

# **UNIVERSITI PUTRA MALAYSIA**

USING THE FAILED FUNCTIONAL FEATURES HYPOTHESIS TO ACCOUNT FOR THE ACQUISITION OF ENGLISH LOCATIONAL AND DIRECTIONAL PREPOSITIONS BY MALAYSIAN CHINESE SPEAKERS

**SHARON CHONG YEE LING** 

**FBMK 2007 2** 



# USING THE FAILED FUNCTIONAL FEATURES HYPOTHESIS TO ACCOUNT FOR THE ACQUISITION OF ENGLISH LOCATIONAL AND DIRECTIONAL PREPOSITIONS BY MALAYSIAN CHINESE SPEAKERS

 $\mathbf{B}\mathbf{y}$ 

SHARON CHONG YEE LING

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirement for the Degree of Master of Arts



# **DEDICATION**

To Mdm. Lydia Thien Nyuk Kien,

my beloved grandmother who left us to be with the Lord on the 23<sup>rd</sup> of May 2005.

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Arts

USING THE FAILED FUNCTIONAL FEATURES HYPOTHESIS TO ACCOUNT FOR THE ACQUISITION OF ENGLISH LOCATIONAL AND DIRECTIONAL PREPOSITIONS BY MALAYSIAN CHINESE SPEAKERS

By

#### **SHARON CHONG YEE LING**

**April 2007** 

Chairman: Associate Professor Wong Bee Eng, PhD

**Faculty:** Modern Languages and Communication

This study examines the acquisition of English locational and directional prepositions by Malaysian Chinese speakers in relation to the issues concerning the Failed Functional Features Hypothesis in SLA (Second Language Acquisition) within the Minimalist Program framework. In particular, this study tests the hypothesis of the inaccessibility of a parameterized functional feature [Dir] which is not instantiated in adult learners' L1 (first language) inventory due to the critical period effect.

Chinese is argued to be a language that has no [Dir] feature for its directional expression is controlled by a verb. On the other hand, the English language requires a [Dir] feature which is found in English prepositions to express directionality. Therefore, it is postulated that Malaysian Chinese speakers have persistent difficulty in recognizing the directional reading expressed by English directional and ambiguous prepositions. In contrast, these speakers have no difficulty in recognizing the locational reading expressed by English locational and ambiguous prepositions probably due to the presence of a [Loc] feature in the learners' L1 inventory.



It is argued that after the age of seven (the end of the critical period), L1 Chinese L2 English speakers are not able to acquire the [Dir] feature as the feature is not found in the learners' L1 inventory and at the same time, the learners are also unable to reset their L1 parameter settings into L2 parameter settings. Two tasks, a Grammaticality Judgment Task (GJT) and a Directionality Judgment Task (DJT) were administered to 100 adult L1 Chinese speakers of L2 English. The former comprises grammatical and ungrammatical items with locational, directional and ambiguous prepositions. The latter consists of items with locational, directional and ambiguous prepositions which convey locational and directional readings. In addition, an Oral Production Task on describing directions was carried out with 12 of the respondents.

The findings indicate that while the Chinese speakers were able to acquire the surface structure of the English prepositions, they nevertheless had not acquired the underlying associated features. Such findings are consistent with the view that parameterized uninterpretable functional features are subject to a critical period.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sastera

PENGGUNAAN HIPOTESIS KEGAGALAN FITUR FUNGSI UNTUK MENERANGKAN PEMEROLEHAN PREPOSISI LOKASI DAN ARAH BAHASA INGGERIS OLEH PENUTUR BAHASA CINA MALAYSIA

Oleh

SHARON CHONG YEE LING

April 2007

Pengerusi:

Profesor Madya Wong Bee Eng, PhD

Fakulti:

Bahasa Moden dan Komunikasi

Kajian ini menguji tentang pemerolehan preposisi lokasi dan arah bahasa Inggeris oleh

penutur bahasa Cina Malaysia yang berkaitan dengan isu Hipotesis Kegagalan Fitur

Fungsi dalam bidang pemerolehan bahasa kedua dengan menggunakan rangka Program

Minima. Khasnya, kajian ini menguji hipotesis tentang kegagalan fitur fungsi [Dir]

yang berparameter yang tidak terkandung di dalam inventori bahasa pertama pemeroleh

dewasa akibat kesan tempoh kritikal.

