The examiners generally follow the FCD approach when assessing student interpreters, i.e. the FC criterion will first be considered, and when it cannot help the examiners to make a satisfactory judgement, the PD criterion will be used. FC is also weighted more than PD when both criteria are considered for making a judgement. Comments 1 and 2 are two examples of the FCD judgement approach.

Comment 1 (translation)¹: [...] I will pay more attention to see if there are meaning errors in the interpretation. [...] I will check carefully to see if there is a mistake here or there. [...] Under the circumstances...which one is better, A or E? A and E...in such a short paragraph, and then...hum..., (*long pause*)...well, they all had some meaning errors, and their voices and deliveries...[...] so what is the main reason?...I feel it is so difficult to choose between these two. [...] I probably will choose E. (*Researcher asked: Why choose E?*) Well, I can keep listening...A sounded a bit rush. It seems that A waited longer to interpret, and then when she had listened enough, she blurted out very quickly what she remembered.

Comment 2 (translation)²: I feel that it's very difficult to compare because it's just as I said, I emphasise accuracy. So, when both have problems with accuracy, I compare their delivery and presentation. I would consider the fluency of expression (the ideas), the words used and whether or not the audience can actually understand you. These are the things that I care about.

¹ **Comment 1** in source text Chinese: [...]我會比較注意那個意思上的有沒有誤譯，[...]會很注意說，耶，這邊有沒翻錯。[...]現在有的情況的話...A跟E哪一個比較好？A跟E...這麼一個小小的段落，然後...嗯，(*long pause*)...他們意思掌握上都各自有一些錯誤啦，然後聲音表情上的話，[...]所以主要原因是什麼呢？...我覺得這兩位同學很難取捨，[...]這兩個我大概選E。(為什麼選E?)能繼續聽下去吧...A聽起來就是比較急一點。A可能他好像等的時間比較久一點，然後等到他好像聽得差不多，他就很快很急地講出他記得的事情這樣子。

² **Comment 2** in source text Chinese: 我覺得很難比因為就我剛剛已經提到，我比較重視的是accuracy嘛，那兩個人在accuracy上面都有問題的情況下，我可能再來要比的是他們在delivery跟presentation的部份。我就會考慮到說，你在表達的時候fluency啊，還有你表達的字眼啊，觀眾聽起來到底可不可以聽得懂，這是我比較在乎的。

In the judgement process, the examiners would also consider the speech type and context, and apply different weightings to the assessment criteria accordingly, i.e. the situational weighting as shown in Figure 2. In this study, for example, the source speech is about business so numbers and business terminology are weighted more than the other messages when assessing the student interpreters' performances.

Juggling judgements between omissions and errors in student interpreters' performances is common for examiners when they are applying the Fidelity and Completeness criterion. The findings of this study also show that the examiners would follow the condensation norm to consider the weightings of omissions and errors when applying the assessment criteria of Fidelity and Completeness. For example, due to time constraints in simultaneous interpreting, it is acceptable that the secondary and less important information in the source messages may be skipped or reduced in the interpreters' output interpretation, i.e. the reduction strategy. To cope with the cognitive overload in simultaneous interpreting, interpreters often have to operate on what Shlesinger called the "condensation norm" that

"not only condones but often encourages strategic macroprocessing", so that "not every element of every proposition in the source text needs to be reproduced as such. It is appropriate for a simultaneous interpreter to produce the underlying meaning of the proposition" (Shlesinger 1999: 69 in Marzocchi, 2005: 92).

Gile also argued that, "not all the information which was omitted in the target-language speech is necessarily lost as far as the delegates are concerned, since it may appear elsewhere or be known to the delegates anyway" (1995: 200). Shlesinger proposed the condensation norm on the basis of her literature reviews of interpreting studies; it has been intuitively corroborated by many interpreter trainers' experiences and is in line with the long-standing discourse on conference interpreting (Marzocchi, 2005: 92). As evidential support and for analysis, Comments 3 and 4 below illustrate how the examiners in this study applied this condensation norm when assessing student interpreters.

Comment 3 (translation)³: D is worse than C. First, she (D) is not fluent enough; second, she omitted more messages, [...]. Compared with C, however,

³ **Comment 3** in source text Chinese: D 不如 C，第一個就是他不夠流利，第二個就是他遺漏的東西比較多，[...]可是跟 C 比較起來，因為他漏掉很多，所以好像錯誤的地方比較少一點。

because she (D) omitted a lot, there seems to be less error (in D's delivery).

The underlined part of Comment 3 illustrates the examiner's view of the relationship between omissions and errors when interpreting. In Comment 4, when comparing Students D and E, the same examiner further elaborated on which is the more serious – omission or error. The examiner concluded that overall Student D was better.

Comment 4 (translation)⁴: It's because that although she (D) lost a lot of material, at least she did not make so many mistakes. I would rather see her omit things than see her say something wrong.

In other words, errors are less condonable than omissions. Surprisingly, this view seems to be shared by both interpreter and non-interpreter examiners alike, as similar comments were made by examiners from both backgrounds. Comment 5 sums up this assessment approach in weighing omissions against errors.

Comment 5 (translation)⁵: I often feel that the most basic problem to consider in interpreting is: [we] would rather have omissions than errors in interpretation.

This omission tactic, however, should only “refer to the case where an interpreter deliberately decides not to reformulate a piece of information in the target-language speech” (Gile, 1995: 200). In this study, some examiners also made a distinction between not understanding the message and not hearing the message at all. Safe implementation of the omission strategy can only be achieved when the interpreter fully understand the messages and has the capacity to process them, i.e. to deliberately decide what and when to omit.

According to the examiners' comments, the above assessment behaviours are shaped and formed by the examiners' professional experience of interpreting. The results of the interpreting examinations are thus based on these professional judgements, which is an important element of test validation (Alderson et al., 1995).

⁴ **Comment 4** in source text Chinese: 因為他(D)雖然丟掉很多東西，至少他沒有犯那麼多的錯誤。我情願他漏掉東西，不要講錯。

⁵ **Comment 35** in source text Chinese: 我常常覺得說口譯可能最基本的問題應該還是，即使漏譯也不要誤譯。

When most examiners follow a similar approach and a shared professional norm to assess the student interpreters' performances, the overall between-examiner consistency of the examination results may be maintained. However, the background of the interpreter examiners varies and inconsistencies in their judgements are bound to happen, which is a cause for concern (Sawyer, 2004: 184). For example, this study found that market-oriented interpreter examiners tend to weight the Presentation and Delivery more than the examiners teaching in the universities do; interpreter teachers tend to consider more assessment criteria and try to give a diagnosis of student interpreters' performances.

Nevertheless, some non-interpreter examiners also share similar judgement patterns to the interpreter examiners. Therefore, it appears that more factors than just the examiners' professional background will maintain consistency or cause inconsistencies in their judgements. This study has identified two types of such factors – *examiner bias* and *examiner attention*, which are illustrated as the inner two circles with broken lines in Figure 2. These two types of assessment behaviours are more personally related to the examiners, which will be discussed in the sections below.

3.2 Examiner bias

As shown in Figure 2, the inner circle of examiner bias includes two biases identified: the *primacy-recency effect* and *personal preferences*. The examiners will be influenced by these biases, consciously or unconsciously, when judging or diagnosing student interpreters' performances.

To put it simply, a primacy effect refers to the greater impact of what we first learn about someone, i.e. the first impression; a recency effect happens when the later impression predominates (Luchins, 1957). Theoretically speaking, therefore, this primacy-recency effect is likely to happen to most, if not all, examiners. In this study, those examiners who reviewed the recordings are more likely to notice this effect. After examining the five student interpreters, they commented that the order in which they observed the student performances may have influenced their perceptions of the students' interpreting abilities. If the first student performs very poorly, extra credit may be given to the later ones even when in reality their performances may not be significantly better than, or in some cases, not as good as the student giving the first impression. Comment 6 illustrates a typical comment relating to such a view.

Comment 6 (translation)⁶: In fact when I listened for the second time, I had some doubts about my previous judgments. The notes that I had made previously were more of a general impression, which I feel had some “anaesthetic” effect. The students did not interpret particularly well, and the sequence of listening to them made some difference [in judgments]. If the first one is very poor, you will then feel that the second and third ones are not bad and acceptable, even though they may not do well, either. [...] If the first one did not do a good job, there will be a tendency to give more marks to the later ones.

Since the primacy-recency effect is a cognitive bias, it may create a structural problem for interpreting examinations. The order of student interpreters being assessed will affect the way an examiner perceives their performances, especially when a poor performance is followed by a better one, or vice versa. This examiner behaviour in performance assessment has been researched and known in other disciplines such as psychology (see Steiner and Rain, 1989). In the case of the performance-based interpreting assessment, this cognitive effect still needs further study to determine to what extent it affects the examiners’ judgement, particularly in a panel examination where many examinees are being assessed.

The other identified examiner bias is the *examiners’ preferences*. This study identified two types of preferences – (1) the preference of interpretation delivery style, and (2) the preference of the way the interpretation is done, i.e. the examiners may have their own preferred interpreting strategies. The delivery style preference is mainly perceived from the audience point of view, whereas the preference of interpreting strategies is concerned more with an examiner’s own professional habits of interpreting. For example, how a sentence is segmented when being simultaneously interpreted into another language with a different grammatical sentence structure, and the management of Ear-Voice Span (i.e. how far to lag behind the speaker) when processing messages with different level of complexity or delivery speed of the speech. These preferences will affect the examiners’ judgements when they assess the

⁶ **Comment 6** in source text Chinese: 事實上是我第二次聽的時候對我之前做的會有懷疑，就是我之前寫的 notes 可能是一個比較 general 的印象，而且我覺得這事實上有一點點“麻醉”的效果，就是做得都不是特別好。而且那個順序也有差，如果說第一個人做的是特差，第二個人第三個人做的雖然也不好，你就會覺得還不錯，可以接受。[...] 如果第一個人做的很不好，對於後面的人來講是加分的效果。

student interpreters from a dual role perspective as Examiner and Audience as indicated as the double-headed dotted line in Figure 2.

In this study, many examiners were unaware of being influenced by the viewing order of the student interpreters until they reviewed the recordings; some examiners changed their minds or adjusted their comments after the second or third reviews. A few examiners had strong personal preferences for the delivery style and strategies in interpretation; they were aware of their preferences and made their decisions accordingly.

In one way or the other, these assessment behaviours contributed to the inconsistent examination results found in this study. In some cases, a few examiners even made self-contradicted decisions during the judgement process, i.e. intra-rater inconsistency. Comments 7-9 below illustrate some typical examples to show how an examiner's preference influences the decisions made.

Comment 7 (translation)⁷: Overall speaking, both (students) had a lot of mistakes, but I like E's interpretation better because I feel that E was more fluent, not in such a hurry. [...] In this sense, therefore, I think Eileen is the better one.

Comment 8 (translation)⁸: As for E, I cannot stand listening to her. [...] very jerky delivery, and her sentences were not very complete. It's uncomfortable when listening to her, when listening to her for a longer time it may be uncomfortable. I will still choose A.

Both examiners in Comments 7 and 8 obviously made the decision based on the same criteria, i.e. delivery, but one favoured E and the other couldn't stand E's delivery style. It is clear that the examiners had preferences for the interpreter's delivery style, which played a part in making their judgements.

The examiner in Comment 9 also did not like Student E's delivery style. This examiner's personal preference was so strong that it was enough to influence the

⁷ **Comment 7** in source text Chinese: 整體來講的話，雖然錯誤兩個都蠻多的，但是我會比較喜歡 E 的翻譯。因為 E 的翻譯我覺得比較流暢，比較沒有那麼急促，[...]所以就這方面來講的話，我覺得 E 會比較好。

⁸ **Comment 8** in source text Chinese: E 的話我看，我很受不了她說話的樣子，[...]很 jerky，就是她的一個句子沒有辦法很完整。聽起來蠻不舒服，聽久了可能蠻不舒服。我還是會選 A。

examiner to deviate from the FCD approach when comparing Students D and E. The examiner made the following comment.

Comment 9 (translation)⁹: E’s delivery is horrible. It needs to be greatly improved. [...] Although she managed to make a lot of points, toward the end I couldn’t stand listening to her. [...] This kind of up and down, this kind of intonation is very tiresome to the audience.

The comment shows that even though this examiner knew that E “managed to make a lot of points”, she still would not pick E because of E’s delivery style.

From the contrasting views above, we can see that in terms of delivery, while many examiners may disfavour a nervous delivery, some examiners may have stronger reactions to certain delivery styles of the interpreter. This factor of personal preferences does play a role in influencing the examiners’ decision-makings.

To reduce the influence of the examiner bias such as mentioned above, we may learn some useful experiences from the field of language testing. In language testing, the training of examiners, or rater training, is used to ameliorate the problem of random error in the examiners’ judgement (Alderson et al., 1995: 105). However, examiner training can only reduce “extreme differences” in assessment behaviours and the examiner variability cannot be totally eliminated (Lumley and McNamara, 1993: 3). Researchers in language testing, therefore, hold the view that the function of the training of examiners is to train raters to be more self-consistent, allowing for some variability in rater reactions to the test performances (Weigle, 1998: 265), i.e. the examiners can have some room to assess in a natural way based on their professional judgement. In order to do so, sub-patterns in the behaviour of examiners need to be identified for compensation in the test design (Lumley and McNamara, 1993: 3).

In the case of the interpreting examinations, therefore, the findings of this study are useful pointers to the design of examiner trainings for improving the examiners’ self-consistent level of their judgements, and to the development of better

⁹ **Comment 13** in source text: E’s delivery is horrible. It needs to be greatly improved. [...] 雖然很多 points 都說出來，可是到最後我已經聽不下去了。[...]這種 up and down 的話，這種 intonation 對於觀眾來講是很累的。

examination procedures that help avoid or minimise the potential harm from the examiner bias.

3.3 Examiner attention

The complexity of the SI task imposes high cognitive demands on interpreters and examiners alike. When assessing simultaneous interpreting, just as an interpreter must, an examiner needs to multi-task, paying attention to a number of assessment details at the same time. Examiners need to listen to the interpretation, compare the messages with the source speech, make notes of any errors and overly literal interpreting of the source speech, and make a judgement of the interpreting proficiency by taking into account the various assessment criteria. All these tasks impose a high level of stress on the examiner's concentration and memory load.

When there are many student interpreters to be assessed, examiners may not be able to note and remember every detail of every student interpreter's performance, especially when in a live panel examination. That is why many examiners take notes or review the examination recordings to help make better judgements. Even so, many examiners in this study needed to review the examination recordings (some up to three times), or to consult the speech script again before making a decision. In some cases a decision was reversed after reviewing the scripts and recordings. The need to review recordings and notes indicates that there is a limit to an examiner's attention span and memory load in a simultaneous interpreting examination.

Given the complexity of assessing simultaneous interpreting, therefore, the examiners may often resort to holistic marking as a result or pay more attention to one criterion or less to another, depending on their attention span as well as personal preference and bias as discussed above. Comments 10-12 below are examples of typical comments that show the limited attention span of the examiners, and how they may make a judgement by impression.

Comment 10 (translation)¹⁰: Regarding this (mistake) in D's interpretation, I didn't actually notice. She might have also made the same mistake and I just didn't catch it.

¹⁰ **Comment 10** in source text Chinese: 關於這個 D 這邊我並沒有注意到，她可能也弄錯了，只是我沒有抓到而已。

Comment 11 (translation)¹¹: “I didn’t take many notes about C and E. I *felt* that E is better” (*emphasis added*).

Comment 12 (translation)¹²: I didn’t write them down, but because...sorry, I didn’t hear very clearly why (they were wrong) because if she (A) was wrong from the beginning to the end in the process of the examination, I wouldn’t bother to remember the details.

All these factors combined together make it difficult to maintain a good consistency level of judgements between or even within individual examiners. At an examination panel when there are divergent opinions, therefore, it is important that the jury discussions are evidence-based. Deliberations among the juries that are based only on subjective judgements with no evidential support may often lead to less productive results. The jury discussions may be further complicated when there are examiners “who remit to the learning process and results obtained during the year (instead of evaluating the performance during the exam), who want to impose their own personal view, or who think they wield more prestige and thus should have a decisive vote” (Vermeiren, 2010: 297).

Clearly, the outcome of jury discussions may be intervened by some factors, such as the holistic and subjective judgement of examiners, who unavoidably have certain examiner bias as discussed previously. Under such circumstance when holistic and subjective judgement is inevitable, one way to facilitate the judgement approach is making use of appropriate assessment tools and procedures to compensate for the limitations in the examiners’ attention span and memory load, such as using speech script to assist the examiners’ note-taking while listening to the student interpreters’ performances. Then, the examiners’ notes on the scripts can be regarded as a form of assessment evidence for jury discussions (Liu et al., 2008: 19). With an evidence-based discussion, it may reduce the level of unnecessary interventions from examiner bias. These considerations are related to the external assessment behaviour of examiners.

¹¹ **Comment 11** in source text Chinese: C 跟 E 我沒有記下太多筆記，我覺得 E 比較好。

¹² **Comment 12** in source text Chinese: 剛才我沒有寫下來，但是因為...對不起，我沒有聽得那麼清楚是為什麼，因為在考試的過程中如果她從頭錯到尾的話，我就不會再去記得更細了。

3.4 External assessment behaviour

The external behaviour mainly concerns the use of assessment tools. As discussed above, using practical assessment instruments like the source speech script for note taking may be a good support to the examiners when working under high cognitive and memory load, such as assessing simultaneous interpreting. Regardless of the examiners' background, interpreter or non-interpreter, this study found that using a speech script for note taking generally helped raise the consistency level of the examiners' judgements.

Despite the benefit of using a speech script, not every examiner in this study used one, and among those who did use the script for note taking and assessment, there was some variation in approach. Some examiners just read the script as they listened, while the others took notes with varying degrees of detail. If the examiners' notes are to be treated as evidence for jury discussion, certain guidelines need to be developed for examiner trainings to reduce the variations in using the assessment tools.

Some examiners also rehearsed the interpreting task before assessing students' performances, which is not uncommon in professional interpreting examinations (Yang, 2000: 162). The main purpose of doing so is to make sure that the difficulty level of the task is appropriate, and that the examiners are aware of where the difficulties of the task lie. Although the rehearsal remains subjective in nature, it allows the examiners to think and comment on the usefulness and validity of the examination task for the benefit of assessment (Vermeiren, 2010: 295). So the rehearsal practice should still be encouraged when setting the examination tasks.

However, according to both Yang's (2000: 162) and Vermerien's (2010: 295) descriptions of the administration of interpreting examinations, the rehearsal practice and the discussion of the suitability of the examination task might only happen shortly before the interpreting examinations. This leaves very little time, if any, to improve or change the examination task if the difficulty level of the examination task is found to be inadequate. Thus, when forced to use a less-than-ideal examination task, the examiners often have to adjust the severity or leniency of their judgement when assessing the interpreting performances.

The main benefit of using the practice of last-minute rehearsal of the examination task, such as the above, is its practicality. The between-examiner reliability of the specific interpreting examination may still be maintained, that is, assuming all examiners in the jury panel join the rehearsal. Nevertheless, as a result, this practice of last-minute rehearsal would make it hard to maintain the difficulty level of test items between examinations (i.e. internal consistency of test), and the generalisation of the examination results over time (test stability) would be difficult to ascertain. Adding the risk factor of examiner's reliability, all three criteria, i.e. examiner, internal consistency, and test stability, to evaluate a test's overall reliability are threatened.

In order to alleviate the threat to the test reliability, therefore, the more appropriate timing to carry out the rehearsal practice should be during the test design stage well in advance of the actual examinations, and the process should ideally be documented for future reference. By doing so, it leaves more time to improve the examination tasks when necessary. In the meantime, a consensus among the examiners on the use of assessment criteria also needs to be built to minimise inconsistency. Even with the assessment tools mentioned above, some standardised approach to using them, through examiner training, is required in order to achieve more consistent and reliable judgement results. Therefore, documentation of the test design on various considerations, such as those discussed above, will be invaluable over time.

4. Conclusion

Although the results of this study may not be directly generalised to real-life examination panels where a number of examiners are present, the findings of this study give useful pointers in understanding how individual examiners may assess student interpreters (Wu, 2013: 30-31). The revised behaviour dimension of the IE model (Figure 2) may also serve as a conceptual map to help us better understand how the examiners judge and diagnose student interpreters' performances through some external and internal influences, ranging from the use of assessment tools to support the examiners' attention span, to the dynamic interactions between personal biases and professional norms. The dynamics of these influences then become the base to support and balance the criteria dimension in the upper part of the IE model (Figure 1) (Wu, 2013: 29). With this knowledge, it is hoped that an improved test design and

examiner-friendly marking procedures may be developed to help achieve a more reliable result of the interpreting examinations.

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從眼動測量檢視英中逐步口譯筆記原則

馬思揚 汝明麗 蔡介立 陳家興

摘要

在逐步口譯過程當中，筆記是口譯員相當重要的一項工具。口譯員利用筆記幫助整理分析所聽到之訊息，並在產出的過程當中幫助自己的記憶，讓訊息產出更加完整流暢。傳統逐步口譯筆記教學中常見的兩大原則為：直寫格式優於橫寫、筆記語言則以目標語優於原語。過往許多學者就筆記技巧和原則都提出過許多不同觀點，而這些學者就自身經驗所提出的論點雖都言之有理，但缺乏更科學的實證支持，因為逐步口譯筆記歧異性過大，很難就逐步口譯筆記加以操弄進行實驗。

但此等限制如今已有可行之研究方法與技術在一定程度上予以克服。眼動追蹤方法即為其中之一。在認知心理學研究中，眼動追蹤方法之應用已有數十年歷史，透過眼動追蹤，實驗者可以在相對自然的情境下利用眼動儀記錄受試者的眼動情形，從而瞭解受試者在從事作業時的生理（眼動）反應以及相對應的認知活動。例如認知心理學學者即曾據以研究過同步口譯、視譯等作業過程，希望從中觀察譯者的認知過程，但卻少有逐步口譯的相關研究。

本實驗利用事先備妥之筆記克服不同譯者筆記風格差異過大等因素，並利用眼動儀來追蹤受試者在逐步口譯過程中的眼動情況，藉以驗證上述傳統逐步口譯筆記教學的兩大原則，盼除了找出有助加強口譯筆記教學的實證基礎外，並填補目前眼動追蹤應用於逐步口譯相關研究的缺口。

關鍵詞：逐步口譯筆記、眼動、眼動追蹤

馬思揚，輔仁大學跨文化研究所翻譯組碩士。

汝明麗，國立臺灣師範大學翻譯研究所助理教授。

蔡介立，國立政治大學心理學系暨心理學研究所副教授。

陳家興，國立政治大學眼動與閱讀實驗室博士生。

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An Eye Tracking Study of Note-taking Practices in English-Chinese Consecutive Interpretation

Shih-Yang Ma Elma Ming-Li Ju Jie-Li Tsai Chia-Hsing Chen

Abstract

Note-taking is an important aspect of consecutive interpretation, and there are some general guidelines developed over the years in the classroom and in practice. A common practice is to write the notes vertically instead of horizontally. Another method taught in interpreting schools encourages interpreter trainees to take notes in the target language; that is, aside from the symbols and arrows, the interpreter should try to use the target language for note-taking as much as possible.

In support of these conventions, instructors of interpretation often refer to their personal experience as well as the collective hard work of generations of interpreters. However, the status of interpreting as a credible academic discipline cannot be built without sufficient empirical evidence yielded by scientific investigations into assertions of one kind or another regarding interpreting techniques.

One of the most promising approaches to securing empirical evidence in this area may be through the eye tracking method. In the field of cognitive psychology, the eye tracking technology has long been used to study cognitive processes. Eye movement data are very valuable in studying reading and other information processing tasks, as these movements are seemingly sensitive to many cognitive processes. By observing eye movements, one gains understanding of the physical reactions and cognitive activities of the person performing a given cognitive task.

As the eye tracking method is non-invasive, it will be interesting to use it to study how interpreters decipher the notes in different layouts and languages. This study may be critically important in laying the groundwork for related studies in the future, and produce indicative results determining whether the above-said conventions

Shih-Yang Ma, Master, Fu Jen Catholic University, Graduate Institute of Cross-Cultural Studies
Elma Ming-Li, Assistant Professor, Graduate Institute of Translation and Interpretation, National Taiwan Normal University

Ju Jie-Li Tsai, Associate Professor, Department of Psychology, National Cheng-Chi University
Chia-Hsing Chen, Eye Movement and Reading Laboratory, National Cheng-Chi University, Ph.D. Student.

are in fact useful techniques.

The present study is one of the pioneering studies that investigated the common practices of CI note-taking by adopting the eye tracking method, which has proven to be an effective technique in observing and analyzing moment-to-moment cognitive processes during consecutive interpretation. The results show that the conventions in CI note-taking—verticality and the use of target language—are in fact valid recommendations not only supported by practitioners' years of experience but also proven by empirical evidence.

Keywords: Consecutive interpretation note-taking, eye movement, eye tracking method.

1. Introduction

Translation is the conversion of written texts into different languages; interpretation, on the other hand, is the conversion of spoken words between different languages. However, it is more important to convey ideas, rather than sticking to definitions in dictionary, as the main purpose of translation and interpretation is to facilitate communication. In consecutive interpretation, the interpreter speaks after the source-language speaker has finished a segment of the speech. During consecutive interpretation, the speaker needs to pause from time to time, in order for the interpreter to render his/her oral translation. When the speaker speaks, the interpreter takes notes as an aid to their memory. The notes may consist of diagrams, arrows, symbols, abbreviations, letters, numbers, and anything that the interpreter finds helpful. When it is his/her time to speak, the interpreter goes back to the notes, deciphers what he/she has written down, recalls from his/her own memory, and deliver the interpretation.

1.1 Background of Study

In consecutive interpretation, there are five stages as illustrated by Weber (1989) and cited by Al-Zahran (2007) - hearing, listening, analysis, memorization and/or note taking, and interpreting. The note-taking phase involves the interpreter's conscious choice of parts of the original message to be memorized, and others to be taken down as notes. The role of memory is essential, and it is impossible for interpreters to depend solely on notes without a good memory, proper understanding, analysis and re-expression (Al-Zahran, 2007). There is a consensus among researchers that note taking is a means to aid the interpreter's memory, which means that the interpreter should not take down all the source language information. When taking notes, interpreters must first analyze the information, and write the information down in an abstract form.

There are some general guidelines developed over the years for note taking. A common practice is to write the notes vertically instead of horizontally, which is contrary to how people normally write. Another method taught in interpreting schools encourages interpreter trainees to take notes in the target language; that is, aside from the symbols and arrows, the interpreter should try to use the target language for note-taking as much as possible. This means that the conversion is done at the stage of note taking rather than during production. However, the discussion on the form of

notes has called for more empirical research to resolve the controversy over the language to take the notes in (Al-Zahran, 2007).

This experiment aims to find empirical evidence to support the common practices in consecutive interpretation. Do the two previously mentioned conventions work to the interpreter's advantage? More empirical evidence is needed to validate the claims.

One of the most promising approaches to securing empirical evidence in this area may be through the eye tracking method. In the field of cognitive psychology, the eye tracking technology has long been used to study cognitive processes (Rayner, 1998). It has been noted that advancement of computing technology has improved the efficiency and precision of eye movement recording, allowing researchers to obtain more accurate measurements. According to Inhoff and Radach (1998), eye movement data are very valuable in studying reading and other information processing tasks, as these movements are seemingly sensitive to many cognitive processes. By observing eye movements, one gains understanding of the physical reactions and cognitive activities of the person performing a given cognitive task (Huang, 2011).

The present study applies the eye tracking method to investigate the two conventions in consecutive interpretation note taking. This study may be critically important in laying the groundwork for related studies in the future, and produce indicative results determining whether the conventions are in fact useful techniques.

1.2 Research Questions

The present study aims to provide empirical evidence to validate the aforementioned note-taking conventions. The research questions are as follows:

- 1) Are vertically written notes really more ideal than horizontally written notes for they result in less cognitive loads during deciphering and rendition? Will eye movements reflect this?
- 2) Are notes written in target language, as much as possible, really more ideal than notes written in source language, as they result in less cognitive loads during deciphering and rendition? Will experiment results validate this?

2. Literature Review

In this chapter, studies on consecutive interpretation, note-taking, and the eye tracking method will be reviewed in order to provide a basis of understanding for the current study.

2.1 Consecutive Interpretation

Consecutive interpretation may be viewed as consisting of three stages: listening and analyzing (comprehension), memorizing and/or note taking (message retention), and interpreting or re-expression (Lee, 2000; Tsui, 2005). Simultaneity and attention sharing between various mental tasks are not characteristic of SI only, but are also present in CI. The interpreter is simultaneously involved in listening to the source language discourse, analyzing its segments, deciding what to note down and in what form and what to memorize. In a similar vein, divided attention does exist during production because the interpreter has to simultaneously deliver his/her rendition and monitor his/her output (Al-Zahran, 2007). Therefore, interpreters will have limited capacity of short-term memory, or working memory, because simultaneity and divided attention impair and reduce recall ability, making CI notes a vital complementary to memory. Memory required for CI is to process the message before it is taken down on notes, or to store information that the interpreter decides not to write down (Lee, 2000). Therefore, notes are an important aid for interpreters to fill in the gaps (the information not memorized) during the re-expression stage, and guidelines for note taking have been developed in order to help the interpreting students over the course of their training.

Instead of viewing CI as a three-staged process, Gile (as cited by Lee, 2000; Tsui, 2005) identifies in the effort model two stages of CI: “a listening phase”, during which the interpreter listens to the source language message and takes notes, and “a reformulation phase”, during which the interpreter delivers the source language speech in the target language with the help of notes and memory. The listening and analysis phase is represented as follows:

$$\text{Listening} = L + M + N + C$$

Where L refers to the listening and analysis, M to short-term memory, N to note taking and C to the coordination efforts. The listening and analysis effort involves

comprehension-related operations. The M component occurs between the reception of the source language information and the time this information is written down, the moment the interpreter decides not to note it down, or the moment this information fades away from the short-term memory. The note-taking effort consists of decisions as to which information to note and how to note it and the execution of these decisions. The coordination effort refers to the set of operations intended to create harmony between the other decisions involved and their implementation.

The reformulation phase is as follows:

$$\text{Reformulation} = \text{Rem} + \text{Read} + \text{P}$$

Where Rem refers to the operations involved in recalling information from memory, Read to reading information from notes, and P to the implementation of the speech plan. The sum of the efforts involved in the process should not at any stage exceed the interpreter's processing capacity limits; otherwise, problems are bound to occur (Al-Zahran). Based on this model, it is evident that interpreters are under considerable amount of cognitive loads when performing CI, and if the interpreters experience relative ease (needing less effort) reading the notes, it will reduce the cognitive loads during their tasks.

2.1.1 Rules for Note-Taking

Up to this point, most of the literature with regard to CI note taking revolves around recommendations on what interpreters' notes should look like or how note taking should be taught. Most of these recommendations are offered on the basis of personal experience and/or opinions only (Dam, 2004). Herbert, Rozan and Van Hoof are three pioneers who explored the methodology of interpretation. All three insist that note taking is a personal system of symbolization, but each has given own set of recommendations for note taking (Lee, 2000).

Herbert (1952), Rozan (1956) and Van Hoof (1962), the three pioneers of the methodology of interpretation believed that note taking is a personal system of symbolization. Symbolization is independent of target language/source language restrictive ties. Herbert believed that interpreter should have a set of symbols that serve as a reminder of the important ideas. Logical analysis is important, and should

be aided by margins and horizontal lines to help the interpreters to organize the divisions and subdivisions of speech.

Rozan (1956), Van Hoof (1962, modeled on Rozan) and Ilg (1980) defined the rules of note taking: “take down bare bones, to be fleshed out later”. (Ilg and Lampert, 1996: 79). Rozan (1956) put forth a few simple principles to make his system straightforward, as he believes that the simpler the instructions are, the more likely the users are to follow them. These are the “Seven Rules” of note taking.

First, Rozan pointed out it is more important to note the idea rather than the words. By analyzing and noting the ideas, the interpreter will avoid mistakes and difficulties in delivery. Interpreters must “concentrate on the major idea and how this can be noted clearly and simply (preferably in the target language, although this is not essential.)” (Rozan, 1956).

The second rule for note taking is the abbreviation of words. Rozan stressed the importance of abbreviating intelligently, keeping symbols to a mere handful (Ilg and Lampert, 1996). Rozan believes that by abbreviating a word or an idea—in forms of symbol or letters—it can also help to give indication of gender, tense, and register.

The third rule of note taking is to note the links. If the relation of an idea to previous ideas is not clearly noted or indicated, the meaning can be distorted. It is important to never miss out the links.

The fourth rule and the fifth rule are regarding negation and emphasis. These are two essential elements of speech, and should be noted with no ambiguity. Rozan proposed using lines—a line running through a word or symbol to indicate negation, or a line underneath a word or symbol to show emphasis.

Verticality and Shift (the seventh rule) form the backbone of Rozan’s note-taking system. Verticality means taking notes from top to bottom instead of from left to right. The method makes it possible to group ideas logically, which allows a complete and immediate synthesis when interpreters read back to their notes. Another advantage of vertical notes is that it allows noting links more easily and clearly. Interpreters can place different elements of the text above or below one another, a technique referred to as “Stacking” by Rozan. The use of brackets is also an important part of the verticality system. There are certain elements in speech that are mentioned to clarify

or to highlight a particular point, but are not integral parts to the speaker's train of thought; these should be bracketed below the main element to which they refer (Rozan, 1956).

Shift is another essential part of Rozan's system. It means "writing notes in the place on a lower line where they would have appeared had the text on the line above been repeated." (Rozan, 1956). This allows easier note taking, as repeated words are not required to be written down, and it also helps the interpreter to group ideas with the same or similar value.

Similarly, Jones (1998) proposed the diagonal layout of note taking. Diagonal layout can properly reflect the structure of the speech. Diagonal layout can be regarded as the equivalent of shift and verticality proposed by Rozan, as diagonal layout consists of top to bottom note taking, as well as indentions (shift). The rules by Rozan and Jones are quite similar to the ones taught at interpreting training programs, and the diagonal layout, at least in this study, is referred to as vertical layout.

In addition to the layout of the notes, interpreting trainers and researchers are also interested in what language to use in note taking. Some proposed using the source language, so that the interpreter does not have to worry about conversion during the listening and note-taking stages; on the other hand, some advocated the idea of taking notes in the target language, claiming that it would help the interpreter during the production stage. Most authors in the field of note taking tend to take one of the two opposing positions: some recommend using the target language (TL) (e.g. Herbert, 1952; Rozan, 1956; Seleskovitch, 1975; Seleskovitch & Lederer, 1989), whereas others argue that the source language (SL) may be a better choice (e.g. Ilg 1988; Gile 1995). Those who advocate for the use of target language support the idea for two basic reasons: one, target language logically forces the interpreter to move away from the surface form of the incoming speech and should therefore ensure better processing of the speech; and two, writing in the target language is thought to facilitate production of the target speech (Dam, 2004), because during CI, the interpreter will not have time to decipher notes at delivery (Lee, 2000).

However, a smaller group of authors question the target language recommendation, because they believe that writing notes in the target language requires language conversion during note-taking and therefore adds to the number of tasks (or functions) the interpreter has to perform during the listening/analyzing phase.

At this stage, the speaker sets the pace, and there should theoretically be a higher degree of complexity, and is more capacity-consuming than the production stage (Dam, 2004). Thus, taking notes in the source language is thought to be easier and faster than in target language, because the interpreter can simply write down what he or she hears. However, Seleskovitch (1975), Kirchhoff (1979) and Andres (2002a) mention that they have observed a mixture of source and target language (cited by Dam, 2004).

According to Liu, the format of CI notes, referred to as the “utilization of space on paper” in Liu’s book, is one of the most important principles of CI note taking. Liu proposed four major principles: verticalization, indentation, division, and superposition (Liu, 1993: 53).

For this study, the main interest of the researchers is CI from English into Chinese. In her book on CI English into Chinese, Liu Minhua (1993) has dedicated one chapter specifically for the note taking part of CI. Liu (1993) mentioned that there is not a set of rules or principles for note taking, and notes from different interpreters will not look the same. Again, Liu recognized that notes are very personal. (Liu, 1993: 44).

Verticalization, as discussed earlier in this chapter, is an idea put forth by Rozan. Liu further argued that verticalization is a method of arranging messages during CI note taking. When interpreters note messages they hear in order from left to right, then later on when they decipher the notes, they must also move their eyes in the same direction; after they finish reading one line of their notes, they have to move their eyes to the very left of the notes to the beginning of the next line. This requires more effort, and will hinder the speed at which interpreters decipher the notes.

Another reason for verticalization is that interpreters must break free from all lexical structures. Verticalization allows the interpreter to freely arrange the messages regardless of the order in which they hear the messages. Same thing can be said during the reproduction phase of CI, the interpreters can freely decide what to say first, or even omit some information they have written down (Liu, 1993: 54).

Liu also talked about indention, which is also an idea put forth by Rozan. Verticalization alone is insufficient to fully display the relationship between messages. By using indentions, interpreters can show the hierarchy of the different messages.

Liu discussed the idea of division, which is a line drawn at the end of a complete message. This division does not necessarily indicate the end of a paragraph or sentence. As long as the meaning of the message is fully captured, then a line can be drawn. As indentation is a means of grouping ideas and messages, division serves a similar purpose but marks the end of a complete message (Liu, 1993: 57).

The last principle discussed by Liu is superposition. It is the grouping of related words or symbols. Interpreters can easily tell that these words or symbols are closely related and have similar statuses.

As for what language to use for CI note taking, Liu explained that at the beginning of the training, students have the inclination to write down as many words and sentences of the source passage as they can. This may be an indication that the students have not analyzed the information they heard, and are simply trying to write down everything blindly. Some trainers thus ask students to take notes in target language, which shows that the students have “processed” the source language information. This can only be a means of training, but not a principle for CI note taking. Because for interpretation, interpreters should not be bound by the words in either source language or target language. Also, there should not be too many restrictions on note taking, as it is required for interpreters to note down the things they hear quickly and correctly. Therefore, interpreters should be able to take notes in any language or symbol, as long as they find it helpful.

2.2 Eye-Tracking Method

Extending the application of eye-tracking techniques to research in Interpreting Studies (IS) has not been taken into consideration by many researchers. There are only a few articles based on studies directly applying eye tracking to IS. In recent years, more researchers are turning their attention towards the application of eye-tracking method in interpretation or translation studies. Nonetheless, it is best to first introduce the basics of eye tracking method, which is predominantly used in the field of cognitive psychology, as many may not be as familiar with it.

2.2.1 Eye Movements

Eye-trackers enable researchers to observe eye positions and eye movements through which they can thoroughly understand the physical reactions and cognitive

activities of the person performing cognitive tasks. According to Inhoff and Radach (1998), “Oculomotor measures provide distinct methodological advantages in the study of cognitive and perceptual processes. They appear sensitive to a wide range of ‘cognitive processes’ and they can be obtained under relatively natural task conditions; hence, the growing acceptance and popularity of these measures.”

When people read, their eyes make fast movements called saccades. Between saccades, the eyes remain somewhat still; these are called fixations (Rayner, 1998). Saccades are rapid, and during these fast movements of the eyes, sensitivity to visual input is reduced. Researchers refer to this reduction as saccade suppression. This indicates that during eye movements no new information is obtained because the eyes are moving so quickly that only a blur is perceived (Rayner, 1998). Some experiments have found evidences to suggest that some cognitive activities are suppressed during saccades. However, the tasks used in most of these studies are relatively simple, it will be interesting to determine whether thinking is suspended during saccades in more complex talks (Rayner, 1998).

On the other hand, when the eyes are relatively still, they are said to be in fixation. However, eyes are never really still. If examined carefully, there are tremors of eyes during fixations. These tremors are assumed to be related to perceptual activity, and are often regarded as noises during experiments (Rayner, 1998). It is during fixations, which are periods of relative stability, that visual information is extracted (Radach & Kennedy, 2004).

Fixations and saccade can be used to index cognitive processes. This indexing has been guided by two processing assumptions—eye-mind and immediacy assumption. According to these assumptions, the location of a fixation coincides with the cognitive processing of text at that location, and an ensuing fixation duration is determined by the area’s perceptual and cognitive analysis. The viewing duration of an area of text, or some derivative of it, can be used to index its perceptual and linguistic analysis (Inhoff & Radach, 1998).

During different reading tasks, the eyes will move in different patterns. Rayner (1998) pointed out that when a person is reading silently, the fixation durations tend to be shorter, but when the person is reading the text out loud, the fixation durations are longer.

Inhoff & Radach (1998) pointed out that researchers are interested not only in the direction of saccades, saccade amplitude, or fixation durations; the viewing duration of an area of text can be used to index perceptual and linguistic analysis. They also listed a series of measurements that are often collected for analysis. For example, skipping rate is computed as researchers are interested on determining the time spent to process the words skipped during reading. That is, during reading, the eyes move from one fixation to another, yet some words never receive any fixations. When and how does the reader process these skipped words? When interpreters decipher their notes, it will also be necessary to examine the skipping rate, since interpreters skip some words, or parts of the note, as well. It will be interesting to see which words are skipped.

Another important index is regression. Roughly 10-15% of all fixations are regressions, yet very little is really known about what causes them (Rayner, 1998). Readers are more likely to regress to a word on the current line than to words on previous lines. However, when they do regress further back in text, despite backtracking movements, readers often have fairly good spatial memories for where they went wrong in comprehension and make fairly accurate saccades to that region of text. Frazier and Rayner (1982) demonstrated that when readers encountered a word indicating that their prior interpretation of the sentence was in error, they often made a regression as soon as they encountered disambiguating information. Therefore, it is likely that many regressions are due to comprehension failures.

Approximately 15% of the words in text are refixated. Refixations on a word are often caused by originally landing in a “bad” place in a word and that processing of the word is distributed over two or more fixations. When readers make multiple fixations on a word, the first fixation is often longer than the second. Although some refixations are made because the reader was in a bad place, refixations are also often made for other reasons. For example, Balota et al. (1985) showed that readers were less likely to have their next fixation remain in the currently fixated word if it was predictable in the sentence context. This reflects that the readers are having relative ease reading the text at the moment.

Nowadays, because the eye tracking method is non-invasive and easy to use, interdisciplinary studies between different fields have been conducted. Eye movement data are very valuable in studying reading and other information processing tasks.

2.2.2 Interpretation Related Eye-Tracking Experiments

Many eye-tracking experiments have been done to explore cognitive processes in reading. Interpretation is a task that involves multiple cognitive processes, yet, there have only been a limited number of studies that applied the eye-tracking technique to interpretation research. Scarce as they are, previous studies have lent strong support to the applicability of the eye-tracking method to studying interpretation. This section will proceed to review two previous works in the field of interpretation.

The Revised Hierarchical Model (Kroll & Stewart, 1994) argued that the task of translating/interpreting ‘single words’ into the second language is more cognitively demanding than into the first language. Chang (2009) attempted to test the validity of Revised Hierarchical Model at a textual level through collecting physiological and neurological measures. He employed the eye tracking method and fMRI in his experiment. He did two eye-tracking experiments: Mandarin (A) into English (B) and Spanish (A) into English (B).

In Experiment 1, each participant had to carry out four tasks: translate from English into Mandarin, type English, translate from Mandarin into English, and type Mandarin. The sequence of the tasks was random.

In Experiment 2, the six tasks were: read Spanish, read English, type Spanish, type English, translation from English into Spanish, and translate from Spanish into English. The change of task sequence was due to results of Experiment 1.

The results and findings of the Experiments show that the eye-tracking technology has a broader applicability to the field of T&I studies. They also showed that A to B translation was more cognitively demanding than B to A translation, which supports the validity of the Revised Hierarchical Model.

In 2011, Huang did another study related to interpretation. There are three components of interpreting: comprehension, reformulation, and production. Up until that point, no study had previously explored issues such as the process of comprehension in interpreting to address specific issues of the horizontal and vertical translation perspectives along with scientifically prove whether concepts such as “read ahead” are just a myth or actually exist in sight translation (ST) to gain more insight into the process of comprehension in ST. This is exactly what Huang (2011)

tried to accomplish. Huang (2011) employed the eye tracking method to investigate the process of sight translation. The research focused on the comprehension component in sight translation, and tried to address the validity of the horizontal (meaning-based translation as opposed to literal translation) and the vertical perspectives of interpretation. Huang's initial research question was whether sight translation and silent reading may be similar in their initial comprehension and if reading ahead could be empirically observed by using eye-tracker.

The study aimed to investigate the three components of sight translation in general and the comprehension component in particular to examine whether the vertical or horizontal perspective was valid. Eye movement indices provided insight to the answer of these research questions.

The results of this study go against the findings of the self-paced reading study conducted by Macizo and Bajo (2004, 2006), whose findings supported the horizontal perspective. The eye-tracking method applied in this study provided the moment-to-moment data to the process of comprehension. First-pass and rereading eye movement indices from reading and sight translation provided robust proof toward the vertical perspective in Chinese to English sight translation. These would not have been observed if the self-paced method was employed.

As far as the linguistic combination Chinese-English is concerned, the results show that comprehension in sight translation does not consume more cognitive efforts than normal silent reading (Huang, 2011). Also, it is hard to say whether the reading ahead phenomenon is the result of interpreter training or something that interpreters are naturally inclined to do.

The findings suggested that sight translation and silent reading were not too different in the beginning. First fixation duration, single fixation duration, gaze duration, fixation probability and refixation probability all reflected the similar nature of the two. Only after first-pass reading that the two tasks began to differ. As for the phenomenon of reading-ahead, it occurred in 72.8% of cases in the experiment.

With the foundation laid, the current study aims to adopt the eye tracking method to examine the validity of "common" practices in CI note taking. It is hoped that the results of this experiment can provide empirical evidence to either support or challenge the current practices of verticality and the use of target language. It is also

hoped that the results can provide further indications to interpretation training programs to better assist student in note taking. Of course, notes are not the only important thing, yet with limited capacity of working memory, it is vital for all interpreters to have good note-taking skills to help them during interpretation tasks; because “through training, skill-oriented note-taking effort can be enhanced, and as note-taking techniques improve, students’ general CI performances also improve.” (Lee, 2000).

3. Research Method

The eye tracking method is non-invasive, and the advancement in technology has made data collection much more efficient. Consequently, the eye tracking method has become popular. Eye movement data are valuable in studying reading and other information processing tasks. During CI, interpreters decipher their notes during production. As interpreters decipher the notes, they have to read and process what they have written down, and simultaneously render interpretation. It is interesting to study the production stage of CI, as there are different tasks (deciphering, conversion, production, and monitoring) being performed simultaneously. Further empirical examination is required to determine whether the recommended principles of note taking are really helpful during this stage, as argued by instructors. Therefore, the current study adopts the eye tracking method to study note-taking techniques in CI.

3.1 Research Questions

This chapter will describe in detail the design of the experiment, the materials used, and the subjects that participated. The experiment hopes to find answers to the following research questions:

- 1) Are vertically written notes really more ideal than horizontally written notes? Will eye-movements reflect this?
- 2) Are notes written in target language, as much as possible, really more ideal than notes written in source language? Will experiment results validate this principle?

