

# CONTENTS

INTRODUCTION 1

## I BACKGROUND

- 1 THEORETICAL FRAMEWORK 11
  - 1.1 The origins of Generative syntax 11
  - 1.2 The Minimalist Program 15
  - 1.3 Distributed Morphology 18
  - 1.4 Summary 24
- 2 LITERATURE REVIEW 25
  - 2.1 Early approaches 27
  - 2.2 The Matrix Language-Frame model 32
  - 2.3 Generative approaches to CS 34
  - 2.4 DM approaches to CS 38
  - 2.5 CS versus borrowing 41
  - 2.6 Psycholinguistic and experimental approaches to CS 46
  - 2.7 Summary 47
- 3 METHODOLOGICAL CONCERNS 49
  - 3.1 Acceptability judgments 49
  - 3.2 Statistics 53
    - 3.2.1 Classic tests of significance 54
    - 3.2.2 Models 56
    - 3.2.3 Effect size or p-values 59
  - 3.3 Summary 59

## II GENDER AGREEMENT

- 4 LEVEL: BEGINNER (MONOLINGUAL) 63
  - 4.1 Introduction 63
  - 4.2 Kramer (2015) 68
  - 4.3 Relevant gender systems 74

4.3.1	Romance: French	74
4.3.2	Germanic: (Belgian) Dutch and English	79
4.4	Discussion and conclusion	84
5	LEVEL: ADVANCED (MULTILINGUAL)	91
5.1	Literature review	91
5.1.1	Code-switching and DM	98
5.1.2	Defaults in French and Belgian Dutch	105
5.2	Testing Dutch-English cs	111
5.2.1	Materials	111
5.2.2	Procedure	112
5.2.3	Results	114
5.2.4	Discussion	124
5.3	Testing English-French cs	128
5.3.1	Materials	129
5.3.2	Procedure	131
5.3.3	Results	131
5.3.4	Discussion	138
5.4	Conclusion	139
6	LEVEL: EXPERT (ÜBERLINGUAL)	141
III WORD ORDER		
7	VERB SECOND	145
7.1	Introduction	145
7.2	Verb Second	146
7.3	Word order in the subordinate clause	152
7.4	Putting the theory to the test	154
7.5	Main clause	155
7.5.1	Procedure	155
7.5.2	Materials	156
7.5.3	Predictions	157
7.5.4	Results	159
7.6	Subordinate clause	164
7.6.1	Procedure	164
7.6.2	Materials	164

7.6.3	Predictions	165
7.6.4	Results	167
7.7	Discussion & suggestions for further research	170
7.7.1	The PF interface condition	171
7.7.2	The functional head constraint	172
7.7.3	Feature Checking	173
7.7.4	Feature Inheritance	174
7.8	Conclusion	176
8	ADVERB PLACEMENT	179
8.1	Introduction	179
8.2	Dutch: to adverb or not to adverb	182
8.3	The adverb and code-switching	183
8.4	Testing Dutch-English	185
8.4.1	Stimulus-design	185
8.4.2	Procedure	186
8.4.3	Predictions	187
8.4.4	Results	188
8.5	Testing English-French	192
8.5.1	Stimulus-design	192
8.5.2	Procedure	193
8.5.3	Predictions	193
8.5.4	Results	194
8.6	Discussion and conclusion	197
CONCLUSION		201
IV APPENDIX		
A	INSTRUCTIONS	209
B	STIMULI	215
C	CONTROL STIMULI	223
C.1	Dutch-English controls	224
C.2	English-French controls	225
D	ADVERB PLACEMENT: METHODOLOGICAL COMPARISON	227
D.1	Dutch-English	227
D.2	English-French	229

D.3 Summary	229
BIBLIOGRAPHY	231

## LIST OF FIGURES

Figure 1.1	Schematic representation of the DM derivation (adapted from Harley and Noyer 1999, p 3)	20
Figure 2.1	The Minimalist Framework	38
Figure 5.1	Advertisement in Flanders	109
Figure 5.2	Overview of the ratings of the gender stimuli per condition for Dutch-English cs	116
Figure 5.3	Dutch-English cs: mixed DP-asymmetry. Error bars represent the 95% CI	118
Figure 5.4	Dutch-English cs: singular vs plural DPs. Error bars represent the 95% CI	118
Figure 5.5	Dutch-English cs: determiner gender grouped by type of bilingual	119
Figure 5.6	Dutch-English cs: determiner gender grouped by gender of the TE of the noun	119
Figure 5.7	Dutch-English cs: determiner gender grouped by gender of the TE: Tussentaal speakers	126
Figure 5.8	Dutch-English cs: determiner gender grouped by type of bilingual: SD speakers	126
Figure 5.9	Overview of the ratings of the gender stimuli per condition for English-French cs	132
Figure 5.10	English-French cs: mixed DP-asymmetry	134
Figure 5.11	English-French cs: singular vs plural DPs	134
Figure 5.12	English-French cs: default gender grouped by type of bilingual	136
Figure 5.13	English-French cs: gender of the TE grouped by type of bilingual	136