Bahasa Cina dikatakan merupakan bahasa yang tidak mempunyai fitur [Dir] untuk

menyatakan bacaan arah kerana bacaan arah bahasa Cina dikawal oleh kata kerja.

Manakala, bahasa Inggeris memerlukan fitur [Dir] yang didapati di dalam preposisi

bahasa Inggeris untuk menyatakan bacaan arahnya. Oleh itu, adalah dipostulasikan

bahawa penutur bahasa Cina Malaysia menghadapi masalah untuk mengenal bacaan

arah yang dinyatakan oleh preposisi arah dan preposisi taksa bahasa Inggeris.

Sebaliknya, penutur bahasa Cina Malaysia tidak mempunyai masalah untuk mengenal

UPM

bacaan lokasi yang dinyatakan oleh preposisi lokasi dan preposisi taksa bahasa Inggeris. Ini disebabkan oleh kehadiran fitur [Loc] dalam inventori bahasa pertama pemeroleh.

Selepas umur tujuh tahun (tamatnya tempoh kritikal), penutur B1 (bahasa pertama) Cina B2 (bahasa kedua) Inggeris dikatakan tidak dapat memeroleh fitur [Dir] kerana fitur tersebut tidak terdapat dalam inventori bahasa pertama penutur, dan pada masa yang sama, penutur juga tidak dapat mengubah semula parameter bahasa pertama kepada parameter bahasa kedua. Dua tugasan iaitu satu Tugas Penilaian Tatabahasa (GJT) dan satu Tugas Penilaian Berkenaan Arah (DJT) telah dijalankan ke atas 100 orang dewasa penutur B1 Cina B2 Inggeris. Yang pertama mengandungi butiran yang mengikut nahu bahasa dan butiran yang tidak mengikut nahu bahasa dengan menggunakan preposisi lokasi, arah dan taksa. Yang kemudian mengandungi butiran yang menggunakan preposisi lokasi, arah dan taksa dalam menyatakan bacaan lokasi dan arah. Di samping itu, satu Tugas Penghasilan Lisan (OPT) yang menggambarkan bacaan arah telah dijalankan ke atas 12 orang responden dari antara 100 orang responden tersebut.

Hasil kajian menunjukkan bahawa walaupun penutur bahasa Cina dapat memeroleh struktur luaran preposisi Inggeris, mereka bagaimanapun belum dapat memeroleh fitur dalamannya. Hasil kajian yang sedemikian adalah konsisten dengan pandangan bahawa fitur fungsi yang tidak membawa makna yang berparameter adalah tertakluk kepada kesan tempoh kritikal.

#### **ACKNOWLEDGEMENTS**

There are many people to whom I owe a debt of gratitude. Primary among them is my most respectable chief supervisor, Assoc. Prof. Dr. Wong Bee Eng, who has guided me closely from the very beginning until the completion of my Master's studies with her patience and care. Also, my other two supervisors, Prof. Dr. Chan Swee Heng and Assoc. Prof. Dr. Mohd Faiz Abdullah who had given me feedback in improving the writing of my thesis.

Next is my closest companion for the duration of my Master's studies, Ms. Soong Lee Cheng, who had shared with me and helped me in understanding the major and important concepts regarding UG (Universal Grammar). Ms. Pauline Teoh Hwa Ling, another companion during my Master's studies, shared my ups and downs with me.

My family members, Mr. Richard Chong, Mdm. Rosie Lim, Mr. Jasper Chong, Mr. Edwin Chong and Mr. Wilson Chong had also lent me their greatest support. My Lord Jesus Christ, who has the greatest love, has motivated me in various ways to have full faith in Him.

Finally, to all who had contributed to this study especially all the staff members, lecturers and students from the Faculty of Economics and the Faculty of Modern Languages and Communication, I thank you.