3.2 Hypothesis

The practices of vertical notes and the use of target language are thought to better assist interpreters in retrieving messages written down as notes, thus facilitating

speech production. These practices are recommendations made by experienced interpreters based on their personal experience. Interpretation institutes in Taiwan, based on the author's own experience, are preaching these techniques to the students as well. The hypotheses of the current study, thus, are as follows:

- 1) Vertical notes and target language notes should generate shorter total viewing time (the sum of all fixation durations, please refer to later sections for detailed description) and shorter saccade length, for it is easier to read, allows better preview quality, and that interpreters need less effort in retrieving the stored information.
- 2) Vertical notes and target language notes should be less likely to cause regression (when the person's eyes move backward to a region that has been previously read), for interpreters should find it less difficult to read and decipher the notes, and that they need not to go backwards to clarify ambiguities.

3.3 Participants

Nineteen student subjects are recruited from a pool of interpretation students at Graduate Institute of Translation and Interpretation, National Taiwan University, and Graduate Institute of Translation and Interpretation Studies, Fu Jen Catholic University. All the subjects have passed the entrance exams into the interpretation programs and have received no less than three months of CI training (one semester); therefore, the subjects are relatively familiar with and are capable of performing consecutive interpretation on general topics. All participants are fluent in both English and Mandarin Chinese. All participants have normal or corrected-to-normal vision. Participants are asked to sign an informed consent prior to the experiment, and are aid afterwards.

3.4 Experiment Design

There are four passages and four conditions, and the experiment is a 2 (vertical vs. horizontal) by 2 (source vs. target language) design. Participants will perform consecutive interpretation on the four passages in different orders and conditions, and thus there will be four blocks in this experiment. Participants will be asked to answer two comprehension questions after performing interpretation on each block to ensure

that they understand the content. Before the experiment, participants will practice on a shorter passage in advance to familiarize themselves with the upcoming procedures.

Eye-movements of interpreters will be recorded when interpreters perform consecutive interpretation on four passages (selected and edited by the experimenter). The notes of each of the passages are already prepared for the participants, and will be displayed on the monitor. There will be four conditions: vertically written notes/notes written mainly in source-language (VS); vertically written notes/notes written mainly in target-language (VT); horizontally written notes/notes written mainly in source-language (HS); horizontally written notes/notes written mainly in target-language (HT). Different participants will encounter different combinations of the four passages and four conditions.

Eye movement measurements obtained are used to examine the cognitive loads during different conditions; the data will then be compared and analyzed to answer the research questions. After the experiment, all participants will be interviewed on their thoughts regarding the experiment materials and their own performances.

3.5 Materials

Materials for the experiment are described in details in the following sections.

3.5.1 Speeches

The materials used in this experiment consist of four English speech texts approximately three minutes each in length. The texts are all excerpts from authentic speech texts. The speeches will be recorded by a native English speaker at a rate of 100 to 120 words per minute. In order to eliminate discrepancies in the difficulty level of the materials, all passages will be on general topics in case participants have different levels of familiarity on specific topics. The “readability” ratings will be used in the attempt to control the level of difficulties. Also, after the experiment, the subjects will be asked during the interview to grade the difficulty of the passages on a scale of 1 to 5. This will in turn provide some quantitative indications as to the levels of difficulty of these passages.

The topics of the speeches are: Meetings, Incentives, Conventions and Exhibitions (MICE) in Hong Kong, International Relations—An Australian Perspective, Education Reform, and Digital Publishing. The texts are between 290 to

340 words in length. The practice speech is half the length of the other speeches, and it is a brief introduction to Taiwan's geography.

The Flesch Reading Ease ratings for the four speeches are: 47.2, 51.3, 40.1 and 52.1, which mean that all four pieces are at senior high school level of difficulties. The reading ease rating for Education Reform is relatively lower (harder to read), however, it remains at high school level of readability.

3.5.2 Notes

Notes will serve as the visual stimuli in this experiment. Notes will be shown on the monitor during the experiment. Normally speaking, notes are written down by the interpreter while he or she is listening to the speaker. However, since notes are the main focus of this study, and the notes are controlled variables, therefore the notes are fabricated and manipulated by the experimenter in this study.

To ensure such fabricated notes are comprehensible to the subjects, the experimenter has first collected, compared, and analyzed notes from in class practices of first and second year students—the would-be subjects—at GITI and GITIS. Common features of the notes, such as symbols, arrows, abbreviations, and Chinese characters were tabulated. These common features were used, where they are applicable, in the fabricated notes. Other rules, such as combination of symbol and abbreviation, mathematical symbols (such as the equal sign, plus/minus, greater than/less than...etc.), universal logical indicators, such as “∴” (therefore), were also used in the notes.

The two experimenters listened to the speeches and took notes in a style that they were both familiar with; the two sets of notes (vertical) were compared to determine the contents of the speeches that were to be kept in the fabricated notes. The common features were used in places where applicable. A fellow GITIS student that had finished two years of training then piloted the notes. The notes for the four speeches were then scanned onto computer and then manipulated by using Photoshop.

There are six pages of notes for the speech of MICE in Hong Kong; seven pages for the one on International Relations—An Australian Perspective; six pages for Education Reform; and eight pages for Digital Publishing. Notes for each speech are manipulated into four conditions: VS, VT, HS, and HT. There are three pages of notes

for practice speech, and there is only one condition.

3.5.3 Comprehension Questions

Each speech has a set of two comprehension questions. The questions are true and false questions testing the participants' understanding of the speeches. The questions are simple and straightforward. By testing the participants' understanding of the speeches, the experimenter can thus eliminate those with less than desirable accuracies, since the notes will contain complete and accurate information for the participants, therefore the comprehension questions will be used to eliminate those trials where the participants fail to fully understand the main ideas of the speeches, and as a result, interpret the speech inaccurately. After all, accuracy is one of the most important criteria of all interpretation performance.

3.5.4 Information Sheet

Every participant will have to fill out an information sheet right before the experiment. The information sheet is used to further understand the language background of the participants, which is believed to be a factor affecting the participants' performances. The information sheets will also be a complement to the experiment, providing qualitative information for later analysis.

3.5.5 Interview

After the experiment, the experimenter will interview participants based on a questionnaire. There are two parts to the questionnaire; the first half is designed to find out how the participant thinks about CI in general, and the second half aims to explore their experience during the experiment. These will provide qualitative (and quantitative) details of how the participants think about the experiment.

3.5.6 Apparatus

Stimuli will be presented on a computer monitor (1024*768 pixels) and eye movements will be recorded using an Eyelink 1000 Desk Mount eye-tracker, manufactured by SR Research. The sampling rate is at 1000 samples per second. Stimuli will be shown in the middle of the screen one page at a time. A forehead rest is equipped for the participants to position their heads during the experiment. The distance from the forehead rest to the monitor was 70 cm.

3.6 Procedure

The participants will first fill out a questionnaire form. Before the experiment begins, participants will be tested for their dominant eye, which is going to be the eye recorded during the experiment. Participants will then be seated in a dimly lit room in front of a PC monitor and will be tested individually. At the beginning, instructions will be presented on the screen. The nine-point calibration and validation procedure will then follow to determine the correspondence between pupil position and gaze position. The experiment will be divided into two parts, with a five-to-ten-minute intermission in between. There will be one practice speech and four speeches on different topics. Practice passage allows participants to familiarize themselves with the settings. At the beginning of each trial, participants will be asked to fixate on a cross, which is where the notes will be shown on the monitor. If the eye fixates in an acceptable range, the cross will vanish and the notes will be shown. The calibration and validation process will be performed again if participants fail to accurately fixate on the cross.

The participants will first listen to the audio file of the speech. They do not, unlike authentic CI environment, have to take down any note; they just have to listen carefully. When audio is playing, the screen will display corresponding notes. Participants can use the time to familiarize themselves with the fabricated notes, or simply concentrate on listening and comprehending the speech. When the audio comes to an end, the screen also becomes blank, and the participants will have to fixate on the cross on the top-left corner of the screen, this will ensure the accuracy of the measurements. The notes will appear on the monitor screen again when the participants successfully fixate on the cross. The participants will be given enough time to render their interpretation, that is, approximately as long as the length of the original segment. Recording device will be activated whenever the participant is rendering his or her interpretations. The recording allows examination into the relationship between eye fixations and participants' performances. The participants will press a key to continue onto the next page of the notes until they are finished. At the end, the comprehension questions will appear on the screen. The participants will have to answer the questions (two for each speech) by pressing the keypad near their hand. After the comprehension questions, the steps are the same through out the experiment for all speeches.

3.7 Constraints of the Experiment

This experiment attempts to look into CI notes, therefore, in order to best observe the differences between different styles of note taking, all the notes are fabricated by the experimenter, and will be provided to the participants. This contradicts to actual CI situation, as interpreters normally take their own notes when listening. Note taking, in a way, is a process in which interpreters re-organize the obtained information, and will help them to better understand the message of the speaker. On the other hand, since interpreters have to listen and take notes at the same time, they will have to carefully allocate their attentions between the different tasks; this is usually when errors occur.

During this experiment, the participants no longer have to multi-task while they are listening. They simply have to listen carefully to the original message. Although they no longer have to take their own notes, they might not get used to the idea of “reading someone else’s notes”. After all, note taking is rather intimate to interpreters. Even though the experiment uses “common” features wherever possible, and tries to come up with notes as universal as possible, the fact is that all interpreters have their own way of note-taking, and some of their performances may be affected by the fact that they are “reading off someone else’s notes”.

However, the interpreters are presented with the opportunity to familiarize themselves with the notes while they are listening to the speeches, as the notes will be displayed on the screen. This hopefully serves as compensation, hoping to help the participants with processing and organizing information.

4. Eye Movement Result

4.1 Results of Statistical Analysis

After the experiments, all data collected by the eye tracking method are converted into CSV files. These are the Global data. ROIs and Targets are later selected from the Global data by first excluding all fixations outside of the ROIs, and then excluding all fixations outside of target ROIs. R-Project is used for statistical analysis, which is a free software environment for statistical computing and graphics.

All the measurements from each set of data—Global, ROIs, Target—will be first explained and presented in the following sections in the order of Global Results, ROIs

Results, and Target Results.

4.1.1 Global Results

For the Global data, the indicators looked at are: TVT, TVT-Forward, TVT-Regression, Mean Saccade Length, Mean Saccade Length Forward (MSL-Forward), Mean Saccade Length Regression (MSL-Regression), Regression Rate, and Target Rate. Statistical analysis is conducted to find the correlation between the factors: Language (Target Language and Source Language) and Direction (the condition of the notes, namely, Vertical and Horizontal). This section will present and discuss the indicators that have achieved statistical significance.

Table 4.1.1 Global Results

Indicator	Direction	Language	Lang. x Dir.
TVT			
TVT-Forward	Significant		
TVT-Regression	Marginal		
Mean Saccade Length	Significant		
MSL-Forward	Significant	Significant	
MSL-Regression	Marginal		
Regression Rate	Significant		
Target Rate		significant	

4.1.1.1 Global TVT-Forward

TVT-Forward is the sum of all forward fixations, that is, the total time spent by the subject with their eyes moving forward. This means that the subject needed not to look back, as he or she had no difficulty processing previous information. The subject was able to relocate their attention to new information on the page. Statistical analysis shows that direction is a significant factor affecting TVT-Forward. TVT-Forward for vertical notes is significantly higher than horizontal notes. This means that subjects spent significantly longer time looking at new information, rather than looking back to previous information.

4.1.1.2 Global Mean Saccade Length

Mean Saccade Length is the average saccade length in pixels of a certain page of the notes. Normally in reading, shorter saccade lengths may be caused by reading

difficulties, however in the current study, it is hypothesized vertical notes result in shorter saccade length, for the grouped ideas and messages allow rapid processing; shorter saccade length, in this case, can facilitate faster speech production since no new information is obtained during saccade. Statistical analysis shows that direction is a significant factor. Vertical notes result in shorter mean saccade length, which may indicate that the subjects can access the information written down on the notes at a more rapid speed. It can also mean that the subjects refixate on same region multiple times as they try to process the information.

4.1.1.3 Global MSL-Forward

MSL-Forward is the average length of forward saccades in pixels. The result of statistical analysis shows MSL-Forward achieves significance in both direction and language. Vertical notes and notes written in the target language both result in shorter MSL-Forward. Again, this may be the result of multiple refixations within a region, or the fact that the format of the notes featuring grouped ideas and messages allows the subject to quickly move to the next new piece of information.

4.1.1.4 Global Regression Rate

Regression Rate is the probability of the subject looking back to previous information written on the notes. Regression means that the subject needed to look back to previous information they had already read. Statistical analysis shows that direction is a significant factor affecting Regression Rate. Regression Rate in horizontal notes is significantly higher than that of vertical notes.

4.1.1.5 Global Target Rate

Target Rate refers to the probability of the subject fixating on the Targets (the target ROIs where language is being manipulated). Lower target rate means high skipping rate, which is an indication of high preview rate and better preview quality. This shows that the reader or the subject experience relative ease when processing the information in the area, that they are able to process the idea during the preview stage and thus requiring fewer fixations within the area. Global Target Rate achieves significance in language. Words written in the target language required fewer fixations.

4.1.2 ROIs Results

The ROIs data, as described before, is the part of Global data excluding all fixations outside of the ROIs. Thus, this set of data still reflects the global eye movements. For the ROIs data, the indicators looked at are: TVT, TVT-Forward, TVT-Regression, Mean Saccade Length, Mean Saccade Length Forward (MSL-Forward), Mean Saccade Length Regression (MSL-Regression), Regression Rate, First Fixation Duration (FFD), Gaze Duration (GD), Rereading Time (RRT) and Latency. Statistical analysis is conducted to find the correlation between the factors: Language (Target Language and Source Language) and Direction (the condition of the notes, namely, Vertical and Horizontal). This section will present and discuss the indicators that have achieved statistical significance.

Table 4.1.2 ROI Results

Indicator	Direction	Language	Lang. x Dir.
TVT	Marginal		
TVT-Forward	Marginal		
TVT-Regression	Marginal		
Mean Saccade Length	Significant		
MSL-Forward	Significant		
MSL-Regression			
Regression Rate	Significant		
FFD			
GD			
RRT	Significant		

4.1.2.1 ROIs Mean Saccade Length

ROIs Mean Saccade Length is the average saccade length in pixels. Statistical analysis shows that direction is a significant factor. Vertical notes result in shorter ROIs mean saccade length, which may indicate that the subjects can access the information written down on the notes at a more rapid speed. It can also mean that the subjects refixate on the same ROI multiple times as they try to process the information.

4.1.2.1 ROIs MSL-Forward

ROIs MSL-Forward is the average length of forward saccades in pixels. The result of statistical analysis shows ROIs MSL-Forward achieves significance in direction. Vertical notes result in shorter ROIs MSL-Forward. Again, this may be the result of multiple refixations within the same ROI, or the fact that the format of the notes featuring grouped ideas and messages allows the subject to quickly move to the next ROI.

4.1.2.3 ROIs Regression Rate

ROIs Regression Rate is the probability of the subject looking back to previous ROIs that they have already read. Statistical analysis shows that direction is a significant factor affecting ROIs Regression Rate. Regression Rate in horizontal notes is significantly higher than that of vertical notes.

4.1.2.4 ROIs RRT

Rereading time is the total of all fixation durations after the first pass. Rereading Time reflects the time needed for the subject to go back to previously read ROIs, reflecting the cognitive processes of trying to figure out the links between the ideas and messages. Statistical analysis shows significance in direction, with vertical notes requiring shorter RRT.

4.1.3 Targets Results

The Targets data, as described before, excludes all fixations outside of the target ROIs. This set of data focuses sole on target ROIs, which are where the words are being manipulated (written in either Chinese or English, the target language and source language). Each page features a different number of targets, which are chronically numbered. For the Targets data, the indicators looked at are: TVT, TVT-Forward, TVT-Regression, Mean Saccade Length, Mean Saccade Length Forward (MSL-Forward), Mean Saccade Length Regression (MSL-Regression), Regression Rate, Target Rate, First Fixation Duration (FFD), Gaze Duration (GD), and Rereading Time (RRT). Statistical analysis is conducted to find the correlation between the factors: Language (Target Language and Source Language) and Direction (the condition of the notes, namely, Vertical and Horizontal). This section will present and discuss the indicators that have achieved statistical significance.

Table 4.1.3 Targets Results

Indicator	Direction	Language	Lang. x Dir.
Blinking Rate			Significant
TVT		Significant	
TVT-Forward		Significant	
TVT-Regression	Marginal	Significant	
MFD			
Mean Saccade Length	Significant	Significant	
MSL-Forward	Significant		
MSL-Regression			
Regression Rate	Significant		
FFD			
GD	Marginal		

4.1.3.1 Targets TVT

Targets TVT refers to the sum of all fixations on the target ROIs. Statistical analysis of Targets TVT shows significance in language. Total time spent on viewing source language words is significantly longer than on target language words.

4.1.3.2 ROIs TVT-Forward

Statistical analysis shows significance in language. Targets TVT-Forward for source language words is higher. This means that subjects spent longer time looking forward to source language words.

4.1.3.3 Targets TVT-Regression

Targets TVT-Regression is the total time the subject spent looking back to a target ROI. Statistical analysis shows significance in language and marginal significance in direction. Targets TVT-Regression is higher in source language notes, and in horizontal notes.

4.1.3.4 Targets Mean Saccade Length

Targets Mean Saccade Length is the average saccade length in pixels. Statistical analysis shows that direction and language are both significant factors. Vertical notes and target language notes result in shorter Targets Mean Saccade Length, which may

indicate that the subjects can access the information written down on the notes at a more rapid speed.

4.1.3.5 Targets MSL-Forward

Targets MSL-Forward is the average length of forward saccades in pixels. The result of statistical analysis shows Targets MSL-Forward achieves significance in direction. Vertical notes result in shorter Targets MSL-Forward. This may be the result of multiple refixations within the same target ROI.

4.1.3.6 Targets Regression Rate

Targets Regression Rate is the probability of the subject's eye moving out of the target ROI from the left. Statistical analysis shows that direction is a significant factor affecting Targets Regression Rate. Regression Rate in horizontal notes is significantly higher than that of vertical notes.

4.2 Analysis

Results from the Global data and ROIs data mainly deal with the issue of direction; while results from the Targets data are more specifically addressing the issue of language. This section will look at the results from the three sets of data, specifically the TVT, Regression Rate, TVT-Regression, and Mean Saccade Length results from all three sets of data, as well as Target Rate and RRT results from ROIs data, and some additional measurements that have achieved marginal significance.

4.2.1 TVT's

TVT is the sum of all fixation durations, which shows the total time required to process the information contained in the notes (or more precisely, in a page of the notes). Global TVT achieved no significance, however, it shows that all subjects performed CI interpretations within the time limits. Even though Global TVT does not indicate the validities of vertical note taking and the use of target language, it serves as a reference for the analysis of Global TVT-Regression.

As for ROIs TVT, statistical analysis shows marginal significance in direction, indicating that vertical notes may in fact facilitate better processing of information, hence the shorter total viewing time spent on the ROIs. Although this is not enough to

validate the convention of verticality, it does imply the possibility that vertical notes are easier to read/decipher, and thus in theory will help interpreters during speech production.

On the other hand, as mentioned before, the results of the Targets data mainly address the issue of language, and statistical analysis of Targets TVT shows significance in language factor. This means that subjects spent less time on words written in the target language, empirically showing that subjects need less time for production when the word is written in the target language—that is, no need to convert the word in their head.

4.2.2 Regression Rate

Regression Rate is one major indicator to be looked at in the current study. Regression Rate indicates that subjects experienced difficulties in finding the logical links between the ideas written in the notes, or that they had to return to previously read information for further processing. Regression Rates from all three sets of data show significance in the factor of direction, once again proving that vertical notes can better facilitate speech production during CI. This indicates that the interpreters need not to look back, as much, to previous notes as they are rendering the interpretation, and that they can move forward with fewer interruptions.

4.2.3 TVT-Regression

TVT-Regression indicates how much time the subjects needed to look backward to old information for further processing. This may be the result of subjects encountering difficulties or missing information that they needed for speech production. Subjects had to look back for more information or missing logical links. Shorter TVT-Regression indicates that subjects find it relatively easy to decipher the notes, and they do not need to regress.

For the Global data, TVT-Regression only achieved marginal significance. However, due to the fact that Global TVT is relatively constant (all interpretations needed to be under three minutes) and that Global TVT-Forward achieved significance, it can be deduced that direction is a major factor affecting the duration of TVT-Regression. This means that for vertical notes, subjects spent less time look backwards at old information, therefore showing that they have less difficulties

deciphering vertical notes.

Targets TVT-Regression and ROIs TVT-Regression also achieved marginal significance in direction. This might be an indication that vertical notes are easier to read and interpreters can quickly access the information without looking backward to old information. Even though TVT-Regression only achieved marginal significance, yet it further illustrates that vertically written notes may just be a better aid for interpreters.

4.2.4 Mean Saccade Length

During reading, shorter saccade length may represent reading difficulty, however, shorter saccade length may also mean refixations on the same region. Longer saccade length may be the result of high skipping rate, revealing that the information was processed during the preview stage, and therefore no fixations landed on the region.

For Global Mean Saccade Length, statistical analysis shows that direction is a significant factor affecting the average saccade length. Mean Saccade Length is shorter in vertical notes. One possible cause for shorter saccade length may be that the distance between lines of notes are relatively shorter than the distance between words written next to each other. Another possible explanation for shorter saccade length in vertical notes is that the ideas are grouped closer together; therefore the subject can move onto the next piece of information more quickly.

Statistical analysis of ROIs Mean Saccade Length also shows significance in direction. Again, this may be the result of the two aforementioned causes. As for Targets Mean Saccade Length, both direction and language are significant factors. Saccade length is longer in horizontal notes and in source language notes. The Targets data only includes the fixations on target ROI's; therefore, with longer saccade length in source language notes, it means that saccades in or out of the target ROI are longer. One possible cause for this is that the subject's eye needed to travel further to access the information. Combined with higher Regression Rate, it can be said that the subject returned from later parts of the notes to reprocess previous target ROI's more often, and that his or her eyes travelled a longer distance in order to do so.

4.2.5 ROIs RRT

RRT is the time the subject spent rereading the notes after the first pass. Higher

RRT means that the subject needed to always look backward, reflecting that the notes caused more difficulties. Statistical analysis of ROIs RRT shows significance in direction. Again, horizontal notes require longer RRT. This shows that the subject's eye moves back and forth more often when reading horizontal notes than when reading vertical notes. Also, as the subject spends more time reading back, it means that he or she is not receiving new information; for an interpreter, it means that he or she needs to look back and process older information, and that the speech production may be affected.

Therefore, the findings of the study indicate that the common practices of vertical notes and target language notes do serve as ideal aids for interpreters during CI. The eye tracking measurements show that direction and language are both significant factors affecting fixation durations and probability of regression.

5. General Discussion

The present study attempts to find empirical evidences to support the common practices of verticality and the use of target language in CI note-taking. The study examines the different formats of notes through eye tracking measurements. The eye tracking indicators achieving significance statistically—TVT, MSL, Regression Rate...etc—show that the cognitive loads experienced by the interpreter during note deciphering are less in vertical and target language notes. Therefore, in theory, the interpreter has more energy to focus on recalling information stored in short-term memory and monitoring their speech (implementation of speech plan).

5.1 The Guideline of Verticality for CI Note-Taking

Through training, note-taking skills can be enhanced (Lee, 2000). Students can still develop their own system, however, for beginners, it is most effective if instructors can provide them an easy and simple guideline. Now with empirical evidence supporting the validity of verticalization, students can build their own system on top of this proven foundation. From the interview results, it is also obvious that student interpreters find vertical notes easier to decipher, and student interpreters are also, to different extents, practicing this recommendation by Rozan.

5.2 The Use of Target Language

Unlike verticality, the use of target language is the topic of many debates.

Supporters of using target language for note taking believe that it allows the interpreter to depart from the surface of the word, and makes them grasp the essence of the main message underneath the word. By taking notes in target language, the interpreters are forced to process the idea prior to have it written down. Therefore by the time for interpreters to render the interpretation, it is time saving and facilitates production in the target language (Dai and Xu, 2007).

On the other hand, those who are against using target language for note taking believe that it adds to the cognitive load during the listening and comprehending stage. Interview results reveal a trend consistent to the observations of Seleskovich, Kirchhoff and Andres, that there is a mixture of source and target language. According to the subjects, they simple chose the easier thing to write down in order to save time and effort.

Dam (2004) mentioned that the governing factor for the choice of language is mainly the status of the language in the interpreters' language combination. However, the tasks in Dam's study are consecutive interpretation from Danish to Spanish and from Spanish to Danish. In the current study, the language combination involved is Chinese and English. Chinese is fundamentally a different language system compared to English, French, Spanish, or even Danish. The Chinese characters are unlike any other written language in the world, and therefore may be a major factor affecting the choice of language for interpreters' notes. As mentioned by the subjects, that they find it hard to write Chinese characters at times, and they prefer writing English words simply because it is more efficient during note-taking.

The results obtained from the eye tracking method, on the other hand, deals with the production stage of CI. The results of statistical analysis show that by writing in target language, it reduces the effort the interpreter needs to decipher the notes. The words written in target language allow the interpreters to better preview the information, and therefore facilitate speech production better.

Therefore, even though using target language may reduce cognitive load during the production stage, it is undetermined, at least this experiment did not address the issue, that if it will cause greater cognitive load during the listening and comprehension, and information retention stages of CI note taking.

5.3 Implications to CI Training

Verticality and shift (or indention), or diagonal notes, or any other name that the system can be called, emphasizes the organization of ideas in a logical way, which gives way to the links between the ideas and messages that are vital for interpreters to render accurate interpretations. Empirical evidences show that vertical notes are in fact more efficient and effective during speech production, but training institutions should really focus on training students on how to group ideas, grasp ideas rather than writing down anything that comes into their ears, and listen and comprehend the information before they write it down.

Notes, as important as it may be, are after all, an aid. Complete notes do not necessary lead to quality interpretation. Therefore, students should learn how to process what they hear, grasp the important elements of the information, such as logical links, the main ideas, the essence of the message, and write them down vertically.

On the other hand, using target language does save time during speech production, however, if the students struggle to convert the words into target language during note taking, they will also fail to listen simultaneously to the speech. Therefore, students should be reminded that target language could be an effective technique, but only when they have the capacity to do so during the first two stages of consecutive interpretation.

6. Conclusion

The present study is one of the pioneering studies that investigated the common practices of CI note taking by adopting the eye tracking method. The eye tracking method is proven to be an effective technique in observing and analyzing moment-to-moment cognitive processes during consecutive interpretation. The results show that the conventions in CI note taking—verticality and the use of target language—are in fact valid recommendations not just proven by years of experience but also by empirical evidences.

Although the present study is only a beginning, yet it opens new windows for interpretation researchers in the area of consecutive interpretation, and CI note taking. Researchers in the field of cognitive psychology have already ventured into the field

of interpretation and conducted some studies regarding interpretation. However, it is vital for researchers to design interesting experiments to take full advantage of the eye tracking method. Therefore, researchers in the field of interpretation studies are strongly encouraged to step out of their comfort zone, and adopt the eye tracking method to explore new possibilities in the field of interpretation studies.

The results of this study, hopefully, can help shed light on CI note-taking training. It is hoped that students will no longer need to waste time in figuring out a better way to note, but rather are provided with simple guidelines as foundations on which they can finally develop a personal system that works for them. After all, what really counts in interpretation is the final speech production; perfect notes mean nothing if the rendered interpretation is of poor quality. Notes are, albeit an important and vital one, merely a crutch that helps overcome memory's shortcomings.

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利用專門可比語料庫結合機器翻譯 自動提取雙語對譯 N 連詞：以合約文類為例

陳碧珠

摘要

在筆譯工作中，合約翻譯屬於高度專門的領域，合格譯者供不應求。合約文體迥異於一般文件，但同時又具有制式重複的特徵，極適合運用翻譯記憶系統（Translation Memory，簡稱 TM）。近年來 TM 系統在臺灣筆譯市場上的應用日益普遍，其原理是將既有的翻譯建立為雙語平行資料庫(parallel corpus，通常為逐句對齊)，從中比對找出重複或近似的文句，而將譯文「回收利用」。因此 TM 系統須有適當的雙語資料庫，才能發揮效益，但這正是合約翻譯運用 TM 系統的限制所在，雙語對譯的合約語料取得困難，而人工翻譯所累積的翻譯資料庫，一方面費時費力，另一方面還有譯文品質的疑慮。解決之道可以從不同語言的單語專門語料庫著手，亦即可比語料庫(comparable corpora)；專門領域的可比語料庫彼此雖無對譯關係，但所涵蓋的領域概念、術語及慣用表達，仍有許多交集且互為翻譯。本研究目的在於探討一個可行的方法，從中文與英文合約可比語料庫提取對譯的 N 連詞(N-Grams)。

本論文之研究方法是利用統計式機器翻譯與字串相似度比對技術，自動擷取中、英合約當中互為翻譯的詞串。首先建置中文與英文合約可比語料庫，並以語料檢索工具提取核心主題詞，據以建立 N 連詞；其次利用 Google 譯者工具包，產生中文與英文 N 連詞的機器譯文。最後，借用 TM 系統的相似度比對功能，以英文 N 連詞與「中文 N 連詞機器英譯」進行字串相似度比對，兩者若完全相同或高度相符，即表示該英文 N 連詞與對應的中文 N 連詞極可能互為翻譯。最後所得到的中英對譯 N 連詞經由專家評估，發現高度相符的 2 連詞至 8 連詞，對應正確的比率可達到 80% 以上。這些中英對譯的 N 連詞，可以直接匯入 TM 工具中做為術語表，或藉由 N 連詞檢索全句，找出合約譯文的適當句型。

關鍵詞：可比語料庫、機器翻譯、翻譯記憶系統、合約翻譯、N 連詞

陳碧珠，萬象翻譯公司總編審。

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Using comparable specialized corpora with machine translation for extracting N-Gram translation equivalents: A case study of Chinese and English contracts

Bijou Chen

Abstract

This study is motivated by the analysis of contract translation. Business contracts belong to a highly specialized genre, characterized by specific vocabularies, domain terms, formulaic expressions and repetitive standard clauses. These features make contract texts an ideal candidate for applying a Translation Memory System, or TM, which searches and retrieves previous translations from a database of source texts and their equivalents in the target language, usually aligned at the sentence level. A TM system thus requires a large database of past translations (a parallel corpus) in order to get the best result. And there lies the difficulty in using a TM system for English-Chinese contract translation, as parallel corpora of English and Chinese contracts are scarcely available.

To overcome the limitations of parallel corpora, this study turns to comparable corpora, i.e. monolingual corpora of similar design in two or more languages. Comparable corpora of a specialized domain, though not direct translations of each other, contain domain terms, concepts and fixed expressions that are mutual translations. This study aims to explore a simple yet effective method for extracting such translation equivalents from a comparable corpus of Chinese and English contracts.

The proposed method involves statistical machine translation and string similarity comparison. First, a comparable corpus of Chinese and English contracts is built from texts mined from the Internet. Keyword and key keyword lists are built with concordancer tools, on which Chinese and English N-grams are then built. Third, the N-grams are machine-translated into English and Chinese respectively with Google

Translator Toolkit. And finally, the English N-grams are compared with the Google-translated English, using the built-in similarity comparison function of a TM system. English N-grams that exceed a pre-defined match value are automatically mapped to the corresponding Chinese N-grams to establish a list of English-Chinese N-gram pairs. These N-gram pairs are evaluated by experienced contract translators, and the results show that 2-word to 8-word N-grams with a match value of 95% and above have an accuracy rate of 83%. These correctly mapped N-gram pairs can be imported to a TM system as a translation resource, or they can be used as concordance search keywords to retrieve examples of adequate sentence patterns to aid the translator.

Keywords: comparable corpora, machine translation, translation memory system, contract translation, N-grams

壹、前言

資訊科技的進步加上電腦產品日益普及，改革了今日譯者的工作模式，翻譯使用的工具從過去的紙筆、參考工具書，進步到文書處理軟體與電子化參考資源，現在更新增了各式各樣的電腦輔助翻譯工具。善用工具能夠提高翻譯品質與效率，不懂工具則可能連接件的機會都會流失。筆譯職場工作模式的改變，進一步也影響了翻譯的教學與研究，在文學翻譯之外，實用文類漸受重視，有關電腦輔助翻譯工具的應用、其優缺點的探討，亦納入翻譯課程，語料庫翻譯研究及專門文體的研究論文，更快速增加。

在電腦輔助翻譯工具當中，效益最為直接的是翻譯記憶系統（Translation Memory，簡稱 TM）。其原理是將翻譯過的文件儲存為雙語對譯的資料庫，通常以句子為單位，在翻譯新的文件時，TM 工具會自動搜尋資料庫，只要比對得到完全相同或近似的句子，就會自動帶出該句的對應譯文。因此，譯者可以加快翻譯速度，維持一致的翻譯內容；客戶與業者則可節省時間和成本，相同內容不需要重複翻譯。

TM 系統並不能無中生有自動產生譯文，而是將既有的翻譯回收利用，所以文件的內容重複愈多，TM 的效益愈明顯；其次，資料庫中累積的翻譯句對要夠多、譯文品質良好，工具才能夠檢索出有用的參考譯文。但愈是專門的領域，這個條件愈難以達到，職場上使用的中英雙語 TM 資料庫，主要來自人工翻譯，其譯文品質可以維持一定水準，但限制在於費時費力，又需要投入大量的資源（包括人力與經費），難以在短時間內建立足夠規模的資料庫。

在專門技術文件的翻譯當中，合約翻譯可說是最困難的領域之一，合格的譯者供不應求。合約文體特殊，術語眾多、好用長句、句構複雜，不論中文或英文合約，其書寫風格都迥異於其他文類。但另一方面，合約條款多有重複，表達句式相對固定，非常適合利用 TM 系統做為輔助工具。實務上的困難在於雙語對譯的合約語料有限，取得不易。

除了 TM 系統之外，近年來語料庫工具在國外的翻譯界也漸受重視，不過在台灣的筆譯職場還不普遍。我們日常使用的網際網路，可以視為當今規模最大、語種最多、範圍形式最廣的語料庫，但語料庫語言學所定義的語料庫，是指依特定條件而抽樣選取的語言資料，具有特定的代表性，並且能夠利用語料庫檢索工具查詢不同層級的語言資訊。經過加工整理的語料庫，就語種而言可以分為單語、雙語或多語，就內容題材而言可分為通用（general purpose）語料庫或專門

(specialized 或 special purpose) 語料庫，就形式而言可分為書面、口語或影音多模態語料庫，就語料年代而言可分為貫時或共時。

涉及兩種語言的雙語語料庫，通常又有平行語料庫 (parallel corpus) 及可比語料庫 (comparable corpus) 之分。本研究採用 Zanettine (1998)、McEnery 與 Xiao (2005) 的定義，將雙語對譯的「原文+譯文」語料庫稱為平行語料庫；相對的，可比語料庫則是指兩種語言各依相同的取樣條件所建置的語料庫，兩者的文類、主題領域、年代、規模、溝通功能等條件相當，但彼此並非互為翻譯的關係。相較於平行語料庫，雙語可比語料庫的建置要容易得多，規劃適當的取樣條件之後，即可迅速蒐集大量的可比文本。可比語料庫包含豐富的領域知識、術語、搭配詞、語用、句型等資訊，而且原則上沒有文字品質方面的疑慮，兩個語料庫都不是翻譯的文字，不會出現所謂的誤譯或翻譯腔。

有鑑於平行對譯語料並非隨處可得，尤其是資源較少的語種或高度專門的領域，而單語的語料則為數眾多，因此近十年來學者開始轉向不同語言的可比語料庫，探討如何從中自動提取互為翻譯的術語、片語、對譯句或近義句。這方面的研究絕大多數來自計算語言學或資訊科技領域，須具備計算語言學的專業能力，建立演算模型、編寫電腦程式，通常也需要龐大的軟硬體資源，因此相關研究多半由機構中的研究團隊合作進行。

對於中小型翻譯業者和自由譯者，以及翻譯課程的教師和學生，要等待專業工具上市滿足翻譯上的需求，往往緩不濟急；若要自行開發工具，通常又欠缺電腦資工的專業能力。因此本研究從合約領域的雙語可比語料庫著手，探討一個相對簡單可行的方法，以擷取可比語料庫中所包含的對譯資料，做為合約翻譯的參考資源。

貳、文獻回顧

一、語料庫語言學

語料庫語言學是以語料庫為本的語言學研究，其研究內容為大量甚至海量的語言樣本，研究工具則是各種檢索軟體程式。利用語料庫檢索工具所做的量化分析，基本的統計包括詞表 (wordlist)、詞頻 (frequencies)、形符 (token) 總數、類符 (type) 總數、相異詞比率 (type/token ratio, 簡稱 TTR)、句數、平均句長等。關於形符的定義，英文每個單字皆視為一個形符，縮寫字如 don't 則視為兩個形符，需要斷開為 do 及 n't，稱為詞形還原。中文的形符單位則是「單詞」而非個別的方塊字，必須經過「分詞」，否則檢索工具便無法處理，若分詞不當也

會影響後續的分析統計與解讀。與形符相對的類符指的是出現多少個不同的形符，相同的形符不重複計算。類符數目反映文本真正使用的詞彙量，所有的類符彙整後即為詞表，依各類符出現的頻數可以看到高頻詞、中頻詞或低頻詞的分佈情形，類符與形符總數相除，即為TTR，WordSmith Tools (Scott, 2012) 進一步計算標準化相異詞比率 (STTR)，便於比較不同文本或語料庫的詞彙密度。專門領域的語料庫還可統計出主題詞 (keywords) 與關鍵主題詞 (key keywords)，亦即利用統計檢定方法 (例如對數似然率[log likelihood]或卡方檢定[x²])，找出語料庫中明顯異於一般通用語言或文本的用詞特徵，包括出現頻率超高及顯著少用的詞彙。

除此之外，愈來愈多的研究指出，最小的意義單位其實不在單詞，而是多詞結構 (multi-word expressions/units)¹。對於重複出現的多詞結構，不同學者提出的術語繁多，具體定義也不盡相同。根據梁茂成等人 (2010, p. 84) 所整理的資料，學界常見的用語包括chunk /詞塊 (Sinclair, 1991)、lexical phrase /詞彙短語 (Nattinger與DeCarrico, 1992)、phraseology /短語結構 (Renouf, 1992; Stubbs, 2002)、lexical bundle /詞束 (Biber等人, 1999)、formulaic sequence /制式詞串 (Wray, 2000)、cluster /詞簇 (Scott, 2008) 等，計算語言學領域則稱為N元組或N連詞 (N-grams)。

語料庫依其語種、內容主題、形式、年代、是否標注等考量因素，可有各種不同的分類。其中平行語料庫和可比語料庫兩個術語，不同學者各有不同的用法，需要明確界定。除了Zanettin (1998)、McEnery與Xiao (2005) 的定義之外，Lee (2010, pp.119-120) 援用Aston的觀點，將可比語料庫定義為兩種 (以上) 語言的原文語料庫，且其領域內容、文類、出版時間等條件相當；單向平行語料庫是指原文語料庫加上其譯文語料庫，有時也稱為翻譯語料庫，而且通常原文與譯文逐句或逐段對齊；雙向平行語料庫則是雙語可比語料庫加上兩個語言的譯文語料庫。可比語料庫和平行語料庫的關係，如表2-1所示；至於計算語言學界對於平行語料庫及可比語料庫，普遍也採用相同的定義。

表2-1 可比語料庫及平行語料庫定義

	A 語言		B 語言
可比語料庫 (多語)	專門語料庫	≈	相同設計之專門語料庫
單向平行語料庫	專門語料庫	⇒	語料庫 A 之翻譯文本
雙向平行語料庫	A1: 專門語料庫	≈	B1: 與 A1 相同設計之專門語料庫
	A2: B1 之翻譯文本	↔	B2: A1 之翻譯文本

資料來源：引用翻譯自Lee (2010)。

¹ 例如參見 Stubbs(2002)、Sinclair (2005b)、Fitzpatrick (2006)、Granger & Meunier (2008)、Stubbs (2009)、Hunston (2011)。

雙語語料庫和翻譯的密切關聯不言可喻，平行語料庫可以進行翻譯研究，探討翻譯策略、比較兩種語言的異同，或做為翻譯的參考資源，檢索既有的譯句或術語的對應譯文。Baker (1993, 1995)、Laviosa (1995)、Xiao (2010) 等學者則透過翻譯文本語料庫與非翻譯文本的比較，探討翻譯文體的普遍共性、與母語創作文體的差異，或是個別譯者、文類的翻譯文體特徵。

在計算語言學界，從雙語語料庫中提取對譯的詞彙、片語或句子，一直是學者研究的焦點，研究目的則是應用於機器翻譯系統，以提升機器翻譯的效能。雙語對應技術長期以來依賴語言結構分析及人工建置的翻譯模組，但整體效果始終沒有太大突破；1990年代發展方向轉為從龐大的雙語語句對應資料庫中，搜尋與待譯句相關聯的雙語翻譯句對，再從中以自動或半自動的方式得到翻譯知識與規則（參見林語君、高照明, 2009, pp. 168-169）。目前最新的研究趨勢又從平行語料庫再轉向可比語料庫，例如語言資源與評估（LREC）國際研討會自2008年開始，每年舉辦「建置與使用可比語料庫工作坊」並出版論文集，第一屆工作坊論文集的序言指出：

Research in comparable corpora is motivated by the scarcity of parallel corpora. Parallel corpora are a key resource to mine translations for statistical machine translation or for building or extending bilingual lexicons and terminologies. However, beyond a few language pairs such as English-French or English-Chinese and a few contexts such as parliamentary debates or legal texts, they remain a scarce resource.... A more fundamental limitation is that translated texts, whatever the skills of translators, are generally influenced by the very translation process and by the language of source texts.

可比語料庫的研究動機來自平行語料庫之不足。平行語料庫對於擷取對譯內容用於統計式機器翻譯，或建立雙語詞典及術語，都是關鍵的資源。但除了部分語種如英/法或英/中，以及少數文本類型如議會議事錄或法律文本，平行語料庫並不常見。……一個更根本的限制是，翻譯的文本無論譯者技巧再好，仍難免受翻譯過程及原文的影響。（Zweigenbaum, Gaussier, & Fung, 2008, p. v, 筆者自譯）

Sharoff 等人（2006）亦認為：

[I]t is possible to use comparable corpora to find linguistic constructions that are used for similar purposes in source language (SL) and target language (TL). Even if the equivalence between constructions in comparable corpora can not be complete, there is sufficient similarity between linguistic resources available in the two languages....

