

Aspects of Gĩkũyũ (Kikuyu) Complex Sentences: A Role and Reference Grammar Analysis

Inaugural-Dissertation
zur Erlangung des Grades
eines Doktor der Philosophie der Philosophischen Fakultät
der Heinrich-Heine-Universität Düsseldorf

vorgelegt von

Claudius Patrick Kihara

aus
Nairobi,
Kenya

Gutachter: **Prof. Dr Robert D. Van Valin, Jr.**

Gutachterin: **Prof. Dr Laura Kallmeyer**

Düsseldorf, Dezember 2016

Tag der Disputation: 16 Februar 2017

Acknowledgements

I acknowledge immense blessings I have received from the Almighty God, especially the gift of life and good health, family, friends and the many good people I met in the course of my studies.

I wish to greatly thank Professor Robert D. Van Valin, Jr., first and foremost, for accepting to supervise my research; and secondly, for his kindness, patience, resourcefulness and the generosity he accorded me. Thank you so much for being available for consultation, even at very short notice. Thank you for your prompt email responses. Thank you also for never complaining even when I wrote unclear arguments; you always helped me clarify them through your questions. I will forever be grateful that I met you and learned from you. I also profusely thank Professor Laura Kallmeyer, the second reviewer of this dissertation.

I am very grateful to the Kenyan government through the National Commission for Science and Technology (NACOSTI) and the German government through the German Academic Exchange Service (DAAD) for the scholarship. I thank Dr Helga Schröder and Dr Alfred Buregeya for writing references for me. It is Schröder who made me aware that RRG existed. Buregeya, my teacher and friend, has all along inspired me.

I thank my dear wife Catherine for her love and for standing by me throughout the years as I pursued my dreams, without ever complaining. Thanks for taking care of everything when I was away. Your love, words of encouragement and your daily prayers saw me through. Thanks for always being there to help me clarify the data. Cate, you are truly my best friend, God bless you. My dear children, Julie, Stella and Chris, thank you for being there and bearing with my absence and for your prayers. To my sister Wanjiru thanks for calling me on every other Sunday evening. I also thank my mother Juliana and my sister Jane, for their encouragement and prayers. Thank you Gichuhi wa Njomo, my father-in-law, and Maggie, Maish, Fuero, Dani, and Mwash, and your families.

My friend Jackson Githu, I will be forever indebted to you and your wife Susan and children Belinda, Sedrick and Willy. The weekends we spent together in Duisburg helped me a lot. Thank you also for your intuition and much more. Thanks Jack for everything, you are truly a friend, and God bless you all. I am very grateful to Idan Moshe, my housemate for the entire period of study. Thank you for your friendship, understanding, kindness, concern, and generosity. I also thank Marcus, Keshet and their children, Levy and Jacob, for their hospitality. Gabi, I also remember you.

I thank Mukoya Mwairumba, Mwangi P.K., David Muchiri, Johanna Khoo, Robin Möllermann, and all those who asked about my progress. I also benefitted from the intuition of George Mugo and Geoffrey Njung'e, David Migwe of Augustana University, and many others who answered my many questions. Thank you Erhard Voeltz for the numerous discussions on Bantu; I also thank Ruben van de Vijver, Anja Latrouite and Jens Fleischhauer for their time. Paul Starzmann and Nilgün, thank you for your encouragement and for hosting me in Berlin.

Last but not the least; I thank Marion, Pia, Lena, Anna and Tim Marton for all their assistance with office matters at the Institute of Language & Information. Tim, I particularly thank you for your concern and friendship, and for going out of your way to assist me, I will never forget you.

Abstract

This dissertation was motivated by the lack of a study on the morphosyntax of complex sentences in Gĩkũyũ (Kikuyu, E.51) and the need to test the theoretical tools of Role and Reference Grammar (RRG). Hence, this study investigates the morphosyntax of Gĩkũyũ complex sentences within the framework of RRG.

The main question investigated is ‘What are the constituent units in Gĩkũyũ complex sentences and what syntactic relations exist between them? To answer this main question, sub-questions are proposed, seeking to reveal the composition of complex sentences in Gĩkũyũ, and how the RRG theoretical concepts and tools can describe these constructions. Also, this study seeks to find out if RRG can account for the interaction of syntax, semantics, and pragmatics in Gĩkũyũ complex sentences.

Chapter one lays the background for the study of complex sentences, showing the existing controversy about the notions of subordination and coordination as linkage relations. It is revealed that these notions cannot account for all types of Gĩkũyũ complex sentences. This leads to the statement of the problem, and the research aims and questions of this dissertation. Linguistic features of Gĩkũyũ are also presented.

Chapter two contains a literature review and an overview of RRG theory. Chapter three deals with the application of RRG theoretical concepts to Gĩkũyũ simple clauses. Chapter four introduces the RRG theory of complex sentences and applies it to Gĩkũyũ. The Gĩkũyũ complex reference phrase is also discussed. An examination of focus in complex sentences furthermore reveals that subordinate clauses can be within the focus domain.

Chapter five is on coordination and cosubordination. Conjunction, adversative and disjunctive coordination is described and illustrated. Core and clausal cosubordination are also illustrated. In chapter six, forms of subordination such as complementation, adverbial clauses and relative clauses are discussed. Based on the RRG theory of subordination, it is shown that the language has core (daughter) subordination, ad-core periphery subordination, and ad-clausal subordination. The interclausal semantic and syntactic hierarchy is also discussed. It is shown that most Gĩkũyũ complex sentences fit into this hierarchy. Chapter seven is the summary and conclusion of the dissertation.

The investigation concludes that coordination, subordination, and cosubordination are valid clause linkage relations in Gĩkũyũ. It is also shown that the RRG theory of complex sentences adequately accounts for Gĩkũyũ complex sentences, which are composed of core, clause and sentential juncture-nexus types. This study shows that Gĩkũyũ has eight of the eleven possible types of complex sentences posited in RRG. In addition, focus in Gĩkũyũ complex sentences is explained following the RRG theory. Finally, it is shown that the interclausal semantic and syntactic hierarchies account for Gĩkũyũ complex sentences. That RRG can account for the morphosyntax of Gĩkũyũ is evidence for its universal nature, since in its development data from Bantu languages played no role.

Table of contents

Acknowledgements	ii
List of tables	ix
List of figures	x
Abbreviations	xii
1 Background to the study of Gĩkũyũ complex sentences.....	1
1.1 Introduction	1
1.2 Background to the study.....	1
1.3 Problem statement	8
1.4 Research aims and questions	8
1.5 Data collection and analysis	9
1.6 An overview of Gĩkũyũ language	9
1.6.1 The speakers.....	10
1.6.2 The language	10
1.6.3 Phonology	10
1.6.3.1 Gĩkũyũ vowels	10
1.6.3.2 Gĩkũyũ consonants	11
1.6.4 Morphology.....	12
1.6.4.1 Nouns in Gĩkũyũ.....	12
1.6.4.2 Pronouns	13
1.6.5 Gĩkũyũ verb group	14
1.6.5.1 Tense in Gĩkũyũ.....	14
1.6.6 Syntax	16
1.6.6.1 Gĩkũyũ word order.....	16
1.6.6.2 Sentence types in Gĩkũyũ	19
1.6.6.3 Adjuncts.....	19
1.7 Chapter summary and conclusion	20
1.8 Organization of the dissertation	21
2 Review of literature and an overview of the theoretical framework	22
2.1 Introduction	22
2.2 Literature on complex sentences	22

2.2.1	Coordination.....	22
2.3	Subordination	24
2.3.1.1	Complementation.....	25
2.3.1.2	Relative clauses	27
2.3.1.3	Adverbial clauses.....	28
2.3.2	Cosubordination.....	28
2.4	Clause linkage studies based on Role and Reference Grammar	30
2.5	Complex constructions in Bantu	32
2.5.1	Coordination in Bantu.....	33
2.5.2	Subordination in Bantu	34
2.5.2.1	Complement clauses in Bantu	35
2.5.2.2	Relative clauses in Bantu.....	36
2.5.2.3	Adverbial clauses in Bantu	37
2.5.3	Cosubordination.....	38
2.6	Previous studies on aspects of complex sentences in Gĩkũyũ.....	39
2.7	An overview of Role and Reference Grammar	42
2.7.1	The syntactic representation.....	44
2.7.1.1	The layered structure of the clause [LSC]	44
2.7.1.2	The focus projection	49
2.7.2	The semantic representation.....	49
2.7.2.1	Theory of semantic macroroles , transitivity and grammatical relations.....	51
2.8	Chapter summary	54
3	Role and Reference Grammar and Gĩkũyũ simple sentences	55
3.1	Introduction	55
3.2	Syntactic representation	55
3.2.1	The constituent projection of the LSC	55
3.2.1.1	Word order in Gĩkũyũ.....	55
3.2.1.2	Gĩkũyũ transitive and intransitive clauses	56
3.2.1.3	Gĩkũyũ ditransitive clauses.....	60
3.2.1.4	The Extra Core Slot (ECS)	61
3.2.1.5	Pre Core Slot (PrCS) and Post Core Slot (PoCS)	64
3.2.1.6	Detached positions.....	67

3.2.2	The operator projection of the LSC	72
3.2.2.1	Aspect	73
3.2.2.2	Negation.....	74
3.2.2.3	Directionals.....	78
3.2.2.4	Event quantification.....	78
3.2.2.5	Modality.....	79
3.2.2.6	Tense.....	81
3.2.2.7	Evidentials	82
3.2.2.8	Status	83
3.2.2.9	Illocutionary force	83
3.3	Focus projection	88
3.3.1	Representation of information structure in Gīkūyū	88
3.3.2	Focus types in Gīkūyū	89
3.3.2.1	Narrow focus	90
3.3.2.2	Predicate focus.....	93
3.3.2.3	Sentence focus	96
3.4	Summary and conclusion	100
4	Theory of complex sentences in RRG	101
4.1	Introduction	101
4.2	RRG theory of complex sentences	101
4.2.1	Level of junctures.....	102
4.2.1.1	Nuclear junctures	102
4.2.1.2	Core junctures.....	103
4.2.1.3	Clausal junctures.....	104
4.2.1.4	Sentential junctures.....	104
4.3	Nexus relations.....	105
4.3.1	Coordination.....	106
4.3.2	Subordination	107
4.3.2.1	Relative clauses	107
4.3.2.2	Adverbial clauses.....	107
4.3.2.3	Complement clauses	108
4.3.3	Cosubordination.....	108

4.4	The juncture-nexus interaction	109
4.4.1	Core juncture-nexus types.....	109
4.4.1.1	Core coordination	109
4.4.1.2	Core subordination.....	110
4.4.1.3	Core cosubordination.....	112
4.4.2	Clausal juncture-nexus types	113
4.4.2.1	Clausal coordination	113
4.4.2.2	Clausal subordination	114
4.4.2.3	Clausal cosubordination.....	115
4.4.3	Sentential juncture nexus types.....	116
4.4.3.1	Sentential coordination	116
4.4.3.2	Sentential subordination	119
4.5	The structure of complex reference phrases.....	119
4.5.1	Constituent projection of the LSRP	120
4.5.2	Operator projection of the LSRP	120
4.5.3	Juncture and Nexus in Gīkūyū Complex RP	125
4.6	Information structure in Gīkūyū complex sentences.....	130
4.7	Chapter summary	140
5	Coordination and cosubordination in Gīkūyū	141
5.1	Introduction	141
5.2	Coordination in Gīkūyū.....	141
5.2.1	Conjunctive coordination.....	142
5.2.1.1	Coordination of nouns	143
5.2.1.2	Core coordination	144
5.2.1.3	Conjunction of clauses.....	149
5.2.1.4	Sentence coordination.....	151
5.2.2	Adversative coordination	152
5.2.3	Disjunctive coordination.....	153
5.2.3.1	Coordinated nominals.....	154
5.2.3.2	Coordinated cores	154
5.2.3.3	Coordinated clauses.....	154
5.2.3.4	Coordinated sentences	155

5.3	Cosubordination in Gĩkũyũ	156
5.3.1	Operators in complex sentences.....	157
5.3.2	Core cosubordination	157
5.3.2.1	Modality.....	157
5.3.2.2	Negation.....	164
5.3.3	Clausal cosubordination.....	165
5.3.3.1	Tense.....	165
5.3.3.2	Status	174
5.3.3.3	Illocutionary force	177
5.3.3.4	Evidentials	183
5.4	Summary of the chapter	184
6	Subordination in Gĩkũyũ.....	186
6.1	Introduction	186
6.2	Subordination in Gĩkũyũ	186
6.2.1	Complementation in Gĩkũyũ.....	186
6.2.2	Complementizers in Gĩkũyũ	187
6.2.3	Gĩkũyũ complement types	187
6.2.4	Classes of complement-taking predicates in Gĩkũyũ.....	188
6.2.5	Core subordination.....	196
6.2.5.1	Core (daughter) subordination.....	196
6.2.5.2	Ad-core (periphery) subordination	206
6.2.6	Clausal subordination.....	208
6.2.7	Types of ad-clausal subordination	208
6.2.8	Sentential subordination.....	220
6.2.9	Gĩkũyũ relative clauses	223
6.2.10	Interclausal semantic relations and interclausal relations hierarchy	227
7	Summary and conclusion	235
	References	238

List of tables

Table 1.1 Gĩkũyũ vowels	11
Table 1.2 Gĩkũyũ consonants.....	11
Table 1.3 Gĩkũyũ Noun Classes.....	12
Table 1.4 Independent personal pronouns	13
Table 1.5 Bound argument pronouns.....	14
Table 2.1 Semantic units underlying the syntactic units of the layered structure of the clause ...	44
Table 2.2 Operators in the layered structure of the clause (Van Valin 2005:9)	47
Table 2.3 Lexical representations for <i>Aktionsart</i> classes (Van Valin 2005:45).....	51
Table 3.1 Gĩkũyũ aspect markers.....	73
Table 5.1 Functional features of affix <i>-ke-</i> in Gĩkũyũ.....	171
Table 5.2 Clausal distribution of tenses, consecutives, aspect, and <i>-ke-</i> prefix	171

List of figures

Figure 2.1. Organization of Role and Reference Grammar	43
Figure 2.2 Formal representation of the layered structure of the clause.....	45
Figure 2.3 A left-detached position of the LSC.....	46
Figure 2.4 PrCS in English	46
Figure 2.5 The constituent and operator projections in English	48
Figure 2.6 Actor-Undergoer Hierarchy.....	51
Figure 3.1 Bound core arguments.....	59
Figure 3.2 LSC of a ditransitive predicate with direct core arguments	60
Figure 3.3 LSC with direct arguments with verbal derivation.....	61
Figure 3.4 The PrCS and the ECS.....	66
Figure 3.5 The LSC showing both the constituent and operator projections.....	88
Figure 3.6 Gikūyū Narrow focus	93
Figure 3.7 Verb focus and Predicate focus	96
Figure 3.8 Sentence focus	97
Figure 3.9 Clause structure with operator, constituent and focus projections	100
Figure 4.1 Igbo serial verb nuclear juncture	103
Figure 4.2 Core juncture (subordination).....	104
Figure 4.3 Clausal juncture (coordination)	104
Figure 4.4. Nexus relations	105
Figure 4.5 Types of connection in complex constructions	106
Figure 4.6 Core coordination	110
Figure 4.7 Core (daughter) subordination.....	111
Figure 4.8 Ad-core (periphery) subordination	112
Figure 4.9 Core cosubordination.....	113
Figure 4.10 Clausal coordination	114

Figure 4.11 Ad-clausal subordination.....	115
Figure 4.12 Clausal cosubordination	116
Figure 4.13 Sentential coordination	118
Figure 4.14 Sentential subordination	119
Figure 4.15 The constituent and operator projections of the LSRP.....	121
Figure 4.16 Gīkūyū simple RP.....	123
Figure 4.17 RP coordination	127
Figure 4.18 RP subordination	127
Figure 4.19 CORE _R subordination.....	128
Figure 4.20 NUCR cosubordination	129
Figure 4.21 RP nuclear subordination.....	130
Figure 4.22 Potential focus domain in a sentence.....	133
Figure 4.23 Potential focus domain in Ad-core subordination	135
Figure 5.1 Ad-core peripheral wh-words.....	182
Figure 6.1 Subordination types in RRG.....	196
Figure 6.2 Core (daughter) subordination representation of (6.16a)	198
Figure 6.3 Interclausal Relations Hierarchy	232

Abbreviations

ACT	Actor
AFD	Actual focus domain
AM	Assertive marker
ANTI	Antipassive
APPL	Applicative
ARG	Argument
ASP	Aspect
ASSOC	Associative
AUG	Augment
CAUS	Causative
CLM	Clause linkage marker
COM	Comitative
COMP	Complementiser
CON	Concessive
CONJ	Conjunction
CONN	Connective
CONS	Consecutive
COP	Copula
DC	Discontinuous
DEC	Declarative
DEM	Demonstrative
DIM	Diminutive
DS	Different subject
EVD	Evidential
EVQ	Event quantification
FM	Focus marker
FO	Focus operator
FV	Final vowel
HAB	Habitual
ID	Ideophone
IDEO	Ideophone
IF	Illocutionary force
IMP	Imperative
IND	Indicative
INF	Infinitive
INFX	Infix
Inst.M	Insistive modal
INT	Interrogative
IP	Independent pronoun
IPFV	Imperfective
ITR	Iterative
IU	Information unit
LDP	Left detached phrase
LO	Locative
LS	Logical structure
LSC	Layered structure of the clause
LSRP	Layered Structure of the Reference

MCP	Main clause phenomena
MID	Middle voice
MOD	Modality
N/A	Not applicable
NC	Noun class marker
NEG	Negation
NMR	Non-macrorole
NMZ	Nominalizer
NRFUT	Near future
NRPST	Near past
NUM	Number
OM	Object marker
OPT	Optative
PA	Pronominal anaphor
PASS	Passive
PFD	Potential focus domain
PFT	Perfect
PFV	Perfective
Pl	Plural
PLM	Plural marker
POSS	Possessive
PrCS	Pre core slot
Pro	Pronoun
PRS	Present
PRT	Particle
PSTV	Persistive
QNT	Quantity
RC	Relative clause
RC	Relative clause
RCP	Reciprocal
RCPST	Recent past
RDP	Right detached phrase
REDUP	Reduplicant
RFL	Reflexive
RLPRN	Relative pronoun
RMFUT	Remote future
RMPST	Remote past
RP	Reference Phrase
RPFP	Reference Phrase Final Position
RPIP	Reference Phrase Initial Position
RRG	Role and Reference Grammar
RSP	Relative subject prefix
SBJV	Subjunctive
sg	Singular
SIM	Simultaneous
SM	Subject marker
SS	Same subject
STAT	Stative
TEMP	Temporal
TM	Topic marker

TNS
UND

Tense
Undergoer

1 Background to the study of Gĩkũyũ complex sentences

1.1 Introduction

This chapter situates the present study in the larger topic of complex sentences, providing a background for the discussion of complex sentences in Gĩkũyũ.¹ As part of the background, the controversy surrounding the notions of ‘coordination’ and ‘subordination’ in linguistic analysis is highlighted.

This is followed by the statement of the problem, the aims of this study and the research questions that this dissertation aims to answer. The scope of the study and issues pertaining to data collection and analysis are outlined and relevant linguistic facts about Gĩkũyũ are presented, ending with an overview of the structure of this thesis.

1.2 Background to the study

Chomsky (1957) pointed out that human languages have an infinite set of sentences, and in deed recursion is taken as feature of Universal Grammar. Kroeger (2005:218) also noted that languages have constructions that are “expandable,” and speakers are capable of expanding them to any degree they wish. When humans communicate, they tend to use more complex constructions in their conversations to elaborate ideas or to explain thoughts. The linked stretches of discourse are the ‘expanded constructions’ and it is these ‘expanded constructions’ that form the concern of this study. Specifically, this study concerns itself with Gĩkũyũ ‘expanded constructions’, which I call complex constructions or complex sentences.

The topic of clause linkage is of interest to linguists and discourse analysts because in their interaction, humans communicate using connected strings of units e.g. clauses. Indeed, Foley & Van Valin (1984) note that human beings in their interactive communication do not do so in isolated simple sentences; on the contrary, their discourse is permeated by complex expressions which are made up of different types of clauses that are differently linked to each other. These different types of linked clauses and how they are linked form the crux of this study.

Discourse analysts are interested in describing the interconnectedness in texts that result from such linkages in human communication (Fabricius-Hansen & Ramm 2008). Linguists are interested in investigating what is linked, how it is linked, to what a unit is linked, and how to describe the linked units. It is also interesting to investigate the impact the linked units have on the syntax, semantics, and pragmatics of a given a construction, or even the cognitive processing of such constructions.

Dik (1980:46) contends that it is through syntax that a speaker is able to come up with complex sentences in order to express complex meanings, and that these complex meanings help the speaker to communicate in diverse ways. Dik’s observation shows the importance of complex sentences in human communication and the strong interaction between syntax, semantics, and pragmatics. Views such as these encourage a study of complex sentences like this one.

¹ The language is also known as ‘Kikuyu’, ‘gĩGĩkũyũ’, or ‘Gĩkũyũ’. I will use ‘Gĩkũyũ’ throughout this study.

There are different opinions about what counts as a complex sentence, and some writers distinguish between a compound sentence and a complex sentence (Greenbaum 1991:105-6; Huddleston 1984:378; Wekker & Haegeman 1985: 23; Fabricius-Hansen & Ramm 2008:4). For the purpose of this study, a complex sentence is taken to be a sentence made up of two or more clauses or sentences, regardless of its linkage type.

Subordination and coordination are by far the most familiar syntactic notions of clause linkage used in the analyses of complex sentences. However, these notions have not been without controversy with regard to what they entail, how they are instantiated, and what may be described as being a coordinate or subordinate construction.

Bickel (2010:92) argues that the cross-linguistic diversity in clause linkage is too vast to be described according to these traditional typologies. This implies that the traditional typologies of coordination and subordination may not be sufficient to uncover all aspects of clause linkage in all languages. In addition, there is lack of a consensus on how to characterize coordination and subordination (Fabricius-Hansen & Ramm 2008:3).

A common descriptive characteristic of coordination is the equivalence (symmetry) of elements joined by a conjunction, while subordination is understood as embedding a unit into another unit to create 'dependence'. However, these distinctions are not water-tight, as there are constructions that fail to adhere to the above criteria.

In literature one finds paradoxical notions such as 'pseudo-coordination' (Johannessen 1998; Culicover & Jackendoff 1997), 'pseudo-subordination' (Yuasa & Sadock 2002), 'quasi-coordination' (Dooley 2010a), 'subordinate conjoining' (Lang 1984), "subordinate-yet-main clauses" (Bennett in personal communication cited by Bergvall 1987a:83), 'independent subordinates' (Bergvall 1987a), 'dependent coordination' (Van Valin 2005) and many more. The use of these notions exposes the existing terminological confusion in the analyses of complex sentences owing to the concepts of coordination and subordination.

Foley (2010) faults the subordination divide into complement and adverbial clauses by grammarians, arguing that it does not capture the similarities between the two types of clauses, especially in Papuan languages. This implies that the general characterisation of subordinate clauses may not be cross-linguistically feasible.

Yuasa & Sadock (2002) use the notion of 'pseudo-subordination', which highlights an existing mismatch between coordination and subordination in syntax. Their argument follows Culicover & Jackendoff's (1997) notion of 'pseudo-coordination', which concerns constructions that look syntactically coordinate but are conceptually or semantically subordinate. Yuasa & Sadock (2002) are of the view that coordination and subordination have not been taken up seriously in linguistics. Furthermore, they note inconsistencies in the characterization of coordination and subordination when their positions in sentences are considered.

Dik (1968) noted that coordination and subordination were neglected as subjects of linguistic study, because they were considered as being more logical or psychological than linguistic phenomena. He concluded that coordination and subordination are mutually exclusive subclasses of constructions, insufficient to account for all possible complex constructions in a language.

There are detailed studies on coordination and subordination; on coordination (van Oirsouw 1987; Johannessen 1998; Zhang 2009; Haspelmath 2004) etc., on subordination; (Haumann 1997; Cristofaro 2003; Horie & Comrie 2000) etc. There are some cross-linguistic

work on complementation (Dixon & Aikhenvald 2006; Noonan 1985/2007); relative clauses (Keenan 1985; Andrews 2007); adverbial clauses (Thompson & Longacre 1985; Thompson, Longacre & Hwang, 2007) etc., just to mention a few.

The divide between coordination and subordination is deemed insufficient. Commenting on the notions of subordination and coordination as defined by Lyons (1968), Van Valin & LaPolla (1997:453), hereafter (VVL) concluded, “the traditional dichotomy between subordination and coordination is inadequate as the basis of a universal theory of clause linkage”. Their conclusion is based on switch reference constructions in Amele (a Papuan language). These switch reference constructions do not fit into the subordination-coordination divide.

Givón (2001b:328) is of the view that describing coordination and subordination using the criteria of dependence (functional or syntactic) is insufficient, since no clause in coherent discourse is functionally fully independent of its linear or hierarchical context. He dismisses the notions of coordination and subordination as insufficient because they are Eurocentric, hence cross-linguistically inapplicable. Such observations add to the blurred characterization of subordination and coordination, hence the need for cross-linguistic research.

Matthiessen & Thompson (1988) resorted to discourse in order to characterize these notions. They note that it is impossible to characterize or define a subordinate clause in strictly sentence-level terms, arguing that it can only be characterized in the discourse context in which it appears. Elsewhere, Lehmann (1988:219-220) proposes that morphological, semantic, and logical criteria should be considered to distinguish subordination from coordination.

Comrie (2008) focused on complex sentence typology, aiming to distinguish coordination from subordination. According to him, these relations at times bear the same features, i.e. some clauses have both coordinate and subordinate functions. Accordingly, depending on the interpretation and how they are understood, such clauses can be either coordinate or subordinate. Comrie seems to point to a direct interaction of syntax, semantics and pragmatics in the interpretation of complex sentences. He concluded that the differences between coordination and subordination are “a question of degree rather than a strict dichotomy” (Comrie 2008:16).

Greenbaum (1983:24) notes that the confusion on whether a clause is subordinate or coordinate stems from “the disagreement over whether certain items are analysed as subordinating or coordinating conjunctions or as conjuncts”. This view is shared by Palmer (1986:172), who notes that in English, subordination is indicated by subordinating conjunctions, mood, and non-finite forms, adding that conjunctions are not significant to typology of complex sentences because of shared qualities. Gĩkũyũ has both subordinating and coordinating morphemes, but some of them are ambiguous, e.g. *kana* is both a complementiser (‘*whether*’) and conjunction (‘*or*’) and *na* is both a comitative (‘*with*’) and a conjunction (‘*and*’).

Hopper & Traugott (2003:176) used the term ‘interdependent’ to refer to clauses that cannot stand alone which “are typically not wholly included within any constituent of the nucleus”. The notion of interdependence as postulated is vague, because it does not capture the characteristics of the constructions and it does not clearly say what is depended upon or by which unit.

Heine & Nurse (2008:13) note that although the distinction between coordination and subordination is assumed to be “typologically neat” in European languages, in other languages e.g. African languages, it is more complex, “and a more fine-grained typology of clause

combining is required”. Here, linguists are called upon to provide such a typology to resolve these ‘generalized assumptions’ that coordination and subordination are the only means of combining clauses. This dissertation, in its exploration of clause linkage in Gĩkũyũ, contributes towards a typology of complex sentences, and offers more insight on clause combining in Gĩkũyũ.

Heine & Nurse’s (2008) observation was noted earlier by Whiteley (1966) and Maw (1969). Both Whiteley and Maw defied the subordination-coordination divide by using terms originating in Scale and Category grammar. Whiteley used ‘Expansion’ and ‘Extension’ to distinguish the notions of subordination and coordination respectively; Maw used ‘Multivariation’ for dependence/subordination and ‘Univariation’ for coordination. However, their usage of these terms is not very clear or useful, as for example ‘expansion’ and ‘extension’ denote increase in size, which is characteristic of both subordination and coordination.

Rose, Beaudoin-Lietz & Nurse (2002:25) note that subordination or dependence involving two or more clauses in Bantu is marked by complementizers, other connectors, the subjunctive, relative clauses, and aspectual markers such as *-ka-*, *-ke-*, \emptyset . A closer look at their observation reveals that they assume that dependence is synonymous with subordination. That is why they consider dependence and subordination as separate, but related concepts. My contention is that the ‘dependence’ in subordination is structural (embedding) and the ‘dependence’ effected by the so-called ‘aspectual markers’ *-ka-*, *-ke-*, is not dependence analogous to embedding. This is expounded upon later in the dissertation.

Nordstrom (2010) acknowledges that it is difficult to give a formal definition of subordination, because of the different ways that subordination is expressed in world languages, especially in clause-chaining languages; where adverbial clauses are actually coordinate clauses, thereby blurring the subordination-coordination divide.

Verstraete (2003; 2007) rejects word and clause order in identifying coordination and subordination. He favours a functional approach which considers illocutionary force as the distinguishing aspect, arguing that coordination, unlike subordination, has illocutionary force. This view agrees with Cristofaro’s (2003) characterization of subordination as lack of assertiveness. However, it is not in all cases that subordinate clauses lack assertion, as Van Valin (2007) shows that there are subordinate clauses that are asserted (see Bergvall 1987a for Gĩkũyũ).

On clause chaining in verb-final languages, Dimmendaal (2008:307) appeals for a “... more subtle representations than the traditional, and somewhat outdated, coordination-subordination distinction, regardless of the type to which a particular language may belong”. This further reaffirms the observation that coordination and subordination are not sufficient tools to describe multi-clausal units in languages as noted for Amele by VVLP (1997) and others.

Johannessen (1998:47) admits that making a distinction between what she calls “unbalanced coordination” (coordination of unequal/dissimilar conjuncts) and subordination is difficult, especially because unbalanced coordinations show aspects of subordination. She cites comitative constructions, which she treats as cases of subordination. This is interesting because comitative constructions marked by a conjunction are common in Gĩkũyũ.

An extreme suggestion put forth by Haiman & Thompson (1984:510) is that ‘subordination’ as a grammatical notion should be discarded entirely because “subordinate clause” is not a “grammatical category at all”. Payne (1997:336) agrees with them, adding that

the forms of subordination (adverbial clauses, relative clauses, and complement clauses) have nothing in common, except grammatical dependency. Hetterle (2015) contends that the concept of subordination is not a ‘valid category’ that is cross-linguistically useful to define adverbial clauses.

Despite the confusion surrounding the notions of coordination and subordination, I submit that they are evident in Gĩkũyũ, although they are incapable of accounting for all types of Gĩkũyũ complex sentences (see 1.1).²

- (1.1) a. *A-ra-rem-ir-ε* *mo-gonda* *na* *a-a-hand-a* *mbembe.*
1-RCPST-plough-PFV-FV 3-farm CLM 1-IMPST-plant-FV 9.maize
‘S/he has ploughed the farm and s/he planted maize.’
- b. *A-ra-mo-hor-ir-ε* *ne* *tōndo* *ne* *a-ra-iy-ir-ε* *mbeca.*
1-RCPST-1OM-beat-PFV-FV FM because AM 1-RCPST-steal-PFV-FV 10.money
‘S/he beat him because s/he stole some money.’
- c. *Ne* *nd-ɔɔn-a* *mo-thuuri* *o-rea* *wo-in-ag-a.*
AM 1sg-IMPST-see-FV 1-man 1-RLPRN 1.RSP-sing-HAB-FV
‘I have seen the man who sings.’
- d. *Ne* *ma-a-kiny-ir-ε* *ma-ke-rug-a* *ma-ke-re-a* *(na)*
AM 2-RMPST-arrive-PFV-FV 2-CONS-cook-FV 2-CONS-eat-FV (CLM)
ma-ge-kɔm-a.
2-CONS-sleep-FV
‘They arrived, cooked, ate (and (then)) they slept.’
- e. *Ma-ra-ug-ir-ε* *ate* *ma-g-ɔɔk-a* *rociu.*
2-RCPST-say-PFV-FV CLM 2-RMFUT-come-FV 9.tomorrow
‘They said that they will come tomorrow.’

Example (1.1a) is a typical example of coordination with two independent clauses joined by conjunction *na* ‘and’. In (1.1b), an adverbial clause is linked to a main clause by a subordination conjunction *tōndo* ‘because’. In (1.1c), a nominal object argument *mothuuri* ‘man’ is modified by a relative clause, ‘who sings’. In (1.1e), a matrix clause is followed by an embedded complement clause introduced by complementizer *ate* ‘that’. This is typically a case of complementation, a form of subordination.³

Example (1.1d) contains multiple clauses. The initial clause is finite as it indicates tense (-a) and aspect (-ir-ε) compared to the succeeding clauses without tense or aspect except -ke-/ge-, the remote past consecutive prefix. These successive clauses indicate sequences of events. It is evident that the linked units have a strong relation with the initial clause because they cannot independently exist without it. In spite of the optional coordinative conjunction *na* (‘and’), such constructions are neither coordinate nor subordinate. I am not aware of an attempt of a systematic analysis of such complex sentences in Gĩkũyũ.

² The Arabic numerals (1-2-3...) refers to noun classes and the Roman numerals (I-II) first and second persons, respectively. The other abbreviations are shown on the list of abbreviations.

³ The term ‘complementizer’ in RRG is replaced with ‘clause-linkage marker [CLM]’, in order to situate the complementizers in a ‘more general functional class’ (VVLP 1997:470-6). CLM includes both coordinating and subordinating linkers. However, *na* (‘and’) will also be used when nouns are conjoined.

From (1.1) it is evident that coordination and subordination (complementation, adverbial, and relative clauses) exist in Gĩkũyũ. However, a construction such as (1.1d) is neither coordination nor subordination. Although it is compatible with coordinate conjunction *na*, it is dependent as far as finiteness may be used as an indicator of subordination, in addition to the fact that the units cannot stand on their own. However, the dependence is not akin to ‘embedding’ as in complement and adverbial clauses, which are (optionally) introduced by a complementizer or a conjunction. These clauses can only and optionally accommodate *na*, but not a subordinating conjunction. Therefore their dependence is different from subordination and this is not coordination since there is no symmetry between units.

I hypothesize that the succeeding units in (1.1d) depend on the initial clause for the expression of tense (remote past) and aspect (perfective). Tense (and also aspect) in the successive clauses seem ‘neutralised’ (in the sense of Comrie 1985:102). The *-ke-/-ge-* prefixes are called the ‘relative tense’, ‘consecutive tense’, ‘subsecutive’ or ‘sequential’ (Nurse 2008; Barlow 1951), and earlier on we saw Rose et al. (2002) calling them ‘aspectual markers’. The tense and aspect in the initial clause cannot be replicated in the consecutive clauses, and neither can the particle *ne* accompany any of the consecutive clauses. Such complex constructions require a systematic investigation if they are to be correctly described.

In order to account for complex sentences such as (1.1) in addition to coordination and subordination, I appeal to a third clause linkage relation called ‘cosubordination’ (Foley & Van Valin 1984; Van Valin 1993b; VVLP 1997; Van Valin 2005 and others). Recall that VVLP (1997) concluded that the Amele switch reference constructions are neither coordination nor subordination. The Amele constructions showed aspects of coordination and also exhibited features of subordination, leading Roberts (1988) to conclude that they fall under cosubordination. Thus, cosubordination has features of both coordination and subordination.

Furthermore, T. Payne (2011:328) argues that clauses may be dependent on other clauses for inflectional information like subject, tense, aspect, mode, or to express presupposed information, and thus not adding anything new to the discourse context. The ‘inflectional information’ is tantamount to what characterizes cosubordination. Argument-sharing is an indicator of non-subordinate constructions, but not necessarily cosubordination.

Olson (1981) was the first author to postulate cosubordination in Papuan languages. This explains why the earliest claims of cosubordination were in Papuan languages (Foley & Van Valin 1984; Foley 1986; 2010; Dooley 2010a; 2010b) etc. Cosubordination is synonymous to “clause-chaining” (see Lehmann 1988; Haspelmath 1995; Good 2003; Schröder 2013), or Nordstrom’s (2010) notion of ‘interdependence’. Noonan’s (2007:83) notion of ‘clause union’, whereby a matrix clause and complement clause ‘share one set of grammatical relations’ is also comparable to cosubordination.⁴

The postulation of cosubordination according to Liong (2004:177) is the solution to the “morphosyntactic phenomena hitherto problematic and hard to treat” in exotic languages from Asia, Africa, the Pacific, the Americas, and even the familiar western European languages. This is a merit of cosubordination in that it is not just applicable to the so-called ‘exotic’ languages of the world.

⁴ Clause chaining is a theory-neutral term, excluding sub-clausal linkage; cosubordination is the RRG-specific theoretical term, which is more inclusive, since it is also applicable at sub-clausal (nucleus and core) levels.

Givón (2001b:355-356) contends that the traditional inter-clausal connectivity based on subordination and coordination is inadequate. Accordingly, these linkage types disregard the “difference in clausal subordination and coordination (conjunction) as well as the assumptions that clause-chains are sequences of conjoined clauses or even conjoined verb phrases”. Givón rejected both the traditional notions of clause linkage and clause chaining proposed for constructions that are not subordinate or coordinate. However, he says they are useful in “describing the semantics links that bind dependent adverbial clauses bound to their main clauses” (Givón 2001b:330). Givón also advocates for a “functional and syntactic universals and explanatory principles” (2001b:356). He agrees that coordination and subordination are explanatorily limited. Although he does not call it by name, Givón seems to acknowledge the existence of cosubordination by recognizing the notion of clause chaining; he only deviates on how clause chains should be analyzed.

Kroeger (2004) argues that true clause chaining is found in Papuan languages. However, there is evidence that it is also found in a diverse group of languages including English (VVLP 1997; Roberts 2012), Kiranti languages (Bickel 1993; 2003; 2010), Kiswahili (Van Valin 1984), Korean (Yang 1994), Japanese (Hasegawa 1996), and others.

In fact, Longacre (1990) explains that some SVO languages in East and West Africa show evidence of clause chaining based on a special initial verb together with consecutive verbs and clauses of different structure. He suggested that SVO and VSO languages are right-chaining (dependent clause or clauses follow the initial clause) and SOV are left-chaining (dependent clause or clauses precede the final clause). Bantu languages are SVO and cosubordination is cited in Kiswahili by Bickel (2010) and Van Valin (1984) and in Chaga by Emanatian (1990).

In his discussion of narrative style and the consecutive in Gĩkũyũ, Bennett (1975:58) defines a consecutive construction “as a verbal form whose occurrence is largely restricted to descriptions of a serial action”. This agrees with Cable (2013:260, fn. 47), who notes that the “semantics of *-ke-* is a difficult matter... it appears to be essentially vacuous...”, but with an equivalent English meaning ‘and then’. It is a fact that consecutive *-ke-* is basically an indicator of sequentiality in Gĩkũyũ.

Bennett further claims that the consecutive is limited to Africa, but not present in all African languages. Although prevalent in Bantu languages, morphemes with similar functions have been reported in Nilotic languages by Schröder (2013) and Dimmendaal (2008).

Although the consecutive clause is variously noted as having linking features, its precise linkage type has remained uncharacterized in Gĩkũyũ and in other Bantu languages, except by Van Valin (1984), who suggests it for Swahili, and Emanatian (1990), who argues that the Chaga consecutives are cases of cosubordination. Whereas I agree with these studies, my study is based on Gĩkũyũ data and I will show more aspects of cosubordination beyond that realized by consecutives. This will justify why cosubordination should be considered as a clause linkage relation in Bantu.

I am not aware of any previous study of Gĩkũyũ complex sentences or one that proposes the analysis of sentences such as (1.1d) as an example of cosubordination. Therefore it is necessary to carry out an investigation of Gĩkũyũ complex sentences to get a clearer view of complex constructions in the language.

1.3 Problem statement

In the brief overview above, I have shown that the notions of coordination and subordination are inadequate in describing complex sentences. It is also evident that these notions cannot account for all types of Gĩkũyũ complex constructions in example (1.1). Furthermore, languages differ in how units are combined to form complex structures, and it is therefore necessary to investigate the strategies a language uses in order to compare it with other languages.

In response to the above issues, this dissertation investigates morphosyntactic aspects of Gĩkũyũ complex constructions based on the framework of Role and Reference Grammar [RRG]. The investigation is motivated by the complexity in Gĩkũyũ complex sentences and the need to test the theoretical tenets of RRG in a Bantu language.

A RRG approach is adopted because the theory conceives and approaches issues of clause linkage differently from other existing linguistic theories, owing to its typological origins and orientation. In addition, RRG responds to the inadequacy of the traditional clause linkage relations of coordination and subordination as cross-linguistic clause linkage relations.

Thus, the RRG theory of complex sentences should be tested to find out how well-suited it is in the analysis and description of complex sentences in a language such as Gĩkũyũ, which was not among the languages that were considered during its inception and development.

1.4 Research aims and questions

Scancarelli (2003:321) observes that studies on clause-combining in languages are important because they lead to queries pertaining to “clause structure, issues of co-reference across clause-boundaries, and the interaction of syntax, semantics, and pragmatics in the sentences”. Scancarelli’s observation is a pointer to possible areas that a study on complex sentences can investigate, among other aspects.

This dissertation has the following general research aims or objectives. This investigation aims to describe the morphosyntax of the Gĩkũyũ complex sentences in order to elucidate the syntactic, semantic, and pragmatic interactions in these complex sentences within the theoretical confines of RRG. This undertaking will show the extent to which the theory can account for Gĩkũyũ complex sentences.

This work also aims to contribute to theoretical linguistic studies in Gĩkũyũ, and by extension, Bantu linguistics. In addition, the study contributes to the development of a framework for analysing complex sentences in Bantu languages, considering their homogeneity.

This study applies a linguistic framework that is typologically-oriented; one that values both structure and function in language and which developed from the analysis of languages that significantly differ from Indo-European languages or Bantu languages such as Gĩkũyũ. With this choice, this study breaks away from the many analyses of Gĩkũyũ based on Generative theories to offer a typological approach to the analysis of the language.

Finally, this dissertation adds to the growing cross-linguistic research based on RRG as a structural-functional and universal theory of language. This dissertation has an overarching objective to challenge the status quo in Bantu linguistic research, particularly in the analyses of complex sentences. Consequently, it is hoped to provoke more linguistic research on other Bantu languages based on RRG.

This dissertation seeks to answer the following main research question: What are the constituent units in Gĩkũyũ complex sentences? To answer the question, the following sub-questions are discussed:

- (i) What is the composition of complex sentences in Gĩkũyũ?
- (ii) Can the RRG theoretical concepts explicate Gĩkũyũ complex sentences?
- (iii) To what extent can the RRG theoretical tools account for the interaction of syntax, semantics, and pragmatics in Gĩkũyũ complex sentences?

1.5 Data collection and analysis

The study uses both secondary and primary sources of data. Secondary data was sourced from available extant grammars e.g. (Bennett et.al. 1985; Armstrong 1967; Barlow 1951; Gecaga 1955; Leakey 1978) and other published works written in Gĩkũyũ, specifically *Matiigari*, a novel by Ngugi wa Thiong'o (1986) and *Mũtiiri*, a sociology journal. The oral narrative texts in the extant works were also considered.

Primary data was obtained from consultants through elicitation of procedural texts, personal accounts of events, staged and spontaneous conversations, and oral narratives. Audio recordings of the above were made. Unelicited and spontaneous data from conversations involving the researcher or overheard from other people or conversations in Gĩkũyũ radio and television were also considered. In addition, the researcher's native intuition provided and verified data, in consultation with other native speakers.

The two main language consultants were native Gĩkũyũ speakers of the Kikabete dialect from Kikuyu sub-county in Kiambu County in central Kenya. This dialect has the most speakers of any Gĩkũyũ dialect and it is also the most widely used dialect, e.g. in radio broadcasts, general publishing, school primers and the Gĩkũyũ Bible (Mutahi 1983:31-32). However, speakers of other dialects (Nyeri) were also consulted. For specific constructions, linguists who are native Gĩkũyũ speakers were consulted to supplement the collected data and the researcher's own intuition.

The relevant data was transcribed and translated by the researcher. For dubious but relevant data, verifications and clarifications was sought from native speakers. The morpheme-by-morpheme interlinear glossing and translation is based partly on the Leipzig glossing rules, Rose et al. (2002), amended by the researcher where it was deemed necessary.

The data was coded into simple main clauses, coordinate, subordinate (adverbial, complement, and relative clauses) or cosubordinate complex units. The data was analyzed by putting forward a hypothesis about a possible generalization, and then data was used to confirm or reject the hypothesis within the tenets of RRG.

1.6 An overview of Gĩkũyũ language

This section is a general introduction to Gĩkũyũ aimed at giving a brief, relevant, and general cross-sectional description of some aspects of the Gĩkũyũ language that are considered as important in the later chapters of this dissertation.

1.6.1 The speakers

The speakers of Gĩkũyũ/gĩGĩkũyũ/Kikuyu are called the Gĩkũyũ (singular: Mũgĩkũyũ, plural: Agĩkũyũ). Non-speakers of the language refer to them as the ‘Kikuyu’. The Agĩkũyũ are mainly found in the central parts of Kenya (Kĩambu, Nyeri, Mũrang’a, Kĩrĩnyaga, including Nairobi), around the Aberdare Ranges of Nyandarũa, and in parts of the Great Rift Valley. According to the Government of Kenya 2009 population and housing population census, Gĩkũyũ was the largest ethnic group in the country at 6,622,576 or 20% of the population.

1.6.2 The language

There are about 69 languages in Kenya, with the Bantu languages making up the majority (Lewis 2009). Gĩkũyũ is a Bantu language in the Niger-Congo family, belonging to Kikuyu-Kamba Zone E51 (Guthrie 1967). Other closely related languages are Kiambu, Kikamba, Kichuka, and Kimeru.

Early Gĩkũyũ grammars recognized two main dialects, the northern dialect and the southern dialect (Barlow 1951, Armstrong 1967). The northern dialect was spoken in Ndia, Mathĩra, Gĩchũgũ, and Nyeri, while the southern dialect was found in Kĩambu, Lĩmuru, Kikuyu and Nairobi and parts of Mũrang’a. The dialects are noted to have some phonological and lexical differences, but very few grammatical differences (Barlow 1951:255-256).

Mutahi (1983) reclassified Gĩkũyũ dialects into Northern Gĩkũyũ (Northern Mũrang’a and Nyeri), Southern Gĩkũyũ (Kĩambu and its environs, and southern Mũrang’a), Kĩ-Ndia (southern Ndia), Kĩ-Gĩchũgũ (northern Kirinyaga), Kĩ-Mathĩra (Karatina and environs), Kĩ-Embu (in Embu and environs), and Kĩ-Mbeere (Mbeere district).

1.6.3 Phonology

Gĩkũyũ is a tone language, with tone being both lexical and grammatical (for studies on tone in the language see Armstrong 1967; Ford 1975; Ford & Clements 1978; Clements 1984a).

Gĩkũyũ uses a Roman-alphabet based orthography developed in the 1920s by the United Kikuyu Language Committee (UKLC), which was involved in the writing of the language. Their contribution is most visible in the Gĩkũyũ vowels. A historical view on the Gĩkũyũ orthography and new proposals can be found in Githiora (2003).

1.6.3.1 Gĩkũyũ vowels

Gĩkũyũ has seven basic vowels. Table 1.1 shows the IPA vowels and the Gĩkũyũ vowels in brackets.

Table 1.1 Gĩkũyũ vowels

	FRONT	CENTRAL	BACK
HIGH	i		u
	e (ĩ)		o (ũ)
	ε (e)		ɔ (o)
LOW		a	

1.6.3.2 Gĩkũyũ consonants

Gĩkũyũ has eighteen consonants, they are presented in brackets together with their IPA notations⁵.

Table 1.2 Gĩkũyũ consonants

	BILABIAL	INTER-DENTAL	ALVEOLAR	PALATAL	VELAR	GLOTTAL
NASAL	M		n	ɲ	ŋ	
PLOSIVE	mb [b]		nd [d]	dʒ (nj)	ŋg [g]	
			t	c [ʃ]	k	
FRICATIVE	b [β]	ð (th)			ɣ (g)	
FLAP/TAP		r				
APPROXIMANT	W			y		h

Gĩkũyũ has the prenasalised voiced stops /mb/, /nd/, /ng/, /nj/, /ny/, and /ng'/. There are additional phonological processes unique to nasal /n/. The following phonological processes result in prenasalised consonants as found in yes-no question (Gecaga 1955:2).

N+h becomes	'h	as in	[n-hinge]	'hinge	'I close?
N+c "	nj	"	[n-cine]	njine	'I burn?
N+t "	nt	"	[n-tume]	ndume	'I knit?
N+k "	ng	"	[n-kore]	ngore	'I meet?
N+g "	ng	"	[n-gore]	ngor ε	'I buy?
N + b "	mb	"	[m-baare]	mbaar ε	'I look?

