

# Contents

---

	<i>List of figures</i>	<i>page</i> ix
	<i>List of tables</i>	xi
	<i>Acknowledgements</i>	xiv
	<i>List of abbreviations</i>	xv
<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	The scope and goal of this study	1
1.2	Hypotheses	3
1.3	Data	7
<b>2</b>	<b>A dynamic network model of grammatical constructions</b>	<b>13</b>
2.1	Construction grammar	14
2.2	The usage-based model	23
2.3	Language acquisition	34
<b>3</b>	<b>Towards a definition of complex sentences and subordinate clauses</b>	<b>41</b>
3.1	Towards a definition of complex sentences	41
3.2	Towards a definition of subordinate clauses	42
<b>4</b>	<b>Infinitival and participial complement constructions</b>	<b>49</b>
4.1	Literature	50
4.2	Infinitival and participial complement clauses in adult grammar	55
4.3	Data	59
4.4	Analysis	62
4.5	Discussion	72
<b>5</b>	<b>Complement clauses</b>	<b>77</b>
5.1	Literature	78
5.2	Finite complement clauses in adult grammar	80
5.3	Data	89

5.4	Analysis	90
5.5	Discussion	111
<b>6</b>	<b>Relative clauses</b>	<b>116</b>
6.1	Literature	116
6.2	Relative clauses in adult grammar	127
6.3	Data	129
6.4	Analysis	131
6.5	Discussion	141
<b>7</b>	<b>Adverbial and co-ordinate clauses</b>	<b>149</b>
7.1	Literature	149
7.2	Adverbial and co-ordinate clauses in adult grammar	152
7.3	Data	156
7.4	Analysis	158
7.5	Discussion	169
<b>8</b>	<b>Conclusion</b>	<b>174</b>
8.1	From simple sentences to multiple-clause constructions	175
8.2	From lexically specific constructions to constructional schemas	180
8.3	Conclusion	184
	<i>Appendix</i>	186
	<i>References</i>	200
	<i>Author index</i>	220
	<i>Subject index</i>	224

# Figures

---

1.1	Mean proportions of complex sentences in the transcripts of the five children	page 10
2.1	Left, right- and mixed-branching phrase structures	25
2.2	Localist network	27
2.3	Distributed network	27
2.4	Network of argument structure constructions	29
4.1	Phrase structure of a complex sentence including a passive matrix clause and a nonfinite complement clause	53
4.2	Phrase structure of a complex sentence including an active matrix clause and a nonfinite adverbial clause	54
4.3	Mean proportions of bare infinitives, <i>to</i> -infinitives, <i>wh</i> -infinitives, and participial complements	62
4.4	The development of <i>want</i> -constructions	72
6.1	The NVN-schema	122
6.2	The conjoined clause analysis	125
6.3	External syntactic structures of restrictive and nonrestrictive relative clauses	128
6.4	Mean proportions of PN-, N-, OBJ-, OBL-, and SUBJ-relatives	132
6.5	Mean proportions of the first 10 PN-, N-, OBJ-, OBL-, and SUBJ-relatives	133
6.6	The development of PN-, N-, OBJ-, OBL-, and SUBJ-relatives	136
6.7	Mean proportions of subj-, obj-, obl-, io-, and gen-relatives	137
6.8	The development of subj-, obj-, and obl-relatives	138
6.9	Mean proportions of the syntactic heads of participial relatives	140
7.1	The proportions of children's <i>because</i> -clauses that occur in response to a causal question	162

7.2	The development of bound and unbound early conjoined clauses (i.e. <i>and-</i> , <i>but-</i> , <i>because-</i> , and <i>so-</i> clauses)	165
7.3	Mean proportions of the children's early and late conjoined clauses that are intonationally bound/unbound to the semantically associated clause	167
7.4	The development of initial and final <i>when</i> -clauses	170
7.5	The development of conjoined clauses	171
8.1	The development of finite and nonfinite multiple-clause structures	179
8.2	Network of finite complement clause constructions	182

# Tables

---

1.1	General overview of the data	page 9
1.2	MLUs at 2;3 and 3;2	9
1.3	Total number of the children's multiple-clause utterances	10
1.4	Total number of the children's finite and nonfinite multiple-clause utterances	11
1.5	Total number of the children's nonfinite complement clauses, nonfinite relative clauses, and nonfinite adverbial clauses	11
1.6	Total number of the children's finite complement clauses, finite relative clauses, and finite conjoined clauses	12
4.1	Infinitival and participial complements	57
4.2	Nonfinite complement clauses	60
4.3	Complement-taking verbs of the children's nonfinite complement clauses	61
4.4	Mean proportions of the children's NP-V-VP constructions and NP-V-NP-VP constructions	62
4.5	The most frequent complement-taking verbs of the children's NP-V-VP constructions and the mean age of their appearance	63
4.6	The most frequent complement-taking verbs of the children's NP-V-NP-VP constructions and the mean age of their appearance	66
4.7	Frequency of the children's <i>want</i> -constructions and the mean age of their appearance	68
4.8	Mean proportions of the mothers' NP-V-VP constructions and the mean age of their appearance in the children's data	74

4.9	Mean proportions of the mothers' NP-V-NP-VP constructions and the mean age of their appearance in the children's data	75
5.1	Finite complement clauses	90
5.2	Complement-taking verbs of the children's finite complement clauses	91
5.3	S-complements, <i>wh</i> -complements, and <i>if</i> -complements	91
5.4	The development of Adam's and Sarah's matrix clauses including <i>think</i>	93
5.5	Subjects of <i>think</i> , <i>know</i> , <i>mean</i> , <i>bet</i> , and <i>guess</i>	96
5.6	The development of Adam's and Sarah's matrix clauses including <i>know</i>	97
5.7	Subjects of <i>wish</i> and <i>hope</i>	99
5.8	Subjects of <i>see</i> , <i>look</i> , and <i>remember</i>	99
5.9	Subjects of <i>say</i> , <i>tell</i> , and <i>pretend</i>	103
5.10	Type-token ratio of the most frequent complement-taking verbs	104
5.11	S-complements, <i>wh</i> -complements, and <i>if</i> -complements: mean age of their appearance	105
5.12	<i>See if</i> -complements	107
5.13	Mean proportions of the various complement-taking verbs of S-complements in the mothers' data and the mean age of their appearance in the children's data	113
6.1	Mean number of correct responses (out of three) (Sheldon 1974)	123
6.2	Children's responses to SS-relatives (Tavakolian 1977)	124
6.3	Children's responses to OS-relatives (Tavakolian 1977)	124
6.4	Finite and nonfinite relative clauses	129
6.5	Classification of relative constructions	130
6.6	<i>That</i> -, <i>who</i> -, and zero-relativizers	137
6.7	Transitive and intransitive subj-relatives	139
6.8	The mothers' relative clauses (external syntax)	145
6.9	The mothers' relative clauses (internal syntax)	146
7.1	Conjoined clauses	156
7.2	Frequency of the children's individual conjoined clauses/conjunctions	157

7.3	Intonationally bound and intonationally unbound <i>and</i> -clauses	160
7.4	<i>Because</i> -clauses that occur in response to a causal question	162
7.5	<i>But</i> -clauses across and within speaker turns	164
7.6	Mean proportions of the children's initial and final conjoined clauses	169
7.7	Mean proportions of the mothers' conjoined clauses and the mean age of their appearance in the children's data	172