利用可比語料庫，應可找出源語和譯語中用於相同目的的語言結構，即使兩者不是完全對應，仍然可以呈現兩個語言之間許多相似的語言資源……。（筆者自譯）

應用可比語料庫以擷取對譯內容，困難在於兩個語言之間沒有明顯的「橋樑」（Sharoff, Babych, & Hartley, 2009），不像平行語料庫能夠在句對應的基礎上，進一步擷取更小單位的對譯內容。因此，相較於平行語料庫，使用可比語料庫擷取對譯資訊之前，必須先確立兩個語料庫的「可比性」，其中的文本內容是否真的相關且有可能存在互為翻譯的句對或詞串，以提高後續資訊擷取的成效。例如Su與Babych（2012）提出以詞彙對應、基於主題詞、基於機器翻譯等三個方式，以

量化計算文本的可比性。

不論是文本對應、句群對應、單句對應、詞串對應或術語對應，擷取雙語對譯內容的技術皆不外乎三個主要途徑：基於語言學規則、基於統計分析，以及併用兩者的混合式方法（參見Loginova et al., 2012; Paziienza, Pennacchiotti, & Zanzotto, 2005; Thurmair, 2003; Zhang, Iria, Brewster, & Ciravegna, 2008; 季培培、鄒小燕、岑咏華, 2010; 康小麗、章成志、王惠臨, 2009）。基於語言學規則的方法，主要是利用既有的術語詞典，並歸納術語或詞串特定的語言結構，以搜尋比對可能的對譯詞，例如術語最常見的詞類結構為「名詞+名詞」、「形容詞+名詞」。這個方法的優點是「實現比較簡單，在語言學知識與文本匹配的情況下準確率高，尤其是對低頻術語的抽取效果較好」，但編寫語言規則費時費力且難以窮盡，同時也取決於具體的語種、主題領域，不容易移植應用（季培培、鄒小燕、岑咏華, 2010）。

季培培等人將統計式分析分為兩類，第一類是基於統計量度的方法，依據詞彙頻率、分佈等數據，計算「單元性」(unithood, 亦即詞串能否結合形成結構穩定的詞彙單元，而不僅是搭配詞)以及「術語性」(termhood, 亦即詞彙單元與特定領域概念的相關程度)。第二類是基於機器學習的方法，主要步驟為：建構訓練語料，根據某種演算法對訓練語料學習生成模型，以測試語料進行擷詞實驗，最後評估該演算法的成效。這樣的方式不需要語言學知識或專家領域知識，但限制在於訓練語料的建構成本，以及訓練語料與測試語料的可比性。

目前的趨勢是合併使用語言學規則及統計法，但如Zhang等人(2008)所指出，儘管學者提出了形形色色的術語擷取技術，卻沒有任何一個方法能解決所有的問題，尤其是單詞術語和低頻術語容易因設定的統計閾值而被忽略；另外，各研究的測試語料領域及規模互異，評估方法及範圍也不相同，因此擷詞技術的成效難以直接比較。

二、機器翻譯

如前所述，計算語言學界對於平行語料庫的研究，一大目的是應用於機器翻譯。雖然機器譯文的品質至今仍無法取代人工翻譯，但機器翻譯最大的優勢在於速度與數量，在全球化的今天，翻譯需求有增無減，確實難以依賴人工翻譯滿足所有的翻譯需求。

Hutchins (2010) 將機器翻譯的發展分為五個階段：萌芽草創(1933-1956)、過度樂觀至期望落空(1956-1966)、低潮期(1966-1976)、復甦期(1976-1989)、

當前發展（1989年迄今）。在1956年到1966年的樂觀期，機器翻譯是根據雙語詞典及語言學規則對原文「解碼」，將分析結果轉換為譯文的對應詞彙及語法結構，最後重新「編碼」組合成譯文，稱為基於規則的機器翻譯（rule-based machine translation; RBMT）。1980年代末IBM發佈以統計方法進行機器翻譯（statistical machine translation; SMT）的實驗結果，日本則有研究團隊開始使用語料庫的翻譯例句，亦即今日所謂基於實例的機器翻譯（example-based machine translation; EBMT）。統計式機器翻譯與基於實例的機器翻譯，都借助語料庫大量的語料，馮志偉（2010）指出兩者的區別如下：

- （一）在基於統計的機器翻譯方法中，知識的表示是統計數據，而不是語料庫本身；翻譯知識的獲取是在翻譯之前完成，翻譯的過程中不再使用語料庫。
- （二）在基於實例的機器翻譯方法中，雙語語料庫本身就是翻譯知識的一種表現形式（不一定是唯一的），翻譯知識的獲取在翻譯之前沒有全部完成，在翻譯的過程中還要查詢並利用語料庫。（馮志偉, 2010）

統計式機器翻譯除了需要規模夠大的實例（雙語句對）資料庫，做到自動對齊，另外還要建立有效的實例匹配檢索機制和相似度計算準則，以找出有效的相似句或詞串。計算相似度包括從字詞、詞串、句子、段落、文本到文本集等不同層級的比對，Islam與Inkpen（2008）將相似度演算法分為四類：基於字詞共現/空間向量的文件模型、基於語料庫統計、混合式方法，以及基於描述特徵的方法。

兩個詞（亦即字串）是否相似，通常採用最短編輯距離（minimum edit distance）演算法計算字串距離（string distance），亦即以插入、刪除、取代等編輯動作更改一個字串，所需要的最少編輯次數。另一個常見方法是計算最長共同子序列（longest common subsequence），亦即尋找兩個字串中相同的最長子序列。計算句子或段落的相似度，常用的公式是Dice係數 $= 2c / (a+b)$ ，其中a、b各為兩個句子的字串長度，c為兩句共有的字串長度。另外也可能考量詞與詞之間的互現訊息（mutual information; MI）。文本的相似度則常用向量空間模型來計算，亦即以文件中包含的詞彙所組成的向量空間來表示文件集，以用於比較（曾守正等, 2006）。

基於向量空間模型的方法，是將句子、段落看成詞的線性序列，語句相似度衡量機制只能利用句中的詞頻、詞性等表層資訊。學者因此提出其他方法，例如進行語句與語義的深層結構分析，基於語義的依存關係以計算相似度（例如Islam & Inkpen, 2008; Maynard & Ananiadou, 1999; 李彬、劉挺、秦兵、李生, 2003）。林語君、高照明（2009, pp. 186-187）結合統計與語言訊息，提出混合式雙語句對應演算法，句子的相似度計算參數包括雙語詞典翻譯詞及停用詞表，句中重要標點符號序列，以共同數字詞、時間詞、原文詞為對應錨。

一般使用者最為熟悉的機器翻譯工具，應屬2005年Google推出的線上自動翻譯服務，2009年又推出譯者工具包，結合了自訂TM與詞彙表的功能。關於Google翻譯及譯者工具包的翻譯品質，學者與業界的研究發現確實有其效益（Garcia, 2010; Ramos, 2010），產出的譯文雖不能直接做為發佈之用，但經過人工編輯可達文件品質，並縮短整體翻譯時間，節省成本。

三、合約文體與合約翻譯

不論英文或中文合約，獨立的文體研究極其有限，絕大部分是包含在法律文體之下。有關於法律文本的分類，Sarcevic依據文本的功能，將法律文本區分為「規範性」與「描述性」兩大類，以及兼具規範與描述的混合類，而法律、法規、條例、公約、合約即屬於「規範」功能為主的法律文書，法律乃是社會整體的行為準則或規範，合約則是針對簽約當事人的行為規範（1997, pp. 10-11）。宋雷從文體學的角度，將法律文本區分為「規範性法律語言」與「法學著述」，其中規範性法律語言同樣包含立法、司法文本，以及公民在日常事務和商事活動中所訂立的各種合約（2010, p. 14）。

至於法律語言之翻譯，學界與實務界也多所探討，例如Morris（1995）、Sarcevic（1997）、Varo與Hughes（2002）、陸文慧（2002）、孫萬彪（2002）、王道庚（2006）、Cao（2007）、盧敏（2008）、宋雷（2010）等，著重於比較雙語甚至多語的法律文本之間有何語言特徵、異同，以及翻譯的策略技巧與困難所在。王道庚的《法律翻譯—理論與實踐》雖以法律翻譯為題，但所列舉的實務範例，絕大多數皆為合約條款，孫萬彪的《法律翻譯教程》更完全以合約條款為例。從這些論述中可以看到，「立法司法語言」與「合約語言」具有共通的特點，學界與專業人士一般皆將之歸類為同一文體。

關於合約的語篇結構，劉承愚《如何閱讀英文合約》一書指出：

一份完整的英文合約通常可以分為標題、序文、主文條款及結尾辭四大部分。「標題」開宗明義地顯示合約的性質；「序文」是最簡單的說明，大略介紹合約訂立的背景；「主文條款」裡包括依各種合約性質的不同而約定的特殊條款，以及不論何種類型合約都會出現的一般條款；最後「結尾辭」則是當事人簽名前的一段文字，為整份合約畫下句點。（2007, p. 30）

標題、序文、主文條款及結尾辭，依據Biber有關語域、文類、風格的討論（2009, pp. 53-55），可以視為合約的「文類標記」，少見於其他文體。尤其是，合約撰寫並不講求「創意」，正如Triebel（2009）所指出：

Common law lawyers seldom draft a contract from scratch, but avail themselves of form books, standard forms, precedents and model contracts. The common law world is drowning in such

precedents.

普通法律師草擬合約絕少完全從零開始，而是參照各種合約格式書籍、標準範本、前例及合約範例。在普通法的世界中，這樣的前例多不勝數。(2009, p. 152, 筆者自譯)

中文合約的結構也大同小異，具有相同的文類標記。更由於政府積極推廣定型化契約，因此在一般條款（或稱標準條款）部分，直接援用範本的情況更加普遍。在網際網路上搜尋中文合約文件，常可見到許多條款一字不差完全相同。這些特徵最適合使用TM工具，可以有效減少翻譯工作量，提高效率與譯文品質。

在德國翻譯功能學派的文本分類中(參見Nord, 1997)²，合約屬於內容導向的訊息類型文本，Snell-Hornby (1988) 認為：

the more “specialized” or “pragmatic” the source text, the more closely it is bound to a single, specific situation, and the easier it is to define the function of its translation; the more specific the situation and the more clearly defined the function, the more target-oriented the translation is likely to be;

原文文本愈是「專門」或「實用」，就愈靠近單一特定的語境，也愈容易界定譯文的功能；語境愈是特定、功能愈是明確，譯文也就愈趨向於譯語導向。(1988, p. 114, 筆者自譯)

Nord (1997) 的翻譯目的論與Snell-Hornby主張相仿，同樣認為訊息類文本在翻譯時要求內容正確完整，風格則應符合譯語的語言及文化成規。朱定初(2001, 2004) 引述法國比較法學者Constantinnesco所謂法律翻譯是一種法律轉換和語言轉換同時進行的雙重工作，提出了「雙重功能對等原則」，一是語言傳達功能之對等，二是法律功能之對等，「法律譯者的首要任務是運用讀者可接受的語言盡可能精確重現原文所表達的意思，使譯文在法律上具有與原文接近對等的效果。」(2004, p. 62) 此處的讀者，朱定初特別指明並非一般大眾，而是法律專業人士，因此對於「通順」的要求標準不同於一般讀者。Sarcevic (1997, pp. 57-61) 也區分法律譯文的直接接受者與間接受者，認為合約當事人只是合約文本的間接受者，真正撰寫、詮釋、使用合約的其實是律師及訴訟時的司法人員。宋雷則提出法律翻譯必須做到「法人法語」，或如荷蘭比較法學家de Groot所謂「確保將一種法律語言翻譯成另一種法律語言，而不是將一種法律語言翻譯成另一種語言。」(引自宋雷2010, p. 23)

在翻譯實務中，從事合約翻譯的譯者多數並非律師，「合約語言」也不是一般人能夠下筆成章的日常語言。在這個方面，電腦輔助翻譯工具可以發揮很好的效益，例如 Kubler與Aston (2010) 即認為，查詢資料可以借助字典、百科全書、

² Reiss 依據德國心理學家 Bühler 的語言符號功能論，從語言功能將文本分為三種類型：內容導向 (*inhaltsbetont*)、形式導向 (*formbetont*)、訴求導向 (*appellbetont*)，Nord 在 *Translating as a Purposeful Activity* 一書中對於這三個文本類型的介紹則是使用 *informative*, *expressive*, *operative* 三個英文詞彙。

網路搜尋甚至請教專家，但語料庫的優勢在於：

[T]hey can provide data which is not pre-digested but comes in the shape of samples of actual text.... This is particularly true for specialised translations, where the translator may need to get acquainted with not only the terms and concepts of the domain, but also the rhetorical conventions of the genre.

提供未經事先取捨的資料，而且呈現真實的文本……。這一點對專門翻譯尤其重要，因為譯者不但要熟悉領域術語、概念，往往也需要掌握文類的修辭風格。(2010, p.503, 筆者自譯)

可惜的是歐美地區雖有英文合約語料庫，但目前尚未見到可以公開取得中文合約語料庫或中英對譯合約TM或語料庫，因此本研究的主要目的有三：

- (一) 建置適當的中文與英文合約可比語料庫。
- (二) 分析比較中文與英文合約的詞彙特徵。
- (三) 利用目前已經成熟且容易取得的語料庫工具和機器翻譯技術，自動擷取中英文合約可比語料庫當中互為翻譯的N連詞。

參、研究方法

本研究著重於中文與英文合約的詞彙特徵，比較兩者之間的異同與對應關係，進而從合約可比語料庫當中自動提取互為翻譯的 N 連詞。提取方法是利用機器翻譯和翻譯記憶系統的自動比對功能，這些技術已有現成的開源或商用軟體可以直接應用，並不需要另外撰寫程式。

研究架構如圖 3-1 所示，分為語料庫建置分析和自動提取對譯 N 連詞兩個部分。第一部分採取語料庫語言學的途徑，建置中文與英文合約專門可比語料庫，其次利用語料庫檢索工具，探討中英合約的詞彙特徵，並與參照語料庫相比較，提取合約文類的主題詞和關鍵主題詞，據此建立核心 N 連詞。第二部分利用機器翻譯結合字串相似度比對技術，自動提取雙語對譯的 N 連詞組，最後評估對譯詞組的準確率。研究流程分為七個主要步驟：

- 一、首先以網際網路為語料來源，規劃相同的合約主題及取樣條件，以建置中文及英文合約可比語料庫。
- 二、使用語料庫檢索工具進行語料庫量化分析，自動提取詞表、主題詞表及關鍵主題詞表。

- 三、考量詞彙頻數、文本頻數、主題詞顯著值、參照語料庫高頻詞等條件，手動篩選詞表，以決定核心主題詞。
- 四、根據核心主題詞，使用語料庫檢索工具自動建立中文及英文合約 N 連詞。
- 五、中、英文兩組 N 連詞，利用 Google 統計式機器翻譯產生平行語料。
- 六、借用 SDLX 翻譯記憶系統的翻譯單元相似度自動比對功能，比對兩組平行 N 連詞的字串相似度，從中提取互為翻譯的內容。
- 七、由專家評估所得到的 N 連詞對譯詞組是否正確可用。

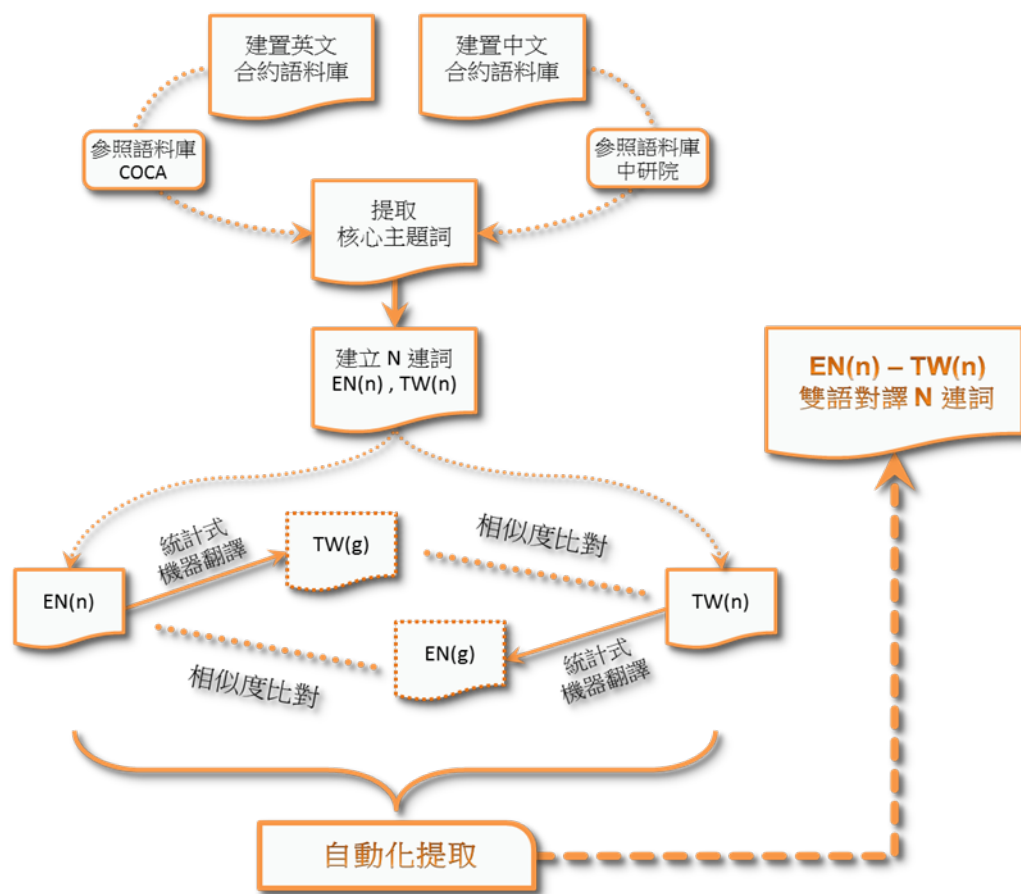


圖 3-1 研究架構

一、建置合約可比語料庫

建置語料庫所需的工具，包括語料蒐集、語料整理、語料處理三個部分。考量語料庫的代表性、平衡、規模、同質性等要求 (Sinclair, 2005a)，本研究的中英合約文本採樣條件總結如下：

表 3-1 中英合約語料庫取樣條件

	中文	英文
取樣來源	網際網路	網際網路
取樣語言	台灣正體中文合約	美國及英國之英文合約
取樣時間	1990 年迄今	1990 年迄今
主題類別	平衡分佈，共 11 類	平衡分佈，共 11 類
取樣規模	每篇 900 字以上，總計 90 萬字	每篇 600 字以上，總計 60 萬字

- (一) 文本來源：由於合約的特殊功能，涉及簽約各方重大權益及機密資料，因此語料取得比其他文類更加困難。本研究採用目前日益普遍，以網路為語料來源 (Web for Corpus) 的做法，利用搜尋引擎檢索合約文體明顯的「文類標記」，找出合約文本後再篩選下載適當的檔案，檔案格式主要包括 DOC、PDF、HTML。需要注意的是，網路上公開的合約多為依法須申報揭露的類型，容易造成特定合約類型採樣不平衡，在選用文本時需要手動分析篩選。
- (二) 語言：英文限於美國及英國合約，中文限於台灣合約。
- (三) 時間：設定為 1990 年以後之合約文件。
本研究除了學術上的分析探討之外，也希望研究結果能夠實際應用於合約翻譯與教學，發揮參考效益，因此語言及時間這兩項條件，著眼於台灣合約筆譯市場最常見的文本，並以近廿年的當代合約為主。
- (四) 合約主題類別：「合約」看似一個範圍明確的文類，但可能涵蓋的主題形形色色、篇幅長短不一，語言特徵也非完全相同。本研究主要基於「方便取樣」原則，在網路上容易搜尋到中、英文本且篇幅相當的類別優先收錄。不過網路上數量最多的本文，也反映了合約最常見的類別，依主題區分包括資訊科技、工程、金融、醫學，依功能區分包括租賃、授權、採購、聘雇、保密、合作案、商務服務，總計十一類。只不過，這些類別並無法嚴格劃分，同一份合約可能涵蓋多項功能，歸類時只能依據最主要的合約標的。另外，簽約當事人涵蓋政府、企業、機構團體、個人等。
- (五) 文本篇幅及語料庫規模：語料庫的規模並沒有固定標準，取決於研究目的，以及資源、人力、時間限制等因素。例如 SUSANNE 句法樹語料庫僅 13 萬字，Biber (1990) 亦指出，自大型語料庫中擷取 120 篇文本做為子庫，即足以反映大語料庫的語言特徵 (引述自 Semino & Short, 2004, p. 25)。本研究的合約語料庫設定為 150 萬字，中文語料在蒐集之初尚未分詞，只

有文書處理軟體所統計的「字數」；根據筆者的翻譯審稿工作經驗，中英兩種語言相同內容對譯時，字數比例平均約為 3:2，所以中文合約預計收集 90 萬字，英文約 60 萬詞。每一子類的中英文本儘可能字數、篇數相當，每篇文本為中文 900 字、英文 600 字以上。如果中英文篇數無法相當，則維持子類的總字數相當。至於文本是否全文收錄，學界並沒有定論，鑑於本研究著重在合約的標準條款，而非合約全文的語篇結構，因此省略太過詳盡的序文、特定條款及結尾部分，並未全文收錄。

二、語料庫量化分析

本研究採用檢索軟體 WordSmith Tools 6 (Scott, 2012) 及 AntConc (Anthony, 2011) 進行基本的檢索統計，包括詞表及描述統計、主題詞表及關鍵主題詞、N 連詞及搭配詞。統計主題詞所採用的參照語料庫，英文為 Corpus of Contemporary American English (Davies, 2008-，簡稱 COCA) 所提供的 70 萬字詞表，中文則使用中研院《現代漢語平衡語料庫》4.0 版 (陳克健、黃居仁, 2007)。

N 連詞通常分析兩詞至四詞結構，但在合約文類中，一些標準條款常有完全相同的敘述，或只是略做變動。本研究經過初步測試後，決定選取 N-2 至 N-8 的詞串。至於 N 連詞所需的最低頻數，學者尚無定論 (參見 Ari, 2006)。

與 N 連詞相關的另一個詞彙特徵是「搭配詞」(collocations)，亦即與檢索詞最常共同出現的搭配詞彙。軟體工具對於搭配詞的檢索，通常設定為左側或右側第一個詞至第三個詞，搭配詞之間不一定連續，這一點與 N 連詞不同。檢索軟體還可計算兩詞之間的「搭配強度」，數值愈高表示兩個詞愈傾向於在一定的語境中共同出現，常用的統計方法包括互見訊息 (mutual information)、T 值 (T-score)、Z 值 (Z-score)、對數似然率 (LL) 等。

三、機器翻譯及字串相似度比對

本研究不採複雜的計算語言學技術，而借用現有翻譯記憶系統最基本的翻譯單元比對功能，「參照 TM」則來自可比語料庫機器翻譯的版本。這樣的方式可以快速產生大量的平行語料，克服人工翻譯平行語料不足的困難。研究中使用的機器翻譯工具為 Google 譯者工具包免費線上自動翻譯服務，平行語料的自動比對則是利用 SDLX 2007 翻譯記憶系統。下圖說明以英文做為相似度比對語言的具體操作步驟。

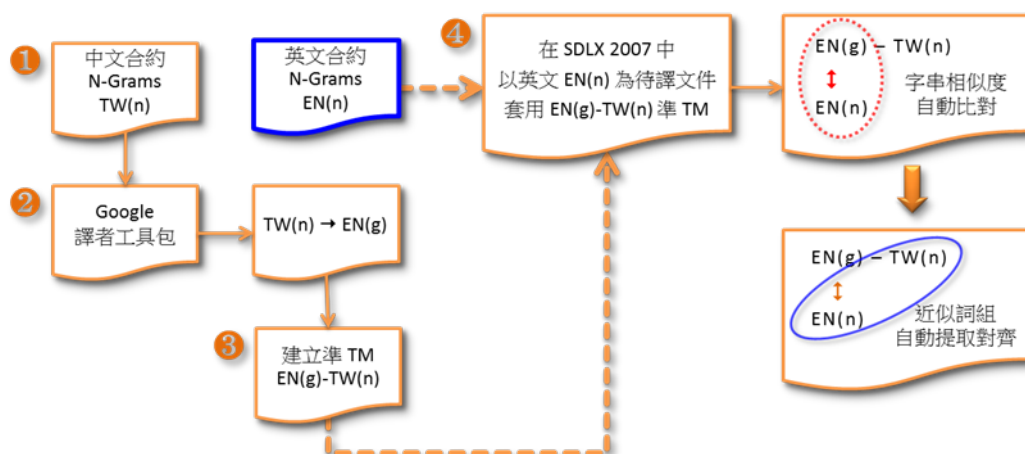


圖 3-2 合約雙語對譯 N 連詞提取步驟

- (一) 以語料庫檢索工具所建立的中文合約 N 連詞，稱為 TW (n)，英文合約 N 連詞稱為 EN (n)，分別儲存為純文字檔案。
- (二) 以英文 N 連詞 EN (n) 做為待譯的新文件，找出其對應的中文，可以視為「英譯中」。此時是以英文做為比對語言，因此須將 TW (n) 透過 Google 機器翻譯產生其英文平行語料，下載儲存為純文字檔案 EN (g)。Google 譯者工具包的使用方法，可參見其網頁說明，翻譯結果可儲存下載。
- (三) 將機器翻譯的 EN (g) 與中文 N 連詞 TW (n) 貼入到 Excel 工作表左右兩欄，另存為 tab 分隔的純文字檔案，用以匯入翻譯記憶系統，建立「機器英譯+中文原文」的 TM 檔案 EN (g) _TW (n)。
- (四) 在 SDLX 翻譯記憶系統中，以英文 N 連詞 EN (n) 做為待譯的新文件，經過軟體工具轉換格式產生 .itd 檔案。其次，開啟 TM 套用功能，以 EN (g) _TW (n) 做為參照 TM 套用到 EN (n) .itd。軟體工具會自動將待譯的新單元與參照 TM 相比對，從中搜尋相符或高度相似的內容並擷取 TM 中的對應譯文。TM 套用功能可以自訂相似度下限，達到設定值以上才會顯示比對結果。最後將比對相符的結果匯出，即成為「英文—中文」互為翻譯的 N 連詞對譯表。

至於從中文 N 連詞尋找其對譯的英文，可以視為「中譯英」。此時可將中文做為比對語言，亦即以中文 N 連詞做為待譯的新文件，與英文 N 連詞的機器中譯相比對；另外也可以反向操作，將中文 N 連詞以機器翻譯後，與英文 N 連詞相比對。初步測試的結果，發現第二個方式能夠比對出較多相符的對譯 N 連詞，因此在「中譯英」部分同樣以英文做為比對中介語言。N 連詞英譯中、中譯

英皆完成後，將配對的對譯詞組匯出至 Excel 工作表，再由專家手動評估 N 連詞對譯詞組的品質。

肆、結果與討論

根據預定的採樣條件，尤其合約類別儘可能多元平衡，以反映美國及台灣當代合約語言的普遍特徵。最後收錄的類別、篇數及字數，如表 4-1、圖 4-1、圖 4-2 所示。

表 4-1 中英文合約收錄類別、總字數及每篇平均字數

合約類別	英文			中文		
	篇數	字數	每篇平均	篇數	字數	每篇平均
資訊科技	18	69539	3863	25	91212	3648
工程	14	74344	5310	12	111295	9275
合作	12	42019	3502	13	60491	4653
服務	11	35773	3252	19	58784	3094
金融	24	127165	5299	24	157453	6561
保密	13	22231	1710	16	29230	1827
租賃	24	58695	2446	29	79433	2739
授權	22	101562	4616	40	142792	3570
採購	14	82564	5897	20	121554	6078
聘雇	9	23089	2565	15	27931	1862
醫學	6	29566	4928	16	42792	2675
總計	167	666547	3991	229	918684	4012

英文合約共計收錄 167 篇 66 萬多詞，中文合約 229 篇近 92 萬字，英文每篇平均長度大於中文，不同子類的篇幅也有極大差異，工程及融資類單篇甚至可達數萬字，而保密及聘雇合約較短，約在兩千字以內。如前所述，本研究著重在合約的標準條款，並未全部全文收錄。

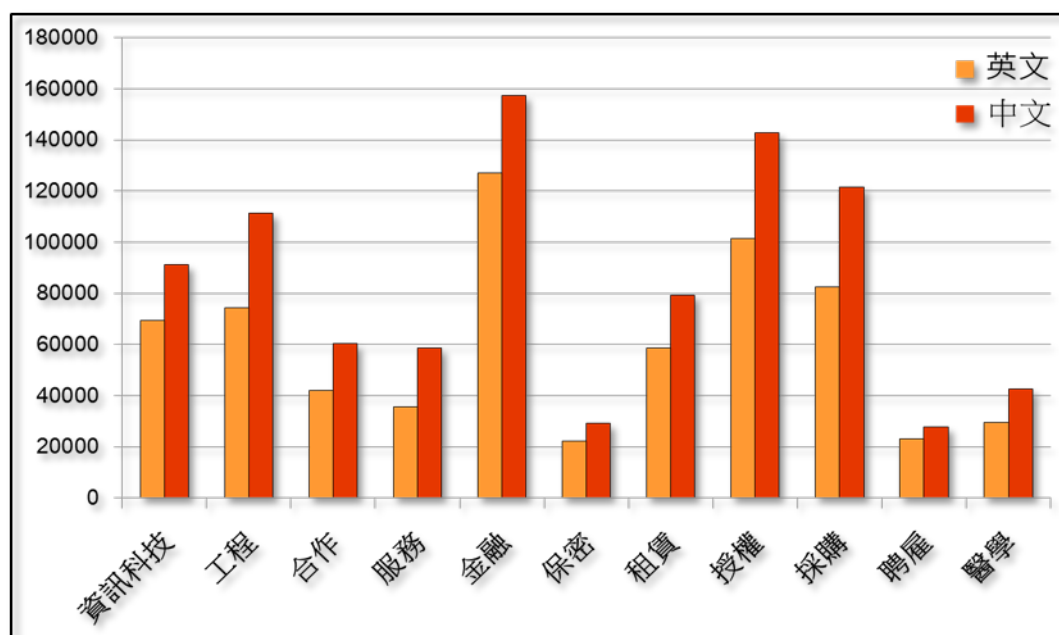


圖 4-1 中英文合約收錄類別及總字數

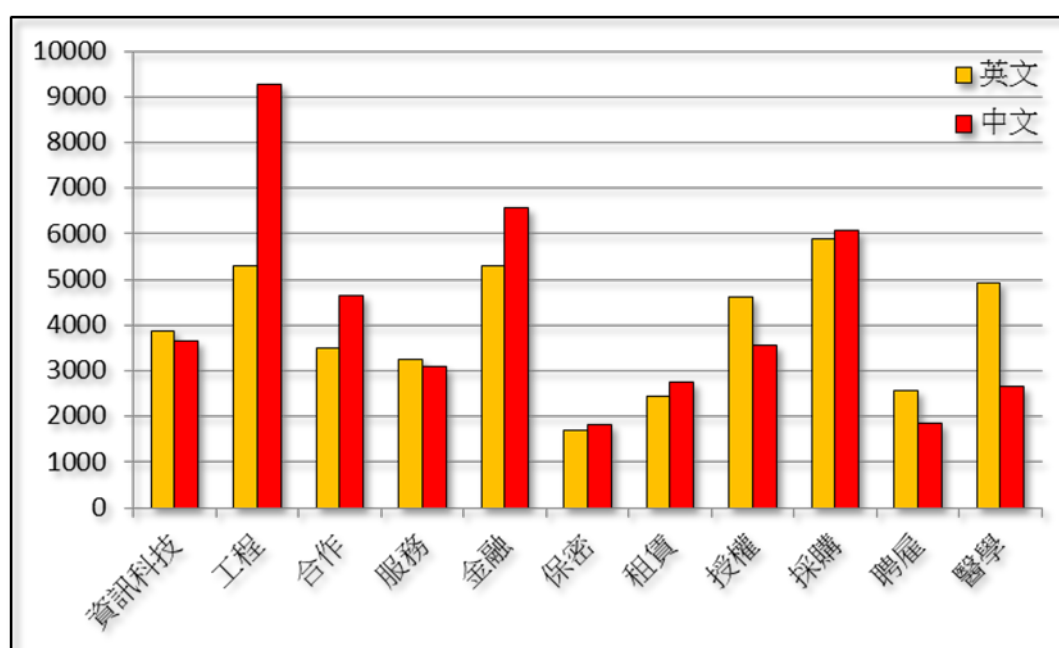


圖 4-2 中英合約單篇平均字數

一、語料庫描述統計

英文合約語料共 167 篇，經過 WordSmith 分析後，描述統計結果如表 4-2 所示，納入詞表統計的形符總計 660,218 詞，單篇最長超過 15,000 詞，最短為 843 詞，每篇平均 3953 詞。在平均句長方面，根據 Flesch 提出的可讀性計算公式（參見 DuBay, 2004, p. 23），平均句長 29 字以上即屬於七級難度標準中最困難的一級，而合約語料庫中各篇的句長最大值達到每句平均 60 字以上，67 萬詞的句長

總平均為每句 35.58 字。這個數值事實上還屬於低估，因為合約大量使用條款標題及逐條列舉項目，兩三字獨立成行也視為一句；因此，排除標題及條列項目之後所得的句數重新計算平均句長，即達到 42.53 字，更加凸顯合約文本多用長句的語言特徵。

表 4-2 英文合約語料描述統計

	詞表統計		標準化		
	所用形符	類符	相異詞比例	平均句長	平均字長
最大值	15029	1620	38.58	67.67	5.56
最小值	843	283	26.30	17.00	4.52
全距	14186	1337	12.28	50.67	1.03
平均數	3953	776	31.93	35.47	5.06
標準差	2459	296	2.27	10.28	0.18
篇數	167	167	167	167	167

反映文本詞彙變化程度的標準化相異詞比例（STTR），最大值為 38.58%，最小值僅有 26.30%，整體平均為 31.93%。學者研究不同文類的 STTR 變化很大，例如 FLOB 英國英語書面語語料庫的平均 STTR 為 43.46%，其中的科學文本子類平均 STTR 則高達 68.99%；FROWN 美國英語書面語語料庫平均 STTR 為 43.71%，科學文本子類為 68.67%（參見 Holtz, 2011, p. 86; Holtz & Teich, 2009; Teich, 2009）。另外，Kang 與 Yu (2011) 分析旅遊英文的平均 STTR 為 44.96%，與 FLOB 相近；Pollach (2006) 比較產品使用者意見評論、《經濟學人》雜誌、線上隱私權政策三種文類，平均 STTR 分別為 39.90%、49.74%、33.41%。相對而言，英文合約的平均 STTR 較低，顯示詞彙變化較小，原因在於大量使用制式條款的重複句式及表達，然而其平均句長卻遠高於多數文類，閱讀難度最高。

在中文合約部分，語料文本共 229 篇，描述統計結果如表 4-3 所示。中文合約字數總計 92 萬字，經過分詞處理後納入詞表統計的形符數目約為 50 萬詞。單篇最長篇幅為 13,158 詞，最短為 400 詞，每篇平均 2175 詞，顯示整體而言中文合約的篇幅不如英文合約那麼長（英文平均 3966 詞）。這個數據也反映出英文與中文合約的法系差異，英美合約依據普通法系，注重判例，因此契約文件必須「鉅細靡遺」，詳述一切可能的條件狀況，好用同義詞、近義詞、對義詞，以求「萬無一失」。相較而言，台灣中文契約依據的是民法法系，法有明文，契約效力以既有的法律條文為準，因此在合約文件中無需逐一重述。

表 4-3 中文合約語料描述統計

	詞表統計 所用形符	類符	標準化 相異詞比例	平均 小句長度	平均 單詞長度
最大值	13158	1661	50.00	15.26	1.80
最小值	400	200	25.90	6.87	1.59
全距	12758	1461	24.10	8.39	0.21
平均數	2175	546.95	36.41	9.69	1.68
標準差	1866	247.28	4.18	1.50	0.04
篇數	229	229	229	229	229

至於平均句長方面，由於中文的「句」沒有嚴格固定的定義，也沒有明確的語法界限或標記，因此中文的句長概念與計算，無法與英文直接對應比較。正如第 3.1-1 節所指出，中研院《領域詞典工具》對於中文句子的處理是以「小句」為單位，從表 6 可以看到，合約文本的小句平均長度，介於 6.87 詞至 15.26 詞之間，整體平均為 9.69 詞，若乘以平均單詞長度（1.68 字），即表示小句的平均長度為 16.28 字。相較於《現代漢語平衡語料庫》，平衡語料庫的平均小句長度為 6.86 詞，平均單詞長度為 1.67 字，相當於小句平均字數為 11.46 字，可見中文合約句長顯著高於一般文本。

中文合約的 STTR 標準化相異詞比例介於 25.9% 至 50.0% 之間，229 篇文本總平均為 36.41%，各文本的變異程度大於英文合約；漢語平衡語料庫的 STTR 總平均則為 50.16%。由此可見中文合約的句長及詞彙變化傾向，與英文合約相同，皆為詞彙重複較多，而句子偏長。

二、主題詞、關鍵主題詞與 N 連詞

英文合約出現頻數最高的 9 個實詞，依序為 agreement, party, company, parties, information, use, section, time, date，這些也是合約文本的主題詞及關鍵主題詞，涉及契約文件本身的指稱（this Agreement）、簽約當事人（party, parties, company），條款章節指稱（section），以及合約通常涉及的內容，例如簽約日期時間、合約資訊、合約標的之使用等（date, time, information, use）。

至於最常見的 41 個功能詞，其中有 27 字與 COCA 參照語料庫高頻 50 詞重疊，特別值得注意的是其餘 14 個超出 COCA 高頻 50 詞範圍的功能詞，包括情態助動詞 shall, may, will，表示範圍或關係的 any, each, no, such, other, 's, its, which，以及引介條件或列舉項目的 under, including, provided。其中 shall, will 主要用法並非表示未來時態，而是權利義務，provided 也非動詞「提供」的過去式，

而是做為連接詞表示條件。同樣的，這 14 個功能詞也是英文合約文類的主題詞及關鍵主題詞，大量重複出現在各種合約文本。

WordSmith Tools 的主題詞統計，得到顯著多用的主題詞 2243 詞，顯著少用有 1381 詞，另有關鍵主題詞 1421 詞。匯入 Excel 工作表依主題詞顯著值 (keyness)、詞頻篇數、關鍵主題詞篇數、是否屬於參照語料庫高頻詞 3000 詞等條件，進一步篩選出核心主題詞 438 詞，並據以建立 N 連詞。

中文合約的最高頻實詞，與英文合約類似，同樣包括括契約文件本身的指稱 (契約、合約)，簽約當事人 (廠商、機關)，與合約事項有關的動詞 (規定、同意、使用、通知、終止、履約、辦理)，狀態不及物動詞「相關」，用於定義或界定句型的分類動詞「為」，以及與合約事項有關的名詞 (服務、資料、費用、書面)。而在中文合約最常用的 32 個功能詞當中，多達 20 詞超出參照語料庫高頻 50 詞的範圍，其中乙方、甲方、不得更超出了參照語料庫高頻 1000 詞。這些功能詞同樣也是中文合約文類的主題詞兼關鍵主題詞，用於引介合約最常用的句型。

以中研院現代漢語平衡語料庫做為參照，統計所得的顯著多用主題詞有 2227 詞，顯著少用主題詞 1024 詞，關鍵主題詞 1135 詞。同樣採用英文合約的篩選程序，進一步得到核心主題詞 375 詞，同時據以建立核心 N 連詞。

三、N 連詞機器翻譯及提取對譯詞組

N 連詞與機器譯文經 TM 工具轉檔及比對匹配之後，將相符比例 75% 以上的結果匯出，兩個語言方向各有一千多條，由筆者及另一位資深合約譯者進行專家評估。兩位評分人皆任職於翻譯公司，翻譯審校的合約文件已有數百萬字，熟悉合約文體及領域術語。評分量表採四級分，最高 3 分，表示對應正確可用，2 分表示需要小幅修改，若需要大幅修改 (訊息對應有增減或歧義) 為 1 分，對應錯誤不可使用為 0 分。

圖 4-3 為各級分的評分實例，詞數從 N-2 到 N-8，相符比例從 75% 到 100%，都有 0 分到 3 分，分數與相符比例或詞數並沒有絕對關聯。評分完成後以 Pearson 積差相關檢定評分人間信度，結果如表 4-4 所示。兩位評分人的英譯中平均分數皆低於中譯英，且評分人 A 給分較為嚴格。Pearson 相關係數分別是 .79 與 .80，達到高度相關。

N-	TF	DF	EN(n)	match	TW(n)	average
2	49	36	without notice	100%	不經通知	3.0
3	19	7	force majeure event	100%	不可抗力情事	3.0
4	76	45	contained in this agreement	100%	本合約所載	3.0
8	4	2	unless in writing and signed by the parties	85%	並作成書面且經雙方簽名	3.0
7	3	2	damages caused by fire or other perils	75%	火災等事由所致之損害	3.0
7	6	3	respective rights and obligations of the parties	75%	甲乙雙方之權利義務	3.0
3	18	8	unless otherwise specified	100%	除法律另有規定	2.0
5	14	4	hereby represents and warrants that	75%	機構茲聲明並保證	2.0
7	4	2	unless the parties agree in writing to	75%	雙方同意以書面修改	2.0
6	3	2	shall be borne by the contractor	75%	概由廠商自行負擔	2.0
5	4	3	willful misconduct or gross negligence	75%	故意或重大過失所致	2.0
4	7	7	shall have the following	100%	不得有下列	1.0
5	4	3	written consent of the landlord	75%	以書面同意延長	1.0
6	14	6	survive the expiration or termination of	75%	租賃期滿或終止	1.0
5	9	7	deemed to have been given	75%	視為已合法	1.0
6	3	3	for the benefit of the parties	75%	為該合約之利益	1.0
2	28	16	or default	100%	或過失所致	0.0
4	6	5	a of this agreement	75%	本合約一式兩份	0.0
5	4	2	this contract shall be governed	75%	本契約所生爭議	0.0
5	4	3	exhibit a of this agreement	75%	甲方於本契約	0.0
5	6	3	this agreement shall be submitted	75%	本合約自	0.0

圖 4-3 N 連詞 0~3 級分的評分實例

表 4-4 N 連詞專家評估評分人間信度

	英譯中		中譯英	
	評分人 A	評分人 B	評分人 A	評分人 B
平均數	1.820	2.15	2.0	2.4
變異數	0.978	0.702	0.871	0.541
觀察值個數	1446	1446	1249	1249
皮耳森相關係數	.79		.80	

英文合約 N 連詞 EN(n) 與機器英譯 EN(g)，共有 458 條完全相符 (100% match)，總計 1399 字，75%~84% 相符有 946 條 5000 多字，65%~74% 相符 3833 條 16000 多字。評分結果中，95%-100% 相符的 N 連詞平均分數為 2.5，相當於準確率 83%，全部 1446 條平均分數為 2.0，相當於準確率 67% (見表 4-5、圖 4-4)。

表 4-5 N 連詞英譯中評分結果—依相符比例

平均分數	100%相符	95%相符	85%相符	75%相符	小計
3.0 分	223	3	7	147	380 (26%)
2.5 分	104	2	3	140	249 (17%)
2.0 分	64	1	8	202	275 (19%)

(續下頁)

表 4-5 (續)

1.5 分	35	1	1	217	254 (16%)
1.0 分	21	1		87	109 (16%)
0.5 分	5		1	138	144 (08%)
0.0 分	6			30	36 (10%)
小計	458 (32%)	8 (1%)	20 (1%)	961 (66%)	1447
平均	2.5	2.3	2.3	1.7	2.0

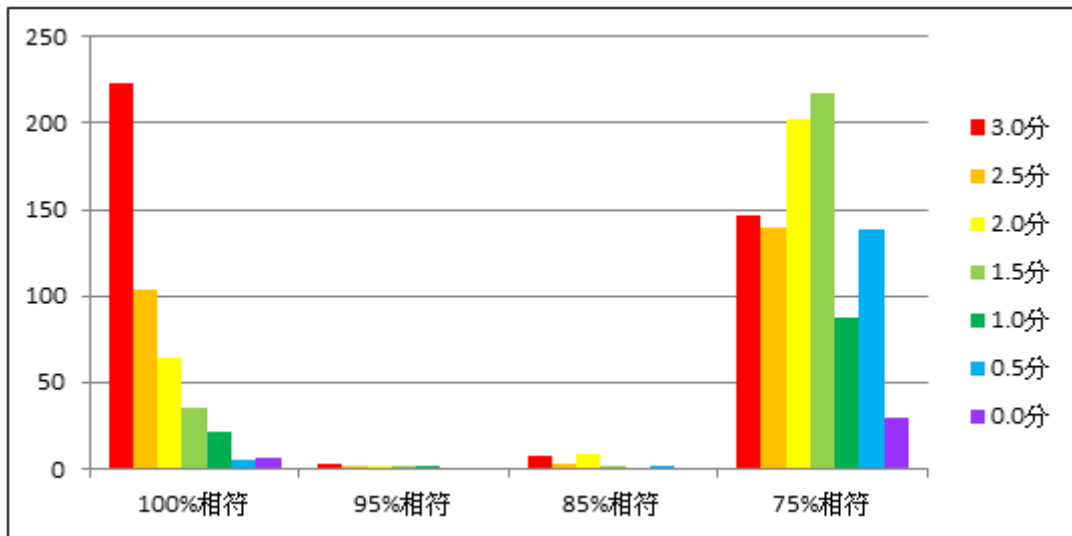


圖 4-4 N 連詞英譯中評分結果—依相符比例

合約 N 連詞中譯英部分，比對中介語言仍然採用英文，匹配結果 95%-100% 相符有 727 條 3368 字，85%~94% 所佔比例最低僅 100 多字，75%~84% 有 510 條 3500 多字。評分結果如表 4-6、圖 4-5 所示，95% 以上相符的 N 連詞，平均分數 2.5，相當於準確率 83%，與英譯中的結果相同；全部 1250 條平均 2.2 分。

表 4-6 N 連詞中譯英評分結果—依相符比例

平均分數	100%相符	95%相符	85%相符	75%相符	小計
3.0 分	359	5	5	82	451 (36%)
2.5 分	176	1	3	76	256 (20%)
2.0 分	73	1	3	127	204 (16%)
1.5 分	58	2	1	141	202 (16%)
1.0 分	17			27	44 (04%)
0.5 分	26		1	48	75 (02%)
0.0 分	9			9	18 (01%)
小計	718 (57%)	9 (1%)	13 (1%)	510 (41%)	1250
平均	2.5	2.5	2.3	1.9	2.2

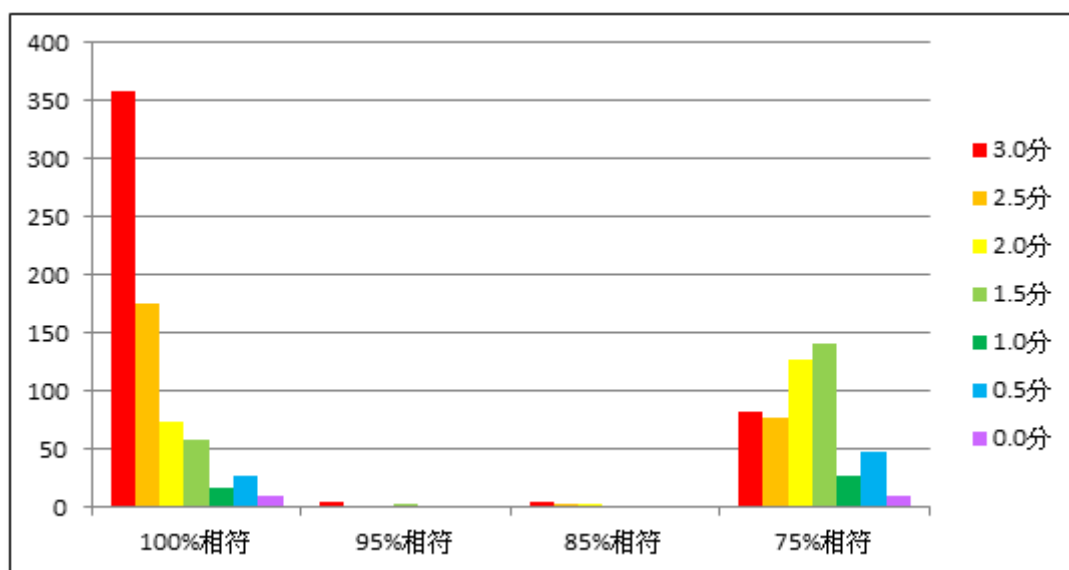


圖 4-5 N 連詞中譯英評分結果—依相符比例

以上的專家評估結果，排除英譯中、中譯英兩邊重複的內容後，得到評分 3 分、可直接使用的雙語對譯 N 連詞合計 600 多條，另有 300 多條評分為 2.5 分，小幅修改後可以使用。這些 N 連詞包含了術語 (terms)、固定片語 (phrases)，以及大於片語的定型化句段，對於合約翻譯實務、教學上都有具體的用途，也可做為其他語言應用研究的資料。評分 3 分的中英對譯 N 連詞組，彙整於附錄。

四、完全相符或高度相符 (95%~100% match)

「英譯中」95%-100% 相符的對譯 N 連詞有 400 多條，平均分數為 2.5，亦即準確率在 80% 以上，「中譯英」更有 700 多條，匹配準確率同樣達 80% 以上。這個結果顯示，Google 統計式機器翻譯背後使用的語料庫，已存在這些 N 連詞的中英雙語對譯單元，利用 Google 譯文做為檢索中介，確實能夠從可比合約語料庫中提取出這些互為翻譯的詞串。

「中譯英」高度相符的 N 連詞乍看之下比「英譯中」多出近一倍，但是仔細分析則會發現多所重複，許多 N 連詞其實訊息內容相同，只是措詞略有變化。若依對應的英文 N 連詞重新排序去除重複部分，則剩下 400 多條，顯示中文合約相同條款的用詞細微變動大於英文合約。這個現象也可以說明，為什麼以中文為比對的中介語言時，所得到的相符結果較少，原因就在於一字兩字的差別（例如「權利及義務」、「權利與義務」）即足以干擾短詞串的相似度比對結果。

圖 4-6、4-7 是評分後依相符比例、分數及中文 N 連詞排序的結果，不論英譯中或中譯英，正確對應的都屬於合約標準條款，包括權利義務關係、履約相關規定、保密、通知、合約條款效力等。圖中第二欄的詞彙頻數 (TF) 和第三欄

的文本頻數 (DF)，也可看出這些 N 連詞屬於高頻且出現於多篇文本的常用詞串。

N-	TF	DF	EN(n)	match	TW(n)	average
3	24	15	disclose confidential information	100%	揭露 機密 資料	3.0
2	226	58	intellectual property	100%	智慧 財產	3.0
3	66	39	the expiration of	100%	期限 屆滿	3.0
4	12	10	after the expiration of	100%	期限 屆滿 後	3.0
6	68	15	expiration or termination of this agreement	100%	期滿 或 契約 終止	3.0
4	43	20	expiration or termination of	100%	期滿 或 終止	3.0
4	8	7	upon the expiration of	100%	期滿 時	3.0
3	27	22	no obligation to	100%	無 義務	3.0
5	6	5	the event of a dispute	100%	發生 爭議 時	3.0
3	8	6	copyright or other	100%	著作權 或 其他	3.0
3	72	56	deemed to have	100%	視為 已	3.0
2	398	133	limited to	100%	僅 限於	3.0
4	7	7	the risk of loss	100%	損失 之 風險	3.0
3	78	46	loss or damage	100%	滅失 或 損害	3.0
4	72	36	by the other party	100%	經 他方	3.0
5	5	4	by the other party to	100%	經 他方 以	3.0
3	46	36	upon termination of	100%	經 終止	3.0
6	5	5	in writing signed by the parties	100%	經 雙方 簽署 之 書面	3.0
3	10	5	terminate this contract	100%	解除 本 契約	3.0
2	60	22	the account	100%	該 帳戶	3.0