⁵ I will use the IPA vowels. As for the consonants only b /β/ follow the IPA; all the others are in Gĩkũyũ orthography.

1.6.4 Morphology

1.6.4.1 Nouns in Gĩkũyũ

In Bantu languages, nouns have nominal class, also called noun class (NC). Normally NCs are marked along the singular/plural paradigm although semantic classifications based on other characteristics exist (Barlow 1951; Leakey 1978; Mugane 1997a; 1997b). Mugane (1997a:22) admits that it is not possible for all nouns to be semantically placed in a NC, as the semantics become ‘quite fuzzy’. In this dissertation I will follow Mugane’s (1997b) classification.

Table 1.3 Gĩkũyũ Noun Classes

Class	NC prefix	Example	Gloss	
1/2	Mũ-/A-	moondo /ando	person/s	
3/4	Mũ-/Mĩ-	mote/ mete	tree/-s	
5/6	I-/MA-	itimo/matimo	spear/-s	(Ma-,the general plural, pejorative/ augmentative marker)
7/8	Kĩ-/Gĩ-CI-/I-	keŋgo/ gekaβu ciŋgo/ikaβu	head/ basket heads/ baskets	(singular pejorative/ augmentative)
9/10	N/N	ngaari/ ngaari	car/-s	(10 is the plural of 11)
11/10	R-/N-	rooa /njooa	skin/-s	
12/13	KA-/Tũ-	kagui/ togui	small dog/-s	(diminutive singular/plural)
14/6	Ũ-/MA-	othiu/mŋothio ohŋoro/mŋohŋoro	face/ -s , news/ news	(takes abstract and concrete nouns)
15/6	Kũ/MA	kogoro/magoro /ko-rema	leg/-s to dig/digging	(takes 6-Ma for plural) (takes infinitives and gerunds)
16	HA-	haha	here	(proximal/distal, specific/limited place)
17	Kũ-	kondo	place	(general location)

Nouns in Gĩkũyũ are either derived or underived. A noun like *mote* ‘tree’ is underived; but *mo-tem-i* ‘cutter’ is derived from the verb *-tema* ‘cut’ by prefixation of NC marker 3 *mo-* and suffixation of the agent nominalizer *-i*. Gĩkũyũ derives nouns from other nouns, from verbs, and from adjectives.

Deverbatives are most productive in Gĩkũyũ, with one verb capable of having a string of nouns as seen in the verb *rema* ‘dig’ in (1.2). They can also be derived from adjectives, e.g. - *nene* ‘big’ in (1.3).

- | | | |
|--|---|---|
| (1.2) a. <i>Mo-rem-i</i>
1-dig-NMZ
‘Farmer’ | b. <i>O-rem-i</i>
14- dig-NMZ
‘Farming’ | c. <i>Mo-rem-ere</i>
1-dig-NMZ (manner)
‘Manner of digging’ |
| (1.3) a. <i>Mo-nene</i>
1-big
‘The boss/chief’ | b. <i>O-nene</i>
14-big
‘Power’ | c. <i>Mo-nene-herē</i>
1-big-NMZ
‘Manner of becoming big’ |

Example (1.4a) shows the noun class percolation in a Gĩkũyũ noun phrase. The unmarked linear order of modifiers in the noun phrase is: noun, demonstrative, possessive, quantifier, adjective and associative phrase (Barlow 1951:60; Mugane 1998:239).

- (1.4) a. *Me-te* *e-no* *y-akε* *y-ɔthe* *e-na* *me-raihu* *ya-ke-endoirε*
 4-trees 4-DEM 4-his 4-all 4-four 4-tall 4-ASSOC-indigenous
 ‘All these four tall indigenous trees of his’
- b. *Mo-tumia* *mo-thaka/* *nyarari*
 1-woman 1-beautiful/ beautiful
 ‘A beautiful woman’

The class markers are affixed to all modifiers in the noun phrase, in order to obey the “law of concord” also called “Alliterative Concord” by Barlow (1951:14). Adjectives take the NC markers of the nouns they modify, and all the other components take their respective markings according to their grammatical category. Example (1.4a) is a case of full concordant adjectives, as well as *mo-thaka* ‘beautiful’ in (1.4b), but *nyarari* ‘beautiful’ is a “partially concordant adjective” (Bennett 1986a:14), since the adjective is not fully concordant with the noun.

Nominalization is very productive in Gĩkũyũ (see Mugane 1997a; 1997b; 2003; Bresnan & Mugane 2006). For illustration purposes, I will demonstrate some of nominalization types from Mugane (1987b:41-58), namely agentive (1.5a), patientive (1.5b), locative (1.5c), stative (1.5d), manner (1.5e), occasion (1.5f), and process (1.5g). I use verb *-thenj-* ‘slaughter’ as the root to derive the different forms.

- (1.5) a. *Mo-thenj-i* b. *Mo-thenj-wɔ/ε* c. *Ge- thenj-er-ɔ* d. *O- thenj-an-i*
 1-slaughter-NZR 1-slaughter-PASS 7-slaughter-APPL-FV 14-slaughter-RCP- NZR
 ‘Slaughterer’ ‘the one operated on’ ‘slaughterhouse’ ‘surgical skill’
- e. *Mo-thenj-er-ε* f. *I-thenj-a* g. *I-thenj-er-ɔ-ine*
 1-slaughter-APPL-FV 5- slaughter-FV 5- slaughter-APPL-PASS-LOC
 ‘Manner of slaughtering’ ‘an instance of slaughter’ ‘in the process of slaughtering’

1.6.4.2 Pronouns

Gĩkũyũ has several types of pronouns: quantity, demonstrative, personal, possessive/associative, relative pronouns. The noun classes are reflected in the morphology of these pronouns. Here I will only illustrate the personal pronouns, while the others will be dealt with when encountered.

The unbounded or independent personal pronouns are independent pronouns (IPs) because they are free standing and they are given in Table 1.4.

Table 1.4 Independent personal pronouns

Person	Sg	Gloss	Pl	Gloss
1 st	nie	I/me	ithue	us/we
2 nd	wεε	you	inyue	you
3 rd	wε	S/he	ɔ	they

The bound prefix subject and the object argument markers are often called ‘pronominals or pronoun’. This is discussed later in the study. For now, I will have them under pronouns, although not both of them qualify for this label. Both the subject and object markers are bound on the verb; hence not free. They are shown in Table 1.5.⁶

Table 1.5 Bound argument pronouns

Person	SM	OM
1 st sg	nd-	-a-
1 st pl	to-	-to-
2 nd sg	o-	-ko-
2 nd pl	mo-	-mo-
3 rd sg	a-	-mo-
3 rd pl	ma-	-ma-

1.6.5 Gĩkũyũ verb group

Bantu languages, including Gĩkũyũ, have complex verb groups. It is more fitting to call it a ‘verb group’ because the term ‘verb phrase’ would not capture the linguistics reality precisely, owing to the complexity in its composition. The verb root or radical has many prefixes, and suffixes, all of which are of grammatical and semantic importance. In essence, a complex verb group can be a clause on its own.

A Gĩkũyũ verb group may have the following components: subject marker (SM), negation (NEG), tense (TNS), object marker (OM), reflexive (RFL), verb (root), applicatives (APPL), causative (CAUS), aspect (ASP), passive (PASS) and a final vowel (FV (IND/SBJV)). The linear order of these components is demonstrated in (1.6).

(1.6) SM-NEG-TNS-OM-REF-root-APPL-ASP-CAUS-PASS-FV(IND/SBJV)

This linear order does not imply that the components need all be found in a single construction. Verbal derivation is considerably productive and (1.7) shows an example of this.

(1.7) *Ma-ti-a-mo-ak-ith-ag-er-i-a* *nyomba* *wega*
 2-NEG-TNS-1OM-build-CAUS-ASP-APPL-DC-FV9.house well
 ‘They were not supervising the building of the house well for him.’

1.6.5.1 Tense in Gĩkũyũ

Gĩkũyũ tense and aspect markers are prefixes and suffixes, respectively. Tense is unique in Gĩkũyũ because of the timelines it indicates, and the complexity resulting in the tense-aspect combinations

⁶ I have only included the personal (human) pronouns. There are other pronouns that refer to non-humans. The important thing to note here is that these pronouns adhere to the noun classes of the nouns they refer. See Mugane (1997b) for a detailed list of the different pronouns.

There are a number different accounts of the tenses found in Gĩkũyũ. Barlow (1951) has seven, Bennett et al. (1985) posit six tenses, Mugane (1997b) ten, Johnson (1977) six, Leakey (1978) eleven, Gecaga (1955) eight, Hewson & Nurse (2005) nine. Clements (1984a:310-312) has a total of twenty-five of what he calls “main clause affirmative tenses”, which appear in a simple declarative sentence or the main clause of a complex declarative sentence.⁷ Cable (2013:221) contests that ‘tense markers’ in Gĩkũyũ are not real ‘tenses’; they are items in between tense (as widely understood) and temporal frame adverbials such as *today*, *tomorrow*, and *yesterday*. While Cable’s views may be valid to formal semanticists, there is no valid reason not to assume the existence of different tenses, as there is both semantic and morphosyntactic evidence that validates them as entities.

Hewson & Nurse (2005) noted the problematic nature in naming and classifying Gĩkũyũ tense and aspect by the various authors. What others call the present tense, Hewson & Nurse call the “short perfect and short imperfect” (2005:285). Thus, they have no ‘present tense’.

It is generally accepted that Gĩkũyũ has three primary tenses: present, past, and future. These tenses are further specified as current, remote, recent, or immediate. Barlow (1951:128) notes that *kũ* /ko/, *ra*, *a*, *rĩ* /re/, and *ka* are the “principle tense prefixes”. In (1.8) below, seven tenses are assumed, including the consecutive. Although consecutives *-ke-/ka-* are included here as tenses, they should not be considered ‘true’ tenses and rather lie in between aspect and tense, taking the functions of both. They are discussed in detail in Chapter 5 under consecutives. The tenses are shown in (1.8) below.⁸

(1.8)

a. Remote past	<i>-aa-</i>	<i>A-aa-re-ir-</i> 1-RMPST-eat-ASP-FV	<i>iriɔ.</i> 5.food.	‘S/he ate food.’
b. Immediate past	<i>-a-</i>	<i>A- a- re- a</i> 1- IMPST-eat-FV	<i>iriɔ.</i> 5.food	‘S/he has eaten food.’
c. Recent past	<i>-ra-</i>	<i>A-ra-re-ir-ε</i> 1-RCPST-eat-ASP-FV	<i>iriɔ</i> 5.food	‘S/he ate food.’
d. Present	<i>-ra-</i>	<i>A-ra-re-a</i> 1-PRS-eat-ASP-FV	<i>iriɔ.</i> 5.food	‘S/he is eating food.’
e. Near future	<i>-ko-</i>	<i>A-ku-re-a</i> 1-NRFUT-eat-FV	<i>iriɔ.</i> 5.food	‘S/he will eat food.’
f. Remote future	<i>-kaa-</i>	<i>A-kaa-re-a</i> 1-RMFUT-eat- FV	<i>iriɔ.</i> 5.food	‘S/he will eat food.’
h. Consecutive past	<i>-ke-/ka-</i>	<i>A-ke-/ka-re-a</i> 1-CONS-eat-FV	<i>iriɔ.</i> 5.food	‘and then s/he ate food.’

1.6.5.1.1 Aspect in Gĩkũyũ

Aspect markers and their nomenclature in Gĩkũyũ is not uniform among the authors. Mugane, (1997b:119) proposes four aspect markers by including the stative as aspect. Hewson & Nurse (2005:285) also begin with a four-way distinction (performative, perfective, imperfective and retrospective), but they reduce the aspect markers to three: perfective (*-irε*), imperfective (*-aga*),

⁷ The number of tenses is high because Clements combines the absolute tenses and consecutives, and the possible aspectual combinations. Although he includes the consecutives here, they do not occur in main clauses, at least not *-ke-* and *-ka-*, a fact which he does not note.

⁸ In this study, the remote tense is represented by a single ‘*-a-*’, and not the usual not ‘*-aa-*’.

and the retrospective (*-ete*). They exclude the performative (Mugane's stative) on the basis that it mostly marks mood rather than aspect, adding that it signifies lack of aspectual marking in such sentences.

Leaving the question of the performative or stative aside, aspect markers are reducible to three clear cases: the perfect, the perfective, and the imperfective, as demonstrated in (1.9). The imperfective subsumes the habitual/progressive *-ag-*. The endings on the aspect markers are mood markers, *-a*, indicative, and *-ε*, subjunctive, but they are usually abbreviated as final vowels (FV).

(1.9) Perfect	<i>et-</i>	<i>ne</i>	<i>a-rem-et-ε</i>	AM	1-dig-PRF-SBJV	'S/he has dug.'
Perfective	<i>-ir-</i>	<i>ne</i>	<i>a-rem-ir-ε</i>	AM	1-dig-PFV-SBJV	'S/he dug.'
Imperfective	<i>-ag-</i>	<i>ne</i>	<i>a-rem-ag-a</i>	AM	1-dig-IMPV-IND	'S/he digs.'

The imperfective *-ag-* (here and elsewhere) subsumes aspects such as habitual, progressive, continuous, and in other cases the persistent (*-ang-*) (see Rose et al. 2002).

1.6.5.1.2 Negation in Gĩkũyũ

Negation is marked by *ti-* or its variant forms, depending on, among other things, the referent, number, person and syntactic environment. The negative particles are: *-ti- di*, *-ta-* or *-da-*.

- (1.10) a(i) *N-da-thi-et-ε.* (ii) *N-di-thi-et-ε.* (iii) *N-do-thi-et-ε.*
1-NEG-go-PRF-FV I-NEG-go-PRF-FV 1-NEG-go-PRF-FV
'S/he has not gone.' 'I have not gone.' 'You have not gone.'
- b. *Ci-ana i-ti-go-thi-e ndonyo.*
2-children 2-NEG-FUT-go-FV 9.market
'The children will not go to the market.'
- c. *Ci-ana i-thi-ir-ε i-ta-he-et-wɔ mbeca.*
8-children 8-go-PFV-FV 8-NEG-give-IMPV-PASS 9.money
'The children went before they were given money.'
- c'. *A-ta-nge-rehe n-di-nge-mo-reh-a.*
1-NEG-COND-bring I-NEG-MOD-1OM-pay-FV
'If he does not bring I cannot pay him'

Examples (1.10a i, ii, iii) differ in person marking 3rd person (*nda-*), 1st person (*ndi-*), and 2nd person (*ndo-*), respectively. In (1.10b) it is *-ti-* that marks the negation, in (1.10c) the adverbial clause carries *-ta-* negation. (1.10d) is a conditional sentence with negators in both the matrix and the dependent clauses. The conditional clause has negator *-ta-* and the main clause has *-di-*, a variant of *-ti-*. Thus, *-ti-* works in main clauses and *-ta-* in subordinate clauses.

1.6.6 Syntax

1.6.6.1 Gĩkũyũ word order

Gĩkũyũ has a Subject-Verb-Object (SVO) word order. The simple clauses in (1.11) show the unmarked word orders. The relevant labels are subject (S), primary object (O_P) secondary

objects (Os), verb (V), and adverbial [adverbs and prepositional phrases] (A). Clause (1.11a) is a transitive clause, (b) is ditransitive, and (1.11d-e) are intransitive.⁹

- (1.11) a. *Kamau a-ra-un-a ngo.* S-V-Op
 [Kamau] [1-PRS-break-FV] [9.firewood]
 ‘Kamau is fetching (breaking) firewood.’
- b. *Kamau a-a-he m-wana i-βuku.* S-V-Op-Os
 [Kamau] [1-NRPST-give] [1-child] [5-book]
 ‘Kamau has given the child a book.’
- c. *βaβa a-re mo-gonda-ine.* S-V-A
 [1.father] [1-COP.be.at] [3-farm-LOC]
 ‘Father is in the farm.’
- d. *Njao y-Ø-ɔng-a na-rua.* S-V-A
 [9.calf] [9-NRPST-suckle-FV] [with-quick]
 ‘The calf suckled quickly.’
- e. *Ci-ana ne ci-a-kɔm-a.* S-V
 8-children AM [8-RCPST-sleep-FV]
 ‘The children have slept.’

In the sense of Nichols (1986), Gĩkũyũ is a head-marking language, but the language shows signs of dependent-marking in the morphosyntax of the noun phrase. As is common with head-marking languages, overt lexical nouns, both subject and object, can be omitted and represented by argument prefixes as in (1.12b).

- (1.12) a. *Mo-ndo ne a-a-goth-ir-ε Wamboi.*
 1.man AM 1-RTPST-hit-PFV-FV Wamboi
 ‘The man hit Wamboi.’ hit her/him.’
- b. *Ne a-a-mo-goth-ir-ε.*
 AM 1-RTPST-2OM-hit-PFV-FV
 ‘He hit her/him.’

Gĩkũyũ uses the copula *ne* to indicate a stative/equative/attributive. The tensed form of *ne* is *-re*, which indicates the locative (1.11c). Examples (1.13a-b) show the stative copula in the present and past tenses. *Ne* changes from the present to past *-re*, taking on person and tense marking in (1.13b).

- (1.13) a. *Wanja ne mo-thaka.* b. *Wanja a-a-re mo-thaka.*
 Wanja COP 1-beautiful Wanja 1-RMPST-COP 1-beautiful
 ‘Wanja is beautiful.’ ‘Wanja was beautiful.’

⁹ In the sense of Dryer (1986) as cited in Van Valin (2005:123), Gĩkũyũ is a ‘primary object language’. In these languages, the usual ‘direct and indirect object’ pattern does not feature. In that case, the ‘direct and indirect’ labels are replaced with ‘primary and secondary objects’. In RRG terms, based on the actor-undergoer hierarchy (AUH), example (1.11b) shows primary object alignment as opposed to direct/indirect object alignment. Therefore, the recipient *mwana* is the primary object and *i-βuku*, the theme, is the secondary object. For more on direct and indirect objects in RRG see VVLP (1997:270-272) and Van Valin (2005:115-127).

c. *Wanja ti mo-thaka.*
 Wanja COP 1-beautiful
 ‘Wanja is not beautiful.’

d. *Wanja ne m-warimo.*
 Wanja COP 1-teacher
 ‘Wanja is a teacher.’

(1.13a-b) are positive copulas and can be turned to negative by changing *ne* to *ti* as in (1.13c). (1.13d) is an identificational construction and shows that a copula can also take a noun, not just adjectives as seen in examples (1.13a-c). Gĩkũyũ has very few ‘true adjectives’ (Barlow 1951:63). Barlow contends that the associative is used to capture an English adjectival reading as in (1.14a), taken from Barlow (1951: 63), with interlinear translations added and some orthography adjustments.

(1.14) a. *Nyamo ci-a ge-thaka.*
 10. animals 10-ASSOC 7-bush
 ‘Wild animals’ (lit. animals of the wild)

b. *Ngɔmbɛ nj-iro.*
 9.cow 9-black
 ‘A black cow’

As shown in (1.4), a noun’s NC is replicated on all its modifiers including adjectives. Adjectives always follow the noun they modify. Adjectives, e.g. of color, have a bound stem. The color *-iro* ‘black’, must take the appropriate NC of the noun it modifies (1.14b). Color names take the nominal NCs as they cannot exist ‘bare’.

Gĩkũyũ has very productive verbal extensions, both valency-reducing and valency-increasing. Below are examples of passive (1.15a), reflexive (1.15b), and causation (1.15c-d). Passives are marked by *wɔ* or *-ɔ*, depending on the phonological environment, e.g. a verb’s ending.

(1.15) a. *M-wana a-a-he-ir-wɔ i-βuku ne Kamau .*
 1-child 1-RMPST-give-PFV-PASS 5-book by Kamau
 ‘The child was given a book by Kamau.’

b. *Mo-tumia ɛ-ɛ-tem-a guɔkɔ.*
 1-woman 1.RFL-PRS-cut-FV 15.hand
 ‘The woman has cut herself on the hand.’

c. *Mo-ciari a-ra-rem-ith-i-a ci-ana mo-gonda.*
 1-parent 1-PRS-plough-CAUS-DC-FV 2-children 3-garden
 ‘The parent is making the children plough the garden.’

d. *Ma-r-ɔn-i-a a-ndo thenema.*
 2-PRS-see-CAUS-FV 2-people 9.cinema
 ‘They are showing people a cinema.’

Other than the morphological causativization marked by *-ith-* and *-i-* (see 1.14c-d), Gĩkũyũ also has periphrastic causatives marked by the verb *toma* ‘cause/make to’. Mwangi (2001:394) points out that the difference between *-ith-* and *-i-* lies in their usage: *-ith-* is used in “situations that entail control” and *-i-* “in non-control situations”.

Other derivations are the applicative (1.16a), reciprocal (1.16b), and stative (1.16c). The applicative in Gĩkũyũ has many meanings including benefactive (1.16a), motive, malefactive, locative, goal (recipient), and deputative (see Kihara 2016).

- (1.16) a. *Mami a-ra-rug-er-a ageni i-riɔ .*
 1-mother 1-PRS-cook-APPL-FV 2.visitors 5.food
 ‘Mother is cooking food for the visitors.’
 b. *Mw-anake na mo-iretu ne ma-ra-rum-an-a.*
 1-youth and 1-girl AM 2-PRS-insult-RCP-FV
 ‘The youth and the girl are insulting each other.’
 c. *Mo-te ne w-a-un-ek-a.*
 3-tree COP 3-PRS-break-STAT-FV
 ‘The tree is broken.’

Barlow (1951:117) suggests that Gĩkũyũ has passive, active, and reflexive voices. However, Kihara (2016) argues that the Barlow’s reflexive voice is best analyzed as a middle voice. This follows the arguments for such claims made by Kemmer (1993) that reflexives also double up as middle voice markers. Barlow posits that sentences with two reflexive markers are ‘double reflexives’. Kihara reanalyzed one of the markers as middle voice marker (see 1.17).

- (1.17) *A-ke-e-e- Ø-hogor-er-a.* Barlow (1957:122)
 1-CONS-RFL-MID-IsGOM-turn-APPL-FV
 ‘And then he turned towards me.’

Another reanalyzed derivational morpheme is the reciprocal *-an-*. Other than reciprocity and association, Kihara (2016) argues that it marks antipassive, whereby a primary object (*ci-ana*) is deleted or suppressed as in (1.18b), where the indirect object cannot be included.

- (1.18) a. *Mo-tumia a-ra-he-ir-ε ci-ana iriɔ.*
 1.woman 1-PRS-give-PFV-FV 8-children 5-food.
 ‘The woman gave the children food.’
 b. *Mo-tumia a-ra-he-an-ir-ε *ci-ana i-riɔ.*
 1.woman 1-PRS-give-ANTI-PFV-FV *8-children 5-food.
 ‘The woman gave out the food.’

1.6.6.2 Sentence types in Gĩkũyũ

Gĩkũyũ speakers use clauses such as (1.19a) to make statements, to ask questions (1.19b), to give commands (1.19c), and to state wishes (optative) (1.19d).

- (1.19) a. *Mo-thigari a-ra-nyit-ir-ε mo-ici.* b. *Mw-arimo a-a-hor-a oo?*
 1.policeman 1-RCPST-arrest-PFV-FV 1.thief 1.teacher 1-IMPST-beat-FV Q
 ‘The policeman arrested the thief.’ ‘Who has the teacher beaten?’
 c. *Thie-i mo-cie .* d. *Mo-rɔ-rathim-wɔ.*
 go-IMP-pl 3-home 2-OPT-bless-PASS
 ‘Go home!(more than one addressee)’ ‘May you be blessed.’

1.6.6.3 Adjuncts

Adjuncts subsume adverbs and prepositions that form different adjuncts or adverbials. There are several types of adverbs in Gĩkũyũ, e.g. adverbs of degree: *mono* ‘very’, *piu/biu* ‘completely’,

manner: *kahora* 'slowly', *ooru* 'badly', *wega* 'well'. Degree and manner adverbs co-occur: *wega/ooru mono* very well/badly, *kahora piu/biu* 'very slowly'. Ideophones such as *ki!* 'very silently', *ndi!* 'completely full' may also be considered to have adverbial function. Temporal adverbials include *kainge* 'often', *hende ciōthe* 'always', *omuthe* 'today', *ira* 'yesterday', *tene* 'formerly'. Adverbs of place include *goko* 'here, wider area', *haha* 'here, a restricted area', *theenie* 'inside'. Barlow (1951:126) suggests that infinitives meaning 'completely/thoroughly/very' can serve as adverbials as in (1.20).

Prepositions are a closed class in Gikūyū and simple prepositions are few. Adverbs and nouns are utilized to create more prepositions (Barlow 1951:198). Simple locative prepositions are *kore/hare* (*kwe/hε*) ‘to’, *kuuma* ‘from’. *Na* has a multiplicity of prepositional functions: ‘accompanying’, ‘at’, ‘with’, ‘on’, and ‘along, directional’ (Barlow 1951: 201).

(1.21) *A-re-gatagate ka a-ndo.*
 1-COP- middle of 2-people
 'He is in the midst of people.'

(1.22) a. *Ohiki-ine*
14-wedding-LOC
'in/at the wedding'

b. *Hwai-ine*
9.evening-LOC
'in the evening'

In this chapter, I have presented an introductory background to the general topic of complex sentences. This introduction was intended to put the current study perspective within the field of complex sentences analysis. I have shown the lack of consensus on the notions of coordination

and subordination as clause linkage relations. It is evident that coordination and subordination are relevant linkage relations in Gĩkũyũ; however, they are not able to account for some Gĩkũyũ complex sentences.

Considering the above inadequacy and the lack of a study on complex sentences in Gĩkũyũ, I will further investigate this problem among others. Next, I stated the research problem that is investigated in this study, the research aims, the main research question and its related sub-questions that this dissertation will answer. This study is based on the RRG theoretical framework, and therefore, theoretical tools of RRG will be tested in the analyses of Gĩkũyũ complex sentences.

As part of the introduction, I have also described the data collection and method of analysis. In addition, I included some basic aspects of Gĩkũyũ, for example the phonology, morphology (noun classes, nominals, and the verb group), syntax (word order, syntactic categories).

1.8 Organization of the dissertation

This thesis has seven chapters. Building on the introduction given in Chapter 1, chapter 2 comprises a review of general literature on complex sentences, in Bantu languages generally and in previous Gĩkũyũ studies specifically. Also included in this chapter is an introductory overview of Role and Reference Grammar. Chapter 3 contains the application of RRG to Gĩkũyũ simple sentences. Chapter 4 introduces the theory of complex sentences in RRG. Chapter 5 discusses coordination and cosubordination in Gĩkũyũ. Chapter 6 is on subordination in Gĩkũyũ and issues of the interclausal relations in complex constructions in relation to Gĩkũyũ complex sentences. Finally, chapter 7 is the summary and conclusion of the dissertation, and further possible areas of research.

2 Review of literature and an overview of the theoretical framework

2.1 Introduction

The review of literature in this chapter approaches complex sentences as follows: relevant general studies on aspects of complex sentences; complex constructions in Bantu languages; studies on complex sentences based on Role and Reference Grammar; and a section on literature on aspects of complex sentences in Gĩkũyũ; followed by a summary of the review. After the review summary, I present an introductory overview of Role and Reference Grammar [RRG].

2.2 Literature on complex sentences

In this review, I focus on aspects of clause structure and the interaction of syntax, semantics and pragmatics, because the linkage of units in the interaction of these domains contributes to the understanding of clause linkage. The literature reviewed focuses more on the aspects generally considered as belonging to complex sentences: coordination, subordination, and cosubordination

2.2.1 Coordination

Coordination as a linkage relation has received attention from diverse theoretical or typological viewpoints. Some Generative-based studies on coordination include van Oirsuow (1987), Munn (1987), Johannessen (1998), Borsley (1994; 2005), and Zhang (2009). Functional approaches to coordination are presented by Dik (1968; 1997), and others. Typological studies of coordination include J. Payne (1985), Haspelmath (2004; 2007) and others. Blakemore & Carston (2005) and Blass (1989) present some pragmatic-based studies on coordination. The variety among the studies mentioned shows that a single clause linkage relation may be looked at from different linguistic domains.

J. Payne (1985) describes coordination in complex phrases and complex sentences, mainly trying to find out the extent to which sentential coordination strategies operate at the phrasal level. He identifies five types of phrasal and sentential coordination: *postsection* (p and not q), *conjunction* (p and q), *presection* (not p and q), *disjunction* (p or q), and *rejection* (not p and not q;...p or q). In this study I focus on conjunction, disjunction, and adversative coordination.

Dik (1997:189-214) discusses and characterizes coordination in Functional Grammar (FG). He says that conjuncts should be functionally equivalent, but not necessarily of equal category. His view contradicts Haspelmath's (2004; 2007:1) definition of coordination as "a syntactic construction with two or more units of the same type joined to form a larger unit retaining the same semantic relation with the surrounding elements".

Grover (1994) claims that endocentricity in coordinate structures poses challenges to linguistic theories. He notes that it is hard for theories to propose general and restrictive constraints to solve this problem. Grover claims that coordination is not just about similar units being conjoined, noting that this regularity is sometimes violated; this is contra Haspelmath (2004) and Lehmann (1988). He adds that the description of coordination is sometimes complicated when the standard rules fail to apply; forcing the proposal of special methods or

rules in a theory, in order to account for such constructions (Grover 1994: 764). This observation is also found in Goodall (2003), Dik (1997), and Zhang (2009).

Johannessen (1998) proposes that coordinate structures are Conjunction Phrases (ConjP) in the spirit of X-bar theory. The first conjunct becomes the specifier, the conjunction, the head, and the second conjunct becomes the complement. Borsley (2005) rejects Johannessen's proposal, arguing that there are coordinate structures with more than two conjuncts and the ConjP theory would have problems accounting for such constructions.

In my view, the ConjP theory would have a problem accounting for constructions that are semantically coordinate, but not syntactically indicated as coordinate, e.g. Gĩkũyũ consecutive constructions. There would be a problem analyzing the consecutive prefix as the conjunction, since it is an infix. Secondly, in her analysis, Johannessen resorts to null abstractions; this is incompatible with my investigation because I do not entertain claims of null elements. Indeed, Riedel (2009), in her analysis of Sambaa and Haya, has shown that Johannessen's theory is inapplicable in Bantu.

Lehmann (1988) views coordination as a relation of sociation combining two syntagms of the same type and forming a syntagm that is of the same type, equating hypotaxis and parataxis to subordination and coordination, respectively. However, parataxis in a language like Gĩkũyũ should be approached bearing in mind Kimenyi's (1981:88) caution that "linkless clauses" in African languages have been erroneously analysed as parataxis. Nevertheless, there is no denying that parataxis and hypotaxis may be clause-combining strategies in Bantu languages.

Palancar (2012) supports Lehmann's (1988) views, demonstrating that in Northern Otomi, a Mesoamerican language, clausal juxtaposition not only effects semantic or pragmatic subordination, but it can also mark syntactic subordination. In Gĩkũyũ, it is not unusual to find clauses strung together without conjunctions. This has led some writers to conclude that there is minimal need of conjunctions in Bantu (see Barlow 1951; Leakey 1978; Nurse 2008). However, this does not mean that one cannot establish the kind of syntactic and semantic relations that hold in such constructions.

Van Oirsouw (1987) approaches coordination from a generative grammar standpoint. He puts forth a strong case for deletion transformations, but the semantics and pragmatics of coordination are ignored. Van Oirsouw's theory of deletion can be considered somewhat obsolete now that transformations are replaced by feature-checking in the Minimalist Program (MP).

Stassen (2000) surveyed NP coordination in 260 languages, dividing the languages into either AND- or WITH- languages. In AND-languages, coordination is achieved by a syntactically equal structure commonly associated with 'and' (the coordinate strategy). In WITH-languages, the coordinates are imbalanced or unequal, bearing a comitative 'with' meaning (the comitative strategy). Gĩkũyũ seems to be both an AND- and WITH-language in this classification, considering that the morpheme *na* has both conjunctive and comitative functions. This echoes T. Payne's (1997:339) observation that the isomorphism of comitative, coordinative and instrumental operations is common in world languages, and this is attested in Gĩkũyũ.

Zhang (2009) claims that coordination constructions are a universal feature of languages. She focuses on the syntax of coordination in English and Chinese within the Minimalist Program [MP]; proposing a binary approach to coordination. She argues against any

special syntax of coordination, claiming that “there is no special syntax purported as ‘the real syntactic law of coordination’” (Zhang 2009:1), as claimed in the MP.

The views of Zhang (2009) agree with those of Cormack & Smith (2003), who contend that coordination in grammar does not need specific devices for coordination. They argue that a grammar provides asymmetric structures using “particular lexical entries relating to semantic conjunction” (Cormack & Smith 2003:395-6). To them, coordination constructions are jointly interpreted by the semantics of the lexical entries, the processing considerations, and pragmatics.

In this brief literature review on coordination, it should have become evident that the analysis of coordinative constructions can be approached from theoretical and typological standpoints. Although I am not aware of any in-depth study of coordination in Gīkūyū, in this dissertation I only deal with coordination as part of complex sentences, without much theorization

2.3 Subordination

In this section, I will review literature on complementation, relative clauses, and adverbial clauses, the traditional forms of subordination.

Haumann (1997) not only discusses the syntax of subordination but also gives a good historical development of subordination studies in Generative theory. He concentrates on the nature of the English complementizer *that* in subordination.

Thompson, Longacre & Hwang (2007:238) suggest that subordinate clauses are cross-linguistically indicated by three devices: a subordination morpheme, special verb forms, and word order. In this study, I will show the different forms of subordinate clauses in Gīkūyū and how they are indicated.

Cristofaro (2003) investigates subordination and the conceptual situations resulting from these subordinate structures. She concerns herself with the syntax, semantics and functions of subordination. Cristofaro’s conception of subordination deviates from the traditional morphosyntactic notions of subordination based on clausal embedding or non-finite verb forms, e.g. infinitives, gerunds. Cristofaro (2003:1-2) asserts that the use of embedding and non-finite verb forms to encode relations between clauses is not cross-linguistically universal.

As an alternative, Cristofaro suggests a language-independent functional definition subsuming notional, cognitive, and semantic/pragmatic terms. Her definition is inspired by Langacker’s (1991) Cognitive Grammar. Cristofaro (2003:2) defines subordination as “a particular way to construe the cognitive relation between two events, such that one of them [the dependent one] lacks an autonomous profile and it is construed in the perspective of the other [main] event”. Cristofaro’s characterization of subordination includes asymmetry features and lack of assertiveness, i.e. illocutionary force.

Cristofaro’s definition of subordination excludes sub-clausal forms of subordination. It is also more applicable to complement and adverbial clauses than to relative clauses, which may have no events. I will not follow her idea of subordination, as the theoretical framework I am using for this study has its own theory of subordination, which I will test on Gīkūyū.

The use of the notions of cognitive asymmetry and assertion to determine subordination is questioned by Hetterle (2015:34). She notes that some English adverbial clauses permit the “main clause phenomena”, and such clauses have their own illocutionary force or they are

“challengeable propositions”. Hetterle (2015:35) adds that languages such as English, German, and Japanese also show the ‘main clause phenomena’ in subordinate clauses. However, the idea that subordinate adverbial clauses may have their own independent illocutionary force is denied in Van Valin (2005), in the spirit of Bickel’s (1993) notion of the ‘Rubin effect’.

The adverbial clauses in question include ‘because’ (reason) adverbial clauses in the cited languages. I will show later that in Gĩkũyũ, the assertive cum focus marker *ne* is also found in reason subordinate clauses, whereby even two of them can be allowed. The connection between focus and assertion was observed by Matić (2003:111), concluding that assertion and focus are inseparable properties of each other. In addition, Van Valin (2005) shows that some subordinate clauses may indeed have focus. However, such clauses are not independent of the main clause.

Haspelmath (1995:12) proposes five criteria associated with subordination: variable position, focusability, the possibility of extraction, the possibility of backwards pronominal anaphora and control, and the possibility of occurring in the superordinate clause. These criteria may in part be cross-linguistically applicable, considering the diversity in languages.

Dik (1997:144) argued that subordinate clauses have all the properties of a main clause, except for devices such as subordinators, special subordinate constituent order, a “special dependent mood”, and a combination of a subordinator and mood. These properties are evident in Gĩkũyũ, whose subordinate clauses have subordinators, and which can be extra-posed or pre-posed, and some of which have ‘a special dependent prefix’ to indicate subordination.

According to Givón (2001b:328-386), subordinate clauses can be syntactically bound in three ways: by intonational integration (a single intonation contour on a dependent clause), by relational government (dependent clauses are relationally governed by the subject or object in a main clause), and by reduced finiteness, (dependent clauses have reduced finiteness).

Givón’s characterization of subordinate linkage is more inclusive than Cristofaro’s definition, because it looks beyond the morphosyntactic indication of subordination, adding the dimension of intonation and prosody. Güldemann (1996; 1997; 2005) showed that prosody plays a role in marking subordination in Bantu languages. Although Gĩkũyũ was not one of the languages he looked into, there is evidence that prosody may also define some types of subordinate clauses in Gĩkũyũ.

2.3.1.1 Complementation

A complement clause is understood as a clause that fills an argument position of a predicate in another clause, has an internal structure of a clause, and describes a proposition of some kind (see Dixon 2006; 2010; Noonan 1985; 2007). Thus, it may be a subject or an object argument in a construction.

Complementation has received tremendous attention in linguistic theories. In some theories, it has shaped the structure of representation, e.g. the Generative complementizer phrase (CP), since Bresnan (1970; 1972).

Complementation may be approached from a theoretical or a typological perspective, or both. However, there seems to be more literature on complementation from formal theoretical Generative approaches, compared to typological or functional approaches. Some typological studies on complementation include Noonan (1985; 2007); Ramsom (1986); the volume edited by Dixon & Aikhenvald (2006); Dixon (2006; 2010); Givón (2001b), and the various chapters

on complementation in functional theories, e.g. Dik (1997: Vol. 2, Chapters 6 and 7), Givón (2001b: Chapter 12), and Hengeveld & Mackenzie (2008: Chapter 4).

Noonan (1985/2007) is one of the most cited contributions on the study of complementation. Aiming at a cross-linguistic typology of complementation, he focused on the morphology, syntax and semantics of complementation. However, Dixon (2006:7 fn. 2) faulted Noonan for not distinguishing between complementation and complementation strategies in languages, because, according to Dixon, not all of what Noonan posited as complementation works in all languages.

Noonan was aware of the cross-linguistic differences in complementation; he noted that languages vary in the number and types of complement clauses. For example, English has four complement types: gerundial/verbal noun clause, *for*-clauses and *that*-clauses, and participial. Lango, a Nilotic language, also has four complement types, which differ from those of English: subjunctive, indicative, paratactic, and infinitive complements. This means that a study on complementation should focus on morphology, the syntax and semantics of clauses, in order to capture existing cross-linguistic differences.

Although faulted by Dixon (2006), the complementation typology developed by Noonan is very insightful for cross-linguistic investigations of complementation. I will present a brief typology of complement clauses in Gĩkũyũ, which will be analyzed along the theoretical claims of RRG.

Dixon (2006; 2010) discusses complement clauses and complementation strategies, noting that linguists (e.g. Noonan) fail to distinguish between complementation strategies and complement clauses. Dixon (2006:43) argues that complementation strategies have “no direct semantic correspondences with the types of complement clauses”.

Dixon’s complementation strategies are the serial verb construction strategy, the relative clause strategy, the nominalization strategy, and the linked-clauses strategy. The linked-clauses strategy subsumes clause chaining, apposition, and purposive linking. Accordingly, complement strategies are found in languages without complement clauses so that they are able to code “[a] proposition which is remembered, wanted, seen, heard, known, believed, liked etc.” (Dixon 2010b: 371). In my view, Gĩkũyũ lacks serial verbs, but the language indicates all these other forms of “complementation strategies”. The division by Dixon is, therefore, not relevant in Gĩkũyũ.

Dixon (2006) suggests that a study on complementation should consider the meaning of complement clauses, the grammatical criteria for identifying complements, the functional possibilities of complements, their position in the main clause, and how they are marked in a language. According to Dixon, the grammatical criteria are used to identify whether a complement clause has the internal constituent structure of a clause, or whether it is an argument of a higher clause, when it describes a proposition, a fact, an activity, or a potential state. In this study, these aspects are highlighted in the discussion of the typology of complement clauses in Gĩkũyũ.

2.3.1.2 Relative clauses

Andrews (2007:206) describes a relative clause (RC) as a subordinate clause which delimits the reference of an NP by specifying the role of the referent of that NP in the situation described by the RC. From this, one can observe that RCs belong to the reference part of a sentence.

Investigations of relative clauses have occupied linguists for a long time; thus, there are many typological and theoretical studies on RCs across the world languages. Typological ones include Keenan & Comrie (1977); Keenan (1985) ; Comrie (1989) ; Givón (2001b) ; Kroeger (2005) ; Andrews (2007); Dixon (2006; 2010b), and others.

Keenan & Comrie (1977) posit universal constraints on formation of relative clauses. They determine the universal properties of RCs by comparing their syntactic forms in many languages. Although their work has been faulted over the years, it laid a foundation for cross-linguistic studies of relative clauses.

Keenan (1985) presents a typology of restrictive RCs. He discusses externally- and internally-headed RCs, admitting that knowledge about internal RCs is limited. He notes that there is an open question as to whether the NPs in such RCs may be identically relativized. Some aspects of non-restrictive RCs are shown not to be universal. Consider, for instance, the comma intonation differentiation of restrictive and non-restrictive RCs: Malagasy and Japanese do not make use of it, and Walusimbi (1976) notes such in Luganda. Keenan's point on non-universality of restrictive or non-restrictive RCs is reiterated by Givón (2001b:179) and Comrie (1989).

Comrie (1989) further observes that the description of RCs has relied heavily on data from English, which has both restrictive and non-restrictive RCs. However, this distinction is not typologically viable, as some languages do not make a formal distinction or use intonation to distinguish them. He faults the Generative theories of transformation and trace, noting that in some languages these theories are inapplicable, since they use pronoun retention to form RCs, and others do not allow movement in RCs formation. In line with Comrie's views, Gĩkũyũ is one such language that uses a prefix marker to mark relativization. Furthermore, the theoretical framework adopted in this study does not posit any forms of transformations or traces.

Kuteva & Comrie (2005) report on relativization strategies in African languages, concluding that of the six relativization strategies used by languages (relative pronoun strategy, correlatives, head internal RCs, pronoun retention, gap relativization, and paratactic) most African languages use three of them. However, they admit that their findings are not conclusive because of inadequate data. For example, they were not able to characterize RCs in Luganda, which is similar to Gĩkũyũ.

Andrews (2007) examines the typology of RCs. Based on the position of the head noun, he proposes three types of RCs: external, internal, and free (embedded) RCs. It is important to investigate the kind of RCs found in Gĩkũyũ. In his classification of RCs, Andrews (2007:233) notes that Kiswahili falls in "an unclassifiable range of further possibilities", since head noun features are shown by noun classes on the verbs and the prepositions function as resumptive pronouns, although a relative clause marker *-amba* is also present. This study will clarify some issues related to aspects of Gĩkũyũ RCs, which might be extended to closely-related Bantu languages. I am not aware of a study that attempted to test the claims by Keenan & Comrie and others in Gĩkũyũ or even a study that focuses on relativization in the language. Most of the

comments that one finds on relative clauses in Gĩkũyũ is whether the language has relative pronouns or not. In response, this study will look into the morphosyntax of Gĩkũyũ relative clauses.

2.3.1.3 Adverbial clauses

Adverbial clauses are the largest and most diverse of subordinate clauses; specifying individual adverbial relations, such as causative, purpose, concession, conditional, comparison, manner, spatial, and temporal relations (Haumann 1997). Comprehensive typologies of adverbial clauses are found in Thompson & Longacre (1985) and Thompson et al. (2007). Givón (2001b) dealt with adverbial clauses in detail, especially the functional and semantic relations that hold between the linked clauses.

Ernst (2004) contends that although the distribution and interpretation of adverbs is vast, there is no one who has attempted an overall theory of the same in clauses. To fill this lacuna, he formulates a theory of the distribution of adverbial adjuncts based on the Minimalist Program. Other generative studies that attempt to account for the distribution of adverbials are found in Haegeman (2006; 2012); Haegeman (2012) leans more towards the cartographic enterprise version of generative grammar. While the above are valid endeavors, their main concern lies with the syntactic domain; my consideration of the position of adverbial clauses, however, transcends the syntactic domain.

Thompson et al. (2007) present a typology of adverbial clauses and argue for the place of adverbial clauses in discourse. Twelve types of adverbial clauses are discussed, together with the semantic relationships that they encode and their structural regularities. They further relate adverbial clauses to their role in discourse, thus deviating from other syntax-focused generative accounts (e.g. Ernst 2004). The typology by Thompson et al. (2007) partly informs my characterization of Gĩkũyũ adverbial clauses.

Hetterle (2015) approaches adverbial clauses from a cross-linguistic perspective. Her study is a functional-typological investigation, concerned with the morphosyntactic characteristics and semantic issues of adverbial clauses. Hetterle's study tries to be theory-neutral and because of her functional-typological approach, her work is relevant to my investigation.

2.3.2 Cosubordination

Investigations of Papuan languages and other non-Indo European languages led linguists to discover unusual sentence combinations which could not be fully accounted for by coordination and subordination, as these combinations were not typical cases of either (see Olson 1981; Roberts 1988).

In order to account for such constructions in Barai, a Papuan language, Olson (1981) devised "cosubordination" as a clause linkage relation and Foley & Van Valin (1984) integrated cosubordination into RRG. Cosubordination is characterized by the sharing between units of at least one or more grammatical operators such as tense, aspect, negation, modality, or illocutionary force. The sharing of operators is responsible for the dependence, and this feature of operator-sharing distinguishes cosubordination from both coordination and subordination. In other words, the dependence in cosubordination pertains to operator dependency and not

structural embedding as in subordination. Cosubordination is also not like coordination, because the linked units are not independent as would be expected of coordinated units.

Therefore, cosubordination is a blend of coordination and subordination and it possesses characteristics of both. It is coordinate in semantic interpretation in that the resulting construction is a “kind of dependent coordination” (Van Valin 2005: 187) that can even be realized by a conjunction. It is, however, also similar to subordination in that it is “dependent” on another unit for some operator in the same way that subordinate units are structurally dependent on another unit.

Investigations in Papuan languages revealed that dependent clauses, called “medial clauses”, preceded the main clauses, called the “final clauses”, in which grammatical operators resided. As a feature of multiple clauses, cosubordination is shown in multiple verb constructions with long sequences of clauses (clause chains) indicating operator dependence with or without connectives (see Payne 1997; Lehmann 1988; Dooley 2010a; 2010b).

For a long time, it was thought that clause chaining or cosubordination was a property only found in Papuan languages. However, it is now known that SVO languages of East and West Africa also feature cosubordination, marked by a special initial verb in a clause together with other clauses (see Longacre 1990). The so-called “special initial verb” is analogous to consecutive verbs in Bantu.

Longacre (1990) observed that SVO and VSO languages are left-chaining, i.e. the matrix clause is the first unit on the left of the complex construction, while SOV are right-chaining, i.e. the matrix clause is the last unit on the right of the complex construction. In this study, following Van Valin (2001), I use the term “left-branching” rather than “left-chaining” to describe situations where dependent units precede the main unit, and “right-branching”, in which a main unit precedes dependent units. Therefore, Gĩkũyũ, being SVO, is a “right-branching language”.

Jacobsen (1993:262) identifies regressive clause chaining for SOV and VSO languages and progressive clause chaining for SVO languages. He concludes that Swahili and other SVO languages show “progressive directionality of clause chaining” (Jacobsen 1993:263). Consecutive *-ka-* in Kiswahili and Gĩkũyũ encodes the same semantic and syntactic relations. Hence, the latter is also applicable to Jacobsen’s claim.

Givón (2001b:357-384) suggests two types of clause chaining: SOV-type chaining (chain-final is most finite clause) and SVO-type chaining (chain-initial is most finite clause). He contends that semantic, syntactic, text coherence, and discourse issues are associated with such clauses, meaning that an investigation of such constructions must also consider these associations. As such, this study looks beyond the syntax of cosubordination into the semantics behind it.

Haspelmath (1995) argues that there are two main types of clause chaining. In type one, a medial (dependent) clause precedes a fully finite (matrix) clause, and in type two, a matrix clause precedes a medial clause. The former is “anterior clause chaining” and the latter “posterior clause chaining,” following Stassen’s (1985:101) characterization of VSO and SOV languages. In this terminology, Gĩkũyũ would be a “posterior chaining language”, since the matrix clause precedes the medial clauses.