I certify that an Examination Committee has met on 05<sup>th</sup> April 2007 to conduct the final examination of Sharon Chong Yee Ling on her degree of Master of Arts thesis entitled "Using the Failed Functional Features Hypothesis to Account for the Acquisition of English Locational and Directional Prepositions by Malaysian Chinese Speakers" in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

### Washima Che Dan, PhD

Faculty of Graduate Studies Universiti Putra Malaysia (Chairman)

## Wan Roselezam Bt. Wan Yahya, PhD

Faculty of Graduate Studies Universiti Putra Malaysia (Internal Examiner)

### Shamala Paramasivam, PhD

Faculty of Graduate Studies Universiti Putra Malaysia (Internal Examiner)

#### Professor Choi Kim Yok, PhD

Faculty of Graduate Studies Universiti Putra Malaysia (External Examiner)

ZAKARIAH ABDUL RASHID, PhD

Professor/Deputy Dean School of Graduate Studies Universiti Putra Malaysia Date:



This thesis submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Master of Arts. The members of the Supervisory Committee are as follows:

## Wong Bee Eng, PhD

Associate Professor Faculty of Modern Languages and Communication Universiti Putra Malaysia (Chairman)

## Chan Swee Heng, PhD

Professor Faculty of Modern Languages and Communication Universiti Putra Malaysia (Member)

## Mohd. Faiz Abdullah, PhD

Associate Professor Faculty of Modern Languages and Communication Universiti Putra Malaysia (Member)

AINI IDERIS, PhD

Professor/Dean School of Graduate Studies Universiti Putra Malaysia

Date: 14<sup>th</sup> June 2007



## **DECLARATION**

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.

**SHARON CHONG YEE LING** 

Date: 10<sup>th</sup> July 2006

# TABLE OF CONTENTS

	I	Page
ABS	TRACT	2 3
	TRAK	5 7
	ACKNOWLEDGEMENTS	
	ROVAL	8 10
	DECLARATION	
	T OF TABLES	14
	OF FIGURES	16
LIST	T OF ABBREVIATIONS	18
CHA	APTER	
I	INTRODUCTION	
	Background to the Study	20
	Theoretical Framework	26
	The Failed Functional Features Hypothesis	26
	The Minimalist Program	30
	Problem of the Study	40
	Research Questions	42
	Purpose of the Study	43
	Significance of the Study	44
	Delimitations and Limitations of the Study	45
	Outline of the Study	46
II	LITERATURE REVIEW	
	Introduction	47
	The Critical Period Hypothesis	48
	Johnson and Newport (1989)	48
	Moskovsky (2001)	50
	Review of the Critical Period Hypothesis	53
	The Failed Functional Features Hypothesis	55
	Hawkins and Chan (1997)	55
	Hawkins (2005)	59
	Review of the Failed Functional Features Hypothesis	62
	The Locational and Directional Features of the Prepositional Phrase	63
	Thomas (2001)	63
	Inagaki (2002)	65
	Review of the Locational and Directional Features of the	
	Prepositional Phrase	69
	Summary of the Chapter	69



III	LINGUISTIC ASSUMPTIONS	
	Introduction	71
	English Prepositional Phrase	72
	The Surface Structure	72
	The Underlying Features	74
	Discussion	77
	A Minimalist Account	83
	Chinese Prepositional Phrase	87
	The Surface Structure	87
	Discussion	91
	The Underlying Features	92
	A Minimalist Account	93
	Comparison between English and Chinese Prepositional Phrases	96
	The Minimalist Program	100
	Summary of the Chapter	105
IV	METHODOLOGY	
	Introduction	106
	Research Design	107
	Respondents	109
	Research Settings	111
	Sampling Method	112
	Research Variables	115
	Research Instruments	116
	Research Procedure	123
	Data Collection	124
	Data Analysis	129
	Summary of the Chapter	132
V	RESULTS AND DISCUSSION	
	Introduction	133
	Research Questions, Research Design and	
	Summary of Linguistic Assumptions	135
	Research Questions	135
	Research Design	136
	Summary of Linguistic Assumptions	136
	The Demographic Profile of Respondents	137
	The Oxford Placement Test	141
	Results of the Grammaticality Judgment Task	144
	Analysis and Interpretation	144
	Statistical Analysis on the Grammaticality Judgment Task	158
	Results of the Directionality Judgment Task	160
	Analysis and Interpretation	160
	Statistical Analysis on the Directionality Judgment Task	166
	Results of the Oral Production Task	168
	Discussion	170