圖 4-6 N 連詞英譯中 100%相符評分結果

N-	TF	DF	TW(n)	MATCH	EN(n)	Average
2	104	59	應 遵守	100%	shall comply with	3.0
3	11	10	應 立即 以	100%	shall immediately	3.0
2	27	21	不得 於	100%	shall not	3.0
2	61	48	不得 為	100%	shall not be	3.0
2	9	9	不得 視為	100%	shall not be considered	3.0
2	12	11	不得 洩露	100%	shall not disclose	3.0
2	75	44	不得 超過	100%	shall not exceed	3.0
2	12	10	不得 逾	100%	shall not exceed	3.0
2	11	10	不得 利用	100%	shall not use	3.0
2	12	10	所 簽訂	100%	signed by	3.0
5	18	6	經 甲乙 雙方 簽署	100%	signed by the parties	3.0
3	26	12	經 雙方 簽署	100%	signed by the parties	3.0
2	71	47	自行 負責	100%	solely responsible for	3.0
2	13	4	該 等 契約	100%	such contract	3.0
2	13	5	租賃 期限	100%	term of the lease	3.0
3	80	33	終止 本 合約	100%	terminate this agreement	3.0
3	229	73	終止 本 契約	100%	terminate this agreement	3.0
4	12	6	隨時 終止 本 契約	100%	terminate this agreement at any time	3.0
4	6	3	立即 終止 本 契約	100%	terminate this agreement immediately	3.0
3	8	6	解除 本 合約	100%	terminate this contract	3.0
3	51	24	解除 本 契約	100%	terminate this contract	3.0

圖 4-7 N 連詞中譯英 100%相符評分結果

這樣的對譯 N 連詞雖非全是嚴格定義的術語，但若加入 TM 系統的術語庫，對譯者而言仍有極大的助益。例如“company reserves the right”對應「公司有權」，可以提示譯者“reserves the right”未必都要譯為「保留權利」，減少原文的干擾。再如英文合約極其常用的片語“any and/or all”，對應於中文合約，慣用的表達為

「部分或全部」及其各種變體，如表 4-7 所示；「部分」、「全部」的順序可以互換，但英文片語的順序則固定不可更動。在語料庫中並未發現以「任何」搭配「全部」、「所有」的實例，顯見依中文合約的使用習慣，“any and/or all” 不宜翻譯為「任何」。

表 4-7 「部分或全部」檢索行

甲方得沒收履約保證金	一部或全部	，
且足以影響契約	一部或全部	之履行者，
得為	一部終止或全部	終止。
	一部無效及全部	無效
(一)本工程保固期限自	全部完工或部分	完工，
十四、承租人對於租賃物之	全部或一部分	不繼續使用時，
雙方均同意不轉讓本契約之	全部或一部分	之權益。
指將原契約中應自行履行之	全部或主要部分	，
指將契約中應自行履行之	全部或其主要部分	，
指示受託人就信託財產投資標的之	全部或部分	，
並得追回	全部或部分	已撥付之補助款，
於乙方資產移轉完成後解除其	該部或全部	之履約保證責任。
四、廠商不得將契約或債權之	部分或全部	轉讓予他人。

五、部分相符 (75%~94% match)

85%、75%部分相符的 N 連詞也有許多屬於正確對應，評分 3 分的英譯中 N 連詞有 154 條，中譯英有 87 條。訊息對應而相符比例未達 100%，一個原因是 N 連詞的斷詞未必都正確，含有雜訊，加上比對單元字數太少，只要一字之差或甚至標點、大小寫不同，相符比例很容易就會降低到 75% 以下。

以終止條款為例，“any termination or expiration of this agreement”比對的 Google 英譯“termination or expiration of this agreement”，一字之差相符比例落入 75% fuzzy match，但對應的中文「於本契約終止或期滿」，其實可以直接套用。至於“subsequent to the termination of this agreement”比對 Google 英譯“due to the termination of this agreement”，同樣是一字之差，訊息內容卻是錯誤的對應；這個錯誤同時也源自 Google 英譯已經不正確，因果關係正好顛倒，而機器之所以誤譯，又和中文的表述有關，「所致之本契約終止」是非常文言的句式，在 Google 的統計語料庫中應該找不到太多實例。至於“survive expiration or termination of this agreement”，75%相符對應為「期滿或契約終止」，但缺漏了最重要的訊息「仍然有效」，顯示“survive”在合約中的語義異於一般用法。這類對應錯誤的例

子，可說是從反面印證合約詞彙的特殊用法及近乎「術語性」的特徵。

六、對應不當或對應錯誤

(一) 詞串太短，語境不明

這是預期中的錯誤。N-2 若不是明確的術語，或包含了功能詞，通常訊息就不完整（如圖 4-8），機器翻譯難以適當處理，比對也就隨之出錯。但若排除 N-2 不列入比對，又可能遺漏確實可用的對譯詞組，「名詞+名詞」是術語常見的結構。從評分結果也可看到，N-2 約有 300 條評分為 2.5 分或 3 分，排除重複內容後仍有近百條是正確可用的對譯 2 連詞。這個情況是資料檢索中固有的矛盾，準確率（precision）及檢出率（recall）難以兼顧，只能視情況取捨。

N-	TF	Df	EN(n)	mat	TW(n)	avera
2	51	34	party for	100%	一方對於	1.0
2	120	65	copy of	100%	文件影本	1.0
2	590	140	the date	100%	日起生效	1.0
2	40	24	any damages	100%	任何損害賠償責任	1.0
2	74	43	ownership of	100%	成果歸屬	1.0
2	27	20	a dispute	100%	而生爭議後	1.0
2	105	63	hereunder shall	100%	依本契約應	1.0
2	22	16	insurance shall	100%	保險金額應	1.0
2	34	14	contract is	100%	契約一式	1.0
2	22	14	contract to	100%	契約以	1.0
2	54	42	any liability	100%	不負任何賠償責任	0.5
2	25	21	agreed by	100%	有約定者外	0.5
2	25	15	contract for	100%	契約如需	0.5

圖 4-8 英文 N-2 訊息不完整的例子

(二) 被動及否定句型

包含被動或否定訊息的 N 連詞，對 Google 翻譯會造成困難，進而影響相似度比對結果，如圖 4-9 所示。在專家評估過程中發現，含有「不」字的中文 N 連詞，Google 英譯時容易缺漏否定的訊息。

N	TF	DF	TW(n)	MATCH	EN(n)	Average
5	14	6	不負損害賠償責任	100%	liable for any damages	0.5
3	8	8	不得有下列	100%	shall have the following	0.5
4	7	4	不得因此而要求	100%	shall not be required	0.5
2	53	42	不得要求	100%	shall not be required	0.5
5	18	9	不可撤銷擔保信用狀繳納	75%	irrevocable letter of credit	1.5
4	5	4	甲方不得將其	75%	party shall not be	1.5
3	6	6	不得用以拘束	75%	shall not be used for any	1.5
6	4	2	事前書面之同意不得	75%	prior written consent shall be	1.0
4	6	3	任一方不得為	75%	either party shall be	0.5
6	4	2	不履行本合約約定時	75%	the performance of this contract	0.5
3	8	4	本契約不得	75%	this contract shall be	0.5
4	6	3	不得洩漏予任何	75%	shall not apply to any	0.0
3	11	11	不得轉讓予任何	75%	shall not be subject to any	0.0

圖 4-9 否定句型對機器翻譯造成困難

(三) 特有的表達用法

1. 限制條款：非經.....不得

「非經.....不得」對 Google 翻譯造成困難，「非經」兩字完全省略或直譯為“non-”（見表 4-8）。亦即這種句式並非一般文本的常見用法，在 Google 語料庫中實例太少。同義詞「未經.....不得」，Google 翻譯就處理得較好（見表 4-9），在 EN (g) -EN (n) 比對中準確率也較高，表示 Google 比較「認識」這個詞。然而在中文合約語料庫中，「未經.....不得」出現 90 次，遠低於「非經.....不得」131 次，兩者對應的英文表達皆為“shall not ... without”，句型主要用於限制條款，如保密義務（機密資訊不得揭露）、所有權（合約標的不得使用的情況）、合約權利義務（不得轉讓）等。

非經	甲方		同意	
未經	乙方	事前	許可	
	他方	書面	授權 不得
	甲乙雙方		通知	
	機關			
shall not ...		prior	consent	
may not ...		written	permission	of the other party
will not ...	without	express	approval	of Lessor
		(our)	authorization	of Landlord
		(Company's)	notice	

表 4-8 「非經」句型 Google 英譯錯誤

TW (n)	EN (g)
非經甲方之同意	non-agreed to by Party A of
非經所有者正式開放或授權	non-authorized by the owner of the formal open or
非經甲、乙雙方合意	non-desired by the parties
非經甲方事前書面之同意	non-Party A prior written consent
非經雙方當事人以書面協議	non-written agreement by the parties

(續下頁)

表 4-8 (續)

非經機關及廠商雙方合意	Party A and manufacturers of the parties desired
非經甲方書面同意不得	Party A written consent shall not
非經甲方事先書面同意	Party A's prior written consent
非經甲方及乙方雙方合意	when by Party A and Party B the parties desired

表 4-9 「未經」句型 Google 英譯處理較好

TW (n)	EN (g)
未經乙方同意	without the consent of Party B
未經甲方授權	without Party A authorized
未經書面告知	has not been informed in writing
未經主管機關核准	without the competent authority for approval
未經他方書面同意	without the other party written consent of
未經他方書面同意前	without the other party prior written consent
未經甲方之書面同意	without the consent of Party A written
未經法定代理人書面同意	without the legal representative written consent of
未經同意收集他人電子郵件位址	e-mail addresses of others without consent to the collection

2. 終止及存續條款

終止條款的 N 連詞比對，中文與英文皆對應良好，與「終止」一詞搭配強度最高、詞頻 50 次以上的實詞是「解除」，最常見的 N 連詞為「解除及/或終止」、「終止或解除」。英文合約中與 terminate/termination 搭配強度最高、詞頻 50 次以上的實詞包括：

survive
 expiration, employment, employee, cause, notice, event, term, rights, right,
 determination
 immediately, provided, effective, written
 agreement, lease, article, section, contract
 date, days, time, party, company

其中最值得注意的是 survive 一字，常見 N 連詞為“survive (the) terminationof”，對應的中文表達為「仍具效力」、「仍然有效」，屬於合約的存續條款。存續條款 N 連詞的中英相似度比對極不理想，反映出這個概念在兩種語言的表述方式差異很大。中文慣用表達有正面及反面兩種說法（表 4-10），正面表達「仍具效力」、「仍然有效」可以對應英文“remain in (full) effect/force”（語料庫中出現 81 次）。反面表達「不因……而失效」則出現困難，無法對應到“survive”（語料庫中有 152 次，遠高於“remain in force”），一方面是 survive 的用法異於一般文件，造成 Google 翻譯不當，其次是中文「不因……而」句型

偏長，取 N-2 至 N-8 時詞串被切斷而造成訊息不完整。

表 4-10 中文合約存續條款常見句型

下列條款於契約終止後仍具效力
於本協議書終止或解除後二年內仍具有效力
於本契約終止或期滿後仍然繼續有效力
第 24 條於本契約終止或期滿後仍然繼續有效力與拘束力
本項之約定於本合約解除或終止後仍繼續有效
下列條款於契約終止後仍繼續有效
於本合約終止後仍然存續生效
前揭保密義務不因委外契約終止而失其效力
不因契約屆滿終止或解除而失其效力
本條款所約定事宜不因本合約之終止或屆滿而失效
保密條款不因本約無效、解除、終止或期限屆滿而失效
條款中之權義不因本契約終止、解除或有效期間屆滿而消滅
保密義務不因本約定條款終止或因其他原因之失效而免除
乙方接到信函與否不影響終止效力之生效

(3) 賠償條款

賠償條款 N 連詞的比對結果未盡理想，原因是條款涉及的術語較多，句型也偏長，加上中文與英文合約對於賠償的規定，有明顯不同的表述方式。以“damages”及「賠償」兩詞檢索語料庫中的強搭配詞，頻數 10 次以上的前 15 個實詞，中英兩邊重疊的詞彙只有三分之一：

DAMAGES			賠償		
Freq.	MI	Collocate	Freq.	MI	Collocate
94	10.1327	consequential	11	9.0725	請求權人
28	10.0933	punitive	18	8.2912	賠償額
20	10.0553	exemplary	678	7.9973	損害
40	10.0229	liquidated	30	7.9053	請求權
65	9.7395	incidental	17	7.7937	傷亡
13	9.5009	finest	20	7.7651	理賠
17	9.4729	possibility	48	7.5116	責
26	9.4014	profits	379	7.4209	負
19	9.0832	suffered	28	7.3330	受有

(續下頁)

(續)

66	9.0181	losses	489	7.2125	責任
40	8.9912	indirect	154	7.1899	損失
20	8.9602	penalties	18	7.1106	相等
18	8.9033	judgments	203	7.0234	請求
12	8.8709	injuries	19	6.9542	到達
53	8.7211	liabilities	26	6.8217	遭受

再對照 N 連詞比對結果，不論中譯英或英譯中，除了極少數的部分相符之外，完全沒有交集。英文合約的賠償條款大抵可分為四個部分，慣用的表述方式如下：

Party B shall / agrees to	Indemnify, defend, and hold harmless from / against	Party A [list 1] any and all including (without limitation) arising out of resulting from relating to	losses [list 2] expenses [list 3] this Agreement. [list 4]
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整個長句中可以包含多個「清單」，羅列一切可能的情況，例如所稱甲方[list 1]可包含 subsidiaries, affiliates, officers, agents, employees, partners, licensors；一切損失[list 2]可包含 liabilities, damages, claims, fines, penalties, injuries；各種費用[list 3]可包含 costs, expenses, reasonable attorneys fees, court costs and other amounts；與合約有關行為[list 4]可詳述一切損失成因。就連主要動詞、介詞也採用同義詞或近義詞並列的寫法。因此典型的英文賠償條款可以長達一兩百字，相對而言，中文合約的賠償條款則言簡意賅，通常不超過 30 字，慣用表述方式如下：

(乙方)	違反	致	甲方	(受有)		
(如) 因	違約	所致	他方	損失	(時)	(應) 負賠償責任。
	不履行	造成		損害		
	故意					
	過失					

其中表示關係的连接詞及副詞「如」、「因」、「時」、「應」等又可省略，充分顯現中文以意合而非形合的語言特徵。由於兩種語言對於賠償責任的措詞差異太大，因此在 N 連詞比對中完全無法對應。

(4) 合約份數

合約份數是中文合約篇尾的固定條款，常用的表達如下：

本 合約 計正本 一式 式 OO 份 副本 OO 式 OO 份 ，
 由 契約 同意書 甲乙 雙方 各執 正本 OO 份 為憑 存照 。

這個句型在 N 連詞比對中完全找不到英文對應，「OO 份」的 Google 翻譯為 duplicates, copies 甚至 triplicates，但檢索英文合約語料庫可知這些用法並不存在。然而實際上英文合約也有份數條款，其固定表述方式如下。

This Agreement is signed in one or more counterparts,
 may be executed in several any number of
 all of which shall together constitute an original.
 each of such counterparts will be deemed

同樣的，這個句型在 N 連詞比對時找不到中文對應，Google 機器翻譯也多有錯誤。這是一個有趣的現象，「一式兩份」和“in counterparts”雖是相近的概念，但都對 Google 翻譯造成了困難，兩個語言之間也就搭不上線了。從這個比對「缺項」再次凸顯這兩個詞彙是中英文合約的術語，應該收錄於合約術語庫。

(5) 準據法及管轄法院

中文和英文的準據法條款 N 連詞的相符比例偏低，往往落在 75% 以下，但對應的詞彙及句型其實很清楚，「本契約以……法律為準據法」，對應“This Agreement shall be governed (and construed) by the laws of...”。「管轄法院」與“a court of competent jurisdiction”的情形也相同，概念及表達完全對等，但 N 連詞比對結果卻不理想，可能原因有三：首先，準據/governed、法院/court、無效/invalid 這幾組詞彙構成的 N 連詞都偏長，N-5 甚至 N-8 以上而被切斷，且中英文詞序明顯有別；第二，有明顯的本土用詞（依中華民國法律規定無效時），兩個語言不可能對應；第三，表述習慣不同，中文說「依法認定無效」（不提法院）、「經法院認定無效」（不提管轄權），因而減低了與英文“held by a/any court of competent jurisdiction to be invalid”的相符比例。

伍、結論

本研究建置了 150 萬字的中英合約可比語料庫，並藉由檢索工具分析合約詞彙的特徵，除了印證既有的單語合約研究成果之外，更著重於翻譯的需求，探討中文與英文合約詞彙互為翻譯的對應關係。研究結果顯示，在合約的標準條款中，例如違約、賠償、爭議解決、準據法、通知、效期、終止等，中英文有許多

概念皆為共通，無須另行翻譯，只要能夠從可比語料庫中「找出」對應的表達，即可直接套用。本研究藉由機器翻譯技術和翻譯記憶系統的詞句相似度比對功能，自動提取互為翻譯的中英合約詞彙，以相對簡單的原理及技術，進一步發揮可比語料庫的效益。

本研究所建立的中英合約雙語對譯詞組，具有實用的效益，可直接應用於電腦輔助翻譯工具，匯入為術語庫資料，以供自動查詢、自動顯示、預先套用，或做為手動檢索的關鍵詞，發揮句級以下的對應、查詢及套用效益。學界與 TM 系統業者目前積極研發句級以下的擷取及對應技術，要進一步提升翻譯記憶系統的回收使用率，N 連詞對是很重要的資源。

合約可比語料庫一方面可以利用語料庫工具直接檢索使用，另一方面也可視為大量的真實平行文本。平行文本的效益不言可喻，學界已有許多探討，例如 Snell-Hornby (1988)、Zanettin (1998)、Bowker (2000)、Sharoff (2006)、Nord (2007) 等人，都在教學和研究中應用平行文本。中國學者近年來也日漸重視這個議題，林克難 (2006, 2007) 針對實用文件與法律文件的翻譯，提出了「看易寫」原則，特別強調翻譯的第一步要先大量閱讀譯語的真實材料，在翻譯時仿照同類文本的風格和特徵，使譯文達到同等效果。

然而，譯者在日常工作中或教師學生在翻譯課堂上，不太可能隨時查看數十篇平行文本，語料庫工具可以加快檢索效率，但仍然需要在檢索工具（例如 AntConc）和文書軟體（例如 Office Word）之間反覆切換。藉由本研究提出的方法，以機器翻譯產生可比語料庫的譯文，建立「機譯—原文」假 TM，就能夠在翻譯記憶系統中更有效使用平行文本和可比語料庫。例如圖 4-11 是「中文原文+Google 英譯」的合約語料，匯入翻譯記憶系統中做為「英譯中」的參考 TM，以機器英譯做為檢索的橋樑，最終可以查出相關的中文條款，以模仿其術語、詞彙和表達句型。從圖中可以看到，待譯的新句與 TM 的機器英譯相似度只有 24%，但對應的中文條款「本會未行使或執行本服務條款任何權利或規定，不構成前開權利或規定之棄權。」對於譯者卻有很大的參考價值，前半句可以完全依據中文參考條款而改寫。

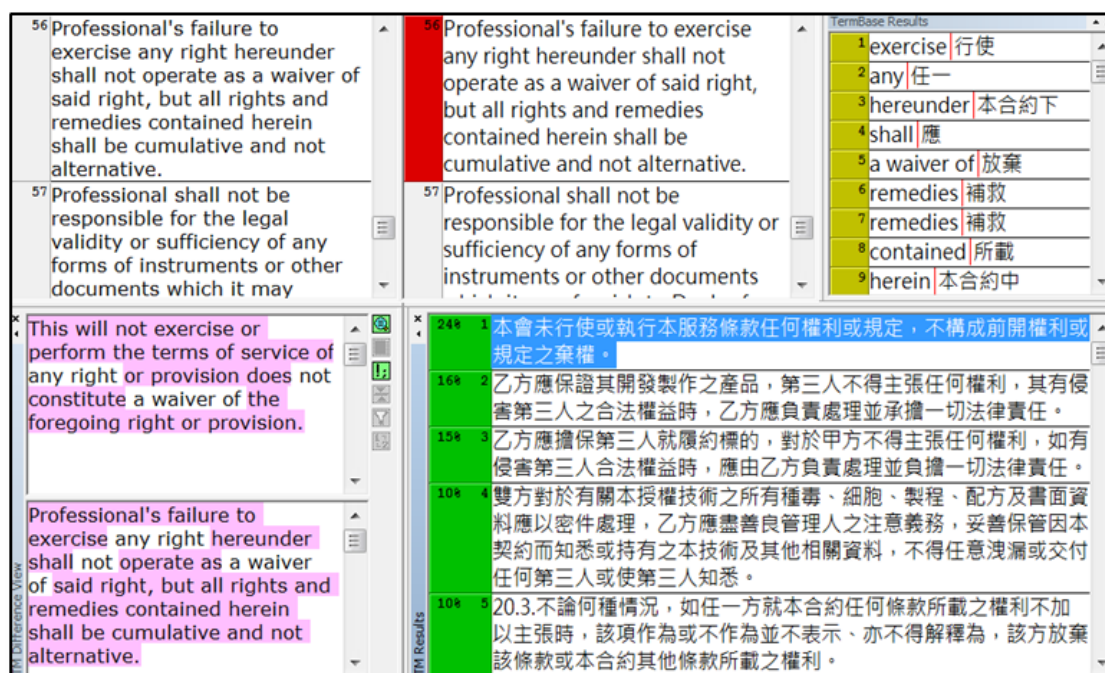


圖 4-11 原文結合機器翻譯做為參考 TM

研究限制

本文研究過程中遭遇的困難包括兩大方面，一是語料來源，二是工具及技術。合約文件由於內容涉及敏感機密資料，外界難以取得，因此本研究依循以網路為資源自建語料庫的趨勢，從網際網路搜尋可用的文本。不過公開在網路上的合約以定型化範本為主，內容較容易雷同甚至重複。其次，自建的合約語料庫若要公開做為共享資源，使用授權問題也不易解決。這一點是所有基於網路的語料庫共同的困難，迄今學界並沒有定論。

在工具及技術方面，蒐集語料階段筆者採用手動檢索下載的方式。雖然利用 spider/crawler 程式將蒐集語料、篩選整理文本的流程自動化，可以節省可觀的人力和時間，但完全自動擷取的語料，需要再搭配其他檢查機制，才能確保所得的語料符合預設的抽樣條件，能夠針對研究問題提供有效的資料。第二個工具困難是中文語料的前置處理，中文合約分詞的錯誤比例高達 10% 以上，修正極其費時費力，合約詞類標注也有困難及錯誤。再其次是現有的語料檢索工具仍然不足，WordSmith Tools 提供的 ConcGram 功能，筆者在中文作業系統中測試時屢次當機，而香港理工大學 Winnie Cheng 開發的 ConcGram 軟體，處理中文語料的效果也不理想。因此本研究未能針對 ConcGram 多做探討。

本研究礙於人力時間的限制，對於專家評估 1.5 分以下的 N 連詞並未深入探討低分的原因及代表的意涵，相符比例 75% 以下的 N 連詞未進行專家評估，相符比例 65% 以下的無對應 N 連詞也未做討論，這些都是研究的不足之處。此外，

最後提取的對譯 N 連詞，實際使用效益尚未提供實證數據，還有待日後補足。

未來研究方向

本研究建置的合約可比語料庫，以及使用的雙語資料提取方法和流程，仍有許多值得進一步探討的議題。首先是合約語料並未充分利用，合約類別及詞類標注資料在研究中皆未討論。未來可以針對不同類別的合約做細類分析，例如軟體使用條款、銀行貸款合約、土地開發合約等，各自的詞彙、術語及風格仍然有別。建立 N 連詞時可以結合詞類標注資訊，應可過濾許多無效的雜訊資料。利用詞類標注資訊也能夠進一步探討中、英合約的語法和句型結構。

第二，以可比語料庫為基礎，結合語料庫工具、機器翻譯和翻譯記憶系統，可以建立平行文本翻譯教學模式，設計有效的教材與教法。功能學派目的論的翻譯準則，受到許多學者、教師支持，但是徒有準則尚不能達到特定譯文文本所需的具體功能。資深譯者馮國扶主張（個人通訊，2011年9月18日）：

[法律經貿] 翻譯教學需要文本為核心的教材與教學方法。按文本類型分科，例如課目是「合同」而非商事法，「財務報表」而非會計學，「信用證」而非國貿實務。以文本為核心的教學內容恰是翻譯所需，學生所學專科知識可達到專業翻譯的要求。不但教材要出自專業文本，翻譯練習的材料也必須出自專業文本。

未來可以研究可比語料庫結合機器翻譯，建立機譯平行語料庫做為翻譯記憶系統的參考 TM。以大量的單語專門文本或雙語平行文本做為翻譯記憶系統的參考 TM，利用其自動查詢顯示功能，譯者可以在瞬間存取資料庫數百篇文本當中最相關有用的例句，立即套用，快速累積領域所需的各種知識及翻譯技巧。

第三，本研究所建立的中英合約對譯 N 連詞，可以往下擷取術語及片語，編纂合約雙語詞典，或是以 N 連詞為種子往上擴展找出更大語境的詞串、句段，甚至擴大提取互為翻譯的對應句。Hartmann（1994, 1996）認為使用可比語料庫編纂雙語詞典，比起傳統的「原文→譯文」翻譯式編纂方法，一方面可以得到更自然道地、符合領域真實語言的詞典，另一方面收錄的詞目能夠更完整，避免傳統雙語詞典收詞不足的缺點。利用可比語料庫所擷取的對譯內容，也可用於開發專門領域文件的機器翻譯系統；或是應用在電腦輔助翻譯工具，提供翻譯「預測」功能，根據合約語境自動提示常用的詞串、句段、句型。此外也可建立合約技術文件的索引，進而應用於其他的語言處理模型或技術，例如從網際網路搜尋特定合約主題的雙語文本，以建立更大規模的專門領域可比語料庫。

第四，在研究方法方面，相同的步驟可以應用於其他專門領域，尤其是平行語料資源嚴重不足的專門文件，例如醫學期刊研究論文、金融技術文件（衍生

商品公開說明書、壽險產險保單等），透過兩種語言的可比語料庫與機器翻譯技術，個別譯者或研究人員也能夠更有效擷取可比語料庫當中豐富的語言資訊。

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附錄：中英文合約對譯 N 連詞

act on behalf of	代為 處理	contract price	契約 價金
additional terms	附加 條款	copyright or other	著作權 或 其他
after the expiration of	期限 屆滿 後	court of competent	管轄 法院
after the expiration of	期滿 後	jurisdiction	
after the termination of	本 契約 終止 後	damage caused by	所 造成 之 損害
this agreement		damage caused by	造成 之 損害
agree to comply with	同意 遵守	damage to property	財物 損失
agree to the following	同意 下列	days prior written notice	日 前 以 書面 通知
agree to the following	同意 遵守 下列	days prior written notice	天 前 以 書面 通知
agreed by the parties	經 甲 乙 雙方 同意	to	
agreed by the parties	經 甲 乙 雙方 議定	deemed to have	視為 已
agreed by the parties	經 雙方 同意	deems necessary	認為 必要
agreed by the parties	經 雙方 議定	delivery of any	交付 任何
agreed in writing	書面 約定	disclose confidential	揭露 機密 資料
agreed to	同意 以	information	
agreed to	同意 於	disclosed to	洩露 予
agrees not to	同意 不得	disclosed to	揭露 予
all damages	一切 損害	dispute resolution	爭議 解決
all losses	一切 損失	does not apply to	不 適用 於
all losses	所有 損失	duration of this	本 契約 之 存續 期
any compensation	任何 補償	agreement	間
any damage	任何 損害	effective date of	生效 日期
any damages	任何 損害 賠償	either party	任 一方
any dispute	任何 爭議	either party	任 一方 均
any dispute	任何 糾紛	either party	任 一方 當事人
any fees	任何 費用	either party may	任 一方 均 得
any liability	任何 責任	either party may	任 一方 得
any liability	任何 賠償 責任	either party may	任 一方 均 得 終止
any litigation	任何 訴訟	terminate	
any loss	任何 損失	electronic data	電子 資料
any notice	任何 通知	e-mail	電子 郵件
any provision of this	本 合約 任何 條款	except for those	者 不在此限
agreement		exclusive license	專屬 授權
any third party	任何 第三人	expenses incurred in	所 生 之 費用
any violation of	任何 違反	expiration date	有效 期限
at any time by written	隨時 以 書面 通知	expiration or termination	期滿 或 終止
notice		of	
at its own expense	自行 負擔 費用	expiration or termination	期滿 或 契約 終止
attorneys' fees	律師 費用	of this agreement	
authorized	授權 之 代表	fails to perform	未 履行
representative		failure to comply with	未 遵守
authorized	授權 代表	failure to perform	不能 履約
representative		failure to perform	未 能 履行
be terminated	被 終止	fees and other	費用 及 其他
breach or default	違反 或 不 履行	financial statements	財務 報表
but are not limited to	但 不 限於	for breach of	因 違反
by the other party	經 他方	for the completion of	為 完成
by the parties	由 甲 乙 雙方	force majeure	不可抗力 之 因素
by the parties	由 雙方	force majeure	不可抗力 之 事由
by the parties	經 甲、乙 雙方	force majeure	不可抗力 因素
by the parties	經 甲 乙 雙方	force majeure event	不可抗力 情事
by the parties	經 雙方	from the date of	日期 起
by the parties in	由 甲 乙 雙方 於	fully responsible for	應 負 完全 責任
company reserves the	公司 有 權	governed by the laws	法律 為 準據法
right		gross negligence	重大 過失
completion of the project	工程 完工	gross negligence	重大 過失 行為
computer software	電腦 軟體	have agreed	有 約定
confidential information	機密 資料	have agreed to	約定 以
confidential information	機密 資訊	have been delivered	已 交付
contained in	所 載	hereby agrees to	特此 同意
contained in this	本 合約 所 載	hereinafter collectively	以下 合稱
agreement		referred to	

hereinafter referred to as	下稱	or damage to property	或 財物 損失
hereinafter referred to as	以下稱	or damages	或 損害 賠償
hereinafter referred to as	以下簡稱	or delay	或 遲延
if the parties	如 雙方	or delivery	或 交付
if the parties	若 雙方	or disclosure	或 揭露
if this agreement	若 本 合約	or equipment	或 設備
immediately notify the	立即 通知 他方	or loss	或 損失
other party		or loss	或 滅失
in accordance with the	依 下列 方式	or modify	或 修改
following		or obligations	或 義務
in the contract	在 合約	or other intellectual	或 其他 智慧財產權
in this agreement	在 本 合約 中	property	
in this contract	在 本 合約	or payment	或 給付
in this contract	在 本 契約 中	or perform	或 執行
in writing signed by the	經 雙方 簽署 之 書	or representative	或 代表人
parties	面	or request	或 請求
including but not limited	包含 但 不 限於	or suspend	或 暫停
including but not limited	包括 但 不 限於	or termination	或 終止
including but not limited	包括 且 不 限於	or this agreement	或 本 合約
to		or transfer	或 移轉
insurance company	保險 公司	or unenforceable	或 無法 執行
insurance coverage	保險 範圍	oral or written	口頭 或 書面
intellectual property	智慧 財產	other documents	其他 文件
is not liable	均 不 負 任何 責任	other expenses	其他 費用
laws and regulations	法令 之 規定	other intellectual	其他 智慧財產權
laws and regulations	法令 規定	property rights	
laws and regulations	法令 規章	other provisions	其他 規定
liability insurance	責任 保險	other third party	其他 第三人
license agreement	授權 合約	otherwise agreed	另行 議定
limitation of liability	責任 限制	otherwise agreed by the	由 甲 乙 雙方 另行
limited to	僅 限於	parties	協議
loss or damage	損失 或 損害	otherwise agreed by the	由 雙方 另行 協議
loss or damage	滅失 或 損害	parties	
material adverse effect	重大 不利 之 影響	otherwise agreed in	另有 書面 約定
material adverse effect	重大 不利 影響	writing	
on		otherwise provided in	另有 規定
material breach	重大 違約	otherwise provided in	另有 規定 外
may request	得 請求	part of the contract	本 契約 之 一 部份
may suspend	得 暫停	part of the contract	契約 之 一 部分
may terminate this	得 終止 本 合約	part of the contract	契約 之 部分
agreement		part of the contract	部分 之 契約
mutual agreement	共同 協議	party may terminate this	一方 得 終止 本 契
neither party may	任 一 方 不 得	agreement	約
neither party shall	任何 一 方 均 不 得	payment of rent	繳 租金
no party shall	任何 一 方 不 得	prior notice	事 前 通知
non-exclusive	非 專屬	prior notice	事 先 通知
non-exclusive license	非 專屬 授權	prior to the termination	終止 前 已
nor shall	亦 不 得	prior to the termination of	於 本 契約 終止 前
not in accordance with	未 依照	this agreement	
not to exceed	以 不 超 過	prior written consent of	事 前 書面 之 同意
notice of termination	通知 終止	prior written consent of	事 前 書面 同意
notice of termination of	通知 終止 本 合約	prior written consent of	事 先 書面 同意
this agreement		representations and	聲 明 及 保 證
notify the other party in	以 書 面 方 式 通知	warranties	
writing	他 方	representations and	聲 明 與 保 證
notify the other party in	以 書 面 通知 另 一	warranties	
writing	方	represents and warrants	聲 明 並 保 證
obligation of	保 密 義 務	that	
confidentiality		reproduce, modify	重 製 、 修 改
obligations of	應 負 之 保 密 義 務	required to	須 於
confidentiality		required to be	規 定 須
or agreement	或 約 定	rights and obligations	權 利 及 責 任
or any third party	或 任 何 第 三 人	rights and obligations	權 利 及 義 務
or approval	或 核 准	rights and obligations	權 利 義 務
or arbitration	或 仲 裁	rights and obligations	權 利 義 務 關 係
or breach of	或 違 反	rights and obligations	權 利 與 義 務
or content	或 內 容	rights and obligations of	雙 方 之 權 利 義 務
or damage	或 損 害	the parties	關 係
or damage	或 損 壞	rights or obligations	權 利 或 義 務

shall apply to	應 適用	permitted	
shall be conducted	得 辦理	the maximum extent permitted by	允許 之 最大 範圍 內
shall be deemed	即 視為	the maximum extent permitted by law	法律 許可 之 最大 範圍
shall be in accordance with	應 依照 均 應 依	the notice	該 通知
shall be in writing	均 應 以 書面	the other party	他方 當事人
shall be in writing	均 應 以 書面 為	the other party in	他方 於
shall be in writing	須 以 書面	the parties	甲、乙 雙方
shall be in writing	應 以 書面	the parties	甲、乙 方
shall be liable for	應 即 以 書面	the parties	甲 乙 雙方
shall be responsible for	應 負責 賠償	the parties	甲 乙 雙方 當事人
shall be returned	應 負責	the parties	雙方 當事人
shall be solely responsible	應 退還	the parties agree	甲、乙 雙方 同意
shall comply with	應 自行 負責	the parties agree	甲 乙 雙方 同意
shall comply with	均 應 遵守	the parties agree	當事人 同意
shall immediately	應 遵守	the parties agree that	雙方 同意
shall not	應 立即 以	this agreement	雙方 同意 本 合約
shall not be	不得 於	the parties are	甲 乙 雙方 為
shall not be considered	不得 為	the parties hereby agree	甲 乙 雙方 特此 同 意
shall not disclose	不得 視為	the parties hereby agree to	甲 乙 雙方 特此 同 意 以
shall not exceed	不得 洩露	the parties pursuant to	雙方 各 依
shall not exceed	不得 超過	the parties shall	甲 乙 雙方 應 即
shall not use	不得 逾	the parties shall	甲 乙 雙方 應 依
signed by	不得 利用	the parties shall	當事人 應
signed by the parties	所 簽訂	the parties shall	雙方 應 即
signed by the parties	經 甲 乙 雙方 簽署	the parties shall	雙方 應 依
solely responsible for	經 雙方 簽署	the party	該 當事人
such contract	自行 負責	the party	該方 當事人
term of the lease	該等 契約	the performance of this contract	本 契約 之 履行
terminate this agreement	租賃 期限	the performance of this contract	就 本 契約 之 履行
terminate this agreement	終止 本 合約	the performance of this contract	履行 本 合約
terminate this agreement at any time	終止 本 契約	the performance of this contract	履行 本 契約
terminate this agreement immediately	隨時 終止 本 契約	the provisions of this contract	本 契約 之 規定
terminate this contract	立即 終止 本 合約	the reasonable control of	合理 控制
terminate this contract	解除 本 合約	the rights and obligations of the parties	甲 乙 雙方 之 權利 義務
terminated at any time	解除 本 契約	the rights and obligations of the parties	雙方 之 權利 義務
termination of the contract	隨時 終止 合約 之 終止	the risk of loss	損失 之 風險
termination of the contract	合約 終止	the terms of the contract	本 合約 條款
termination of the contract	契約 之 終止	the terms of the contract	合約 所 定 之 條款
termination of this agreement	終止 合約	the terms of the contract	契約 之 條款
termination of this agreement	本 合約 終止	the terms of this contract	本 契約 之 條款
termination or expiration of	本 契約 終止	the third party	該 第三人
terms of the contract	終止 或 期滿	this agreement	本 合約
terms of the contract	合約 內容	this agreement	本 協議
terms of this agreement	合約 條款	this agreement	本 約定
the account	本 合約 之 條款	this clause	本 條款
the agreement	該 帳戶	this contract	本 契約
the damage	該 約定	this contract	本 契約書
the date of termination	其 損害	this lease	本 租賃
the effective date of this agreement	終止 之 日	this license	本 授權
the expiration of this agreement	本 合約 生效 之 日	to the extent permitted transferred to	許可 範圍 內 移轉 予
the facilities	本 合約 屆滿	unable to perform	不能 履行
the invalid	各 項 設施	unable to perform	無法 執行
the maximum extent	該 無效	unable to perform under this agreement	無法 履行 依 本 協議書
the maximum extent	最 大 範圍	under this contract	本 契約 下
	允許 之 最大 範圍	understand and agree	了解 並 同意

that
understand and agree that
unless otherwise agreed by the parties
unless otherwise provided
unless the parties
upon delivery
upon termination of this agreement
upon termination of this agreement
upon the expiration of
use the software
violation of this agreement
will immediately
without notice
written agreement
written consent of
written notice
written notice to
written notice to the other party
written notice to the other party
written or oral
you agree that
not limited to
unless otherwise agreed
unless otherwise agreed
unless otherwise specified
unless otherwise specified
made in writing and signed by both parties
made in writing and signed by both parties
the prior written consent of the other party
this agreement may be terminated at any time
upon the expiration or termination of this agreement
agree to the following agreed to by the parties in writing
all or part of the contract
any of the terms of this agreement
any party to this agreement
as a result of this agreement
confidential or proprietary information
construed as a waiver of
construed as a waiver of damages caused by fire or other perils
dispute arising under this agreement

瞭解 並 同意
除 當事人 另有 約定 外
除 另有 規定 者 外
除 當事人
於 交付
本 合約 終止 後
於 本 契約 終止 後
期滿 時
使用 本 軟體
違反 本 合約
將 立即
不 經 通知
書面 協議
書面 同意
書面 通知
以 書面 通知
書面 方式 通知
以 書面 通知 他方 當事人
書面 通知 另 一方
書面 或 口頭
您 同意
不 限於
除 另有 約定
除 另有 約定 外
除 另有 規定
除 另有 規定 外
作成 書面 且 經 雙 方 簽名
並 作成 書面 且 經 雙方 簽名
經 他方 事 前 書面 同意
本 契約 得 隨時 終 止
期滿 或 契約 終止 後
同意 下列 事項
經 雙方 書面 同意
本 契約 之 全部 或 一部
本 契約 任何 條款
本 契約 任何 一方
如 因 本 契約
特定 機密 或 專有 資訊
視同 放棄
視為 放棄
火災 等 事由 所致 之 損害
因 本 契約 所 生 爭議

disputes arising under this agreement
during the term of this contract
either party may terminate this agreement
has the right to suspend or terminate
in accordance with the arbitration rules
in accordance with the contract
in accordance with the contract
in accordance with the following
in accordance with the provisions
in accordance with this agreement
in writing and signed by the parties
in writing by the parties
notice of termination of this agreement
notify the other party in writing
obligations hereunder, in whole or in part
or in any other manner
or in any other manner
or in any other manner
other applicable laws and regulations
other applicable laws and regulations
other applicable laws and regulations
otherwise agreed by the parties
performance of the contract
prior to the termination of this agreement
prior to the termination of this agreement
rights and obligations under this agreement
shall be deemed to have been made
shall not assign this agreement
shall not be deemed to constitute
shall not in any way
shall promptly notify the other party
shall, at its own expense signed by the parties
signed by the parties
specified in the contract documents
specified in the contract documents
the effective date of this agreement
the effective date of this agreement