There are more characteristics of chaining other than final verb finiteness, such as an indication whether the same subject is retained in all clauses, and the temporal relations in clauses (see Longacre 1985:264-265). Temporal relations encompass chronological overlap

(*while, at the same time*) and chronological succession (*and then*). I contend that these ‘temporal dependencies’ are valid in the characterization of cosubordination in Gĩkũyũ, although they are not the only ones.

2.4 Clause linkage studies based on Role and Reference Grammar

Theoretical works on RRG devote considerable attention to the theory of complex sentences as first developed in Foley & Van Valin (1984) and extended in Van Valin (1984; 1993a), VVLP (1997), Van Valin (2005, 2007) and others.

There are many cross-linguistic studies on various aspects of clause structure in RRG, with some focusing deeply on complex sentences, e.g. Yang (1994); Hasegawa (1996); Treis (2000) and others. Of course, these studies also illuminate simple sentences, as they are the bases for building complex ones. However, there are also some studies purely dedicated to simple sentences, e.g. Rezai (2003) on Farsi simple sentences and Kihara (2010) on Gĩkũyũ.

Jacobsen (1993) analyzed subordination and cosubordination as clause combining strategies in Nootka, a polysynthetic language of North America. A similar study is Watters’ (1993) analysis of coordination, subordination, and cosubordination in Turkish. Watters identified various morphemes that mark core subordination in Turkish, e.g. simultaneity and sequentiality markers. In doing so, he reinforces an earlier claim by Longacre (1985) that temporal and chronological overlaps are properties of clause chaining.

Both Jacobsen and Watters concluded that RRG theoretical tools were able to account for clause combinations in their studies. These studies were based on the earlier version of RRG in Foley & Van Valin (1984). There have been improvements in the theory over the years and my investigation uses a more recent, improved version of RRG.

Yang (1994) investigated Korean complex constructions and relative clauses. He found out that Korean had all nine of the complex sentences types then postulated in RRG. Yang based his work on Foley & Van Valin (1984) and Van Valin (1993). However, the current theory, with the addition of the sentential juncture, now postulates eleven juncture types.

Hasegawa (1996) investigated the syntax, semantics, and pragmatic properties of clause linkage in Japanese, concentrating on clauses linked by *TE*, a conjoining particle. She concluded that *TE*-linkage instantiated a wide range of semantic relations previously unaccounted for in Japanese. Particle *TE*- is likened to English *and*, but I also think that it is comparable to the morpheme *-ke-* in Gĩkũyũ, which instantiates different types of clause linkage. The argument I put forward in this dissertation is that *-ke-* is responsible for cosubordination, showing features of both subordination (manner adverbial clauses) and coordination.

Rangkupan (1997) worked on *hay* complex constructions in Thai, aiming to uncover the clause linkage between this verb and other constructions. She concluded that syntactic behaviour of *hay* is not revealing enough, as the analysis must also appeal to the semantics. This problem can be solved by using RRG, a theory in which semantic, syntactic, and pragmatic domains interact.

Allen (2011) wrote a grammar for Kankanaey, a language spoken in the Philippines, based on the RRG theoretical framework. In the grammar, among other things, Allen studied the morphosyntax of complex sentences in Kankanaey including their information structuring

patterns. Allen's study proved the usefulness of RRG in describing the interaction of linguistic interfaces in languages.

Pavey (2004) and Moezzi-pour (2012) worked on clefts in English and Persian, respectively. Moezzi-pour shows the interaction of syntax and information structure in Persian clefts and he also discusses extra-position and pre-position of adverbial clauses, showing that RRG's theoretical tools could adequately describe them. In my investigation I do not dive too deep into the syntax of Gĩkũyũ clefts, but I will show that clefts emerge from the interaction of syntax and information (focus) structure in Gĩkũyũ.

Guerrero (2004a; 2004b; 2006; 2008; 2012) investigated aspects of Yaqui complex sentence constructions such as complementation and relative clauses based on RRG. Guerrero (2004a) is an informative analysis of complement-taking predicates. Another important study on relative clauses is Van Valin's (2012) study of internally- and externally-headed RCs.

Good (2003) investigated clause combination in Chechen, revealing aspects of subordination, coordination, and chaining constructions. The chaining constructions show sequentiality and narrative relationship in Chechen. Good observed that, unlike other European languages, Chechen makes extensive use of converbs. His study reaffirmed the typology of clause linkage as suggested by Foley & Van Valin (1984). However, some of Good's findings may be better refined if reanalyzed within the more current and improved RRG theory.

Kochelman (2003) studied the interclausal relations in Q`eqchi`, a Mayan language, focusing on the semantic structure of predicate-taking verbs and the morphosyntax of complement clauses. I will also look at the semantics of complementation in Gĩkũyũ and attempt to situate Gĩkũyũ complex constructions on the interclausal relations hierarchy.

Basing her analysis on English, Pastor (2001) comments on the RRG theory of complex sentences (VVLP 1997). She cites ambiguity and lack of preciseness and clarity in boundaries between complex structures. Nevertheless, she does not offer a concrete solution in her conclusion. Additionally, RRG has seen some innovations since VVLP (1997), so that while Pastor (correctly, at that point) talked of seven types of complex sentences in English, RRG now suggests nine different types (Van Valin 2005; 2007b).

Liong (2004) discussed the analysis of adverbial clauses in RRG, especially how to account for multiple adverbial clauses in a sentence. Liong says that a "circumstantial" finite adverbial clause is not embedded and thus not a case of subordination. He instead argues that it is externally linked to a matrix clause. Liong extends Bickel's (2003) notion of ad-subordination, proposing that RRG should consider it as a separate linkage type of adjunction for adverbial clauses. However, such adverbial clauses are included in the current RRG theory in Van Valin (2005, 2007b).

On the African front, I am aware of RRG-based studies such as Treis's (2000) work on Kxoe complex sentences and Abdoulaye (1992) on aspects of Hausa morphosyntax, though he did not delve into complex sentences very much. In respect to Gĩkũyũ, I am not aware of any work beyond Kihara (2010) and Iribemwangi & Kihara (2011) on the simple Gĩkũyũ reference phrase. I am also not aware of any RRG-based study on complex sentences in any other Bantu language.

All the studies above have shown that theoretical claims made in RRG are applicable to natural languages, since they have been tested and proven to work. It is therefore important to test the theory on a language such as Gĩkũyũ, whose complex sentences are yet to be

theoretically described. In addition, all the languages previously described in RRG terms are different from Bantu languages such as Gĩkũyũ. Thus, the present study adds to the cross-linguistic application of RRG, and therefore extends the application of the theory to diverse languages.

2.5 Complex constructions in Bantu

This section presents a brief and general review of literature on aspects of complex sentences in Bantu languages.

Bearth (2003:121) admits that there are fewer studies on the syntax of Bantu languages than morphological and lexical studies. Even frequently quoted Bantu studies such as Kimenyi (1980) and Mchombo (2004), among others, only comment sparingly on matters related to complex sentences. Interestingly, although Bearth's chapter is on Bantu syntax, he also says little on the nature of complex sentences in Bantu.

Parker (1991) noted that in Mundani, a grassland Bantu language of Cameroon, complex sentences can take the form of a series of consecutive clauses, or of a series of juxtaposed independent clauses without anything indicating their relationship with the main clause, or of clauses that co-occur and whose relationship is indicated by various markers. This observation is important, but it does not indicate the kind of linkage relations that exist between the linked units.

With data from Kinyarwanda, Kiswahili and Shona, Kimenyi (1981:85-86) observed sentences consisting of two or three clauses which were not linked by a coordinating or subordination conjunction; he therefore called them "linkless clauses". The linked clauses exist as conditionals, participials, relative clauses, subjunctives, or narrative/consecutive clauses. Kimenyi (1981:87) suggested that, rather than take such clauses as linkless, an incorporation analysis could be posited, whereby coordination and subordination are assumed to be expressed by the tense-aspect-mood (TAM) morphology on the verb. In that case, there is no dedicated linker used.

Kimenyi's proposal is acknowledgement that verbal morphology can play a role in clause linkage. He observes that Bantu "linkless clauses" are incorrectly analyzed as parataxis and also notes the fuzzy distinction between coordination and subordination in agglutinative Bantu languages. In his conclusion, Kimenyi recommends further research on serial verbs and linkless clauses in Bantu. This study seeks to address the latter question, but as for serial verbs, I do not know of a Bantu language that has them.¹⁰

Maw (1969) is one early theoretical study of Kiswahili complex sentences based on the Scale and Category theory. Maw's study investigated Kiswahili complex sentences in totality, looking at aspects of coordination and forms of subordination in complex sentences.

In a review of Maw (1969), Wesana-Chomi (1973a) described Maw's work as "seminal" with regard to the analysis of multi-clausal and interclausal syntax in Kiswahili. She credited Maw for selecting a theory that began language analysis from the word level up to the clause level. However, she faulted Maw for not providing an agreeable definition of subordination, an issue she took up in Wesana-Chomi (1973b).

¹⁰ Mugari & Kadenge's (2014) claim that *chiShona* has serial verbs. In my view, the examples are not serial verbs.

2.5.1 Coordination in Bantu

Coordination is universal, albeit with cross-linguistic variations (Haspelmath 2004b; 2007). It is marked by semantic types of conjunctions, e.g. conjunctive ‘and’, disjunctive ‘or’, adversative ‘but’, or causal ‘for’ (Haspelmath 2007:1-2).

Investigation of coordination in Bantu complex sentences is scarcely considered. For example, Wesana-Chomi (1973b) using Transformational-Generative Grammar investigated subordination and adverbial clauses in Kiswahili but ignored coordination, as did Vitale (1981) in his study of Kiswahili syntax by concentrating on subordination. Mohamed’s (2001) general grammar on Kiswahili also only deals superficially with issues of complex sentences including coordination.

Coordination in Bantu is strongly recognizable because most languages use a conjunctive particle *na* ‘and’ (see, among others, Creissels et al. 2008; Nurse 2008; Welmers 1973). Taylor (1985:57) has an interesting observation about *na* coordination in Nkore Kiga, writing: “It seems before literacy arrived, strict coordination using coordinators was rarer than now, and some subsequent influence of outside languages must be postulated...”. This suggests that conjunction coordination in this language has had external influence. Taylor shows that translations into foreign languages make use of conjunctions, a practice that was not originally evident in the source language.

Other than the conjunctive function, *na* has a comitative ‘with’ function, among other variant semantic, syntactic or even pragmatic functions in respective languages. Mous & Mreta (2004) describe *na* in Pare as a comitative/conjunction preposition. Maganga & Schadeberg (1992) describe an initially occurring *na* in Ki-Nyamwezi as having a discourse function. In addition, the Gĩkũyũ *na* seems to have discourse-pragmatic, semantic, and syntactic functions.

Coordination of noun phrases (NPs) and sentences calls for different conjunctions in some African languages. For example, *na* has limited conjunctive environments in Pare (Mous & Mreta 2004). In Kpelle *na* is only a nominal coordinator and it cannot link sentences or verbs (Welmers 1973). In Nkore Kiga, the sentence coordinator cannot be singularly used to coordinate two clauses with different subjects; singularly, it can only coordinate clauses with the same subject in both clauses. For clauses with different subjects, Nkore Kiga resorts to “anaphoric” coordination, whereby a conjunction and a pronoun marker are used in combination (Taylor 1985:55). As shown later, Gĩkũyũ exhibits similar features.

Marten (2003, 2000) concluded that it is unnecessary to posit underlying conjunctions to explain partial agreement in Kiswahili conjoined NPs. He rejects Johannessen’s (1998) ConjP theory, arguing that in Kiswahili agreement holds between a verb and the first conjunct of the conjoined NP if it follows the verb, but not with both NPs.

Nurse (2008:121) claims that functions expressed in other languages by conjunctions, in Bantu languages they are “verbally” expressed due to lack of conjunctions. Nurse attributes this situation to what he describes as the “verby” nature of Bantu languages, which I think is supposed to capture that the verbal morphology does the work of the conjunction. Nurse’s conclusion, however, does not explain why Bantu languages retain conjunctions together with verbal morphology. Barlow (1951:203) also notes that “[t]he presence of the consecutive tenses in the Kikuyu verb removes to a certain extent the necessity for conjunctions (for ‘and’ in particular)”. However, *na* remains ubiquitous in Gĩkũyũ speech.

The notion of “coordination” in Bantu does not sit well with everyone. For instance, Whiteley (1966) in his study of Yao sentences based on Scale and Category theory; avoided the terms “coordination” and “subordination”. Instead, he refers to multi-clausal sentences as “sentence extensions” rather than complex sentences (Whiteley 1966:233). He identifies three types of extensions responsible for lengthening a sentence: extension by connectors, parataxis, and parenthesis. Whiteley avoided the terms “coordination” and “subordination” because, in his view, these two concepts could not have indicated the real phenomena in Yao syntax.

2.5.2 Subordination in Bantu

Subordination is generally understood as embedding of clauses. Complement clauses, relative clauses and adverbial clauses are the most common forms of subordination.

Rose et al. (2002:25) point out that dependent forms in Bantu syntax are found in subordinate clauses indicated by complementizers or similar connectors, subjunctive clauses, relative clauses, and aspectual markers such as *-ki-*, *-ka-*, or \emptyset . They conflate “subordination” and “dependency”, thereby ignoring the fact that different “dependencies” may exist in a language. For example, the “dependency” associated with the so-called aspectual markers *-ki-*, *-ka-*, or \emptyset is different from the usual subordination “dependency”. In this study it is important to precisely indicate the kind of dependency present in a construction.

The dependency indicated by the “aspectual markers” is assumed to be synonymous with that marked by complementizers, going by what Rose et al. (2002) observe. Although I agree with them that these affixes are associated with some kind of dependency, I disagree with them that the dependency is wholly similar to that indicated by complementizers, and make a distinction between the two kinds of dependencies. In addition, I do not agree that the affixes are “aspectual markers” and will provide reasons for why they should not be considered as such.

Wesana-Chomi (1973b:30) aimed for “a comprehensive definition of the notion of subordinate or dependent clause in Swahili”. In her analyses, Kiswahili has two broad types of sentential subordinate clauses: relative clauses and complements. She disagrees with Ashton (1944) and Maw (1969) for describing some sentences as subordinate or dependent, as according to her they “are neither relative or complement sentences, *superficially, at least*” (Wesana-Chomi 1973b:30, her emphasis).

Wesana-Chomi also questions the type of subordination associated with adverbial clauses of reason, condition, and concession. She proposes two possible solutions: One, she contends that the dependent clauses are complements of “transitive prepositions” and, two, she invokes the power of the TGG deep structures, whereby the subordinate clause is assumed to be a complement of an underlying “deep structure” verb. In her words, this verb “is superficially realized in various ways as a *conjunction*, *conjunction-group*, *subjunctive marker* or as an *infinitive marker*. It is such a verb to which the dependent or subordinate clause is a complement” (Wesana-Chomi 1973b:30, her emphasis). The so-called “transitive prepositions” (*kama* ‘if’, *kwa sababu* ‘because of’, and *ingawa* ‘although’) are, in my view, subordinators.

Some of Wesana-Chomi’s proposals were controversial. For example, she proposed that conditionals, which are intuitively subordinate, should be analyzed as coordinate. She did, however, admit that “there are good reasons” to reject her proposal and she agreed that her proposal “undermines the traditional intuition according to which [conditional sentences] are

instances of sentential subordination” (Wesana-Chomi 1973b:50, endnote 8). There are indications that Wesana-Chomi sacrificed the data to satisfy some theoretical demands.

The theorization put forward above is in many aspects untenable and obsolete in the current thread of generative grammar. Although this study is not on Kiswahili, Gĩkũyũ has evidence against Wesana-Chomi’s claims. However, this should be left to a study on Kiswahili complex sentences.

2.5.2.1 Complement clauses in Bantu

A complement clause is usually (but not always) introduced by a complementizer, and it serves as an argument of a matrix clause. According to Noonan (2007:52), complementation arises when a notional sentence or predication acts as an argument of a predicate.

Letsholo (2013) investigated form and meaning of Setswana complementizers and complementation. She worked out the semantics of different complementizers, as well as the epistemic effects a choice of a complementizer has in a proposition. This informs the treatment of the peculiarities of complementiser *ate* ‘that’ in Gĩkũyũ.

Kawasha (2006, 2007) gave a functional and descriptive account of complementation in Chokwe, Lunda, Luchazi, and Luvale, all languages of Zambia. He identified three types of complement clauses: infinitival, complement clauses without complementizers, and complement clauses with complementizers. He spelled out the role of verbs in the construction of different complement clauses. Kawasha identifies subject-agreeing complementizers in Lunda, whose origins he traced to a possessive pronoun, deviating from the usual claims that complementizers grew from the verb of saying (see Ngonyani 1999 and others).

Myers (1975) conducted a comparative study on verb phrase complementation systems in Chichewa and Kikamba, comparing and contrasting complementation in the two languages. One similarity is that both languages have three kinds of complement clauses: infinitive, indicative and subjunctive. A difference lies in the kind of complementizers available: Chichewa has *kuti* ‘that’, which introduces both indicative and subjunctive complement clauses, while Kikamba has two, *kana* and *atĩ*, which only introduce indicative verb complements.

In addition, Chichewa infinitives carry either an indicative or subjunctive suffix ending, but Kikamba infinitives always have an indicative suffix. She concluded that the choice of a complementizer in both languages is determined by the interplay of syntactic, semantic, and pragmatic factors. I find Myers’ appeal to syntactic, semantic, and pragmatic factors in her analysis of complement clauses relevant to this study. This is because of the functional nature of the complementizer *ate* ‘that’ in Gĩkũyũ. This particle can be used in a construction for syntactic, semantic, and pragmatic needs, as well other discourse-related needs. This shows that the different domains of language can interact through a single particle.

du Plessis (2012), in a follow-up to du Plessis & Visser (1992), describe the distribution and control properties of the Xitsonga infinitives based on the Minimalist Program. Infinitives in Xitsonga display nominal and verbal properties and du Plessis therefore classifies them as being either nominal or verbal, functioning as either nominal or clausal infinitives. Mugane (2003) is in a similar vein as Plessis’ observation and highlights the problematic nature of mixed constructions in Gĩkũyũ. I will also discuss such constructions later in this study.

Vitale (1981) highlights complementation aspects of Kiswahili, delineating three types of complement strategies: *kwamba*-complements, complements with a tense-less subjunctive verb, and infinitive *ku*-complements. Gĩkũyũ seems to have similar constructions.

Based on Government and Binding theory (GB), Perez (1985) compared nominal and verbal complements in three geographically different Bantu languages: Gĩkũyũ (Kenya), Kirundi (Burundi) and Shona (southern Africa). She concluded that the three languages did not support some theoretical claims posited in GB at that time, e.g. in these languages, NP-movement from a subject position is allowed in tensed complement clauses.

Beyond nominal and verbal complements, Perez showed that infinitives in the three languages function as subject and object nominals, objects of prepositions, purpose clauses, and consecutives in *when*-constructions (Perez 1985:110). Perez's work offers a starting point in the analysis of infinitives and the discussion of control and raising constructions. However, her claim of "consecutive infinitives" (Perez 1985:129, ex. 24) is unacceptable, since her conclusion is based on a construction I and other native speakers I consulted consider ungrammatical.

2.5.2.2 Relative clauses in Bantu

Relative clauses attract the attention of linguists because they are syntactically, semantically, and typologically interesting (de Vries 2002). This benefit has also been extended to Bantu languages, albeit to a lesser degree, so that the output is still negligible. For instance, in 2010 Laura Downing and others acknowledged a research gap in the prosody and syntax of complex sentences, questions and dislocations in Bantu languages. To close the gap, papers exploring the effect of tone on relative clauses in some Bantu languages have been presented, although Gĩkũyũ was not one of those languages.

Mchombo (2004) observes that in Chichewa, tone plays a role in the formation of relative clauses. He noted that tone is so significant that the relative marker can be omitted and tone takes over its role. The contributions in Downing et al. (2010) noted the role of tone in RCs in various Bantu languages. The same is noted in Chichewa (Downing & Mtenje 2011), Bemba (Kula & Cheng 2007), Lingala and Dzamba (Henderson 2007), and Makaa (Heath 2003). The discussion of RCs in these languages is based on different theories including Optimality theory (Downing & Mtenje 2011) and generative theory (Kula & Cheng 2007). Tone also plays a role in Gĩkũyũ RCs, as Clements (1984a) indicated. However, I would assume with Kula and Cheng (2007) that such a tone should be considered a morpheme.

Letsholo (2006; 2009) investigates RCs in Ikalanga. She reports that simple Determiner Phrases in Ikalanga behave like RCs, because their agreement morphology is characterized by a low tone, commonly associated with relativization. Focusing more on restrictive RCs, Letsholo questions whether the relative marker is a relative pronoun. She considers it as an agreement marker of a null relative pronoun. While phonologically null elements or movements are features of generative theories, a different analysis would have been assumed for similar Gĩkũyũ constructions in a RRG analysis, without claims of phonologically null elements or movements.

Other than Letsholo, the agreement question in RCs is also noted by Simango (2006), Demuth & Harford (1999), Ngonyani (1999; 2001), and Henderson (2007). Henderson (2007), while discussing RCs in Zulu, Swati, Shona, Kirundi and Swahili, took issue with agreement in

object relatives. He suggested a three-way typology to determine the kind of agreement indicated by relative complements in these languages.

Zeller (2004) compared RCs in Sotho, Tsonga, Venda, and Nguni, highlighting the differences in syntactic positions and agreement properties of the relative markers in the RCs of these languages. In Sotho, Tsonga, and Venda, the relative markers are clause-initial, marking agreement with the head noun, while in Nguni they show relative concord, hence are prefixed to the verb to agree with the subject of the RC. In Gĩkũyũ, the relative pronoun can stand before the head (pragmatically marked) or after it (unmarked). The relative pronoun, even when omitted, is marked as a relative prefix on the verb.

Kiswahili RCs have received a lot of linguistic attention because of the syntactic processes associated with relativization, which makes them attractive to generative grammar theorizations (see Keach 1980; Vitale 1981; Ngonyani 2001). Ngonyani (2001) analyzed Kiswahili RCs in support of determiner complementation and the head-raising hypothesis.

Demuth & Harford (1999) discussed verb-raising and subject inversion in Chisona and Sesotho RCs. They concluded that raising in Bantu is restricted to embedded clauses, because the Bantu matrix clause is an IP and not a CP (Demuth & Harford 1999: 19). Issues of control and raising analysed later on in the study, but not in the context of RCs.

Riedel (2010) describes the morphosyntax of RCs in Haya, showing that RCs in this language are marked by verbal relative markers (copula), demonstratives (relative pronouns) and by the morpheme *mbali*, a locative used to mark locative RCs. She conducted a cross-dialectic/cross-linguistic comparison of Haya, Runyambo, Kihanja, Kiziba, Muleba, and Bugabo dialects (all Tanzanian) and Bukusu (Kenya). On locatives in both Haya and Bukusu, Riedel concluded that they are unique because they do not mark the relativized object.

du Plessis (2010) describes and compares various aspects of isiXhosa, Xitsonga, Tshivenda and Sesotho RCs. He concludes that while RCs in these South African languages are similar, they differ from other southern African languages, in that some southern African languages do not have *wh*-pronouns nor *wh*-movement; instead, they have an empty operator binder, a relative determiner, or a relative feature in the COMP (du Plessis 2010a: 48). Although du Plessis' work assumes a generative approach, it provides some ideas on what to check for in Gĩkũyũ RCs.

This brief review shows that the Bantu RC has been of interest to many, especially those of the generative persuasion. In this dissertation, the morphosyntax and typology of Gĩkũyũ RCs is investigated.

2.5.2.3 Adverbial clauses in Bantu

Adverbial clauses are part of subordination because they modify a main clause event. Some modifying adverbial clauses may be independent or dependent. To signal their relationship with the main clause adverbial, clauses may have a subordinating conjunction or none at all. There are substantial research gaps in the study of adverbial clauses in Bantu (and African languages in general). This stretches far back into the past. Welmers (1973:446) notes that prior to his study of temporal adverbs in Kpelle and other languages there was no framework on how to treat adverbs in African languages.

Most Bantu grammars do not have much to say on adverbial clauses and concentrate on single-word adverbs. For instance, Schaub (1985) only discusses Babungo adverbs, and Edelsten & Lijongwa (2010) discuss a few Chidamba adverbs. Taylor (1985) says little on adverbial clauses in Nkore Kiga, and the same is true of Mchombo (2004) on Chichewa.

However, there are some studies with comparatively more detailed discussions of adverbial clauses. For example, Ngonyani (2003) outlines Chingoni adverbial clauses of time, reason, purpose, concession, conditionals, negative condition, manner and comparison. Unlike Ngonyani, who did not use a stated theoretical framework, I will give a theoretical analysis of Gĩkũyũ adverbial clauses in the RRG framework.

From this brief review of adverbial clauses, it is evident that such studies in Bantu are few and far between. In response to this, I will deal with adverbial clauses in Gĩkũyũ complex sentences in order to show their types, how they are indicated, and their positions in relation to the main clause.

2.5.3 Cosubordination

Other than Emanatian (1990) for Chaga, Van Valin (1984), Haspelmath (1995) and Bickel (2010) for Kiswahili, and Hedinger (2008) for Akɔɔse, I am not aware of studies that posit cosubordination as a linkage relation in the analysis of complex sentences in Bantu.

Consecutive clauses are responsible for cosubordination in Chaga and Swahili, according to Emanatian, Van Valin, and Haspelmath. The Kiswahili question particle (*je*) instantiates cosubordination based its illocutionary force import (see Bickel 2010). The above studies point to the direction that a study may take and stress the need to uncover other manifestations of cosubordination in Bantu, which is a major concern of this thesis.

It is not that linguists have not been baffled by constructions in Bantu that are neither coordinate nor subordinate. On the contrary, they have encountered them, but they did not have the theoretical tools to classify such constructions. For instance, Maw (1969) observes that linkage and dependence in a sentence are different systems, but at the same time, they are interdependent. She writes that “[i]t is possible for a clause to be both linked and dependent” (Maw 1969:12). The so-called “linked” clause refers to a coordinated clause. Maw also acknowledged degrees of subordination and coordination. For instance, a hypothetical conditional sentence has “extreme dependence” because the condition marker is required in both clauses (Maw 1969:11).

According to Maw (1969:11), example (2.1) below is on “the borderline between dependence and linkage”. Maw admits that the interdependence in (2.1) is very similar to coordination. The *-ka-* particle, appearing from the second unit to the end, marks simple narrative linkage. Note that no other grammatical inflection (tense or aspect) is evident in the clauses after the main one. Prefix *-ka-* is responsible for clausal cosubordination in Kiswahili (see Van Valin 1984). Welmers (1973:364) contends that consecutive clauses do not mark time, aspect or moods; these are marked in the matrix clause. The consecutive units depend on the matrix unit for the expression of these categories. Welmers’ view contradicts Rose et al. (2002), who describe consecutives as “aspectual”.

- (2.1) *A-li-kw-ɛnd-a duka-ni, a-ka-nunu-a chakula, a-ka-rudi, a-ka-pik-a,*
 1-PST-15-go-FV shop-LOC 1-PST-buy-FV food 1-PST-return 1-PST-cook-FV
wa-ka-la-a wa-ka-lal-a.
 2-PST-eat-FV 2-PST-sleep-FV
 ‘She went to the shop and bought some food, came home and cooked it and they ate and then they went to bed.’

The translation is coordinate, but there is no conjunction on the source sentence. This helps us understand why Maw talks of a dependence-coordinate borderline. The clauses after the matrix unit are “dependent” since they are unable to exist independently.

The “consecutive” in Bantu indicates a sequence of events. Nurse (2008) says that it is “a relative or narrative tense”. This “narrative marker” carries the tense established by the main verb in the first clause, and is used in long utterances and common in past narratives (Nurse 2008:120). The same “tense” also goes by other names such as subsecutive, sequential, and consecutive narrative tense. Although I indicated the consecutive together with absolute tenses, I do not consider it a “tense” comparable to the absolute tenses, since it does not behave like them.

Haspelmath (1995), as his predecessors Hopper (1979) and Van Valin (1984), proposed that *-ka-* indicates clause chaining in Kiswahili. He adds that Kiswahili consecutive clauses are similar to medial clauses in Papuan languages (Haspelmath 1995:22). I agree with Haspelmath that consecutive clauses are comparable to medial clauses. In this thesis, I will elucidate additional manifestation of cosubordination in Gĩkũyũ beyond the consecutive markers.

2.6 Previous studies on aspects of complex sentences in Gĩkũyũ

This section reviews literature on aspects of complex sentences and related relevant aspects in Gĩkũyũ. The main Gĩkũyũ reference grammars are Barlow (1951), Gecaga (1955), Leakey (1978), and Bennett et al. (1985). Armstrong (1967) is more concerned with Gĩkũyũ tone structure, although it is a useful resource for sentence structure and texts. Benson (1964) is the only existing Gĩkũyũ dictionary, and thus very useful resource, especially on verbal extensions. Mugane (1997b) is a more recent study, but not as comprehensive as the earlier grammars.

The early Gĩkũyũ grammars as well as Bennett *et al.* (1985) are grammar books for foreign learners of the language and quite comprehensive in their description although based on traditional methods of language description, especially in the case of Barlow. On complex sentences, each study included a section on conditionals. Other than grammars, there are various articles and book chapters on relevant aspects of Gĩkũyũ. In this review, I will focus on the theoretical literature.

Clements (1984a:313) presented a phonological analysis of Gĩkũyũ RCs and identified two types of relative forms: the subject relative form and the general relative form. The subject relative form differs from the general relative form in that the subject prefix changes from *a-* to *o-*, that it has a low tone, and that the FV is not a stable affix.

In another paper, Clements (1984b) focused on binding domains in Gĩkũyũ, extending his enquiry into focus-marking and relative clauses in the language. Clements’s work laid the base for later studies such as Bergvall’s, who researched on Gĩkũyũ *wh*-questions (see Bergvall 1983; 1986; 1987a; 1988) and focus marking (see Bergvall 1987b). Bergvall (1987b) argued against some claims made by Clements, but both authors approached their work from a GB

theoretical standpoint. Bergvall (1988:87) intended to “establish a body of data about complex constructions in Kikuyu along with their syntactic analyses”, however, she only discussed cleft constructions pertaining to focus, and not in much detail.

The above studies propagate the claim that Gĩkũyũ RCs bear demonstratives and not relative pronouns, as claimed by Barlow (1951:56). Gecaga (1955) views Gĩkũyũ RCs differently. He notes that RCs in the language are marked by a demonstrative root *-rĩa* [-rea], placed before a verb (Gecaga 1955:45). However, Gecaga does not describe the structure of Gĩkũyũ RCs beyond this comment about the demonstrative. In this study, I will go further and describe Gĩkũyũ RCs, since they are central to subordination in any language.

Schwartz (2003; 2007) challenges earlier claims of focus marking by Bergvall (1987a) and Clements (1984b). He argues against the analyses of *nĩ* [ne] as a case of clefting or as a copula as argued in Bergvall (1987a) and Clements (1984b), respectively. Instead, he posits *ne* as the head of the focus phrase (FP), concluding that the FP analysis best accounts for the occurrence of *ne* as a focus marker. Schwartz (2007) concentrates on the interaction of *ex situ* question and focus in Gĩkũyũ. These studies are useful resources in the discussion of RCs, especially since I intend to correct the view that Gĩkũyũ lacks a relative pronoun. I will also devote a section to the typology of focus marking in the language.

Overton (1972) analyzes Gĩkũyũ complex sentences based on Transformational-Generative Grammar. He considers consecutive *-kĩ-* [-ke-] constructions, his “consecutive narrative”, as being analogous to coordination, consequently glossing *-ke-* as a conjunction generated in the VP. According to him, the difference between consecutive *-ke-* and conjunction *na* ‘and’ is that *na* joins two independent sentences while *-ke-* joins “smaller clauses” within a larger sentence.

This conclusion indicates that Overton noted a coordination-subordination mix in Gĩkũyũ sentences, which he needed to separate. In the end, Overton agrees that the linkage indicated by *na* and *-ke-* is different. I will not consider both as cases of coordination, because *na* may be a conjunctive coordination, although it can also effect cosubordination the same way *-ke-* does.

Perez’s (1985) work on Gĩkũyũ complementation remains seminal, as no other study that I know of followed hers. Other than her work enriching cross-linguistic comparative research, it also opened up a field of research that has yet to be fully explored in Gĩkũyũ. Perez tested some theoretical claims in GB and proved that Bantu behaved differently from languages like English. This meant that a claim for one language does not necessarily hold in another. In this thesis, unlike Perez, I provide a typology of complement types in Gĩkũyũ, based on a different theory from hers.

Infinitives in Gĩkũyũ caught the attention of Bergvall (1987a), who looks at them from a focus marking point of view. She admits that there are interesting problems in Gĩkũyũ infinitives which she could not pursue conclusively, since they were not central to her study (Bergvall 1987a:139). One such interesting problem is the fact that infinitives may be adverbials of the “aspectual type”, meaning ‘thoroughly’, ‘completely’, and ‘very’ (see Barlow 1951:127). These “problems”, starting from the viewpoint of focus constructions to their syntactic functions, are addressed in this thesis.

John Mugane has written on Gĩkũyũ from the standpoint of Lexical Functional Grammar (LFG), looking at nominalization structures in Bantu (Mugane 1997a), with most data coming from Gĩkũyũ, and at the morphosyntax of the Gĩkũyũ NP (Mugane 1998). Mugane (1997b) also

elucidates some aspects of Gĩkũyũ grammar, such as associative phrases and tense-aspect-mood features. He claims that Gĩkũyũ attributive phrases are reduced relative clauses (Mugane 1997b:197-198). Supporting the lexical integrity principle of Bresnan & Mchombo (1995), Mugane (2003) describes “hybrid constructions” in Gĩkũyũ. These are infinitive-like constructions that have both verbal and nominal features and functions. For example, they show similar morphology to that of nouns, such as the NC 15 marker (*ku-/gu*), but like verbs they allow some derivations and inflections.

Mugane calls these hybrid constructions, “*ku*-V constructions”. He notes that the *ku*-V constructions are not similar to English infinitives and gerunds: “Unlike English gerunds, the *ku*-V constructions cannot have subjects in their internal syntax; and unlike regular infinitives, *ku*-V words may have limited inflection” (Mugane 2003:244). That is, the constructions allow verbal derivations (applicativization and causativization) and conjugations/inflections such as the future tense (the only tense allowed) and habitual aspect. On her part, Perez (1985:81) noted that English has distinct forms of gerunds and infinitives, but “Bantu languages ... have only infinitives”. However, the so-called “infinitives” have nominal features, which make the label “infinitive” questionable.

In the spirit of Bresnan’s (1997) theory of mixed categories, Mugane (2003) proposed an exocentric analysis of the *ku*-V constructions, analogous to that of Chichewa. He concluded that, based on their external syntax and their functions, Gĩkũyũ post-verbal *ku*-V constructions are VPs and not NPs. He added that *ku*-V constructions may function as subject NPs or verbal complements of VPs, but not as object complements.

The above literature review shows that cross-linguistic analyses of complex sentences have almost exclusively relied on the notions of coordination and subordination. One reason behind this may be the fact that most studies are based on successive versions of Chomsky’s generative theory, which has stuck with these traditional notions. From this review, it is also evident that there is a great theoretical imbalance in linguistic description, with fewer studies based on functional theories than on (some version of) generative theories. In fact, other than the traditional grammars, most of the Gĩkũyũ studies (also those of other Bantu languages) are based on the generative view.

The review has also revealed the vibrancy of linguistic research on Southern African Bantu languages, compared to East African (especially Kenyan) Bantu languages. It also emerged that there is a huge research gap in the area of adverbial clauses regarding their syntax, their semantics and their functions in sentences. This study partially addresses this gap.

The notions of coordination and subordination may not be sufficient clause linkage relations, however, they cannot be ignored in the analysis of complex sentences since it is important to show how units are linked in different languages. By doing so, we are not only able to characterize these notions, but also to refine them, in order to have a better understanding of clause linkage typology in different languages.

A typology of clause linkage in a given language helps us to avoid imposing features on languages that do not have them, or even misrepresenting linkage types. For example, it is misleading to assume that coordination and subordination as found in the Indo-European languages are universally applicable. This kind of generalization is evident from a quotation by Werner (1930), a professor of Swahili and Bantu languages, cited in Mugane (2006:12). This

quotation exposes a lack of grasp of complex sentence constructions in African languages, owing to the then (and probably even now) Eurocentric approach to such constructions in Bantu:

Complex sentences are quite unknown; what we should make into subordinate clauses are principal-consequently, for one thing, there are no relative pronouns. All statements are grammatically of equal importance; in other words, the construction is co-ordinative. "When he came I saw that he was in trouble" would be: "He came. I saw him. He was in trouble."

The above quotation, although quite old, is evidence that there are interesting clause linkage features in African languages that should be investigated. It is the aim of this thesis to contribute to the research on complex sentences in African languages, particularly Bantu languages, by presenting a typology of clause linkage in Gĩkũyũ.

Childs (2003) observed that there are few studies investigating syntax, semantics and pragmatics in African languages, which he attributes to the popular theories which do not support such endeavours. He adds that the study of African syntax from discourse-oriented approaches has revealed structures "beyond the level of the sentence and expanded the focus of linguistic theory, e.g. Bresnan & Mchombo (1987); Givón (1984, 1990); Mchombo (1987)" (Childs 2003: 147).

Childs's observations are evident in the contribution of African (Bantu) languages to the development of theories such as LFG (Bresnan & Mchombo 1987; Bresnan 1997) and Relational Grammar (Kimenyi 1980). According to Bearth (1999), studies on focus marking in African languages, such as Watters' (1979) study of focus in Aghem, influenced the theory of focus in Functional Grammar of Dik (1989). Thus, cross-linguistic studies are a good meeting point for theories of grammar and African languages because of the opportunity to test theoretical tenets of different linguistic theories.

This dissertation aims to address the gaps observed in the above review and elsewhere. The framework chosen for this purpose is RRG, a theory of language in which discourse-pragmatics in human communication is valued, as well as the interaction of the syntactic, semantic and pragmatic domains. Other than that, it is a typologically-oriented theory of language. This choice will help expose even the very subtle linkage features in a language like Gĩkũyũ.

2.7 An overview of Role and Reference Grammar

This section gives an introductory overview of RRG as variously found in Van Valin's work (1993b; 2013; 2005; 2007; VVLP 1997) and subsequent works. RRG was inspired by both typological and theoretical questions which directly contributed to the development of the theory. The theory sought to answer the two basic, but fundamental questions in (2.2) (Van Valin 2005:1).

- (2.2) a. What would linguistic theory look like if it were based on the analysis of languages with diverse structures, such as Lakhota, Tagalog, Dyirbal, rather than on the analysis of English?
b. How can the interaction of syntax, semantics and pragmatics in different grammatical systems best be captured and explained?

The first question shows that RRG appreciates diversity in languages and the second one shows that the theory values the interaction of syntax, semantics and pragmatics in grammar. Therefore, semantic and pragmatic representations are as important as the syntactic output. This contrasts

with theories in which syntax is central in the theory, and semantics and pragmatics are derivational and secondary.

RRG is a “structural-functional linguistic theory” and it therefore mediates the ground between formalist theories such as Chomsky’s generative grammar and radical functionalist theories such as Hopper’s (1987) “emergent grammar” (Van Valin 1993b:1). This follows from the position that a syntactic construction is best understood and explained in reference to its semantic and communicative (pragmatic) functions. Therefore, syntax is not autonomous as in generative theories.

Figure 2.1 from Van Valin (2005:134) shows the organization of the theory.

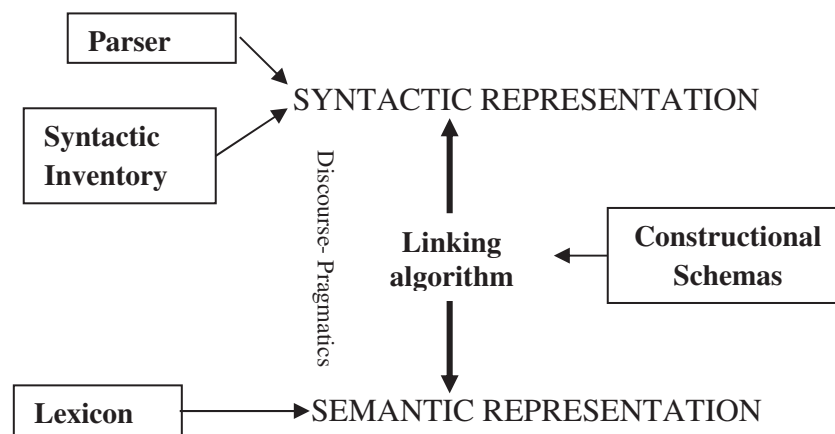


Figure 2.1. Organization of Role and Reference Grammar

RRG posits three representations: the syntactic representation (the structural forms of utterances), the semantic representation (representing meaning of linguistic expressions), and the discourse-pragmatic representation (the communicative function that is related to the information structure or focus of an utterance). The syntactic representation contains the constituent and the operator projections; the semantic representation is based on the logical structure of the predicate, and the focus projection involves the information structural aspects of a construction.

The double-edged arrow in Figure 2.1 is the linking algorithm, a set of rules which link the semantic and syntactic representations of a sentence. The arrow idealizes a speaker (semantics to syntax) and a hearer (syntax to semantics). The syntactic representation is an actual utterance, without any abstract derivations. The syntactic inventory contains the syntactic templates from which syntactic representations are constructed when linking syntax to semantics. The parser outputs an utterance, which is then mapped into a semantic representation for interpretation.

Constructional schemas contain language-specific morphosyntactic information. Constructional schemas for different types of constructions contain syntactic, morphological, semantic and pragmatic information of the given construction. From the figure, we note that discourse-pragmatics runs parallel to the linking algorithm. This indicates the interactive role of discourse-pragmatics in the linking between the syntax and semantic representations and vice versa. The lexicon interacts with the semantic representation before the linking process takes place.

In this overview, I discuss the components of the syntactic representation (the constituent and operator projections) and the focus projection in more detail than the semantic representation. The linking algorithm is ignored because it is presently not of major concern. For now, I am more interested in the morphosyntax of complex sentences and less in their algorithmic linking. However, this does not mean that it is an unworthy exercise; it simply remains part of future work to be done. The brief discussion of the semantic representation is necessary considering that I devote a section to the semantic relations between units.

2.7.1 The syntactic representation

This section contains the discussion of the layered structure of the clause and its components, namely the constituent projection and the operator projection. The focus projection is also included under the syntactic representation.

2.7.1.1 The layered structure of the clause [LSC]

The two general conditions in (2.3) guide the RRG theory of clause structure (see VVLP 1997:22).

- (2.3) a. A theory of clause structure should capture all universal features of clauses without imposing features on languages of which there is no evidence for them.
b. A theory should represent comparable structures in different languages in comparable ways.

These conditions are typologically grounded, since it is acknowledged that languages are diverse, and that this individual diversity should be respected. Therefore, a feature which is found in one language should not be generalized for another language if there is no evidence for it. Divergent features should be represented in comparable structures pointing out the differences and the similarities between them.

RRG represents clause structure in a semantically motivated model called the “layered structure of the clause” [LSC]. This model captures the non-relational aspects of clause structure and is based on the contrast of predicates and their arguments versus arguments and non-arguments. The LSC has three separate, but unified projections: the constituent, operator, and focus projections. The constituent projection represents the lexical categories, the operator projection represents grammatical categories or operators, and the focus projection represents the information structure in clauses. Table 2.1 summarizes the semantic elements and the syntactic units they motivate (Van Valin 2005:5).

Table 2.1 Semantic units underlying the syntactic units of the layered structure of the clause

Semantic element (s)	Syntactic unit
----------------------	----------------

Predicate	Nucleus
Argument in semantic representation of predicate	Core argument
Non-arguments	Periphery
Predicate + arguments	Core
Predicate + arguments + non-arguments	Clause (Core +Periphery)

2.7.1.1.1 The constituent projection

The constituent projection indicates the constituents in a clause. The nucleus, core, and periphery are the primary components of the LSC. The nucleus is the predicate, usually a verb, the core is composed of the nucleus and its arguments, and the periphery hosts non-arguments. Each layer in the LSC has an optional periphery. For example, a core periphery hosts non-arguments adjuncts, and temporal and locative modifiers. The core, the nucleus, and the periphery make up the clause. All human languages make the distinction between the core and the periphery (Van Valin 2005).

The order of a predicate and its argument is a language-specific issue; therefore, a language specifically sets out a syntactic inventory of its possible syntactic templates. The LSC as posited is universal, that is, it can accommodate both universal and language-specific aspects of languages. Figure 2.2 shows the formal representation of the LSC. This template is plausible for an English clause, where arguments precede and follow the predicate, but other languages may have a different template. The Gikūyū LSC schema is developed in chapter 3.

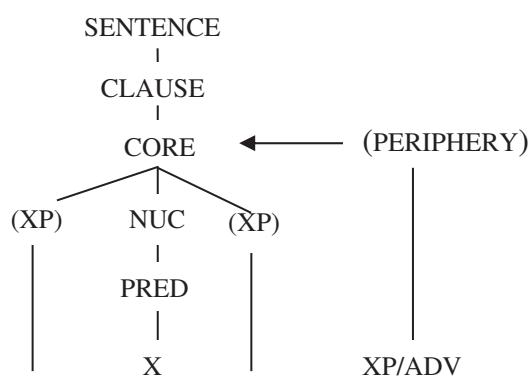


Figure 2.2 Formal representation of the layered structure of the clause

The periphery is shown as optional, and adjuncts such as adpositional phrases (PPs) and adverbs are located here. The nucleus periphery is modified by aspectual adverbs (e.g. *completely*), the core periphery by manner adverbs (e.g. *slowly*) or a preposition phrase (e.g. *in the farm*), and the clausal periphery with evidential adverbs (e.g. *evidently*).

As indicated above, the LSC components in Figure 2.2 are universal, since all languages distinguish predicating and non-predicating elements as well as arguments and non-arguments (adjuncts) (Van Valin 2005). The non-universal components are the left and right detached positions (LDP and RDP), the precore slot (PrCS) and the postcore slot (PoCS). A common denominator in these components is that they are pragmatically motivated.

The detached positions are for dislocated constituents, which are normally but not always, separated from the main clause by an intonation break, or represented by a resumptive pronoun in the core if they are semantic arguments. Detached units are outside the clause but within the sentential layer. Figure 2.3 illustrates an English clause with a left-detached element.

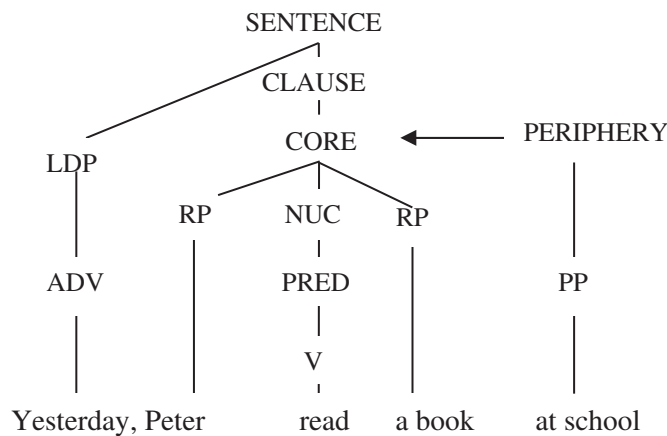
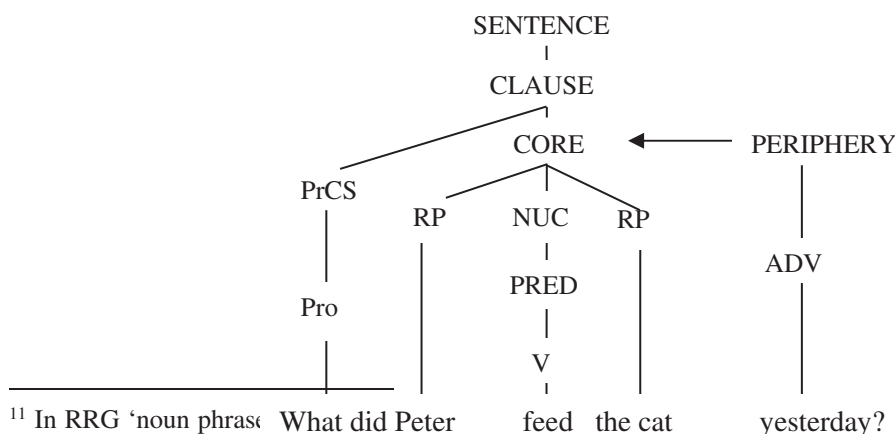


Figure 2.3 A left-detached position of the LSC.

