

# 行政院國家科學委員會專題研究計畫 成果報告

## 中文學術論文的規避策略 研究成果報告(精簡版)

計畫類別：個別型  
計畫編號：NSC 99-2410-H-003-095-  
執行期間：99年08月01日至100年07月31日  
執行單位：國立臺灣師範大學英語學系(所)

計畫主持人：張妙霞

計畫參與人員：碩士班研究生-兼任助理人員：蔡婉怡  
碩士班研究生-兼任助理人員：徐懷彤

公開資訊：本計畫涉及專利或其他智慧財產權，2年後可公開查詢

中華民國 100年10月31日

中文摘要： 本研究欲探討謹慎策略詞在中文學術論文中的使用情形，探討的學術領域為生物學、商學、及歷史與文學，用以代表自然科學、社會科學、及純人文研究。研究發現中文學術論文中使用的謹慎策略詞以字(詞)彙類為大宗，其中副詞為使用得最為頻繁的詞類，助動詞及動詞其次。然而，學術論文作者最常使用的謹慎策略詞卻是「可能」、「應該」、及「可以」三個助動詞。

本研究亦發現不同學術領域的作者偏好不同類型的謹慎策略詞。生物學學者經常使用謹慎策略詞來修飾測量數據的正確性，以及修飾其研究的可試驗性，避免無實驗根據的論述。商學學者則經常利用謹慎策略詞來修飾研究假設的正確性及作者對其研究建議的確定性。歷史與文學學者偏好使用的謹慎策略詞與商學學者的大有不同。由於歷史與文學學術論文中的論述主要為作者對文獻的詮釋，歷史與文學學者經常使用第一人稱指稱詞及具主觀性的謹慎策略詞來表達作者對其論述的主觀態度及判斷。

儘管謹慎策略詞在口語言談中及學術論文中皆經常可見，其使用的動機卻不盡相同。在注重人際互動的口語言談中，「禮貌」扮演著舉足輕重的角色。而在學術論文中，表達論述內容的真實性及正確性的程度才是使用謹慎策略詞最重要的目的。

英文摘要： This study aims to investigate Chinese writers' use of hedges in Chinese academic research papers. We explore the linguistic realizations of hedges in Chinese academic texts and the similarities and differences of hedges used among three different academic fields and between Chinese academic texts and spoken discourse. The three academic fields selected are biology, business, and history & literature, representing natural science, social science, and pure humanity. The results showed that academic writers rely greatly on lexical hedges, accounting for nearly 90% of all hedging devices, to qualify their argument. Among all grammatical categories, adverbs occur most frequently, followed by auxiliaries and verbs.

Disciplinary difference in our corpus is observed in the types of hedges used instead of the frequency of hedges. We found that biology writers generally rely on a much more restricted set of hedges whereas writers of history & literature make use of the greatest variety of hedges. In biology, writers frequently hedge the precision of numerical expressions because their studies frequently involve measurement in the experimental process. In business research papers, authors frequently qualify their proposed predictions and research suggestions. The comparison between hedges in Chinese academic texts and spoken discourse suggests

that writers of history & literature have styles that are closer to the spoken register. More studies in pure humanity are required if we want to have a complete understanding of disciplinary difference in the use of hedges.

行政院國家科學委員會補助專題研究計畫

<input checked="" type="checkbox"/> 成果報告
<input type="checkbox"/> 期中進度報告

(計畫名稱)

中文學術論文的規避策略

計畫類別：個別型計畫 整合型計畫

計畫編號：NSC 99-2410-H-003 -095 -

執行期間：99年8月1日至100年7月31日

執行機構及系所：國立台灣師範大學英語系

計畫主持人：張妙霞

計畫參與人員：蔡婉怡 徐懷彤

成果報告類型(依經費核定清單規定繳交)：精簡報告

本計畫除繳交成果報告外，另須繳交以下出國心得報告：無

處理方式：除列管計畫及下列情形者外，得立即公開查詢

涉及專利或其他智慧財產權，一年二年後可公開查詢

中華民國 100 年 10 月 31 日

## 摘要

本研究欲探討謹慎策略詞在中文學術論文中的使用情形，探討的學術領域為生物學、商學、及歷史與文學，用以代表自然科學、社會科學、及純人文研究。研究發現中文學術論文中使用的謹慎策略詞以字(詞)彙類為大宗，其中副詞為使用得最為頻繁的詞類，助動詞及動詞其次。然而，學術論文作者最常使用的謹慎策略詞卻是「可能」、「應該」、及「可以」三個助動詞。