因 本 契約 所 生 之 爭議
本 契約 執行 期間
任 一方 得 終止 本 契約
有 權 暫停 或 終止
依 仲裁法
依 契約
依照 契約
依 下列
按 規定
依 本 合約
書面 且 經 雙方 簽 名
書面 且 經 雙方 通知 終止 本 契約
經 書面 告知 他方
義務 之 全部 或 一 部
或 以 其他 任何 或 以 其他 任何 方 式
或 以 其他 任何 方 式 使
其他 有關 法令 規 定
其他 法令 規定
其他 相關 法令 之 規定
除 雙方 另 有 約定
履行 契約 應
本 契約 終止 前
係 於 本 契約 終止 前
在 本 契約 中 之 權利 及 義務
即 視為 已 送達
不得 轉讓 本 契約
不得 視為 或 構成
不得 以 任何 方式 應 立即 通知 他方
並 自行 負擔 費用 並 經 甲 乙 雙方 簽署
並 經 雙方 簽署
本 契約 文件 所 載
契約 文件 所 載
本 契約 生效 之 日
本 契約 生效日

the expiration or termination of this agreement	本 合 約 屆 滿 或 終 止	the other party in writing to comply with	他 方 以 書 面 以 符 合
the expiration or termination of this agreement	本 契 約 期 滿 或 終 止	the extent necessary without the other party	必 要 範 圍 內 未 經 他 方
the non-breaching party may	未 違 約 之 一 方	the provisions of this agreement	本 合 約 規 定
the occurrence of the event	事 故 之 發 生	any provision of	任 一 條 款
the parties agree that this agreement	甲、乙 雙 方 同 意 本 契 約	by either party	任 何 一 方 於
the parties agree that this agreement	雙 方 同 意 本 契 約	the provisions of	各 項 條 款
the parties are unable to	甲 乙 雙 方 無 法 於	within a reasonable period of	合 理 期 間 內
the provisions of this article	本 條 規 定	the maximum extent permitted by law	在 法 律 許 可 之 最 大 範 圍 內
the provisions of this contract	合 約 之 規 定	as a result of this agreement	如 因 本 合 約
the termination or expiration of this agreement	本 契 約 終 止 或 期 滿	any dispute	有 任 何 糾 紛
the terms and conditions hereof	下 列 條 款	obligation of confidentiality	有 保 密 義 務
the terms and conditions set forth	所 定 之 條 款 與 條 件	have a material adverse	有 重 大 不 利
the terms of this contract	本 合 約 之 約 定	entitled to	有 權 於
the terms of this contract	本 合 約 所 定 之 條 款	prior written	事 前 書 面
the validity of this agreement	本 契 約 之 效 力	other laws	其 他 法 令
this agreement, in whole or in part	本 契 約 之 全 部 或 部 分	other material	其 他 重 大
to the other party	向 他 方	or expenses	或 支 出 費 用
unless otherwise provided in this agreement	除 本 合 約 另 有 約 定 外	or limit	或 限 制
unless the parties agree otherwise	除 當 事 人 另 有 約 定	or expiration	或 期 滿
upon expiration or termination of	契 約 期 滿 或 終 止 後	or maintenance	或 維 護
upon expiration or termination of	期 滿 或 終 止 時	referred to	所 稱
upon receipt of such notice	於 接 獲 通 知 後	termination or expiration of this agreement	於 本 契 約 終 止 或 期 滿
upon termination or expiration of	契 約 終 止 或 期 滿 後	a reasonable period of time	於 合 理 期 間
upon termination or expiration of this agreement	於 本 契 約 終 止 或 期 滿 後	receipt of	於 接 獲
with or without notice	於 通 知 或 未 通 知 之 情 形 下	whichever is	者 為 準
with or without notice	通 知 或 未 通 知 之 情 形 下	court of competent jurisdiction	為 管 轄 法 院
without the other party's prior written consent	未 經 他 方 書 面 同 意 前	patent application	專 利 申 請
written consent of the company	經 本 公 司 書 面 同 意	after the termination of	終 止 後
written consent of the other party	經 他 方 書 面 同 意	the extent permitted	許 可 範 圍
written notice to the other party	書 面 告 知 他 方	the expiration of	期 限 屆 滿
written notice to the other party if	書 面 通 知 他 方 於	no obligation to	無 義 務
you or any third party for	您 或 任 何 第 三 人 均	the event of a dispute	發 生 爭 議 時
you understand and agree that	您 了 解 並 同 意	by the other party to	經 他 方 以
not liable	不 負 賠 償 責 任	upon termination of	經 終 止
is not responsible for	不 負 責	the parties shall be	雙 方 均 應
not directly or indirectly	不 得 直 接 或 間 接	in writing signed	簽 署 之 書 面
as follows	內 容 如 下	including, but not limited to	包 括 且 不 限 於
		the rights and obligations of the parties hereto	甲 乙 雙 方 之 權 利 義 務
		unless in writing and signed by the parties	並 作 成 書 面 且 經 雙 方 簽 名
		in writing and signed by the parties	並 作 成 書 面 且 經 雙 方 簽 名
		by written notice to the other party	一 方 得 以 書 面 通 知 他 方
		by written notice to the other	一 方 得 以 書 面 通 知 他 方
		party may terminate this agreement by	一 方 得 終 止 本 契 約
		party may terminate this agreement in	一 方 得 終 止 本 契 約
		party may terminate this agreement upon	一 方 得 終 止 本 契 約
		party may terminate this agreement with	一 方 得 終 止 本 契 約
		shall not, without the prior written consent	不 得 於 未 經 他 方 書 面 同 意 前

of	不得 直接 或 間接	agreement	間
shall not directly or indirectly		the interpretation of this agreement	本 契約 之 解釋
to the maximum extent permitted	允許 之 最大 範圍	after termination of this agreement	本 契約 終止 後
to the maximum extent permitted by	允許 之 最大 範圍 內	otherwise agreed to by the parties	由 甲 乙 雙方 另行 協議
the fullest extent permitted by	允許 之 最大 範圍 內	otherwise mutually agreed by the parties	由 甲 乙 雙方 另行 協議
maximum extent permitted by	允許 之 最大 範圍 內	respective rights and obligations of the parties	甲 乙 雙方 之 權利 義務
company reserves the right to	公司 有 權	the rights and duties of the parties	甲 乙 雙方 之 權利 義務
the company reserves the right	公司 有 權	the parties hereto hereby agree	甲 乙 雙方 特此 同意
days prior written notice of	天 前 以 書面 通知	the parties hereby agree that	甲 乙 雙方 特此 同意 以
days' prior written notice to	天 前 以 書面 通知	the parties hereby consent to	甲 乙 雙方 特此 同意 以
days written notice prior to	天 前 以 書面 通知	parties hereby agree to	甲 乙 雙方 特此 同意 以
days written notice to for damages caused by fire or other	天 前 以 書面 通知 火災 等 事由 所致 之 損害	terminate this agreement immediately upon	立即 終止 本 契約
the other party in writing of	他方 以 書面	to terminate this agreement immediately	立即 終止 本 契約
the other party may notify the other party in writing of	他方 並 得 以 書面 方式 通知 他方	promptly notify the other party	立即 通知 他方
giving written notice to the other party	以 書面 通知 他方 當事人	either party to terminate this agreement	任 一方 片面 終止 本 契約
providing written notice to the other party	以 書面 通知 他方 當事人	any kind, express or implied	任何 明示 或 默示
written notice thereof to the other party	以 書面 通知 他方 當事人	within a reasonable period of time	合理 期間 內
notify the company in writing	以 書面 通知 廠商	agree to comply with all out of or in connection with this agreement	同意 遵守 因 本 契約
hereinafter collectively referred to as	以下 合稱	the maximum extent permitted by applicable law	在 法律 許可 之 最大 範圍 內
including but not limited to any	包括 且 不 限於	maximum extent permitted by applicable law	在 法律 許可 之 最大 範圍 內
including, but not limited to, all	包括 且 不 限於	the fullest extent permitted by law	在 法律 許可 之 最大 範圍 內
including, but not limited to, those	包括 且 不 限於	or not in accordance with a result of this agreement	如 未 依照 如 因 本 契約
the non-breaching party terms of this agreement to	未 違約 之 一方 本 契約 之 條款	any breach of this agreement	如 有 違反 本 契約
of the effective date of this agreement	本 契約 生效 之 日	to have a material adverse	有 重大 不利
of the date of this agreement	本 契約 生效 之 日	but is not limited to are not limited to	但 不 限於 但 不 限於
the effective date of the agreement	本 契約 生效 之 日	but are not limited upon written notice to the other	但 不 限於 即 以 書面 通知 他 方
effective date of this agreement	本 契約 生效 之 日	shall be deemed to have been given	即 視為 已 送達
the date of this agreement	本 契約 生效 之 日	shall be given in writing in writing and signed by the parties hereto	均 應 以 書面 為 並 作成 書面 且 經 雙方 簽名
any provision of this agreement is	本 契約 任何 條款	the prior written consent of	事 前 書面 之 同意
that any provision of this agreement	本 契約 任何 條款	in accordance with applicable laws	依 相關 法律
any provision of the agreement	本 契約 任何 條款	in accordance with the laws	依 相關 法律
expiration of this agreement shall	本 契約 屆滿	terms and conditions set forth	所 定 之 條款 與 條件
expiration of this agreement	本 契約 屆滿		
contained in this agreement to	本 契約 所 載		
this agreement in whole or in part	本 契約 之 全部 或 部分		
the duration of this	本 契約 之 存續 期		

upon any termination of this agreement	於本契約終止後	jurisdiction	訴訟管轄法院
upon the termination of this agreement	於本契約終止後	any court of competent jurisdiction	訴訟管轄法院
be governed by the laws	法律為準據法	the other party's prior written	經他方事前以書面
governed by the laws of a material adverse effect on	法律為準據法 重大不利影響	the other party's prior written consent	經他方事前以書面同意
the term of the lease	租賃期限	agreed by the parties hereto	經甲乙雙方同意
unless otherwise mutually agreed by the parties	除當事人另有約定外	in writing signed by the parties hereto	經雙方簽署之書面
may terminate this agreement at	得終止本合約	at any time by giving written notice	隨時以書面通知
may terminate this agreement if	得終止本合約	at any time by written notice to	隨時以書面通知
may terminate this agreement under	得終止本合約	any time by giving written notice	隨時以書面通知
may terminate this agreement upon	得終止本合約	be terminated at any time	隨時終止
may terminate this agreement with	得終止本合約	terminated at any time by	隨時終止
to the extent permitted under	許可範圍內	terminate this agreement at any time by	隨時終止本契約
notice thereof to the other	通知對方	terminate this agreement at any time for	隨時終止本契約
performance of this contract	就本契約之履行	to terminate this agreement at any time	隨時終止本契約
expiration or termination of this agreement for	期滿或契約終止	or after the termination of this agreement	應於本契約終止後
upon expiration or termination of this agreement	期滿或契約終止	represents and warrants that it	聲明並保證
expiration or termination of the agreement	期滿或契約終止	rights and obligations of the parties hereto	雙方之權利義務關係
upon the expiration or termination	期滿或終止時	rights and duties of the parties	雙方之權利義務關係
in the event of a dispute event of a dispute	發生爭議時 發生爭議時	parties agree that this agreement	雙方同意本合約
a court of competent	訴訟管轄法院		

大學生對於語料庫輔助翻譯之態度探究

鄭詩萍 高照明

摘要

過去許多研究已證實語料庫對翻譯的教與學皆相當有助益，然而只有少數的研究探討過大學生對於語料庫輔助翻譯應用之態度。本研究旨在探討，對台灣的大學英語主修生，實施以學生為中心的語料庫輔助翻譯教學法，所帶來的以下兩個層面的影響。第一個層面為學生如何使用語料庫學習翻譯，以及在此過程中所認知的益處與經歷的困難有哪些？第二個層面為此翻譯教學法是否對於學生的翻譯學習態度有所助益，例如學習自主、學習動機、興趣之增強、對譯文自信心的提升等方面。

為探究大學生如何使用語料庫學習翻譯，研究者對此翻譯教學法進行個案研究分析。研究背景設定在台灣北部的某一所私立大學，研究者在此校教授一門翻譯課程，而研究對象則為選修此課程的二十九位同學。本研究選用的語料庫工具為TOTALrecall雙語索引語典和TANGO搭配詞索引語典，資料蒐集法包括問卷調查、團體訪談和學生的線上意見回饋。研究結果證實大多數的學生對於語料庫輔助翻譯抱持正面的態度，並且在學習使用語料庫工具輔助翻譯之後，對學習翻譯的態度變得更感興趣、更有學習動機、對譯文更有信心，亦增強了學習自主性。

關鍵字：語料庫、雙語索引語典、以學生為中心的教學法、翻譯教學法。

鄭詩萍，中原大學應用外國語文學系兼任講師。

高照明，國立臺灣大學外國語文學副教授。

本文部分初稿內容曾發表於「2012臺灣翻譯研討會－翻譯專業發展與品質提升」，作者在此向該場研討會主持人史宗玲教授、與談人藍月素教授及所有與會人士，以及本文的兩位匿名審查者所給予的修正意見致謝。

Exploring College Students' Attitudes towards Corpus-assisted Translation

Shih-Ping Cheng Zhao-Ming Gao

Abstract

Previous studies show that corpora are helpful to translation teaching and learning in numerous ways; however, the students' learning attitudes towards corpus-assisted translation are seldom discussed. This research addresses two issues regarding the implementation of a student-centered corpus-assisted translation approach with a group of Taiwanese university students undertaking English-majors. Firstly, how do students make use of corpora to learn translation, and what are students' perceived benefits and difficulties in this process? Secondly, is the student-centered corpus-assisted translation approach helpful to the students' learning attitudes towards translation in areas such as learner autonomy, increase of interest, motivation and confidence. A case study on student-centred corpus-assisted translation approach was conducted based on twenty-nine subjects in the context of a private university in northern Taiwan where one of the researchers teaches a translation course. The selected corpus tools for the approach are the TOTAL recall bilingual concordancer and the TANGO collocation concordancer. The instruments for data collection are questionnaires, group interviews and students' online feedbacks. The results indicate that the majority of the students are positive towards corpus-assisted translation and their learning attitudes in areas such as interest, motivation, confidence and learner autonomy are enhanced after learning to use the corpus tools to assist them in translation.

Key Words: Corpus, Bilingual Concordancer, Student-centred Approach, Translation Pedagogy

Shih-Ping Cheng, Part-time Lecturer of the Department of Applied Linguistics and Language Studies,
Chung Yuan Christian University
Zhao-Ming Gao 2 Associate Professor of the Department of Foreign Languages and Literatures,
National Taiwan University Zhao-Ming Gao, associate professor, National Taiwan University.

1. Introduction

Using corpora as an aid to translation has been widely discussed by several scholars. Possamai (2009) states that the use of corpora has shed light on the field of translation over the past decade, and computer software has made analysis of the corpus data possible. Corpora, therefore, have been utilized in various translation-related fields. Numerous research and teaching experiments have been conducted to prove the usefulness of corpus as an important resource in translation production and translator training. Scholars and researchers believe that corpus and bilingual concordancers are useful resources in teaching and learning translation (Bowker, 1998; Gao, 2011; Kenning, 2010; Possamai, 2009; Rodríguez-Inés, 2009, 2010; Tseng, 2009; Wang, 2011; Xiao and Yue, 2009; Zanettin, 1998, 2002).

The literature offers much evidence about the value of corpus-assisted approaches to translation but few studies have been conducted into the use of a student-centred corpus-assisted translation approach. There are also few studies on the use of the approach with Taiwanese students. Researchers and translation teachers in Taiwan have only noticed the importance of corpora recently; traditional translation teaching approaches are still commonly adopted by most translation teachers in Taiwanese universities. Therefore, the researchers are proposing a translation course for teaching with a student-centred corpus-assisted translation approach. More specifically, a bilingual concordancer and a collocation concordancer were selected as training tools for the students to make enquiries and learn to solve translation problems independently.

The researchers are interested in investigating how the corpus-assisted method will work with Taiwanese university students of intermediate English level, how the students use corpus tools to learn translation and their perceptions and attitudes towards the approach. A case study was conducted by using corpus and concordancer to teach a translation module and research data was collected at the same time. This research aims to find out the following two perspectives regarding the implementation of a student-centred corpus-assisted translation approach with a group of Taiwanese university students undertaking English-majors. First, how the students use corpus to learn translation, and the students' perceived benefits and difficulties in this process. Second, whether the student-centred corpus-assisted translation approach is helpful to the students'

learning attitudes towards translation in areas such as learner autonomy, increase of interest, motivation and confidence. For this paper, the researchers are going to report on the second perspective. The research questions this paper addresses are the following:

1. What are the students' perceptions and attitudes towards the student-centred corpus-assisted translation approach?
2. Is there any evidence of the effectiveness of the approach in areas such as increase in students' level of interest, motivation, confidence and learner autonomy in translating?

2. Literature Review

This research involves 4 sub-fields in the literature review, which include corpora and language learning, corpus-assisted translation, using corpus in teaching and learning translation, student-centred corpus-assisted translation approach. The literature review thus will be discussed from these four perspectives.

2.1 Corpora and Language Learning

With the rise of using corpora in language learning, the value of corpora has been widely discussed in relevant studies (Kenning, 2010; Possamai, 2009; Xiao and Yue, 2009; Zanettin, 2001). Based on the huge authentic language data collected, corpora were originally developed for the purpose of language analysis, for instance finding out the patterns of grammatical rules. Later, corpora were used to draw out authentic example sentences to compile dictionaries. Reppen and Simpson (2002) stated that one of the most significant contributions of corpus linguistics is that it reveals the patterns of language use in various settings. It also supplies a powerful instrument in analyzing authentic language, and can differentiate between oral and written communication, official and informal discourse. Language teachers use corpora to supply them with authentic language examples and to assist them in preparing classroom materials.

Boulton (2011) stated that Tim Johns was the first person that suggested the idea of “data-driven learning” more than twenty years earlier, and mentioned the term “data-driven learning” (DDL) in a paper for the first time in 1991 in a

collection of influential papers that was co-edited with Philip King, his colleague. Corpus has gradually become accepted and used in language teaching and learning. Chambers (2010) argued that Data-driven Learning (DDL) changed the role of language teachers substantially, and they became facilitators of language learning in the classroom instead of the only authority on target language knowledge. They help the students to understand the search results, provide suggestions on searching strategies for corpus, and examine and understand the search results. Gilquin and Granger (2010) stated that the DDL teaching method allows learning to be arguably more inspiring and interesting because it contains a component of discovery. Gilquin and Granger used a variety of activities to inspire the trainees they were teaching to make use of corpus, make observations of language use and obtain understanding of the language. They observed that learners following the DDL teaching method are more engaged, enthusiastic, and eventually more autonomous in their language learning.

2.2 Corpus-assisted Translation

More than a decade ago, corpora were introduced to assist translation production and translator training. Rodríguez-Inés (2010) defines a parallel corpus as one which contains the original language texts of one designated language and their translated target language texts in one or more other languages, which have been aligned with each other. Baker (1995) asserted that Parallel corpora have made the most significant contribution in Translation Studies by supporting the shift of focus from prescriptive to descriptive translation studies. Baker also contends that parallel corpora allow an evidence-based model to be established to help novice translators by demonstrating how translation problems are solved in actual practice. Possamai (2009) also argued that the use of corpora has shed light on the field of translation over the past decade, and computer software has made analysis of the corpus data possible. Corpora, therefore, have been utilized in various translation-related fields. Aston (1999), Bowker (1998), Gao (2011), Rodríguez-Inés (2009), Rodríguez-Inés (2010), Tseng (2009), Wang (2011), Xiao and Yue (2009), and Zanettin (1998) argue that corpora are helpful to translation teaching and learning in numerous ways.

Aston (1999) claims that whenever suitable corpora are available, translators are able to find quicker and more accurate reference from corpora for identical situations to solve their translation problems. They have an affirmative impact on

learning and can help translators to better understand the source texts and acquire strategies in producing more idiomatic and native-like target texts. Xiao and Yue (2009) argue that a monolingual corpus of the source or target language generally can help the translators increase their knowledge in language and culture, and can be a useful and powerful tool of reference for translators and learners of translation; therefore, they are really valuable to Translation Studies.

Kenning (2010) contended that the importance of comparable and parallel corpora lies in their accessibility to the massive collected data. Translators use them to solve the problems they encounter in translation by searching for knowledge and ideas in them. They have been used as a major tool for training translators in many current programs. Corpora have become an important resource of great value to translators and translator training. Xiao and Yue (2009) asserted that the three critical contributions of corpora to applied Translation Studies are “corpus-assisted translating, corpus-aided translation teaching and training, and development of translation tools” (p. 243). Xiao and Yue noted that the significance of corpora, corpus linguistic skills and applications have been proved by a growing number of research papers showing that they are helpful to translation assessment, translator training and facilitating the generation of translation texts.

2.3 Using Corpus in Teaching and Learning Translation

Scholars argue that corpora can increase the language awareness of translation trainees and are useful to learning translation in many different ways (Gao, 2011; Gilquin and Granger, 2010; Tseng, 2009; Wang, 2011; Zanettin, 2001). Wang (2011) argues that utilization of corpus has become increasingly significant in translation studies in China, and it can improve the language awareness of translation trainees because of the excessive amount of authentic language data stored. Zanettin (2001) found that the trainees’ understanding of languages and relevant cultures can be increased and their capability in reading and writing cultivated when they apply comparable corpora and concordancer in translation activities. The results from Gao’s (2011) research experiment correspond with Zanettin’s (2001) findings. Gao (2011) argues that the results from his survey showed that most participants were positive about the learning effects of using a parallel Chinese-English Concordancer called CERT (a bilingual concordancer developed by Gao), and agreed that it can be helpful to their learning of English

writing, reading and translation. In Tseng's (2009) research experiment, he found that a bilingual concordancer is indeed helpful in increasing the students' language awareness in translation.

Scholars argue that corpora are better translation aids than dictionaries because they provide authentic language reference that dictionaries often do not contain, and help translators solve translation problems and confirm hypotheses (Kenning, 2010; Possamai, 2009; Rodríguez-Inés, 2009, 2010; Zanettin, 1998, 2002). Zanettin (2002) states that a parallel corpus contains a collection of translation strategies that were used by previous translators when they were facing similar translation problems as the persons who make enquiries in the parallel corpus. Zanettin also contends that parallel corpora offer information that bilingual dictionaries often do not; they can supply evidence of how translators deal with equivalence in word choice in cases when no equivalent is available between the two languages involved. Kenning (2010) also argues that by searching for knowledge and ideas in corpora, translators use corpora as resources to help them solve the translation problems they encounter.

Possamai (2009) argues that when translators are translating, they can use corpus to help them double check their decisions, look up the collocations of specific words, search for alternatives, obtain jargon, etc. Rodríguez-Inés (2009) argued that the way students obtain translation skills can be enhanced by using resources such as electronic corpora and their analysis tools. If translation teachers want to improve students' abilities to resolve translation problems, the students need to be supplied with approaches to use existing resources, devise new ones and make the best use out of them. Zanettin (1998) asserts that comparable corpora are helpful in confirming translation hypotheses and offering potential resolution to translation problems of certain texts in the classroom context. Rodríguez-Inés (2010) argues that the value of parallel corpora in translator training is not restricted to providing a fixed resolution for translation problems, but it can also provide information such as useful translation strategies for the translation classroom.

The application of corpora in translation classrooms have improved the way translation teachers teach and translation students are trained (Gao, 2011; Rodríguez-Inés, 2009, 2010; Zanettin, 2001). Zanettin (1998) demonstrated the usefulness of bilingual corpora in designing a series of classroom activities with

the objectives of improving the trainees' comprehension of the source language text and capability to interpret the meaning and transfer it into the target language text. Rodríguez-Inés (2009) argues that in the documentation stage electronic corpora and corpus analysis tools are useful resources to translators, and have advanced translation related activities including the way translation is practiced and taught, and translation trainees are trained.

Bowker (1998), Gao (2011), Rodríguez-Inés (2010), Tseng (2009) and Zanettin (1998) have conducted teaching experiments to prove the value of corpora as an important resource in assisting translators and translation trainees to produce translation of better quality in various ways. Bowker (1998) conducted a pilot research with her translation trainees in comparing the translations produced from using conventional tools and specialized monolingual corpus, and found that translations produced with aids from corpus demonstrate better performances in professional knowledge, term choice and idiomatic expressions. Gao (2011) implemented experiments and a survey on 21 university students of higher-intermediate English level on the effectiveness of using CERT parallel Chinese-English Concordancer (a bilingual concordancer developed by Gao) to help the students with their learning of translation. Evidence was found in the post-test that using the bilingual concordancer helped the students with their lexical choice, collocations, phrasing and word forms in their translation tasks.

2.4 Student-centred Corpus-assisted Translation Approach

The difference between a traditional translation approach and the student-centred corpus-assisted translation approach lies in the change of roles for the teacher and the students (Rodríguez-Inés, 2009, 2010). Liao (2009) states that both traditional translation teaching and a grammar translation approach in EFL (English as a Foreign Language) teaching are teacher-centered approaches; the teacher plays the role of a knowledge distributor. However, the roles of teachers and students are really different in the student-centred corpus-assisted translation approach. Wang (2011) contends that learners are not receivers of knowledge anymore in corpus-driven learning; instead they have become joined researchers who pay more and more attention to the language patterns. Wang argues that the role of the teacher involves stimulating the learners to search for truth and answers and take pleasure in the process of learning in this kind of teaching approach. Rodríguez-Inés (2009) argues that the role of teachers used to be that of

information providers who had an answer for every question; however, because of the challenging job market that the students are facing, the ideal role of contemporary translation teacher has become information facilitator, who enhances the students' training processes and assists them anytime when needed, and most importantly inspires the students in expanding their operative knowledge, which refers to their *know how*.

Wang (2011) discusses the situation of translation teaching in China, asserting that innovative teaching approaches are needed in China, and corpus has provided an increasingly significant application in translation studies. Wang investigates the role of corpus-driven learning in training translation students at the university level in China. Wang found that with the emphasis of the constructive learning process which is supported by the large amount of authentic language data, corpus-driven learning is a possible resolution to the difficulties that the student translator training in China is facing because it can help the trainers to become more confident in their teaching, and assist the students to become more efficient and precise in their translation.

Rodríguez-Inés (2009) adopted a student-centred task-based approach and used corpora to teach a translation course in her research, and evaluated both the translation process and the outcome. Rodríguez-Inés found that using corpora allowed the students, the translation task and the resources in use to be the center of the learning process instead of the teacher. Rodríguez-Inés (2010) asserts that the corpus-assisted translation teaching method symbolizes a change from the traditional translation method. She adds that with the use of corpora, translation teachers and learners no longer need to depend on their language instincts; instead they can make decisions objectively by drawing evidence from the corpora.

Using a student-centred corpus-assisted translation approach helps the translation trainees to produce a translation of better quality and have a stronger interest in learning translation. In Gao's (2011) research experiment, he found that the students' ability to correct their own translation was improved through using a bilingual concordancer, as were the students' language awareness and learner autonomy. Tseng (2009) investigated the relationships between students' corpus enquiry strategies and their translation proficiency. In his research findings, Tseng refers to students' improvements in their translation performance and increase of interest in translation through using a bilingual concordancer to assist their

translation. However, besides the increase of students' interest in translation, Tseng did not mention other aspects of the students' attitudes towards using the bilingual concordancer.

As several aspects of students' attitudes towards using corpus to learn translation have not been fully explored, the researchers are interested in finding out other aspects of students' attitudes towards using corpus tools to assist their translation.

2.5 Definition of Terms

In this research, evidence of the students' learning attitudes towards corpus-assisted translation were organized into four categories, including the students' level of interest, motivation, learner autonomy and confidence. These terms are used in the research according to the following definitions.

For the first category of attitude, the definition of interest is “the feeling of wanting to know or learn about something or someone” (Oxford Dictionaries). Longman Dictionary of Contemporary English interprets it as “if you have an interest in something or someone, you want to know or learn more about them.” In this research, the researchers have defined interest as having the willingness to learn more about translation.

For the second category of attitude, the definition of motivation is “desire or willingness to do something; enthusiasm” as defined by the Oxford Dictionaries. Similarly, the Longman Dictionary of Contemporary English explains it as “eagerness and willingness to do something without needing to be told or forced to do it.” Although ‘motivation’ seems to be very close in meaning to ‘interest’, the definitions show that there is a distinguishing level of passion between the two terms. Therefore, the researchers defined motivation as having a strong feeling to do something with enthusiasm, and it does not need other people to force them to do so. In other words, students with motivation have the passion to learn translation without being asked to do so by the teacher.

The third category of attitude is learner autonomy. Longman Dictionary of Contemporary English interprets autonomous as “having the ability to work and make decisions by yourself without any help from anyone else.” The Cambridge

Dictionaries Online explains autonomy as “the ability to make your own decisions without being controlled by anyone else.” The researchers define learner autonomy as being autonomous and spontaneous in learning translation, which means the students found the drive from inside rather than outside, and they learn translation spontaneously.

The fourth category of attitude is confidence. Longman Dictionary of Contemporary English describes confidence as “the belief that you have the ability to do things well or deal with situations successfully.” The Cambridge Dictionaries Online interpret confidence as “the quality of being certain of your abilities or of having trust in people, plans, or the future.” Therefore, the researchers define confidence as the students’ belief in themselves that they have the ability to translate the texts, and are confident in the accuracy of their translation.

The results and evidence from the group interviews were sorted into these categories. The findings that support these four categories of attitudes are reported respectively in the results section of the paper.

3. Methodology

This is a study evaluating the value of corpora to translation students and investigating their use of particular corpora and their attitudes to this approach in a translation course. The appropriate research strategy adopted was empirical enquiry. A case study was carried out of the student-centred corpus-assisted translation approach, using mixed methods. Both quantitative and qualitative research methods are adopted to analyze the data, but it is mainly a qualitative study since the majority of the collected data is qualitative.

3.1 Context and Research Participants

The context for this study was a private university in the northern part of Taiwan where one of the researchers teaches a translation course. There were 30 students in the class; however, one of them dropped the class after mid-term examination. Therefore, this research is based on 29 students who majored in English in the Foreign Language Department of a private university. The research participants are full-time students who elected the researcher’s translation module, Corpus-assisted Translation, as part of their program requirements. They were

invited to participate in this research voluntarily. All of them agreed to do so, and signed the informed consent form.

3.2 Methods of Data Collection

This research has combined several data collection methods, rather than relying on one single research method. Three research instruments were chosen to collect data of different aspects in order to form a clear picture of the study, namely questionnaires, group interviews, and students' online feedback. The three chosen instruments were selected to triangulate the results of the study and confirm its findings. They also increase the reliability and validity of the research. These three instruments will now be discussed in turn.

Two questionnaires were administered to the students to find out their attitudes towards learning translation and their level of confidence in translating in midterm (after the teacher-centred traditional translation approach) and final (after the student-centred corpus-assisted translation approach) exam weeks respectively.

3.2.1 Questionnaire

29 questionnaires were collected for the midterm questionnaire, and 27 for the final questionnaire (one student did not return the questionnaire to the Researcher and one questionnaire was invalid). In both questionnaires, some of the questions were multiple choice questions based on a 5-point Likert scale, suitable to capture attitudes, and others were open-ended questions. The closed and multiple choice questions were easy for the students to fill out, whereas the open-ended questions took more time to answer, and some of the students might not take the time to answer them. However, these questions can help the researchers collect richer data and avoid prior assumptions of how the students might be thinking.

Questionnaires are instruments that can reveal the attitudes and thoughts of the student participants, and they allow comparisons to take place between the two questionnaires that were administered at different points of time. So, the scales of the students' attitudes and level of confidence in their translation can be compared. The questions in the questionnaires were designed based on the

research questions of the study. The researchers had expanded each research question into several relevant questions in the questionnaire, and had also devised two negative questions as checkers to see if the collected questionnaires are valid data for analysis.

The final questionnaire included all the questions that appeared in the midterm questionnaire, and some questions about the students' views and perceptions about using corpora to learn Translation. The repeated questions in both the midterm and final questionnaires are designed to compare the students' attitudes and level of confidence in their translation. However, there was one distinct difference between the two questionnaires. The midterm questionnaire was anonymous, but the students were asked to write down their student number in the final questionnaire. The researchers explained to the student participants that the reason for putting down their student number is for the purpose of data analysis, so that comments expressed in the final questionnaire could be analyzed and addressed with the students' coding number in the research paper.

3.2.2 Group Interview

Group interviews were conducted at the end of the one-semester course for more in-depth views of the students' attitudes and perceptions towards using corpora to learn translation. The researchers decided to conduct group interviews instead of individual interviews because the student participants might be more relaxed if they were interviewed in groups with their fellow classmates than on a one-on-one basis. To make the interviewees more comfortable, the researchers chose Mandarin Chinese to be the interview language, which was the mother tongue of both the student participants and the researchers, so the student participants could express their thoughts more easily and completely.

The group interviews were structured interviews with 4 categories of discussion topics covering 22 interview questions recorded on a group interview question form. The question forms were distributed to the student participants on the day when the group interviews took place. Providing the interview schedule prior to the group interview allowed the student participants to have an idea of what the group interviews might be like. The researchers explained to the student participants that the questions on the form were the ones that would be discussed in the group interview. They were requested to read through the questions and

think about potential answers, so that it would be easier to discuss these topics in the group interviews.

The student participants were asked to form groups of 4 to 6 people and sign up as groups on an interview timetable one week prior to the interview. There were 25 students (5 groups) who participated in the group interview. The group interviews were designed to be 30 minutes in length, however when the interviews actually took place, it was difficult to control the time due to the number of questions and lively discussion so that group interviews lasted from 30 minutes up to an hour.

The atmosphere in the group interviews led to deep discussions and good interactions between the student participants and the researchers, yielding rich data for the study and providing a huge amount of information on how students use corpora to learn translation and their perceptions and attitudes towards the approach. The interviews were recorded and transcribed.

3.2.3 Students' Online Feedback

Students were asked to share their feedback and suggestions towards the translation course and their thoughts about learning translation right from the beginning of the semester. The researchers established discussion forums for the translation module on the University Moodle system, where the students could post their thoughts and feedback. After midterm examination, new discussion forums were established regarding the corpus-assisted Translation approach. The students were also asked to express how they felt about using corpus to learn translation. The students' learning feedback was also an important source of data for the study because it recorded the students' perceptions and suggestions for the course as the module progressed. The students' online feedback was evaluated to triangulate the study.

3.3 Follow-up Procedures

The one-semester translation course was divided into two parts. The first part was from the beginning of the semester till mid-term examination: the second from the mid-term examination till the end of the semester. A teacher-centred traditional translation approach was implemented in the first part of the course,

and the student-centred corpus-assisted translation approach in the second. Teaching and training the students how to use corpora tools to assist them to translate was the intervention for the research.

The selected corpus tools in this study are the bilingual concordancer named TOTALrecall and the collocation concordancer called TANGO. They were developed by Liou, H. C., Chang, J., Yeh, Y., Liaw, M., Lin, C., Chen, H., You, G., Chuang, C., and Gao, Z. under the CANDLE (corpora And NLP for Digital Learning of English) Project in 2003 (http://candle.fl.nthu.edu.tw/newcandle/Home_E.asp). They are collectively called corpus tools in this research when they are discussed as tools for the teaching approach. Throughout the semester, the classes took place in a computer lab where Internet access is available to all the students and the teacher. The students were asked to practice making enquiries on the TANGO (<http://candle.fl.nthu.edu.tw/collocation/webform2.aspx?funcID=9>) and TOTALrecall (<http://candle.cs.nthu.edu.tw/totalrecall/totalrecall/totalrecall.aspx?funcID=1>) websites.

The curriculum for the Corpus-assisted Translation Course was designed by the researchers to meet the needs of students undertaking English-majors and for the purpose of collecting data in this research. The research was carried out during one semester from September 2011 till January 2012. The purpose of adopting the student-centred approach in this study was to help the students construct knowledge of translation skills by themselves. Using corpus tools to assist translating provides the support of information and language evidence to the students. The teacher plays the role of an information facilitator instead of information provider in the learning process (Rodríguez-Inés, 2009).

The intervention of the student-centred corpus-assisted translation approach started after the midterm examination. There were 8 weeks of time between the midterm and final examination ranging from week 10 to 17. However, 2 weeks of classes were taken away because the students went on a department field trip to visit local businesses in week 10, and had university sports (athletic meeting) in week 12. Therefore, there were only 6 weeks of classes with two hours each for the actual training of using corpus tools to help the students translate. The themes of training in each week are listed as the following:

- Week 11: Introduce BNC (British National Corpus) & demonstrate using TANGO
- Week 12: University athletic meeting (No class)
- Week 13: Demonstrate more enquiry skills in TANGO
- Week 14: Demonstrate making enquiries in TOTALrecall
- Week 15: Demonstrate how to make use of TANGO and TOTALrecall to assist translation
- Week 16: Training of enquiry skills and strategies, e.g. use English/ Chinese phrases to narrow down search results/ have focused search
- Week 17: Training of observing grammar patterns from the search results & strategies for solving translation problems

The teacher started the training by introducing what corpus is and showed the website of BNC web as an example to the students. The teacher then demonstrated using TANGO collocation concordancer because the majority of its collected data is based on BNC. In the first two weeks of the training (Week 11&13), the teacher only talked about and demonstrated TANGO. After the students got more familiar with TANGO, TOTALrecall was introduced and demonstrated in the third and fourth week of training (Week 14&15). In the last two weeks of training (Week 16&17), the focus of training became how to use corpus tools to help solve translation problems.

The design of the curriculum is to help the students get familiar with corpus and to use the corpus tools—first TANGO then TOTALrecall, and then train them to use the corpus tools to assist their translation. The students are guided with enquiry skills demonstrated by the teacher and are allowed to explore the corpus tools on their own. After they become familiar with using the corpus tools, the teacher then trains the students with enquiry skills to use the two corpus tools back and forth to find out ways to translate the Chinese words or phrases, and check the collocation combinations of the English equivalents for the translated text. The students are trained with corpus enquiry skills to assist their translation gradually, and are encouraged to discuss their enquiry methods with each other. The teacher often asks the students to share voluntarily about their enquiry strategies with all their fellow classmates. Through the process of hands-on practice and the stimulus of sharing from their fellow classmates, the students may acquire new enquiry strategies to solve translation problems.

When the students are assigned with in-class translation tasks, the teacher

would walk around in the classroom to ask the students if they have any questions. If the students ask questions, the teacher usually would not answer the questions right away. Instead, she would ask the students some guiding questions and always tries to help the student think about some possible answers or solutions before she gives the answers to the questions. If the student really has no idea about the solutions, the teacher sometimes would ask the whole class what they would do and call for volunteers to share their thoughts or enquiry methods. The purpose of doing so is to help the students develop their ability to solve problems independently and inspire one another with different ways of solving translation problems with the corpus tools. With the training of the student-centred corpus-assisted translation approach, it is hoped that the students eventually would get to construct their own corpus-assisted translation strategies.

3.4 Data Analysis

For this paper, the focus is mainly on qualitative analysis of all the data relating to students' attitudes. The data collected from the student group interviews are transcribed and coded. 25 student participants were group interviewed in total. Each student was assigned with a number after the transcription process, so that their responses are identified as S1, S2, etc. The responses from the student group interviews were color-coded into 7 different categories. Responses relevant to the category of students' attitudes towards the student-centred corpus-assisted translation approach were selected for data analysis in this paper. Then, these responses were further organized into 6 sub-categories, and translated into English. The evidence will be reported in regard to the following four aspects: students' level of interest, motivation, self-confidence, learner autonomy, etc. when they translate with the approach.

3.5 Validity and Reliability

Even though the majority of the collected data for this study was qualitative, the validity and reliability of the study could still be assured by the piloting process and triangulation of the data collection methods. This study adopted questionnaires, Group Interview and Students' Online Feedback as data collection methods that triangulate each other and provide data from various perspectives. Besides, the translation curriculum itself was piloted with the Pilot Group of the research one to two weeks prior to the official implementation with the Research

Group. Piloting the research increased validity of the research, and helped the researchers to avoid bias and increased the reliability of the research. The researchers found the pilot really useful in finding out improvements for how the course could be taught in a better way and became more confident about what she was doing when she taught the curriculum with the Research Group. The piloting of questionnaires and Students' Online Feedback were also equally important. Therefore, triangulation of the data collection methods and piloting the research really increased and assured the validity and reliability of the research.

4. Results

This research aims to explore two perspectives regarding the implementation of a student-centred corpus-assisted translation approach with a group of Taiwanese university students undertaking English-majors, namely, how the students use corpus to learn translation and whether the approach is helpful to their learning attitudes. As stated in the introduction, the second perspective will be discussed in this paper—the students' perceptions and attitudes towards the student-centred corpus-assisted translation approach. Evidence for the effectiveness of the approach in areas such as learner autonomy, increase of motivation and self-confidence in translating will be investigated.

The results of this section are based on 25 students who were group interviewed. The results show that the majority of the students are positive about using corpus to learn translation, which is in-line with previous studies (Bowker, 1998; Gao, 2011; Kenning, 2010; Possamai, 2009; Rodríguez-Inés, 2009, 2010; Tseng, 2009; Wang, 2011; Xiao and Yue, 2009; Zanettin, 1998, 2002). Evidence of the students' perceptions and attitudes towards the approach will be reported in the following four areas including the students' level of interest, motivation, self-confidence and learner autonomy.

4.1 Interest

Several student participants (S6, S9, S15, S21, S24) experienced an increase of interest in learning translation because of the implementation of using corpus tools to assist them to translate in the translation module. Some students said that their interest in learning translation has increased after they learned to use corpus.

S6: After I learned how to use the corpus, it is indeed quite helpful to me and my interest in learning translation has been slightly increased.

S15: When accuracy and sense of achievement in translation increase, interest increases naturally.

S21: Oh! I became really interested in learning translation.

Corpus-assisted translation helps the students who used to have poor performance in translation to become more interested in the subject. It also helps the students to overcome the sense of difficulty towards the subject, and become more motivated and interested in translation.

S9: I also think that my interest in learning translation has been increased. I used to have poor performance in translation and grades. However, I became more interested in translation after we started to use corpus.

S24: I think corpus tools are quite useful to me. It helps me not to feel that translation is a troublesome work. ... I have a higher level of motivation in learning and feel more interested in translation.

The students generally responded that making enquiries in the corpus tools with their translation problems is very useful in arousing interest in learning translation. The students emphasized that their interest in learning translation has increased after using corpus tools to help them translate. The evidence confirmed the usefulness of corpus tools in increasing the trainees' interest in learning translation.

4.2 Motivation

Some student participants (S4, S12, S16, S18, S24) responded that making enquiries in corpus tools with their translation problems helped to increase their willingness in learning translation. One of the students said that because corpus tools are helpful to translation, she became more motivated in learning translation. She also got more enjoyment in doing the translation tasks after being introduced to the use of corpus tools. Another student responded that she felt encouraged if she knew that she translates something correctly. She found the motivation to keep herself going, and felt that translation is not so difficult anymore with the help of corpus tools.

S4: Yes. Just because it is helpful, I have a stronger will to learn translation. Comparing to the time before the corpus tools were introduced, I now get more enjoyment in doing the translation tasks.

S16: With the help of corpus tools, when I translate something correctly, I would think, ok, I shall continue. ... I thought I'll carry on. ... Every time I translate something, I feel that this sentence isn't all so difficult at all.

Some other students said that they did not know how to organize the words they checked into sentences. However, after they learned to use the corpus tools, their translation work became easier to them because they could check the collocation combinations from corpus and observe the way words are organized in sentences. Besides, they think that translation has become less difficult and they learned how to write the sentences without having to think for a long time.

S12: Before I learned about the corpus tools, I only knew how to check vocabulary, but I didn't know how to turn the words into a sentence. However, after I used the corpus tools, I can figure out its collocations, and turn the words into a sentence. I then have a strong motivation to finish the sentence.

S18: Translation becomes less difficult than it was before. I used to think for a long time because I had no idea how to write the sentence as I was translating. Now, I am less confused and troubled than I was before.

The other student said that when she used an electronic dictionary to help her translate, she just wanted to quickly wrap up the work and finish as soon as she could. However, when she used the corpus tools to assist her translation, she found that there is something extra compared to using an electronic dictionary. She realized that she could learn a lot of things other than doing the assignment itself, and most importantly, she gained motivation in learning translation.

S24: I used to use electronic dictionary to help me do my translation task, and I felt like I want to quickly wrap up and finish the task. Now I use the corpus tools to help me translate, and feel that I can learn a lot of things apart from doing the assignment. ... There is something extra compared to the past—I found the motivation in learning.

The students found that corpus-assisted translation is helpful in increasing

their willingness to learn translation. The corpus tools can help them overcome the difficulties they encounter in translation; therefore, they have stronger motivation to do the translation tasks. They think that doing translation tasks in class becomes a more enjoyable work, and corpus tools have also helped them to become more motivated in learning translation.

4.3 Confidence

Many students (S4, S7, S8, S11, S13, S14, S18) stated that with the availability of the corpus tools, it saves them a lot of time trying to figure out the answers from checking the dictionaries. It also boosts the level of confidence in the accuracy of their translation. One of the students said that translation has become easier to her with the availability of similar sentences and grammar patterns from the corpus, and she felt that she translated well after finishing her work.

S20: Yes (the method is helpful to increase level of confidence)! Because it has similar sentences, I can figure out how to use grammar, and my translation would be more beautiful (better). As a result, I feel that it (translation) is actually not as difficult as I have imagined.

Some of the students respond that corpus tools help increase the accuracy of their translated texts, and their translation texts are much more correct than when they used dictionaries to assist them translate. Most importantly, many students expressed that their level of confidence in the accuracy of translation has increased substantially after they used the corpus tools to enquire translation problems.

S18: A little bit (increase of confidence in the accuracy of their translated texts).

S4: Yes, it does (the method is helpful to increase level of confidence in accuracy of translated texts).

S11: Seems like the translated texts are more accurate.

S14: I think knowing how to use the corpus tools can help me increase the accuracy of my translated texts. Even though it does take some time to figure out the answers, I still think it is worthwhile doing so. Because it is far better than spending a lot of time thinking and guessing the answers by myself.

S8: With this method, I would become more confident. Otherwise, I sometimes

spend a lot of time checking the dictionary, but all that I translated was wrong. However, things become better when I have the corpus tools, i.e. my translated texts are much more correct (than when I used dictionaries to help me translate). Even if something goes wrong, it won't be too far away from what is correct (it won't be serious mistakes).

S7: I used to feel really bothered and annoyed when I am assigned with one translation assignment. However, after receiving these training (of using corpus tools), I realized translating is actually quite interesting. I feel that I translated very well although mistakes are sometimes found and marked in my work. Nevertheless, I always feel that I translated really well after I finish translating. Therefore, my confidence in translating has been improved.

S13: Yes (my confidence has been increased). I just feel that I am well capable of finding answers really quickly. I am super! Wow~ I can write (translate) it all. Then, I feel really happy and don't think translation would be a problem to me. Having access to the two corpus tools has make things more handy. However, if I don't have the tools, I felt that I would return to what I used to be— not knowing how to translate and things are more difficult to me.

A brief summary of what the students said about the increase of confidence in their translation is discussed in the following. The students realized that translating is actually quite interesting after receiving training in using corpus tools. Knowing how to use the corpus tools helped the students increase the accuracy of their translation, and they know that even if they make mistakes, it will not be too far away from what is correct. Being able to find answers really quickly and knowing how to translate help the students no longer think translation would be a problem to them. These are some of the reasons why the students' confidence in translation would increase substantially after using the corpus tools to assist them in translating. Therefore, it is convincing that corpus-assisted translation can help the students to increase their level of confidence in the accuracy of their translation.

4.4 Learner Autonomy

Several students (S6, S9, S14) said that their interest in learning translation has been increased because of using corpus tools. They further explained that they became more spontaneous and autonomous in learning translation after they learned how to use corpus to assist them in translating. One of the students said

that using corpus has increased her interest in learning translation, but somehow it is not as helpful as expected. It is probably because the student was quite motivated even before she started learning to use the corpus tools.

S14: Yes, it does (arouse my interest in learning and make me want to learn translation spontaneously), but not as much (as expected).

The other student responded that using corpus tools is useful in arousing her interest in learning translation, and has helped her to become more autonomous in learning translation and studying English.

S9: I became more interested in translation after we started to use corpus. Consequently, I would search for information relevant to translation, or spontaneously study some English.

One of the students expressed her views towards the student-centred corpus-assisted translation approach, and said that the approach has helped her to learn translation autonomously. She thinks that the student-centred corpus-assisted translation approach is more useful to her learning of translation than the teacher-centred translation approach. The reason is because she would check the information in corpus spontaneously instead of waiting for the answers from the teacher.

S6: The latter (student-centred corpus-assisted translation approach) is more useful to my learning of translation because it becomes that we spontaneously check the information (in the corpus) by ourselves. It is not like we don't want to do the translation task and wait until the teacher demonstrates (how to translate the sentence). The situation becomes like you had to check (the answers) by yourself. As long as you check it and understand the word, it becomes yours. It's different from the way that the teacher teaches about it, and you think, "O.K. That's how it works."

It is interesting to learn that the students were no longer sitting and waiting for the teacher to explain the answers. Instead, they became autonomous in doing the translation tasks in class, and understood that they acquire the knowledge once they start to check the information and answers by themselves. The results show that using corpus to learn translation can help increase the learner autonomy of the

students.

4.5 Other Discoveries

Some students (S4, S25) noted that using corpus to assist them translate made doing translation tasks more enjoyable to them. It was also easier for them to find desired answers to their translation problems based on the language evidence provided in the corpus. Nevertheless, one of the students said that if she cannot find desired answers, she would feel like giving up using the corpus tools.

S25: But, if I cannot find the answers that I need, I wouldn't feel like using the corpus tools.

S4: Compared to the time before the corpus tools were provided, I now find more enjoyment in doing translation practice. ... It has become easier to find the answers because I have the corpus tools. Also, I get to know whether I have translated the texts correctly.

With the availability of the corpus tools, the students find it more enjoyable to do the translation tasks because it has become easier for them to find desired answers based on language evidence from corpora.

5. Discussion

Many scholars argue that corpora are helpful to translation teaching and learning in numerous ways (Aston, 1999; Bowker, 1998; Gao, 2011; Rodríguez-Inés, 2009, 2010; Tseng, 2009; Wang, 2011; Xiao and Yue, 2009; Zanettin, 1998). The majority of the existing literature suggests the value and usefulness of corpora to translator training in areas such as increasing language awareness of the translation trainees (Gao, 2011; Gilquin and Granger, 2010; Tseng, 2009; Wang, 2011; Zanettin, 2001), providing authentic language evidence and helping translators solve translation problems and confirm hypotheses (Kenning, 2010; Possamai, 2009; Rodríguez-Inés, 2009, 2010; Zanettin, 1998, 2002), and helping translators to produce translation of better quality (Bowker, 1998; Gao, 2011; Rodríguez-Inés, 2010; Tseng, 2009; Zanettin, 1998), etc.

However, there is little literature which discusses students' attitudes towards using corpora to learn translation. The only literature that the researchers have found so far that discussed about this issue is Tseng (2009) and Gao (2011). In

Tseng's (2009) research findings, he refers to students' improvements in their translation performance and increase of interest in translation through using a bilingual concordancer to assist their translation. Gao (2011) conducted research experiments, and found that the students' ability to correct their own translation was improved through using a bilingual concordancer, as were the students' language awareness and learner autonomy.

The results of the present study are in line with Tseng (2009) and Gao's (2011) findings in that corpora increase students' interest and learner autonomy in learning translation. The researchers also found that corpora enhance students' motivation and confidence. The student-centred corpus-assisted translation approach has made them feel positive about their learning and their ability to translate.

With partial interview data relevant to the students' attitudes being analyzed in the present paper, more than two-thirds of all the interviewees, 17 (S4, S6, S7, S8, S9, S11, S12, S13, S14, S15, S16, S18, S19, S21, S22, S24, S25) out of 25, have commented that their level of interest, motivation, confidence and learner autonomy have increased after using corpus tools to assist their translation. They think the corpus tools are very helpful in providing reference to language usage and production of better translation. None of the interviewees have expressed negative feedback on the usefulness of the corpus tools. Therefore, results from the study show that the majority of the students are positive towards corpus-assisted translation and found their learning attitudes in areas such as interest, motivation, confidence and learner autonomy enhanced after learning to use the corpus tools to assist them to translate.