The precore slot (PrCS) and the postcore slot (PoCS) positions are inside the clause. Unlike detached elements, units in the PrCS or PoCS are not intonationally separated from the clause, and they are not represented by resumptive arguments in the core.¹¹

In English, German, and other similar languages with *ex situ* *wh*-questions, the PrCS becomes the position for such *wh*-questions. The PoCS is found in languages in which *wh*-questions occur in a post-core position, e.g. in SOV languages such as Japanese, Dhivehi and others. *Wh*- and non-*wh* constituents (e.g. PPs and NPs) can also occur in the PrCS and PoCS. These include focused or displaced (topicalized) constituents as in the following sentence: *Bone soup, I don't like*, whereby the displaced RP *bone soup* will be in the PrCS. A *wh*-word in the PrCS is shown in the English example *What did Peter feed the cat yesterday?* represented in Figure 2.4.



¹¹ In RRG 'noun phrase' LSC. See Van Valin (2001) for use of RP.

Figure 2.4 PrCS in English

¹² 'P' is used instead of NP on the grounds that it is used to the NP. Henceforth, I will use 'P'.

Van Valin (2013) introduced an Extra Core Slot (ECS), which is a reserve of head-marking languages. Elements found in the ECS are normally independent lexical nominals, e.g. RPs, co-referenced with a bound argument marker in the core. In dependent-marking languages such as English, lexical nouns are the arguments of the core, but in head-marking languages such as Gĩkũyũ, core arguments may or may not be co-referenced with an overt lexical RP. This is discussed in more detail in §3.2.1.2 with regard to Gĩkũyũ.

2.7.1.1.2 The operator projection

The operator projection mirrors the constituent projection, with both joining at the nucleus. The operator projection contains grammatical categories such as aspect, negation, tense, directionality, event quantification, status, tense, evidentials, and illocutionary force.

The different operators modify different layers of the LSC. There are operators that modify the core, nucleus, and clause; however, there are no operators for the sentential layer. Since each layer has more than two operators, it can be modified by more than one of its operators (see Table 2.2). Operators play an important role in the determination of clause linkage types as shown in chapter 4.

Aspect is a nuclear operator because it is marked on the nucleus. Negation is the only operator found in all three layers. An example of nuclear negation is the derivative negation in English (e.g. *un-* in *unkind*). Core negation is narrow negation, i.e. a single constituent is negated, and external negation at clause level extends to the whole proposition. In the table, directionals appear twice, as nuclear and core operators. The nuclear negation operator does not involve participants, but core negation does.

Table 2.2 Operators in the layered structure of the clause (Van Valin 2005:9)

Nuclear operators:

- Aspect
- Negation
- Directionals (only those modifying orientation of action or event without reference to participants)

Core operators:

- Directionals (only those expressing the orientation or motion of one participant with reference to another participant or to the speaker)
- Event quantification:
- Modality (root modals, e.g. ability, permission, obligation)
- Internal (narrow negation) negation

Clausal operators:

- Status (epistemic modals, external negation)
 - Tense
 - Evidentials
 - Illocutionary force
-

Event quantification is a core operator that indicates the number of times an event happens. It is a core operator since such an event is performed by a core argument.

Modality (deontic) is a core operator indicating whether a participant is permitted or able to carry out a task, or is obliged or required to do it. Related to deontic modality is epistemic modality, which is subsumed under Status, a clausal operator, together with the related notions of realis-irrealis. Epistemic modality includes a speaker's attitude or assessment of the degree of probability or (im) possibility of an event happening. Speakers can also show their commitment to the truth of a proposition, or the (un)certainty of an event happening.

Tense is a clausal operator that expresses a temporal relationship between the time of an event and the speech time, or when that described event happened. Another clausal operator is the evidential. Evidentials are used to indicate the source of the information expressed by a speaker in a proposition. They indicate whether the speaker saw, heard, inferred from context, or was told about the event he expresses. Evidentials modify an entire proposition in a clause, as opposed to a part of it. Yet another clausal operator is the illocutionary force; it signals whether an utterance is a question, an assertion, a command, or an expression of a wish or desire. The combined schema for the constituent and operator projections is given in figure 2.5 below.

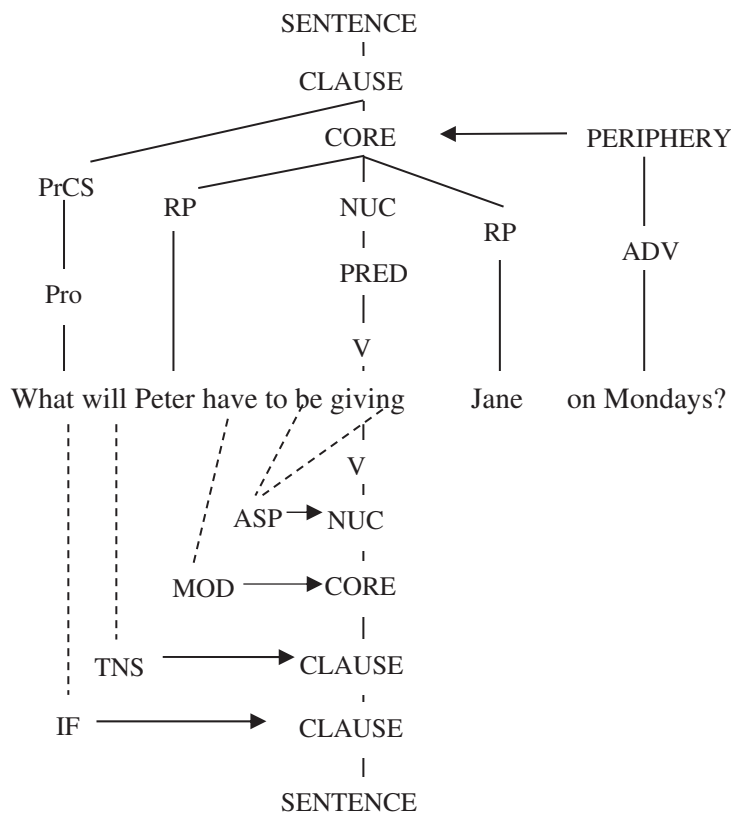


Figure 2.5 The constituent and operator projections in English

The operator projection connects to the constituent projection at the nucleus as seen in figure 2.5. The figure shows illocutionary force (IF), tense (TNS), modality (MOD) and aspect (ASP) operators, modifying the clause, core and nuclear layers, as indicated by the arrows. The dotted lines coming from the units on the constituent projection indicate the elements associated with

each operator. That is, *what* signals the interrogative IF, *will* the future tense; *have*, deontic modality (obligation), and *be* and *-ing* indicate aspect in the nucleus.

Operators have an iconic order in a clause. They tend to be closer to the layer they modify. For instance, a nuclear operator such as ASP will be closer to the nucleus than will be clausal operators such as IF or TNS. This is evident in figure 2.5, where ASP is closest to nucleus, a MOD to the core, and clausal operators TNS and IF are further, with IF being the outermost.

Important to note here is the Reference Phrase (RP), which also has a Layered Structure of Reference Phrase (LSRP) that closely resembles the LSC in many respects. The discussion of the RP is postponed until chapter 4.

2.7.1.2 The focus projection

In the LSC, the focus projection occupies a different position from the constituent and the operator projections. Nevertheless, all these projections are related. The focus projection is related to the operator projection through the IF operator, which specifies the speech act of a proposition and therefore the scope of the IF in the potential focus domain. As such, the focus projection is anchored on a speech act node. In respect to the constituent projection, the focus projection joins it through the predicates, arguments and peripheral PPs, which are the minimal focus domains (nucleus, core argument, or peripheral PP) referred to as “information units” (IUs).

The RRG theory of information structure was adapted from Lambrecht’s (1986; 1987; 1994; 2000) theory of information structure. The theory posits three types of foci: narrow focus, predicate focus and sentence focus. These types indicate the focused constituents in a proposition. Lambrecht’s theory was further enhanced in RRG with the introduction of the notions of potential focus domain (PFD) and actual focus domain (AFD). The former refers to the possible domain that focus may occur in and the latter to the actual specific position of a focused element.

Also adapted for the RRG theory of focus was the Discourse Representation Theory of von Stechow (1999), in order to formally represent the interaction of presuppositions and assertions (see Van Valin 2005; 2014). The theory of information structure in Gĩkũyũ is discussed in more detail in chapter 3.

2.7.2 The semantic representation

The organizational diagram of the theory showed the syntactic representation and the semantic representation joined by the linking algorithm. This follows from the claim that both representations directly interact with each other. In this section, I introduce some basic issues associated with the semantic representation such as the verb classes or *Aktionsart* (lexical aspect), the logical structures (LS), and the semantic macroroles.

RRG represents the semantic structure of a sentence within a system of lexical representation of the verb or any other predicating element. The theory adopted and developed the system of lexical decomposition in Dowty (1979) and Vendler’s (1967) theory of *Aktionsart*.

To the four basic verb classes (states, activities, achievements, and accomplishments) of Vendler (1967), Van Valin (2005) added Semelfactives (from Smith 1997), and Active

accomplishments. Unlike Dowty, RRG takes State and Action classes as the most basic classes on which all other classes are built (Van Valin 2005:31).

States: *be sick, be tall, be dead, know, believe, love*, etc.

Activities: *watch, march, eat* (minus a referential RP), *run* (minus goal), etc.

Accomplishments: *dry, dissolve, freeze* (intransitive versions), etc.

Achievements: *pop, shatter, snap, explode* (intransitive versions), etc.

Semelfactives: *sneeze, flash, blink, cough*, etc.

Active Accomplishments: *run* (+ goal PP), *eat* (+ a referential RP), *build* (+ RP), *devour*, etc.

Each of these verb classes has a corresponding causative form, e.g. *The warden marched the prisoners to the cells* (causative active accomplishment), *Mary popped the balloon* (causative achievement), *Peter flashed the torch* (causative semelfactive), and *The sun dried the tree* (causative accomplishment).

The six *Aktionsart* types are distinguished in terms of four features: [\pm static], [\pm punctual], [\pm dynamic], and [\pm telic]. This is summarized below from Van Valin (2005:33).

State	[+static], [-dynamic], [-telic], [-punctual]
Activity	[-static], [+dynamic], [-telic], [-punctual]
Achievement	[-static], [-dynamic], [+telic], [+punctual]
Semelfactive	[-static], [\pm dynamic], [+telic], [-punctual]
Accomplishment	[-static], [-dynamic], [+telic], [+punctual]
Active Accomplishment	[-static], [+dynamic], [+telic], [-punctual]

The feature “static” differentiates states from the other classes; it marks unchanging events. Most state verbs do not take the progressive. The feature “dynamic” indicates whether a verb involves motion.

Activities and active accomplishments allow this feature; hence, they can be used with adverbs like *vigorously, energetically, strongly*, unlike verbs that are [-dynamic]. The feature “telicity” indicates whether a verb has an inherent terminal point or not. The feature “punctual” separates those verbs with an internal duration from those without, the “durative” and the “punctual” features. Each of the verb classes above is represented by a lexical decomposition system called a Logical Structure (LS), originally from Dowty (1979).

The verbs have a basic *Aktionsart* type as represented in the lexicon. States are represented by bare predicates, e.g. **know**'(x, y), **dead**'(x). Activities contain the predicate **do**', e.g. *eat* is **do**'(x, [**eat**'(x, y)]). Achievements have an INGR (ingressive) operator added, e.g. *shatter* is shown as INGR **shattered**'(x). Semelfactives are based on states or activities, e.g. *glimpse* is represented as SEML **see**'(x, y), or *cough* as SEML **do**'(x, [**cough**'(x)]). Accomplishments are indicated as state or activity predicates by adding BECOME, e.g. *melt* is represented as BECOME **melted**'(x). Table 2.3 shows all *Aktionsart* classes and their logical structures.

Table 2.3 Lexical representations for *Aktionsart* classes (Van Valin 2005:45)

<i>Aktionsart</i> class	Logical Structure
STATE	predicate' (x) or (x, y)
ACTIVITY	do' (x, [predicate' (x) or (x, y)])
ACHIEVEMENT	INGR predicate' (x) or (x, y) or INGR do' (x, [predicate' (x) or (x, y)])
SEMELFACTIVE	SEML predicate' (x) or (x, y) or SEML do' (x, [predicate' (x) or (x, y)])
ACCOMPLISHMENT	BECOME predicate' (x) or (x, y) or BECOME do' (x, [predicate' (x) or (x, y)])
ACTIVE ACCOMPLISHMENT	do' (x, [predicate ₁ ' (x, (y))]) & INGR predicate ₂ ' (z, x) or (y)
CAUSATIVE	α CAUSE β , where α, β are Logical structures of any type

These logical structures are important and will become most relevant in the chapter 6, where I present the RRG decompositional system, to explain the semantic relations in complex sentences. Closely related to the lexical decomposition given above is the theory of semantic macroroles and grammatical relations.

2.7.2.1 Theory of semantic macroroles , transitivity and grammatical relations

RRG considers the traditional thematic relations as just mnemonics or placeholders in the argument positions of Logical Structure (LS). In addition to them, the theory proposes two semantic macroroles: Actor and Undergoer. They are macroroles because each one of them subsumes several specific thematic roles. The Actor represents the generalized agent-like relations and Undergoer the generalized patient-like relations. The relationship between the LS argument positions and macroroles are captured by the Actor-Undergoer Hierarchy [AUH] (Van Valin 2005:61, 126).

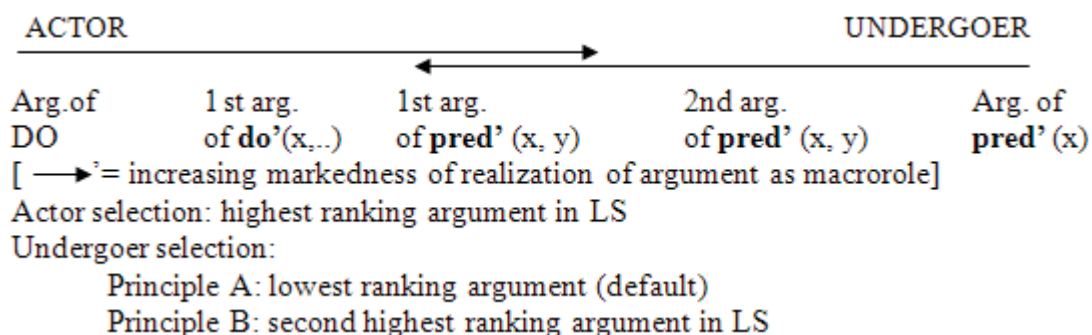


Figure 2.6 Actor-Undergoer Hierarchy

Simply put, depending on the language, the AUH indicates that the left-most argument in a LS is the actor (e.g. *x* in **see'**(*x*, *y*)); and the rightmost argument, i.e. *y*, the default undergoer. In three-argument predicates such as *give* with arguments *x* (agent), *y* (recipient), and *z* (patient/theme), the (unmarked) default Undergoer is the *z*-element, not the *y*-element.

However, there are variations in the selection of Undergoer with “dative shift” verbs such as *give*, *send*, and *show*, as indicated by Principles A and B. Principle A languages allow marked undergoer choice where an unlikely macrorole is picked as the undergoer due to argument alternation (Van Valin 2005:61). The theory of semantic macroroles is about lexical representation, argument structure and the content of lexical entries for the verbs in the lexicon (VVLP 1997:139). In summary, macroroles are the interface between thematic and grammatical relations; that is, they are not in the subject-object relation, nor are they thematic roles, as we know them.

Syntactic valency of a verb denotes the number of arguments a verb takes; this the traditional understanding of syntactic “transitivity”. However, transitivity in RRG is defined semantically rather than syntactically. Semantic transitivity, called “macrorole transitivity” (M-transitivity) is indicated by the number of macroroles a verb takes. M-transitivity differs from “syntactic transitivity” (S-transitivity) which is the number of direct core arguments a verb has. Macroroles and direct core arguments can also differ, as, for example, some verbs (e.g. *send*) allow three direct core arguments, but have only two macroroles (Van Valin 2005:64).

There are only three M-transitivity possibilities: transitive (2 macroroles), intransitive (1 macrorole), atransitive (0 (no) macroroles). A third argument in a ditransitive construction is not a macrorole, but rather called a “non-macrorole core argument”. For example, *a book* in *Peter gave Mary a book* is a non-macrorole direct core argument.

In a transitive construction, the arguments are the undergoer and actor, and in an intransitive construction, the single argument is either the undergoer or actor, depending on the semantic properties of the predicate.

Below the default macrorole assignment principles are given (VVLP 1997:152).

(2.3) Default Macrorole Assignment Principles

- a. Number: the number of macroroles a verb takes is less than or equal to the number of arguments in its logical structure,
 - 1. If a verb has two or more arguments in its LS, it will take two macroroles
 - 2. If a verb has one argument in its LS, it will take one macrorole.
- b. Nature: for predicates which have one macrorole.
 - 1. If the verb LS contains an activity predicate, the macrorole is actor.
 - 2. If the verb LS has no activity predicate in it the macrorole is undergoer.

An irregular verb bearing “exceptional transitivity” is marked by “[MR α]” in its lexical entry, where α is a variable for the number of macroroles. A verb without a macrorole is indicated by “[M0]” (e.g. English weather verbs, which have an expletive syntactic dummy argument *it*, but no macroroles).

In (2.4) is an excerpt of lexical entries for some English verbs from (VVLP 1997:155).

- (2.4). a. *kill* [**do'**(*x*, \emptyset) CAUSE [BECOME **dead'** (*y*)]
 b. *receive* BECOME **have'** (*x*,*y*)
 c. *own* **have'** (*x*,*y*)

- d. *belong (to)* **have'** (x,y) [MR1]
- e. *arrive* BECOME **be-at'** (x,y) [MR1]
- f. *go* **do'**(x [**move.away.from.ref.point'**(x) & BECOME **be-LOC'**(x,y) [MR1]

In (2.4), it is not necessary to indicate the thematic relations pertaining to particular verbs because they are derived from the LS, except for irregular verbs such as *belong (to)* in (d), where the macrorole number needs to be specified. Accordingly, there is no need for “syntactic subcategorization information in the lexical entries of verbs” (Van Valin 2005:66).

I just mentioned that RRG disregards the notions of “subject” and “object” (direct and indirect) as theoretical constructs. There are two reasons for this, one is that notions of subject and object refer to syntactic, not semantic, relations, and two is that they are not universal, since some languages (e.g. Acehnese) make semantic distinctions which are not based on syntactic relations. Indeed, RRG was developed based on the claim that grammatical relations are not universal (Van Valin 1977; Foley & Van Valin 1984).

The notion of “subject” is replaced by the Privileged Syntactic Argument (PSA), which is a construction-specific notion, characterized by a restricted neutralization of semantic roles and pragmatic functions for syntactic reasons in a construction. If there are other core arguments, they are either direct or oblique core arguments. As such, RRG has nothing akin to direct or indirect objects. Languages use the PSA selection hierarchy in (2.5) and the PSA selection principles in (2.6) to identify PSAs (Van Valin 2005:100).

- (2.5) Arg.of DO > 1st arg. of **do** > 1st arg. of **pred'** (x, y) > 2nd arg. of **pred'** (x, y) > Arg. of **pred'** (x)

This hierarchy represents the Actor part on the AUH given in figure 2.6.

(2.6) Accessibility to privileged syntactic argument principles

- a. Accusative construction: Highest ranking direct core argument in terms of (2.5) (default)
- b. Ergative constructions: Lowest ranking direct core argument in terms of (2.5) (default)
- c. Restrictions on PSA in terms of macrorole status:
 - 1. Languages in which only macrorole arguments can be PSA: German, Italian, Dyirbal, Jakaltek, Sama, ...
 - 2. Languages in which non-macrorole direct core arguments can be PSA: Icelandic, Georgian, Japanese, Korean, Kinyarwanda,...

The PSA selection hierarchy indicates which argument can be an actor or undergoer. For example, in accusative languages such as English or Gĩkũyũ, the PSA will be the actor in a clause with a transitive verb in the active voice. However, it is also possible for the undergoer to be the PSA in a passive construction in the same languages. The PSA is either functionally a controller and/or pivot in Control and Raising constructions, as discussed in chapter 6.

What I have presented here is a brief introductory overview of RRG that includes the aspects considered relevant for the present investigation. For detailed discussion of the theory, the reader is referred to the sources cited. In this overview, the theory of complex sentences is not introduced; it will be introduced in chapter 4.

2.8 Chapter summary

In this chapter, general literature on aspects of complex sentences – coordination, subordination (complementation, relative clauses, adverbial clauses), and cosubordination – were discussed.

From a general literature review, I narrowed down to specific literature on issues of complex sentences in Bantu languages and finally to studies on Gĩkũyũ. The review has revealed that linguistic studies in Bantu and Gĩkũyũ show a bias for generative theories. It is also evident that there is no study on combined aspects of Gĩkũyũ complex sentences and, therefore, a need for a study to account for complex constructions in the language.

I have also presented an introductory overview of RRG, the theoretical framework for this study. The relevant general aspects of the theory were introduced, with the exception of the theory of complex sentences.

3 Role and Reference Grammar and Gĩkũyũ simple sentences

3.1 Introduction

This chapter applies the LSC model of RRG to Gĩkũyũ simple sentences. Section 3.2 deals with the syntactic representation, focusing on the constituent projection, followed by operator projection, section 3.3 takes a look at how the focus projection works in Gĩkũyũ, and section 3.4 summarizes the results of this chapter.

3.2 Syntactic representation

3.2.1 The constituent projection of the LSC

An introduction to aspects of Gĩkũyũ grammar was given in Chapter 1. In this section, I will test the extent to which the LSC, and by extension other aspects of RRG, can account for constituents of Gĩkũyũ clauses.

3.2.1.1 Word order in Gĩkũyũ

Gĩkũyũ has SVO word order. It has a “fairly rigid word order” compared to Chichewa and Kiswahili (Bergvall 1987a:34). There are varied permutations of constituents in clauses as shown in (3.1).¹²

- (3.1) a. *Wamboi_i a_i-ra-he-ir-ε Kamau ka-ramu ira.*
Wamboi 1-RCPST-give-PFV-FV Kamau 12-pen yesterday
‘Wamboi gave Kamau a pen yesterday.’
- b. *Ka-ramu_i Wamboi a-ra-(ka_i)-he-ir-ε Kamau.*
12-pen Wamboi 1-RCPST-(12OM)-give-PFV-FV Kamau
‘The pen, Wamboi gave it to Kamau.’
- c. *Wamboi_i Kamau_j a_i-ra-mo_j-he-ir-ε ka-ramu.*
Wamboi Kamau 1-RCPST-1OM-give-PFV-FV 12-pen
‘Wamboi, Kamau, she gave him a pen.’
- d. *Ka-ramu ka-ra-he-ir-wɔ Kamau (ne Wamboi).*
12-pen 12-RCPST-give-PFV-PASS Kamau (by Wamboi)
‘The pen was given to Kamau (by Wamboi).’
- d'. *Kamau a-ra-he-ir-wɔ karamu (ne Wamboi).*
‘Kamau was given the pen (by Wamboi).’
- e. *Ne Kamau Wamboi_i a_i-ra-he-ir-ε ka-ramu.*
FM Kamau Wamboi 1-RCPST-give-PFV-FV 12-pen
‘It is Kamau that Wamboi gave a pen.’
- f. *Ne a-ra-mo-he-ir-ε ka-ramu.*
AM 1-RCPST-1OM-give-PFV-FV 12-pen
‘S/he gave him/her a pen’.

¹² Wamboi and Kamau are common Gĩkũyũ female and male names, respectively.

Example (3.1a) is an unmarked ditransitive clause with three arguments: “subject” *Wamboi*, “direct object” *karamu*, and “indirect object” *Kamau*, plus an adverbial *ira* at the end. In (3.1b) the theme, *karamu*, is left-dislocated, allowing an optional resumptive argument in the predicate. The dislocated noun is interpreted as being outside the clause.

In (3.1c) the recipient is also left-dislocated but with an obligatory bound argument (*-mo-*) in the core. The displacement of the subject (*Wamboi*) to the left forces it to be interpreted as being a clause-external element, although the subject prefix marker in the core is not optional. Passive clauses are demonstrated in (3.1d,d’). In (3.1d), the patient is promoted to subject status, and in (3.1d’) the recipient is promoted to subject status while the former subject is relegated to a preposition phrase.

In (3.1e) the recipient (*Kamau*) is fronted and the particle *ne* is added, the clause becoming (informationally) marked. Overt subject RPs need not be overt in a clause; since a prefix argument in the core as in (3.1f) always represents them. A lexical object RP is optional because it can be replaced with a bound argument in the core; however, both cannot co-occur in the same clause. Gĩkũyũ accommodates a maximum of one optional argument marker as in (3.1f). Both the recipient and theme can, therefore, not be argument markers in the same clause. The structures and argument permutations evident in (3.1) are features of Gĩkũyũ, and I will try to account for the constituents that make up such clauses.

3.2.1.2 Gĩkũyũ transitive and intransitive clauses

Gĩkũyũ, being a SVO language, can have transitive clauses such as (3.2a), with lexical subject and object RPs or (3.2b) with only a lexical object RP, with the subject represented by a prefix subject core argument. A transitive clause could also be realized as (3.2c) with only the bound arguments as the semantic arguments of the core.

- (3.2) a. *Mo-thinj-i* *a-ra-thenj-ir-ε* *mbori*.
 1-slaughter-NMZ 1-RCPST-slaughter-PFV-FV 9.goat
 ‘The slaughterer slaughtered the goat.’
- b. *A-ra-thenj-ir-ε* *mbori*. c. *A-ra-me-thenj-ir-ε*
 1-RCPST-slaughter-PFV-FV 9.goat 1-RCPST-9OM-slaughter-PFV-FV
 S/he slaughtered the goat.’ ‘S/he slaughtered it.
- d. **Mo-thinj-i* *Ø-ra-thenj-ir-ε* *mbori*.
 1-slaughter-NMZ Ø-RCPST-slaughter-PFV-FV 9.goat
 ‘The slaughterer slaughtered the goat.’
- e. **Mo-thinj-i* *a-ra-me-thenj-ir-ε* *mbori*.
 1-slaughter-NMZ 1-RCPST-9OM-slaughter-PFV-FV 9.goat
 ‘The slaughterer slaughtered the goat.’
- f. *Mo-thinj-i* *ne* *a-ra-inok-ir-ε*.
 1-slaughter-NMZ AM 1-RCPST-go.home-PFV-FV
 ‘The slaughterer went home.’

The subject prefix argument is obligatory with or without an overt lexical RP, as seen in the ungrammaticality of (3.2d). Clause (3.2f) is an example of an intransitive construction.

The subject RP coexists with its coreference prefix argument marker, but, as noted, the object RP is in complementary distribution with its bound argument marker, as the ungrammaticality of (3.2e) shows. This example can be corrected if the object RP is assumed to be outside the clause as a right-dislocated constituent.

In the RRG overview, I indicated that the core contains the predicate (nucleus) and its argument(s). Following Nichols' (1986) notion of head-marking languages, RRG considers argument markers incorporated in the nucleus as core arguments, not as independent lexical nominals or pronouns that may stand in apposition. Van Valin (2013) argues with respect to Lakhota that these argument markers are not "pronominals or pronouns" because they lack the binding properties of pronouns – they can be bound core-internally by an independent lexical RP or pronoun. The same happens in a very similar way in Gĩkũyũ, as will be shown later.

Some languages show split-marking features, i.e. they exhibit features of both head-marking and dependent-marking languages (Nichols 1986:72). Like most other Bantu languages (see Bentley 1999), Gĩkũyũ is a split-marking language. At clause level, Gĩkũyũ exhibits head-marking features such as nominal crossreference, incorporation, marking of instrumental/directional affixes on the verbs, and pronominal affixes on possessed nominals. Dependent-marking features are seen at the phrasal level with RP modifiers (e.g. adjectives, demonstratives, quantifiers, and relative pronouns) reflecting concordant features of the head such as noun class (NC) and number marking.

There are many studies on the interpretation and typology of the bound arguments (among others, Mithun 2003; Creissels 2005; Bresnan & Mchombo 1987; Haspelmath 2010; 2013; Siewierska 1999; 2004; Croft 2001; 2003; 2013; Hengeveld 2012), and similarly many descriptive names have been suggested for the bound argument markers including "ambiguous agreement marker" (subject prefix clitic) and "anaphoric agreement marker" (bound object clitic) (Bresnan & Mchombo 1987), "ambiguous agreement marker" (subject prefix clitic) and "anaphoric agreement marker" (bound object clitic) (Siewierska 1999: 2004), "pronominal affixes" (Mithun 2003), "argument index", "cross-index" (subject prefix clitic), and "pro-index" (bound object marker) (Haspelmath 2013), and "pronominal anaphor" (Van Valin 2013).

Bresnan & Mchombo (1987) suggest that the subject prefix argument in Chichewa is ambiguously between an agreement marker (in the presence of a lexical RP) and a pronoun (in the absence of a lexical RP). As a pronoun, it is a mandatory incorporated argument that guarantees grammaticality. These claims are corroborated in other Bantu languages such as Kiswahili (Keach 1995; Deen 2006) and Setawana (Demuth & Johnson 1988). However, there is opposition to claims that bound arguments are pronouns or agreement markers by Haspelmath (2013).¹³

The syntactic operations in head-marking languages focus more on the syntactic features of bound argument markers, regardless of the presence or absence of overt nominals. Bound arguments are therefore "the true core arguments" (Van Valin 2013). Haspelmath (2013:201) contends that it is unhelpful and confusing to call the bound argument markers "bound pronouns" or "pronominal affixes" or "pronouns". Accordingly, the bound affixes are

¹³ To interpret the covert nominals represented by the bound clitics, speakers "rely maximally on the discourse feature of salience" to recover the omitted argument from the discourse context (Creissels 2005:49), or the interpretation may result through implicatures (Gricean implicatures) (see Van Valin 2013).

“best seen as phenomena sui generis” that do not always conform to “the coherent concept of pronoun or agreement” (Haspelmath 2013:197), i.e. Haspelmath holds that the bound arguments are not agreement markers or pronouns.

Both Haspelmath and Van Valin (2013) agree that the subject argument prefixes are not pronominals or pronouns. I extend their view to Gĩkũyũ and regard the prefix as a “pronominal anaphor” (Van Valin 2013) or a “pro-index”, “cross-index”, or “argument index” (Haspelmath 2013). However, because Haspelmath has many names for the same thing, I will keep to Van Valin’s term for this study.

Some Bantu languages allow both the object argument marker and an overt object RP to co-occur in the same clause, e.g. Setawana (Demuth & Johnson 1988) and Kiswahili (Keach 1995). In Setawana, the bound subject and object markers cooccur with their lexical conominal RPs, thus they are anaphoric agreement markers (Demuth & Johnson 1988). In Kiswahili, an incorporated object marker is an agreement and object argument marker for animate objects (Keach 1995). In Chichewa and Gĩkũyũ, the object markers do not occur in the same clause with an object-conominal RP.

Gĩkũyũ is unlike Kiswahili in that the object argument marker and lexical RPs are in complementary distribution, and unlike Chichewa in that even with the bound marker, the word is relatively fixed. Ordinarily, pronouns replace nouns; hence, a noun need not be present if replaced by a pronoun. In that respect, the Gĩkũyũ object argument marker has qualities of a pronoun and it should be therefore be considered as one.

Creissels (2005), in his typology of subject and object markers in African languages, notes that though the use of subject markers as obligatory agreement markers is common, it is not general. He also says that “object markers never function as obligatory agreement markers” (Creissels 2005:43), which contradicts Keach’s (1995) claim in Kiswahili. Elsewhere, Jelinek (1984:44) notes that in Warlpiri, clitic pronouns do not mark agreement because they can be coindexed with cooccurring nominals with which they do not agree in number, person or case. Again, this is goes against Bresnan & Mchombo and Keach above, who assume that person, gender, and number are agreement features in Chichewa and Swahili.

Example (3.3) illustrates Jelinek’s observation (see also Haspelmath 2013:220, ex. 28). The free-standing RP *tata* ‘aunt’ is singular, but the subject argument prefix *ma-* on the core is plural and thus, there is no number agreement. The gloss indicates the plurality in the clause ‘Aunt and others went to the farm to plant’, although that is contextually inferred. The prefix argument *ma-* includes a coordinated non-overt constituent to mean ‘aunt and others or with someone else’. The point is that agreement is not very obvious, although the concord holds ordinarily. Indeed, Mithun (2003:276) said that agreement is “not a primary function of pronominal affixes; their role is to evoke referents”.

- (3.3) *Tata ma-a-thi-ir-ε mo-gonda ko-hand-a.*
 1. aunt 2-RCPST-go-PFV-FV 3-farm 15-plant
 ‘My aunt (and others) went to the farm to plant.’

To summarize the subject and object argument markers, I contend that the former is a pronominal anaphor (PA) in Gĩkũyũ, and the first direct core argument, and the latter is a “pronoun” (Pro), the second direct core argument in the absence of a lexical object RP. In the

absence of the pronoun, the RP is the second direct core argument. In the LSC, the pronoun is a prefix (pre-nucleus), but a lexical RP as a core argument is post-nucleus. Figure 3.1 shows the LSC representation of example (3.2c), which has no lexical RPs.

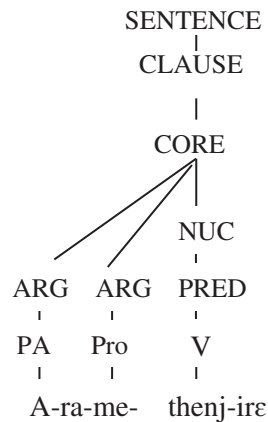


Figure 3.1 Bound core arguments

Gĩkũyũ independent personal pronouns (IPs) (see Table 1.4) present some interesting facts. True pronouns replace nouns, e.g. in English *Peter went to the shop and he bought some candy*. The RP *Peter* is replaced by the personal pronoun *he* in the second clause. However, in Gĩkũyũ, the subject-like IPs require an obligatory PA as seen in the ungrammaticality of (3.4b).

- (3.4) .a. *Ithue to-ka-rɔɔk-a kanitha.* b. **Ithue Ø-ka-rɔɔk-a kanitha.*
 Ipl.IP Ipl-NRFUT-go.early-FV 12.church Ipl.IP Ø-NRFUT-go.early-FV 12.church
 ‘We will go to church early.’ ‘We will go to church early.’
- c. *Ma-a-to-he-ir-ε ithue mbeca.* d. *Ma-a-to-he-ir-ε mbeca, ithue*
 2-RMPST-Ipl-give-PFV-FV Ipl.IP 10.money 2-RMPST-Ipl-give-PFV-FV 10.money Ipl.IP
 ‘They gave us money.’ ‘They gave us money, us/we.’

It could be argued that the IP does not really have a true “pronoun” function. Independent pronouns in head-marking languages are contrastive and emphatic, as shown in Warlpiri (Jelinek 1984), Chichewa (Bresnan & Mchombo 1987) & Gĩkũyũ (Bergvall (1987a; Bennett 1986b). Bennett (1986b:12) notes that IPs are “normally redundant” and that they are used for more emphasis than marking arguments. Therefore, IPs do not behave like lexical subject RPs, since the latter are not used contrastively.

Bergvall’s contrastive topic interpretation is correct for (3.4a), but (3.4c) is different. The IP *ithue* ‘we/us’ is coreferenced with (*to-*) in the core. An intonation break is expected since the IP should be dislocated to the right, but there no pause after the core; therefore, there is no external argument claim. In that case the IP *ithue* ‘us/we’ and pronoun *to-Ipl* ‘we’ share the referential role in the core. It is probable that the direct object RP *mbeca* ‘money’ blocks the intonation, since it would also be clause-external, coming after the IP. Compared with (3.4d), the IP is now detached and the theme RP is inside the core. The situation in (3.4c) also happens when the direct and indirect objects alternate in a ditransitive clause, whereby the recipient e.g. *Kamau* in (3.1) would be separated by a pause. A more plausible interpretation of (3.4c) is to assume that both the IP and RP *mbeca* are right-detached units, and therefore both outside the clause.

This interpretation above cannot be assumed for (3.4d) due the position of the theme argument in relation to the IP. The IP occupies the rightmost position and there is an audible pause, validating the claim that the IP is a right-detached constituent, as an afterthought information.

3.2.1.3 Gikūyū ditransitive clauses

Ditransitive clauses with verbs such as *give* and *send*, e.g. (3.1a), involve the transfer of an entity (theme) from one point (agent) to another (recipient). RRG follows a lexical approach in analyzing the alternations evident in ditransitive constructions. Example (3.5a) is repeated from (3.1a).

- (3.5) a. *Wamboi a-ra-he-ir-ε Kamau ka-ramu ira.*
 Wamboi 1-RCPST-give-PFV-FV Kamau 12-pen yesterday
 ‘Wamboi gave Kamau a pen yesterday.’
- b. *Ma-ra-tom-ir-ε ma-roa kore mo-rutani na ngaari.*
 2-RCPST-send-PFV-FV 6-letter to 1-teacher COM 9.car
 ‘They sent a letter to the teacher by car.’
- c. *Ma-ra-tom-e-ir-ε mo-rutani ma-roa na ngaari.*
 2-RCPST-send-APPL-PFV-FV 1-teacher 6-letter COM 9.car
 ‘They sent the teacher a letter by car.’

There are three lexical RPs in (3.5a) plus an adjunct. *Wamboi* (together with the pronominal anaphor) is an agent; *Kamau* is a recipient; and *karamu* ‘pen’ is a theme. *Ira* ‘yesterday’ is an adjunct in the core periphery, the position for non-arguments such as setting location and temporal phrases. The representation of (3.5a) is in Figure 3.2.

In the LSC, all constituents are accounted for except for *Wamboi*. This RP lies in apposition to the PA and is therefore not part of the core. On the LSC, such a constituent must be core-external, since it has no position in the core.

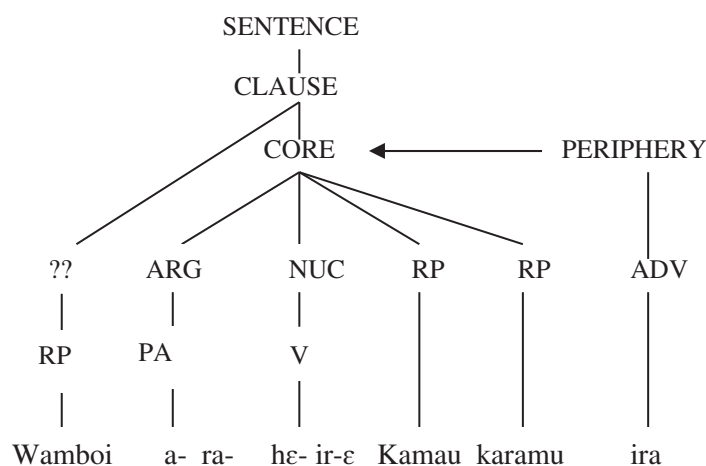


Figure 3.2 LSC of a ditransitive predicate with direct core arguments

Some arguments are marked by an adposition in (3.5b-c). (3.5b) has two adpositionally marked arguments, *kore morutani* ‘to the teacher’ and *na ngaari* ‘by car’. The first direct core argument is the pronominal anaphor *ma-* and the second direct core argument is *maroa* ‘letter’. The PP *kore morutani* ‘to the teacher’ is an oblique direct core argument, and the PP *na ngaari* ‘by car’ indicating means (instrument) occupies the core periphery. **Error! Reference source not found.** is the representation of (3.5c).

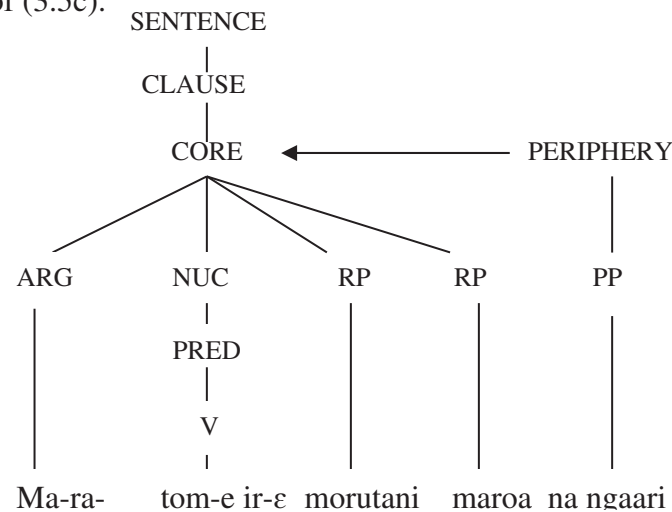


Figure 3.3 LSC with direct arguments with verbal derivation

Applicatives are argument-altering operations. Thus, the applicative suffix *-e-* in (3.5c), compared to (3.5b), changes the order of arguments, allowing the beneficiary *mo-rutani* become a direct core argument from the oblique argument it was in (3.5b).

So far, I have shown part of the Gĩkũyũ LSC and identified core arguments and peripheral elements. However, “independent” lexical RPs and other RPs displaced due to permutations as in (3.1b-e) have yet to be accounted for. This leads us to the consideration of extra-core constituents.

The discussion of the extra-core elements of the LSC begins with slots immediately next to the core, followed by those further from the core. Thus, the Extra Core Slot [ECS] is first, next the Precore and Postcore Slots, and lastly the Left and Right Detached Positions [L/RDP]. Except for the Post Core Slot [PoCS], which is irrelevant for Gĩkũyũ, all the other positions of the LSC are illustrated.

3.2.1.4 The Extra Core Slot (ECS)

The ECS is the latest addition to the LSC. In his analysis of Lakhota, a head-marking language, Van Valin (2013) proposed the ECS as the position for independent RPs, in an effort to account for RPs that co-occurs with bound arguments.

Haspelmath (2013:211) claims that VVLP (1997), Van Valin (2005) and Bresnan & Mchombo (1987) support the “dual-nature view” of bound arguments. In this view, the presence of a lexical RP makes the bound arguments agreement markers and in their absence, the bound arguments are the arguments. Although Haspelmath puts RRG in this group, I note that Van Valin does not fully share the LFG –analysis of Bresnan & Mchombo (1987) on subjects NPs and agreement. Van Valin prefers the term “co-reference” and not “agreement” as used by

Bresnan & Mchombo. The choice of co-reference by Van Valin is a way of avoiding the notion of agreement which is more Eurocentric than universal.

In addition, Van Valin (2013) does not regard the lexical RPs as pragmatically restricted and says they can be topical or focal, unlike Bresnan & Mchombo who hold them to be “subjects” or “topics” or focal. Another difference is that RRG takes the bound arguments as the core arguments regardless of whether the lexical RP is there or not, but Bresnan & Mchombo add agreement function to the PA. In RRG, a distinction is made between those topics that are clause-internal and those that are clause-external, each with specified assigned positions on the LSC. The lexical RPs are assigned to the Extra Core Slot (ECS), the position for internal (subject) topics, and the left- and right-detached positions (LDP/RDP) are for external (discourse) topics. Bresnan & Mchombo, however, merely consider “topics” and include the right-detached ones without making a distinction.

In (3.6a) there are two lexical RPs on both sides of the nucleus, the agent *nyina* ‘mother’ and the experiencer *mwana* ‘child’. The pronominal anaphor and the RP *mwana* are the core arguments. The lexical RP *nyina* stands in apposition in coreference with the PA.

- (3.6) a. *Nyina* *a-a-hor-ir-ε* *mw-ana* *ooru* *monɔ.*
 1. mother 1-RMPST-beat-PFV-FV 1-child bad very
 ‘The mother beat the child very badly.’
 b. *M-wana_i* *nyina* *a-a-mo_i-hor-ir-ε* *ooru* *monɔ.*
 1-child 1.mother 1-RMPST-1OM-beat-PFV-FV bad very
 ‘The child, the mother beat him very badly.’

It is easier to account for RP *mwana* in (3.6b) because there is evidence that it is displaced due to its coindexation with a resumptive pronoun (*mo*-1OM) in the core that takes up its argument function in the core. A resumptive argument is one indicator of detached constituents and *mwana* is, thus, validly a detached RP. However, the argument *nyina* is not accounted for in the LSC. To get there, we will consider both (3.6) and (3.7).

- (3.7) a. *M-wana_i* *noo* *w_j-a-mo_i-hor-ir-ε* *ooru* *monɔ?*
 1-child FM.Q RSP-RMPST-1OM-beat-PFV-FV bad very
 ‘(As for) the child, who beat him very badly?’
 b. *M-wana_i* *ne* *nyina_j* *w_j-a-mo_i-hor-ir-ε* *ooru* *monɔ.*
 1-child FM. 1.mother RSP-RMPST-1OM-beat-PFV-FV bad very
 ‘The child, it is the mother who beat him very badly.’
 c. **Ne* *m-wana_i* *nyina_j* *a_j-a-mo_i-hor-ir-ε* *ooru* *monɔ.*
 FM 1-child 1.mother 1-RMPST-1OM-beat-PFV-FV bad very
 ‘It is the child the mother she beat him badly.’
 d. *Nyina_j* *m-wana_i* *a_j-a-mo_i-hor-ir-ε* *ooru* *monɔ.*
 1. mother 1-child 1-RMPST-1OM-beat-PFV-FV bad very
 ‘The mother, the child, she beat him very badly.’

The RP *nyina* must be within the scope of IF to be questioned in (3.7a) or to be asserted/focused as in (3.7b). The RP *nyina* in both (3.6a) and (3.7b) is not a detached constituent because it is preceded by the focus marker *ne* in (3.7b) and *ne* is disallowed to occur with *mwana* in (3.7c). A

focal element must be within the clause, but if an element cannot be focused, it means that it is outside the clause, where illocutionary force (IF) and focus lack scope. All displaced constituents are external to the clause; therefore, they cannot be *ne*-marked.

To assert or to cleft the RP *mwana* in (3.7c) is ungrammatical, since it is beyond the IF scope; hence, it cannot be focal. It is only without a resumptive object pronoun in the core argument that the RP can be *ne*-marked, and become focal. Thus, lexical RPs like *Wamboi* in (3.5a) and *nyina* in (3.6a-b) will be placed in the ECS.

The ECS is a core-external but clause-internal position and therefore within the scope of IF, a clausal operator. In (3.6.b) and (3.7b), the RP *nyina* cannot be in the LDP because it is closer to the core compared to RP *mwana*. The further away a lexical argument is from the PA, the higher the chance for it to receive a detached element interpretation, e.g. *nyina* in (3.7d) and *Wamboi* in (3.1c). This situation is caused by the presence of other constituents coming in between the lexical RP and their coreference argument. This “distance” or “space” can also be created by the addition of a topic marker enclitic, resulting in an intonational break (3.11).

Although it is clause-internal, the ECS disallows focused constituents but allows topical ones. Since subjects such as *Wamboi* in (3.5a) and *nyina* in (3.6a) are internal topics, and neither is focused, they are admissible in the ECS. They cannot be in the core because those positions are already occupied by the PA prefixes, and they cannot be in the LDP because they are not set off by a pause and do not have corresponding resumptive arguments in the cores.

The ECS provides a morphosyntactic position for lexical subject RPs (clausal topics) in Gĩkũyũ and object RPs in languages such as Kiswahili, where bound arguments cooccur with their lexical RPs. The position helps distinguish clausal topics from left-detached topics (clause external topics). Furthermore, the ECS helps to avoid duplicate argument expression, in which two constituents have the same referential function in the same clause. For additional clarity, the ECS is compared with the PrCS and the LDP in the next sections.¹⁴

Van Valin (2013) suggested that embedding is not possible for detached elements. However, example (3.8a) shows that embedding is possible in Gĩkũyũ, but not for a focused RP as seen in the ungrammaticality of (3.8b). Embedded detached constituents such as (3.8a) are also reported by van Putten (2014a) for Avatime, and by Matić, van Putten, & Hammond (2016) for Tundra Yukaghir, Whitesands, and Avatime.

- (3.8) a. *To-ra-igu-ir-ε* *ate mw-ana_i nyina a-mo_i-hor-ir-ε oorū monɔ.*
 Ipl-RMPST-hear-PFV-FV CLM 1-child 1.mother 1-1OM-beat-PFV-FV badly very
 ‘We heard that the child, the mother beat him very badly.’
 b. **To-ra-igu-ir-ε* *ate ne mw-ana nyina a-mo-hor-ir-ε oorū monɔ.*
 Ipl-RMPST-hear-PFV-FV CLM FM 1-child 1.mother 1-1OM-beat-PFV-FV badly very
 ‘We heard that the child, the mother beat him very badly.’
 c. *Ko-re-a i-riɔ ny-inge ne ko-nɔr-ag-i-a a-ndo monɔ.*
 15-eat-FV 5-food 5-a lot AM 15-be.fat-HAB-CAUS-FV 2-people very
 ‘Eating a lot of food fattens people very much.’