	Summary of the Chapter	172
VI	CONCLUSIONS AND IMPLICATIONS	
	Introduction	173
	Conclusions of the Failed Functional Features Hypothesis	173
	Implications	175
	Suggestions for Further Studies	176
REF	REFERENCES	
APP	APPENDICES	
BIO	SIODATA OF THE AUTHOR	



# LIST OF TABLES

Table		Page
3.1	Some Prepositions with their Underlying Representations	77
3.2	Linguistic Assumptions for the Two Languages: English and Chinese	105
4.1	The Control and Sample Groups, and Features to be Investigated	108
4.2	Mean Responses of 'locational only', 'directional only', and 'either locational and directional' by Japanese and English Speakers in Percentages (from Inagaki 2002)	121
5.1	The Control and Sample Groups, and Features to be Investigated	136
5.2	Linguistic Assumptions for the Two Languages: English and Chinese	137
5.3	Age of Initial Exposure of the English Language by the Malaysian Chinese Respondents	138
5.4	Medium of Instruction Received at the Primary Level by the Malaysian Chinese Respondents	139
5.5	Number of Respondents and their English proficiency Levels in Percentages on the Basis of the OPT	142
5.6	Pearson Correlations between the Oxford Placement Test, and the GJT and DJT	143
5.7	Frequency Counts and Percentages of Acceptance of the Grammatical Locational Preposition Structure	145
5.8	Frequency Counts and Percentages of Acceptance of the Grammatical Directional Preposition Structure	146
5.9	Frequency Counts and Percentages of Acceptance of the Grammatical Ambiguous Preposition Structure [Manner Verb + Ambiguous Preposition]	148
5.10	Frequency Counts and Percentages of Acceptance of the Grammatical Ambiguous Preposition Structure [Directed Verb + Ambiguous Preposition]	150
5.11	Frequency Counts and Percentages of Rejection of the Ungrammatical Locational Structure [P NP]	152



5.12	Frequency Counts and Percentages of Rejection of the Ungrammatical Locational Structure [P NP + P]	153
5.13	Frequency Counts and Percentages of Rejection of the Ungrammatical Directional Structure [P NP + V]	155
5.14	Frequency Counts and Percentages of Rejection of the Ungrammatical Directional Structure [V-V + NP]	157
5.15	One-Sample Statistics	158
5.16	One Sample Test	159
5.17	Frequency Counts and Percentages of Judgment of the Locational Reading Expressed by the Locational Prepositions	160
5.18	Frequency Counts and Percentages of Judgment of the Directional Reading Expressed by the Directional Prepositions	162
5.19	Frequency Counts and Percentages of Judgment of the Ambiguous Reading Expressed by the Ambiguous Prepositions	163
5.20	Mean responses of 'locational only', 'directional only', and 'either locational and directional' by Japanese and English speakers in percentages (from Inagaki 200)	165
5.21	Paired Samples Statistics for the Directionality Judgment Task	166
5.22	Paired Samples Correlations for the Directionality Judgment Task	166
5.23	Paired Samples Test for the Directionality Judgment Task	166
5.24	Locational Expression of the Oral Production Task	168
5.25	Directional Expression of the Oral Production Task	169



# LIST OF FIGURES

Figur	re	Page
3.1	Directional Expression Expressed through Directed Verbs in the Computational System (CS)	95
5.1	Age of Initial Exposure of the English Language by the Malaysian Chinese Respondents	138
5.2	Medium of Instruction Received at the Primary Level by the Malaysian Chinese Respondents	140
5.3	Respondents and their English Proficiency Levels in Percentages on the Basis of the OPT	142
5.4	Frequency Counts of Acceptance of the Grammatical Locational Preposition Structure	145
5.5	Frequency Counts of Acceptance of the Grammatical Directional Preposition Structure	147
5.6	Frequency Counts of Acceptance of the Grammatical Ambiguous Preposition Structure [Manner Verb + Ambiguous Preposition]	149
5.7	Frequency Counts of Acceptance of the Grammatical Ambiguous Preposition Structure [Directed Verb + Ambiguous Preposition]	150
5.8	Frequency Counts of Rejection of the Ungrammatical Locational Structure [P NP]	152
5.9	Frequency Counts of Rejection of the Ungrammatical Locational Structure [P NP+P]	154
5.10	Frequency Counts of Rejection of the Ungrammatical Directional Structure [P NP + V]	155
5.11	Frequency Counts of Rejection of the Ungrammatical Directional Structure $[V-V+NP]$	157
5.12	Frequency Counts of Judgment of the Locational Reading Expressed by the Locational Prepositions	161
5.13	Frequency Counts of Judgment of the Directional Reading Expressed by the Directional Prepositions	162