6. Conclusion

This research hopes to provide teachers of translation with the experience of how corpus can be applied in a translation course to assist the students with their Chinese to English translation. More importantly, it aims to discover answers to the question of how helpful the corpus tools are in enhancing the students' attitudes in learning translation. The results of the study consolidate existing research on using corpus to learn translation; they build on the findings of other scholars and researchers and add more specific understanding of how students feel about using corpus to learn translation.

Another important contribution of this research is to share the experience of implementing a student-centred corpus-assisted translation approach to a group of Taiwanese students at university level, and provide a better understanding of how students use corpus to learn translation and their attitudes towards corpus-assisted translation. Corpus-assisted translation approach can offer an alternative translation pedagogy to translation teachers, and will possibly bring about some change and innovation in translator training and translation pedagogy in Taiwan. Therefore, it is hoped that the present study can possibly shed some light on the student-centred corpus-assisted translation approach for translation teachers in Taiwanese Universities and researchers of translation in Taiwan.

The present study is a preliminary investigation of 29 college students' attitudes towards corpus-assisted translation. In our future study, we plan to explore the empirical effects of the proposed approach on the quality of students' translation as well as the relationship between students' proficiency levels and their attitudes toward corpus-assisted translation.

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臺灣外文學術著作中譯需求趨勢 暨翻譯模式之實務分析

林慶隆 彭致翎 吳培若

摘要

藉由外文學術著作中譯，可引進世界各國學術發展成果新知，從而豐富國內學術資源，啟迪學術思潮，促進學術發展。臺灣因學術著作市場規模不大，稿酬低及譯者對學術著作翻譯的貢獻不易獲肯定等因素之影響，大專校院及研究機構學者進行翻譯意願不高，民間出版業者亦因成本風險考量，出版意願低落，尤其對於一些專精類學術著作，若無政府資源挹注，翻譯數量恐更為不足。然國內對外文學術著作中譯的需求重點如何？實際出版供應狀況如何？專職或兼職譯者之表現是否有差異？這些問題需有實務資料分析，方能對實際狀況有更深入的了解。本文以個案—國家教育研究院（含原國立編譯館）探析，主要探討：（一）臺灣近年來外文學術著作中譯的需求趨勢；（二）外文學術著作中譯實際出版情形；（三）外文學術著作中譯翻譯模式等議題。

本研究採文件與統計分析、焦點團體座談等方法。文件包括：（一）國立編譯館（2002-2011）及國家教育研究院（2011）的文件及數百冊圖書的推薦書單；（二）國立編譯館（2002-2011）及國家教育研究院（2011）翻譯出版的 180 多本學術著作、文件及專書的內容類別、譯者、審查結果、原著字數及譯著字數等資料。本研究發現國內對學術著作翻譯的需求以教育、人文、社會及行為科學、生命科學及自然科學較多；推薦翻譯圖書以英文原著最多；實際出版則以社會及行為科學領域，英文為原著語文最多；專職譯者與領域專業人士搭配，在譯稿審查有較好的表現等。最後，本研究對臺灣外文學術著作中譯未來翻譯發展作法提出一些建議。

關鍵詞：學術著作、外文學術著作、學術翻譯、翻譯政策

林慶隆，國家教育研究院編譯發展中心副研究員及中心主任。

彭致翎，國家教育研究院編譯發展中心助理研究員。

吳培若，國家教育研究院編譯發展中心研究助理。

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Practical Analysis of Trends in and Models of Taiwan Translations of Foreign Academic Works into Chinese

Ching-Lung Lin Chih-Ling Peng Pei-Jo Wu

Abstract

Translating foreign academic works into Chinese is essential to academic resources and development in Taiwan. However, this need also poses many questions. Which books in which academic fields need to be translated the most? How many translated foreign academic works are actually published every year? What kind of distribution do the translated publications enjoy in various academic fields? Do full and part-time translators perform differently from each other in their translation projects? The most crucial issue is: Which translated academic books are most needed for Taiwan's future academic development? Bearing these questions in mind, we focus the purposes of the present study on investigating (a) in which academic fields is there a high demand for the translation of foreign academic works into Chinese, (b) publishing status of those translated academic publications, (c) translation models used in the translation of foreign academic works into Chinese.

Document analysis, statistical analysis and focusing group interviews were adopted for this study to analyze the following sources:

- (a) Documents and book lists from the National Institute for Compilation & Translation (NICT, 2002-2011) and the National Academy for Educational Research (NAER, 2011). Hundreds of books were recommended every year during this period. They were first recommended by college teachers, researchers, and publishers and then reviewed by experts recommended by the NICT or the NAER.
- (b) Documents and book information from the NICT (2002-2011) and the NAER (2011). More than 180 translated books were published by the NICT or the

Ching-Lung Lin, Associate Research Fellow, Development Center for Compilation and Translation, National Academy for Educational Research

Chih-Ling Peng, Assistant Research Fellow, Development Center for Compilation and Translation, National Academy for Educational Research

Pei-Jo Wu, Research Assistant, Development Center for Compilation and Translation, National Academy for Educational Research

NAER during this period. This research refers to such information as book titles, content categories, translators, the total number of words of the original and the translated texts respectively.

The results showed that domestic demand for the translation of foreign academic works into Chinese fell into five main categories, such as education, humanities, social and behavioral sciences, life sciences, and natural sciences. Most of these scholarly books recommended by university teachers and institute researchers were written in English. As for translated academic publications, most of these scholarly books under translation fell into social and behavioral sciences, and English was the most original language text. Full-time translators allied with professionals in the field had better translation and review performance. Finally, some suggestions for future translations of foreign academic works into Chinese are given.

Key words: Academic works, translation of academic works, foreign academic works, translation policy

壹、前言

學術著作係指內容具有原創性、作者主要為大專院校教師或研究人員，或研究機構研究人員，且主要流通於學術專業社群之內的著作。外文學術著作中譯引進世界各國學術發展成果及新知，豐富國內學術資源，啟迪學術思潮，促進學術發展。臺灣因學術著作市場規模不大，稿酬低及譯者對學術著作翻譯的貢獻不易獲肯定等因素影響（賴慈芸、賴守正、李爽學、蘇正隆，2006），大專校院及研究機構學者進行翻譯意願不高，民間出版業者亦因成本風險，出版意願低落，尤對於一些專精類學術著作，若無政府資源挹注，翻譯數量恐更為不足。然而國內目前對外文學術著作中譯的需求重點如何？實際出版供應狀況如何？專職與兼職譯者表現是否有差異？諸此問題需有實務資料進行分析，方能對實際狀況有更深入的瞭解。

數十年來，國內除少數民間出版社從事外文學術著作中譯外，政府方面主要有國立編譯館（至 2011 年）、國家教育研究院（2011 年起）及行政院國家科學委員會等單位，其中國家教育研究院係於 2011 年 3 月 30 日由國立編譯館、國立教育資料館等單位整合成立，並承續原各單位業務。國立編譯館及國家教育研究院主要翻譯世界學術著作，國家科學委員會則補助翻譯經典學術著作。其中以國立編譯館長期投入外文學術著作中譯，數量超過一千冊，規模最大。國立編譯館（2002-2011）及國家教育研究院（2011）經由請各領域學者專家推薦，函請國內各大專校院轉請所屬教師、研究機構轉請所屬研究者、及出版業者推薦外文學術著作需要中譯圖書書單，再遴請各領域學者專家，依據學術重要性及翻譯為中文的必要性兩個審查標準進行審查，通過後列為與出版業合作翻譯外文學術著作的推薦書單，多年來已累積數百冊的書單，這些原推薦書單及審查通過書單資料可謂目前國內對外文學術著作中譯需求最具規模之調查，若經系統研究分析，將可了解臺灣對外文學術著作中譯的需求重點及趨勢；另外，近 10 年來，國立編譯館（2002-2011）及國家教育研究院（2011）與出版業者合作翻譯出版 180 多本學術著作，每本均有著作內容類別、出版者、譯者、原著字數及譯著字數等資料，若經系統探討及統計分析，將可對外文學術著作中譯出版供應實際狀況，專兼任譯者表現是否顯示差異等問題，提供實證資料，有助於瞭解近年來臺灣外文學術著作中譯需求重點、趨勢及翻譯模式，成果可提供研擬政策及發展外文學術著作中譯實務參考，以提升精進我國學術著作翻譯專業發展。

綜上緣由，本文之主要目的如下：

- 一、探討臺灣近年來外文學術著作中譯的需求趨勢。
- 二、探討臺灣近年來外文學術著作中譯實際出版情形。
- 三、探討外文學術著作中譯之譯者組合及翻譯表現等議題。

貳、文獻探討

臺灣社會經濟的進步，有賴於發展知識型經濟，以充實各級產業的知識含量。相較於西方先進國家，臺灣在知識交流中主要為接收與學習的角色，需要積極引進國外科學及各學術領域的知識（馮國扶，2012）。外文學術著作中譯雖然對豐富臺灣學術資源及促進學術發展非常重要，然而，國內除了王志弘（2005）《學術著作翻譯的症候與病理：臺灣社會學翻譯研究，1950-2005》，全面分析社會學範疇外文中譯狀況與問題；賴慈芸等人（2006）之國立編譯館專案《建立我國學術著作翻譯機制之研究》，從機制面探討國內外學術著作翻譯作法現況、問題，及提高學術著作翻譯稿酬等建議之外，對於外文學術著作中譯的探討並不多，至於其需求重點、趨勢及翻譯模式的研究亦付之闕如。茲依外文學術著作中譯之重要性及需求重點領域、出版現況、及翻譯模式等列述如下。

一、外文學術著作中譯之重要性及需求重點領域

翻譯對整體社會、教育的影響力，遠超過期刊論文，且有助於社會大眾對學科的認識（黃寬重、章英華、蘇國賢、呂妙芬，2012），而外國學術著作中譯最終目的，在於建立本地學術社群可以對話進行研究的語言，積累學術討論的基礎（賴慈芸等人，2006）。薛興國（1987）倡議國內大專院校教師及研究機構研究人員多投入學術著作翻譯工作，陳巨擘（2001）認為國家應挹注經費補助翻譯，孫中興（2004）以個人大學教學經驗為例，說明中譯本在教育的不可或缺，陳東升（2011）亦關切臺灣外文學術著作中譯的重要性及目前翻譯量的不足。另外，歷年來，黃碧端、李永熾、林水福、張小虹、余伯泉、蘇正隆、朱天心等學者分別或共同透過新聞媒體表達政府或學界應重視學術著作翻譯的價值（引自賴慈芸等人，2006）。黃寬重等人（2012）進行臺灣人文社會學術評鑑重要指標研究指出，有 70% 的大學教師受訪者肯定好的學術譯作具重要的學術價值，建議應列入教師學術評鑑指標。

關於外文學術著作中譯的需求重點領域，賴慈芸等人（2006）認為人文社會科學的學術書籍和大專用書需求均相當殷切，至於自然科學則以科普類書籍需求較多。然而，前述論點或看法，為從焦點團體座談學者專家的經驗歸納推論，非依調查資料的分析，故實際情形需進一步瞭解。

二、外文學術著作中譯之出版情形

目前國內從事學術著作翻譯的單位，可分為政府機構及民間業者。學術著作之選擇，有些由政府部門主導，與民間出版社合作出版；有些由民間部門主導，向政府部門申請補助；亦有些完全由民間獨資出版者。關於外文學術著作中譯出版情形，賴慈芸等人（2006）分析博客來網路書店及各出版社網站資料，歸納2005年有出版學術及教科書翻譯書籍的主要出版社有韋伯、五南等16家，出版數量為122冊，相較於當年度臺灣出版的四萬多冊書籍的出版量，約佔0.27%；且有不少接受該研究訪談的教師和編輯表示國內的學術著作翻譯市場萎縮，惟該數據並無各書領域類別、原著語文及譯者等資料。

為了解國內近五年來翻譯書籍出版狀況，國家教育研究院與國立臺灣師範大學（2012）進行之臺灣翻譯產業調查研究，由國家圖書館書目資料（2007至2011年）分析發現，書目資料計40,538件，其中已分類件數為27,973件，未分類件數為12,565件。資料內容包含類號、原著書名、譯著書名、譯者、出版社、及出版年，進一步根據賴慈芸等人（2006）所調查之主要學術著作翻譯出版單位為基礎，並增列心理、典藏家、師大書苑、高等教育等四家出版社，計20家主要學術著作翻譯出版單位，2007-2011年度共計出版2,577件譯著。而各年統計，2007年共有573件，2008年有579件，2009年有565件，2010年有375件，2011年有485件；2008年出版件數最多，2010年出版件數最少。與已分類翻譯類書籍比較，各學術著作翻譯出版單位出版品佔9%。與整體圖書出版品（包含翻譯類及非翻譯類）進行比較，學術著作翻譯出版單位之出版品在2007至2009年，佔整體圖書出版品的比例皆維持1.4%，而2010年則下滑至0.9%，上述學術著作翻譯出版單位中，出版翻譯類書籍最多的是遠流出版社，共出版443件，但以整體趨勢觀之，出版件數從2007年開始逐年下滑，排名第二的是時報文化出版社，共有419件。排名第三的是麥田出版社，共有321件。排名第四的則是聯經出版事業公司，排名第五的是五南出版社，共有227件。然而，上述數據係這些綜合型書籍出版單位所出版翻譯圖書的統計，這些出版業者尚出版一般性的翻譯書籍，學術著作翻譯出版品並未予以分離計算，故關於實際學術著作翻譯出版數量應少於其統計數字。

國內除民間出版社從事外文學術著作中譯之外，政府機構部門方面，主要有國家教育研究院（含原國立編譯館）、行政院國家科學委員會及文化建設委員會等，常態且長期的計畫有國家教育研究院（含原國立編譯館）的外文學術著作中譯，及國科會的「人文學及社會科學經典譯注計畫」。階段性的專案計畫則有教育部「通識教育重要著作譯注出版發行計畫」及「獎勵人權教育、生命教育與道

德教育出版品翻譯計畫」等。

多年來，國立編譯館結合海內外學人譯介世界學術名著，含文、理、法、商、工、農、藝術及教育等類，範圍及於學術經典、科技新知及大專用書等。2002年起採擇具學術重要性、翻譯之必要性，惟市場銷路有限、民間出版意願不高之專精類學術著作與出版業者合作翻譯，2011年3月國立編譯館整合入國家教育研究院後，仍承續此項業務，至2011年9月為止，已出版一百多種學術譯著。國立編譯館及國家教育研究院徵求出版業者合作翻譯出版學術著作時，雖然提供的書單學科領域涵括自然科學與人文社會科學等10多個領域，惟出版業者選擇參與合作翻譯著作大多集中人文與社會學科，其中以社會學領域為最多，超過總數二分之一；其次分別為政治及哲學，佔13本，理工及農（生物）總和僅有六本。以原著語種而言，發現包括英、日、德、法四種語言，而且，英文原著占最大比例，達137本（林慶隆等人，2010，2011）。

在國內外文學術著作中譯產業不盛之情況下，國立編譯館及國家教育研究院所提供與出版業者合作翻譯出版學術著作計畫，有助於持續維持引進世界各國學術發展成果及新知，豐富國內學術資源。

三、外文學術著作中譯的書單及翻譯模式

學術著作書單之蒐羅，賴慈芸等人（2006）在《建立我國學術著作翻譯機制之研究》建議可從《Choice》等書目資料庫、《Book Review Digest》、《Book Review Index》、國外大學出版社及學術出版社等管道取得。至於如何選擇原著作，可由各學門專家組成的委員會決定；政府部門的選擇應偏重市場價值不高，但學術價值高的作品，及大學教科書的翻譯較迫切等建議。國立編譯館及國家教育研究院與出版業者合作翻譯出版學術著作計畫，則徵求大學校院教師、研究人員、出版社與一般社會大眾推薦書單。原著作需符合下列原則：（1）自然科學類為最近三年、人文社會科學類最近五年出版之學術著作，如為經典之學術著作且未經翻譯出版，則不受前述年限限制；（2）前項之著作不包括字典、辭典、百科全書等工具書及通俗讀物。各界推薦之書單，經送學者專家審核通過後即納入公告書單，徵求出版業者合作翻譯。這些原則雖羅列外文學術著作中譯書單來源及原著選擇，但實際情況如何？有待進一步分析。

外文學術著作中譯的譯者，由於涉及專業知識，有些研究認為可由各學術領域培養自己的翻譯人才（賴慈芸等人，2006；陳東升，2011）。然而實際上，許多出版社係採取譯者搭配專業人士審稿的方式。賴慈芸等人（2006）認為臺灣的學術著作中譯規模並不大，倘由每一個學術領域培養自己的翻譯人才，似乎並不

切實際，而後者的專業人士「審稿」方式偏重成品的審核評定。因此，該研究建議，採語言/翻譯專家與知識領域專家合譯的方式，最能兼俱知識專業與翻譯效率。另外，國立編譯館及國家教育研究院與出版業者合作翻譯出版學術著作計畫，譯者需具備之條件包括：(1) 具中華民國國籍；(2) 碩士學位以上或大專校院講師以上或具相當資格，或過去曾翻譯相關學術著作並經公開出版發行之翻譯者。在實務運作層面而言，譯者各種組合之實際情況如何？表現是否有差異，有待從實務資料進行分析。

關於英譯中的字數計算，依據劉敏華等人(2005, 2006)於《建立國家翻譯人才評鑑標準》第二、三期研究中對一般文件筆譯試題發展的作法，採 100 個英文字對應 140-160 個中文字計算；至於在學術著作翻譯實務上，國立編譯館及國家教育研究院採 100 個英文字對應 150 個中文字之計算方式，這些數據都是從一些樣本所獲得之經驗值，若藉由實務資料進行仔細分析，有助於對實際的情況有深刻的了解。

黃寬重等人(2012)進行臺灣人文社會學術評鑑重要指標研究顯示，雖有超過三分之二的大學教師受訪者認同翻譯學術著作之重要性，但以目前國內學術環境，要學者投入翻譯的工作相當困難，其主要原因包括：翻譯學術著作的難度高；時間不夠；翻譯在評鑑中沒有績效，影響最大；翻譯學術著作的市場銷售量太小，出版社出版的意願低落等因素。對於如何提高學術著作翻譯的參與投入量，基於取得國外書籍授權所費不貲，若能由學者提供各學門優良著作名單，由政府協助取得版權，將有助於學者投入翻譯工作，提升學術著作翻譯的品質。

綜合上述文獻，發現國內對於外文學術著作中譯之需求重點、趨勢及翻譯模式等相關研究很少，而且並無較全面資料或實務文件的分析。因此，為補強先前研究之不足，提升外文學術著作中譯之成效，以作為後續研究的參考，亟需就臺灣近年來外文學術著作中譯的需求趨勢、外文學術著作中譯之實際出版情形、書單與翻譯模式等相關議題實務運作層面予以深入探討，期對臺灣外文學術著作中譯未來翻譯重點及實務等提出具體建議。

參、研究方法

本研究採取文件分析、統計分析進行資料蒐集與處理，以及焦點團體座談法進行研究。文件資料包括：(一)國立編譯館(2002-2011)及國家教育研究院(2011)共 10 年的文件，及原推薦書單及審查通過的書單資料。(二)國立編譯館(2002-2011)及國家教育研究院(2011)翻譯出版學術著作的文件及專書的內

容類別、譯者、原著字數及譯著字數等相關資料，並進一步應用統計分析學術著作內容類別、專兼任譯者等對翻譯表現是否顯示差異。

本研究主要係針對國立編譯館（2002-2011）及國家教育研究院（2011）與出版業者合作翻譯出版之學術著作進行個案實務分析，作為臺灣外文學術著作中譯的理論與實務印證之參考，並未包含民間出版社及其他政府機關翻譯出版之學術著作；進行翻譯著作中文字數與原著作英文字數比值分析時，中文字數是以微軟 word 軟體進行字數統計，惟英文原著作字數是採抽樣估計方式，採計範圍為序文、正文與附錄（不含首頁、書名頁、目次、參考文獻、索引等），計算方式為每書自正文之第八頁，每 10 頁抽一頁（若抽取之頁逢圖則跳前一頁；若抽取之頁數中有 25% 之頁數其行數不足半頁，超出部分逢抽取之頁不足半頁，則跳前一頁），以各該頁之第八行字數（標點符號不計，若該行不足半行則跳前一行）乘以各該頁之行數為各該頁之字數，各頁數字數加總後，取其平均單頁字數，乘以採計範圍總頁數得計算之總字數。致可能會有誤差，為研究限制之一。

本研究所使用的統計分析包括描述性統計及 ANOVA 分析等。以次數分配與百分比、平均數、標準差分析基本資料之平均與分布情形，以譯者的不同背景或組合，或圖書之領域類別為自變項，並以譯稿審查情形或（中文字數/英文字數）比值為依變項，進行 ANOVA 分析，以瞭解不同背景的譯者或組合，或圖書之領域類別在譯作審查或文字精簡表現上是否有顯著差異。

本研究舉辦兩次焦點團體座談，分別邀請學術單位、學術譯者及出版單位學者專家共 10 位參與，以瞭解其對於學術著作翻譯相關議題之看法與建議等，其中多位與談者兼具學者、譯者或出版專業。訪談大綱主要探究下列議題：

- 一、國內過去幾年對翻譯的需求以教育、人文、社會及行為科學、生命科學及自然科學較多。推薦翻譯的圖書雖以英文原著最多，但亦包括法、日、德、俄文等原著。實際出版方面，國教院與出版業者合作進行翻譯的圖書最多的是社會及行為科學領域。原著語文以英文最多，需求領域及原著語文與實際翻譯出版存在的落差，其可能因素為何？出版業者、譯者，抑或是讀者需求的因素？
- 二、譯者背景包括學校教師、博士生及碩士及專職譯者三類，幾乎各達三分之一，資深教師或研究人員搭配專職譯者在譯稿審查的表現較好；專職譯者搭配其他譯者表現次之。而且，資深的教師及研究人員的譯者或是專職譯者表現並沒有相對較為突出，其可能因素為何？外文學術著作中譯譯者的組合模式何者較有效益？對政策制度的建議？
- 三、學術著作翻譯書籍書單來源，學者推薦、出版業者推薦、委員會推薦或其他

管道？何者較能貼近使用者需求？

四、臺灣有那些出版社翻譯出版學術著作？翻譯出版那類書籍？數量多少？行銷管道？

五、其他議題，包括與出版社或翻譯系所合作翻譯的實務問題與建議？如何提升學術著作翻譯的品質？配套措施為何？

焦點座談會議結束之後即由研究者整理摘錄會議紀錄，互相比對錄音檔與抄錄，確保摘錄訊息內容正確與完整性。此外分別就參與者在焦點座談所提供的意見進行編碼，並以代號呈現，將各學者專家對外文學術著作中譯相關議題之看法歸納彙整分析。

肆、結果與討論

從文件與數據的統計分析及焦點團體座談討論結果，探討臺灣近年來外文學術著作中譯的需求趨勢，外文學術著作出版供應情形暨外文學術著作中譯之譯者組合及表現等相關議題。

一、臺灣近年來外文學術著作中譯的需求趨勢

關於外文學術著作的中譯工作，國家教育研究院（含原國立編譯館，以下簡稱國教院）基於發揮國教院在圖書選擇及審查的專業，暨出版業者在版權取得、譯者及編輯出版的專業，自 2002 年來開始以公開招標的方式與出版業者合作翻譯發行學術著作，翻譯書單由出版業者提出，經國教院聘請學科專家依據學術重要性及翻譯必要性的標準進行審查，通過後再由採購評選委員會考量譯者，及出版業者的承作能力與經費等相關因素，決定那些著作可合作進行翻譯。2003 年因經費問題停辦一年，2004 年依 2002 年方式辦理，2005-2007 年的書單除了由出版業者自行提出外，同時請國科會學門召集人、教育部顧問室顧問、國教院相關學術名詞審譯委員會召集人等推薦。2008 年開始，行文函請各大專校院教師及中央研究院等研究單位學者推薦，再請學者專家審查通過後，列為推薦書單，故這些書單可視為臺灣學界對外文學術著作中譯的需求。而且，每年的書單除了增加新推薦的書單，對於前一年度的書單亦經檢討決定保留或刪除。

各年度各推薦來源所推薦的圖書數量詳如表 1，發函行文請有翻譯需求的學者專家推薦後，推薦圖書數量逐年增加，顯示學界對外文學術著作中譯的需求逐年增加的趨勢。

表 1 2005-2011 年各推薦來源所推薦的圖書數量統計表

年 \ 來源 ¹	1	2	3	合計
2005	159	24	-	183
2006	238	18	-	256
2007	279	27	-	306
2008	263	42	71	376
2009	178	39	120	337
2010	77	30	149	256
2011	79	36	257	372

注：數字 1，2，3 代表的意義：

1. 國教院（含原國立編譯館）請國科會學門召集人、教育部顧問室顧問、國立編譯館相關學術名詞審譯委員會召集人等推薦之翻譯書單。
2. 參與投標之出版業者之翻譯書單。
3. 國教院（含原國立編譯館）請各大專校院教師推薦翻譯書單，再請學者專家審核通過之書單。

資料來源：本研究整理

進一步將推薦圖書依據教育部之學科分類標準予以分析，其領域類別包括教育等 18 領域（詳如表 2）。就需求數量而言，以教育、人文、社會及行為科學、生命科學、自然科學、環境保護類較多。對於人文社會領域翻譯的需求較多，此符合許多學者的見解（賴慈芸等人，2006）；對於生命科學、自然科學、數學、統計、工程、環境保護等屬於數理工領域，一般認為教學時教師大都要求學生使用原文書，所以中文翻譯需求應不會太高，然而實際上是每年、各領域對譯著均有需求。另外，從 2008 年開始函請大專校院教師及中央研究院等單位學者推薦後，藝術、法律、農業科學、醫藥衛生、社會服務及民生等領域，逐漸有中文翻譯之需求，顯示各領域對於譯著均有需求。

表 2 推薦翻譯圖書的原著語文，包括英、德、日、拉丁、法、及俄文等語文，其中以英文最多，依次為法文、日文及德文（詳如表 3）。以 2011 年為例，英文為 319 件，日文及法文各為 21 件，德文為 9 件。可能的原因，一是英文為學術交流主要使用的語文，因此學術著作大都以英文出版，另一可能是國內各大學的教師或研究機構的研究人員從大學開始即使用以英文為主的原文書，或留學英美國家較多，較熟悉英文著作，因此推薦著作的語文以英文最多。至於俄文的著作，在 2010 年及 2011 年才有學者的推薦，顯示我國引入新的學術新知還是以英文著作為主，雖反映學術界的需求，然就外文學術著作中譯之目的在引進國內需要的國外學術發展成果，以充實教育學術資源而言，殊值討論。國內很多大學的專業

科目，教師大都使用英文原文書作為教科書，學生可直接接觸吸收英文學術著作的知識，反而是跨領域入門需要的學術著作，因為不同領域有不同的學術名詞，其他領域的人較不易閱讀英文原文書，中文譯著可較快速閱讀學習，以豐富跨領域的知識，因此，這些英文著作反而是較需要翻譯引介國內參考。關於法、日、德、俄等國家的學術著作，國內大多數的研究者或學生較不熟悉，因此，如能將之翻譯提供運用，當能充實豐富國內學術知識的寬度及深度，有益於學術發展。推薦翻譯圖書之原著語文與其領域類別關係，詳如表 4。人文、社會及行為科學領域有較多英文以外的推薦翻譯著作，較特殊的是法律方面僅有德文及日文的推薦書單，並無英文著作。

表 2 2005-2011 年推薦外文學術著作中譯的圖書類別及數量統計表

年 類別 ¹	2005	2006	2007	2008	2009	2010	2011
教育	48	52	70	87	100	57	58
藝術	-	-	1	-	4	7	25
人文	24	30	31	40	59	62	109
社會及行為科學	25	41	64	80	65	67	64
傳播	3	1	2	3	5	5	9
商業及管理	9	10	-	4	4	5	5
法律	-	-	-	-	-	1	4
生命科學	23	44	28	30	17	2	6
自然科學	12	43	61	78	34	13	19
數學及統計	-	5	5	5	13	7	7
電算機	-	6	11	11	9	2	4
工程	9	6	9	9	11	9	23
建築及都市規劃	-	-	-	-	-	3	3
農業科學	10	-	-	-	-	1	6
醫藥衛生	-	-	-	-	-	-	8
社會服務	-	-	-	-	-	7	10
民生	-	-	-	5	4	7	11
環境保護	20	18	24	24	12	1	1
合計	183	256	306	376	337	256	372

注：對翻譯書單之分類係依據教育部學科標準分類之大專校院科系代碼歸類。

<http://www.edu.tw/pages/detail.aspx?Node=1745&Page=5350&Index=9&WID=31d75a44-efff-4c44-a075-15a9eb7aecdf>

資料來源：本研究整理

表 3 推薦翻譯圖書之原著語文及數量統計表

年度 \ 語文	英	德	日	拉丁	法	俄	合計
2005	176	3	2	-	2	-	183
2006	250	1	2	-	3	-	256
2007	295	1	3	-	7	-	306
2008	362	4	4	-	6	-	376
2009	317	2	5	-	13	-	337
2010	225	3	7	-	20	1	256
2011	319	9	21	1	21	1	372

資料來源：本研究整理

表 4 推薦翻譯圖書之原著語文及其領域類別統計表

類別 \ 語文	英	德	日	拉丁	法	俄
教育	466	-	6	-	-	-
藝術	35	1	-	-	1	-
人文	288	10	12	1	42	2
社會及行為科學	370	9	4	-	23	-
傳播	28	-	-	-	-	-
商業及管理	37	-	-	-	-	-
法律	-	3	2	-	-	-
生命科學	149	-	0	-	1	-
自然科學	257	-	3	-	-	-
數學及統計	31	-	6	-	5	-
電算機	40	-	3	-	-	-
工程	71	-	5	-	-	-
建築及都市規劃	6	-	-	-	-	-
農業科學	16	-	1	-	-	-
醫藥衛生	7	-	1	-	-	-
社會服務	17	-	-	-	-	-
民生	27	-	-	-	-	-
環境保護	99	-	1	-	-	-

資料來源：本研究整理

根據焦點座談的結果，學者專家均肯認學術著作翻譯的重要性。學者 A1 認為所有學術或知識進步的國家，翻譯定會做得非常好，如有優質的翻譯，外文學術著作中譯的需求是存在的。面對來自多元領域不同的需求與意見，就國家教育研究院而言，囿於資源有限，應考量要服務的對象，故首要重視高品質的翻譯，書單要有重點，而非抽象地僅指要滿足多少人的需求。亦有學者 A3 表示，學術著作翻譯的需求多視學校教師是否使用和推薦，所謂的主觀需求和實際供應的落差是表象問題，應更重視翻譯的品質；亦有學者 P3 表示，有些時候需求是可以創造出來的。

本研究發現各出版社在選擇書籍方面，大致上並無固定的作法，有些會尋求學者或領域專家建議，有些是根據主編或編輯個人意見，有的則是透過代理版權公司、譯者引薦擇選等。考量的標準包括原著的學術重要性、本地學界的興趣、是否能找到合格譯者、市場接受度等。國教院廣徵蒐羅各大學校院等機構研究人員、教師等推薦書單需求的作法，顧及層面較廣，除透過由各學門專家組成之委員會篩選原著是否符應重要性、學術價值、影響力、國內發展需求、強調臺灣社會自由民主之優勢等，以補充自由市場不足之外，同時可思考規劃長期、系列性的著作，亦要考量後續各項作業流程之品質控管，以維學術著作翻譯的品質。

二、外文學術著作中譯之實際出版情形

國教院將外文學術著作中譯的定位在著作具有學術重要性及翻譯必要性，且政府資源投入挹注後才會出版印行的書籍。基於發揮專長及效益的考量，自 2002 年起採行與出版業者合作的方式翻譯出版外文學術著作，書單中的外文學術著作是否能夠翻譯出版，係譯作市場需求與出版業者供應能力的綜合考量，影響的因素包括出版業者的專業屬性、是否有合適的譯者、原著授權的程度及預估的市場銷售量等因素。

各年度翻譯圖書之類別及數量詳如表 5，從 2002 至 2011 年國教院與出版業者進行翻譯的圖書有 198 本，包括教育、人文等 8 領域，其中最多的是社會及行為科學的 131 本，人文的 37 本及教育的 11 本。相對於翻譯需求的 18 類及需求數量，明顯在實際出版圖書方面，有過度集中在社會及行為科學、人文的現象。至於原著的語文，以英文 172 本最多是可以預期，依序是德文 14 本、法文 7 本、日文 5 本，詳如表 6，這亦與需求順序不同；顯示實際翻譯出版的重點領域與學術界的翻譯需求有落差，原因可能是出版業者本身的業務專業較偏向人文社會方面，或市場的考量，或譯者的專業、語文的限制等，實際原因如何，值得探究。

表 5 國教院 2002-2011 年進行翻譯圖書之類別統計表

年 \ 類別	教育	人文	社會及 行為科學	傳播	生命 科學	自然 科學	工程	社會 服務	合計
2002	-	8	2	-	-	-	-	-	10
2004	-	3	6	-	-	-	1	-	10
2005	-	6	7	-	-	-	-	-	13
2006	1	3	16	-	1	-	-	-	21
2007	5	3	20	2	-	-	-	-	30
2008	-	5	27	1	1	1	-	-	35
2009	5	4	18	3	-	-	-	-	30
2010	1	2	25	-	-	-	2	2	32
2011	1	3	10	2	-	-	1	-	17
合計	11	37	131	8	2	1	4	2	198

注：2003 年因經費不足停辦 1 年

資料來源：本研究整理

表 6 國教院 2002-2011 年翻譯圖書之類別及原著語文統計表

語文 \ 類別	教育	人文	社會及 行為科學	傳播	生命 科學	自然 科學	工程	社會 服務	合計
英	13	23	124	8	1	-	1	2	172
德	-	8	6	-	-	-	-	-	14
日	-	1	-	-	-	1	3	-	5
法	-	5	1	-	1	-	-	-	7
合計	13	37	131	8	2	1	4	2	198

資料來源：本研究整理

關於外文學術著作中譯需求與實際出版的落差，學者 A1 表示，社會及行為科學領域雖達 131 本，然而就社會科學領域發展之總體書量而言，此數量並不算多。學者 A2、A3、A4 皆認為臺灣翻譯出版最大的問題在於成本結構的限制，稿酬非常的低，所以造成願意投入翻譯的人才不多；國內出版社基於市場的考量，選擇有利的譯作出版。

學者 P1、P4、P5 表示，諸如理工、自然科學、生命科學、醫護等領域，很多都是使用原文書，社會、教育、人文領域則以使用翻譯書的機會較多。翻譯的語文種類以英文為主，日文居次，其他語種則很少。其主要是國內對於外語學習

多接受英語教育養成，一般而言到大學程度的時候，已至少接觸六年的英文；再者，學者專家留學以英美語系國家居多，導致推薦者以熟悉的語言為主，對其他語文不熟悉影響推薦。即便是日文，因日文書編輯、寫作有別於歐美的邏輯思考，故日文書引進過程也有落差。除了推薦者因素之外，譯者、出版社編輯、審稿者的語文能力也是一個限制，其養成還是以英文為主。有出版專家 P3 表示，其他外國語言雖有嘗試翻譯，但是有較多的挫折，諸如譯者難尋、成本效益考量因素等問題。

國內學術著作翻譯實際出版數量偏少之情形，有專家 A1、A2、A3、A4、P2、P3、P4 等表示，也有可能是因為中國大陸簡化字譯本大量湧入臺灣的緣故，然簡化譯本品質參差不齊，且影響臺灣學術自主性甚鉅。有些學者 A1、A3、A4、P2、P3 表示，採用簡化字譯本牽涉的不僅是閱讀思考邏輯、中文寫作的的能力退化，還包括學術自主、意識型態、自由民主及人權等，實屬國家安全層級問題，是非常嚴重的問題，甚而「正體簡骨」趨勢已然出現，必須加以正視。學者 A4、P3 認為，從國安的角度來看，社會科學最不能依賴大陸譯本。國家要如何去協助學術著作翻譯及出版穩固發展，較之以往更為關鍵且更形重要。

三、外文學術著作中譯之翻譯模式暨表現

學術著作翻譯譯者的來源可能影響翻譯的發展，國教院與出版業者合作翻譯發行學術著作時之譯者條件有三項，包括：(1) 具碩士學位以上，或 (2) 大專院校講師以上或具相當資格，或 (3) 曾翻譯相關學術著作並經公開出版發行，符合其中一項即可。經統計得知，國教院 2002-2011 年與出版業者合作翻譯已出版圖書之譯者總計 184 人，譯者職稱及人數詳如表 7。

表 7 國教院翻譯圖書之譯者職稱統計表

譯者職稱	人數
教授	18
副教授	19
助理教授	9
兼任講師	5
研究員	1
副研究員	4
助理研究員	2
博士或博士後研究	1

(續下頁)

表 7 (續)

譯者職稱	人數
博士生	27
碩士或碩士生	20
專職譯者	44
專職譯者與助理教授或助理研究員以上之組合	4
專職譯者與其他譯者之組合	4
其他 ²	26
合計	184 ¹

注：1.國教院 2002-2011 年與出版業者簽約合作翻譯之 198 種著作中，至 2012 年 8 月 31 日已通過審查並已出版的有 184 種，有 14 種進行翻譯中尚未出版。

2.其他包括總編輯、評論者、文字工作者（作家）、旅外學者、臨床心理師等人員。

資料來源：本研究整理

譯者職稱主要可分為大專院校教師及研究人員 53 人、博士生碩士或碩士生 48 人、專職譯者 44 人等三群，分別代表具豐富學科專業能力、稍具學科專業能力、及具翻譯專業能力。學術著作是很專業的著作，然而學校教師的譯者比率僅占約三分之一，或許與很多學校並不採認學術著作翻譯著作為成果有關。然而，翻譯著作對於學生學習的重要性在人文社會領域並不亞於學術論文（黃寬重等人，2012），所以如何創造誘因，吸引大專院校教師及研究人員投入翻譯工作，是一值得深思關注的問題。而專職譯者人數亦幾達三分之一，此對我國學術著作翻譯的發展會有正面的影響，有專職的人才持續的投入翻譯工作，有利於新著作的立即翻譯及專業的養成。

譯者完成之譯稿，由國教院聘請之學者專家全文審查，審查程序為：(1) 譯稿送一位審查人審查，審查通過即出版發行，或審查意見送譯者修正譯稿，原審查人複閱通過後出版發行；(2) 如第一位審查人審查或複閱不通過，譯者修正譯稿後，譯稿再同時送二位審查人審查，如二位均通過，即三位審查人有二位通過，則出版發行；如其中一位不通過，即三位審查者有二位不通過，則為審查不通過，譯作就不出版。譯稿審查通過情形可視為譯者翻譯表現的一種參考指標。譯者的條件及譯稿審查情形，詳如表 8。經進一步以 ANOVA 分析譯者條件與譯稿審查通過情形，發現三者之間在 95% 信心水準內並沒有顯著差異，顯示三個條件似都可列為選擇譯者的條件。

表 8 國教院翻譯圖書之譯者條件及譯稿審查情形統計表

譯者條件 \ 譯稿審查情形 ¹	4	3	2	1	合計 ²	平均	標準差
1	39	47	7	1	94	3.32	0.66
2	35	24	1	4	64	3.41	0.81
3	12	11	2	1	26	3.31	0.79
總和	86	82	10	6	184	3.35	0.73

注：1. 譯稿審查情形採四分制統計，送一位審查人審查即通過為四分，送一位審查人審查並複閱後通過為三分，送三位審查人審查後通過為二分，送三位審查人審查後不通過為一分。

2. 國教院 2002-2011 年與出版業者合作翻譯 198 種著作中，至 2012 年 8 月止，已通過審查並出版者為 184 種。

3. 譯者條件代號：1 為具碩士學位以上；2 為大專校院講師以上或具相當資格；3 為曾翻譯相關學術著作並經公開出版發行。

資料來源：本研究整理

學術著作翻譯品質的關鍵是譯者。關於譯者的選擇，賴慈芸等人（2006）建議，除了學經歷的審核之外，譯者須經過試譯，並交由兩位以上的審譯專家審核，一為語言/翻譯專家，一為相關知識領域專家。譯者與審譯專家應共同討論理想的翻譯策略，亦即專業譯者搭配各知識領域專家，以合譯的方式進行學術著作的翻譯，最能兼具翻譯效率與知識專業。

在實務運作上，譯者的經驗或組合如何影響譯作審查通過情形？將譯者依經驗及組合分為六組，A 組包括教授、副教授、研究員及副研究員；B 組包括助理教授、助（理）研究員，博士後研究及博士；C 組包括（兼任）講師、博士生及碩士；D 組為專職譯者；E 組為專職譯者搭配教授、副教授、研究員及副研究員；F 組為專職譯者搭配其他的譯者。譯者組合及譯稿審查情形詳如表 9，單就譯稿審查表現的平均而言，專職譯者搭配資深教師或研究人員表現較好，專職譯者搭配其他譯者表現次之，且資深教師及研究人員的譯者，或專職譯者表現並沒有較為突出。所以學術著作的翻譯需要具有學科的專業知識，然而翻譯亦是一項專業，翻譯需達到信、達、雅，只具學科專業知識的譯者，翻譯時較難達到雅的境界。而只具有翻譯專業，未具很深學科專業知識的專職譯者，翻譯時較難達到信的情況，所以對於學術著作翻譯，兩項專業譯者的組合對譯作的表現較佳，此符合賴慈芸等人（2006）之建議。然而，進一步以 ANOVA 分析譯者組合與譯稿審查通過情形，發現各譯者組合者之間在 95% 信心水準內並沒有顯著差異，原因可能是 E 組及 F 組的樣本數僅分別為 4 及 5 種，難於顯示統計的差異。

表 9 國教院翻譯圖書之譯者組合及譯稿審查情形統計表

譯者組合	譯稿審查情形				合計	平均	標準差
	4	3	2	1			
A	20	17	-	3	40	3.35	0.83
B	8	6	1	-	15	3.47	0.64
C	31	38	6	1	76	3.30	0.67
D	21	18	3	2	44	3.32	0.80
E	3	1	-	-	4	3.75	0.50
F	3	2	-	-	5	3.60	0.55
總和	86	82	10	6	184	3.35	0.73

注：國教院 2002-2011 年與出版業者合作翻譯 198 種著作中，至 2012 年 8 月止，已通過審查並出版者為 184 種。

資料來源：本研究整理

英文字數譯為中文字數的比值可部份代表譯者文字轉化及精練能力，譯者的組合及譯稿（中文字數/英文字數）之比值詳如表 10。2002 至 2011 年國教院出版的學術著作 184 種中，有 145 種的原著為英文，這 145 本中，其比值平均為 1.83，高於一般文件中譯的 1.5（劉敏華等人，2005，2006）。此顯示學術著作較艱深，需以較多的中文字翻譯，專職譯者翻譯的平均字數 1.78 低於其他組合的平均字數，顯示專職的譯者用字較精簡。進一步以 ANOVA 分析譯者組合與譯稿（中文字數/英文字數）比值情形，發現各譯者組合者之間在 95%信心水準內並沒有顯著差異。至於各專業類別的譯稿中英文字數比值詳如表 11，人文類的比值最大，顯示此類書籍需以較多的中文字來翻譯。進一步以 ANOVA 分析翻譯圖書之領域類別及譯稿（中文字數/英文字數）比值情形，發現在 95%信心水準內，人文領域的平均字數 2.0 除了與教育領域的 1.73 具有顯著差異（ $p=0.032$ ），亦與社會及行為科學的 1.82 具有顯著差異（ $p=0.027$ ）。

表 10 國教院翻譯圖書之譯者組合及譯稿（中文字數/英文字數）比值統計表

譯者組合	統計					
	譯作數量	平均字數	標準差	最大值	最小值	中位數
A	27	1.84	0.41	2.83	1.18	1.79
B	12	1.99	0.44	2.61	1.18	2.04
C	62	1.81	0.31	2.98	1.02	1.83
D	38	1.78	0.33	2.92	1.26	1.75

（續下頁）

表 10 (續)

譯者組合	統計					
	譯作數量	平均字數	標準差	最大值	最小值	中位數
E	3	1.94	0.37	2.25	1.53	2.06
F	3	2.08	0.40	2.52	1.75	1.97
總和	145	1.83	0.35			

注：國教院 2002-2011 年與出版業者合作翻譯之著作中，原著為英文，至 2012 年 8 月 31 日已出版 145 種。

資料來源：本研究整理

表 11 國教院翻譯圖書之領域類別及譯稿（中文字數/英文字數）比值統計表

類別	統計					
	譯作數量	平均字數	標準差	最大值	最小值	中位數
教育	11	1.73	0.29	2.23	1.31	1.62
人文	21	2	0.35	2.83	1.51	1.98
社會及行為科學	104	1.82	0.34	2.98	1.14	1.79
傳播	6	1.78	0.39	2.52	1.4	1.69
生命科學	1	1.02	-	-	-	-
社會服務	2	1.81	0.17	1.93	1.69	-
總和/平均	145	1.83	0.35			

資料來源：本研究整理

本研究焦點團體座談結果發現，學者專家均認同譯者除了精準的語文掌控之外，具備專業領域知能也非常重要，學者 A4、P4 認為譯者需要專業跟專職搭配的模式最具效率品質。在實務上，專職譯者通常文筆優美，然缺乏專業知識；而專業人士則常較不易將專業知識轉化為生動語文，文字生硬，或甚而易讓人誤解句義，即使是大學教授或是博士人才翻譯能力不見得比較好，也有學者專家 P6 認為譯者不應僅限於研究所學生以上資格，而應就其翻譯能力審核，對於譯者學歷規範應更有彈性。

學術著作譯者須具備足夠的語言能力與專業知識之外，還需要翻譯經驗與敬業精神。美國學術協會理事會（American Council of Learned Societies）《社會科學文本翻譯指南》即強調譯者需要培訓之重要，「無論如何熟悉精通兩種語言，並不能讓一個人成為合格的譯者。譯作品質良窳，與譯者接受的培訓有關」（李寄譯，2006，引自賴慈芸等人，2006）。學者 A1、A2、A3、A4、P3、P4 等建議

可針對翻譯人才進行培訓，開辦翻譯工作坊實作課程，以發掘翻譯人才，並有效運用博士後人才資源。進一步言之，建議可採試辦方式，透過機制規劃設計書單，聘請資深譯者教授擔任導師指導翻譯，公開徵求博士後人才，於時限內進行該書的翻譯，完成翻譯稿，及評估審查報告。

許多學者專家均提及，當前臺灣學術翻譯出版產業之困境，除稿費太低之外，翻譯之於學術貢獻認定及採認制度缺乏誘因影響甚大。建議全面檢討學術升等評鑑制度對翻譯之限制，建立翻譯認證審查機制；學校教育應朝培養長期譯者人力資源方向發展；臺灣學術著作翻譯出版，可透過政府資源挹注與業界合作，擇選優質原著譯作，建立臺灣的特色，可透過產官學合作，將翻譯作為發展文化創意產業的重要媒介。