¹⁴ Deen (2006:226) notes that an analysis of clausal arguments may follow the “Pronominal Analysis” or “Agreement Analysis”. In the former, the lexical subject noun is a “topic” and the prefix argument a subject, and in the latter, the subject noun is a “subject” and the prefix argument is an agreement marker. I find the pronominal analysis appealing, since subjects can be topics that are talked about in clauses. Indeed, Zwart (1997:3) claimed that Kiswahili subjects are topics, noting that the so-called agreement marker is “closer to a pronoun”. However, I will not call the coreference prefix a “subject” like Deen or a “pronoun” like Zwart, but rather maintain the label PA.

- d. *Wanja ne m-warimo.*
 Wanja COP 1-teacher
 ‘Wanja is a teacher.’

Examples (3.8c-d) show different constituents that are ECS candidates. In (3.8c) a nominal-infinitive is the core argument with a corresponding PA in the core (NC15), like an ordinary lexical RP. This is evidence that the nominal-infinitive is in the ECS, in spite of its form. Example (3.8d) is repeated from (1.13d); here, a lexical RP is the direct core argument (unlike all other examples seen so far), as there is no coreferring PA on the copula *ne*, which is itself considered as an auxiliary and not a nucleus. The lexical RP *mwarimo* ‘teacher’, though a noun, is the nucleus of the core. This exemplifies a note made earlier on, namely that a nucleus does not have to be always a verb. In fact, *mwarimo* may be replaced by an attributive adjective, which will become the nucleus.

The postulation of the ECS helps to determine the function of appositive RPs in languages such as Kiswahili and Setawana, in which they co-occur with their respective bound arguments, but the RP arguments are not detached elements. More than one ECS element is allowed, and since it is not positionally restricted, an ECS can occur on either side of the core. In Kiswahili, for example, a clause may have both pre- and post-nucleus ECS elements in clauses with both lexical RP subject and objects and bound argument markers. In sum, the innovation of the ECS helps to morphosyntactically account for appositive lexical RPs in head-marking languages such as Gĩkũyũ

3.2.1.5 Pre Core Slot (PrCS) and Post Core Slot (PoCS)

The PrCS and the PoCS are positions for question words and narrow-focus elements. In languages in which *wh*-question words occur in ex situ positions, e.g. English, German, and Italian, the *wh*-words occupy the PrCS position. The opposite of the PrCS is the PoCS, which is found in languages in which *wh*-words and focused constituents occur in postcore positions, e.g. Dhivehi. In this language, both *wh*-words and non-*wh*-RPs occur in the PoCS (see Cain & Gair 2000).

Gĩkũyũ has the following *wh*-question words: *kee* ‘what’, *o* ‘who’, *ha/ko* ‘where’, *-reko* ‘which’, *atea* ‘how’, and *neke* ‘why’ (FM *ne* + *ke* ‘what’). These *wh*-words may occur in three different positions: ex situ, partially displaced¹⁵ and in situ as shown in (3.9).

- (3.9) a. *Kamau a-ra-ak-ir-ε kee?* b. *Kamau ne kee a-ra-ak-ir-ε?*
 Kamau 1-RCPST-build-PFV-FV Q Kamau FM Q 1-RCPST-build-PFV-FV
 ‘What did Kamau build?’ ‘What is it that Kamau built?’
- c. *Ne kee Kamau a-ra-ak-ir-ε ?*
 FM Q Kamau 1-RCPST-build-PFV-FV
 ‘What is it that Kamau built?’

¹⁵ Such questions are described as “partial *wh*-movement” for Gĩkũyũ by Sabel (2008) and for Kĩĩtharaka by Muriungi (2005). Since they are partially displaced to the left compared to fully ex situ questions, I will call them “partially-displaced questions”, without assuming that movement is a syntactic process, as generative studies do. In fact, *wh*-movement as a syntactic process is not universal, as, for example, it does not happen in Sesotho (Demuth 1989; 1990; 1995), which prefers clefts and passives in order to question subject arguments. See also Van Valin (1995; 2005) for the argument that extraction/subjacency is not universal.

In (3.9a) the *wh*-word is in situ, the canonical position. This is the most basic strategy found in most Bantu languages according to Demuth (1995:52). The *wh*-word in that position does not require a focus particle as those in (3.9b-c). In (3.9b) the *wh*-word is in the precore, preceding the lexical RP *Kamau*. In (3.9b) the *wh*-word is partially-displaced to the left; but it is not fully ex situ as in (3.9c). All ex situ questions and partially-displaced questions such as (3.9b-c) are obligatorily marked by *ne*, attaining a cleft reading.

I indicated that when a constituent separates a subject RP from its PA prefix, the subject is likely to become a detached element. I add that this only holds when two arguments compete for the subject argument interpretation as in (3.7d), especially because of the shared noun class (NC1). The same does not hold in (3.9b), since there is no risk of misinterpretation because of the different functions of the concerned RPs in the clause. Furthermore, the *wh*-word has no NC-marking, and *ne* changes the status of a constituent it co-occurs with. Therefore, such a constituent will not compete for interpretation with the lexical RP, since it has different function in the clause. So far, such *ne*-marked RPs and *wh*-words are unaccounted for in the LSC.

Question words are universally focal. With this in mind, examples in (3.9) can help us account for the placement of *wh*-words in Gĩkũyũ. Gĩkũyũ ex situ and partially-displaced *wh*-words bear *ne*, a focus marker, which is additional evidence that they are focal. As for English *wh*-words (VVLP 1997), I propose that the *wh*-words in (3.9b-c) are in the PrCS, since they have been displaced to these positions from their canonical position in (3.9). However, one might argue that since the *wh*-words in both clauses are in different positions, they should not be represented differently. This is not a problem, as in both clauses the *wh*-words are in precore positions, and a lexical RP precedes or follows the question word. Whether the lexical RP precedes or follows does not matter, since it is in the ECS. Whereas the PrCS is a fixed position, the ECS is not positionally restricted; it can precede or follow the PrCS as seen in (3.9b-c).

As for the in situ *wh*-word in (3.9a), it is part of the core, serving as the second direct core argument. In spite of it being focal, it is not in the PoCS, because it is an argument inside the core, as opposed to being in an extra-core position such as the PoCS. **Error! Reference source not found.** shows the LSC of (3.9c).

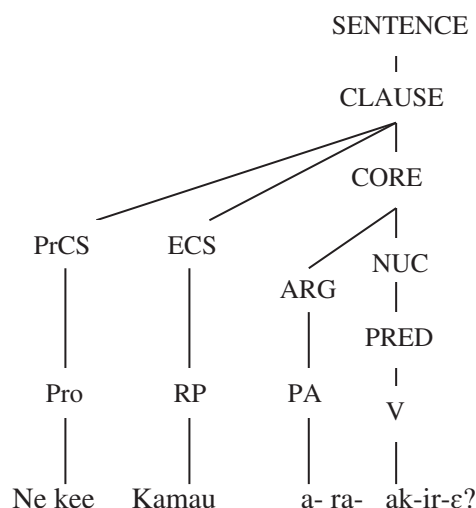


Figure 3.4 The PrCS and the ECS

Although the PrCS is open to focal constituents, it is not only occupied by *ne*-marked question words and can also be occupied by both *ne*-marked constituents and displaced constituents.

- (3.10) a. *Nyama n-di-re-ag-a.*
 9.meat Isg-NEG-eat-HAB-FV
 ‘Meat I do not eat.’
- b. *βita (ne) a-a-gor-ag-a i-rato.*
 Peter(AM) 1-PRS-buy-HAB-FV 5-shoes
 ‘Peter buys shoes.’
- c. **I-rato βita a-a-gor-ag-a.*
 5-shoes Peter 1-PRS-buy-HAB-FV
 ‘Shoes, Peter buys (them).’
- d. *I-rato βita ne a-a-gor-ag-a.*
 5-shoes Peter AM 1-PRS-buy-HAB-FV
 ‘Shoes, Peter buys (them).’
- e. *Ne i-rema-ine ma-a-koragi-a kahoa.*
 FM- 5-mountain-LOC 2-PRS-grow-FV 10.coffee
 ‘It is in the mountains that they grow coffee.’

In (3.10a) the object argument *nyama* ‘meat’ is displaced (“topicalised”) from the post-nucleus position to a clause-initial position without leaving a resumptive argument in the core. The displaced argument becomes a contrastive (topic) constituent in the PrCS, even without the particle *ne*. The absence of *ne* could be explained by the fact that it is incompatible with negation, but even in positive clauses it will not precede the displaced unit and rather stand before the core.

Clause (3.10b) is a declarative. Whereas the assertive marker *ne* is optional in (3.10b), it is obligatory if the undergoer *irato* ‘shoes’ is displaced to a clause-initial position, as seen in the ungrammaticality of (3.10c), which is corrected in (3.10d), with the clause being given the missing assertive feature. The fact that the object may not be inverted in (3.10c) follows from the fact that inversion is only possible in asserted clauses (see Hooper & Thompson 1973). This lends further support to the idea that *ne* is an assertive marker for declarative illocutionary force.

Example (3.10c) can also be corrected by placing the negation marker *ti-* at the clause-initial position to realize a negative cleft. The idea behind this is that *ti-* is a negative focus marker and *ne* is a positive one. When these particles are placed before *irato*, we get some form of contrastive or identificational focus. Contrastive focus in English can be realized by clefts,

wh-questions and their answers, and by “*only*-phrases” (see Horvath 1995). In Gĩkũyũ, fronted *ne*- or *ti*-marked constituents are clefts and occupy the PrCS. In addition, displaced (topicalized) constituents occupy the PrCS, as they are also contrastive in some way.

Example (3.10e) shows a *ne*-marked preposition phrase displaced to the left. Like the “topicalised” RP in (3.10a), it occupies the PrCS. Thus, when dealing with complex sentences, the PrCS is not reserved for RPs only, and I will demonstrate that even clauses can take this position.

Gĩkũyũ allows only one *ne* per clause. For example, if a fronted constituent co-occurs with *ne*, there cannot be another *ne* before the core to mark assertion. Therefore, there cannot be two PrCS or two focal points in one clause; indeed, RRG only allows a single PrCS position in a clause.

There is some division of labor in the uses of *ne*: it marks focus and declarative illocutionary force and there can only be one *ne* in a clause. This makes sense since if a declarative clause has a focused element, then it is also asserted and there is no need for an additional *ne* as an assertive marker. This also explains why *ne* is not found in clauses where the question words occur in situ: because such clauses have an established interrogative IF, the addition of declarative IF through *ne* is unacceptable.

From the foregoing, I have shown that Gĩkũyũ LSC has an ECS and PrCS. The ECS contains non-focused clause-internal topics and the PrCS contains displaced (contrastive) and contrastively-focused constituents such as RPs and PPs.

In summary, the ECS is structurally similar to the PrCS, since both are daughters of the clause node. However, they are different in a number of ways: the ECS does not have any special discourse-pragmatic functions compared to the PrCS. There can be more than one ECS in a clause (e.g. on either side of the core), but there can only be one PrCS (before the core) in a clause. It is also evident that ECS elements are not positionally fixed, hence the positional variations of ECS and PrCS in Gĩkũyũ. While the Gĩkũyũ ECS is always a topic, the PrCS accepts “plain” topics as in (3.10a & 3.10d) as well as contrastive topics as in (3.1e & 3.10e). Both the ECS and the PrCS occur in matrix and embedded clauses and can take units that are larger than a single word, such as a phrase or a clause. Finally, the ECS is a property of head-marking languages only, but the PrCS occurs in both head- and dependent-marking languages.

3.2.1.6 Detached positions

Detached positions are daughter positions of the sentence node and, therefore, clause-external. There are two of them: the Left Detached Position [LDP] and the Right Detached Position [RDP], occupying the outermost positions of the LSC. The LDP contains topical constituents that are talked about in a succeeding utterance and the RDP provides an afterthought idea or extra information for better identification of core arguments (Pavey 2010).

- (3.11) a. *Mo-iretu=re, ne a-a-goth-ir-ε m-wana.*
 1-girl-TM AM 1-RMPST-hit-PFV-FV 1-child
 ‘The girl, she hit the child.’
- b. *Mw-ana_i (=re), mo-iretu_j ne a_j-a-moi-goth-ir-ε.*
 1-child (-TM) 1-girl AM 1-RMPST-1OM-hit-PFV-FV
 ‘The child, the girl hit her/him.’

- c. *Ne a-a-moi-goth-ir-ε, mw-ana_i.*
 AM 1-RMPST-1OM-hit-PFV-FV 1-child
 ‘S/he hit him/her, the child.’/ ‘She indeed hit the child’
- d. *Ne a-a-goth-ir-ε mw-ana, mo-iretu *=re.*
 AM 1-RMPST-hit-PFV-FV 1-child 1-girl
 ‘She hit the child, the girl.’

The agent *moiretu* ‘girl’ in (3.11a) bears an enclitic *=re*, which makes it a clause-external argument, since the enclitic introduces a pause which sets the argument apart from the rest of the clause¹⁶. The displaced experiencer *mwana* ‘child’ in (3.11b) precedes the agent, and it is optionally marked by *=re*. The agent argument has a PA prefix (*a-*) and the experiencer a resumptive pronoun (1OM) in the core. The effect of *=re* in (3.11b) is the same as in (3.11a). In (3.11c) the experiencer is displaced to a clause-final position to the right, and it is coreferenced with a resumptive marker in the core. In (3.11d) an agent is displaced to the clause-final right position, with the subject PA prefix in coreference, but unlike in (3.11a), it does not take *=re*.

Lambrecht (2001b:1050) identifies four criteria for identifying dislocated (detached) constituents in sentences: extra-clausal positioning of elements, prosodic intervention, co-indexed (coreferential) argument in the predicate and alternative placement of the constituents (right or left). Of all these, only the extra-clausal positioning criterion is most necessary, although it is insufficient for identifying a detached constituent.

In the Gĩkũyũ examples given so far, all the above criteria are evident. The clitic *=re* marks the prosodic intervention (3.11a), and co-indexation and prosodic intervention are combined in (3.11b), meaning that a detached constituent is signaled in two ways: prosodically and by a co-indexed (coreferential) argument or what I am calling a resumptive argument/pronoun.

Lambrecht’s alternative placement criterion is captured by (3.11d). The extra-clausal positioning is evident in (3.7d) and (3.11c-d). As indicated earlier, when a subject RP is further from the PA prefix, either to the left clause-initial or to the right clause-final positions, the higher the chance is for it to be realized as a left- or right-detached element as in (3.11d). This “distance” can also be realized by the enclitic TM *=re* (3.11a). Note that the detached element in (3.11d) cannot take *=re* as in (3.11a). The conclusion is that *moiretu* is an “Anti topic” in (3.11d), but a “Topic” in (3.11a), to use Lambrecht’s (2001:1052) terms, where “Topic” refers to left-detached constituents and “Anti Topic” to right-detached constituents.

From the above, I conclude that the clause-initial arguments in (3.11a-b) are LDPs, and the clause-final arguments in (3.11c-d) are RDPs. The not-so-audibly marked detached constituents and the audible ones with enclitic *=re* fall into the so-called “marked preposed topic pattern” found in some Bantu languages by Givón (1976:157). The RDP elements fit well in Pavey’s (2010) claim that they are afterthoughts or add extra information to identify arguments easily.

¹⁶ Bennett (1986a:67) labels this enclitic a “topicalization marker”, but he did not distinguish whether topicalization was to be understood as the syntactic process or as topic marking. I consider it the latter because the enclitic does not go with displaced (topicalized) (3.10a), but with detached constituents, converting them into detached topics. Dooley (2010a) calls a similar enclitic in Mbya Guaraní “a spacer”, which I think is also applicable to *=re*, but for this study I will use the TM label.

Related observations come from Barlow (1951:34), who says that rightward placement of a constituent encodes an “emphatic reading”, which is “emphatic correctional reading”. Bennett (1986a) notes that it is unusual to have a “vocative NP” following the verb (detached to the right) in Gĩkũyũ, because, ordinarily, it precedes the verb, as “most Kikuyu topicalizations” do. He adds that this right-placed constituent shows the same categorial pause as found in the “more usual” one (Bennett 1986a:69). The “more usual one” here refers to a left-placed element. I understand Bennett as saying that the RDP and the LDP are prosodically marked in the same manner.

The detached phrases are motivated by discourse needs such as emphasis, correction, or clarification, leaving no room for misinterpretation of referents. The LDP and RDP are not positions merely for preposed extra-clausal RPs, the positions are also occupied by temporal adverbs and other phrases or even clauses, as shown in (3.13) and later.

- (3.12) a. *Ira* (=re) *ndereβa* *a-ra-go-ith-ir-i-ε* *ngaari* *mo-tarɔ*
 Yesterday (TM) 1.driver 1-RCPST-fall-CAUS-PFV-DC-FV 9.car 3-ditch
 ‘Yesterday, the driver rolled the car into a ditch.’
- b. *Kamau=re, ne* *a-r-endi-ir-i-ε* *i-ndɔ* *ci-akε* *ci-ɔthe*.
 Kamau=TM AM 1-RCPST-sell-PFV-DC-FV 5-things 5-his 5-all
 ‘As for Kamau/ Kamau, he sold all his property’.

The adverb *ira* ‘yesterday’ in (3.12a) occupies the LDP with or without the TM. In any case, it cannot have a resumptive argument in the core. As a sentential adverb, it may be displaced to the final position to the right, but without the TM.

In (3.12b) an element expected to be in the ECS becomes a LDP element with the addition of *=re*. This shows that a clausal topic (ECS) can be converted into a sentence/discourse topic (LDP) with the addition of *=re*, which creates a “distance” or “gap” between the RP element and its prefix argument.

Barlow (1951:13) claims that *=re* lacks any grammatical significance and that it has only a rhetorical effect with a punctuative function. The rhetorical effect claim of the enclitic is acceptable, but the enclitic has more functions than only this one. Bennett (1986a) argues that pause in Gĩkũyũ is linguistically conditioned, and he suggests that *=re* is a topicalization marker. I have adapted this claim, albeit somewhat differently. Clitic-marked topics are not unique to Gĩkũyũ, other languages also have clitics that mark detachment (topicalization), e.g. Persian (Moezzi-pour 2013) and Japanese (Shimojo 2009; 2011). Example (3.13) shows that a LDP unit can be larger than a single argument.

- (3.13) a. *Ha-kwa* *nie* (=re), *n-di-ra-re-a* *nyama*.
 16-mine Isg.IP (TM) Isg-NEG-PRS-eat-FV 9.meat
 ‘As for me, I am not eating meat.’
- b. (*Ha-*)*go-thaka*, *ci-ana* *ne* *i-ra-thak-ir-ε*.
 (16-) 15-play 8-children AM 8-RCPST-play-PFV-FV
 ‘As for playing, the children played.’

In (3.13a) *ha-kwa* carries the proximal and locative marker *ha-* (NC 16), which normally denotes specific and limited space or location. When *ha* is put together with the possessive suffix *-kwa*

‘mine’, it is limited to the speaker. Together with the singular first-person IP *nie* ‘me’, *hakwa* means ‘as for me/on my part’ in (3.13a). *Hakwa* and *nie* can alternate positions, with either taking the initial position, without changing the meaning. *Hakwa* may also appear alone and even take the TM marker and have the same interpretation. The IP is for emphasis reasons, as stated earlier.

Example (3.13b) contains a displaced fronted infinitive-like constituent, bearing an optional *Ha-* prefix. The meaning would be more emphatic and show more intensity if the infinitive was displaced to the right, and occurred without *Ha-*. Note that the fronted element has part of the verb in the main clause, except that the fronted copy is semi-finite, since it lacks aspect and tense. This kind of fronting has a lot to do with information structuring, and some of these aspects are discussed under focus in §3.3.

So far evidence that Gĩkũyũ exhibits topic displacement (topicalization), contrastive focused constituents, and both left- and right-detached constituents is given. However, Bergvall (1987a), one of the few people to discuss dislocation and topicalization in Gĩkũyũ, suggested that topicalization should be subsumed under Left Dislocation.¹⁷ She lumps Left Dislocation (LD), Topicalization (TOP), and Focus (FOC) together because of their shared features e.g. leftward displacement, and the absence or presence of a resumptive pronoun co-referring the displaced constituent. In her notion of Topicalization, an NP or adverbial is fronted to a sentence-initial position, and it is, therefore, similar to Left Dislocation. Topicalization and Focus share characteristics, such as relating to an initial NP with a gap. The examples in (3.14) are from Bergvall (1987a:46, ex. 26), showing TOP, LD and FOC. They are adapted with some orthographic adjustments.

- (3.14) a. *Ma-rigo* *ma-ya* *ne* *to-ɔn-ir-ε* *rocine.* [Topicalization]
 6-bananas 6-DEM AM Ipl-see-PFV-FV morning
 ‘These bananas we saw in the morning.’
- b. *Ma-rigo* *ma-ya* *ne* *to-mɔ-ɔn-ir-ε* *rocine.* [Left-Dislocation]
 6-bananas 6-DEM AM Ipl-6OM-see-PFV morning
 ‘These bananas, we saw them in the morning.’
- c. *Ne* *ma-rigo* *ma-ya* *to-ɔn-ir-ε* *rocine.* [Focus]
 FM 6-bananas 6-DEM Ipl-see-PFV-FV morning
 ‘It is these bananas we saw in the morning.’

The significant feature that distinguishes the three is the presence or absence of a resumptive pronoun and the FM *ne*. Thus TOP is [-*ne*, -pron], LD is [-*ne*, +pron] and FOC is [+*ne*, -pron]. Bergvall notes that the position of *ne* is significant, as it has structural and functional ramifications, one of them being to distinguish both TOP and LD. In her opinion, LD and TOP are in complementary distribution, hence the need to merge them (Bergvall 1987a:62).

As far as displacement is concerned, both topicalized and detached elements can be displaced in some form, but not necessarily by movement, as we have already seen detached elements that attain their detached status by simply taking a TM without any physical

¹⁷This is in contrast to Clements (1984a:43), who distinguishes between focus constructions and topicalization, noting that they are “distinct both in formal and semantic/pragmatic terms”, e.g. topicalization does not need *ne*, nor does it effect any morphological changes in the following constituent.

displacement. I showed that displaced elements (“Topicalized” for Bergvall) which occupy the PrCS may not have a resumptive pronoun in the core, while detached elements (“Left-Dislocated” for Bergvall) may or may not have one. According to Lambrecht (2001), the presence of a resumptive argument (co-indexation) is not key to identifying a detached element. The extra-clausal position of a constituent is the criterion that is “necessary” although not “sufficient” to identify a dislocated constituent.

In her argument, Bergvall seems to rely heavily on the co-indexation criterion as the critical indicator of dislocation. She uses the criterion to distinguish LD from TOP and that might have produced her suggestion that topicalization should be subsumed under dislocation. She noted that “all displaced first objects leave a pronominal copy” (1987a:62), but this is not necessarily the case as (3.15) below and other examples show.

Indeed, Matic’ et al. (2016) identified integrated and non-integrated LDs in Avatime, Tundra Yukaghir and Whitesands languages. The non-integrated types are those without a resumptive pronoun in the predicate, and the integrated have one. Elsewhere, Gregory & Michaelis (2001:4) gave corpus evidence showing that few LDs had any anaphoric (resumptive) pronouns. VVLP (1997) has also shown that dislocation need not always depend on argument indexing, since a pause separating a constituent from the rest of a clause is sufficient claim for a detached element.

- | | |
|---|--|
| <p>(3.15) <i>Mbɔcɔ=re ne nd-e-e-ag-a.</i>
 9. Beans=TM AM Isg-PRS-eat-HAB-FV
 ‘As for beans, I eat (them)’.</p> | <p>(3.16) <i>Maama n-di-*(mw-)end-et-ε.</i>
 1.uncle Isg-NEG-1OM-like-PFT-FV
 ‘My uncle, I do not like him.’</p> |
|---|--|

The detached RP in (3.15) does not have a corresponding resumptive pronoun in the core, thus weakening Bergvall’s claim. The topic with a TM, is shifted to an external (discourse) topic position. Clause (3.16) presents evidence that seems to support her idea. To account for examples such as (3.16), Bergvall says that human objects must have a resumptive argument when dislocated but non-human objects need not. For clauses such as (3.15), Bergvall contends that even without an overt pronominal clitic, there are covert null pronominals. According to her, more evidence is found in discourse where arguments do not feature or in the subadjacency issues.

As earlier said, the notion of phonologically null elements is not supported in this study. Rather than resort to null elements, I suggest that arguments displaced (topicalised) to the PrCS e.g. *nyama* and *irato* in (3.10a) and (3.10d) and *marigo maya* in (3.14a), have a semantic relationship with the transitive verbs in the clauses which require arguments. Since displaced RPs in the clauses are ‘unattached’, they are automatically assumed to belong to the respective verbs.

Example (3.17a) is adapted, with orthographic adjustments, from Bergvall (1987a:63, example 49). She presents it as evidence that topicalised non-human objects need not have a resumptive marker. However, based on the intuition of speakers consulted, (3.17a) was judged as ungrammatical. Another native speaker had also rejected it (see Schwarz 2003:78, fn52). Therefore, Schwarz concludes, and I agree with him, that Bergvall’s human/non-human distinction is not valid.

- (3.17) a. **Kɔ-ɔri* *ka-nini* *ne* *to-Ø-ɔn-ir-ε* *mberε.*
 12-goat 12-little AM Ipl-RCPST-see-PFV-FV first
 ‘The little goat we saw first.’
- b. *Kɔ-ɔri* *ka-nini* *ne* *to-k-ɔ-ɔn-ir-ε* *mberε.*
 12-goat 12-little AM Ipl-12OM-RCPST-see-PFV-FV first
 ‘The little goat we saw it first.’

Bergvall’s claims can, however, be improved. We may replace her human/non-human feature claim with the feature “animate”, as in (3.16) and (3.17b). This feature obligatorily requires a resumptive pronoun for animates, but not for inanimate constituents as in (3.15).¹⁸ However, this differs from Kiswahili, which requires that animate RP objects co-occur with bound argument markers, even though the lexical objects are not displaced.

In conclusion, I note that Gĩkũyũ, like other head-marking languages, has pronominal anaphors and overt lexical RPs in apposition. The first direct core argument (subject) is always a pronominal anaphor (PA prefix), except in copula constructions. The bound object argument marker is a pronoun, since it is in complementary distribution with a lexical object RP. Thus, the second direct core argument may be a pronoun or a lexical RP, but never both. In addition, Gĩkũyũ does not allow more than two bound arguments in a core. The coreferenced appositional RP occupies the ECS. The constituents in the ECS may be single words or even phrases. The ex situ, partially-displaced *wh*-words, displaced (topicalized) constituents, including contrastive and focal topics, occupy the PrCS. The LDP holds different types of constituents such as infinitive-/gerund-like units, adverbs, nominals, or even clauses, as will be shown later. The LDP is optionally marked by topic marker *=re*. The RDP holds the right-detached elements and is incompatible with the topic.

I also conclude that displacement (topicalization) and detached positions are distinct and there is no reason to subsume topicalization under dislocation as Bergvall did. This follows from the fact that they are syntactically and functionally distinct constituents, as RRG provides distinct positions for both elements on the LSC.

3.2.2 The operator projection of the LSC

In §0, I demonstrated that the operator projection is distinct from the constituent projection, joining the latter from below at the nucleus. The operator projection contains functional categories such as aspect, negation, tense, directionality, event quantification, status, tense, evidentials, and the illocutionary force, which in turn modify specific layers of the LSC.

There are two reasons why the operators are represented in a different projection: First, they are subject to the iconicity semantic principle and thus are expected to remain close to the layers they modify, i.e. operators modifying the nucleus are closer to the nucleus than those modifying the clause. And second, operators, being in a different projection, help determine operator scope in complex sentences.

¹⁸ There does not seem to be a fast rule here, because *mwana ne nj-etere-ir-ε* 1-child AM Isg-wait-PFV-FV ‘A child I am waiting for (it)’ is judged as grammatical by some native speakers, although lacking a resumptive argument in the core. Thus, it is in the PrCS as it is displaced from the object (default) position.

3.2.2.1 Aspect ¹⁹

In Gĩkũyũ, and in most Bantu languages, aspect and tense are so intertwined that, at times, it is difficult to draw a very clear line between them. It is not surprising then that early Gĩkũyũ grammarians such as Barlow (1951) and Gecaga (1955) did not always make a distinction between tense and aspect affixes. They would distinguish them with terms like “verb prefix” (tense) and “verb suffix” (aspect). Some studies on Gĩkũyũ tense and aspect include the following: Johnson’s (1977; 1980) Montague Grammar-based study of tense and aspect, Mugane (1997b), Hewson & Nurse (2005), and Cable’s (2013) study which approaches Gĩkũyũ tense from a formal semantics standpoint.

The essential distinction is that tense describes the time of the event in the proposition placing the event, for instance in the present, past or future. It is the “grammaticalised expression of location in time” (Comrie 1985:9). Aspect, on the other hand, expresses the internal temporal structure of an event, i.e., whether it is completed, incomplete, ongoing or recurring (Comrie 1976).

Gĩkũyũ has three clear aspect markers, although Mugane (1997b:118) proposes four aspectual/modality markers. The four that he identifies are stative *a-* (subjunctive, imperative), imperfect *-ag-*, perfect *-et-*, and completive *-ir-*. Similarly, Hewson & Nurse (2005:285) have performative *a-*, perfective *-ir-*, imperfective *-ag-*, and retrospective *-et-*. I consider the stative a present tense marker, not a marker of aspect. In this study, I have maintained the imperfective (subsuming the progressive and habitual), the perfective and the perfect.

Table 3.1 Gĩkũyũ aspect markers

Perfect	<i>-et-</i>	<i>Ne a-re-et-ε.</i>	AM 1sg-eat- PRF-FV	‘S/he has eaten.’
Perfective	<i>-ir-</i>	<i>Ne a-re-ir-ε.</i>	AM 1sg-eat- PFV-FV	‘S/he ate.’
Imperfective	<i>-ag-</i>	<i>Ne a-re-ag-a.</i>	AM 1sg-eat- IPFV-FV	‘S/he eats.’

Aspect as a grammatical category is a nuclear operator and it captures the aspectuality of the verb. The examples in (3.18) show some combinations with aspect in Gĩkũyũ.

- (3.18) a. *Mw-ana ne a-aa-ḳṛṛr-ir-ε.*
 1-baby AM 1-RMPST-cough-PFV-FV
 ‘The baby coughed.’ (Coughing has stopped)
- b. *Mw-ana ne a-ra-ḳṛṛr-ag-a.*
 1-baby AM 1-RCPST-cough-PROG-FV
 ‘The baby was coughing.’ (Coughing has now stopped)
- c. *Mw-ana ne a-aa-ḳṛṛr-ag-a.*
 1-baby AM 1-RMPST-cough-PROG-FV
 ‘The baby was coughing.’ (End of coughing not indicated)
- d. *Mw-ana ne a-ra-ḳṛṛr-a.*
 1-baby AM 1-PRS-cough-FV
 ‘The baby is coughing.’ (Coughing is going on now)

¹⁹ Aspect here is refers to the grammatical modification of verbs, marking whether an action is completed or not, as opposed to lexical aspect (*Aktionsart*) applicable in the lexical decomposition of predicates (see VVLP 1997).

- e. *Mw-ana ne a-aa-kɔrɔr-et-ε.*
 1-baby AM 1-RMPST-cough-PRF-FV
 ‘The baby had coughed.’ (Coughing had stopped)
- f. *Mw-ana ne a-Ø-kɔrɔr-ag-a.*
 1-baby AM 1-PRS-cough-HAB-FV
 ‘The baby coughs.’ (Coughs habitually)
- g. *Mw-ana ne a-aa-kɔrɔr-ang-et-ε.*
 1-baby AM 1-RMPST-cough-ITR-PRF-FV
 ‘The baby had constantly coughed.’ (Coughed continuously and stopped)
- h. *Mw-ana ne a-a-kɔrɔr-ang-ag-a.*
 1-baby AM 1-RMPST-cough-ITR-HAB-FV
 ‘The baby constantly and habitually coughed.’ (Coughed constantly)
- i. *Mw-ana ne a-aa-kɔra-kɔrɔr-ang-ag-a.*
 1-baby AM 1-RMPST-REDUP-cough-ITR-PROG-FV
 ‘The baby was coughing.’ (Coughing slowly, constantly and repeatedly)

From (3.18) it is evident that representation of tense and aspect in Gĩkũyũ can get very complex as noted by Mugane (1997b) and Clements (1984b). A theory of aspect in Gĩkũyũ I needed; however, in this study, I am more interested in the morphosyntax of complex sentences.

3.2.2.2 Negation

Negation is the only operator found in the three layers: nucleus, core, and clause. Thus, I concurrently deal with negation in all the three layers, although Gĩkũyũ only has core and clausal negation. Payne (1997:282-284) suggests three types of negation: lexical, morphological and analytical expression of negation. Lexical negation uses lexical words that are inherently negative, for example, *lack* in English as a negative counterpart of verb *have*. The Gĩkũyũ verb *(ko)-aga* ‘to fail’ may be included in this category.

Morphological negation is realized by affixes in the core. Analytic negation subsumes two types: negative particles and finite negative verbs. The negative particles are related to the main verb of the clause such as the English *not* (and its allomorph *n’t*). Gĩkũyũ does not have a contracted form of negation. Most Bantu languages distinguish between secondary and primary negatives. The former exist in subjunctives and subordinate clauses, and the latter in main clauses (see Nurse 2008:44). Gĩkũyũ has *-ti-* for primary (main) clause negation and *-ta-* for secondary negation.

In English, nuclear negation is marked by a derivational negative affix *un-* as in *unfair*, *unkind*, and *unhappy* as in *Mary is **un**happy*. This type of negation cannot be replicated in Gĩkũyũ since the language lacks such prefixes, but see (3.20c) below.

3.2.2.2.1 Core negation

In core (internal or narrow-scope) negation a single constituent is negated. Depending on referent number, person and syntactic and phonological environment, the negative affix *-ti-* may be realized as *-ti-*, *-di-*, *-ta-*, or *-da-*.

- (3.19) a. *Mw-ana n-da-a-na-re-a i-cungwa.*
 1-baby 1-NEG-RCPST-TNS-eat-FV 7-orange
 ‘The baby did not eat an orange.’
- b. *Ti i-cungwa mw-ana a-a-re-ir-ε.*
 NEG 7-orange 1-baby 1-RCPST-eat-PFV-FV
 ‘It was not an orange that the baby ate.’
- c. *Ti mw-ana o-re-ir-ε i-cungwa.*
 NEG 1-baby 1.RSP-RCPST-eat-PFV-FV 7-orange
 ‘It was not the baby who ate an orange.’

In (3.19a) the object argument is negated. Had it been missing, the negation would be interpreted as clausal negation, thereby denying that the event of eating took place. This kind of negation can be paraphrased into a cleft construction as in (3.19b). In (3.19b-c) a single core argument is negated, namely object and subject, respectively. Peculiar to (3.19a) is the inclusion of the *-na-* prefix, which I have simply glossed as TNS for convenience. Barlow (1951:149-149) notes that although *-na-* also occurs in other environments, it is obligatorily used with the negative and only with the recent past. The infix brings out an “emphatic negative past” meaning according to Leahey (1978:48).

In (3.19b-c) only the core arguments are (contrastively) negated, and *ti* turns the PA prefix *a-* into a relative subject prefix (RSP) *o-*. Both *ne* and *ti* can be used alternately as illustrated in (3.20a-b). Copula *ne* is affirmative in (3.20a) and *ti* is negative in (3.20b). An attribute of a core argument is asserted and denied in both cases. (3.20c) also contains narrow negation, in which a verbal constituent is denied in the fronted unit, and (3.20c) passes as nuclear negation, since it is the predicate nucleus *gothaaka* ‘playing’ that is negated.

- (3.20) a. *Mo-rutwɔ ne mo-thaka.* b. *Mo-rutwɔ ti mo-thaka.*
 1-student COP 1-beautiful 1-student NEG.COP 1-beautiful
 ‘The student is beautiful.’ ‘The student is not beautiful.’
- c. *Ti go-thaak-a ma-a-go-thaak-ag-a ne ko-roa ma-a-ko-ro-ag-a.*
 NEG 15-play-FV 2-RCPST-15-play-PROG-FV AM 15-fight 2-RCPST-15-fight-PROG-FV
 ‘It is not that they were playing, they were fighting.’

In the constituent projection, the negated constituents in (3.19a-b) and (3.20c) occupy the PrCS, similar to the *ne*-marked arguments shown previously. The predicate in (3.20a-b) is non-verbal, since the nuclei are adjectives. Copula *ne* and *ti* in these examples have auxiliary functions. They cannot be inflected for person or tense; however, *ne* has another form *-re* ‘be’ which allows person and tense (past) conjugations (1.13b). The attributive adjectives are in the nucleus in (3.20a-b).

3.2.2.2.2 Clausal negation

Negation in clauses has a wider scope than core negation, because the scope extends to the entire proposition, denying the whole event. This type of negation is called external negation and it is subsumed under status, a clausal operator. Main clauses and cores use the same primary negative

Go-ti-re *a-ndo* *ma-ra-thak-er-a* *ke-harɔ-ine*.
 16-NEG-be 2-people 2-PRS-play-APPL-FV 7-field-LOC
 ‘There are no people playing in the field.’

Negation in imperative clauses is unusual as seen in (3.22). An English imperative such as *Do not cook!* addressed to one person is expressed in Gikūyū as in (3.22a). If it is addressed to more than one person, it is expressed as in (3.22b). Unlike in English imperatives, arguments are overtly marked in Gikūyū except when the addressee is singular and second person, as in (3.23a), or post-verbally, as in (3.23b).

- Examples (3.22a) and (3.22b) are strong warnings not to cook. Examples (3.22c) and 3.22d) with the negative morphemes are subtle encouragements or suggestions, with the meaning more akin to ‘Why don’t you cook?’

- The addressee is singular in (3.23a). The nasal stop /n/ (subject) argument prefix disappears before a fricative /th/ as in (3.23a). In (3.23b) the suffix *-i* marks the number of the addressees. This is unusual because number in Gikūyū is marked on the PA prefix or by an object pronoun in the core. The plural marker in (3.23b) behaves like an object argument, as far as being post-verbal is concerned. This suffix is a plural-cum-object argument marker. It is also found in requests that do not differ much from imperatives as far as illocutionary force is concerned, as can be observed in example (3.24a), which can be a request or a command addressed to more than one addressee.

- 76

(particle).²⁰ Negation in imperatives is also lexically marked by *tiga* ‘stop’ in conjunction with an infinitive gerund as in (3.25). In such a case, only *tiga* takes the *-i* suffix, and not the gerund. The infix *-na-* that we encountered earlier also features in negative subordinate clauses. Negation in the temporal subordinate clause in (3.26a) is marked by *-ta-*. Example (3.26b) is a conditional sentence with two different negation markers in the two clauses - *-di-* in the apodosis and negative prefix *-ta-* in the protasis. The same holds in (3.26c): the matrix clause contains *-ti-* and the relative clause *-ta-*.

- (3.26) a. *Ci-ana i-thi-ir-ε i-ta-na-he-ɔ mbɛca.*
 8-children 8-go-PFV-FV 8-NEG-TNS-give-PASS 9.money
 ‘The children went before they were given money.’
- b. *N-di-nge-mo-reh-a a-ta-nge-rɛh-ε ma-rigo.*
 Isg-NEG-MOD-1OM-pay-FV 1-NEG-COND-bring-FV 6-bananas
 ‘I cannot pay him if he does not bring bananas.’
- c. *Go-ti-re mo-ndo o-ta-ko-he-ɔ i-riɔ.*
 16-NEG-be 1-person 1.RSP-NEG-NRFUT-give-PASS 5-food
 ‘There is no person who will not be given food.’

The subordinate clause in (3.26b) can be displaced to sentence-initial position, as most adverbial clauses, but this is impossible for (3.26a, c) since a relative clause may not be extracted from that position. It is only possible to displace the dependent clause in (3.26a) if it is made a detached element, which requires that the particle *ne* is placed before the predicate, i.e. after *ciana*.

The “tense” infix *-na-*, combined with the remote future tense marker *-kaa-* and negative *-ti-* results in negation meaning ‘never’ (cf. (3.27a) compared with (3.27b), which only has future and negative morphemes to yield the meaning it has). Note the Dahl’s law effect on the future tense markers.²¹

- (3.27) a. *N-di-ka-n-ɔk-a.* b. *N-di-gɔ-ɔk-a.*
 Isg-NEG-RTFUT-TNS-come-FV Isg-NEG-RTFUT-come-FV
 ‘I will never come.’ ‘I will not come.’

In (3.27a) one may argue for the existence of double negation (*not* and *never*), comparing the gloss and the interlinear morphemes. This example exposes the problem of considering *-na-* a tense marker, as there are now two tenses, a future and another tense, side-by-side in the clause, and yet none is an auxiliary. A more acceptable solution is Leakey’s (1978:48) suggestion that *na* introduces “emphatic negative past” into a proposition, but since (3.27a) contains a future tense it is better to simply call it “emphatic negation”, to cover examples such as (3.27a) without a past tense.

²⁰ Barlow (1951) suggests that *ta-* is analogous to ‘please’ in English. I suppose that the use of *ta-* and the two types of imperatives are the strategies that speakers employ to avoid direct imperatives which are face-threatening, in line with views by Evans (2007:393) and Hopper & Traugott (2003: 42).

²¹ Barlow (1951:146-149) indicates *na* as a tense which goes with other tenses. The fact that it rarely co-occurs with *ne* shows its prevalence in subordinate clauses. This morpheme is possibly not a “true” tense marker in the above example because the clause already has a future tense marker. Therefore, I mark it as TNS (tense) for convenience since it is not of central importance in this study. The *-na-* infix marks experiential aspect (Rose et al. 2002:31), “semelfactives” in RRG terms. An example may include a sentence in Bergvall (1987a:84): *Nd-a-na-rea nyama ya njɔgu* Isg-RMPST-TNS-eat 9.meat of 9.elephant ‘I have eaten elephant meat (at least once in the past).’

3.2.2.3 Directionals

Directionals are both nuclear and core operators. As a nuclear operator, directionals indicate the direction of the action without reference to the participant(s), while as a core operator they indicate the direction of motion of one of the participants or core arguments.

Languages can mark direction morphologically or lexically. In English and Gĩkũyũ, directionality is lexicalized on the verb. In English, *push* and *pull* indicate movement away from the speaker and towards the speaker, respectively; the same is true with Gĩkũyũ verbs *gucia* ‘pull’ and *tindeka* ‘push’, as well as *thie* ‘go’ (move away from the speaker), *-iyera* ‘come for’ (indicates that the participant approaches the speaker), and *gera* ‘go for’ (away from the speaker). This confirms Schaefer & Gaines’s (1997:216) observation that the notion of direction in most African languages is “verb framed” (216).

The closest that Gĩkũyũ comes to having a directional marker is in the use of the distal morpheme found in some Bantu languages, originating in the verb ‘go’ (see Botne 1999). Bennett et al. (1985:214) note that the distal marking *-ka/ga-* in Gĩkũyũ adds a sense of ‘go and...’ to the clause, even without a *go*-verb. The second core in (3.28) is interpreted as ‘go’, although the verb is not indicated.

- (3.28) *N-go-mo-er-a* *a-ga-tɛm-ɛ* *mo-te.*
 Isg-NRFUT-1OM-tell-FV 1-DIST-cut-FV 3-tree
 ‘I will tell him to go cut the tree.’ (Lit. ‘I will tell him he (goes to) cut the tree.’)

Languages with lexicalized directionals do not have directional operators. However, there are languages with dedicated morphemes to mark direction. For instance, German marks directionals with particles on the verbs, e.g. *hin* (away from the speaker) and *her* (towards the speaker) (VVLP 1997:43). In Meithei, a Tibeto-Burman language, *-lu* is a directional affix indicating that the doer of the action moves away from the speaker (Chelliah (1997) cited in Pavey 2010:70).

3.2.2.4 Event quantification

Event quantification indicates whether there are multiple actions in a verb (Pavey 2010:71). The verb shows whether an action was repeated or whether it happened just once. Gĩkũyũ, like most Bantu languages, captures this grammatical operator through reduplication.

A single verb stem indicates that the action happened once as in (3.29a). In (3.29b) a whole word-stem *-gotha-* ‘hit’ is reduplicated, meaning that ‘hitting’ took place more than once.

- (3.29) a. *Ka-iretu* *ka-a-goth-ir-ɛ* *mo-rango* *na* *ka-mote.*
 12-girl 12-RMPST-hit-PFV-FV 3-door COM 12-stick
 ‘The girl hit the door with a stick.’
 b. *Ka-iretu* *ka-a-gotha-goth-ir-ɛ* *mo-rango* *na* *ka-mote.*
 12-girl 12-RMPST-EVQ-hit-PFV-FV 3-door COM 12-stick
 ‘The girl hit the door (repeatedly) with a stick.’

Other languages have event quantification morphemes. For example, Mayali (Gunwinguan, Australia), has an infix *bebbe-*, while Evenki (Tungus, China) has a suffix *-t(y)* (Pavey 2010:71).

3.2.2.5 Modality

Modality is both a semantic and a grammatical notion (Nordstrom 2010:16). As a verbal category, it indicates whether an event is necessary, possible, permissible or desirable (Palmer 2001). As a semantic notion, modality encompasses the notions of possibility, necessity, obligation, probability, volition, and the realis/irrealis of events (Ngonyani 2013:3).

RRG uses the notion of modality to refer to the root or deontic sense of modal verbs such as strong obligation (*must* or *have to*), ability (*can* or *be able to*), permission (*may*) and weak obligation (*ought* or *should*) (VVLP 1997:41). In essence, modality shows the link between a referent of a core and a verb's event.

In RRG, modality is divided into epistemic modality and deontic modality. Deontic modality is more about obligation, permission, and ability, while epistemic modality denotes necessity and possibility (VVLP 1997:41).

Deontic modality implies obligation, ability or permission on the part of a (core) participant, hence a core level operator, because it affects a single core participant. Due to this feature, deontic modality is described as “agent-oriented” modality (Bybee 1985:166). On the other hand, epistemic modality is a clausal operator, affecting an entire proposition. This is captured by Palmer (2001), who calls it “propositional modality”, as opposed to “event modality” for deontic modality.

Languages without inflectional modality markers such as English and, to a certain extent, Gĩkũyũ, use modal (auxiliary) verbs to mark modality. If the same modals are used for deontic and epistemic modality (as in English and Gĩkũyũ), the deontic modality sense of permission or ability in modals *can*, *may* and *should* is interpreted as ‘possibility’ in epistemic modality. Deontic modality in Gĩkũyũ includes permission, ability and obligation as in (3.30).²²

- | | | | | |
|---|----------------------------|--|-----------------------------|--------------------------|
| (3.30) a. <i>Nɔ</i>
MOD
'You can/may go.' | <i>o-thie</i> .
IIsg-go | b. <i>Nɔ</i>
MOD
'I can eat a bird.' | <i>nd-e-ε</i>
Isg-eat-FV | <i>nyɔni</i> .
9.bird |
| c. <i>Nɔ mohaka</i>
MOD must | <i>o-thie</i>
IIsg-go | <i>omothie</i> .
today | | |
| 'You must go today.' | | | | |

Example (3.30a) is both permission and ability, since *nɔ* means *may* or *can*, depending on the context. (3.30b) indicates ability on the speaker's part, and (3.30c) is a strong obligation on the hearer's part. Deontic modal *nɔ mohaka* may be replaced by *nɔ nginya* both meaning ‘must’. Epistemic modality indicates a speaker's attitude or assessment of the degree of probability that an event will take place. Speakers indicate their commitment to the truth of the whole proposition, as to whether an event is likely or unlikely to happen. Speakers can also show certainty or uncertainty that a said event will come to pass, or to deny that it can happen. Possibility is contained in (3.31), in which the matrix core bears the modal *-hɔta* ‘be able/may’, and the second core, an event verb *thie* ‘go’.

²² Barlow (1951:184) says that ‘must’ may be expressed by just *nɔ* as in *Nɔ o-mw-er- ε MOD IIsg-IOM-tell-FV* ‘You must tell him.’ In my judgement, the gloss should be ‘You can/may tell him’, which is deontic – but Barlow's gloss is epistemic. The expression of both deontic and epistemic modality share some aspects. *Nɔ kinya* and *nɔ mohaka* both mean ‘necessity’, forming a subjunctive if the future tense is not used (Gecaga 1955:68). Apart from being a modal marker, *nɔ* means ‘only’, and it is also ‘but’ and an emphatic/insistence marker. The focus marker *ne* and contrastive *ɔ* combine to form *nɔ*, an operator focus morpheme.

- (3.31) *Nd-a-hɔt-a* *go-thie* *roraya.*
 Isg-FUT-MOD-FV 15-go 17.overseas
 ‘I may/might go overseas.’

