Question Formation between the Minimalist Program and Optimality Theory

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ABSTRACT

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The purpose of this study was to investigate the construction of questions in English and Cairene Arabic (CA) using the Minimalist Program (MP) and Optimality Theory (OT) as two opposing views on how questions are formed and analyzed in both of these languages.

The dialect used in this thesis, CA, is one which is discussed briefly in the literature, only it is Egyptian Arabic (EA) that is mentioned. There aren't many references that mention CA and seldom ones that mention the optionality of wh- phrases found in it. CA as a dialect has proven to be one which is rich in it's analysis of question formation. The analysis of optionality of the wh- phrase, both in MP and OT, is the contribution this researcher is trying to provide to the academic research.

The Minimalist Program and Optimality Theory are used as the methods of research. These two competing theories use different approaches in describing and analyzing question formation. The Minimalist Program relies on feature checking to account for the movement of any element in the sentence. The uninterpretable feature of one element, called the Probe, needs to be checked by another element, called the Goal. A way of checking this feature comes in the form of movement of the Goal to a position where it can get into a checking relation with the Probe.

Optimality Theory focuses on the satisfaction of high- ranked constraints in a typology that is language- specific. Every sentence used grammatically in any language is the winning candidate in a

competition aimed at choosing that optimal form. The criterion used is a set of constraints; these constraints are ranked in a typological hierarchy that changes cross- linguistically. The constraints are general and universal. If one constraint is low-ranked, it can be violated by the winning candidate and the status of the optimal form's integrity is not compromised. As long as the higher- ranked constraint(s) are satisfied, then any violation of lower- ranked constraint(s) is tolerable within standard OT analysis.

The thesis is divided into three chapters, and a conclusion. Chapter one is the introduction where a short history of both theories is given along with their structure and respective components in details. Chapter two discusses question formation in the Minimalist Program. In this chapter, English and Cairene Arabic are the main languages of analysis. Every type of interrogatives in both of these languages is analyzed and trees are drawn when needed. Examples from Iraqi Arabic and Hindi are introduced. Chapter three begins with a detailed account of the steps taken to achieve an OT analysis. It then discusses the optimality- theoretic approach to question formation. Also, English and Cairene Arabic are the main languages of analysis; tableaux of the competitions are drawn when needed. The final section is the conclusion where the results of this research study are provided. At the end of the thesis, there are the references.

KEYWORDS: The Minimalist Program, Optimality Theory, WH-Movement, Question Formation, Cairene Arabic.

ACKNOWLEDGEMENTS

In the beginning, there was this idea about a topic that I had never heard of before, Optimality Theory (OT), a topic that literally fell into my lap. As I was searching the internet for an idea for an MA thesis, Google and I stumbled upon an article introducing OT written by Geraldine Legendre. Ever since this time, early 2006, and I have dived deeply into OT literature concerning my topic and the general field of Syntax.

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researchers. There are more than 1000 articles in all sub-fields of Linguistics in ROA.

Finally, my mother, for a love and support that can only be measured by mountains, and there aren't enough mountains on this planet and all neighboring planets to measure. Also, for helping me with the Cairene Arabic (CA) examples that needed another native speaker to check for their use or lack thereof.

APPENDIX

The following table is of the abbreviations used in the study:

Abbreviation	*Definition*
ADJP	Adjective Phrase
ADVP	Adverb Phrase
C	Complementizer
CA	Cairene Arabic
CON	Constraint
CP	Complementizer Phrase
EA	Egyptian Arabic
EPP	Extended Projection Principle
Eval	Evaluator
FP	Functional Phrase
GEN	Generator
IA	Iraqi Arabic
IP	Inflectional Phrase
LF	Logical Form
MP	The Minimalist Program
NP	Noun Phrase
OT	Optimality Theory
P&P	Principles and Parameters Theory
PF	Phonetic Form
PP	Prepositional Phrase
PREDICATEP	Predicate Phrase
Q	Quantifier
QP	Quantifier Phrase
SA	Standard Arabic
TP	Tense Phrase
VP	Verb Phrase

Table 1. Abbreviations used in the Thesis.