本研究亦發現不同學術領域的作者偏好不同類型的謹慎策略詞。生物學學者經常使用謹慎策略詞來修飾測量數據的正確性，以及修飾其研究的可試驗性，避免無實驗根據的論述。商學學者則經常利用謹慎策略詞來修飾研究假設的正確性及作者對其研究建議的確定性。歷史與文學學者偏好使用的謹慎策略詞與商學學者的大有不同。由於歷史與文學學術論文中的論述主要為作者對文獻的詮釋，歷史與文學學者經常使用第一人稱指稱詞及具主觀性的謹慎策略詞來表達作者對其論述的主觀態度及判斷。

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關鍵字：謹慎策略、中文學術論文、學術領域差異

## Abstract

This study aims to investigate Chinese writers' use of hedges in Chinese academic research papers. We explore the linguistic realizations of hedges in Chinese academic texts and the similarities and differences of hedges used among three different academic fields and between Chinese academic texts and spoken discourse. The three academic fields selected are biology, business, and history & literature, representing natural science, social science, and pure humanity. The results showed that academic writers rely greatly on lexical hedges, accounting for nearly 90% of all hedging devices, to qualify their argument. Among all grammatical categories, adverbs occur most frequently, followed by auxiliaries and verbs.

Disciplinary difference in our corpus is observed in the types of hedges used instead of the frequency of hedges. We found that biology writers generally rely on a much more restricted set of hedges whereas writers of history & literature make use of the greatest variety of hedges. In biology, writers frequently hedge the precision of numerical expressions because their studies frequently involve measurement in the experimental process. In business research papers, authors frequently qualify their proposed predictions and research suggestions. The comparison between hedges in Chinese academic texts and spoken discourse suggests that writers of history & literature have styles that are closer to the spoken register. More studies in pure humanity are required if we want to have a complete understanding of disciplinary difference in the use of hedges.

**Keywords:** hedges; Chinese academic texts; disciplinary variation

## **1. Motivation and Goal**

The term “hedges” has been used by early linguistics to refer to expressions that signal speakers’ lack of full commitment to indicate speakers’ uncertainty or to weaken the face-threatening acts of propositions in interactional spoken discourse (R. Lakoff 1975, Fraser 1975, Huebner 1983, Brown and Levinson 1987, Channell 1994). The use of hedges also reflects the flexibility of language to express indeterminate notions or references in the world (Skelton 1988, Channell 1994). In the 1990s, researchers turned their interest from hedging in conversation to hedging in academic writing (Meyer 1997, Mauranen 2004).

This study aims to investigate Chinese writers’ use of hedges in Chinese academic research articles. Specifically, we aim to examine the kind of linguistic devices Chinese academic writers exploit to hedge their statements, the distribution of the hedging devices in Chinese academic texts, and disciplinary variation in the use of hedges in Chinese academic texts.

## **2. Method**

The data include Chinese academic journal articles from the following three fields: biology, business, and history & literature, representing natural science, social science, and pure humanity respectively. According to previous researches, the frequency of hedges in academic writing differs considerably between humanities/social science and science (Hyland 1998b, 1998c, 1999, 2000, 2004, 2005, 2008a, 2008b, Varttala 2001, Abdi 2002, Hyland and Tse 2004, Blagojevic 2004). However, comparison with pure humanities was rarely included in prior studies. Therefore, we also explore the distinction of hedging frequency between social science and pure humanities. Owing to the limited resources in pure humanities, we combine the field of history & literature into a single area to represent pure humanities.

To control the quality of the language, in each field three academic journals are selected from the outstanding journals awarded by National Science Council (2000-2004, National Science Council cancelled this award after 2004) and those listed in Taiwan Social Science Citation Index (2000-2008). The disciplines include biology, economics/finance/management, and history/literature.

From each journal, we randomly choose one research paper from each of the recent volumes, published from 2000 to 2008, unless the papers in the volume are not available for electronic analysis. From these articles, we select 10 papers around the average text length within the same discipline. By text length we mean text sections excluding titles, journal and author information, abstracts, tables of contents, endnotes, references, and appendices. In other words, we only examine the main body of the research articles. Moreover, to prevent personal writing preference, we also avoid research articles written by the same author.

## **3. Results and Discussion**

The results are summarized in the following.

Regarding the linguistic devices used by Chinese writers, the study finds that Chinese academic writers utilize lexical hedges, structural categories, and qualifying chunks to qualify the truth of

their claims. In our corpus, lexical hedges account for the majority of all hedging devices in all of the three academic fields, i.e. biology, business, and history & literature. This result is consistent with the findings in English studies. The hedges identified in our corpus are mainly used to indicate authors' uncertainty about the reliability of the statements or to mitigate the force of research suggestions.