The use of *ohotho* ‘easy/possible’ in (3.32a) captures the degree of probability that is higher than that in (3.31). In (3.32c) the speaker is certain, “has the truth”, that it is going to rain. Other than auxiliary verbs, adverbs can also mark modality according to Ngonyani (2013). In (3.32d-e) *hihi* ‘probably/perhaps’ has an epistemic modal function that shows the speaker’s commitment to the certainty of the proposition’s event. In addition, *anga* ‘might’ in (3.32f) is semantically related to *hihi* and signals uncertainty or lack of commitment on the speaker’s part on the possibility of the event. It is comparable to ‘indecisive’, which marks “epistemic possibility” (Bybee 1985:184).

- (3.32) a. *Ne o-hotho omothe ku-ur-ε.* b. *Omothe kw-ahɔt-a ku-ur-a.*
 AM 14-easy today 17-rain-FV today 17-MOD-IND 15-rain-FV
 ‘It is likely it will rain today.’ ‘Today it might rain.’
- c. *Nd-ee-na ma omothe ne go-ku-ur-a.*
 Isg-COP-have truth today AM 17-NRFUT-rain-FV
 ‘I am certain today it will rain.’ (Lit. I have the truth today it will rain.)
- d. *Hihi ne go-ku-ur-a omothe.*
 MOD AM 17-FUT-rain-FV today
 ‘Probably it will rain today.’
- e. *Hihi kw-ahɔt-a ku-ur-a omothe.* f. *Anga ne go-ku-ur-a omothe.*
 MOD 17-MOD-FV 15-rain-FV today MOD AM 17-FUT-rain-FV today
 ‘Probably it may rain today.’ ‘Probably it will rain today.’

Example (3.32e) contains two modal markers: the adverb *hihi*, and the modal *-hɔta*. This increases the degree of uncertainty. The addition of a negation morpheme to (3.32c) would bring outright denial of the event in the proposition as in (3.33), in which the event has no chance of happening.

- (3.33) *Nd-ee na ma omothe go-ti-ngi-ur-a.*
 Isg-COP have truth today 17-NEG-MOD-rain-FV
 ‘I am certain today it cannot rain.’

Although both deontic and epistemic modals share the same modals, there are some differences in their syntax and semantics as can be seen in (3.34).

- (3.34) a. *Maina a-hɔt-a ko-nin-a ma-rigo ikomi.*
 Maina 1-MOD-IND 5-finish-FV 6-bananas ten
 ‘Maina may/might finish ten bananas.’
- b. *Maina nɔ a-hɔt-ε ko-nin-a ma-rigo ikomi.*
 Maina MOD 1-be.able-SBJV 15-finish-FV 6-bananas ten
 ‘Maina is able to /can finish ten bananas.’

The examples above use the same root *-hɔt-* for different semantic purposes. In (3.34a) the modal *-hɔt-* is a main verb, and in (3.34b) *-hɔt-* obligatorily takes *nɔ* ‘can’ to mean ‘be able’. Semantically, the two clauses are different: (3.34a) has a sense of ‘possibility’ and (3.34b) of

‘ability’. Thus (3.34a) shows epistemic modality (possibility) and (3.34b) deontic modality (ability).

So far, I have not shown the precise function of the final vowel (FV), it is simply glossed as FV, as usually done in Bantu studies. This terminal vowel bears more functions in clauses than just being a terminal vowel. For example, in (3.34a) the FV *-a* marks the indicative mood (IND), and *-ε* in (3.34b) marks the subjunctive mood (SBJV).

As I show later in the thesis, the subjunctive mood marks subordination in Gĩkũyũ, and generally in Bantu languages where the moods are grammaticalized (Givón 1994). It is argued by Ngonyani (2013) that the subjunctive mood is a grammatical category which determines subordinate clauses in Kikisi and Kindendeule. Also Nordstrom (2010: Chapter 4) discussed the connection between modality and subordination.

In other cases *kɔrwɔ* ‘be’ or ‘may be’ introduces uncertainty in sentences such as (3.35). In (3.35a), the speaker’s degree of certainty is low, almost guessing. Example (3.35b) means that it might be the case that the teacher had gone home, with there being evidence to support it, for example, noticing that the office is locked.

- (3.35) a. *Mw-arimo* *nɔ* *a-kɔrwɔ* *ne* *a-inok-ir-ε*.
 1-teacher MOD 1-be AM 1-go.home-PFV-FV
 ‘The teacher may have gone home.’
- b. *Nɔ* *go-kɔrwɔ* *mw-arimo* *ne* *a-inok-ir-ε*.
 MOD 15-be 1-teacher AM 1-go.home-PFV-FV
 ‘It might be (the case) that the teacher went home.’

Particle *nɔ* obligatorily appears in most modal constructions. There is a relationship between deontic and epistemic modals in the language, although they are separable both in meaning and in syntax as further demonstrated in Chapter 5.

3.2.2.6 Tense

Tense, evidentials, illocutionary force, external negation and epistemic modality are clausal operators. Negation, epistemic modality, and realis/irrealis distinction fall under status.

It is common to find the description and analysis of tense, aspect and mood in Bantu collectively abbreviated as “TAM”. This is because of the interconnectedness that holds among these categories, forming a related system. Indeed, Katamba & Stonham (2006:240) state that, “the categories of mood (modality), tense and aspect are not entirely independent of each other”.

The Gĩkũyũ tense-aspect system is very complex, as has already been pointed out in the aspect section. The system can result in intricate combinations or “a huge array of temporal notions” (Mugane 1997b:120). The nine tenses and the four aspectual notions postulated by Mugane translate into thirty six tense-aspect combinations, but only twenty of the combinations are attested in Gĩkũyũ (see also Clements’ (1984b) postulation of “twenty five affirmative tense combinations”).

Johnson (1980:274) classifies Gĩkũyũ tenses based on the presence or absence of aspect markers. I used her examples in (3.36) with some orthographic adjustments. “Imminent tenses” do not take the aspectual notions, e.g. (3.36a-b), and “manifest tenses” take them, as in (3.36c).

- (3.36) a. *A-a-hanyok-a.*
 1-RCPST-run-FV
 ‘He ran (just now).’
 b. *A-ra-hanyok-a.*
 1-PRS-run-FV
 ‘He is running.’ (Now, but he hasn’t been running for long)
 c. *A-raa-hanyok-ir-ε.*
 1-RCPST-run-PFV-FV
 ‘He ran (yesterday)’

To Johnson, (3.36a) is a “short perfect” and (b) “short imperfect”. The imminent tenses are contrasted with the manifest tenses that involve past tense forms and are marked for aspect (c). According to her, manifest tenses represent events that “are complete prior to the time of speaking” (Johnson 1980:277). For the present study, I adopt the tenses given in Table 1.8. As will become evident in chapter 5, tenses in Gĩkũyũ (relative and absolute tenses) play a critical role in the determination of clause linkage type in the language.

3.2.2.7 Evidentials

Evidentiality indicates how speakers came to have the information they are relaying (Chafe & Nichols 1986; VVLP 1997; Aikhenvald 2004; Squartini 2007; Pavey 2010; Brugman & Macaulay 2015).

According to Van Valin (2005:9), evidentials modify an entire clause as clausal operators. Simply put, evidentials indicate the source of information or content in a proposition given by a speaker. In such utterances, evidence is given as to whether the speaker was an eye witness or heard the information from another source (hearsay) and so on. Evidentiality in languages expresses “relative certainty of truth” (Payne 1997:251); therefore, evidential particles or clitics indicate the credibility of a speaker’s utterance. Hengeveld & Hattner (2015) studying Brazilian languages, came up with four evidential sub-categories (reportativity, inference, deductive, and event perception), which are all differentiated by their semantic scope. This typology is indicated by the clausal position of the evidential particles and their meaning.

Evidentiality is not a universal operator, but some languages obligatorily indicate it. For instance, Aikhenvald (2004a:2) notes that in Tariana, an Arawak language spoken in northwest Amazonia, speakers must indicate how they got the information in their utterances; whether they witnessed it first-hand, heard it, or were told by somebody else. Failure to mark evidence results into ungrammaticality of an utterance. The tense and evidential markers are fused in Tariana in order to express evidentiality. However, Aikhenvald (2004a:8-10) notes that not all languages mark evidentiality grammatically, as some mark it lexically.

Gĩkũyũ does not have evidential affixes to indicate the source of an utterance’s content. Nevertheless, the language marks lexically evidentiality, with *ate*, a particle that also serves as a complementizer among other functions. See Kihara (forthcoming) on other functions of *ate*.

- (3.37). *Ate m-ε-teke-et-i-ε* (ate) *go-ti-a-re* *o-ndo* *ɔna*
 EVD 2-PST-believe-PFT-DISC-FV CLM 16-NEG-PST-COP 14-thing even
o-mwe o-nge-a-rɛm-ir-ε mo-thuuri o-ciɔ.
 14-one 14-MOD-PST-defeat-PFV-FV 1man 1-DEM
 ‘They believed that there wasn’t anything that could have defeated that man/ They believed that there was nothing that that man could not do.’

Since *ate* is at the beginning of the sentence, it does not have a complementizer role like the optional internal one that links the matrix unit to the rest of the sentence. The initial *ate* is an evidential marker indicating that the speaker is reporting information received from another source, i.e. s/he might have read or heard from elsewhere, or even believed it. As is expected of clausal operators, *ate* takes the outermost position in the sentence in (3.37). This is the same position that *ne*, the declarative IF marker, would have taken had the intention been to indicate the assertive force of the sentence. When *ate* and *ne* are used together, the latter follows the former, never vice versa. The position for these operators follows from the fact they modify an entire sentence and not just a part of it.

3.2.2.8 Status

Status is a clausal operator that subsumes external negation, epistemic modality, and realis/irrealis distinction. Having illustrated external negation and epistemic modality, I will only illustrate the realis/irrealis distinction in this section.

3.2.2.8.1 Realis/Irrealis

Katamba & Stonham (2006:238) note that in many Papuan, Australian, and Native American languages, tense not only indicates the temporal reference, but also the status of an event or its certainty of occurrence. Thus, there is a dichotomy between the past and the present, considered “real” (*realis*) and the future which is “unreal” (*irrealis*). This follows the fact that the present and the past are known, but the future is not, making it hypothetical.

The concepts of realis/irrealis are related to epistemic modality, since they refer to actual/factual, and possible events. Realis refers to events that are real and necessary, and irrealis to “events that are hypothetical, conditional, possible or imaginary” (Pavey 2010:66). Therefore, we can say that realis leans more to certainty, and irrealis to possibility, and it is in this way that they relate to epistemic modality. Some languages make these status distinctions – Dani makes three distinctions: likely, possible, and real (Foley 1986).

Hypotheticals and conditionals belong to the irrealis. Thus, (3.38) falls under irrealis, (3.38a) is a hypothetical conditional, and (3.38b) with a future tense is an irrealis with a higher degree of certainty.

- (3.38) a. *I-nge-re* *mo-tɔngu* *nd-a-gor-a* *ndege*.
 Isg- COND-be 1-rich Isg-PRS-buy-FV 9.airplane
 ‘If I were rich I would buy an aeroplane.’
- b. *A-hetoka* *ke-geriɔ* *n-ga-mo-he-ε* *ke-heɔ*.
 1-pass 7-exam Isg-RMFUT-1OM-give-FV 7-present
 ‘If he passes the exam I will give him a present.’

3.2.2.9 Illocutionary force

Illocutionary force (IF) is a universal operator which helps speakers make statements, wishes, ask questions, or give commands. This is an important feature of language as a medium of verbal social interaction. Here I will illustrate Gikūyū declarative, optative, interrogative, and imperative IF.

3.2.2.9.1 Declarative illocutionary force

Declarative clauses help speakers make assertions and statements; (3.39) show Gĩkũyũ examples.

- (3.39) a. *M-wana a-ra-re-a i-tunda.* b. *M-wana ne a-ra-re-a i-tunda.*
 1-child 1-PRS-eat-FV 5-fruit 1-child AM 1-PRS-eat-FV 5-fruit
 ‘The child is eating some fruit.’ ‘The child is eating some fruit.’

Although both clauses in (3.39) are declarative, (3.39a) does not have particle *ne* as in (3.39b). It is *ne* that marks the declarative IF, although even with zero (\emptyset) marking, (3.39a) remains declarative. This is not unique to Gĩkũyũ as most languages do not overtly mark declarative IF (Pavey 2010).

Particle *ne* has been the subject of a lot of linguistic discussion. It is suggested to be a copula, emphasis, and definiteness marker (Barlow 1951; Armstrong 1960), a marker of assertion and presupposition (Myers 1971), an assertive marker and a clefting morpheme (Bergvall 1987a; Harries-Delisle 1978), a focus marker (Clements 1984a; Schwartz 2003), to name just some analyses. It has an array of functions in Gĩkũyũ, some of which not mentioned by these authors.

In related Bantu languages, a similar particle is a focus marker, for example in Kikamba (Whiteley & Ndumbu 1962; Kioko 2005), in Kĩĩtharaka (Abels & Muriungi 2006; 2008), and in Kivunjo, it is an asserting copula (Dalgish 1979). According to Whiteley & Ndumbu (1962) the Kikamba *ne* is a sentence “stabilizer”, since it gives a sentence “stability” or independence, so that it can stand on its own. This notion is also applied by Myers (1975) to Gĩkũyũ, an idea I partly support. I do not, however, agree with the “stabilizing” claim; instead I argue that it is exclusively about illocutionary force. Unlike Bergvall (1987a), who takes *ne* as a marker of only assertion and not focus, I take it as a marker of both, depending on its syntactic position in a construction. The relatedness between the assertive and focus marker is captured by G ldemann’s (2003) view that the connection between assertive and copula *ne* stems from the copula having developed into a focus marker. This may have been the case in Gĩkũyũ, and requires further research.

Gĩkũyũ clauses without object arguments or a post-verbal element require *ne* for the same “stability” talked about in Kikamba. A clause with a transitive verb that is used intransitively is ungrammatical or incomplete if *ne* is omitted. The pre-verbal *ne* “gives positiveness to the complete statement” (Barlow 1951:263).

In the English example *Peter did not give John the book* the auxiliary *did* marks both tense and IF. The Gĩkũyũ *ne* is likened to *did* in English by Barlow (1951:34), saying that copula *ne* gives “preciseness and positiveness to the fact stated or the question asked ... its function in past tenses is akin to that of the auxiliary ‘did’ in English”. Although these are different languages, the auxiliary nature of both *do* and *ne* may be assumed to be similar in force, especially when *do* is used emphatically, i.e. to remove any doubts.

Declarative IF is marked before the core in (3.39b), but after the ECS element *mwana* ‘baby’. The position is inside the clause, hence focusing is possible, as well as (optionally) indicating IF. Thus, in (3.39b) *ne* marks both IF and focus. Lack of *ne* can also indicate focal scope, as I show later on.

3.2.2.9.2 Interrogative illocutionary force

It was earlier shown that Gĩkũyũ *wh*-question patterns vary from in situ (3.40a) over partially-displaced (3.40b) to ex situ (3.40d). Intonation is used to convert statements into polar questions as in (3.40c). While it may look odd to show *ne* in a question, and having just said that it marks declarative IF, I note that it is impossible to intonationally convert a declarative clause into an interrogative, if the former does have *ne*. It will become clearer when more examples are discussed (see 3.43c and 3.44).

- (3.40)a. *M-wana a-ra-re-a kee?*
1-child 1-PRS-eat-FV Q
'What is the child eating?'
- b. *M-wana ne-kee a-ra-re-a?*
1-child FM-Q 1-PRS-eat-FV
'What is the child eating?'
- c. *M-wana ne a-a-re-ir-ε ?*
1-child AM 1-RMPST-eat-PFV-FV
'Did the child eat?'
- d. *Ne kee m-wana a-ra-re-a?*
FM Q 1-child 1-PRS-eat-FV
'What is the child eating?'
- e. *Kae o-ta-r-ɔk-a wera omothe?*
PTCL IIsg-NEG-PRS-come-FV 9.work today
'Is it the case that you are not coming to work today?'

The interrogative in (3.40e) uses *kae*, meaning 'is it the case that?' to mark the IF. This particle is displaceable, unlike the *wh*-words. A yes/no answer to (3.40e) is not enough; it must be followed by a positive or negative clause. *Kae* is also used in 'surprise' questions such as *Kae go-tuk-ir-ε?* PTCL 15-become.dark-ASP-FV 'Oh is it that it has become dark?' to indicate surprise or an unexpected realization on the speaker's part. However, no answer is expected to such a question.

3.2.2.9.3 Imperative illocutionary force

Imperatives allow language users to give commands, advice or instructions, or make requests.

- (3.41) a. *Re-a nyama!*
Eat-FV 9.meat
'Eat meat!'
- b. *Re-a-i nyama !*
Eat-FV-IMP 9.meat
'You (pl) eat meat'
- c. *N-do-ka-re-ε nyama!*
IIsg-NEG-FUT-eat-FV 9.meat
'You should not eat meat.'

The example in (3.41a) is a typical imperative clause, one without an overtly marked actor argument. The example in (3.41b) is also an imperative, which marks number post-verbally with the suffix *-i*. This suffix shows that the addressees are more than one, which is unusual, as number and person are normally marked preverbally on the verb or by NCs on nominals in Gĩkũyũ.

Having imperative suffixes is not unique to Gĩkũyũ. Bybee (1985:172) notes that Korean, Wappo and Malayalam have imperative suffixes, while Kutenai has an imperative prefix. These affixes, according to Bybee, do not interact with person or number marking, because these languages do not have person/number marking, or the person/number marking is prefixed on the verb. The example in (3.40c) is a negative imperative, though with an overt argument marker. Such a clause is "prohibitive" in the sense of Givón (2001b:312) and at the same time has an advisory function

3.2.2.9.4 Optative illocutionary force

The optative expresses a wish or a desire. Particle *nɔ* expresses a desire and wish in (3.42a). In (3.42b), *-rɔ-* indicates optative illocutionary force.

- (3.42) a. *Nɔ ny-ɛnd-ɛ nyama.* b. *O-rɔ-ra-thim-wɔ ne Ngai.*
 MOD Isg- like-FV 9.meat IIsg-OPT-PRS-bless-PASS by 9.God
 ‘I would wish for/like meat.’ ‘May you be blessed by God.’

Additional evidence that *ne* is the declarative IF marker emerges from the fact that *ne* is incompatible with imperatives in (3.43a), optatives in (3.43b), and interrogatives with in situ questions in (3.43c). The incompatibility with *ne* in (3.43) is because a clause may not have two different illocutions, for example declarative and interrogative in (3.43c).

- (3.43) a. **Ne mo-hor-ɛ-i.* b. **Ne a-rɔ-hetok-a ke-geriɔ.*
 AM 2OM-beat-FV-IMP AM 1-OPT- pass-FV 7-exam
 ‘Beat him!’ ‘May he pass the exam.’
 c. **M-wana ne a-ra-re-a kee?*
 1-child AM 1-PRS-eat-FV Q
 ‘What is the child eating?’

I noted that intonation can convert a declarative into an interrogative as in (3.40c). However, intonation is not the only requisite feature, since *ne* is obligatory in order for intonation to convert a declarative into an interrogative IF. Consider (3.44) below.

- (3.44) A-*geni m-ɔ-ɔk-ir-ɛ.* (b) A-*geni ne m-ɔ-ɔk-ir-ɛ.*
 2-visitors 2-RCPST-come-PFV-FV 2-visitors AM 2-RCPST-come-PFV-FV
 ‘The visitors came.’ ‘The visitors came.’

The example in (3.44a) can be both a statement and an exclamative clause, showing surprise or indicating an event that is not in doubt anymore, while (3.44b) is an assertive and emphatic statement of truth. It is possible to convert (3.44b) into an interrogative, but not (3.44a), which lacks *ne*.

My conclusion concerning the above is that the conversion of a declarative clause into an interrogative is an exercise between equals. That is, interrogative IF is only derivable from clauses that are undoubtedly declarative, and only those with an overt assertive *ne*, e.g. (3.40c), (3.44b), and others like them, are undoubtedly declarative.

To this point, I have discussed different operators and the layers they modify. The iconic order of operators shows their relative scope in relation to the nucleus (Van Valin 2005:11). If that is the case, operators should be proximal to their layers, e.g. a clausal operator (tense) is further from the nucleus, while aspect is closer to the nucleus because it is a nucleus operator.

However, a caveat on the iconic order is necessary, considering what is evident in Gĩkũyũ: The proximity claim is only valid if the relative order of the morphemes in relation to the layers can be identified. That is, if tense in a language is a prefix and aspect is a suffix, as it is in Gĩkũyũ, the proximity claim is not applicable. As such, there is no contradiction of the iconic ordering claim in Gĩkũyũ. I propose (3.46) as the order of operators in the Gĩkũyũ verb complex.

(3.46) (EVD) (IF) (-NEG,-MOD-)-TNS-root-ASP-

In (3.46), evidential and illocutionary force are the outermost operators to the left and aspect is the outermost operator to the right. Negation always precedes modality and tense, and, in turn, modality precedes tense. Aspect is the only suffix operator that is a suffix, as all others are prefixes.

Languages need not have all the operators, only negation and illocutionary force are universal. For example, I have not posited directionals and event quantification in Gĩkũyũ, the former because the responsible morpheme only occurs in a second core and the latter because it is a derivation process that affects the interpretation of the verb and whose scope is difficult to determine in a complex sentence. Most of the operators are indicated grammatically (negation, modality, tense, and aspect), and others morphologically (evidentiality, illocutionary force, and some modals). Declarative IF is indicated morphologically by *ne* or by a zero morph and interrogative IF by *wh*-words or intonationally.

I propose a Gĩkũyũ LSC schema in (3.47). As is common practice, all the bracketed elements are optional. Detached elements (L/RDP) are the outermost sentential units on either side of the LSC. In the next slot is the PrCS and the ECS and either can precede or follow the other, since they can alternate positions. After the ECS/PrCS is the obligatory pronominal anaphor (PA) the first direct core argument and it occupies the invariable pre-nucleus slot. In a transitive clause, the PA may be followed by an object pronoun (Pro), if there is no lexical RP object. The invariable nucleus (NUC) is next. An object RP, if present, is the post-nucleus direct core argument. All the layers can have peripheries, which I have not indicated in the schema.

(3.47) [SENTENCE(LDP)[CLAUSE(PrCS)(ECS)[COREPA-(-Pro-)-NUC-(RP)]] (RDP)]

The arrangement in (3.47) corresponds to the universal linear precedence rules for languages with detached and pre/postcore slots (see VVLP 1997:71). The ECS is missing from the rules, but its position should be after the PrCS in Gĩkũyũ. With (3.46) and (3.47) in mind, the example in (3.48) illustrates some components of the LSC from both the constituent and operator projections represented in Figure 3.5.

(3.48) *Ira=re Njeeri ne a-ra-hor-e-ir-ε nguɔ roe-ine.*
 Yesterday=TM Njeeri AM 1-RCPST-wash-APPL-PFV-FV 10.clothes 9-river-LOC
 ‘Yesterday, Njeeri washed clothes at the river.’

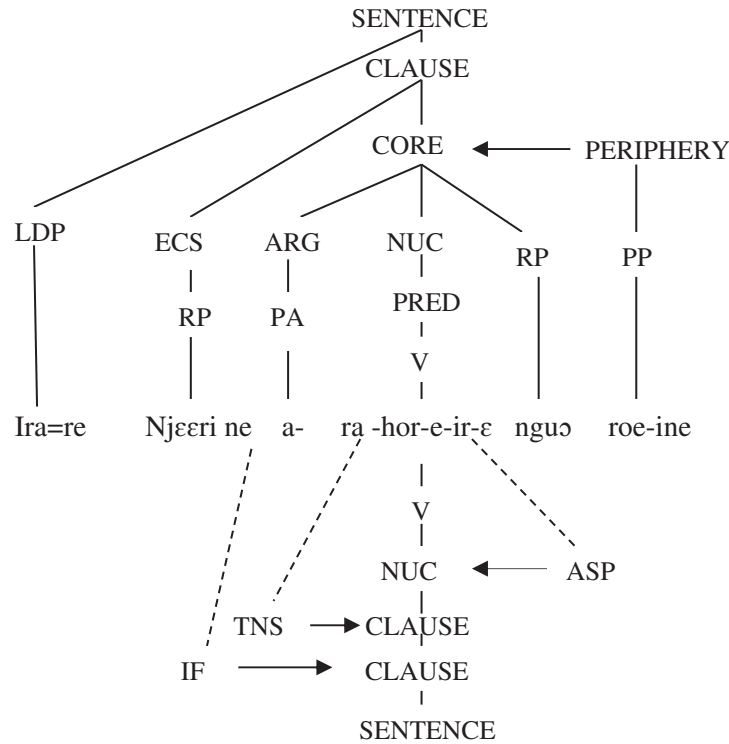


Figure 3.5 The LSC showing both the constituent and operator projections

3.3 Focus projection

The focus projection is the next projection that has morphosyntactic significance. In this section I will discuss focus types in Gikūyũ based on the typology suggested in RGG. A discussion of information structure also extends to topics; however, I have not dealt with topics in detail here.

3.3.1 Representation of information structure in Gikūyũ

Focus structure is the morphosyntactic expression of the discourse-pragmatic status of constituents in a sentence (Van Valin 2007b:42). The importance of information structure in grammar was demonstrated by Van Valin (1999; 2014); showing that it is actively involved in the grammars of languages. That means that information interacts with the linguistic domains (interfaces) of a grammar.

Furthermore, Van Valin (2005:69) contends that information structuring in sentences is of syntactic interest when “it has morphosyntactic expression and ramifications”. Since in Gikūyũ it is mainly morphosyntactically expressed and distributed, these “morphosyntactic ramifications” are expected.

Information structure is understood as the effort made by interlocutors in communicative events to enhance the chances of understanding each other, especially by the way information is structured in utterances (VVLP 1997). In their utterances, speakers take into account what is in the hearers’ knowledge. Therefore, the utterances contain some information already known (old) by the hearer, together with information that may be new (unknown). Old information is the background information (pragmatic presupposition) on which the new information is interpreted, and the new information (focus of the assertion) that comes with the presupposed information is the assertion.

Languages employ different strategies to mark information structure, such as syntax, morphology, and prosody²³. One strategy may be used in isolation or in combination, for example prosody and syntax. Syntactic strategies include designated focus positions, word order, or clefts. Morphological strategies employ dedicated focal particles; many languages use particles, e.g. Japanese uses *wa* and *ga* (Shimojo 1995; 2009; 2011).

Bantu languages indicate focus through word order (displacement), clefting, particles, tone, and reduplication of the verbal word, verb morphology, and even the shape of the object (see Nurse 2008:202; Güldemann 2003). Gĩkũyũ mainly uses particle *ne*, although other strategies are also used. The language makes less use of prosody, relying more on morphosyntax (see Clements 1984a; Bergvall 1987a; Schwarz 2003). Even when prosody is employed, it is either a high or low tone on *ne* or on the focus operator *ɔ* ‘only’ and the ideophonic *tu* ‘only’. Word order also marks emphasis in Gĩkũyũ; the position of a constituent determines its emphasis/prominence (Barlow 1951:34).

It was seen in §0 that a topic in Gĩkũyũ is optionally marked by the enclitic *=re*, be it a single unit or a phrase/clause. It was also indicated that the TM introduces some intonation that separates the topic constituent from the rest of the construction. Armstrong (1960:293) notes that TM is an “intensifier” that heightens what has been said, marks “communication of something very important or exciting, or heightens the effect of what has been said”. The above is evidence that the TM is part of informational structuring in Gĩkũyũ. Other topics are marked by *ne*, but they have a different function as described below.

3.3.2 Focus types in Gĩkũyũ

Lambrecht (1994:222-223) proposes three types of foci: argument focus, predicate focus and sentence focus. Argument focus and predicate focus may be focus on an argument or predicate, and are thus considered “narrow focus”. Sentence focus involves focus on a sentence scale and is therefore more “extensive” and “broader” than narrow focus and called “broad focus”.

Focus is classified as broad and narrow focus in RRG. Broad focus is either predicate or sentence focus, and narrow focus is either marked or unmarked focus (Van Valin 1999). Narrow focus can be marked on a single constituent in a clause, for example on an argument or on a verb, in their usual positions (unmarked) or in other marked positions. On the other hand, broad focus falls on more than one constituent in a clause and that can be a larger unit such as the predicate part of a clause or even an entire clause.²⁴

The focus types in the RRG theory of information structure contribute to the communicative functions of identifying a referent (narrow focus), saying something about a topic (predicate focus), and reporting an event or presenting a new discourse referent (sentence focus) (VVLP 1997:206).

²³ O’Connor (2008) proposed a theory of prosodic focus projection for RRG. This theory will make way for RRG to approach information structure in languages in more linguistic interfaces, beyond syntax and morphology.

²⁴ The notion of sentence here includes that of clause; in other sections, sentence will refer to a complex construction made up of more than one clause.

3.3.2.1 Narrow focus

In clauses with narrow focus, the focus domain is on a single constituent, for example a core argument, an adjunct, or a nucleus. RRG's narrow focus is analogous to contrastive focus (Kroeger 2004), term focus (Güldemann 2003) or argument focus (Lambrecht 1994), and emphasis of contrast (Armstrong 1967). Narrow focus can be used to identify a referent, to correct, or to contrast some information.

- (3.52) a. *O-Ø-re-ir-ε* *kee?* b. *Ne kee o-Ø-re-ir-ε ?*
 Isg-RCPST-eat-PFV-FV what FM Q Isg-RCPST-PST-eat-PFV-FV
 'What did you eat?' 'What was it that you ate?'
- (3.53) a. *Nd-e-e-ir-ε* *I-YEMBE.* b. *Ne I-YEMBE nd-e-e-ir-ε.*
 Isg-RCPST-eat-PFV-FV 5-mango FM 5-mango Isg-RCPST-eat-PFV-FV
 'I ate a mango.' 'It is a mango (that) I ate.'

The questions in (3.52) are matched the answers in (3.53). (3.52a) is an unmarked question, with the *wh*-word in situ, while (3.52b), with the *wh*-word ex situ, is marked. The answers mirror the status in (3.52): (3.53a) is unmarked just as (3.52a), but (3.53b), like (3.52b), is marked, with the focused RP fronted and *ne*-marked. The presupposed predicate in (3.52a) may be omitted in the answer in (3.53a) and *i-yembe* 'mango' remains as the only constituent.²⁵

In Lambrecht's typology of focus, (3.53b) is narrow focus, having a focused constituent obligatorily together with *ne*, the focus marker. The example in (3.53a) is unmarked narrow focus; the focused constituent is in its canonical object position, formerly the question position in (3.52a). The two sets above show some structural parallelism in them.

The questions have the pragmatic presupposition that 'something was eaten'; the assertion is that the speaker ate a mango. The focus is on the *ne*-marked constituent *iyembe*, on which the focus domain restrictively falls on, and this rules out any other thing the speaker could have eaten. The information structure of (3.53b) is as given below:

Sentence:	<i>ne IYEMBE nde-ir-ε</i>
Presupposition:	'speaker ate X'
Assertion:	x = <i>iyembe</i>
Focus:	<i>iyembe</i>
Focus domain:	RP

Note that *ne* is missing in both (3.52a) and (3.53a). The FM *ne* does not co-occur in clauses with in situ *wh*-words such as in (3.52a). Some literature (see Barlow 1951; Leakey 1978; Mugane 1997b) claim that *ne* is optional in clauses; however, I note that its presence or absence has information structural consequences. It actually determines the part of a clause that is focused. For instance, the omission of *ne* in (3.53a) indicates unmarked narrow object focus; its inclusion in the same clause would change the focus type. The information structure of (3.53a) is as shown below:

²⁵ The capitalized constituents are the focused ones.

Sentence:	<i>nde-ir-ε IYEMBE</i>
Presupposition:	‘speaker ate X’
Assertion:	<i>x = iyembe</i>
Focus:	<i>iyembe</i>
Focus domain:	RP

The kind of object focusing above is found across Bantu languages, for example in Bemba (Givón 1975), Zulu (Kunene 1975), and many others. Schwarz (2003) argues that constructions such as (3.53a) are ambiguous, because focus can be interpreted as being on the predicate or on the object. Abel & Muriungi (2008) describe such focus as “a wide-focus interpretation” in Kiitharaka because of its possible expansive interpretation. These interpretations are valid considering that a question such as ‘what did you do?’ can be responded to as in (3.53a), but not as in (3.53b). However, I argue that the interpretation of (3.53a) is strictly object focus, since the predicate part is already known from the question, and therefore, presupposed (and omissible), so it cannot be assumed to be new information. More important is that the focused constituent fills in the unknown (new) information. Gĩkũyũ clauses without *ne* in the preverbal position indicate post-verbal focus, or more precisely object constituent focus. That is why it should not be casually put that *ne* is optional in clauses, since that would overlook information structuring issues. With *ne*, being the FM, its absence does not imply that there is no focus; because new information is supplied by the constituent in the answer.

Focus on a subject constituent is obligatorily *ex situ* with *ne* affixed to a focused constituent as in (3.55a). This follows from the question itself which must be fronted and *ne*-marked (*ne-o*) (3.54a). The question can also be passivized as in (3.54b). The *wh*-question takes a peripheral position and *ne* functions as preposition (‘by’). Both questions require the same answer in (3.55a).

(3.54) a. <i>Noo o-re-ir-ε</i>	<i>i-yembe?</i>	b. <i>I-yembe re-re-ir-wɔ noo?</i>
FM.Q 1.RSP-eat-PFV-FV	5-mango	5-mango 5-eat-PFV-PASS by.Q
‘Who ate the mango?’		‘The mango was eaten by who?’

The questions in (3.54) have their respective answers in (3.55), and the answers reflect the structural parallelism already demonstrated in (3.52) and (3.53). When a topic is presupposed as in (3.54b), it becomes optional in the answer (3.55b), as the PA is sufficient. Compared to narrow object focus, subject focus is positionally and structurally restricted. A focused subject constituent must be *ex situ*, accompanied by FM *ne* (3.55a) or as a *by*-phrase (3.55b). The focus in (3.55b) is on a constituent in the core periphery, although it is still narrow focus, as it is marked on a single unit.

(3.55) a. <i>Ne MW-ANA</i>	<i>o-re-ir-ε</i>	<i>i-yembe .</i>
FM 1-child	1.RSP -eat-PFV-FV	5-mango
‘It is the child that ate the mango.’		
b. (<i>I-yembe</i>)	<i>re-re-ir-wɔ</i>	<i>ne MW-ANA</i>
(5-mango) 5-eat-PFV-PASS	by	1-child
‘The mango was eaten by the child.’		

The information structure of (3.55a) is as shown below:

Sentence:	<i>Ne MWANA o-re-ir-ε i-yembe.</i>
Presupposition:	‘X ate mango’
Assertion:	x = <i>mwana</i>
Focus:	<i>mwana</i>
Focus domain:	RP

RRG enriched Lambrecht’s theory of focus by adding the notions of “actual focus domain” [AFD] and “potential focus domain” [PFD]. These innovations help clarify the notion of “focus domain” (Van Valin 1993b:29-30). The AFD is that part of the sentence that is actually focused, and the PFD constitutes the part in a sentence where a focal unit may possibly be found (Van Valin 1999:513).

The focus projection together with the information units (IUs) are anchored on the speech act node. The focused element in (3.55a) is in the AFD contained within the PFD. The example in (3.55a) has the same representation as (3.53b). In examples in which the focal element is in situ, such as (3.53a), the focal element is a core argument, while focused constituents in a *by*-phrase, such as (3.55b), are in the core periphery. In the examples given, note that a whole clause is the PFD, meaning that all the IUs within it are in possible AFD positions, and therefore focusable. When present, the FM helps determine the scope of the PFD and the AFD in Gĩkũyũ clauses or sentences.

Narrow focus can also fall on adjuncts, for example a temporal adverb as in (3.56a), which answers the question ‘when did the child eat a fruit?’, or on a locative PP as in (3.56b), answering the question ‘where did the child eat a fruit?’. The clauses in (3.56) are answers to marked questions (where the *wh*-word is fronted and *ne*-marked) as the answers reflect that markedness. In unmarked question forms for the same, the focused elements will be in the core peripheries. In (3.56) the focused elements are both in the PrCS in the LSC.

(3.56) a. *Ne IRA mw-ana a-ra-re-ir-ε i-yembe.*
 FM yesterday 1-child 1-RCPST-eat-PFV-FV 5-mango
 ‘It was yesterday that the baby ate a mango.’

b. *Ne KE-HARŌ-INE mw-ana a-ra-re-re-ir-ε i-yembe.*
 FM 7-field-LOC 1-child 1-RTPST-eat-APPL-PFV-FV 5-mango
 ‘It was on the field that the child ate a mango.’

Example (3.53b) is represented in Figure 3.6; the focused constituent is in the PrCS. The figure shows the focus projection, in which the constituents of the constituent projection are the information units (IU).

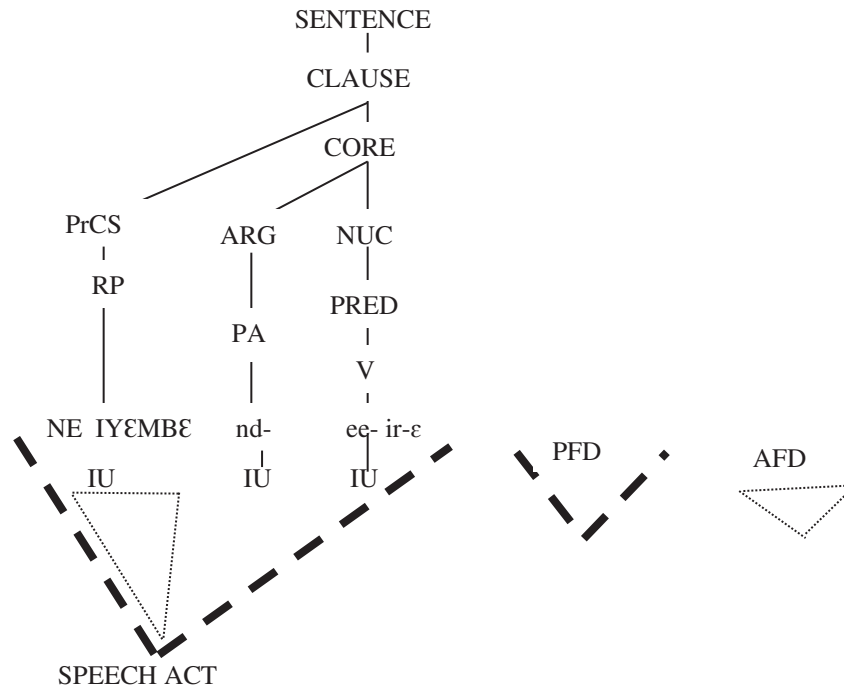


Figure 3.6 Gikũyũ Narrow focus

3.3.2.2 Predicate focus

Predicate focus is the universally unmarked default focus structure, analogous to the traditional “topic-comment organization” (Van Valin 1993b; 1999). It corresponds to the focus marked on the predicate and beyond, but excluding the subject (Lambrecht 1994).

Clauses with predicate focus have a topic constituent that is commented on in the predicate phrase (Lambrecht 1994:131). Although the topic is within the pragmatic presupposition, it is not in focus. The predicate phrase establishes a focus domain in the predicate or part of it, as shown by the answers to the question in (3.57a) with the answers in (3.57b (i),(ii)).

- (3.57) a. *Ngaari* *ya-ku* (*ne-atea*) *e-Ø-ek-ir-ε* (*atea*)?
 9.car 9.ASSOC FM-what 9-RCPST-do-PFV-FV (what)?
 ‘What happened to your car?’ [Lit. What did your car do?]
- b. (i) (*Ne*) *E-Ø-THOK-IR-ε*.
 (FM) 9-RCPST-become.bad-PFV-FV
 ‘It broke down.’
- (ii) *Ne* *GO-THOK-A* *E-Ø-THOK-IR-ε*
 FM 15-become.bad-FV 9-RCPST-become.bad-PFV-FV
 ‘It broke down.’ [Lit. It is to become bad that it became bad.]

The *wh*-word in (3.57a) is of the partially-displaced type, although it can also be in the in situ or ex situ position, without affecting the meaning of answers, only the morphosyntax. The presupposition in the answers is that something happened to the hearer’s car, the topic commented on by the hearer. In both answers, the topic is indicated by the PA prefix (*e-*) on the verb, since the overt topic is omitted. The comment explains the “aboutness” of the topic *ngaari*

yaku ‘your car’ and it is the predicate that expresses the state of affairs. The information structure of (3.57b (i)) is shown below:

Sentence:	<i>E-THOK-IR-ε</i>
Presupposition:	‘hearer’s car is available as a topic for comment x’
Assertion:	$x = e-thok-ir-ε$
Focus:	<i>e-thok-ir-ε</i>
Focus domain:	predicate

The AFD is on the verbal predicate *e-thok-ir-ε* ‘it became bad’ and the PFD is the entire predicate. Although *ne* is missing in the answer, its inclusion does not change the interpretation. The problem with (3.57b (i)) is that the single unit is itself a finite clause. Therefore, it might appear we are dealing with broad focus rather than predicate focus. However, an indication that we are dealing with a predicate is that *ne* is excluded and the unit still stands on its own. Had it been a clause, *ne* would be mandatory for the clause to stand on its own.

The possibility for the ambiguous interpretation of predicate focus as broad focus lies in the constituents (verb and object) that are in the scope of focus. Dery (2007), Abel & Muriungi (2008), and Schwarz (2003) noted such ambiguity. Based on Tagalog, Dery (2007:387) proposed that predicate focus can also be categorized as “multiple focus”, whereby several elements in a sentence are focused. However, this may not apply to (3.57b(i)) with a single clause-like unit, in focus.

A different situation obtains in (3.57b(ii)). The answer shows a common phenomenon in Bantu, variously described as “verbal reduplication”, “verb-fronting”, “verb-doubling”, “preposed verb-doubling”, “predicate-fronting”, among others (cf. Nurse 2008; Güldemann 2010; Güldemann & Fielder 2013; Güldemann et al. 2010; 2015; Aboh & Dyakonova 2009; Aboh 2006). In such constructions, a non-finite “copy” of the base verb is fronted with *ne*, putting the verb in focus. In this way, there is no ambiguity as to what is focused, as the fronted verb unit in (3.57b (ii)) is in the AFD.

As for the ambiguity, the guiding principle should be what is presupposed. For example the answer in (3.57b (i)) assumes that something happened to the car. The expression of the new information is given in the answer, which is contained in a single clause-like unit without any other constituent. This is not evidence of the ambiguity between verbal and sentence focus, but since the answer is all new information and not presupposed, the topic is redundant; in fact it is odd to include it in the answer. However, in sentence focus a topic is part of the focus.

Unmarked object focus in (3.53a) and (3.57b (i)) can be further characterized into contrastive verb focus. This is seen in (3.57b (ii)) where the verb is fronted and there is no ambiguity as to what is in focus, since the fronted infinitive is contrastively focus marked.

Barlow (1995:127) notes that when fronted, “simple” infinitive marks slight emphasis such as explanations or contrasts, but after *ne* it expresses “strong emphasis” akin to the English adverbs *completely* and *thoroughly*. What I see in Barlow’s example, repeated in (3.58), is that the so-called “emphasis” is actually focus and “contrast” is contrastive focus.

(3.58) a	<i>Ne atea o-gw-ek-a?</i>	b.	<i>Ne ko-reithi-a n-go-reithia.</i>
FM	what Isg-TNS-do-FV	FM	15-graze-FV Isg-TNS-graze-FV
	‘What are you doing?’		‘It is herding that I am herding.’

Abels & Muriungi (2008:705) contend that the infinitive is nominalized in Kĩĩtharaka, a close relative of Gĩkũyũ. Their conclusion is motivated by the fact that in Kĩĩtharaka, the focus marker usually co-occurs with nominals. Their assumption has been found in other languages, as in Yoruba infinitives are deverbal nominals (Manfred 1993), and in Gĩkũyũ the infinitive has both nominal (gerundive) and verbal (infinitival) qualities (Mugane 2003).

However, there are other languages in which infinitives do not show the nominal qualities, e.g. Gungbe (Aboh & Dyakonova 2009). Such languages show that the doubled verb part has verbal characteristics. Abels & Muriungi may have argued as they did because infinitives in Bantu are like “gerunds”, although they should not be likened to English gerunds.²⁶

- (3.59) a. *Ne kee* *o-r-εek-a?*
 FM what/how IISG-PRS-do-FV
 ‘What are you doing?’
- b. *Ne nguɔ* *nde-ra-hor-a /* *Nde-ra-hor-a* *nguɔ.*
 FM 10.clothes Isg-PRS-beat-FV/ Isg-PRS-beat-FV 10-clothes
 ‘It is clothes I am washing clothes. / I am washing clothes.’
- b’. *Ne ko-hor-a* (*nguɔ*) *nde-ra-hor-a* (*nguɔ*).
 FM 15-beat-FV (10.clothes) Isg-PRS-beat-FV (10.clothes)
 ‘I am washing clothes’. [Lit. It is washing clothes that I am washing.]

The question in (3.59a) can take either *atea* ‘how’ or *kee* ‘what’, and either of them questions the verbal part of the clause. Both (3.59b) and (3.59b’) are felicitous answers to (3.59a). In (3.57b) the object *nguɔ* ‘clothes’ is fronted and *ne*-marked, and the matrix core follows. The displacement of the object does not make it the focal element, since the focus of the question is on the action, not on the object. Thus, even the matrix core that follows is part of the focus. The alternative clause in (3.59b) lacks *ne*, which is in fact unacceptable if it intended as an answer to (3.59a). This points to the earlier issue of ambiguity in focus interpretation, especially because the object is unmarked.

The answer in (3.59b’) effects narrow verb focus. One option is to have the infinitive verb and the object fronted and therefore focused, or to have a ‘copy’ of the verb and the object remaining in the base clause. The fronted unit is not marked for tense and aspect, which are marked in the finite clause following it. Schwarz (2003) suggested that the lack of aspect and tense in the displaced verbal unit makes it necessary to have a “copy” of the finite verb. Another reason for repetition is that Gĩkũyũ lacks a pro-verb like the English *do*, and therefore repeating a finite verb becomes mandatory. Figure (3.7a) shows marked verb focus and (3.7b) predicate focus. In the PrCS in figure (3.7a) the AFD is an infinitive and in (3.7b) the AFD is the whole verbal unit.

²⁶Perez (1985:76) concluded that Bantu infinitives and gerunds are different from their English counterparts.

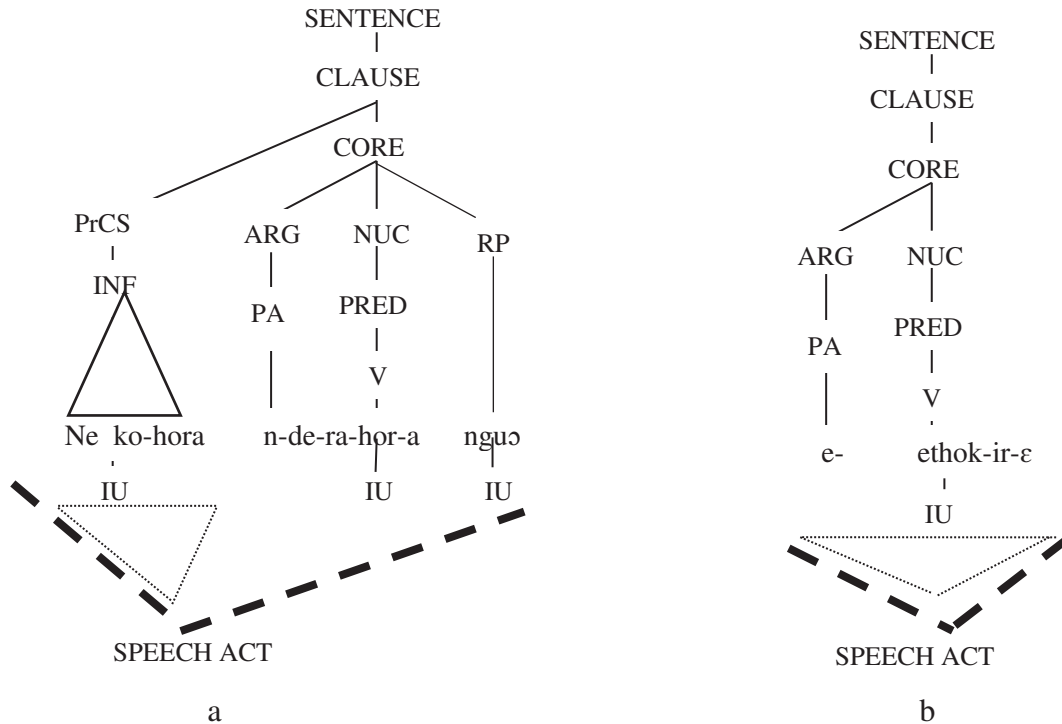


Figure 3.7 Verb focus and Predicate focus

3.3.2.3 Sentence focus

Sentence focus constructions have an entire sentence as a focus domain. Unlike in predicate focus, in sentence focus there is no presupposed topic such as *ngaari yaku* ‘your car’ in (3.57a). The subject or referent in a sentence is not the topic, as new participants are introduced, and the proposition expressed is not a comment on the introduced topic. In other words, the referent and the proposition do not have a topic-comment relationship, since the utterance is not about the coded referent. In addition, sentence focus constructions lack pragmatic presuppositions, except for the non-distinctive presuppositions common in all focus types (VVLP 1997: 207).