5.14 Frequency Counts of Judgment of the Ambiguous Reading Expressed by the Ambiguous Prepositions

164



#### LIST OF ABBREVIATIONS

UG Universal Grammar

SLA Second Language Acquisition

L1 First Language

L2 Second Language

ECP Empty Category Principle

FFFH Failed Functional Features Hypothesis

MP Minimalist Program

CS Computational System

ILGs Interlanguage Grammars

SD Structural Description

PF Articulatory-perceptual System

LF Conceptual-perceptual System

PF Phonetic Form

LF Logical Form

PIF Principle of Full Interpretation

CP Critical Period Hypothesis

FD Fundamental Difference Hypothesis

RRC Restrictive Relative Clauses

PP Lexical Prepositional Phrase

pP Functional Prepositional Phrase

Dir Directional

Loc Locational

IV Independent Variable

DV Dependent Variable

GJT Grammaticality Judgment Task

DJT Directionality Judgment Task

OPT Oral Production Task

SVO Subject Verb Object

#### **CHAPTER I**

#### INTRODUCTION

#### **Background to the Study**

"Language acquisition is a *species-specific* ability, possessed only by human beings" (Radford, 1997: 8). This is due to the presence of a biological innate language faculty in the human brain in which knowledge of language is stored, that is, the tacit knowledge of the grammar of language or the language competence (Radford, 1997: 2). The language faculty helps humans to acquire language as well as to produce language. This language faculty is located in the left hemisphere of the brain in a modular form that consists of interacting modules (Hawkins and Chan, 1997: 188).

However, by knowing only the physical form of the language faculty gives no further information about the language itself and neither does it tell us about the language acquisition and production processes that occur in it. Therefore, beginning from the 1950s, a theory known as Universal Grammar (UG) was postulated by Chomsky to describe the constitution of language knowledge, and to explain the language acquisition and production interactions that take place in the language faculty. However, this theory was specifically proposed to describe and to explain the acquisition of the first language (L1) by young children of one to six years of age. It was not used to describe and to explain the acquisition of a second language by children



after the age of seven (post-childhood) and adults. Such a task was taken up by the second language acquisition (SLA) researchers.

The distinction made between the first language acquisition and second language acquisition processes is due to the fact that acquiring a second language seems to be different from the acquisition of a first language or one's mother tongue especially after the age of seven (Towell and Hawkins, 1994: 2). This is because while L1 acquisition is an effortless, rapid and uniform process, "L2 learners typically acquire second language slowly, with some effort and incompletely" (Towell and Hawkins, 1994: 4). Furthermore, five phenomena are observed among L2 learners. They are subconscious transfer, staged development, systematicity, variability and incompleteness (Towell and Hawkins, 1994: 5)<sup>1</sup>.

Briefly, subconscious transfer refers to the transfer of L1 mental grammar properties into the construction of L2 grammar by the L2 learners (see for example, Odlin, 1989; Selinker, Swain and Dumas, 1975; Dulay and Burt, 1983; Selinker, 1983; Riley, 1981; Zobl, 1984; White, 1986a in Towell and Hawkins, 1994: 7-10). L2 learners also go through a series of transitional stages before they can acquire the properties of the target L2 grammar (see for example, Clahsen and Musyken, 1986; Clahsen, 1984 in Towell and Hawkins 1994: 10-11). This phenomenon is known as staged development. In line with this, it is said that there is systematicity in the growth of L2 competence or grammar knowledge across L2 learners (Meisel, Clahsen and Pienemann, 1981; Ellis

-

<sup>&</sup>lt;sup>1</sup> For a detailed explanation, please refer to the book *Approaches to Second Language Acquisition* by Towell and Hawkins, 1994, Chapter One: 7-16.