The lexical hedges identified include the five main lexical categories: auxiliaries, verbs, adverbs, adjectives, and nouns. The structural categories observed involve conditionals, questions, and double negation. The qualifying chunks identified include source attribution, personal attribution, impersonal attribution, addressing limitations of the current study. The linguistic realizations of hedges observed in our corpus overlap greatly with those identified in English studies. Nevertheless, there are some hedging devices not reported in previous researches on English academic hedges. For lexical hedges, our new findings are verbs of focus, the "reference" type of tentative verbs and nouns, negation of degree adverbs or adjectives, and question words. For structural categories and qualifying chunks, double negation and reference to limited resource are found to be used by Chinese academic writers but not reported in previous studies in English. Furthermore, although passives are typically viewed as a hedging construction to avoid author presence in English studies, they are scarcely observed in our Chinese academic corpus and are even not reported in Chinese spoken hedges. Therefore, passives are not a common hedging device in Chinese.

As for the distribution of hedges in the academic papers analyzed, adverbs are the most frequently used category among all hedging devices. The especially high frequency of adverbs probably results from the flexible syntactic positions adverbs can occur and a variety of concepts connected to adverbs (Huebler 1983, Perkins 1983, Hyland and Milton 1997, Hyland 1998a, Chen 2008). In particular, we find that academic writers frequently make use of adverbs of a higher degree, adverbs of higher frequency, and adverbs of a higher degree of approximation to focus readers' attention to the information that best support their argument.

Interestingly, although auxiliaries are the second frequent category, the auxiliaries *keneng* 可能 'may', *ying(gai/dang)* 應(該/當) 'should', and *ke(yi)* 可(以) 'can' are the most frequent hedging expressions in the three academic fields. The high frequency of hedging auxiliaries probably arises from their typical meanings in expressing epistemic modality (Perkins 1983).

The third frequent category is verbs. Among these verbs, judgmental verbs, which indicate authors' subjective evaluation of the truth of the information, account for the majority of this subcategory. The frequent use of verbs probably results from their transparency of coding authors' commitment or judgment of information (Palmer 1986, Hyland and Milton 1997, Hyland 1998a).

Although structural categories and qualifying chunks are infrequent compared with lexical hedges, academic writers still show preference for using conditionals, reference to limitations of the current study, and personal attribution to reduce their commitment to the truth of claims. In particular, personal attribution is usually combined with hedging verbs to strengthen the subjectivity of claims and meanwhile to further weaken the "generalizability" of statements (Hyland 1998a: 188).

Concerning disciplinary difference in the use of hedges, our result of the overall frequency of hedges does not reveal an obvious distinction among the three academic fields. Nevertheless, the types of hedges used show disciplinary variation among the three fields. Writers of biology generally rely on a much more restricted set of lexical hedges of each grammatical category than writers of the other two fields. Moreover, most of the adverbs of approximation, particularly (*da*)*yue* (大)約 ‘about’, are used to hedge the precision of quantification in biology. This hedging function is mostly observed when the authors cannot guarantee a precise measurement in their methods. In contrast, the approximative adverbs in business and history & literature are mainly used to hedge the truth of statements. In addition to adverbs of approximation, biology writers also more frequently make use of verbs of attempt to humbly state their success in achieving the research goals and the “reference” type of tentative nouns to politely make research suggestions.

#### **4. Evaluation of the results**

This study explores the linguistic realizations of hedges in Chinese academic texts and the similarities and differences of hedges used among three different academic fields. The results showed that academic writers rely greatly on lexical hedges. Among all grammatical categories, adverbs occur most frequently, followed by auxiliaries and verbs. Disciplinary difference in our corpus is observed in the types of hedges used instead of the frequency of hedges.

Due to the scope of the present study, however, we only examined the use of hedges in Chinese research papers. Although we have provided a preliminary comparison of the overall frequency of hedges between English and Chinese research papers, this comparison is simply based on three randomly selected papers in each field. Moreover, we did not further look into the distribution of hedges in each grammatical category of lexical hedges and the frequency of the hedging structural categories and qualifying chunks between these two languages. Therefore, further research is definitely needed to have a more complete picture of the use of hedges between English and Chinese academic texts.

Another issue concerns the academic fields selected in this study. Owing to the limited resources of Chinese research papers, we chose the fields of biology, business, and combine history & literature as a single field to represent pure humanity. In our business data, we involve journals of economic, finance, and management. However, some may not consider management a field of social science. Therefore, it is worthwhile to investigate other academic fields and see if the hedging characteristics observed in our corpus are representative of science, social science, and pure humanities.