Sentence focus is common in presentational constructions such as narrative openings, e.g. *Once upon a time there lived an old man and his wife* in English or a Gĩkũyũ translation of it in (3.60). The detached phrase at the beginning of the sentence only provides a background, characteristic of narration in Gĩkũyũ. The introduced referents are all new information just like anything else that is added thereafter.

- (3.60). *Tene tene monɔ=re ne kw-a-re mo-thuuri na mo-tumia w-ake...*
 Long long very=TM FM 16-RMPST-COP1-man and 1-woman 1ASSOC
 ‘A long, long time ago, there was a man and his wife ...’

The question in (3.61a) is answered in (3.61b), which is all new information. The FM obligatorily occupies a clause-initial position, with two functions: it is the declarative IF marker and it puts the whole proposition in focus as the focus marker.

- (3.61) a. *Ne-kee ha-real Ha-rea ne-kee?*
 FM-Q 17-there/ 17-there FM-Q
 ‘What is happening there?’ [Lit. It is what there /there it is what?]

- b. *NE A-NDO MA-RA-RO-A*
 FM 2-people 2-PRS-fight-FV
 ‘It is people that are fighting.’/ ‘People are fighting.’

The information structure of (3.61b) is as below.

Sentence:	<i>Ne ando mararoa.</i>
Presupposition:	none
Assertion:	<i>Ne ando mararoa.</i>
Focus:	<i>Ne ando mararoa.</i>
Focus domain:	clause.

There is no pragmatic presupposition in the above information structure as the assertion and focus are identical and the focus domain is on the whole clause. In some examples of narrow focus, *ne*-marked constituents occupied the PrCS; however, the clause in (3.61b) cannot be in the PrCS because it is not a case of contrastive focus nor a displaced constituent. While attached to PrCS elements, the FM is associated with a particular element, and the scope of *ne* in (3.61b) stretches to the whole clause. That way, the PFD and the AFD are on the entire clause and not on a single information unit. Figure 3.8 shows the representation of (3.61b).

That way, the PFD and the AFD are on the entire clause and not on a single information unit. Figure 3.8 shows the representation of (3.61b).

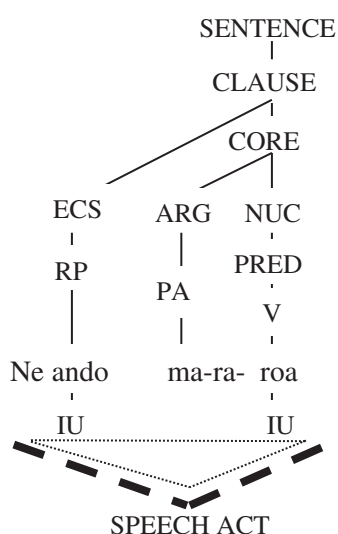


Figure 3.8 Sentence focus

The position of *ne* is one feature that sets sentence focus apart from other types of marked and unmarked focus such as marked narrow focus, where *ne* is placed before a constituent, and the unmarked predicate focus, where *ne* is placed before the verb complex. In sentence focus, *ne* is sentence-initial without a contrastive reading and *ne* does not precede a verb complex as in unmarked predicate focus.

Other examples in which topics are not available are the so-calledthetic/existential sentences, which carry all new information as in (3.62) below. These also do not contain identified topics.

- (3.62) *HE-ε-NA* *MO-NDO* *MO-RANGɔ-INE*.
 16-COP-COM 1-person 3-door-LOC
 ‘There is somebody at the door.’ [Lit. ‘There is with somebody at the door.’]

The RP *mondo* ‘person’ follows *ha-* (NC16), the specific location NC maker, copula *-re-* ‘be’, and a comitative *na* [ha-re-na], phonologically realised as *He-ε-na* ‘there is with’. If the RP *mondo* had a demonstrative such as *orea* ‘who’ or any other, it would be definite, hence given (known). As it is now, the RP is indefinite, and regarded as new information, hence not a topic of the usual topic-comment order found in predicate focus. Clauses such as (3.62) are considered to have “all new information”, as they are “event-reporting sentences” (see Lambrecht 1994; 2000), and therefore they are sentence focus constructions.

In most Gĩkũyũ theoretical literature, it is agreed that *ne* is associated with focus. What is contentious is whether Gĩkũyũ *ne* constructions are cleft constructions (Bergvall 1987a) or whether they are focus phrases (Clements 1984a; Schwarz 2003). Languages are known to use a couple of different focusing strategies, for instance, they can use a focal particle and syntactic strategies in combination. Toura (Mande, Ivory Coast) is one such language that employs both morphological and syntactic strategies (see Bearth 1969; 1992 cited in Van Valin 2005: 75).

I have noted that in some cases *ne* triggers a bi-clausal construction in Gĩkũyũ, for example when focused subjects are in sentence focus constructions such as (3.61b). Focused subjects behave differently from all others, since they must be in the PrCS or in a peripheral (*by-*) phrase to. When in the PrCS, subjects affect the form and function of the subject PA prefix *a-* on the verb by changing it into a relative subject prefix (RSP) *o-* (or *w-* when it occurs before vowels). This is most evident with singular third person subjects (*a-*), but not with others such as the third person plural (*ma-*). This seems to be a common feature across most Bantu languages other than Gĩkũyũ, in which these verbal changes disappear or are not very clear in some cases (Güldemann et al. 2015).

The presence of the relative clause motivated Bergvall (1987a) to postulate a bi-clausal analysis of *ne*-constructions, arguing they are clefts. Similar cleft arguments are made for other languages, for example by Harford (1997) for Kĩĩtharaka and by Demuth & Johnson (1988) for Setswana, but rejected by Abel & Muriungi (2008) for Kĩĩtharaka and by Schwarz (2003) for Gĩkũyũ.

My contention is that the cleft analysis is valid in Gĩkũyũ focal constructions. Focus constructions involving the subjects and the predicate such as verb-fronting exhibit clefting strategies. In such examples, *ne* is required before a focused unit and adding to it a marked focus type, of which clefts are one.

For other types of focus such as unmarked narrow object focus, the focus is syntactically realized with the focused argument remaining in situ and it does not require the focus marker *ne*, which would otherwise change the focus scope and type. This kind of focusing does not affect the PA prefix on the verb. As for contrastive object topicalization, the displaced object does not require *ne*. In that case, word order is used to realize a focal unit. In conclusion, clefting strategies apply to the three exceptional cases of focusing: subject-focusing, verb-focusing, and sentential-focus clauses, but notthetic sentences such as (3.62).

A remaining issue is whether Gĩkũyũ has a dedicated focus position. From the typology of focus types (and the position of *wh*-words in questions), it emerges that the entire clause is a

PFD while the AFD may fall on different constituents within a clause. Unlike languages such as Setswana, which have a post-verbal focus position (Demuth 1989; 1990), Gĩkũyũ utilizes both pre-verbal and post-verbal positions. The post-verbal focal position applies to object argument focus and focused actors in the periphery of in passive constructions as in (3.55b). All other focus forms use a pre-verbal (core) position, with *ne* distinguishing marked focus from the unmarked.

The fact that in Gĩkũyũ the PFD is on the whole clause as it is in English brings with it other conclusions. Van Valin (1999; 2005) argued that syntax and focus interact closely, to the extent that they influence each other. Gĩkũyũ has a relatively fixed word order as is evident in the permutations of topical and focal constituents, including *wh*-words. Since displaceable constituents can occupy different clausal positions, this is an indication that topics and focus are displaceable, owing to the syntax-pragmatics interfaces in Gĩkũyũ. The interaction of the two interfaces allows the constituents to have different syntactic and pragmatic statuses.

In the foregoing discussion on focus, I have established focal constituents' positions, and laid out a typology of focus in Gĩkũyũ based on RRG. My account of focus supports clefting and focus particle as strategies, and therefore reconciles two opposing views: clefting analysis by Bergvall (1987a) and focus phrase analysis by Schwarz (2003). In the analysis, I have not posited abstract movements or resorted to abstract null phonological entities when theorizing on *ne*, as is done in the generative studies by Clements, Bergvall, and Schwarz. Instead, I have proposed a morphosyntactic account of focus constructions in Gĩkũyũ, showing the interaction of syntax and information structure.

The three projections of the LSC have been discussed, and now they can be represented on a single LSC. They are not independent representations, but rather three types of information that are simultaneously available in a clause. To show the combined representation of the three projections, I use (3.63), which is represented in Figure 3.9.

- (3.63) *Ira=re* *Njɛɛri ne* *nguɔ* *a-ra-hor-ir-ε.*
 Yesterday=TM Njɛɛri FM 9.clothes 1-RCPST-wash-PFV-FV
 ‘Yesterday, Njɛɛri washed clothes./ Yesterday it is clothes that Njɛɛri washed.’

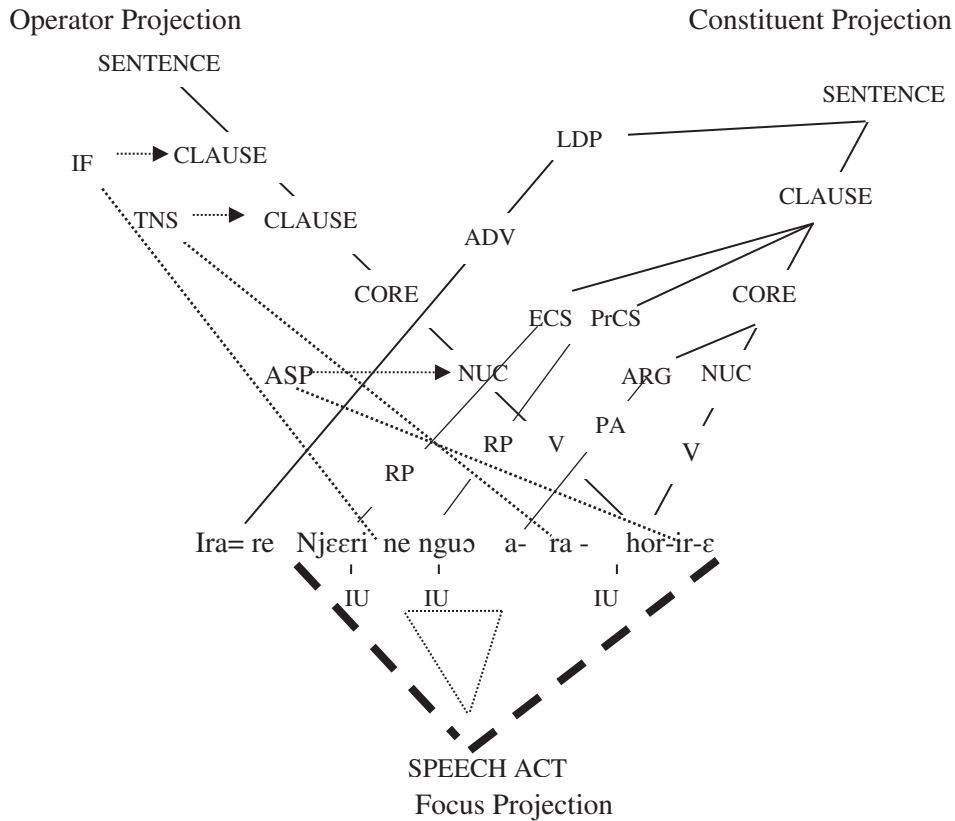


Figure 3.9 Clause structure with operator, constituent and focus projections

3.4 Summary and conclusion

In this chapter, Gĩkũyũ simple clauses were analyzed based on the Role and Reference Grammar theory. It focused on the syntactic representation, specifically on the constituent, operator and focus projections. On the constituent projection, it was shown that a pronominal anaphor (PA) is the obligatory first direct core argument, and a bound object pronoun is the second direct core argument in the absence of a lexical object RP. I also established the L/RDP, ECS, PrCS positions in the Gĩkũyũ LSC, and proposed a LSC schema for Gĩkũyũ. I have also shown the iconic order of the operators, i.e. evidential, illocutionary force, tense, negation, modality (deontic and epistemic) and aspect.

A typology of focus types in Gĩkũyũ was presented, showing narrow constituent focus, predicate and broad focus. It was evident that the language employs morphological and syntactic strategies as information structure strategies, with the particle *ne* playing a critical role in marking focus, among other functions. Finally, it was shown the representation of the three projections in single LSC. In conclusion, it is evident that the LSC is able to account for the morphosyntactic facts in Gĩkũyũ clauses.

4 Theory of complex sentences in RRG

4.1 Introduction

The understanding of sentence structure goes beyond the formal devices that instantiate these structures to include the semantic notions encoded by those devices (Longacre 1985:284). An investigation into complex sentences is likely to raise questions on how clauses are linked, their linkage relationship, their reference tracking mechanisms, the semantic relationship of the verbs in linked clauses, and the “gaps” that result from such unions (Watters 2000:217).

The issues pointed out by Longacre and Watters above, are included in the RRG theory of complex sentences, among other issues, although formulated differently. Clause linkage refers to bringing clauses together in some way (Lehmann 1988; Hetterle 2015), but as will become clear, clause linkage is only one sub-part of the RRG theory of complex sentences, as there are sub-clausal units that can also be linked.

In this chapter, I introduce the main concepts and ideas of the theory of complex sentences in RRG. This includes the levels of junctures, nexus types, juncture-nexus types, the structure of Gikūyū complex RP, and information structure in complex sentences.

4.2 RRG theory of complex sentences

RRG has developed an elaborate theory of clause linkage since its conception (Foley & Van Valin 1984; Van Valin 1993b; VVLP 1997; Van Valin 2005, 2007b). The RRG theory of complex sentences has three components: junctures, nexus, and the theory of interclausal syntactic/semantic relations. This theory is built on three crucial layers of the LSC, which form the base for describing complex constructions: the core, the nucleus, and the clause. There are many possible questions pursue in an investigation of complex sentences, but two very fundamental ones must be answered (VVLP 1997:441):

- (4.1) a. What are the units involved in complex sentence constructions?
- b. What are the relationships among the units in the constructions?

An answer to (4.1a) would show the level or layer at which concerned units are linked and the answer to (4.1b) would describe the types of linkage between the linked units. In RRG, linkage can happen at the nucleus, core, clause, and sentence layer. These layers form the theory of junctures, and the types of linkage or relations among them make up the nexus theory. The theories of juncture (§4.2.1) and nexus (§4.3) are crucial in an RRG analysis of clause linkage.

In unmarked complex sentence constructions, same levels combine to form the corresponding level of juncture. Therefore, nuclei combine with nuclei in nuclear junctures, cores with cores in core junctures, clauses with clauses in clausal junctures, and finally sentences with sentences in sentential junctures. Clausal junctures are therefore constructions composed of more than one clause, and sentential junctures are complex constructions made up of more than one sentence.

Syntactic relations that hold between units are called “nexus relations”. Subordination, coordination, and cosubordination are the nexus relations in RRG. Cosubordination is unique to

RRG theory; it has features of both subordination and coordination, and is described as “essentially tight, dependent coordination” (Van Valin 2010:725).

4.2.1 Level of junctures

The core and the nucleus are the linkable sub-clausal units of the LSC, while the clause and the sentence are the linkable clausal entities. These components form the respective junctures: schematically they are represented below in (4.2).

(4.2) a. [CORE... [NUC...]+ ... [NUC...]+...]	Nuclear juncture
b. [CLAUSE... [CORE...]+... [CORE...]+...]	Core juncture
c. [SENTENCE... [CLAUSE...]+... [CLAUSE...]+...]	Clausal juncture
d. [TEXT... [SENTENCE...]+... [SENTENCE...]+...]	Sentential juncture

4.2.1.1 Nuclear junctures

A core with more than one nucleus produces a nuclear juncture. A nuclear juncture is a complex predicate expressing a single event, even though there are two (or more) distinct nuclei. It is a kind of “verb-verb compound”, to use Payne’s (2011:329) words. In a nuclear juncture the arguments are pooled and they are assumed to be arguments of a single complex nucleus. The example in (4.3) from VVLP (1997:442) illustrates a nuclear juncture in English.

- (4.3) a. John forced open the door. b. John forced the door open.

The two distinct nuclei *force* and *open* can be side by side as a single complex predicate as in (4.3a), or they can be separated by an argument such as *the door* in (4.3b). In both cases the nuclei are interpreted as a single entity having two arguments, *John* and *the door*.

Nuclear junctures are also instantiated by resultatives with a causative meaning in English. They have a logical structure similar to that of lexical causative accomplishments (Van Valin 2005:238). This is illustrated by (4.4) from Van Valin (2005: 190).

- (4.4) Kim painted the table red.
 [do’ (Kim, [paint’ (Kim, table)])] CAUSE [BECOME red’ (table)]

Languages such as Gĩkũyũ have a problem forming nuclear junctures because they do not have “bare verbs”, i.e. verbs without argument markers. The occurrence of elements between nuclei is allowed in some English constructions as in (4.3b), and some French constructions, but not in Mandarin (VVLP 1997:442-443). This follows from the fact that nuclear junctures are the tightest form of linkage; elements in between the nuclei may interfere with this tightness. Gĩkũyũ (and probably other Bantu languages) may not have nuclear junctures because the nucleus must have a prefix argument attached. Therefore, even if two nuclei were linked, the link between them would not be as tight as that of units without elements in between them.

Languages with serial verbs have no problem forming nuclear junctures since a serial verb serves as a single nuclear unit marking a single event. Serial verbs are widespread in West Africa, Oceania, Southeast Asia, Amazonian, and New Guinea (Aikhenvald & Dixon 2006). In Africa, serial verb languages are predominantly found in Kwa and Benue languages, Khoisan, and in some African pidgins (Childs 2003:137-139).

In Kenya, serial verbs are reported in Dholuo (Omondi 1983) and in Lango, a related language spoken in Uganda (Noonan 1992). I am not aware of a claim of serial verbs in Gĩkũyũ or in its closest relatives.²⁷

The example in (4.5) is a serial construction from Igbo, originally cited from Lord (1975:27) by Aikhenvald & Dixon (2006: 2). The semantic arguments *Ó* ‘he’ and *étéré à* ‘the plate’ in (4.5) belong to both nuclei, *tì-* ‘hit’ and *-wà-* ‘split-open’ which are interpreted as one predicate whose tense is singly specified. Figure 4.1 represents the example in (4.5).

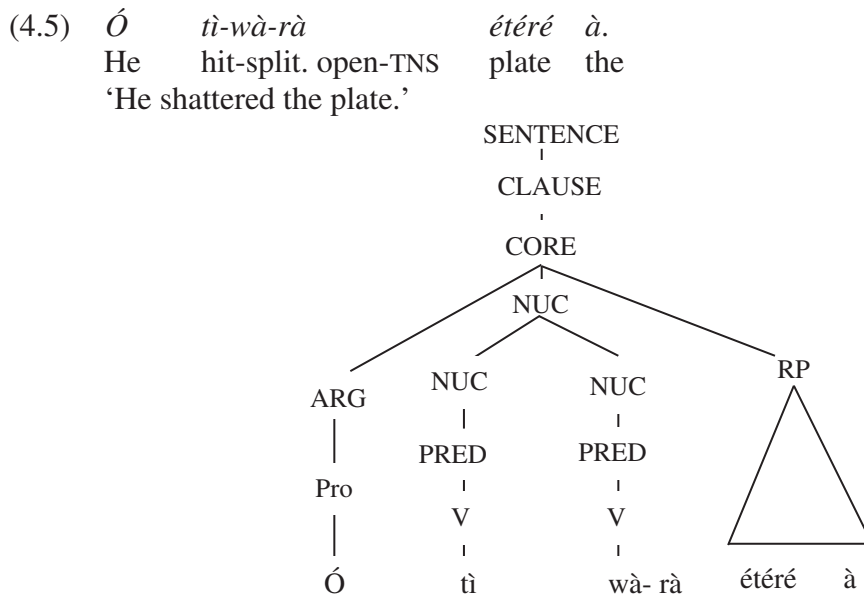


Figure 4.1 Igbo serial verb nuclear juncture

4.2.1.2 Core junctures

Core junctures are made up of multiple cores. Each core has its own nucleus and some (or all) of its arguments as seen in (4.6).

- (4.6) *Ne* *ma-r-ènd-a* *a-tém-ε* *mo-te*
 AM 2-PRS-want-FV 1-cut-FV 3-tree
 ‘They want that he cuts the tree.’

The initial core in (4.6) has its own PA prefix *ma-* and a nucleus *ènda* ‘want’ and the second one PA (*a-*), a nucleus *-tém-* ‘cut’ and an object *mo-te* ‘tree’. The second core fills an argument position for the verb ‘want’. This position may be occupied by a nominal element, e.g. *They want a mango*. The second unit, though a core, is an argument of the matrix core. This is an example of core subordination, whereby a core unit is an argument of a matrix core. The subordinative nature of the linked core is indicated by the subjunctive final vowel (*-ε*), which is a feature of subordination in Bantu (Ngonyani 2013). The constituent representation of (4.6) is in figure 4.2.

²⁷Mugari & Kandenge (2014:98) claim that in chiShona, periphrastic causative constructions are serial verb construction (SVC), which in my view does not meet the criteria of serial verbs. If their claim is accepted, then most Bantu languages with similar constructions, including Gĩkũyũ, would be SVC languages, which is not factually true.

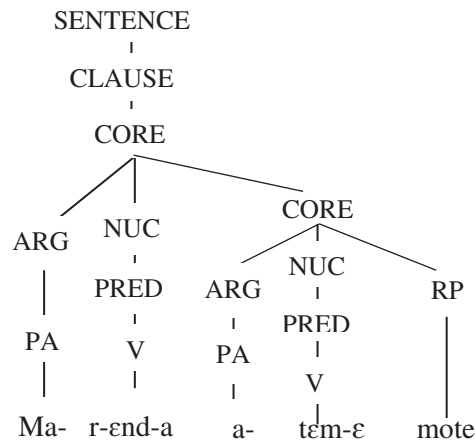


Figure 4.2 Core juncture (subordination)

4.2.1.3 Clausal junctures

Core junctures are made up of multiple cores, and each core has its own nucleus and some (or all) of its arguments as seen in (4.6).

- (4.7) *Ne ma-r-end-a a-tɛm-ɛ mo-te*
 AM 2-PRS-want-FV 1-cut-FV 3-tree
 ‘They want that he cuts the tree.’

Sentence (4.7) has two finite clauses joined by *nɔ* ‘but’. The first clause is composed of a core and a core periphery element *omothe* ‘today’, an adverb. The second clause also has a core and core periphery element *na me-gɔngɔ* ‘on their backs’, a prepositional phrase. The constituent clauses bear their grammatical categories such as tenses and negation. This kind of independence is characteristic of coordination. The example from (4.7) is represented in Figure 4.3

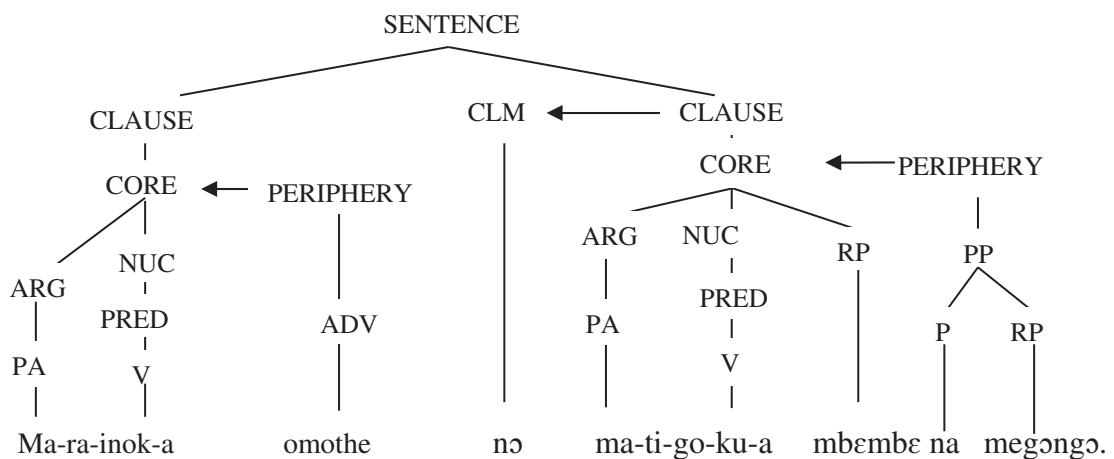


Figure 4.3 Clausal juncture (coordination)

4.2.1.4 Sentential junctures

Sentential junctures are complex constructions comprising two or more sentences. Such junctures may be a sentence with several clauses in it or a clause with a core juncture.

(4.8) *Ha-ko-inger-a nyomba ne nd-a-mu-ɔn-ir-ε a-ke-inger-a*
 17-15-enter-FV 9.house AM Isg-RMPST-1OM-see-PFV-FV 1-SIM-enter-FV
 ‘As for entering the house, I saw him enter/entering
nɔ ha-ko-iy-a mbeca n-di-oe kana
 CLM 17-15-steal-FV 10.money Isg-NEG-know CLM
ne a-a-iy-ir-ε.
 AM 1-RMPST-steal-PFV-FV
 ,but as for stealing the money, I do not know whether he stole (it).’

The example in (4.8) is a long complex sentence, almost like a paragraph, justifying ‘TEXT’ as the highest node. The first sentence has its own left-detached unit, followed by a complex sentence composed of a clause, which is made up of two cores: a finite and a semi-finite (simultaneous) one. The conjunction *nɔ* ‘but’ joins the first sentence to a second one, made up of a detached unit, a core and a subordinate clause introduced by complementizer *kana* ‘whether’. The detached units in both sentences may take TM =*re*, which shows their subordinate nature. (4.8) contains more than one type of nexus, as it has coordination (conjunction *nɔ*), cosubordination (SIM-clause), and subordination (*kana*-complement) in it.

4.3 Nexus relations

In RRG nexus relations consist of the common clause linkage relations coordination and subordination, and a RRG-unique relation, cosubordination. These three relations form the Nexus theory or “Nexus types”. They are schematically shown in Figure 4.4 from (Van Valin 2005:188).

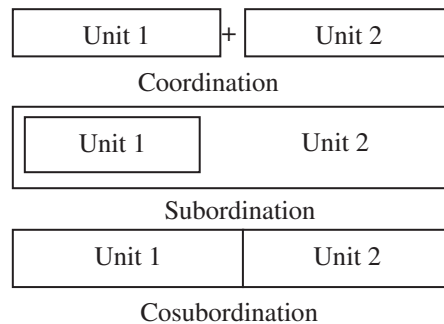


Figure 4.4. Nexus relations

The schema in Figure 4.4 captures the specific feature of each nexus relation. The nexi are divided along the features of embedding, dependence and independence. At clause level, coordination shows two (or more) linked independent units. The linked units are self-sufficient as far as grammatical categories are concerned, as in (4.7). In a subordinate nexus relation, the schema indicates the embedding feature associated with subordination, whereby a matrix unit contains an embedded subordinate unit. The structurally embedded units can function as core arguments (complement clauses) or modifiers (adverbial clauses and relative clauses).

Cosubordination has two units that are neither independent nor embedded. The linked units appear independent, as in coordination, as none is embedded, but they practically belong together as in subordination. Although cosubordinate units may or may not be conjunctively linked, some relation requires them to belong together, for semantic and syntactic reasons. Such a relation follows if one or two grammatical categories are shared between the linked units. The

unit with all the grammatical operators may stand on its own, but not without the necessary operator for a specific layer. Figure 4.5 from Pavey (2010:226) shows the nexus types.

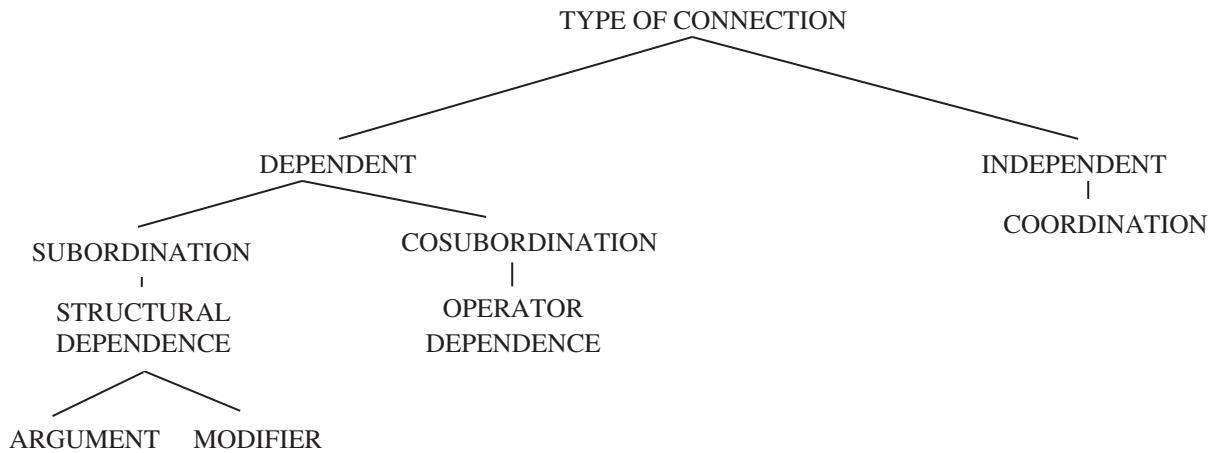


Figure 4.5 Types of connection in complex constructions

Consequently, the notion of “dependence” is either structural dependence or operator dependence. Subordination and cosubordination share the “dependence” feature, but not the type of dependence. Dependence in cosubordination is operator dependence, while subordination is the structural dependence through embedding. Thus, cosubordination has both features of dependence and independence, but none of these features can fully describe this nexus type.

The juncture levels and the nexus relations form the first part of the theory of complex sentences in RRG. Since I have now introduced the theory of junctures, next will be a brief introductory discussion of the nexus relations.

4.3.1 Coordination

Coordination involves linking of independent elements, with or without conjunctions, and results in a symmetrical construction. This means that the coordinated elements are of the same syntactic layer (nucleus, core, clause, or sentence) and the coordinated elements have operator independence at that level of juncture even though they are joined.

VVLP (1997: 454) defines coordination as an “abstract linkage relation involving a relationship of equivalence and independence at the level of juncture”, and this is the working definition adopted for this study. Coordination differs from conjunction constructions that use conjunctions to join constituents. A conjunction is capable of instantiating either coordination or cosubordination, but the definition above does not rely on the presence (or absence) of a conjunction and therefore, even paratactic constructions (asyndentic coordination) are coordinate.

The notion of “independence” does not mean that a unit can necessarily stand on its own, it merely means that it has its own operators at the level at which it is linked to another unit, be it nucleus, core, or clause (Pavey 2010:223). Consequently, if an operator is shared between units, then the symmetry and independence are lost, because the affected unit will be lacking something in it.

Gĩkũyũ coordinating conjunctions include *na* ‘and’, *kana* ‘or’, *amu* ‘for’, and *nɔ* ‘but’. These conjunctions are illustrated in detail in chapter 5. The example in (4.9) shows clausal conjuncts

- (4.9) a. *Tata a-a-thi-ir-ε ndonyo na-ke maama a-a-thi-ir-ε wera.*
 1.auntie 1-RCPST-go-PFV-FV 9.market CLM 1.uncle 1-RCPST-go-PFV-FV 9.work
 ‘Auntie went to the market and uncle went to work.’
- b. *Mw-aki ne w-a-gwat-a nɔ ne kee to-nge-hehi-a.*
 1-fire AM 3-IMPST-light-FV CLM FM.Q Ipl-MOD-roast-FV
 ‘The fire is lit, but what can we roast?’

Sentence (4.9a) is a typical example of clausal coordination. The clauses have their own tense, aspect, and illocutionary force (IF); and both can stand on their own. Clauses not having the same IF can be coordinated as (4.9b) shows. The first clause is declarative and the second one is interrogative. Tenses in both clauses are also different: present in the first clause and a modal in the second one. This example exemplifies the expected independence associated with coordination.

In (4.9a) *na* is attached to a clitic that corefers to *maama* ‘uncle’ in the linked clause. This clitic has a “comparative” sense of the events in the two clauses. It is common to find *na* and *-ke*, the ever-bound “pronoun” enclitic, in coordinated clauses such as (4.9a). The bound clitic *-ke* also co-occurs with other particles such as *ta-* ‘like’, *ta-ke* ‘like him/her’, or with *na* to form a comitative *na-ke* ‘with him/her’. The CLM *na-ke* may be regarded as a switch reference marker since it is used whenever the linked clause has a different subject.

4.3.2 Subordination

Subordination is generally understood as structural dependence or embedding and takes three forms: complementation, adverbial clauses and relative clauses. This section is a brief introduction on these concepts; Chapter 6 will deal with subordination in more detail.

4.3.2.1 Relative clauses

Relative clauses are nominal modifiers; hence, they are linked to the element they modify, creating a relation of structural dependency. The RP *mwarimo* ‘teacher’ is postmodified by a relative clause in (4.10).

- (4.10) *Mw-arimo o-rea o-thomith-ag-i-a ma-thaβu ne mo-koro.*
 1-teacher 1-RLPRN 1.RSP-teach-HAB-DC-FV 6-math COP 1-old
 ‘The teacher who teaches mathematics is old.’

The question that normally arises in the discussion of relative clauses in Gĩkũyũ is whether the language has relative pronouns or not (see, among others, Barlow 1951; Clements 1984a; Bergvall 1987a). This question is addressed in § 6.2.9.

4.3.2.2 Adverbial clauses

Adverbial clauses modify a core or a clause and these clauses express a wide range of meanings such as causation, location, reason, condition, manner, temporality, purpose, and concessive.

The example in (4.11) illustrates adverbial clauses of reason: In (4.11a) the reason-clause is a finite clause and in (4.11b) the reason modifier is headed by a preposition, which makes it a reason-core.

- (4.11) a. *Thigari* *ci-a-nyit-ir-ε* *mo-ciari* *ne* *tɔndo* *ne*
 10.police 10-RMPST-catch-PFV-FV 1-parent AM because AM
a-a-hor-ir-ε *mw-ana* *w-ake*
 1-RMPST-beat-PFV-FV 1-child 1-POSS
 ‘The police arrested the parent because she beat her child.’
- b. *Thigari* *ci-a-nyit-ir-ε* *mo-ciari* *ne* *tɔndo* *wa*
 10.police 10-RMPST-catch-PFV-FV 1-parent AM because PP
ko-hor-a *mw-ana* *w-ake*.
 15-beat-FV 1-child 1-POSS
 ‘The police arrested the parent because of beating her child.’

4.3.2.3 Complement clauses

Complement clauses function as core arguments, i.e. matrix core subject or object arguments.

- (4.12) *A-a-ug-a* *ate* *ne* *a-go-go-tig-a* *go-ko*.
 1-IMPST-say-FV CLM AM 1-IMFUT-IIsgOM-leave-FV 17-here
 ‘S/he said that s/he will leave you here.’

The complement clause introduced by *ate* ‘that’ in (4.12) fills the object argument position of the matrix core predicate *uga* ‘say’. Thus, it has a nominal function in this clause.

4.3.3 Cosubordination

The example in (4.13) shows a clausal cosubordinate construction. The initial clause is finite as far as clausal operators (tense and IF) are concerned. This clause is linked to a second one by an optional *na* ‘and’. The linked clause differs from the initial one in that it lacks absolute tense and aspect. In place of absolute tense, the clause contains a remote past consecutive “tense” *-ke-*, which indicates sequential or successive events between the linked units.

- (4.13) *Ne* *ɔi-ɔk-ir-ε* (*na*) *ai-ke-rug-a*.
 AM 1-RMPST-come-PFV-FV (CLM) 1-CONS₃-cook-FV
 ‘He came and cooked.’

The subjects in (4.13) are identical in both units; the consecutive clause cannot allow a different subject. While it is possible to have an ECS element in the initial clause, it is not allowed in the consecutive clause. There may not be any constituent (other than the conjunction *na*) coming before a consecutive clause. That is why it is impossible to have the assertive marker *ne* there.

Like a subordinate unit, the consecutive clause cannot stand on its own. Also note that even without the conjunction, the sentence has a coordinate sense. Thus, cosubordination emerges as the intermediate nexus relation between coordination and subordination, exhibiting features of both.

I have introduced the juncture levels and the nexus relations and illustrated them with Gĩkũyũ examples. These nexus relations are revisited in more detail in chapters 5 and 6. In the next section, I will explain the interaction of these junctures with nexus relations.

4.4 The juncture-nexus interaction

An important aspect of the theory of clause linkage is the interaction of junctures and nexus relations to yield different juncture-nexus types. The nexus relations combine with the different junctures to form complex sentences. These juncture-nexus types are abstract linkage relations, which are not necessarily grammatical constructions. The type is therefore not identified with a unique grammatical structure and may be realized by different grammatical construction types (Van Valin 2005:197).

The four levels of juncture combine with the three nexus types to generate eleven types of complex sentences. This is one less than the expected twelve because there is no “sentence cosubordination” as there are no operators for the sentential juncture. Languages need not have all eleven types; for example, English has nine of the nexus-juncture types (Van Valin 2005:197); Korean had all the nine juncture-nexus types (Yang 1994), as per the theory in Van Valin (1993b), before the addition of sentential juncture in Van Valin (2005).

4.4.1 Core juncture-nexus types

4.4.1.1 Core coordination

In non-subordinate (coordinate and cosubordinate) core junctures, an argument must be shared between cores. Coordinate cores differ from cosubordinate ones in that they have independent predicates and the cores in them do not share any operator.

- (4.14) *To-r-on-ir-ε* *mw-anake_i* *ai-a-goth-a* *ngui*.
 Ipl-RCPST-see-PFV-FV 1-youth 1-IMPST-hit-FV 9.dog
 ‘We saw the youth hit the dog.’

The PA *to-* ‘we’ is the actor argument in the initial core and RP *mw-anake* ‘youth’ is the undergoer RP. In the second core, the initial core’s undergoer argument (*mw-anake*) is coreferenced with the PA in the core, which is the actor argument, and *ngui* ‘dog’ is the undergoer argument of predicate *gotha* ‘hit’. Thus, the above cores show that both cores have independent own predicates. Unlike in (4.6), the second core does not fill an argument position in the first core. Further, the verb in the second core does not have a subjunctive *-ε* ending, a characteristic of subordination.

The example in (4.14) is not a case of cosubordination, because none of the core operators is shared between the cores. It is only the undergoer argument of the first core that is shared in the second core. Such argument sharing instantiates non-subordinate linkage, coordination or cosubordination, but since no core operator is shared, it is rightly a case of core coordination.

As for equivalence, it is clear that the two cores are equivalent as far as “core-hood” is concerned. This is in line with our conception of coordination as an “abstract syntactic relation between units”, not necessarily indicated by a conjunction. Figure 4.6 represents (4.14).

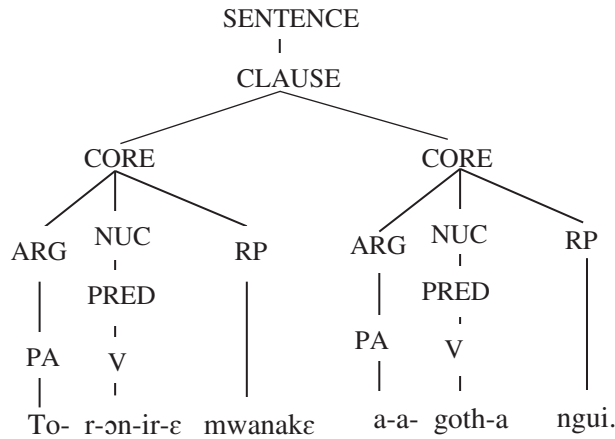


Figure 4.6 Core coordination

4.4.1.2 Core subordination

There are two types of the core subordination juncture-nexus type. In the first type, a subordinate unit modifies a matrix clause to express a time, manner, or pace relation of the core event. The other type is complementation where complement is a matrix core argument as in (4.15), repeated from (3.8c).

- (4.15) *Ko-re-a i-riɔ ny-ingε ne ko-nɔr-ag-i-a a-ndo monɔ.*
 15-eat-FV 5-food 5-a lot AM 15-be.fat-HAB-CAUS-FV 2-people very
 ‘Eating a lot of food fattens people very much.’

A nominal-infinitive phrase, which almost resembles an English gerund, is a “subject” core argument as seen in the NC agreement (NC15) of the core argument (*ko-*), cross-referenced on the predicate. The “subject” core argument occupies the ECS, as ordinary lexical RPs. (4.15) is an example of “true subordination” at the core level, as a subordinate unit is a core argument of the predicate (VVLP 1997:461). More precisely, (4.15) exemplifies core (daughter) subordination, whereby a core “subject” argument is embedded to a matrix core. Figure 4.7 represents example (4.15).

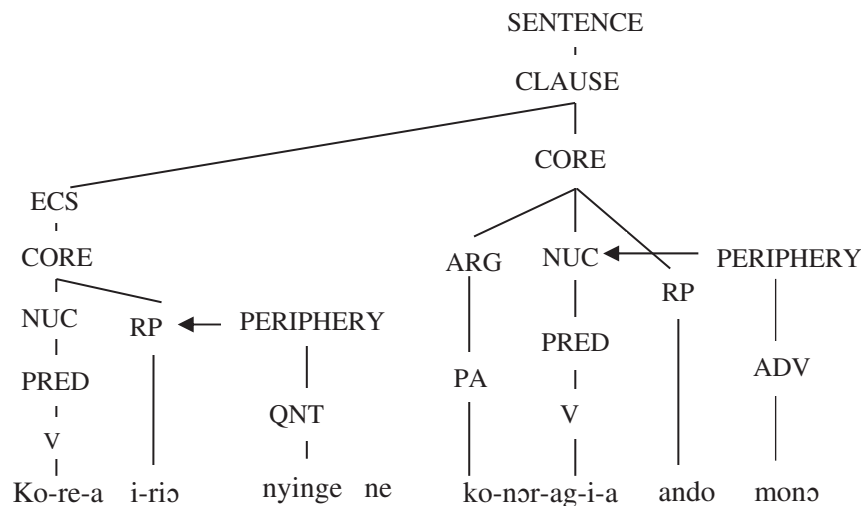


Figure 4.7 Core (daughter) subordination

The other type of core subordination involves the periphery of the core. Here, an adverbial subordinate adjunct modifies the core periphery. These adjunct clauses occupy the periphery of the matrix core, similar to prepositional phrases. They express spatial and temporal settings of the event in a core. This kind of subordination is known as “ad-core subordination” in RRG.

The examples in (4.16) are semantically similar but syntactically different. In (4.16a) the adjunct is headed by a PP *thutha* ‘after’, but in (4.16b) the modifying adjunct is a core that is juxtaposed with the matrix core. None of the modifying cores can stand on their own without the context set up in the matrix core.

- (4.16) a. *A-ciari* *ma-ga-cemani-a* *na* *a-rutwɔ* *thutha wa* *mo-cemaniɔ*
 2-parents 2-RMFUT-meet-FV COM 2-students back of 3-meeting
go-thir-a.
 15-end-FV
 ‘The parents will meet with the students after the meeting ends.’
- b. *A-ciari* *ma-ga-cemani-a* *na* *a-rutwɔ* *mo-cemaniɔ* *wa-a-thir-a.*
 2-parents 2-RMFUT-meet-FV COM 2-students 3-meeting 3-IMPST-end-FV
 ‘The parents will meet with the students after/when the meeting ends.’

Figure 4.8 represents (4.16a), the adjunct *c* is a predicative complex PP (temporal and possessive) *thutha*_{TEMP}*wa*_{POSS} ‘after of’. It attaches to the matrix core at the periphery.

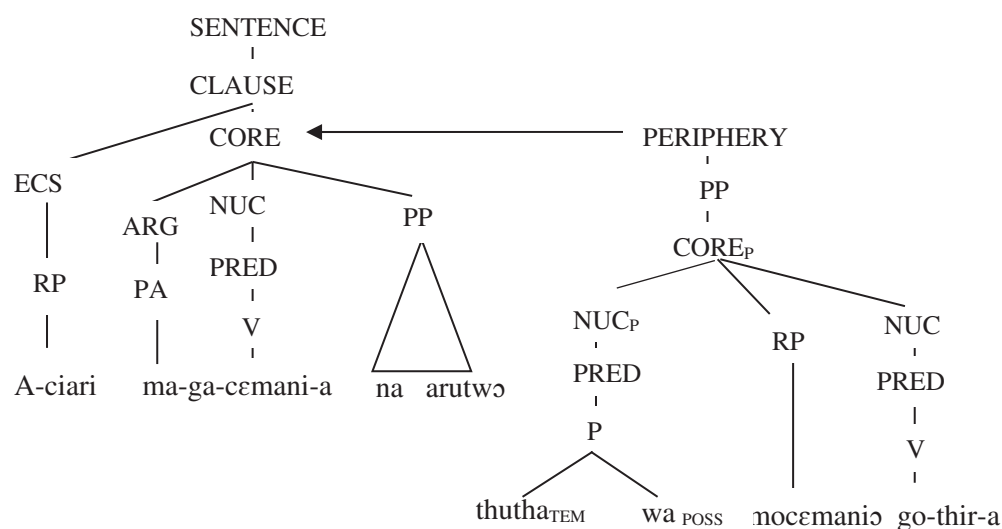


Figure 4.8 Ad-core (periphery) subordination

4.4.1.3 Core cosubordination

In non-subordinate core constructions, an argument is shared. In core cosubordination, other than argument sharing there is obligatory sharing of at least one core-level operator.

- (4.17) *A-thuri* *nɔ* *ma-ikar-ε* *ma-ke-ar-ag-i-a* *nginya otuko.*
 2-elders MOD 2-sit-FV 2-SIM-talk-PROG-DC-FV till 14.night
 ‘Elders can keep/remain sitting and talking until nightfall.’

The scope of the deontic modal operator *nɔ* ‘can/may’ in (4.17) is shared between the first core the second core. In the first core, the modal expresses the ability of the elders not just to ‘sit’, but also to ‘sit and talk’ into the night, with the second event found in the second core. The subjects of the linked cores remain identical. The modal is also an auxiliary bearing tense in the clause; although tense being a clausal operator is not relevant to core cosubordination. In the second core, temporality is marked by *-ke-*, a simultaneous marker.

In Figure 4.9, *nɔ* is an auxiliary bearing tense in the clause. Tense being a clausal operator is not relevant to core cosubordination. Prefix *-ke-* is a simultaneous marker with roughly a “present progressive” sense.

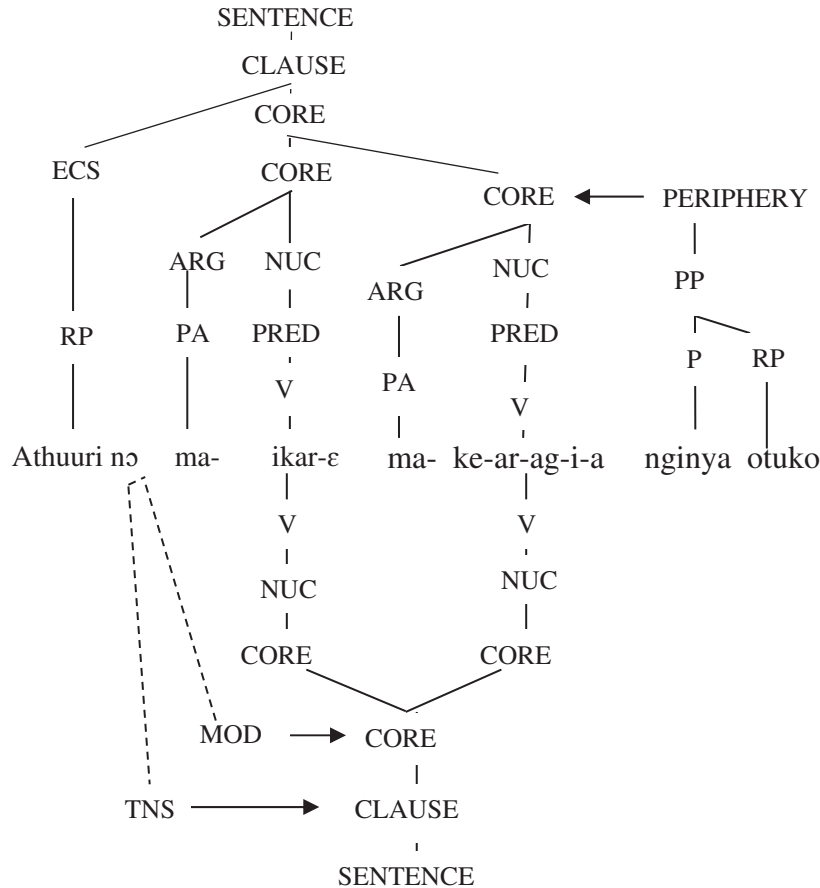


Figure 4.9 Core cosubordination

4.4.2 Clausal juncture-nexus types

4.4.2.1 Clausal coordination

A clausal coordinate construction involves two or more clauses, optionally linked by a coordinating conjunction. Coordinated clauses indicate grammatical operators, independently. Example (4.7) is repeated here as (4.18) with some alternations.