對於臺灣學術著作翻譯出版策略，學者 A1、A4 等認為必須重視翻譯對於學術的重要性，透過政府資源挹注與業界合作連結，擇選優質原著譯作，建立臺灣的特色，強調諸如公民社會、自由民主、人權、自由市場經濟，或人類學、跨文化、多元文化等概念內涵，並長期耕耘，可透過經典譯注的方式，展現知識的實力，提升翻譯的品質，以掌握並發展華文市場翻譯的利基。

伍、結論與建議

學術著作翻譯的發展影響臺灣高等教育學術發展甚鉅，但國內學術著作市場規模不大，商業利益有限，有賴政府資源挹注，較無商機的重要學術著作方能出版。鑒於學術著作翻譯的重要性，本研究透過文件、統計分析，與專家焦點座談結果，整合分析提出結論與建議，及未來繼續研究的方向如次。

一、結論

外文學術著作的中譯引進國外先進的新知，促進國家學術發展，豐富國內知識內涵，足見其重要性。從本研究資料分析，重要結論如下：

- (一) 國內 2005 至 2011 年對學術著作翻譯的需求，可歸納為 18 類，其中以教育、人文、社會及行為科學、生命科學、自然科學及環境保護類較多；推薦翻譯的圖書以英文原著最多，依次為日文、法文、及德文，甚至有俄文及拉丁文。
- (二) 各界推薦之外文學術著作是否能夠翻譯出版，乃係基於譯作市場需求與出版業者供應能力的綜合考量。實際翻譯方面，自 2002 至 2011 年國教院(含原國立編譯館)與出版業者合作進行翻譯的圖書，總數有 198 種，包含教

育 11 種、人文 37 種、社會及行為科學 131 種、傳播 8 種、生命科學 2 種、自然科學 1 種、工程 4 種、及社會服務 4 種，其中社會及行為科學領域，除了 2002 年以外，其餘每年數量都最多；原著語文則有英文 172 種、德文 14 種、法文 7 種及日文 5 種。就社會科學領域發展之總體書量而言，學術著作譯作並不算多；臺灣翻譯出版最大的問題在於學術著作譯作市場規模有限，受限於成本結構，稿酬非常低，且翻譯在學術貢獻未受重視，所以造成投入翻譯的人才不多；國內出版社基於市場的考量，選擇有利的譯作出版。翻譯的語文以英文最多，主因是推薦者、譯者、出版社編輯、審稿者等之語文能力養成多是以英文為主。其他外國語言則有譯者難尋、成本效益考量等困境。

- (三) 譯者背景包括學校教師、博士生及碩士及專職譯者等三類，幾乎各達三分之一，顯示專職譯者在學術著作翻譯的重要性。學術著作翻譯難度高且費時費力，主要生產者與使用者為學術社群，包括該學門的研究人員、大專教師、研究生、大學生等。本研究顯示大專校院投入學術著作翻譯並不夠熱烈，此涉及教師成果評鑑是否採計學術著作翻譯成果的問題。
- (四) 資深教師或研究人員搭配專職譯者在譯稿審查表現較好；專職譯者的文字轉化及精鍊的能力較好。
- (五) 國家教育研究院（含原國立編譯館）2002 至 2011 年出版的 184 種學術著作中，有 145 種原著為英文，其中文字數/英文字數比值平均為 1.83，高於一般文件的 1.5。

二、建議

茲針對推動臺灣外文學術著作中譯，提供相關建議如下：

- (一) 外文學術著作中譯實際出版的數量及領域與學術界的需求有落差，及我國引進新知主要以英文著作為主，均不利學術健全發展。跨領域入門需要的學術著作，譯作可協助快速學習，豐富學術知識的寬度及深度，有益於學術發展，建議有關單位探究更積極的鼓勵辦法；政府與學術研究機構宜於翻譯發展策略中持續推動學術著作翻譯，規劃以有系統之方式引進外文著作進行中譯。
- (二) 人才是一切發展的基礎，就學術著作中譯而言，我國缺乏兼具學科專長及翻譯專長，及英文以外語言專長的人才，建議相關單位探究更積極的作為。學校翻譯教育應朝培養長期譯者人力資源方向發展，包括翻譯教學、外語教學訓練等；透過產官學合作，舉辦翻譯工作坊，以發掘培訓翻譯人才，並有效運用博士人才資源，將翻譯作為發展文化創意產業的重要媒介。

- (三) 中國大陸簡化字譯本大量湧入臺灣，影響臺灣學術翻譯發展甚鉅。其品質參差不齊，且涉及閱讀思考邏輯、寫作能力、學術自主、意識型態等，實屬國家發展重要問題，尤以社會科學領域最不能依賴大陸譯本，必須加以正視。
- (四) 面對國內不同領域對於學術著作翻譯的多元需求，國家教育研究院首要考量服務的對象，擇選重要、有價值、有特色、具影響力的學術著作書單，思考規劃長期、系列性的作品，並進行高品質的翻譯，不僅要能符應學界的需求，以補充自由市場不足之外，甚至可以創造、引領學術趨勢與需求。
- (五) 透過政府資源挹注與業界合作連結，擇選優質原著譯作，面對國際競爭，建立臺灣優質翻譯之品牌與特色，以掌握並發展華文市場翻譯之利基。
- (六) 建議未來研究，可針對臺灣學術著作翻譯的出版及推廣模式、科技對學術著作翻譯的影響、學術著作翻譯品質評鑑等議題進行深入的探索與研究。

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跨越全球學術傳播的巴別塔：建構臺灣人文社會學術 論著英文長摘機制之芻議

林奇秀 林慶隆 邵婉卿 陳彥如 張瑋麟

摘要

本研究以促進國際學術傳播為訴求，探討臺灣建立中文學術圖書英文摘要（簡稱中書英摘）機制之可行性，目的在協助臺灣人文社會科學學術論著進入國際學術傳播系統。研究團隊分別以焦點團體法和深度訪談法，蒐集並分析學術界、翻譯界、出版界、索摘界與學術行政等領域專家意見。研究結果顯示受訪專家對中書英摘抱持樂觀態度；認為該計畫對產、官、學等領域均能帶來正面效益，值得加以推動，但也提出計畫可能會面臨的困難與挑戰，並建議可行的圖書篩選做法和英摘審查方式。依據訪談與文獻分析結果，本研究對中書英摘計畫初期的英摘徵集做法提出兩種方案：以研究案形式委託各學科領域學者進行系統化的中書遴選與英摘編譯，或以委外合作方式，交由民間學術出版社進行系統化的英摘製作。在英摘成果的發行部分，本研究則提出一套以英摘專刊發行為基礎、另以多重電子管道傳播推廣英摘內容的構想。最後，在未來建議上，本研究建議應持續進行人文社會領域學者資訊行為與索摘資源使用之研究，以深入了解學術加值服務的需求，藉以規劃更有利於中文著作進行國際學術傳播的模式。

關鍵詞：圖書摘譯、英文摘要、人文社會科學、學術傳播

林奇秀，國立臺灣大學圖書資訊學系副教授。

林慶隆，國家教育研究院編譯發展中心副研究員兼中心主任。

邵婉卿，國家教育研究院編譯發展中心助理研究員。

陳彥如，國立臺灣大學圖書資訊學研究所碩士。

張瑋麟，國立臺灣大學圖書資訊學研究所碩士。

本文部分初稿內容曾發表於「2012 臺灣翻譯研討會－翻譯專業發展與品質提升」，作者在此向該場研討會主持人賴慈芸教授、與談人張上冠教授和陳彥豪教授及所有與會人士，以及本文的兩位匿名審查者所給予的修正意見致謝。

The Feasibility for Creating an English Abstract Service for Taiwan's Publications on Humanities and Social Sciences

Chi-Shiou Lin Ching-Lung Lin Wan-Ching Shaw Yen-Ju Chen
Wei-Lin Jhang

Abstract

This study explores the feasibility of establishing a government-sponsored English abstract service for Taiwan's publications on humanities and social sciences (H&SS). The key issues are how to select the H&SS publications to be promoted, thereby publishing clear English abstracts, and how to enhance the quality of the English abstracts via systematic review. Focus groups and in-depth interviews were used to collect experts' and stakeholders' opinions and suggestions regarding this proposed program. Most participants commented the plan positively and offered suggestions regarding the major problems it might face. To launch the project effectively with expected impact, government agencies may consider two options for the initial stage of implementation. Book selection and the writing of English abstracts may be undertaken by scholars in different H&SS fields, or working on commission, to undertake through a reputable academic publisher. Furthermore, government agencies should publish the results of these projects in the form of a scholarly journal. Multiple channels for communication such as websites, newsletters, RSS and Web 2.0 applications may be used for promoting these English abstracts in a large scale.

Keywords: book translation and abstracting, English abstracts, humanities and social sciences, scholarly communication, promoting Taiwan's research output internationally

Chi-Shiou Lin, Associate Professor, Department of Library and Information Science, National Taiwan University

Ching-Lung Lin, Associate Research Fellow, Development Center for Compilation and Translation, National Academy for Educational Research

Wan-Ching Shaw, Assistant Research Fellow, Development Center for Compilation and Translation, National Academy for Educational Research

Yen-Ju Chen, Master, Graduate Institute of Library and Information Science, National Taiwan University

Wei-Lin Jhang, Master, Graduate Institute of Library and Information Science, National Taiwan University

壹、前言

根據 Online Dictionary for Library and Information Science (2012)，學術傳播 (scholarly communication) 是定義於學術社群中參與研究或創作活動的成員，以各種正式或非正式管道，向學界同儕告知其進行中或已完成之學術成就。學術傳播是一種資訊交換與傳播的體系，研究成果在此體系中被書寫成文章，接受品質評鑑，對學術社群中廣為散播，也進行永久典藏以供未來取用 (Association of College & Research Libraries, 2003)。近年由於取用資源的門檻下降，研究者接觸各種研究資源的機會上升，學術資源的取用、傳布、交換已不受地理疆界的限制。然而新知識的產出與學術的創新與進步，仍須依賴有效的資訊傳播鏈，當今國際交流仍以英語為主要溝通語言，對非英語系國家而言，翻譯、索引、摘要等資訊加值工作是從事國際學術傳播不可或缺的基本投資。為有效將本國學術成果輸出至國際學術傳播體系中，非英語系國家勢必要構思國家整體的學術傳播政策，設法降低國際讀者取用本國學術思想的語言阻礙與取用障礙，藉此提高本國研究能見度、建立國際聲望並強化本國學術實力，以期加速全球研究社群之發展。

臺灣人文社會 (以下簡稱人社) 領域的研究常能彰顯臺灣特有詮釋角度，如能傳播至國際學術論壇，則能加深跨文化理解，也使學術觀點更多元。但人社領域除少數學科如外語與西洋文學外，以英文寫作發表的習慣未如自然科學領域普及，加上學者以英語從事學術溝通的能力不同，導致目前臺灣人社學術成果對國際輸出的程度相當有限。此外，臺灣的商業學術出版產業受限於市場規模，目前尚無法獨力承擔臺灣人社論著的轉譯與國際出版，因此，亟需政府學術單位主動介入，創造國際學術交流契機。政府機關，以國家教育研究院 (以下簡稱國教院) 為例，多年來辦理外文著作翻譯與華文學術論著編著與出版等業務，近年在臺灣推動學術國際化的浪潮下，也積極思考如何提升臺灣的國際學術傳播能力，期能建構一個能有效轉譯並快速傳播臺灣學術成果的資訊體系，故本研究探討以英文長摘來推廣臺灣學術的可行性，期能提高臺灣國際學術傳播效能，並藉以創造更多國際學術轉譯、出版、與加值應用之契機。

理想中，如果臺灣的華文論著能悉數進行全文翻譯，對學術輸出自是最為有利，但中書英譯的執行成本相當高，亦須投入極高的籌備時間與翻譯人力，以全書翻譯來進行國際交流緩不濟急，也未必符合成本效益 (賴慈芸、賴守正、李爽學、蘇正隆，2006)。摘要是學者熟悉的文體，是獲得資訊、區辨主題、選擇資源的重要工具，以國際通用的英文進行摘要也有助跨越語言藩籬 (鄭玉玲，1995；Cross & Oppenheim, 2006; Nunn, 2009)。一般學者較熟知的摘要型態為學術期刊

與專業書目資料庫所提供的摘要，篇幅較短，對原文內容的揭露程度也有限。但近年來，臺灣有一些學術期刊（如《圖書資訊學刊》與《教育資料與圖書館學》等）開始以篇幅較長的英文摘要來進行國際學術傳播，這類摘要對研究論文的問題背景、研究目的、研究方法、與重要發現等，均有較深入的摘譯，目的在對外推廣國內學術成果，增進國際能見度並增進文章的引用率。本研究所探討的做法是以這類篇幅較長的英摘作為國際學術傳播的主要媒介，藉以達成交流的訴求。然而，專書論著的篇幅遠較期刊論文長，內容結構與論述方式也與期刊論文有異，以中書英摘作為國際學術傳播的主要管道是否可行？在執行上有哪些可能面臨的問題？再者，摘要文字畢竟不能取代全書論述，中書英摘的目標與策略該如何設定？哪些人社專著值得優先進行英摘？英摘品質如何維護？英摘製作完成後，如何進行有效的推廣與傳播？這些都是本研究所關心的問題。

本研究以焦點團體法與深度訪談法來了解臺灣人社學者、學術翻譯專家、學術出版者、專業索摘專家及政府單位中與學術行政相關的官員對中書英摘計畫的看法。在內容範圍上，本研究聚焦於在臺灣出版的、具原創性的中文學術專書，但不含教科書或未經正式出版發行的手稿性資料如機關研究報告及學位論文等；且現階段探討的學科範圍以人社領域為主，因科學領域多以期刊為學術交流主要管道，以專書進行學術發表的比例甚低，相對於人社領域，對中書英摘的需求較低。最後，因目前英語實為全球學術傳播之主要語言，故本研究僅探討英摘相關問題，不探討其他語系的學術轉譯需求。

貳、學術資訊的轉譯與摘要

一、非英語系國家之學術翻譯概況

許多非英語系國家都有將本國學術或文學作品翻譯的機構或計畫，這些機構以透過出版、文化交流、語言教習活動等方式推廣母國文化與研究成果，提高該國的國際能見度與外交軟實力。以日本為例，現代日本文學翻譯及普及事業事務局（Japanese Literature Publishing Project）、日本國際交流基金會（Japan Foundation）、日本學術振興會（Japan Society for the Promotion of Science）、三得利文化財團（Suntory Foundation）等均提供翻譯日文書籍的補助費用，且以英文出版如《日本圖書新聞》（Japanese Book News）供外文譯者參考、篩選值得翻譯的日文書籍（JLPP 事務局，2011；サントリー文化財団，2011；國際交流基金，2011；獨立行政法人日本學術振興會，2010）。韓國、德國、西班牙也有相似的例子，如韓國學術院（Academy of Korean Studies）獎助韓國人社學術的翻譯，並補助譯者到韓拜訪原著者，進行深度的轉譯（賴慈芸、賴守正、李爽學、蘇正

隆，2006)；德國的歌德學院 (Goethe-Institut) 與西班牙的西班牙文化、教育暨體育部、塞萬提斯學院 (Instituto Cervantes) 也資助該國作品的翻譯與發行，並協助製作小冊在書展中發放，供其他語言讀者或出版機構參考 (Goethe-Institut, 2012a, 2012b; Instituto Cervantes (España), 2012)。

臺灣有兩個政府機關曾進行類似的學術翻譯計畫：行政院文化建設委員會有臺灣現代文學作品外譯出版補助計畫，另亦補助文學研究論著的專書外譯 (行政院文化建設委員會，2009)；國教院則與出版社合作進行臺灣人文學術專書的全書英譯計畫，其做法是參考臺灣人文學引用文獻資料庫 (Taiwan Humanities Citation Index, THCI)，選擇引用率較高且具臺灣主題特色的學術圖書，由合作的出版社遴選譯者進行英譯，由國教院進行品質的審查之後，再發行出版 (林慶隆、劉欣宜、吳培若、丁彥平，2011)。上述兩個單位的計畫均以全書翻譯為訴求，但全書翻譯的成本相當高，且翻譯與審查過程費時甚久，以國際學術交流的角度觀之，實有緩不濟急且不符成本效益之虞。

二、摘要與國際學術傳播

事實上，不同的學科領域有不同的資訊交流管道與學術傳播慣習，在非英語系國家中，也不見得所有的領域知識都需要進行轉譯，例如，科學領域大多以時效較高的期刊為正式發表管道，當今科研發展高度國際化，世界各國科學家為加速傳播效率、提高研究能見度、甚或搶得研究發展先機，競相以英語寫作科研論文，在國際期刊上發表研究成果。但人社領域與科學不同，人社學術深具本土關懷，多有地域取向特點，且不同的語言實蘊含不同的文化邏輯思維，許多非英語系國家的人社學者會認為以本國語言進行論述是最好的選擇。但從國際學術傳播的角度來看，這些人社學術成果必須適當轉譯成英文，才能傳入國際學術傳播體系，擴大影響力；此外，人社學術資訊的傳播管道包含期刊與專書，專書的可得性不如當今盛行的電子期刊，因此，在人社領域中，論述的寫作語言以及原書可得性等問題，都可能構成國際學者取用人社學術資訊的障礙 (黃慕萱、張郁蔚，2005, 2006)。

英文摘要可協助非英語作品傳播到國際學術社群的核心中，讓研究成果被國際學者得知，甚或引用 (Bernier, 2003; Nunn, 2009)，此外，摘要能豐富資訊檢索系統的詮釋資料，使用者可從系統的檢索結果中「發現」更多的相關資源，提高了文獻被使用的機會 (Borko & Bernier, 1975; Tibbo, 1992; Pinto, 2006)。然而，從以人社專書的角度而言，一般常在學術期刊上看到的短摘要較無法滿足國際學術傳播的需要，如前段所述，非英語系國家的人社專書可能遭遇語言與取得兩障礙，且專書的論述架構會比期刊論文繁複，摘要如要在最大程度上揭露原文意旨

與重要資訊，則內容篇幅必須更長，近似學術期刊中常見的書評（book reviews）專文，才能達到目的。

在體例上，摘要依資訊揭露程度可分為指引性摘要（indicative abstract）與資訊性摘要（informative abstract），前者僅提示原文論述意旨而不呈現具體研究發現；後者則會相對清楚地摘錄研究背景、意義、方法、重要結果（Koltay, 2010; Lancaster, 2003）。以人社專書的摘譯而言，後者自是應追求方向。再者，雖然多數摘要講究客觀反映原文精髓，但亦有摘要容許摘錄者對原文內容進行詮釋與講評，稱為評論性摘要（critical abstract）（Koltay, 2010; Lancaster, 2003），此類摘要性質上類近書評，也是人社專書可參酌採用的長摘文體。

除了上述摘要類型外，近年來，自然與社會科學領域期刊亦流行以結構式摘要（structured abstract）來摘錄論文內容，該類摘要不採單一段落的書寫方式，而是要求作者依循數個明確的小標題（subtitle）如研究背景、研究方法、研究發現、研究結論等，依序描述原著內涵。此類摘要能使讀者快速掌握重點，也確保摘要呈現必要的內容，降低資訊遺漏與偏頗的可能（Lancaster, 2003）。但此類摘要是否能應用在論文寫作結構多元與彈性的人文論述，則無定論。

參、研究方法

本研究以焦點團體法（focus group）為主，個人深度訪談為輔，分析人社學者、學術翻譯專家、專業索摘專家、學術出版者與學術行政官員對中書英摘工作的想法與意見，共邀訪 34 位專家（見表 1）。

表 1 受訪者資訊

人社學者	S1（英語系教授）	S2（英語系教授）	S3（中研院歐美研究所）
	S4（歷史系教授）	S5（中研院語言學研究所）	S6（考試院考試委員/中文博士）
	S7（戲劇系教授）		
學術翻譯專家	T1（外文系教授）	T2（外文系教授）	T3（外文系教授）
	T4（外文系教授）	T5（社會系助理教授）	T6（應用外文系教授）
	T7（翻譯所副教授）	T8（外文系副教授）	T9（翻譯所教授）
	T10（外文系教授）		

（續下頁）

表 1 (續)

索摘專家	A1 (圖資系助理教授)	A2 (圖資系助理教授)	A3 (國家圖書館主任)
學術出版者	P1 (A 出版社董事長)	P2 (B 出版社總經理)	P3 (C 出版社總編輯)
	P4 (D 出版社總編輯)	P5 (E 出版社總編輯)	P6 (F 出版公司發行人)
	P7 (G 出版公司負責人)	P8 (H 出版公司經理)	P9 (前大學出版中心主任)
學術行政官員	G1 (國家教育研究院研究助理)	G2 (國家科學委員會研究員)	G3 (國家教育研究院研究助理)
	G4 (國家教育研究院研究助理)	G5 (臺灣文學館助理研究員)	

資料來源：研究者自行整理

焦點團體法對此類先導性政策研究是一良好的研究方法，研究者可一次邀請多位專家進行訪談，並將訪談問題聚集在數個重要的議題焦點上，在短時間內獲得較多元的意見，並藉由受訪者之間的互動交流展開對談，在訪談進行中，與會者意見未必會達到共識，但這類討論有助開展各種不同的政策想像（陳向明，2002；Lunt & Livingstone, 1996; Krueger, 1988, as cited in Case, 2008）。本研究秉持立意抽樣原則，邀訪實際上曾有學術翻譯經驗的人社學者（曾執行翻譯、審查、或自身作品曾被外譯者，部分受訪者具前述兩種以上身份）、對摘要有深入了解的圖書資訊學者、有學術出版經驗的出版商及學術行政官員。為利對話聚焦，每場訪談均盡量安排同質性較高的專家同場受訪。

上述焦點訪談每次歷時約兩小時，受訪者人數介於 3 人至 5 人之間。各場焦點訪談由本文兩位主要作者同時主持或輪流主持，進行訪談時，先由主持人簡單說明研究的背景緣由，後請受訪者對訪談大綱上的問題自由發言。訪談大綱的設計以題數少、題意開放為原則，訪談大綱請參見附錄。

在訪談過程中，研究者會依受訪者要求補充說明研究背景與目的，但盡可能不誘導受訪者對特定議題的看法。本研究所討論的中書英摘計畫構想因屬學術傳播做法的先驅，國內外並無類似前例，在訪談進行中，研究者故參酌紮根理論（grounded theory）研究精神（Glaser & Strauss, 1967），僅說明政府關懷的國際學術傳播訴求與效果，但不引導受訪者來認同中書英摘的構想，不限定受訪者僅針對訪綱提出回應，甚至不刻意界定關鍵詞彙（如「摘要」是什麼）。採用這種

開放探詢的策略，目的即在激發受訪者對計畫的想像、討論，甚或質疑，以達腦力激盪效果。在研究執行過程中，研究者認為這個策略是符合需求的，因為確有少數受訪者對英摘效用及計畫做法表示質疑或保留，這些批判思考與反餽對研究者而言，亦是珍貴的研究資訊，有助於協助反芻計畫定位、目標、內涵，刺激多元觀點，以提出更具彈性的策略建議。

肆、訪談發現

本研究以焦點團體或個別訪談來徵詢受訪者對中書英摘計畫目標、潛在問題、執行條件、與執行作法等意見（如附錄）。在訪談的腦力激盪過程中，受訪者提供了相當多元的意見，囿於篇幅限制，本節僅聚焦呈現受訪者對中書英摘預期效益、潛在問題、與人社專書甄選方式等三大問題的看法，下一節續說明本研究基於訪談結果而擬定之計畫執行方案。

一、中書英摘計畫的預期效益

受訪者認為研議中的中書英摘計畫具有多層次的預期效益，這些意見對於計畫的遠、中、短程目標設定及策略設計上，具有啟發之功。首先，T9、G4、S6、P5 認為中書英摘計畫對外具有軟性外交的潛在效益，近年來全球掀起中文熱，華文文化也受到許多國家關注，中書英摘計畫應被視為國家外交策略之一，透過學術成果的輸出，增加臺灣的軟實力。對內而言，本計畫或可拉近國內學術出版產、官、學的距離，透過學術行政單位如國教院的有效協調，可望增加人社學術的出版、轉譯、與資訊加值活動，對學界整體發展有鼓勵效用（T10、G4）。

此外，中書英摘計畫對學者個人或學術傳播產業也可望帶來正面刺激（T3、G3、A2、P1）。對學者而言，英摘提高學者的國際能見度，有利於開創國際交流機會，且作者在參與作品轉譯或摘譯的過程中，由原本的中文論述情境轉向國際視野，有可能會刺激出新的寫作靈感，開發新的研究議題。對學術傳播產業而言，本計畫的推動除可活絡出版、翻譯、索摘等領域的工作機會，英摘亦可讓他國的學術社群與出版社看到臺灣的論著，有助於本國論著的外譯、銷售、與國際版權洽談等機會。

最後，與全書翻譯相較下，中書英摘因篇幅較短，僅摘譯重點，故製作難度較低。只要酬勞制度設計得當，中書英摘計畫反而較能吸引譯者投入，從可行性與執行成本效益考量，T6、T10、S5、P1、P4、A2 均認為中書英摘較容易推動，也容易見效。

二、中書英摘可能遭遇的問題

受訪者亦依自身專業經驗設想中書英摘計畫可能面臨的問題，經研究者歸納後，包含五大類，以下分述之：

(一) 英譯技術問題

中書英摘雖不如全書翻譯費時，但在摘譯論著時，仍會遭遇英譯方面本質的問題。以學術翻譯的角度來看，具體的問題包括中外讀者在思考脈絡上的差異、中英文表達與書寫慣習的不同、中英文部分詞彙無法精確對譯、學術術語轉譯無法維持一致，及中文羅馬拼音系統缺乏標準等五項。

1. 中外讀者思考脈絡的差異

中外讀者的背景知識、文化脈絡、與視事角度如史觀或地理觀等存在差異，譯者在翻譯時必須考量外文讀者的理解角度，才能翻出外籍讀者可理解的內容，以人社學術翻譯而言，可能需要大量譯注來協助作品的詮釋(T7、T9、T10、S7、P6)。例如 T7 指出：以漢族為中心的中國史觀將吐蕃視為外族，這對臺灣讀者而言，在理解並無太大困難，但西方人可能習慣將之視為與華夏民族相同的族群，這個觀點差異便需要譯注來解釋。學術翻譯因需要大量的譯注協助詮釋，譯者本身對文本的知識內容需有相當程度的了解，進行中書英摘時亦同，這點可能會增加摘譯的難度。

2. 中英文表達與書寫慣習的差異

不同的語言有不同的文法與表達方式，因此，T9、T10、P1、A1、A2 皆指出，好的翻譯不宜採逐字逐句的直譯，而應考量翻譯語言的表述方式，將原作的意涵合宜且準確地轉譯過去，但這點卻是專業譯者與原文作者或翻譯委託人常產生歧見的地方。此外，中西方不同的學術書寫慣習亦會影響翻譯策略，例如西方學術書寫傾向開門見山，直述重點，但中文著作中卻不見得如此，摘譯者必須以符合外籍讀者表達與書寫慣習的方式來摘譯原作，必要的時候也需要對原作者或委託人說明或解釋摘譯策略，爭取認同，此可能增加作業難度。

3. 中英文部分詞彙無法準確對應或缺乏共通概念

T10、S7 指出文化間具有「不可共量性」，亦即，某些概念或語彙在另一文

化並不存在，或缺乏準確的對應概念與語彙，例如，中西方均有戲劇藝術，但在戲劇的內涵與形式上卻有相當大的歧異，無法找到對應的專業術語與概念，這類學術文本的翻譯就會相當困難。在轉譯西方不存在的概念或詞彙時，良好的學術翻譯者會盡力比對參照同領域已經外譯的作品，察看前人如何進行轉譯、是否有良好前例可循，並視需要修正轉譯方式。然而，這也會大幅提高人社學術翻譯的難度，延緩翻譯速度。

4. 學術術語轉譯一致性的問題

學術思想的轉譯與國際傳播不是單一作品的問題，是整個領域的問題，兩部主題相關的學術研究著作在轉譯成外語時，其專業術語的轉譯也應該一致，才能達到整體學術交流的目的（T3、T6、T7、T8、T9、T10、S6、P8、A1）。學術術語一致性的訴求或可透過專業翻譯軟體的輔助來提升，例如以軟體來檢核比對譯文，統一文內專業術語的翻譯；亦可請原作者盡量提供專業詞彙的外譯方式，或持續推動專業語料庫的建立，如國教院建置的專業名詞表與翻譯語料庫等，均有助於克服此問題。

5. 中文羅馬拼音系統的標準化問題

臺灣現無標準化的中文羅馬拼音系統，因此學術譯作也面臨系統紊亂，難以抉擇的問題。臺灣目前存有多種羅馬化拼音方式：漢語拼音、威妥瑪拼音、國語注音符號第二式、通用拼音等，常造成譯者或原作者在翻譯上的困擾。此外，在特定學術領域中還有領域專用的拼音系統，如 T9 舉語言學研究為例，南島語系和臺語文會使用其他學科較罕用的 IPA 拼音系統。拼音系統紊亂會阻礙國際學術傳播，也不利於跨領域學術交流，特殊領域如有獨特且約定俗成的拼音系統，對學術交流的影響可能較小，但一般華文詞彙的羅馬化方式則應愈快建立共識愈好，否則，長遠觀之實不利臺灣學術的對外傳播。

（二）英摘實務問題

在進行英摘時，摘譯者可能面臨三種實務問題：英摘內容與格式問題、摘譯人選的問題、以及摘要智慧財產權問題。

1. 英摘內容與格式問題

摘要須能展現學術內涵，引發閱讀興趣，卻又不能冗長使人厭煩，因此字數拿捏相當重要，但 S1 認為也不宜過分限制，導致摘譯者製作出無益於學術傳播的「抽象的摘要」（abstract abstract）。受訪者對英摘字數並無定見，T6、T7 提

及目前博士論文摘要通常有千字以上，建議比照。至於摘要應呈現哪些內容，以何種方式呈現，因人文社會學風互異，書寫典範多元，受訪者也無定見，唯建議英摘應盡量揭示原著內容。S7 認為中書英摘計畫的摘要文字並不一定要是原作的「濃縮版」，可仿 Amazon 網路書店，提供圖書介紹性、評論性、乃至於其他各種可揭露該書內容的文字訊息如書摘 (excerpt) 或試讀章節等，達到服務國際讀者的效果。A2 也指出人文學者則常有賴於書介與書評來篩選有閱讀價值或資訊價值的研究文獻。因此，除了傳統被視為參考價值較高的資訊性摘要之外，似亦可依個案考慮採納介於書評 (book review) 與摘要之間的評論性摘要或其他更多元的文字類型，以達本計畫推廣臺灣學術的目的。

2. 摘譯人選的問題

S3、P1、P4、P9、A1 認為作者對中文原著的瞭解最深，主張由中書英摘計畫單位請原作者提供英文摘要最適切，T4、S6、P1、P2、P3 認為由出版社提供摘要也適宜，但其他受訪者如 P2、P3、A2 則指出此想法在實務上可行性不大。A2 認為有兩點原因：首先，作者在費力從事長篇論述後，還要再寫英文長摘來配合中書英摘計畫需求，壓力甚大，且不見得有英文能力為之，再者，現行制度也缺乏誘因或強制執行的能力。T4、S6 認為有一折衷做法是由原作者或出版社提供中文摘要，由專業譯者翻譯後交由計畫單位審查修訂。總結來說，最重要的並非由誰提供摘要文字，而是必須建立良好的摘譯審查機制，因此未來或可開放作者、出版者、或其他計畫指定摘譯者來供稿，但正式發行前均應通過學科專家與語言專家的審查，以確保英摘品質。

3. 摘要的智慧財產權問題

出版社或資訊加值單位基於推廣圖書與知識的立場，會製作各式詮釋資料如書目與摘要，在公開取用、流通交換、轉製利用時，是否有智慧財產權的問題呢？受訪者 P1 認為書目與摘要係在服務原作者與出版者，只要用途合理，智財擁有人多會樂觀其成，不會有異議，但 T1、P2、P3、A2 仍建議計畫單位在製作英摘或取用現成的中文摘要或書介前，要先取得同意，方可實際執行。此外，P8 也建議出版界自身要開放授權的理念，以創用 CC (Creative Commons) 的精神來管理學術資源的詮釋資料，使其發揮公共使用之目的。

(三) 爭取學者參與投入的誘因問題

受訪者雖認同中書英摘的潛在效益與公共價值，但也指出英摘計畫對學者與專業譯者的誘因不大。首先，學術翻譯難度較高，原本就不吸引專業譯者，而臺

灣現行的翻譯報酬以論字計酬為主，但這方式與摘要的訴求正好背道而馳，譯者耗費心力製作洗鍊精簡的摘要，卻可能拿到較少的薪資（T2、T3、T6、T7、T8、T9、S3、S4、P4、G1、G4、G5）。另一個問題是參與英摘工作的學術酬報不高，在臺灣的學術生態中，許多人社學術作品的譯者，本身就是學者，學者從事翻譯相當費力，但學術酬報卻不高；另一方面，中書英摘的發行必須依賴各領域學者來協助作品甄選與英摘審查，但審查工作在目前的學術獎酬制度中，被視為較次等的學術服務工作，對學者的升遷與評鑑幫助不大。因此，政府如有意推動相關計畫，應設法創造較好的結構性誘因（T3、T6、T7、T8、S3、P4、A1、A2），例如 T4 建議以委託研究案的形式將中書甄選與英摘製作交付給學者來執行，在研究案的誘因下，就會吸引學者來爭取執行的機會。本研究也參考這個建議，規劃了一個以委託研究案來徵集中書英摘的方案，後文即有詳述。

（四）當前翻譯與出版產業的條件限制

當前專業翻譯與學術出版能為此計畫提供的支援也不大，首先，受訪者（如 T9、T10、P1、P2、G5、A2）指出臺灣的學術翻譯人才少，且專業譯者多服務有能力支付高額翻譯費的工商文件或科研期刊論文，人社專書的外譯對專業翻譯不具誘因，在缺乏商業利基的情況下，中書英摘推動初期，勢必得設法動員學術界的人力資源，T9、T10、S1、P6 建議主事單位盡量善用翻譯與語文系所研究所以上的學生人力。其次，對出版社而言，為個別著作進行英摘等加值工作不具明顯可見的利基，較難期待每個出版社都會主動參與，P5 建議政府機關以委託執行的合作方式將中書英摘計畫交付給較具學術能力、整合能力、與國際行銷能力的出版社，如此或可克服支援不足的問題。這個意見也形成本研究的另一種英摘徵集模式，後文將有說明。

（五）英摘對學術傳播效果有限

雖然受訪者多認為中書英摘有推動價值，但仍提醒政府機關注意學術社群對英摘的實質需求以及英摘效用的限制，不宜過分放大英摘效用，造成目標設定錯誤。例如，多位受訪者（如 T1、T5、T6、T7、S3、P1、P2、A1）指出人文學術與科學研究不同，摘要通常無法呈現繁複的辯證，但思想與觀點的推演辯證歷程往往才是人文論述的精髓，因此摘要對人文學者的功能是在提示原文存在，告知文本梗概，絕不像科學摘要有時可取代原文。S4、P5、A1 提醒主事單位不宜以提高人社論著國際引用率為計畫目標，造成計畫目標設定錯誤。另外，人社學術的國際交流終須依賴作品全文，若僅有摘要而無全文，效果有限，故 S4、P5、A1 建議配合更通暢的圖書流通管道，如提供跨國服務的網路購書或電子書服務等，才能真正達到國際學術交流的效果。

三、人社專書的甄選方法

有關中書英摘計畫是否應建立圖書選擇機制，受訪專家提出許多不同的意見。事實上，部份受訪者（T1、T6、S1、S7）認為本計畫不宜採「擇優摘譯」的態度，應朝全面收錄的方向進行，理由為：(1) 臺灣人社學術專書出版量其實不大，中書英摘計畫實可以全面收錄為目標，提供最完整的學術資訊；(2) 一旦進行選擇，選擇標準的適當性與公平性就可能受到質疑，造成學術社群不必要的分化與猜忌，這反而與計畫目標相悖。

受訪者對中書英摘計畫是否應回溯處理過去出版的專書也有不同意見，P1主張計畫應回溯摘譯人社重要著作，以求完整；但 P4 認為回溯著作如果在市面上已經絕版或難以取得，摘譯就沒太大意義。以上兩個意見分歧處均指向計畫的定位問題，亦即：中書英摘計畫的推動，究竟是要扮演學術資源的角色，志在求全？抑或扮演學術專書的推廣管道，志在引介現有的在版專書？這個問題值得政府機關深思，圖書收錄的策略取決於計畫的定位與目標。

但是，無論計畫定位為何，在初始階段，受限於人力與製作成本，勢必要採取某些標準來制訂圖書優先摘譯順序，日後再分階段擴大英摘範圍。本文彙整受訪者意見，歸納出以下四種計畫初期可配合運用的圖書徵選方式，分別是：客觀數據指標、領域甄選、專家大眾推薦和特殊個案處理等四種，以下分述之。

(一) 利用客觀數據或指標來選擇

中書英摘計畫可參考書籍的獲獎紀錄，例如獲得國科會獎項或各學術機構選拔得獎之學術專書（T3、T10、S3、P9、G3），亦可參考 THCI 引文資料庫，優先摘譯被引用次數高的中文圖書（T6、S2、P1）。引用情況能反映專著的重要程度，用以徵選圖書具有正當性與客觀性，唯不宜作為單一甄選指標，應配合以下其他條件權衡之。

(二) 以領域或主題作為甄選條件

人社領域眾多，且難斷言哪個研究領域比較重要，但多數受訪者仍認為中書英摘必須優先摘譯有特色的專書，才能提高使用者興趣，建立國際能見度。以此訴求來看，受訪者的共識是建議選擇具有「臺灣特色」的領域或議題來進行摘譯。但臺灣特色不代表一定要以臺灣為研究主題，而是考慮各領域的學術興趣與主題趨勢，在國際學術脈絡中尋找「臺灣特色」的定位。綜合受訪者提出能展現臺灣

特色的作品特徵，可歸納成以下四種：

1. 以臺灣或華人社會為研究主體者

以臺灣為主題的著作可彰顯臺灣特有人文思想、社會制度、器物、文化或現象，值得中書英摘計畫優先挑選（T9、S2、S5、S6、G3、A1）。特別是臺灣獨具的現象（如S6指出臺灣黑熊不會冬眠，與其他地區的熊不同，其獨特性即會引發國際學術興趣）。臺灣近年大力推動的跨領域研究，如南島文化研究、人種基因研究、澎湖水下考古等亦為可考慮優先摘譯的研究領域。或由區域研究、政治、經濟、社會、軍事、中文、臺文、歷史、社會學、人類學等領域中優先甄選以臺灣為主題的研究。

2. 展現臺灣視野與詮釋觀點者

受選論著不一定要以臺灣為主題，研究思維如能反映臺灣觀點，即值得對國際推薦。例如，臺灣從事西洋文學研究、民主制度或政治理論的學者可能會有不同於歐美國家學者的詮釋與洞見，這些想法對國際學術社群而言都有機會產生迴響或共鳴（T4、S4）。再者，近年來中國在國際社會中崛起，任何與中國相關的研究都會引發國際興趣，臺灣有大量人社論著呈現出臺灣對中國的觀點，以及臺灣對華人社會及國際關係的省思，這些均能吸引國際學者（T6、T9、A1）。

3. 具全球能見度、可立即與國際接軌的社會議題

某些社會議題具有廣域性與當代性，如勞工、婦女、移民、人口老化等，均是全球共同關心的議題，這類議題的臺灣在地研究能立即引發國際學者興趣，如拼圖的一角般填補全球知識缺口，值得優先摘譯（T6、T9、S5、S6、A1）。而臺灣學界大力推動的南島文化研究也符合這個條件，因亞洲與紐澳國家對南島語言、人種、文化等方面的研究均有高度興趣（S6、G3）。來自出版業的P5也指出，當國外出版社向國內出版社索求出版資訊時，大多尋找此類地域性研究，可見此類研究確有優先摘譯之價值。

4. 需要英文摘譯才有國際交流機會的學科領域

不同領域對英摘的需求程度有別，例如，國內愈來愈多社會科學學者已傾向以英文發表學術論著，發表管道也逐漸以期刊為主；外國文學及語言學等研究領域也常以英文論述，學者本身也具有較強的英文能力，相對而言，較不需中書英摘計畫協助（T3、T7）。另一方面，漢學研究對英摘的需求其實也並不高，因為國外的漢學學者大多能閱讀中文（S4、P6）。相對的，以臺灣為主體的文、史、

哲、藝論著，便較需英摘協助，方可為國際學者所見。

(三) 參考專家與大眾推薦

多數受訪者都認為委託專家及專業機構推薦是遴選圖書的可行方式 (T3、T6、T8、T9、S2、S3、S4、S5、S6、S7、P1、P2、P3、P4、P5、P9、G3) (例如發文請各大專院校教師推薦，或邀請領域學者及學術出版社來協助甄選。T9、S2 另建議徵詢臺灣旅外學者的意見，因為這些學者可以協助橋接臺灣與國際學界，故值得參考。此外，亦可調查國外研究機構、出版社、圖書館等對臺灣學術論著之需求偏好，也有助書籍評選 (T6、T10)。計畫發展穩定後，亦可開放作者與出版社自我推薦 (T5、T10、S3、G2、G4)，可參考臺灣文學館做法，讓作者提供中文摘要，經審核後再進行摘譯，或是利用 Web 2.0 機制開放一般大眾推薦 (P1、P3、P8、A3)。

(四) 依作品獨特性優先遴選特定論著

除上述通則性評選方式外，S6 認為某些個案論著因具有獨特性，較易發揮國際傳播效益，值得優先摘譯。例如在國內外已公認具有持續價值之經典研究論著，具較深遠影響，可優先摘譯；S3 則指出某些文學名家如白先勇、金庸等，其作品已有英文譯本，那麼，關於這些作品的研究論述也可優先摘譯，以收連貫與相輔之效；另外，T6 認為國外大學所開設的東亞或臺灣課程所用的教材也可優先摘譯，因為被選用應可代表作品的國際價值已獲海外學者認可，值得優先推廣。

伍、中書英摘推行建議方案

基於前段訪談意見，研究者對中書英摘計畫推行初期的英摘徵集模式、英摘成果的發行方式、以及英摘撰寫原則與評鑑方式等，提出建議如下：

一、中書英摘計畫初期的英摘徵集模式

計畫初期最值得關切的便是如何有效徵集或產製出品質良好且能符合計畫目標的英摘文字，本研究參考訪談意見，提出以下兩種方案供政府機關未來推動計畫之參考。

(一) 以研究案形式委託領域學者進行系統化的英摘工作

如前所述，中書英摘計畫的困境是其薪資酬報與學術酬報都太低，難以吸引學者參與，若能以學術研究案的執行形式，分領域、分年度依序將學科領域的中書英摘工作委託給學科領域專家執行，便能刺激學者參與。這個方案的好處是：

1. **提高學術誘因：**將英摘實作轉型為委託研究，能讓學者提高接案興趣，因為當前臺灣學術獎酬制度鼓勵學者執行政府機構委託研究，學者所屬機構也樂見其人員向外接案，將之視為一種榮譽，也有助機構展現整體研究產能，因此，以研究案形式執行，能有效克服學術酬報不高的問題。
2. **借重學術專長：**任何由學術領域外部單位所進行的論著遴選，即使有學科專家參與徵選審查，也難免會被質疑徵選標準或有「以行政領導學術」之疑，如果計畫初期委由學術領域之計畫主持人來整理並摘譯各領域內值得對外推廣的中文論著，並配合本研究建議之摘要內容、形式、語言之多軌審查，較具紮根之效。而且計畫主持人因自身為領域專家，較有能力辨識並敦請其他同領域的優秀學科專家來參與摘譯或審查。
3. **刺激學術靈感：**研究主持人及其團隊在彙整既有的中文學術論著過程中，因為須整理文獻、分類知識、比對關係等，實質上會獲得對中文文獻的整體了解，非常可能在此過程中辨識出新的研究主題或激發論著靈感，對學術發展有助益。
4. **培養後繼人才：**研究計畫主持人較可能委由其研究團隊、博碩士研究生、乃至同領域新進學者來協助文獻的整理、徵選、摘譯、與審查，在這過程中，資淺人員有機會接觸到學術轉譯與傳播工作，能有效呼應前章中善用學界人力的建議，也能達到人才培育的效果。

但是這個方案有以下幾個必須注意的問題：

1. **領域劃分的問題：**在訪談過程中，受訪者不時會提及人社領域多元、學風互異、以及新興跨領域的問題，也有受訪者提到現行行政機關如國科會學門分類對學術領域劃分不盡合理，可能會壓縮弱勢領域或新興領域的問題。以政府機關的執行立場來看，初期或許必須參考此類學門分類來分案委託，但宜在分案時考慮領域規模、領域關係、出版規模、主題複雜度等因素，在委託研究契約中彈性調整，敘明研究案委託甄選摘譯之中書學科主題，盡量避免上述疑慮。
2. **預期成果的設定：**中書英摘計畫初期恐無法追求全面收錄目標，因此委由學科主持人擇優徵選值得優先對國外推廣的中書論著。政府機關在委託研究時，宜在契約內敘明預期成果如中書徵選分析決策歷程、最低應完成之英摘數量、完成程度等，也應提供計畫主持人必要之資訊與協助，

如圖書甄選標準建議原則、摘要寫作準則、審查原則、英摘提供格式等，如此較易推動雙方合作，也有利於政府機關直接取用計畫成果，發布英摘。

3. **領域選擇的問題：**承前，受訪者認為人社領域對中書英摘的需求程度並不相等，有些領域比較需要優先摘譯，人文領域的需求整體而言似比社會科學略強，因此，人文與社科雖宜同步推動，但初期可考慮多分配資源給人文學術。而人文領域中，與臺灣主題與視野較相關的文學、史學、藝術、民俗等研究，可考慮優先以研究案的方式發展。出版數量較少、領域歸屬不易的論著，則建議由政府機關循一般圖書摘譯的方式處理。

(二) 以委託執行方式與學術出版社合作進行系統化英摘工作

此方案依據受訪的出版業者提出，政府機關或可考慮計畫初期與聲譽良好、值得信賴的學術出版社合作，分年度委託出版社完成英摘的建置，且應優先選擇有優秀的企劃能力與資訊加值能力者，且具國外版權與通路開發實力者。與出版社合作的好處如下：

1. **出版社熟悉整體出版狀況：**國內較具規模的學術出版社，對其所屬學術領域的各家出版品都相當清楚，因此最能掌握領域專書的出版狀況，在選擇上，出版社較能持衡由出版品整體來甄選優先對外推廣的論著，不像少數學者可能在甄選圖書時會受其領域或觀點影響而偏重某些主題。
2. **出版社較有編審行政的經驗：**較具規模的學術出版社對於圖書編譯、審定、乃至文案撰寫上，都有豐富經驗，也多能立即體會中書英摘發行的國際推廣訴求與需要，製作符合政府機關及出版社自身目標的摘要文字。這對政府機關推動計畫，徵集適切的英摘內容而言，是極大助益。
3. **出版社有發展後續產業的動力：**國內出版社都試圖在狹小的學術市場中尋找更大的發展契機，舉凡學術資料庫建置、國際版權開發、國際行銷通路拓展等，都是出版社願意投入的領域。中書英摘與該類發展目標相契，政府機關委由出版社執行，日後或可發展出官辦民營的 BOT 合作型態，有助於扶植民間出版產業並有效利用國家資源。