Also, there may be variation in the use of hedge between different disciplines within a broad academic field. For example, Hernández Guerra and Hernández Guerra (2008) investigated the use of pragmatic metadiscourse in four sub-areas of economics research papers and found that the number of hedges used in quantitative economy, business, and management are greater than those used in applied economy and financial economy.

Despite the areas of research presented above that await further research, we hope this study would draw more researchers’ attention to the use of hedges in Chinese academic texts and elicit



more future studies on the above unresolved issues.

## References

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# 國科會補助計畫衍生研發成果推廣資料表

日期:2011/10/31

國科會補助計畫	計畫名稱: 中文學術論文的規避策略
	計畫主持人: 張妙霞
	計畫編號: 99-2410-H-003-095- 學門領域: 語用學
無研發成果推廣資料	

99 年度專題研究計畫研究成果彙整表

計畫主持人：張妙霞		計畫編號：99-2410-H-003-095-					
計畫名稱：中文學術論文的規避策略							
成果項目		量化			單位	備註（質化說明：如數個計畫共同成果、成果列為該期刊之封面故事...等）	
		實際已達成數（被接受或已發表）	預期總達成數（含實際已達成數）	本計畫實際貢獻百分比			
國內	論文著作	期刊論文	0	0	100%	篇	
		研究報告/技術報告	0	0	100%		
		研討會論文	0	0	100%		
		專書	1	0	40%		
	專利	申請中件數	0	0	100%	件	
		已獲得件數	0	0	100%		
	技術移轉	件數	0	0	100%	件	
		權利金	0	0	100%	千元	
	參與計畫人力（本國籍）	碩士生	2	0	20%	人次	
		博士生	0	0	100%		
		博士後研究員	0	0	100%		
		專任助理	0	0	100%		
國外	論文著作	期刊論文	0	0	100%	篇	
		研究報告/技術報告	0	0	100%		
		研討會論文	0	0	100%		
		專書	0	0	100%		章/本
	專利	申請中件數	0	0	100%	件	
		已獲得件數	0	0	100%		
	技術移轉	件數	0	0	100%	件	
		權利金	0	0	100%	千元	
	參與計畫人力（外國籍）	碩士生	0	0	100%	人次	
		博士生	0	0	100%		
		博士後研究員	0	0	100%		
		專任助理	0	0	100%		

<p>其他成果 (無法以量化表達之成果如辦理學術活動、獲得獎項、重要國際合作、研究成果國際影響力及其他協助產業技術發展之具體效益事項等，請以文字敘述填列。)</p>	<p>無</p>
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	成果項目	量化	名稱或內容性質簡述
科 教 處 計 畫 加 填 項 目	測驗工具(含質性與量性)	0	
	課程/模組	0	
	電腦及網路系統或工具	0	
	教材	0	
	舉辦之活動/競賽	0	
	研討會/工作坊	0	
	電子報、網站	0	
	計畫成果推廣之參與(閱聽)人數	0	

# 國科會補助專題研究計畫成果報告自評表

請就研究內容與原計畫相符程度、達成預期目標情況、研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）、是否適合在學術期刊發表或申請專利、主要發現或其他有關價值等，作一綜合評估。

1. 請就研究內容與原計畫相符程度、達成預期目標情況作一綜合評估

達成目標

未達成目標（請說明，以 100 字為限）

實驗失敗

因故實驗中斷

其他原因

說明：

2. 研究成果在學術期刊發表或申請專利等情形：

論文： 已發表  未發表之文稿  撰寫中  無

專利： 已獲得  申請中  無

技轉： 已技轉  洽談中  無

其他：（以 100 字為限）

3. 請依學術成就、技術創新、社會影響等方面，評估研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）（以 500 字為限）

本研究的主要價值在於本研究為國內少數針對中文學術論文的謹慎策略詞所作的全盤性的分析。雖以英語為主的謹慎策略詞用法之研究文獻眾多，但中文因文字不同，所產生的用法其修辭策略應有所不同。研究亦顯示中文與英文的謹慎策略詞有所不同。同時，本研究更進一步分析不同學術領域用法的不同，亦發現不同領域之間用法的確不同。至於後續研究方面，因本研究所作的比較僅限於三篇隨機抽樣的論文，未來對不同語言的比較，可進一步進行較有規模與系統的跨語言比較。此外，為不同領域比較而作的領域區分是否有不妥處，可能有待後續研究確認。例如，在商學領域，本文分析財經及管理期刊，然而，管理是否應歸類於社會科學領域，各學者可能有不同看法。