The following tables[1] are charts of the IPA symbols used along with their corresponding Arabic letters:

		Labial	Plain		Emphatic[1]		Palatal	Velar	Uvular	Pharyngeal[2]
			Dental	Alveolar	Dental	Alveolar				
Nasal		م m		ن n						
Stop	voiceless			ت t		ط tˤ [6]		ك k	ق q	
	voiced	ب b		د d		ض dˤ [6]	ج (d)ʒ ~ g [3]			
Fricative	voiceless	ف f	ث θ	س s		ص sˤ	ش ʃ	خ x ~ χ [4]		ح ħ
	voiced		ذ ð	ز z	ظ ðˤ ~ zˤ			غ ɣ ~ ʁ [4]		ع ʕ
Trill				ر r						
Approximant					ا ~ ال [5]		ي j [7]	و w		

Table 2. Modern standard Arabic Consonant Phonemes.

Due to space configurations, the following symbols are not present in the tableau:

a. The symbol for the Glottal Voiceless Stop (ʔ) (ء).
b. The symbol for the Glottal Voiceless Fricative (h) (ه).

[1] These tableaux are taken from Wikipedia [http://en.wikipedia.org]:
(I) The Consonant chart is taken from: [http://en.wikipedia.org/wiki/Arabic_phonology].
(II) The vowels chart is taken from: [http://en.wikipedia.org/wiki/Wikipedia:IPA_for_Arabic].

Vowels				
narrow	**broad** *(MSA only)*	**Letter(s)**	**nearest English equivalent**	**Trans.**
æ[13]	a		p**a**t	a
æː[13]	aː	ا or ى[14]	p**a**n	ā, a
ɑ[6]	a		p**a**rk	a
ɑː[6]	aː	ا or ى[14]	p**a**r	ā, a
ɐ[15]	a	ة	c**u**t	ah, a
e[16]			p**e**t	e
eː[17]		ي or يه (in Egyptian Arabic)	p**ay**	ē, ei, ai, ēh, eh, eih, aih
ɪ[18]	i		s**i**t	i
i	i		s**i**t	i
iː	iː	ي or ى[14]	s**ee**	ī, i, ee
o[16]			m**o**re	o
oː[17]		و (in Egyptian Arabic)	m**o**re	ō, o
ʊ[19]	u		s**oo**t	u, ou
u	u		s**oo**t	u, ou
uː	uː	و	s**oo**n	ū, u, ou, oo

Table 3. Vowels in Arabic.

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CHAPTER 1

INTRODUCTION

1. Introduction

This chapter is an introduction to both the Minimalist Program (MP) and Optimality theory (OT). It is divided into three sections. The following section (second) is the Theoretical Background to both theories. Starting with the minimalist program, it introduces MP briefly then details the structure of the program such as the operations *Merge* and *Move-α*, and the use of Features. The third section discusses OT, where a brief history of the hypotheses is given and then a detailed account of the components such as the modules of grammar *Generator* (GEN) and *Evaluator* (EVAL), and the concept of the *Input*. Finally, the third section is the Literature Review of the articles and books related to the field of the study: the analysis of question formation in both theories. For both theories, the most prominent articles in the literature are mentioned and

a detailed account of the ones that discuss Egyptian Arabic (EA) or Cairene Arabic (CA) is given.

2. Theoretical Background

2.1. The Minimalist Program

2.1.1.Introduction

According to Hornstein et al. (2005), Universal Grammar (UG) is a set of principles; these principles have parameters which in turn have values. These values are called the parameters and they are set by the child acquiring the language through the different rules that are found in his/her environment[1]. This view is adopted by the *Principles and Parameters Theory* (P&P); once a parameter is set as ON or OFF, it cannot be changed. Hornstein et al. (2005) describe the beginning of the Minimalist Program (MP) as one where P&P is taken as a basis to build to MP. MP is a research program which is designed to take the principles of UG and create a simple, natural, elegant, and parsimonious analysis of the language at hand. Thus, take from the natural harmony of the language and build rules for its grammar accordingly (Hornstein et al. 2005).

Chomsky (1995) defines the minimalist design as [a] theory of language that takes a linguistic expression to be nothing other than a formal object that satisfies the interface conditions in the optimal way (p: 171).

MP reduces the levels of representations in a language to just the interface levels: Phonetic Form (PF) and the Logical Form (LF), thus simplifying language description. All conditions are applicable at these

[1] The method used in setting the value of parameters is in the following: (Hornstein et al. 2005)
(I) Some parameters are set by the native speaker as "on" or "off".
(II) Others are set by the mere absence of a criterion as "the default on" or "the default off".
(III) Some are set by the influence of other parameters, depending on the latter's setting.