1989; Dulay and Burt, 1973; Dulay and Burt, 1974; Bailey, Madden and Krashen, 1974; Makino, 1980 are mentioned in Towell and Hawkins, 1994: 11-12).

L2 learners are also said to have intuitions about aspects of the L2 grammar which cause variation in the production of those aspects of the L2 grammar at certain stages of development. This is due to the fact that L2 learners give the impression that "L2 learners at certain stages of development appear to allow more than one structural variant for a given construction where the target L2 has only one form" (Towell and Hawkins, 1994: 13).

L2 learners also seem to stop short of native-like success which leads to incompleteness in certain areas of the L2 grammar in the acquisition of the target L2 (Johnson and Newport, 1989: 60-99).

Being aware of the above phenomena, SLA researchers have been trying to formulate hypotheses and theories in order to explain the five observable phenomena of SLA. One of the earliest linguistic approaches is the Contrastive Analysis Hypothesis. This hypothesis claims that if formation of a set of habits is involved in the acquisition of an L1, then the same habits should be involved in SLA too. The Contrastive Analysis Hypothesis also claims that some of the habits which are appropriate to the L2 that have been acquired in the learners' L1 will be acquired easily; others need some modification

or eradication in the context of the L2, while certain habits need to be acquired or learned from scratch for the L2 (Towell and Hawkins, 1994: 17)<sup>2</sup>.

The Contrastive Analysis Hypothesis appears to have shortcomings. Firstly, this hypothesis could only explain one phenomenon, which is the subconscious transfer out of the five observable phenomena of SLA. In addition, the Contrastive Analysis Hypothesis "under predicts" (Towell and Hawkins, 1994: 22) that all similarities lead to positive transfer when, in fact, some similarities do lead to negative transfer. It also "over predicts" (Towell and Hawkins, 1994: 22) that all similarities pose no learning problems to L2 learners but certain studies showed that some similarities between languages do pose learning problems for L2 learners. For example, "Odlin (1989) reports that although Spanish has a copula verb similar to English 'be' in sentences such as 'That's very simple', The picture's very dark', L1 Spanish learners of L2 English characteristically omit the copula in early stages of acquisition, saying: 'That very simple', 'The picture very dark'" (Towell and Hawkins, 1994: 19).

As a result of the shortcomings of earlier approaches in SLA research, there has been a change of direction of interest among SLA researchers since the 1980s. These researchers began studying the extent of the availability of the role of Universal Grammar (UG), specifically principles and parameters in SLA (Cook and Newson, 1996: 124). Since then three hypotheses have been formulated in order to describe the role of UG in SLA especially among adult L2 learners.

-

<sup>&</sup>lt;sup>2</sup> For a more detailed explanation, please refer to the book *Approaches to Second Language Acquisition* by Towell and Hawkins, 1994, Chapter Two: 17-32.

The formulation of these hypotheses about the role of UG in SLA is said to be due to some of the differences in the developmental aspect as well as the production aspect between L1 and L2 acquisition. According to Mitchell and Myles (2004: 84-89), there are three main factors that cause such differences: L2 learners are cognitively matured, they already know at least one other language and they have different motivations for learning an L2. As a result, three logical possibilities concerning the role of UG in SLA have been proposed: the Full Access Hypothesis, No Access Hypothesis and Partial Access Hypothesis (Mitchell and Myles, 2004: 84-89).

The Partial Access Hypothesis is considered to be the more recent approach compared to the other two hypotheses. This hypothesis appears to be able to explain the SLA phenomena in a more complete manner especially in terms of subconscious transfer, systematicity, variability and incompleteness. The Partial Access Hypothesis claims that some aspects or certain subparts of UG are fully available while others are not (Mitchell and Myles, 2004: 84-89).

According to Hawkins and Chan (1997: 187-189), the partial availability of UG are principles like the Empty Category Principle (ECP), Subjacency and the Binding Principles. The Empty Category Principle is a principle that constrains the empty categories or traces that are left after movement in a sentence such that they are properly governed either by a lexical head (object position) or by an antecedent (subject position) (Cook and Newson, 1996: 263). The Subjacency Principle, on the other hand, constrains the movement that takes place in a sentence. It states that an element may not be moved