Figure 7.1	Overview of the ratings of the verb second stimuli per condition	160
Figure 7.2	Overview of the ratings of the subordinate clause stimuli per condition	167
Figure 8.1	Results of the Dutch-English AJT: adverbs	189
Figure 8.2	Overview of the ratings of the adverb stimuli per condition: English-French cs	195
Figure c.1	Dutch-English controls: early bilinguals	225
Figure c.2	Dutch-English controls: late bilinguals	225
Figure c.3	English-French controls: early bilinguals	226
Figure c.4	English-French controls: late bilinguals	226

## LIST OF TABLES

Table 3.1	Likert scale consisting of 6 Likert items for the attitude object “love for ice cream”	55
Table 4.1	Gender assignment in Tamil, adapted from Corbett (1991, table 2.1)	64
Table 4.2	Gender assignment in Russian, adapted from Corbett (1991, tables 3.1 and 3.2)	66
Table 4.3	Spanish declension classes, adapted from Bermúdez-Otero (2013, p 4)	70
Table 4.4	Licensing conditions in Spanish, adapted from Kramer (2015, table 6.2)	74
Table 4.5	Gender agreement in French	75
Table 4.6	Overview of gender agreement in Belgian Dutch	82
Table 4.7	Licensing conditions in BD	85
Table 5.1	Feature specification of definite determiners in Spanish & English	99

Table 5.2	Conditions for the Dutch-English gender stimuli	113
Table 5.3	Summary of the ratings of the gender stimuli per condition for Dutch-English cs	116
Table 5.4	p-values for the pairwise comparison tests	120
Table 5.5	Ordinal model: Mixed-DP asymmetry in Dutch-English cs	122
Table 5.6	Ordinal model: Gender agreement strategies in Dutch-English cs	123
Table 5.7	Feature inventory of definite determiners in Dutch	127
Table 5.8	Conditions for the English-French gender stimuli	130
Table 5.9	Summary of the ratings of the gender stimuli per condition for English-French cs	133
Table 5.10	Ordinal model: Mixed-DP asymmetry in English-French cs	137
Table 5.11	Ordinal model: Gender agreement strategies in English-French cs	138
Table 7.1	Examples sentences per condition: V2	158
Table 7.2	Summary of the ratings of the verb second stimuli per condition	161
Table 7.3	Main clause: Fixed effects for the ordinal mixed model	163
Table 7.4	Examples sentences per condition: subordinate clause	166
Table 7.5	Summary of the ratings of the subordinate clause stimuli per condition	168
Table 7.6	Subordinate clause: Fixed effects for the ordinal mixed model	169
Table 8.1	Adverbs in Dutch-English cs: conditions	186
Table 8.2	Summary of the ratings of the adverb stimuli per condition: Dutch-English cs	190

Table 8.3	Adverbs in Dutch-English cs: Fixed effects for the ordinal mixed model	192
Table 8.4	Adverbs in English-French cs: conditions	193
Table 8.5	Summary of the ratings of the adverb stimuli per condition: English-French cs	196
Table 8.6	Adverbs in English-French cs: Fixed effects for the ordinal mixed model	197
Table b.1	List of Dutch-English stimuli for the gender agreement survey	216
Table b.2	List of English-French stimuli for the gender agreement survey	217
Table b.3	List of main clause stimuli for the verb second survey	218
Table b.4	List of subordinate clause stimuli for the verb second survey	219
Table b.5	List of Dutch-English stimuli for the adverb survey	220
Table b.6	List of English-French stimuli for the adverb survey	221
Table c.1	Dutch-English cs: conditions for the control stimuli	224
Table c.2	English-French cs: conditions for the control stimuli	226
Table d.1	Adverbs in cs: conditions	228
Table d.2	t-test	228
Table d.3	Wilcoxon rank sum test	228
Table d.4	t-test	229
Table d.5	Wilcoxon rank sum test	229