

**A CASE STUDY OF SYNTACTIC IMPAIRMENT IN SEMANTIC
REVERSIBLE SENTENCES OF A PATIENT DIAGNOSED WITH
BROCA'S APHASIA**

DEEPA A/P VISVANATHAN

UNIVERSITI SAINS MALAYSIA

2014

**A CASE STUDY OF SYNTACTIC IMPAIRMENT IN SEMANTIC
REVERSIBLE SENTENCES OF A PATIENT DIAGNOSED WITH
BROCA'S APHASIA**

By

DEEPA A/P VISVANATHAN

Dissertation submitted in partial fulfillment of the requirement for the degree of
Master of Arts/Science

FEBRUARI 2014

ACKNOWLEDGEMENT

This study would have not been possible without the support of many people. I am especially grateful and wish to express my sincere gratitude and greatest appreciation to my supervisor, Dr. Alias Abd Ghani for his guidance and persistent assistance. This dissertation undoubtedly benefited from his deep knowledge, valuable suggestions and meticulous correction. Special thanks to him again for offering his kindness and precious time. It was an honor for me to be under his supervision.

I am deeply thankful to the Manager, Ms. Annie from the National Stroke Association of Malaysia (NASAM), Petaling Jaya, Whose help and dedication were decisive in finding the aphasic patient. I also wish to express my gratitude to the Speech Therapist, Dyani for introducing me to the aphasic patient and offering her help. Special thanks should be given to the aphasic volunteer that participated in the test and to the patient's family for dedicating their time.

I would also like to acknowledge my family members who supported me during the project. I would like to express my gratitude to my beloved mother, Kamsala Devi for her understanding and endless love through the duration of my studies. I wish to thank my father, Visvanathan for his support, encouragement and being an inspiration for me. My gratitude also goes to my brother, Sivasanthran and my sisters, Priyaa Srie and Sree Thevi and to my friend Sharmala for supporting and believing in me.

TABLE OF CONTENTS

	PAGE
Acknowledgement	
Table Of Contents	
List Of Table	
List Of Figures	
List Of Abbreviations	
List of Appendices	
Abstract	
Abstrak	

CHAPTER 1 : INTRODUCTION

- 1.0 Introduction
- 1.1 Background to the Study
- 1.2 Statement of Problem
- 1.3 Objectives of the Study
- 1.4 Research Questions
- 1.5 Significance of the Study
- 1.6 Limitation of the Study
- 1.7 Conceptual Framework
- 1.8 Definition of Terms
- 1.9 Conclusion

CHAPTER 2 : LITERATURE REVIEW & THEORETICAL FRAMEWORK

- 2.0 Introduction
- 2.1 Language Impairment
 - 2.1.1 Aphasia
 - 2.1.2 Broca's Aphasia
 - 2.1.3 Agrammatism
 - 2.1.4 Speech or Language Impairment

CHAPTER 3 : METHODOLOGY

- 3.0 Introduction
- 3.1 Research Design
- 3.2 Sampling Selection
- 3.3 Background of the Subject
- 3.4 Instruments
- 3.5 Data Collection
- 3.6 Data Analysis
- 3.7 Ethical Consideration

CHAPTER 4 : RESULT AND DISCUSSION I

- 4.0 Introduction
- 4.1 Comprehension Test Result
- 4.2 Analysis & Discussion of Result
- 4.3 Conclusion

CHAPTER 5 : RESULT AND DISCUSSION II

- 4.0 Introduction
- 4.1 Comprehension Test Result
- 4.2 Analysis & Discussion of Result
- 4.3 Conclusion

CHAPTER 6 : CONCLUSION

- 5.0 Introduction
- 5.1 Summary and Conclusion of the study
- 5.2 Implications of the Study & Recommendation for the future research