但是這個方案也有以下幾個必須注意的問題：

1. **圖書選擇的問題：**學術出版社各有所長，在出版學術作品時也常以書系的形式開發生產著作，因此有機會以徵選書系並逕以系統性摘譯的方式處理。這對計畫初期亟需充實英摘內容的目標而言相當有利，但須注意受委託之出版社在選擇書系或個別圖書時，立場應持衡，避免偏重自家

出版品等偏頗狀況，影響計畫公信力。再者，計畫因委由民間執行，除了選擇信譽良好的合作對象之外，或可邀請聲譽良好的領域學者擔任計畫共同主持或諮詢委員，以昭公信。

2. **編譯品質的問題：**政府機關在過往執行全書英譯計畫時，發現委由出版社進行之英文翻譯會有品質良莠不齊的問題。如果採此方案，政府機關仍須負起品質與語言審查之重任，並在合作契約中明訂各種維護品質的條件，方能得到較佳的計畫成果。
3. **計畫誘因的問題：**若干受訪者認為出版社參與英摘建置的誘因不大，即使以委託合作案的方式推動，如果行政流程過於瑣碎、規定過多、經費支用缺乏彈性、酬報不高，那麼對出版社也不具足夠經濟誘因。因此，如果未來採此方案，建議在委辦執行步驟上應盡量鬆綁，充分授權給受託對象，並提高參與誘因，如此方能推行。

二、中書英摘的發行方案

本研究採納受訪者與審查委員的建議，秉持多重管道流通與取用的原則，但建議在英摘成果的出版與發行上，仍宜發行一份中書英摘之學術期刊。如前節所述，受訪者認為中書英摘對學者的吸引力不大，主要是因為現行學術獎酬制度對此類摘譯工作的鼓勵有限，學者參與的意願偏低。如以學術期刊形式來發行中書英摘成果，則摘譯、編輯、審查等活動均可被視為學術活動與產出，因此可提高學者與譯者的參與意願，也提供了符合現行學術獎勵機制中的誘因。

具體而言，本研究提出一套以學術刊物出版為基礎，另以網站平台及電子報擴大文本收納範疇與傳播形式的做法，茲將建議做法歸納如下：

（一）英摘學刊之發行與編輯

以學術出版品型態來發行摘要文本實有眾多前例，在英美學界頗受重視的書評摘要年刊 American Reference Books Annual (ARBA) 即為一例。譯文以學術期刊發行也有例可循，香港中文大學翻譯研究中心所出版的《譯叢》(Renditions) 期刊，即以刊登優良譯作為旨，該刊自 1973 年起發行，以嚴謹的審查來甄選中文文學作品之英文翻譯或選譯，翻譯的文本涵括古典詞曲、古典文學作品與現代小說等，亦收錄文學、翻譯研究等文章，被視為中文翻譯界具特色的學術刊物(黃維樑，2012；Research Centre for Translation, 2012)。中書英摘計畫所產出的文本雖與 ARBA 或《譯叢》性質有別，但其經營模式均可提供啟發，如：

1. 中書英摘刊物宜以獨立期刊 (periodicals) 或叢刊 (series) 的方式來發

行，且應具正式出版品標準體例（如申請國際期刊標準號碼 ISSN、政府出版品編號等），以建立出版品形象，有利提升學術地位。

2. 單獨發行期刊或叢刊宜有專任主編、編輯團隊、與編輯委員會之設置，除揭示刊物學術目的與定位，並維持持續出版之品質。
3. 可與學者合作研究產出英摘的方案結合。如計畫初期以分領域委託學者製作英摘之方式來徵集英摘，那麼也建議由計畫主持人擔任若干期數（視成果數量決定）之客座主編（guest editor）。因擔任學術刊物客座主編通常被視為學術榮譽，故也可改善前述學術酬報不高問題。
4. 刊物除持續刊登英摘計畫所產出之英摘成果，也可接受作者、出版者、或自行投稿之摘譯者的文字，在審查時，建議審查學術內容、語言、與摘要形式，如此可達成前述多方供稿、多種文體並容（摘要、書評、或專家導論）之訴求。
5. 英摘刊物宜採紙本與電子同步出版模式發行，且應採開放取用（open access）模式發行，其內容除即時發布於期刊官方網站中，未來也希能交付機構典藏（institutional repository）或學科典藏（subject repository）進行永久性的典藏及公開取用。
6. 英摘刊物應致力爭取國內外索引摘要資料庫收錄，以提高刊物內容能見度，並藉以彰顯出版內容的學術性。

（二）輔以多重電子傳播管道來推廣刊物內容

有關中書英摘的出版、發行、傳播與推廣，受訪者提出了許多做法建議，包含應發行中書英摘紙本或電子期刊、電子報、建置專屬網站或資料庫，以利即時更新資訊、供全球讀者取用並與讀者進行互動等。而多數受訪者均贊成同時採用上述多重管道，將此計畫的觸角伸得更遠更廣，如：

1. 中書英摘刊物的電子期刊應建立專屬網站，網站平台除提供當期與過期內容瀏覽之外，亦應設計跨卷期之動態檢索機制，以利使用者以作者、學科、書目資訊等檢索點來搜尋中書英摘。
2. 中書英摘專屬網站的定位宜同時具備雙重定位：（1）作為中書英摘刊物之官網；（2）作為臺灣人社學術專論整體對國際發聲之窗口。專屬網站宜設專任網站編輯，以活潑、易用、彈性、永續經營等原則來經營網站。
3. 若干較不宜刊登在中書英摘刊物中的文本類型，如出版社自願提供的簡介、試讀章節、摘錄、目次、書影等，即可在專屬網站中附隨著原書書目資訊提供，以達前述多元文本內容之訴求。
4. 網站使用者在中書英摘網站中檢得書目時，建議在詳細書目、摘要文字、

及分類主題提示之外，亦提供連結至可購買該書的網路書店網站及全球性的圖書館聯合目錄 WorldCat，以利國外使用者就近獲取實體書。

5. 專屬網站雖主要以英文對國際讀者推介臺灣中書，但內容呈現上仍有使用到中文的機會（如提供原書書目資訊時宜英中並陳，以利複核），受訪者建議專屬網站在中文部分宜考慮正簡體兼具，使國外學習簡體中文者在使用網站資訊時也能無礙。
6. 專屬網站可搭配定期發行之電子報，主動對國外學術機構、文教機關、學術出版社、學術圖書館等單位或個人提示新進內容，網站亦應提供 RSS 功能，方便使用者訂閱更新內容。
7. 呼應受訪者建議，專屬網站應考慮提供 Web 2.0 功能如讀者評論與評等，凝聚群眾智慧以收共同推薦及共筆協力促進轉譯釋義之效，亦可以結合標記（tag）、收藏（bookmarking）、標籤雲、層面檢索（facet searching）、社群網站等功能來增加網站之易用性、功能性、及能見度。

三、英摘撰寫原則與評鑑方式

本研究參考受訪者意見與數種國際摘要規範（全國資訊與文獻標準化技術委員會，1986；ISO, 1976; ANSI, 1997），並檢視多種聲譽卓著且收錄於 THCI Core、TSSCI、SSCI、SCImago 等引文資料庫的人社學術期刊，了解其摘要撰寫要求，提出英摘撰寫原則如下：

- （一）英摘應如 ISO 214:1976 所規範「正確、扼要地摘錄原始文獻」。
- （二）為支援人社學者的資訊行為特徵，中書英摘計畫可容許摘譯者選擇製作資訊性摘要（informative abstract）或評論性摘要（critical abstract）。前者為摘錄態度中立、內容資訊豐富的摘要類型，精神在於為使用者報導文獻精要；後者的性質則介於摘要與書評之間，對於強調思維辯證、理論推演的人社著作，可能具有導讀、推薦與區辨的實際效果。
- （三）在行文與篇幅方面，為使摘要充分表達論著內容，在刊物上發行的中書英摘篇幅應至少 2,000 字以上為宜，但網站或電子報等媒介上傳播的其他文種暫無須施加字數限制。
- （四）摘要內文應以標準英語書寫，用字精簡、避免長句及繁冗構句，並遵循傳統文法與斷句。使用專有名詞時則應自原始文獻中選用目標讀者熟悉、慣用的詞彙。
- （五）如原著具有 IMRD（introduction、method、result、discussion）之社會科學論文典型寫作結構，則建議英文長摘也充分反映這個書寫結構，以求內容完整達意。

- (六) 對未具 IMRD 結構的著作進行摘譯時，可參考 Koltay (2010) 的意見，在摘畢後檢視：1. 摘要中是否已有足夠資訊？是否排除了不必要的細節？ 2. 對原始文獻有無任何誤解？ 3. 摘要文字組織程度如何？
- (七) 若採取評論性摘要的摘譯風格，建議摘要撰寫時應先客觀描述原作梗概，再進行解說與評析，且宜提供評論基礎之引證。

在內容評鑑方面，依據受訪者的意見，應進行摘要形式、學術內容、以及語言表現等三個層次的審查，方能整體提高摘要品質：

- (一) **形式審查**：檢視摘要是否具備 Borko 與 Bernier (1975) 所提出的簡潔性 (brevity)、準確性 (accuracy)、與明確性 (clarity) 等三項特質，並參考原著論述結構，觀察摘要的書寫結構是否明晰得宜等。
- (二) **學術內容審查**：確認摘要是否正確且相對完整地摘得原作要義，詮釋或註解是否得宜，是否使用正確的專業術語等。
- (三) **語言審查**：確認譯文的用字、文法、文句結構、術語翻譯等語言表現合宜與否，並呼應摘要簡潔、準確、明確的特質，評估用字遣詞是否流暢簡約。

陸、結論

臺灣人社領域的論著成果豐碩，值得向國際推廣，但全書翻譯所需要的經費、時間、人力等成本均較高於摘要翻譯，本研究探討以中書英摘對外傳播臺灣學術成果的可行性，以焦點團體、深度訪談、及文獻分析等方式來評估英摘發行計畫的政策需求、目標定位與實作方針。

本文綜整受訪專家意見，認為中書英摘計畫初期可採兩種推行方案：第一，以學術委託研究案的形式，分年度並分領域委請各學術領域學者進行中書英摘；第二，以委外合作的方式，與學術信譽良好的民間學術出版社合作進行大規模的中書英摘。在英摘成果發行的做法上，則提出一套以英摘學術期刊發行為主體，並輔以多元管道傳播推廣英摘成果的想法，包含建構臺灣人文學術論述的英摘專屬平台，並以電子報、RSS、Web 2.0 等方式提高內容的多元性、能見度、可用性，達到學術資訊傳播與交流之效果。最後，本研究也參考中外索摘文獻，歸納英摘編譯與評鑑原則，可供日後計畫執行時之參考。

本研究以強化臺灣人社領域的國際學術傳播為訴求，探討以中書英摘來輔助全書英譯的可行性，在研究過程中也發現相關知識領域不足處，值得未來研究持

續探索。首先，在學理部分，摘要對學術傳播效果的研究異常匱乏，摘要品質的研究也非常稀少，但在全球化的趨勢下，非英語系國家實有必要更深入了解摘要或其他類似引介性文字的效能，思考國際學術交流與共榮的最佳策略。此外，當前文獻中對人社學者如何使用索摘資源、如何閱讀摘要、對摘要的需求為何等，著墨甚少，研究深度也不足。未來相關研究應深入探討人文藝術等多元領域學者在查找並瀏覽摘要時，究竟冀索何種資訊？摘要應如何組織並呈現這些資訊，才能有效支援人社學者的需求？特別是在反映不同資源型態如期刊文獻與專書論著時，摘要應有哪些差異化的表現，才能扮演較稱職的替代記錄與傳播媒介，有效促成原作的利用？這些問題都值得未來關注。

人社領域論述結構的研究以及摘要寫作方式的探究，亦是重要的研究主題。人社領域有許多論著因主題特徵與論述目的不同，不以 IMRD 之科學論文結構撰寫，難以直接套用當今科學領域熱門的結構化摘要來進行摘譯。但是人社學術的論述是否絕對不適合使用結構化摘要？在多元的人社學術論述形式中，是否仍能區辨共同的內容結構元素？人社學者是否有共通的閱讀訴求、條件、與目的，足以作為摘要內容結構的抽譯編寫原則？這些問題均值得未來研究深入探索。

附錄 焦點團體訪談大綱

研究計畫說明：

本次訪談目的在討論如何從國際化角度推廣臺灣學術論著，將中文學術論著進行英文摘要的實作方針，調查臺灣學術論著進行英摘的現況、對國家補助英摘的看法、選擇譯述方式、譯述者及其品質、英文書摘內容形式及其出版發行的可行方案，以提升臺灣學術之國際能見度和影響力。

〔計畫案背景說明〕

賴慈芸教授等人（2006）在《建立我國學術著作翻譯機制之研究》期末報告書中，曾建議本院（原國立編譯館），可以仿效國外外交單位或文化基金會的做法，發行中文圖書的英摘，以向國際推廣本國學術著作，增加與外國的文化交流與提升學術傳播效能，為審慎的考量與規劃中文圖書英摘的可行性，必須針對圖書書目的選擇、英摘發稿與審稿的機制、以及發行方式進行詳細探究。

學術著作類型繁多，其中最主要的形式有學術專書和期刊論文兩種。本研究的探討主題以中文學術專書的英摘（長摘或摘譯）為限，學科範圍也限定在人文與社會學科，不包含自然與工程領域等；在摘要語言方面，因政府預算有限，且

英語為全球學術傳播之主要語言，故本研究僅探討中書英摘相關問題，暫不考慮臺灣學者對其他語系學術傳播之需求，日後如有預算，或可依序擴增其他語系。

本研究將邀請人文社會領域學者、翻譯界、出版界、專業索引摘要專家來進行焦點團體訪談，提供經驗與意見。

訪談大綱

1. 從作者／翻譯者／審查者／出版商／政府單位／專業索摘的立場來看，您覺得人文社會學術專書製作英文長摘（或摘譯）會有哪些效益？執行上可能會有什麼問題或困難？
2. 國家教育研究院編譯發展中心與其他相關政府單位應有哪些作為，方能有效推動中書英摘工作？
3. 人文社會學科領域廣泛，專書論著眾多，國家教育研究院編譯發展中心應如何建立專書選擇機制，排定英摘之優先順序？
4. 中書英摘的品質應如何評估、管控與稽核？

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兩岸中小學自然科學教科書名詞術語 譯名之比較研究

高照明 林慶隆 丁彥平 劉寶琦 鄭諺祺

摘要

兩岸分隔超過一甲子，在漫長的歲月中兩地的語文有不同的發展，除了一般語詞有差異外，兩岸中小學自然科學教科書名詞術語的中文翻譯也有很大的不同。這些術語大都翻譯自英文學術名詞，兩岸不同的翻譯原則，導致兩地的中文譯名差異甚大。近年來，隨著兩岸教育及文化交流日漸頻繁，雙方常因中文譯名不同，產生溝通上的隔閡及困擾。

國家教育研究院相關名詞審譯委員會自 2011 年迄今已對照完成之中小學教科書名詞計 8,134 則，包括數學 799 則、化學 1,572 則、地理 1,235 則、資訊 865 則、地球科學 750 則及生命科學 2,913 則，發現我國與大陸翻譯完全不一致的名詞達 2,160 則（約 26.6%）。本研究之目的在於探討（一）兩岸中小學自然科學教科書名詞中文譯名的差異是否導因於兩岸不同的英中翻譯模式？（二）兩岸中小學自然科學教科書名詞的差異是否具有規律性？。本研究分析兩岸術語翻譯的類型並希望建立一個能夠解釋兩岸術語翻譯差異的模式。

本研究使用語言學分析和頻率統計探討兩岸譯名系統性的差異，資料由臺灣各教科書出版業者提供，並經臺灣及大陸之相關名詞審譯委員會通過。本研究除對中小學自然科學教科書名詞的中文譯名進行質性及量化分析，也對相關工作及研究提出建議。

關鍵詞：學術名詞、教科書、中小學、翻譯模式

高照明，國立臺灣大學外文系副教授。

林慶隆，國家教育研究院編譯發展中心副研究員及中心主任。

丁彥平，國家教育研究院編譯發展中心研究助理。

劉寶琦，國家教育研究院編譯發展中心研究助理。

鄭諺祺，國立臺灣師範大學翻譯研究所研究生。

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A Comparative Study of the Translations of Scientific Terminologies in Primary and Secondary School Textbooks in Taiwan and Mainland China

Zhao-Ming Gao Ching-Lung Lin Yen-Ping Ting Pao-Chi Liu
Yen-Chi Cheng

Abstract

After separation of more than six decades, Taiwan and mainland China have undergone different linguistic changes in Mandarin Chinese. Apart from the variations in general vocabulary, there are other significant linguistic discrepancies in the terminologies in primary and secondary school textbooks due to different principles of translation. With increasing cross-strait educational and cultural exchange, the divergences in translations have resulted in communication barriers.

Since 2011, the National Academy for Educational Research in Taiwan has reviewed a total of 8,134 terms translated for primary and secondary school textbooks, including 799 terms in mathematics, 1572 terms in Chemistry, 1235 terms in geography, 865 terms in computer science, 750 terms in Earth Sciences, and 2913 terms in Life Sciences. It is found that 26% of the terms (2100 terms to be exact) do not have the same translations in Taiwan and mainland China. Given such tremendous differences, one may ask the following two questions. What principles of translations govern the differences and what kind of regularities exist between the translations of terminologies found in primary and secondary school textbooks in Taiwan and mainland China. To resolve this problem, the study aims to (a) analyze the translation types of the terminology translations in cross-strait primary and secondary school textbooks, and (b) to develop a translation model which can account for the systematic differences in the terminologies of cross-strait primary and secondary school textbooks.

Zhao-Ming Gao, Associate Professor, National Taiwan University
Ching-Lung Lin, Associate Research Fellow, Development Center for Compilation and Translation,
National Academy for Educational Research
Yen-Ping Ting, Research Assistant Fellow, Development Center for Compilation and Translation,
National Academy for Educational Research
Pao-Chi Liu, Research Assistant Fellow, Development Center for Compilation and Translation,
National Academy for Educational Research
Yen-Chi Cheng, Graduate Student, National Taiwan Normal University

We employ linguistics analysis and frequency count in our study. The data under scrutiny are the textbooks provided by publishing companies in Taiwan and the terminology translations agreed by the related committees in Taiwan and mainland China. A proposal about the translations of the terminologies in primary and secondary school textbooks is presented in the paper.

Keywords: academic terms, textbooks, primary and secondary schools, translation models

壹、前言

語言文字的使用很多是約定俗成，所以即使是緣自相同的語言文字，也常會因地域的隔閡、政治的差異、或資訊溝通不便等因素，造成詞彙使用的差異。海峽兩岸雖都使用華文，但曾經經歷了數十年的隔閡，除了一般語詞有差異外，學術名詞也有顯著的差異。由於學術名詞大都翻譯自英文，兩岸各自使用不同的翻譯原則，使得兩岸學術名詞有許多地方不一致。近年來，隨著兩岸教育、學術、文化及經貿交流日漸頻繁，雙方常因學術名詞譯名不同，產生溝通困擾。進行兩岸學術名詞翻譯對照工作無疑將可以促進兩岸的學術交流。

兩岸民間合編「中華大辭典」是我國文化政策白皮書中的政見，中華文化總會為落實該政策並結合臺灣資訊科技的優勢，2009年起與大陸中國辭書學會推動建置兩岸「中華語文知識庫」線上服務，以逐步縮小兩岸語言文字使用的差異，方便兩岸民眾交流往來。國家教育研究院為國內學術名詞編譯之主責單位，遂協助中華文化總會進行其中兩岸學術名詞對照相關之工作。

國家教育研究院（含原國立編譯館）自 2010 年開始進行對照工作，以兩岸中小學教科書名詞而言，各名詞審譯委員會自 2011 年迄今已完成生命科學、化學、地理、資訊、地球科學、數學等學科名詞對照共計 8,134 則，其中兩岸翻譯不同的詞條總計有 2,160 則，佔總數的 26.6%。

本研究之目的在於探討（一）兩岸中小學自然科學教科書名詞中文譯名的差異是否導因於兩岸不同的英中翻譯模式？（二）兩岸中小學自然科學教科書名詞的差異是否具有規律性？。本研究透過語言學分析和頻率統計探討兩岸譯名系統性的差異以及彼此的相互影響。

貳、文獻回顧

有關兩岸術語中文譯名差異的比較研究相當缺乏。高照明（2011）曾經利用 TAUS Search 英文原文與簡繁體中文的對應以統計式機器翻譯的套件自動擷取兩岸在資訊科技術語的譯名並呈現其中的差異，但對於這些差異並沒有進一步的分析與解釋。兩岸術語譯名差異的系統性差異，至今仍然少有人研究。少數幾篇論文無論從分析的架構與領域都與本文不同。例如，黃金蓮（2006）從系統功能語法的角度來比較兩岸計算機術語翻譯的不同，偏重於理論的解釋。潘文忠等

(2012)是目前與本文最密切相關的研究。該研究將兩岸學術名詞的差異歸納下列7種類型。

- 一、兩岸譯名只有一字之差，且差別在於表示名詞的詞綴如「式」、「性」、「型」等字；例如interference competition 臺灣中譯為「干擾性競爭」，大陸譯為「干擾競爭」。
- 二、中文譯名差異在於使用不同的同義詞；例如anomalous scattering 臺灣譯為「異常散射」，大陸則譯為「反常散射」。
- 三、人名音譯方式不同；例如Arrhenius equation臺灣譯為「阿瑞尼斯方程式」，大陸翻譯為「阿伦尼乌斯方程」。
- 四、兩岸分別使用義譯或音譯；例如La Nina，臺灣翻成譯為「反聖嬰」，大陸則音譯為「拉尼娜」。
- 五、兩岸使用相同的中文表達不同英文名詞；例如column 及row，臺灣分別譯為「行」及「列」；而大陸則譯為「列」及「行」。
- 六、兩岸使用不同詞；例如化學元素silicon，臺灣使用「矽」，大陸則使用「硅」。
- 七、其他類型；例如disk 臺灣譯為「硬碟」，大陸則譯為「硬盤」。

本文希望在該研究的基礎上，利用電腦比對頻率及學科領域，進一步利用語言學分析的方法，從該文尚未探討的面向來分析兩岸中小學自然科學教科書名詞術語翻譯的差異是否具有其它的規律性以及兩岸互動的影響。

參、研究方法

本研究結合質性和量化分析。質性分析的部份我們採用語言學的分析方法，從構詞、語義、音節數各個層面來分析臺灣和大陸地區術語翻譯是否存在系統性的差異。量化的部份，我們透過出現次數當作佐證來探討兩岸譯名的差異。本文的資料由臺灣各教科書出版業者提供，並經國家教育研究院及大陸之相關名詞審譯委員會通過之生命科學、化學、地理、資訊、地球科學、數學等六個不同領域中小學教科書名詞的兩岸譯名對照共計 8,134 則詞條。我們利用電腦程式，計算兩岸在這六個不同領域術語，其中譯名完全重疊、部份重疊、完全不同的比例佔多少。我們以電腦程式加上人工輔助判斷這些術語的譯名在臺灣和大陸的教科書內是否具有內部一致性。我們也進一步觀察一詞多譯在不同學科間出現情形。本研究探討兩岸自然科學中小學教科書名詞英中翻譯模式的差異，特別是下列相關問題。

- 一、兩岸中小學自然科學教科書名詞術語的譯名完全相同及不同者佔多少比

例？

- 二、兩岸中小學自然科學教科書各學科的名詞術語是否具有內部一致性？各學科之間的內部差異有多大？
- 三、從構詞學的觀點來看兩岸中小學自然科學教科書各學科的名詞術語的前綴及後綴是否有系統性差異？
- 四、兩岸中小學自然科學教科書各學科的名詞術語音譯詞的字數是否不同。
- 五、從兩岸中小學自然科學教科書名詞術語的譯名是否可以看出兩者的關係及彼此互相影響的程度。

肆、結果與討論

一、譯名選字的異與同

本次收集的 6 個領域中小學教科書名詞譯名對照表，共有 8,134 則詞條，其中兩岸譯名完全相同者（不考慮正體字與簡化字的字形差異）共 5,426 例，比例接近三分之二；剩下三分之一當中，有將近兩成的詞條是兩岸有一部分譯名相同，但也使用不同譯名的，真正完全沒有共通譯名的詞條共 2,160 例，佔總詞條數的 26.6%。然而，分別觀察各個領域，可以發現比例差距懸殊。表 1 是各領域的統計結果：

表 1 兩岸譯名語料概況

領域	詞條數	兩岸譯名完全相同	兩岸譯名部份共通	兩岸無共通譯名
生命科學	2913	2642 (90.7%)	9 (0.3%)	262 (9.0%)
化學	1572	973 (61.9%)	127 (8.1%)	472 (30.0%)
地理	1235	621 (50.3%)	66 (5.3%)	548 (44.4%)
資訊	865	223 (25.8%)	89 (10.3%)	553 (63.9%)
地球科學	750	464 (61.9%)	137 (18.3%)	149 (19.9%)
數學	799	503 (63.0%)	120 (15.0%)	176 (22.0%)
合計	8134	5426 (66.7%)	548 (6.7%)	2160 (26.6%)

若要觀察兩岸譯名的系統性差異，可由最常見的詞彙翻譯開始比較。表 2 是各個領域當中，兩岸譯名不同、各出現 5 次以上且有明顯對應關係的詞彙。必須注意的是，由於這些譯名已經進入中文該領域的語彙之中，成為中文的語言資源，因此除了原本的來源詞彙之外，也可能出現在其他的翻譯中，故比較時應從譯名出發，不能限制固定的原文語形。表 2 中的「原文」，原則上以譯名單獨出現時對應的英語詞為準。另外，同一個原文詞不一定只有一個譯名，表 2 僅列次

數最多者，詳細情況將在下一段討論。

表 2 常見的兩岸相異譯名對照

領域	臺灣譯名	大陸譯名	原文
資訊	網路 (72)	网络 (30)	net
	電腦 (38)	计算机 (28)	computer
	記憶體 (25)	存储器 (18)	memory
	軟體 (24)	软件 (21)	software
	程式 (23)	程序 (12)	program
	碟 (22)	盘 (17)	disc, disk
	數位 (21)	数字 (17)	digital
	協定 (19)	协议 (18)	protocol
	資訊 (17)	信息 (11)	information
	位址 (17)	地址 (19)	address
	資料 (16)	数据 (14)	data
	匯流排 (12)	总线 (12)	bus
	作業 (11)	操作 (12)	operation
	伺服器 (8)	服务器 (9)	server
化學	莫耳 (18)	摩尔 (18)	mol
	異構物 (10)	异构体 (10)	isomer
	界面 (7)	表面 (7)	surface
	游離 (6)	电离 (5)	ionization
地理	都市 (29)	城市 (29)	city
	資訊 (10)	信息 (8)	information
	冰河 (8)	冰川 (10)	glacier
數學	機率 (7)	概率 (7)	probability
	變數 (9)	变量 (5)	variable
	分配 (8)	分布 (6)	distribution
	次數 (7)	频率 (5)	frequency
	質 (5)	素 (5)	prime

注：生命科學領域無達標準之譯名

表 2 列出的 26 組相異譯名配對中，有 10 組兩者完全不同，剩下 16 組兩者只差一字，如「網路」與「网络」、「都市」與「城市」、「機率」與「概率」等等。其中有些如「冰河／冰川」、「變數／变量」、「異構物／异构体」等，相異部份的

字為類義字，純粹是翻譯時選字不同；有些如「界面／表面」、「作業／操作」、「數位／數字」等，相異部份的字義差別比較明顯。然而，整體而言，各類相異的狀況並未呈現極端的分佈。

二、一詞多譯

臺灣譯名的用詞較為一致，大陸譯名則常有一詞多譯的現象。例如資訊類詞條當中，臺灣譯名中最常出現的雙字詞為「網路」(72例，大多數為net的譯名)，如「網際網路」(internet)、「行動網路」(mobile network)、「同儕間網路」(peer-to-peer network)等等，其對應的大陸譯名則有「网」(38例)、「网络」(30例)、「網路」(9例)等3種譯法，例如上述三個例詞的大陸譯名分別為「互联网／因特网」、「移动网络」、「点对点网路」。再從這三個大陸用詞反向查詢對應的臺灣用詞，則可發現臺灣譯名也使用簡稱「網」(9例)，結果臺灣共有2種譯法，且使用頻率懸殊，大陸的3種譯法當中則有2種次數相當，顯示大陸譯名的用詞的確較為多樣且分散。化學、生物領域中，「氨」、「胺」兩字的分佈也呈現相同的情形：除了ammonia兩岸皆譯為「氨」之外，臺灣在「胺基酸」等化合物(英文歸類為amine)的命名皆使用「胺」，大陸則「氨」、「胺」兩字混用。¹不過，筆者也在其他領域當中發現幾個相反趨勢的例子，因此不能排除各領域翻譯模式不同的可能性。表3列出各個領域中常見的一詞多譯案例：

表3 一詞多譯現象示例

領域	臺灣譯名用詞	大陸譯名用詞	主要對應原文
資訊	網路 (72) 網 (9)	网 (38) 网络 (30) 網路 (9)	net
	網際網路 (16)	因特网 (8) 互联网 (7) 网络通讯 (1)	Internet
	位元 (9)	比特 (4) 位 (3) 数字 (1) 位节 (1) 位元 (1)	bit digit
	位元組 (10)	字节 (8) 位元组 (3)	byte

(續下頁)

¹地科領域的資料雖然顯示相反的分佈(臺灣使用「胺基酸」、「氨基酸」兩種，大陸只使用「氨基酸」)，但僅此1例，無法判斷是資料不可靠，抑或是兩個領域在同一個名詞的譯法上有不同的處理規則。

表 3 (續)

領域	臺灣譯名用詞	大陸譯名用詞	主要對應原文
化學	胺 (42)	胺 (32) 氨 (14)	amino-, amine
	解離 (6)	电离 (3) 解离 (1) 分解 (1) 离解 (1)	dissociation
生命科學	胺 (33)	胺 (17) 氨 (15)	amino-, amine
	運動 (7) ²	运动 (5) 活动 (2)	motor
	雜合 (6)	杂交 (4) 杂种 (2) 杂合 (2)	hybrid
	後天性 (5)	获得性 (3) 适应性 (1)	acquired
地球科學	世 (5) 統 (5)	世 (5) 統 (4) 系 (1)	-ocene
地理	都會 (2)	城市 (1) 都市 (2)	-polis
	資料 (8)	数据 (5) 资料 (3)	data
	原廠 (6)	原始 (4) 自主 (2)	original
	數位 (5) 數值 (5)	数字 (10)	digital
	變遷 (5) 變化 (2)	变化 (7)	change
數學	變數 (9) 變量 (4)	变量 (5)	variable
	分配 (8) 分布 (7)	分布 (6) 分配 (1)	distribution
	次數 (7) 頻率 (3)	频率 (5) 频数 (2)	frequency
	律 (14) 定律 (3) 法則 (1)	律 (7) 定律 (3) 法 (3) 法则 (3) 规律 (1)	law

²原文為 movement 時，兩岸皆譯為「運動／运动」(各 4 例)。

除了單詞之外，某些領域有專用的後綴，如表 3 中地球科學領域的 *-ocene*。這些詞綴屬於明顯改變詞義或詞性（或兩者同時）的衍生詞素（derivational morpheme），往往有固定的單獨譯法，例如 *-ocene* 固定譯為「世」、「統」或「系」等等。前綴通常也會明顯改變詞義，因此即使沒有特定領域專用的譯法，整體而言譯法仍然較為統一。兩岸在譯名中使用前綴時，也呈現與翻譯單詞時類似的趨勢：臺灣用字較統一、分佈較集中，大陸較多樣且分散。由於單一領域前綴的例子數量少，表 4 將各個領域的前綴翻譯合併計算，並且只列出現 2 次以上的前綴，以使整體趨勢更明顯：

表 4 兩岸譯名前綴示例

臺灣譯名前綴	大陸譯名前綴	對應英文詞綴
去 (19) 脫 (4)	脫 (12) 去 (6) 非 (4) 離 (2)	de-
可 (25)	可 (32)	-ble
非 (12) 無 (2)	非 (8) 无 (3) 不可 (2)	non-
副 (8) 次 (7) 下 (5) 子 (3) 亞 (2)	副 (6) 次 (5) 下 (5) 亞 (5) 子 (4)	sub-

除了用字分佈之外，使用前綴的頻率也值得注意。大部分詞綴的翻譯合計次數誤差不大，僅大陸譯名使用「可」的次數明顯高於臺灣譯名。例如出現在多個領域的 *sustainable development*，臺灣譯為「永續發展」，大陸譯為「可持續發展」；資訊領域的 *wearable computer* 臺灣譯為「隨身電腦」，大陸譯為「可穿戴計算機」；*visual programming language*，臺灣譯為「視覺化程式語言」，大陸譯為「可視編程語言」。這些例子當中，大陸皆將 *-ble* 譯為「可」，臺灣譯名的處理策略則不盡相同，顯示大陸在處理詞綴時較為追求與原文構詞的對應關係。

三、添加類別詞

屬於一般用途而非特定領域專用的後綴，雖然對詞義也有影響，但主要改變的是詞彙的詞性或類別，因此用字彈性較大，譯者可能根據實際術語的指涉對

象，決定譯名的後綴，因此這些後綴與原文沒有固定的對應關係。例如同樣資訊領域的 assembler 一詞，原文後綴為 -er，臺灣譯為「組合程式」、「組譯器」，大陸譯為「汇编程序」、「汇编机」、「编译机」，合計便有「程式」、「器」、「程序」、「机」等 4 種處理方式。這些「類別詞」如前所述，並非由原文逐字翻譯，而是來自中文自身的語言資源，因此在原文中找不到 program 或 machine 等詞彙。甚至某些術語原文完全不含後綴，例如資訊領域的 memory 一詞，臺灣一律譯為「記憶體」，大陸則多譯為「存儲器」，其中「體」、「器」便是譯者添加的類別詞。本研究將以上兩種與原文無固定對應關係、屬於譯者決策後追加的詞綴，視為同一種「添加類別詞」的翻譯策略，一併觀察，結果發現兩岸譯名的類別詞使用差異不大，不如單詞、特定領域專用後綴或前綴翻譯時，有一致或多樣的差別。表五舉出各領域中常見的類別詞例子，置於同一列者為兩岸譯名之間有對應關係的類別詞，單欄中有多個類別詞，則表示兩岸在同一群術語的譯名中皆使用多種不同類別詞，且呈現不同的分佈。由於一詞多譯的關係，兩岸的合計次數可能有些許誤差。

表 5 兩岸類別詞示例

領域	臺灣譯名類別詞	大陸譯名類別詞
資訊	器 (51)	器 (77)
	體 (38)	体 (11)
	機 (33)	机 (47)
	者 (13)	者 (11)
	程式 (6)	程序 (6)
	性 (25) 度 (9) 率 (1)	性 (25) 度 (10) 率 (3)
化學	性 (55)	性 (54)
	物 (43)	物 (43)
	體 (29)	体 (42)
	劑 (39)	剂 (40)
	質 (19)	质 (16)
	法 (25) 術 (3)	法 (29) 方法 (1)
地科	度 (25)	度 (22)
	率 (9)	率 (7)

綜上觀察結果，臺灣譯名似乎更傾向創造新詞來對應學術名詞，大陸譯名則較多直接挪用一般詞彙。舉例而言，名詞 address 作網路用語時（14 例），大陸仍然譯為「地址」，與 address 作一般名詞的翻譯無異，相對的臺灣則譯為「位址」。又如 digital 一詞，在臺灣譯為「數位」（21 例），大陸的主流則是「數字」（14 例）。這使得臺灣的術語譯名出現在文章中時，比大陸的術語譯名容易辨認。

如果要更客觀的驗證這種差異，可以採用以下兩種方法：第一個方法是將兩地區譯名分別輸入該地區的英漢平行語料庫，查詢其對應的英文；若一譯詞只對應一種原文詞彙，則可以說這個譯詞是為了該原文詞彙特別創造的，反之則可能是挪用一般詞彙；以數位／數字為例，可以預測「數位」詞性為形容詞時，絕大多數為 digital 的翻譯，但「數字」作形容詞則可能譯自 numeric。第二個方法是觀察已知的原文詞彙在一般語料庫當中常見的譯法與特定領域的譯法是否重複，如果不重複，表示該譯名是特定領域中的專用譯名，反之則也可能是挪用一般詞彙；以 address 為例，可以預測在兩岸的一般語料當中，最常見的翻譯都是「地址」，與大陸在資訊領域中的譯名重複，但與臺灣資訊領域中的譯名則不同。若要觀察整體趨勢，則必須先將整個對照表所有的譯名切割成單詞，再逐一以語料庫驗證，本次研究礙於時間有限，尚無法實際檢驗，有待後續研究者做大規模的統計。

四、兩岸譯名的相互關係

兩岸的學術名詞翻譯，並不是各自由原文直接翻譯的兩條平行線，而是彼此互相參考、影響的過程。在某些領域中，臺灣的譯名可能會流傳到大陸，在某些領域則相反。如果兩岸譯名相同，則無法確定影響的方向，但如果在一詞多譯的情況下，兩岸有部份譯法相同，則可以從中推測影響方向：假如一地區以某一譯名為主流，但混有少數與另一地區相同的譯名，則可以判斷這地區的譯名受到另一地區影響；若在同一領域中有多數這樣的例子，則可以推論這地區在這一領域的翻譯，甚至是整體的知識發展，是跟隨在另一地區之後的。前述「網路」的例子中，我們可以發現大陸地區使用「网络」、「网路」兩種譯法，前者為多數，後者為少數；相較之下，臺灣大都使用「網路」而不用「網絡」。這表示「網路」譯名已漸漸由臺灣普及到大陸，但「网络」則並未由大陸普及到臺灣。除此之外，同樣在資訊領域中，memory 在臺灣一律譯為「記憶體」（25 例），大陸則除了主流的「存儲器」（18 例）之外，已出現 1 例「记忆体」；前述 digital 在臺灣一律譯為「數位」，大陸則除了主流的「數字」之外，還有一部分譯為「数位」（3 例）。

由於同一譯詞不一定只對應一種原文，我們由臺灣譯名中最常出現的雙字詞出發，尋找對應的大陸用詞，再反向檢查臺灣是否也有其他用詞，結果發現資訊

領域中的用語，在大陸譯名經常出現多種譯名並存的現象，其中次數較少的往往與臺灣譯名相同；至於臺灣譯名則鮮少出現這種現象。這顯示大陸譯名受到臺灣譯名影響的趨勢。不過如前所述，兩岸譯名相同的情況下，無法判斷其相互影響，因此下表中雖然資訊領域的詞例最多，但並不表示大陸的教科書名詞翻譯在資訊領域中最受臺灣影響。相反地，根據表一數據，兩岸譯名的完全相同程度在「資訊」領域是最低的，因此部份重疊現象大量出現，也可能顯示「資訊」領域是歷史較短、兩岸翻譯交流尚不完整的領域，或者是新術語出現速度太快、兩岸交流速度追趕不上的領域。

表 6 兩岸譯名部份重疊示例

領域	臺灣譯名	大陸譯名	主要對應原文
資訊	網路 (68)	网络 (30) 网路 (9)	Net
	電腦 (38) 計算機 (7)	计算机 (28) 电脑 (7)	Computer
	記憶體 (25)	存储器 (18) 记忆体 (1)	Memory
	數位 (21)	数字 (17) 数位 (3)	Digital
	協定 (19)	协议 (18) 协定 (1)	Protocol
	程式 (23) ³	程序 (12) 编程 (8) 程式 (2)	program (ming)
	網際 (15)	互联 (9) 因特 (8) 网际 (1)	inter (net)
	協定 (19)	协议 (18) 协定 (1)	Protocol
	碟 (22)	盘 (17) ⁴ 碟 (9)	disc, disk
	位元組 (10)	字节 (8) 位元组 (3)	Byte
	位址 (17)	地址 (19) 位址 (1)	Address
	資料 (16) 數據 (1)	数据 (14)	Data

(續下頁)

³臺灣譯名也有「程序」，不過是 process、procedure 等的翻譯，大陸譯為「过程」、「进程」、「程序」。

⁴臺灣也有「磁盤」這個術語，不過是 platter 的譯名（大陸也譯為「磁盘」，與 disk 的譯名相同）。

表 6 (續)

領域	臺灣譯名	大陸譯名	主要對應原文
地理	都市 (29)	城市 (29) 都市 (1)	city, urban
	資料 (8)	数据 (5) 資料 (3)	Data
	變遷 (5) 變化 (2)	变化 (7)	Change
數學	變數 (9) 變量 (4)	变量 (5)	Variable
生命科學	雜合 (6)	杂交 (4) 杂种 (2) 杂合 (2)	Hybrid
	過敏 (5)	过敏 (4) 变应 (2) 变态 (2)	Allergic
	機能 (4)	功能 (2) 机能 (1)	Function
化學	解離 (6)	电离 (3) 解离 (1) 分解 (1) 离解 (1)	dissociation

注：粗體表示兩岸譯名重疊部份

五、音譯詞

教科書名詞當中的人名、地名等專有名詞 (proper nouns)，兩岸皆採用音譯策略，但某些不屬於專有名詞的術語，偶爾可以找到音譯或音義混譯的例子，且以大陸譯名為多，例如 Internet、world wide web，臺灣譯為「網際網路」、「全球資訊網」，大陸則譯為「因特网」、「万维网」，「因特」是音譯，「萬維」則除了反映 world wide 的發音之外，還帶有字面上的聯想；clone 在臺灣譯為「殖株」、「選殖」，大陸則音譯為「克隆」；El Niño 在臺灣有「聖嬰現象」的意譯，大陸則音譯為「厄尔尼诺」。

整體而言，大陸譯名的字數明顯較多。筆者計算字數的方法如下：首先，以人工檢驗方式，篩選出各領域中兩岸皆採用音譯的教科書名詞，刪除意譯部份，例如 Addison's disease 的譯名「艾迪森病」、「艾迪生病」，便只保留「艾迪森」、「艾迪生」部份；然後，刪除完全重複的音譯詞，例如 Turing、Turing award、Turing machine、Turing test 等 4 個詞條，音譯部份皆為「杜林」、「图灵」，因此只計算 1 次；最後，以 Microsoft Word 的字數統計工具計算總字數（此工具會自動忽略

音節號等符號)。計算結果發現，在所有領域中，大陸音譯詞的字數都略高於臺灣音譯詞。詳見表 7。

表 7 兩岸音譯詞字數統計

領域	詞條數 ⁵	臺灣音譯詞總字數 (平均每詞條字數)	大陸音譯詞總字數 (平均每詞條字數)
化學	174	494 (2.84)	526 (3.02)
生命科學	76	181 (2.38)	184 (2.42)
地理	74	187 (2.53)	195 (2.64)
資訊	35	92 (2.63)	113 (3.23)
地球科學	24	62 (2.58)	70 (2.92)
數學	18	44 (2.44)	50 (2.77)
合計	401	1060 (2.64)	1138 (2.84)

字數差異有幾個可能的原因：第一，臺灣較習慣僅以姓氏稱呼人物，大陸在某些領域習慣使用全名。第二，臺灣譯名較常將姓氏簡稱，例如地理、地球科學領域的術語 Coriolis force，在臺灣譯為「科氏力」或「柯氏力」，大陸則完整音譯為「科里奧利力」。使用「氏」字的策略在大陸譯名中也經常出現，但統計之後發現，臺灣譯名使用「氏」字的頻率仍高於大陸。詳見表 8。

表 8：兩岸各領域音譯詞中「氏」字使用次數統計

領域	臺灣譯名	大陸譯名
生命科學	56	42
化學	8	8
數學	5	0
地球科學	4	0
地理	2	0
資訊	0	0
合計	75	50

除了這些外部因素之外，大陸的音譯模式本身就容易產生較長的譯名。例如 Maastricht，臺灣譯為「馬斯垂克」，大陸譯為「马斯特里赫特」，臺灣的譯法是以一個字處理子音叢 tr，並略去詞尾的子音 t，大陸則將子音叢拆開譯為二字，

⁵一個術語有 2 種音譯時便以 2 個詞條計，若臺灣與大陸其中一方只有 1 種音譯，另一方有 2 種音譯，則將 1 種的那一方採計 2 次。本次資料中並未出現更多種類的狀況。

並且忠實譯出詞尾 t。San Andreas，臺灣譯為「聖安德魯斯」，大陸譯為「圣安德列阿斯」，也是同樣的現象。音譯策略的比較是一個複雜的議題，本次研究礙於時間有限，無法深入探討，有待後續研究更進一步分析。

伍、結論

語言的應用主要是依約定俗成的法則，所以，翻譯不同常會發生。此次針對國家教育研究院完成之 8 千餘則兩岸中小學教科書名詞對照中研究分析了 6 個不同領域教科書名詞的兩岸譯名，發現我國與大陸翻譯完全不同的名詞達 2,160 則，約 26.6%；並有 500 多則譯名，除了部份共通的譯法之外，尚有兩岸各自獨特的譯法。單詞以及與原文字義有具體關係的詞綴部份，我國的譯名分歧較少、較集中於單一譯法，大陸的譯名則較常有一詞多譯現象；至於較不影響字義、翻譯彈性較大的類別詞，兩岸的翻譯模式差異不大。大陸的術語譯名似有沿用一般用語翻譯的傾向，但仍須更客觀量化的檢證。音譯詞方面，臺灣譯名用字較精省，且較常使用簡稱，大陸譯名則較忠實反映原文語音細節，並傾向保留全名。整體而言，各領域內兩岸譯名異同的幅度變化很大，生命科學領域有九成的譯名兩岸完全一致，資訊領域則只有約四分之一；在大部分領域中，都可發現臺灣譯名流入大陸翻譯的痕跡，但大陸譯名則鮮少流入臺灣。

其實，兩岸交流問題並不限於學術界，生產過程中術語使用錯誤，會導致嚴重事故；而經貿活動中，術語理解發生偏差時更可能帶來重大經濟損失。爰此，除了中小學教科書名詞對照外，開展規範常用名詞及專業術語之對照工作在兩岸任何行業領域都是非常必要的。

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跨學科視域下的臺灣翻譯專業發展

主 編 國家教育研究院
作 者 群 林慶隆、陳昀萱、林信成、吳建林、陳雅齡、陳子瑋、吳紹銓、
馬思揚、汝明麗、蔡介立、陳家興、陳碧珠、鄭詩萍、高照明、
彭致翎、吳培若、林奇秀、邵婉卿、陳彥如、張瑋麟、丁彥平、
劉寶琦(依篇次排序)
編 輯 小 組 林慶隆、邵婉卿、李淑瀛、呂家滢
封 面 設 計 林孟潔、王琳
出 版 者 國家教育研究院
發 行 人 柯華葳
地 址 23703 新北市三峽區三樹路 2 號
電 話 (02) 8671-1111
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國家教育研究院

網址：<http://www.naer.edu.tw/>

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