REFERENCES

APPENDICES

TO BE WRITTEN ON SEPARATE PAGES

LIST OF TABLES

TABLE	TITLE	PAGE
--------------	--------------	-------------

LIST OF FIGURES

TABLE	TITLE	PAGE
--------------	--------------	-------------

LIST OF ABBREVIATIONS

ABBREVIATIONS	TITLE	PAGE
----------------------	--------------	-------------

SAMPLE

**A CASE STUDY OF SYNTACTIC IMPAIRMENT IN SEMANTIC
REVERSIBLE SENTENCES OF A PATIENT DIAGNOSED WITH
BROCA'S APHASIA**

ABSTRACT

This present study investigates the typical characterization of syntactic impairment in different semantic reversible sentences found in a patient diagnosed with Broca's aphasia at National Stroke Association of Malaysia (NASAM), Petaling Jaya, Malaysia. The current study adopts the theory of Chomsky's (1981) Goverment and Binding Theory that consist of four level of representation, two of them are relevant for the description of agrammatic comprehension: (D)eep Structure and (S)urface Structure as a framework for the research and adopts an influential hypothesis by Grodzinsky's (1990) Trace Deletion Hypothesis (TDH) concerning agrammatism, which consist of a description of agrammatic representation of structures that Broca's aphasics cannot comprehend. The study investigates the performances level (chance, above chance and below chance) by using Grodzinsky's (1990) percentage and performance level standard norm that gives rise to TDH and this findings serve as a guidelines to evaluate the performance level of that patient in this study. This study also is to determine whether the patient assign thematic roles based on Default Strategy as stated in TDH and to ascertain the performance of Broca's aphasic comprehension pattern in subject relatives clause, object relative clause, active and passive sentence could be accounted according to TDH. The sentences structures used in this study are the object-subject-verb (OSV), object-verb-subject (OVS) structures in English. These structures are syntactically identical to the base order subject-verb-object (SVO) except for the movement of the object to the beginning of the sentence known as derived order, and thus enable examination of syntactic movement in agrammatic comprehension. Apart from that, these sentences are canonical Agent-Theme

**KAJIAN KES TENTANG KECELARUAN SINTAKSIS DI DALAM
KEBOLEHTERBALIKAN AYAT SEMANTIK OLEH SEORANG PESAKIT YANG
DIDIAGNOS SEBAGAI AFASIA BROKA**

ABSTRAK

Kajian ini menyiasat ciri-ciri tipikal kecelaruan siktaksis di dalam pelbagai kebolehterbalikan ayat semantik oleh seorang pesakit yang didiagnos sebagai afasia Broka oleh Persatuan Pesakit Strok Malaysia (NASAM), Petaling Jaya Malaysia. Kajian ini adalah berdasarkan Teori Kekuasan dan Tambatan (*Goverment and Binding Theory*) yang dipelopori oleh Chomsky (1987) yang merangkumi empat lapisan representasi yang mana dua daripadanya adalah relevan bagi diskripsi pemahaman agramatik; yakni Struktur dalam (*(D)eep structure*) dan Struktur Luar (*(S)urface structure*) sebagai kerangka konseptual serta *Trace Deletion Hypothesis* (TDH) yang disarankan oleh Grodzinsky mengenai agramatik yang merangkumi representasi struktur yang tidak dapat dikenalpasti oleh pesakit brocha aphasia. Kajian ini menyiasat tahap penghasilan yang berdasarkan peratus dan norma standard yang disarankan oleh Grodzinsky (1990), (*chance, above chance and below chance*) sebagai panduan bagi menilai tahap pemahaman oleh pesakit di dalam kajian ini. Kajian ini juga dijalankan bagi menentukan samada pesakit didalam kajian ini. Kajian ini juga dijalankan bagi mementukan samada pesakit di dalam kajian ini menggunakan peranan tematik yang berlandaskan strategi tetapan (*default strategy*) seperti yang dinyatakan oleh TDH dan menentukan samada TDH boleh digunakan bagi menerangkan pola kefahaman pesakit didalam penghasilan klausa relatif, klausa objek relatif, serta ayat aktif dan pasif. Struktur ayat yang digunakan di dalam kajian ini termasuklah objek-subjek-kata-karja (OSV), objek-kata-karja-subjek (OVS) yang terdapat didalam struktur bahasa bahasa Inggeris. Struktur tersebut mempunyai peranan

SPINE

**DEEPA A/P VISVANATHAN A CASE STUDY OF SYNTACTIC IMPAIRMENT
IN SEMANTIC REVERSIBLE SENTENCES OF
A PATIENT DIAGNOSED WITH BROCA'S APHASIA**

MARCH 2013

SAMPLE