- (4.18) *Ne ma-ra-inok-a omothe no ma-go-ku-a mbembe atea?*
 AM 2-PRS-go.home-FV today CLM 2-FUT-carry-FV 9.maize Q
 ‘They are going home today, but how they will carry the maize?’

The composite clauses in (4.18) mark tense, number, and person independently, as well as IF. The first clause contains a present tense (-ra-) and the second one a future tense (-go-). The first clause is an assertion, but the second clause is a question. All these are hallmark features of clausal coordination. The linkage is not cosubordinate because none of the clauses share any of the clausal operators. Example (4.18) is shown in Figure 4.10.

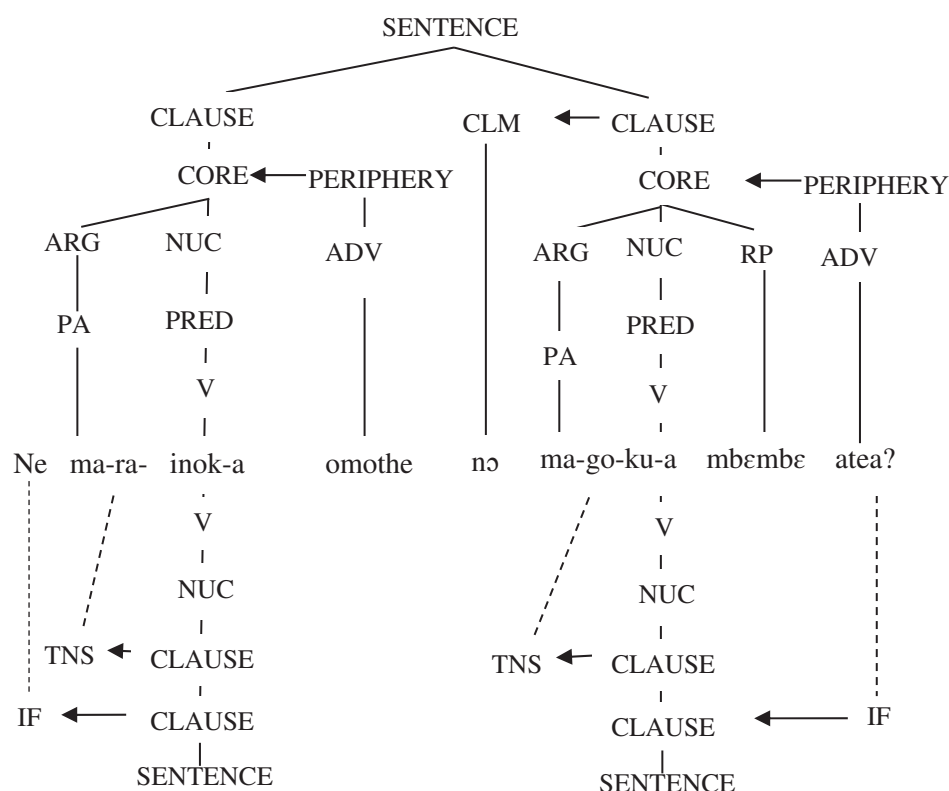


Figure 4.10 Clausal coordination

4.4.2.2 Clausal subordination

Clausal subordination involves adverbial clauses. Adverbial clauses modifying clauses are considered as forms of adjunct subordination. In RRG, subordination is conceived as either “peripheral subordination” or “daughter subordination” (Van Valin 2005; 2007).

Peripheral subordination is further refined into the following: “ad-nuclear”, “ad-core”, and “ad-clausal” subordination. All these elements take the periphery of the specified layers, as each layer of the LSC allows a periphery (Van Valin 2005). In daughter subordination, a subordinate constituent is a daughter of a higher node (sentence, clause, core), such as *that*-complement clauses.

Ad-clausal and ad-core subordination differ in that the former occurs in a clausal periphery and the latter in a core periphery. In addition, ad-clausal adjuncts may, among other types, be *reason* or *manner* clauses; ad-core adjuncts are usually elements that express *temporal*, *spatial* settings, etc. Example (4.19) below is a *reason*-adverbial clause, which is represented in Figure 4.11 below.

- (4.19) *Mo-rutani* *a-ra-hor-ir-ε* *mo-rutwə* *ne* *təndo* *ne*
1-teacher 1-RCPST-beat-PFV-FV 1-student FM because AM
a-ra-go-ir-ε *ke-geriɔ*.
1-RCPST-fail-PFV-FV 7-exam
‘The teacher beat the student because s/he failed the exam.’

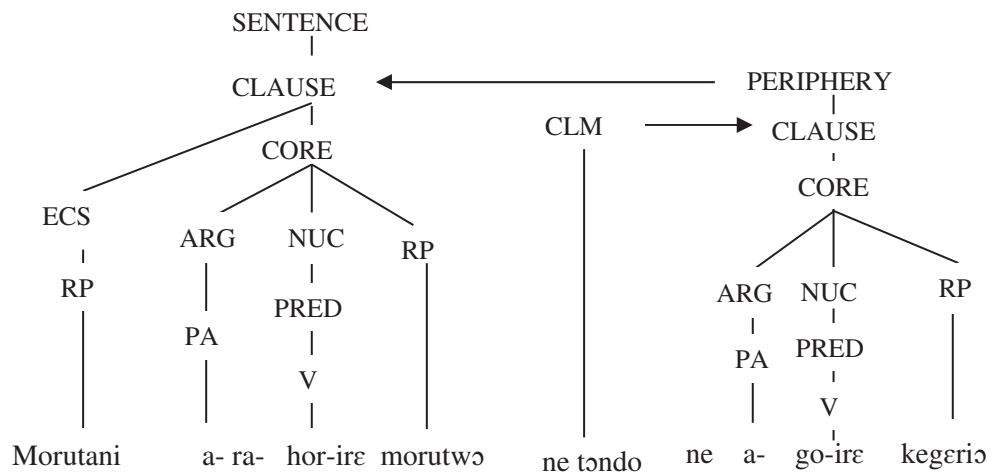


Figure 4.11 Ad-clausal subordination

The ad-clausal subordinate clause above has two *ne* particles, one before the *reason* conjunction *tɔndo*, and another after it. This is unusual because Gĩkũyũ allows only one *ne* in a clause. The first *ne* is optional but the second one is obligatorily required by the *reason* CLM. These two *ne* particles must have different functions. I suppose that the pre-CLM *ne* is part of the subordinator *tɔndo* ‘because’, and the post-CLM may be different from the usual assertive marker.

4.4.2.3 Clausal cosubordination

Clausal cosubordination originates from shared operators at the clausal unification level. The clausal operators are illocutionary force, tense, evidentials, and status. They are the ones that determine clausal cosubordination.

- (4.20) *Ma-a-twar-ir-ɛ* *ngɔmbɛ* *ndonyo* *ma-ge-ci-endi-a*.
 2-RMPST-take-PFV-FV 10.cows 9.market 2-CONS₃-10-sell-FV
 ‘They took the cows to the market and they sold them.’

Example (4.20) shows both illocutionary force and tense dependency. The initial clause contains a remote past tense and a perfective aspect on the nucleus. The second core nucleus lacks any of these features, bearing only the remote past consecutive tense *-ge-*, which has the temporal function in the linked unit.

The assumption in (4.20) is that the tense in the initial clause establishes the temporal basis for the entire clause, and the second unit depends on the established temporality in the initial clause. Other than temporal operator dependency, the second unit also depends on the initial clause for the expression of IF, since *ne* can only occur with the initial clause, but not with the second unit. Although not shown in the figure, *ne* can be placed in the position occupied by the zero-morph (\emptyset) on the figure.

The second unit cannot also stand on its own, meaning it is structurally dependent as well, although there is no overt evidence of subordination. Figure 4.12 represents example (4.20

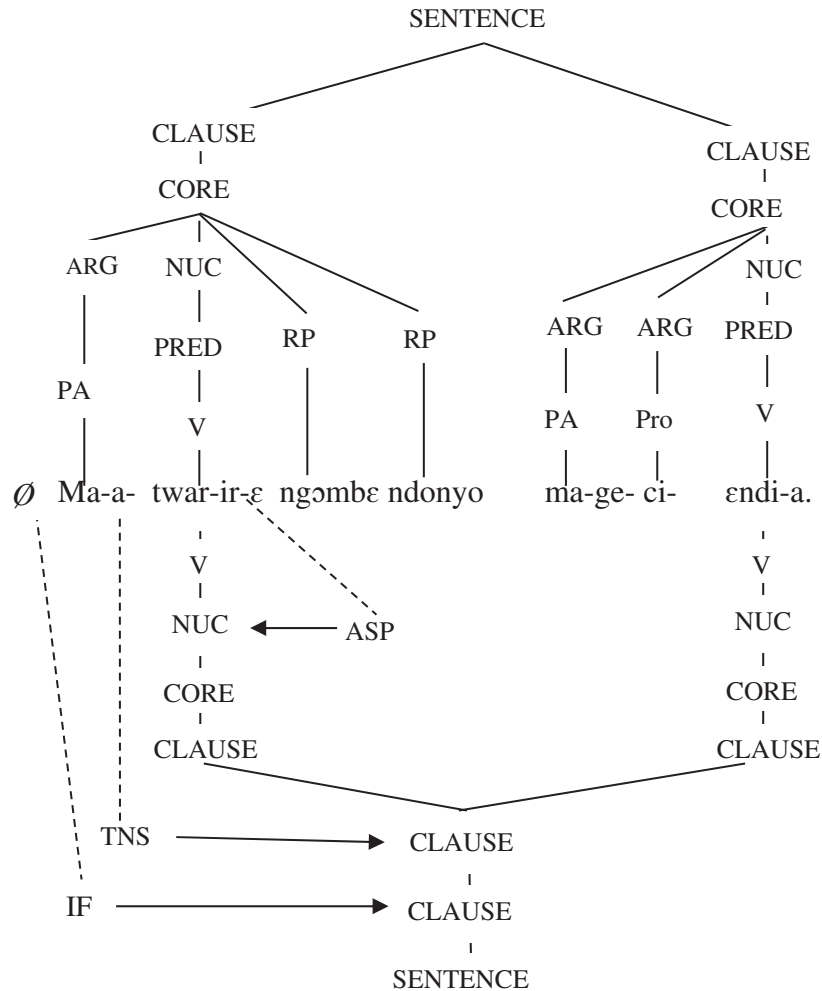


Figure 4.12 Clausal cosubordination

4.4.3 Sentential juncture nexus types

Sentences are composed of multiple clauses and whole sentences are the linked constituents in a sentential juncture nexus. The only possible juncture-nexus types are sentential coordination and sentential subordination. There being no sentential-level operators, sentential cosubordination is not possible.

4.4.3.1 Sentential coordination

Example (4.21), which is repeated from (4.8), shows coordination of two sentences, each of which is made up of several constituents.

- (4.21) *Ha-ko-inger-a nyomba ne nd-a-mu-ɔn-ir-ε a-ke-inger-a,*
 17-15-enter-FV 9.house AM Isg-RMPST-1OM-see-PFV-FV 1-SIM-enter-FV
 ‘As for entering the house, I saw him enter/ entering
nɔ ha-ko-iy-a mbɛca n-di-oe kana
 CLM 17-15-steal-FV 10.money Isg-NEG-know CLM
ne a-a-iy-ir-ε.
 AM 1-RMPST-steal-PFV-FV
 but as for stealing the money, I do not know whether he stole (it)’.

The linked sentences above contain left-detached units. The first sentence is made up of a detached unit, followed by a core and another semi-finite core (a gerund-participial core). The linked sentence has a core and complement unit introduced by *kana* ‘whether’ and a detached unit. Both sentences are coordinated by *no* ‘but’, the adversative conjunction. Sentence (4.21) is represented in Figure 4.13.

4.4.3.2 Sentential subordination

There are two ways of realizing subordination in sentential juncture. One is by placing an adverbial clause as a left-detached element, set off from the main sentence by a pause as in (4.21) above, and, two is the use of direct discourse as matrix core predicate complements. Below in (4.22), I illustrate the detached unit type, and it is represented in Figure 4.14.

- (4.22) *Ma-a-kiny-a* *o-hiki-ine=re* *a-geⁿⁱ* *ma-anj-ir-i-ε*
 2-RMPST-arrive-FV 14-wedding-LOC-TM 2-guests 2-begin-PFV-DC-FV
ko-rea.
 15-eating
 ‘When they arrived at the wedding venue, the guests started eating.’

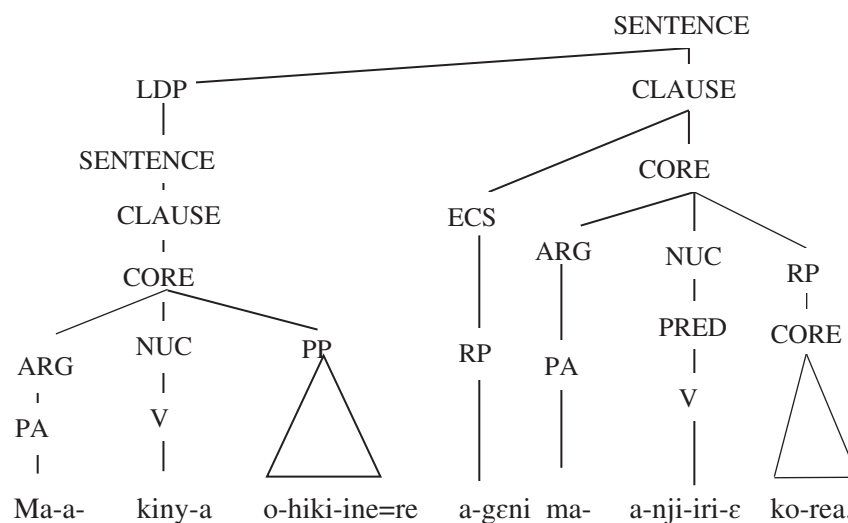


Figure 4.14 Sentential subordination

In (4.22) a TM is attached to a preposed temporal clause, thereby intonationally setting it off from the rest of the sentence. The TM situates the detached unit in the initial position since it cannot co-occur with a constituent in a final sentence position. The lexical RP *ageni* ‘visitors’ in the matrix core has a co-reference relationship with the PA (*ma-*) in the adjunct. The fact that there is a resumptive argument and a TM enclitic (=re) is evidence that the unit on the left is a detached unit and it actually belongs to the sentence node on the LDP.

In the preceding discussion of junctures, I have shown that Gĩkũyũ has core, clausal, and sentential junctures. There is no evidence for nuclear juncture, owing to the morphosyntactic nature of the language. I have also shown that the three nexus types coordination, subordination and cosubordination are evident in Gĩkũyũ. From the discussion, I postulate eight juncture-nexus types for Gĩkũyũ, based on the types so far illustrated.

4.5 The structure of complex reference phrases

As was as indicated in the overview of RRG, the structure of the Gĩkũyũ noun phrase needs to be discussed, as there is a lot of parallelism between simple and complex noun phrases and sentences; therefore, it is important that the morphosyntax of Gĩkũyũ complex noun phrases is

properly investigated. Iribemwangi & Kihara (2011) and Mugane (1998) described the morphosyntax of the Gĩkũyũ simple RP, based on the RRG and LFG, respectively. In my discussion, I will revise some analysis of Gĩkũyũ RP by Iribemwangi & Kihara (2011).

As indicated earlier, a noun phrase (NP) is called a “Reference Phrase” (RP) in RRG. This follows from the fact that a reference phrase captures the reference function of a constituent, and that constituent need not necessarily be a noun. Endocentric heads are not supported in RRG and the replacement of “NP” with “RP” therefore separates the category and reference functions of nouns (Van Valin 2008b). In addition, because the representation of a clause and a reference phrase is analogous, the nucleus in both should not be restricted to any particular category, although the default nucleus in a clause is a verb, while it is a noun in the reference phrase.²⁸

Since the representation of a RP is analogous to that of a clause, RRG devised a Layered Structure of the Reference Phrase [LSRP] for the analysis of the RP. The LSRP resembles the LSC in some aspects, as both have layers, constituent projections and operator projections. One difference is in the layers: the LSC has the sentence, clause, core, and nucleus layers, while the LSRP has the RP, core and nucleus layers. As such, the RP level corresponds to the sentence and clause levels in the LSC.

4.5.1 Constituent projection of the LSRP

The constituent projection of the LSRP may contain a Reference Phrase Initial Position (RPIP), a daughter of the RP node. The RPIP is occupied by different elements in different languages, such as *wh*-words, demonstratives, possessive pronouns in English, or articles and possessor phrase in Swahili, Lakota, and Portuguese (Van Valin 2005:26).

The RPIP is a core-initial position that subsumes the functions of the LDP and the PrCS in the LSC. This follows from the fact that unlike sentential units with four layers, a complex RP has only three. Some languages such as Lakota can also have a demonstrative as the last element in a RP. Such demonstratives then occupy the Reference Phrase Final Position (RPFP), a position that is positionally similar to the RDP and the PoCS of the clause.

The LSRP has peripheries on all the layers, just like the LSC. The nuclear periphery is occupied by adjunct restrictive modifiers such as adjectives, nominal modifiers and restrictive relative clauses. The core periphery is occupied by adjunct PPs and adverbials, and the RP periphery is occupied by non-modifiers such as non-restrictive relative clauses.

4.5.2 Operator projection of the LSRP

The LSRP operators are the following, ordered by level: nominal aspect (mass-count distinction and classifiers) as nuclear [NUC_R] operators, number, quantifier, and negation Core [CORE_R] operators, and definiteness and deixis as RP operators. Figure 4.15 shows a LSRP schema, adapted from Pavey (2010:188), but with updated labelling of the nodes to conform to the “Reference Phrase” notations of Van Valin (2008b).

²⁸ For more justifications for the RP, see Van Valin (2008b:168-171).



As part of noun morphology, it is clear that NCs actively participate in word-formation as nuclear affixes on the layered structure of the word (LSW). As part of word-formation, there may be more than one NC prefix in a single noun e.g. a diminutive (DIM) *ka*-(NC 12), or augmentative (AUG,) *ke*-(NC 7), then *-mw*-(NC 1) , and then the root *-aarimo* for ‘teacher’, to get *ka-mw-aarimo* ‘a little teacher’ and *ke-mw-aarimo* ‘big (bad) teacher’. The diminutive and augmentative have some adjectival sense, but not (*mo*-), which is closest to the nucleus (stem/root), compared to the others (*mo*-) is obligatory. With several NC in a word, the initial one indicates the number.²⁹

121

The NCs have an inflectional role in the noun, indicating gender and number, but not necessarily these two, since some NCs also have a derivational role such as marking negative (pejorative) attitude, for example *ka-* or *ke-* as shown above .

Iribemwangi & Kihara (2011) consider NCs as part of nominal aspect (NASP). They therefore postulate NCs as a NUC_R operator. I deviate from them and posit noun classes as part of the NUM operator in the operator projection. The important thing is that agreement/concordance is not synonymous with cosubordination, and as indicated by Crisma et al. (2011), Bantu NCs differ from classifiers in languages like Chinese. For this reason, they should not be taken as being similar.

Languages without special noun classifiers have alternative nominal aspect marking. For example, English uses lexical analogues rather than grammatical affixes to classify mass nouns, e.g. a **sheet** of paper (individual), a **ream** of paper (collective) (VVLP 1997: 58). Gĩkũyũ also uses lexical analogues as in (4.23), which is applicable to other measures (quantities) of mass nouns.

- (4.23) *I-rebe re-mwe* *re-a* *mbembe/mbembe* *i-rebe re-mwe*
 5-tin 5-one 5-ASSOC 10.maize/10.maize 5-tin 5-one
 ‘one tin of maize /corn’

Example (4.24a) shows a simple Gĩkũyũ RP containing demonstrative, number and adjective modifiers in an unmarked order. Adjectives, like other modifiers in Gĩkũyũ, take on the NC of the nouns they modify, for example the modifiers of *airetu* ‘girls’ in (4.24a) bear NC 2. In VVLP (1997) adjectives were considered as nuclear operators, but this was revised in Van Valin (2005). They were included as constituents in the constituent projection. Specifically, they are in the nucleus periphery, together with nominal modifiers and restrictive RCs. A marked order would have the demonstrative preceding the noun.

- (4.24) a. *A-iretu* *aa-rea* *a-tato* *a-thaaka*
 2-girls 2-DEM 2-three 2-beautiful
 ‘those three beautiful girls’
 b. *Mo-thuuri* *ge-tɔnga* *mo-tɔngu*
 1-man 7-rich/ 1-rich
 ‘a rich man/a man who is rich’

In (4.24b) a noun *ge-tɔnga* ‘a rich person’ modifies another noun *mo-thuuri* ‘man’. Like adjectives, the nominal modifier occupies the nuclear periphery. Evidence of this comes from the fact that the example disallows an adjective and a nominal modifier co-occurring in the periphery, as in: **mo-thuuri ge-tɔnga mo-nɔru* ‘a rich fat man’. However, *mo-thuuri mo-nɔru, ge-tɔnga*’ is all right when the adjective is adjacent the noun the nominal modifier is separated from the rest by a pause, therefore an afterthought. Thus, the nominal modifier and adjective are in complementary distribution in the RP Nucleus position.

Figure 4.16 represents (4.24a), showing both the constituent and operator projections. In the figure, (NUM) is marked against the NC on to the core layer on the operator projection; since noun classes indicate number

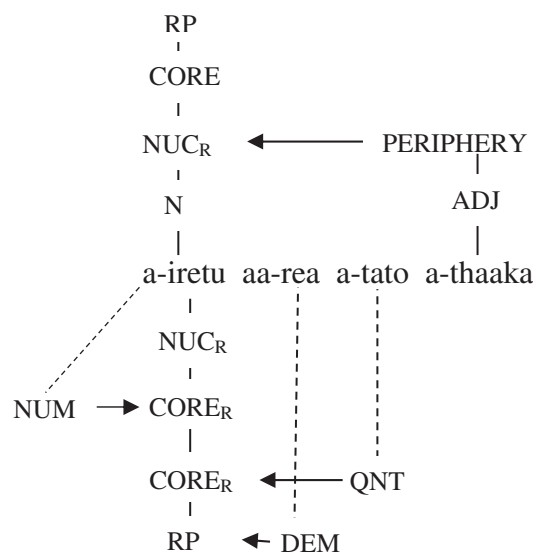


Figure 4.16 Gĩkũyũ simple RP

As for definiteness, Gĩkũyũ lacks articles such as those of English; instead, the language uses demonstratives and relative pronouns to show definiteness. Demonstratives can be RP operators as in (4.24a) or they can be nominal referents themselves (in which case they will not be operators) as in (4.25b), in which the missing nominal is recoverable from the discourse context.³⁰ Gĩkũyũ demonstratives occur along a proximal and distal continuum, ranging from the very proximal (nearest to the speaker) to the very distant as shown in (4.25a). The stem in the demonstratives (-*rea*) (also in relative pronouns) in (4.25a) is identical in the different demonstratives.

- (4.25) a. *Ngui* *e-nɔ/ e-yɔ/ e-erea/ e-eerea*.
 9. dog 9.this/ that / that one over there/ that one over there, (yonder)
 ‘this dog, that dog, that dog over there, that yonder dog’ ‘That mine’
- b. *E-yɔ* *ya-akwa* *nɛnɛ*.
 9-DEM 9-mine 9.big
 ‘that big one of mine.’

In unmarked Gĩkũyũ RP constructions, the demonstrative postmodifies the nucleus, but in marked constructions, it premodifies it. According to Mugane (1997b; 1998) this has to do with the focus falling on the demonstrative, and demonstratives can show new information (Dixon 2010:238).

The RP core-level operators indicate “quantity”, RP-level operators “locality”, and RP nuclear-level modifiers indicate the “quality of a referent” (Pavey 2010:194). Number and quantification are RP core operators in Gĩkũyũ. Number (plural or singular) lies with the NC markers as reflected by the morphology of quantifiers such as numerals (-*mwe* ‘one’, -*gere* ‘two’), and adverb quantifiers such as -*inge* ‘many’ and -*ɔthe* ‘all’. Number and quantity can co-

³⁰ Adjectives also can be in the RP nucleus, but only in the absence of nominals (i).

(i) *nɛnɛ ne ya-akwa*
 9.big COP 9-mine
 ‘the big one is mine’,

See Nicolle (2014) for general functions of demonstratives in eastern Bantu languages.

occur in Gĩkũyũ, but only in a restricted order, with the quantifier always preceding number, but never the other way round, as can be seen in (4.26).

- (4.26) a. *A-ndo ɔ-ɔthe ikomi* b. *ɔ-ɔthe a-ndo ikomi* c. *?A-ndo ikomi ɔ-ɔthe*
 2-people 2-all ten 2-all 2-people ten 2-people ten 2-all
 ‘all the ten people’ ‘all the ten people’ ‘all the ten people’

Negation in the RP denotes the absence of a referent. Whereas English and German use *no* and *kein* to effect nuclear negation, respectively; Gĩkũyũ can only mark negation in RCs as in (4.27). Therefore, negation at the nuclear level is impossible, hence no negation as a RP operator.

- (4.27) *Mo-ndo o-ta-re ma-gego*
 1-person 1.RSP-NEG-COP 6-teeth
 ‘a person without teeth’

Proper nouns and pronouns, unlike common nouns, do not have a layered structure, meaning they do not have CORE_R, or NUC_R layers. The pronouns (PRO) are classified based on their functions, e.g. possessive (PRO_{POSS}), relative (PRO_{REL}), demonstrative (PRO_{DEM}), expletive (PRO_{EXP}), or *wh*-pronoun (PRO_{WH}) (VVLP 1997:56). I note that all these pronouns, just like adjectives, can be independently referential.

However, proper nouns and pronouns can have a layered structure if they contain some modification. For example, a proper noun like *Wanjiro* (a feminine name) has no layering. However, if it takes a modifier as in (4.28b) a layered structure such as that in Figure (4.15) is allowed. In addition, relative pronouns such as *e-rea* ‘which’ in (4.28a) also require a layered structure to cater for the modifiers associated with it.

- (4.28) a. *Ee-rea y-akwa e-mwe nene ne e-ra-ku-ir-ε.*
 9-RLPRN 9-POSS 9-one 9.big COP 9-RCPST-die-PFV-FV
 ‘The big one of mine died.’
 b. *Wanjiro wiito*
 Wanjiro POSS_{PL}
 ‘our sister Wanjiru’ (lit. our Wanjiro)

There are different linear orders of modifying elements in a Gĩkũyũ RP. Mugane (1997a) has these: noun, demonstrative, possessive pronoun, quantifier, adjective and the associative phrase. Mugane (1997b:38) posits the order of the modifying elements as noun, demonstrative, possessive pronoun, quantifier and adjective. Mugane attributes this order to Barlow (1951); however, Barlow’s actual linear order is noun, demonstrative, possessive pronoun, and adjective (Barlow 1951:35). Mugane (1998) presents the order as noun, demonstrative, quantifier, adjective and the associative phrase. The orders above do not have nominals modifying other nominals. Elsewhere, Bennett (1986b:20) shows an example of a noun modifying another.

The orders cited above are all unmarked. One cannot fail to note the inconsistency in the given orders of modifiers. The varied orders are because of information structural needs, similar to argument permutations earlier witnessed in clauses. Consider (4.29a-c), taken from (4.24), but the order of modifiers is varied. The prominence is on the demonstrative in (4.29b) and therefore focal. In (4.29b) the quantifier is outside the RP, as it is set off by a pause from the rest of the

RP. In the RPPF, it identifies the “only” three girls, and its different intonation has informational effects.

- (4.29) a. *A-ireto* *aa-rea* *a-tato* *a-thaaka*
 2-girls 2-DEM 2-three 2-beautiful
 ‘those three beautiful girls’
- b. *Aa-rea* *a-ireto* *a-tato* *a-thaaka*
 ‘THOSE three beautiful girls’
- c. *Aa-rea* *a-ireto* *a-thaaka,* *a-tato*
 ‘those beautiful girls, the three of them’
- d. *A-ireto* *aa-rea* *ɔ-ɔthe* *a-tato* *a-thaaka* *a-a-tata*
 2-girls 2-DEM 2-all 2-three 2-beautiful 2-ASSOC-1.auntie
 ‘all those three beautiful girls of my auntie’

Example (4.29d) shows additional modifiers: a quantifier *ɔ-ɔthe* ‘all’ and an associative (genitive) phrase *a-a-tata* ‘of my auntie’. The quantifier as a core modifier must precede the numeral modifier. When the DEM is initial as in (4.29b-c), it will be in the RPIP position. This position is similar to the PrCS in clauses, as it is where *wh*-words in RPs occur, and it is therefore pragmatically significant. I have also said that an initial DEM is pragmatically marked. Hence, a DEM in the RPIP is active in both the constituent and operator projections. However, in the post-nuclear position, a DEM is only active in the operator projection, as in (4.24) and (4.29d), which is why it is not shown on the constituent projection in figure 4.16.

From (4.24a) it emerges that a nuclear periphery unit (adjective) lies to the extreme to right of the RP. The periphery has to be on the extreme end, since it is a nuclear peripheral unit. In (4.29d) the associative (genitive) phrase *a-a-tata* is the last element in the RP; and therefore it belongs to the RPPF, which is a post-core position in the RP.

The demonstrative can alternate between pre- or post-nuclear positions, but the quantity operators *ɔ-ɔthe* ‘all’ and *atato* ‘three’ have fixed positions. The number indicator is also fixed, as it is first marked on the NC of the first element of the RP, modifier or nucleus. I should note at this point that all these modifiers can serve as the nucleus in the absence of a lexical nominal.

Based on (4.29d), RP modifiers (deixis/definiteness) remain closest to the RP, followed by core modifiers (quantity, number) then adjectives, and finally the possessive phrase. However, this is not the only kind of modification there is – more modifiers can be stacked onto the RP (for example there can be additional adjectives to one already there).

4.5.3 Juncture and Nexus in Gĩkũyũ Complex RP

Complex RPs may contain clauses, infinitives and complex modifiers such as genitives, possessives, and relative clauses as part of modification (Dryer 2007:151; VVLP 1997:492). These complex modifiers co-occur with simple modifiers in RPs.

The analogy of the LSC and the LSRP is strengthened by the application of the theory of clause linkage (the theory of juncture and nexus) to the analysis of complex RPs, allowing the analyses of complex RPs to reflect that of complex sentences. Mugane (1997b:81) observes that Gĩkũyũ compound noun phrases have “productive phrasal recursivity”, akin to that of phrases.

Hence, “recursivity” is not just a clausal phenomenon, reinforcing the need to align the analysis of complex RPs with that of complex constructions.

Compared to clausal junctures, there are fewer RP junctures because the layers are also fewer in the RP. The RP level is the maximal layer, followed by the CORE_R and the NUC_R making up the RP junctures. The three nexus relations coordination, subordination and cosubordination apply in the analysis of complex RPs. The RP layer is compatible with all the three juncture-nexus types.

- (4.30) a. *Mo-thuuri o-mwε mo-koro na mo-tumia o-mwε mo-kuhe*
 1-man 1-one 1-old and 1-woman 1-one 1-short
 ‘one old man and one old woman’
- b. *Maina o-rea w-εnd-ag-i-a ma-kara ne a-go-ok-a.*
 Maina RLPRN 1.RSP-sell-HAB-DC-FV 6-charcoal AM 1-NRFUT-come-FV
 ‘Maina who sells charcoal will come./‘Maina, the one who sells charcoal, will come.’
- c. *To-iretu na to-hee to-oto tw-athee wa me-aka ikumi*
 12-girls and 12-boys 12pl-DEM 12-below of 4-year ten
 ‘these (small) girls and boys of below ten years’

Example (4.30a) shows two units with distinct modifiers conjoined, resulting into a coordinate RP juncture-nexus type, represented in Figure 4.17. Example (4.30b) has a non-restrictive relative clause. The proper noun *Maina* does not need to be restricted as it is assumed that the hearer knows who is being referred to, and the RC is only additional information. Therefore, (4.30b) is a subordinate RP construction.

Figure 4.18, represents (4.30b), it shows that proper nouns do not have a layered structure, hence they cannot be in the periphery of the nucleus; they are adjuncts at the RP level. The RC in this case is a sentence (not a clause) since it has its own IF, unlike the restrictive that would have a clause and be a periphery of the nucleus periphery (Van Valin 2005:222-223). (4.30c) is a cosubordinate RP nexus type, in which a definite/deixis operator *tooto* ‘these’ is shared between two RPs, *toiretu* ‘small girls’ and *tohee* ‘small boys’.

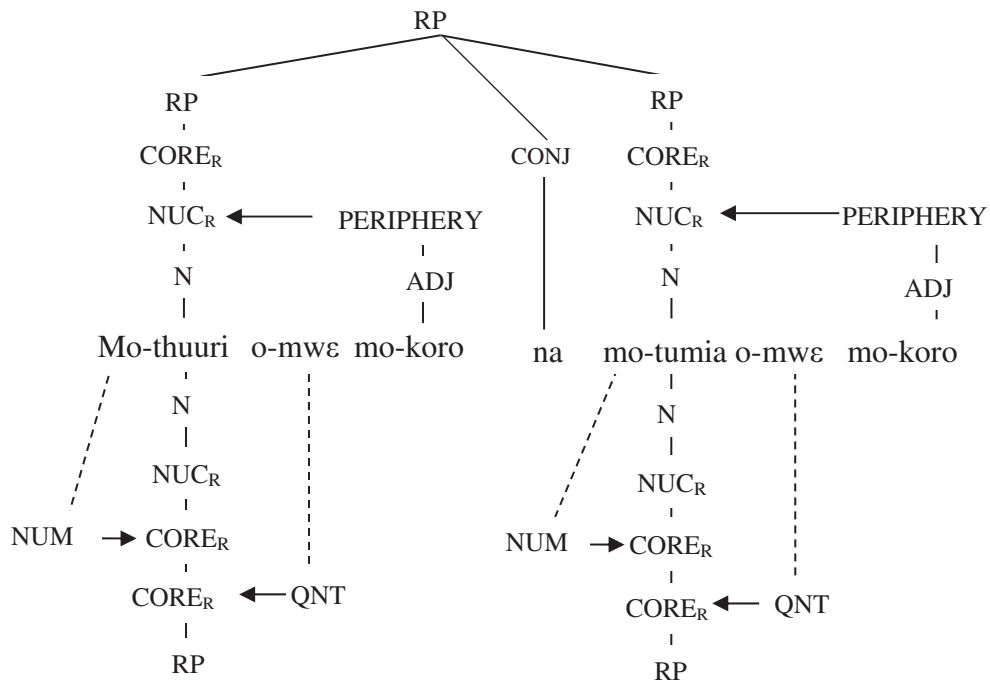


Figure 4.17 RP coordination

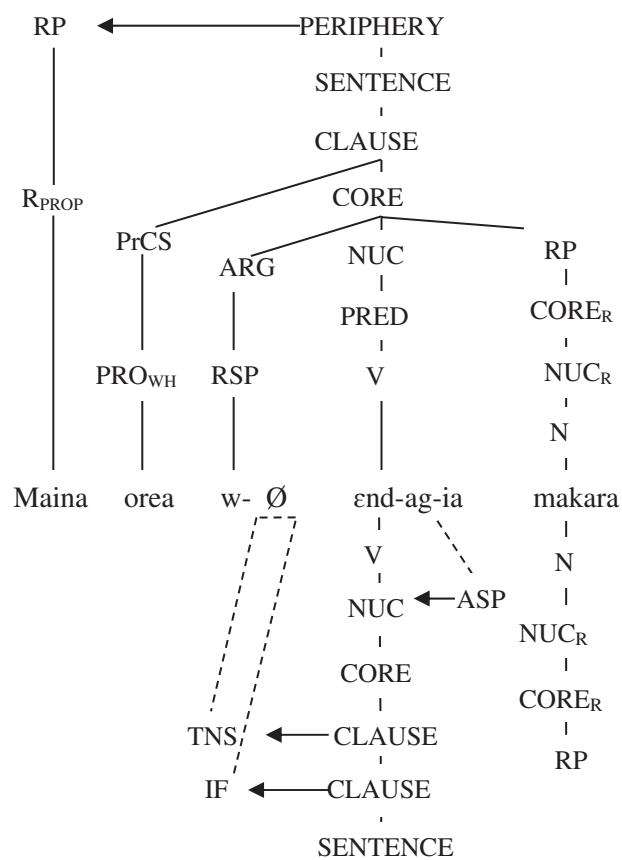


Figure 4.18 RP subordination

Example (4.31a) below shows complementizer *ate* ‘that’ linking a nominal element to a dependent complement clause, just as complementation in clauses. Thus, (4.31a) is a CORE_R subordinate construction, represented in **Error! Reference source not found.** In (4.31b) the quantifier *tu-ɔthe* ‘all’ modifies both ‘the little girls and boys’, and is therefore shared. Because quantifiers are core operators, (4.31b) is CORE_R cosubordination. Example (4.31c) is a compound RP, ‘goat-slaughterer’, made of *mothinji* ‘slaughterer’ (derived from *go-thenja* ‘to slaughter’) and *mbori* ‘goat’. The deictic operator *o-cio* in this compound RP points to both nuclei as units, as opposed to a single unit. Hence, (4.31c) is NUC_R cosubordination, represented in Figure 4.20. In addition, the adjective *mo-kuhe* ‘short’ also modifies the compound as a unit, and not merely a single unit of the compound.

- (4.31) a. *O-hɔrɔ* *o-cio* *ate* *ngaari y-akε* *ne* *e-ra-tah-wɔ*
 14-news 14-DEM CLM 9-car 3-ASSOC COP 3-PRS-fetch-PASS
 ‘the news that his car is to be repossessed (by auctioneers)’
 b. *To-iretu na* *to-hee* *tu-ɔthe* *tw-athee* *wa* *me-akaikumi*
 12-girls and 12-boys 12pl-all 12-below of 4-year ten
 ‘all the (small) girls and boys of below ten years’
 c. *Mo-thenj-i-mbori* *o-cio* *mo-kuhe*
 1-slaughter-NZR-9.goat 1-DEM 1-short
 ‘that short goat-slaughterer’
 d. *Mbuku* *njega* *i-ria* *n-gor-ir-ε.*
 10.books 10-good 10-RLPRN I-buy-PFV-FV
 ‘the good books which I bought’

In (4.31d) an adjective and a restrictive RC modify the nucleus at the periphery. This RC differs from that in (4.30b) in that it lacks a relative pronoun, making the referent indefinite in (4.31d). Gĩkũyũ, like other Bantu languages such as Luganda (Walusimbi 1976) and CiNcenga (Simango 2006), does not use the comma-intonation strategy found in English to make the restrictive/non-restrictive RCs distinction.

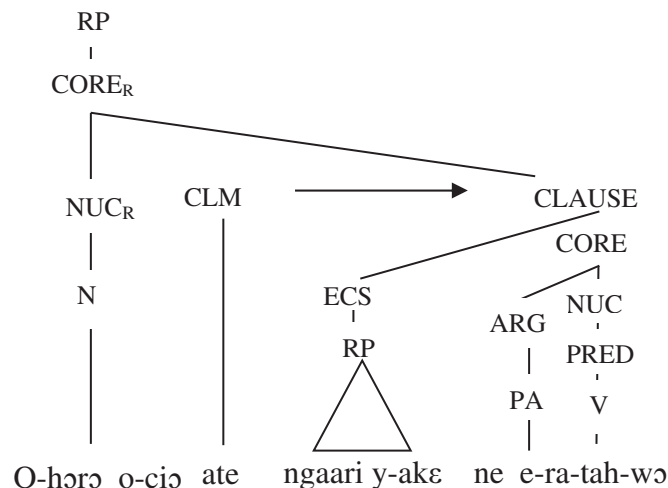


Figure 4.19 CORE_R subordination

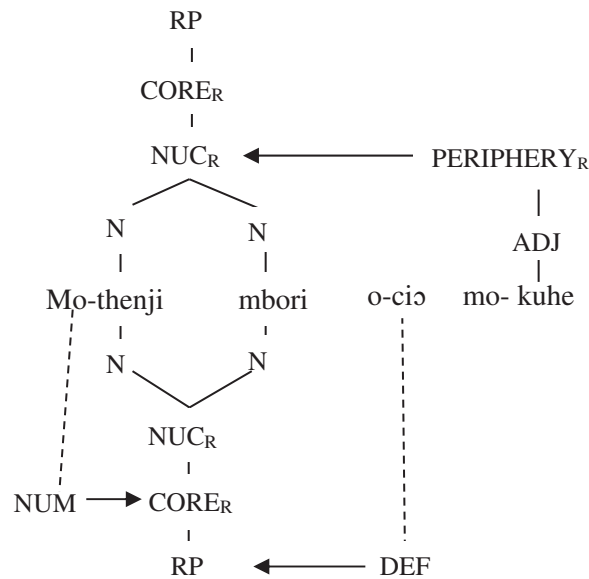


Figure 4.20 NUCR cosubordination

As part of RP modification, restrictive relative clauses and adjectives occur in the nuclear periphery, as can be seen in (4.31d) and Figure 4.21. On the other hand, non-restrictive RCs as in (4.32b) and nominalizations (reduced RCs) as in (4.32a) are RP-level modifiers, similar to appositives such as *my favourite pet* in *Pony, my favourite pet*.

- (4.32) a. *Mo-ndo* *mo-ok-i* *tɛnɛ*
 1-person 1-come-NZR early
 ‘a person who comes early’ [Lit. person comes early]
- b. *Mo-ndo* *o-rea* *mo-ok-i* *tɛnɛ*.
 1-person 2-RLPRN 1-come-NZR early
 ‘the person who comes early’

Referring back to (4.31d), we note a restricted reference. The nucleus *mbuku* ‘books’ is modified by the adjective *njɛga* ‘good’ and a restrictive RC, both of which are in the nucleus periphery. The relative pronoun *i-ria* ‘which’ is in the PrCS of the restricting clause. Figure 4.21 below represents example (4.31d).

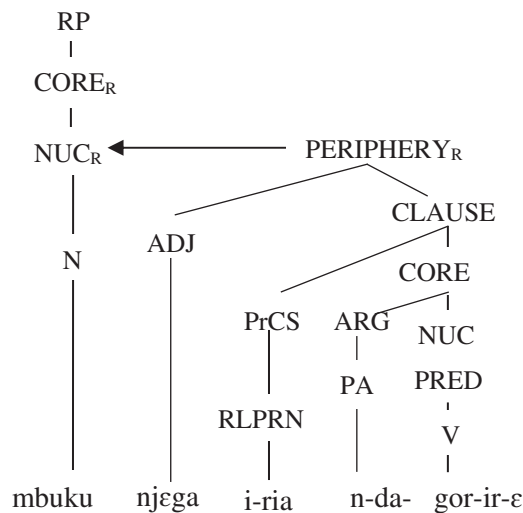


Figure 4.21 RP nuclear subordination

Van Valin (2008b:172) suggests a Modifier Phrase (MP) as a syntactic constituent in the LSRP and LSC. The MP should be in the Clausal and RP periphery. In RP modification, a MP should contain adjectives and adverbs as the default or even nominal nucleus. When modifying a verbal nucleus or core, the nucleus in the MP would be adverbial. The MP is not discussed in this thesis, but it would be highly interesting to see how the MP works in Gĩkũyũ.

In the preceding sections of this chapter, I have introduced the RRG theory of complex sentences and attempted an analysis on Gĩkũyũ complex constructions based on the theory. I have shown evidence of NUC_R cosubordination and subordination, CORE_R cosubordination and subordination, and RP coordination, cosubordination and subordination in Gĩkũyũ complex RPs. Thus far, RRG theoretical tools are able to account for the morphosyntax of Gĩkũyũ complex constructions, including complex RPs.

In the next section, I give a preliminary description of focus structure in complex sentences, which builds on the discussion of focus structure in simple clauses presented in §3.3.

4.6 Information structure in Gĩkũyũ complex sentences

I indicated in Chapter 3 that focus marking via the focus projection is anchored on the illocutionary force (IF) in the operator projection, thereby uniting the operator projection with the constituent projection, in which the information units are found.

As has often been pointed out in the literature (Haiman & Thompson 1984; Lehmann 1988; Cristofaro 2003; Haegeman 2006; Nordstrom 2010; VVLP 1997; Van Valin 2005), subordinate clauses do not have their own illocutionary force; they depend on the matrix clause IF.

In fact, lack of assertiveness has been used to define subordinate clauses (Cristofaro 2003). Some subordinate clauses are like main clauses, according to Hetterle (2015), citing Green (1976), Bolinger (1977), and Lakoff (1984). She noted that “some English adverbial clauses permit main clause phenomena” (Hetterle 2015:34). Accordingly, these subordinate

clauses with the main clause phenomena (MCP) allow inversion, negative verb preposing, and *wh*-exclamations, which are properties of main clauses. Since the subordinate clauses allow the MCP, Hetterle concludes that they have their own IF.

The subordinate clauses said to allow MCP phenomena in English include the “concession” (*although*), “result” (*so that*), “justification” (*because, since, as*), and “contrast” (*whereas, while, when*) (Hetterle 2015: 34-35). Hetterle says that such adverbial clauses exist in German (*weil, obwohl, wobei*-clauses), Dutch, Danish, Japanese (uses *soona/soda*, to indicate that the asserted proposition is a reported evidence) and in Swedish (Hetterle 2015:35).

Hetterle (2015:28) questioned whether such adverbial subordinate clauses should be regarded as embedded in their matrix clauses. The types of adverbial clauses with MCP given by Hetterle are relevant to Gĩkũyũ, especially what she refers to as “justification”, which are “reason” clauses to me. I will briefly address some of the issues raised above. My approach to the status of the clauses with MCP is different: I follow the ideas of Van Valin (2005) and earlier work. Elsewhere, Verstraete (2007) also looked into the issues of IF in adverbial clauses. He concludes that if a clause allows different clause types, then that is proof enough that it has its own IF. Verstraete disagrees that IF or assertiveness and “challengeability” have a direct bearing on the on subordinate clauses as suggested by Cristofaro (2003).

Van Valin (2005) in his discussion of focus in complex sentences notes that some subordinate adverbial clauses (ad-clauses) allow inversion, a property of asserted clauses, and for any embedded clause to be asserted, it must be with the range of focus (potential focus domain). Therefore, the adverbial clauses with the MCP are within this range of focus. However, the same clauses do not allow extraction, which contradicts them being in the PFD.

Bickel (1993:33) concluded that the PFD can either be in the matrix or subordinate clause, but not in both clauses. He called this the “Rubin effect”, whereby one can only see a vase or the two faces one at a time, never the two items together. Extracting an embedded clause entails that the whole sentence is in the PFD, which is not possible.

I illustrate this with Gĩkũyũ examples in (4.33). A Gĩkũyũ adverbial reason-clause in (4.33a) allows an in situ *wh*-question in (4.33b), but an ex situ *wh*-question is also possible. Extraction from the embedded clause is impossible as seen in (4.33c).

- (4.33) a. *A-ra-goth-ir-ε ngui ne tɔndo ne e-ra-rom-ir-ε mw-ana.*
 1-RCPST-hit-PFV-FV 9-dog FM because AM 9-RCPST-bite-PFV-FV 1-child
 ‘He hit the dog because it bit the child.’
 b. *A-ra-goth-ir-ε ngui ne tɔndo ne e-ra-rom-ir-ε oo.*
 ‘He hit the dog because it bit who?’
 c. **Noo a-ra-goth-ir-ε ngui ne tɔndo ne e-ra-rom-ir-ε ?*
 ‘Who he hit the dog because it bit?’

Van Valin (2005:283) suggests that the explanation for the failure of extraction and the “Rubin effect” may be found in the semantic representation of the concerned sentences; specifically on the decompositional system of the semantic interclausal relations in Van Valin (2005:206-207; reproduced in §6.2.10). He observed that in complex sentences in which the PFD extends to the embedded clauses, the logical structures (LSs) of the embedded clauses are embedded in the LSs of the matrix clauses. Therefore, a linked unit also contributes to the speech act of the whole

sentence. Consequently, the PFD extends to both the matrix and embedded clauses, and therefore, the whole sentence.

The situation is different for other clause types such as concessive, reason, conditional, circumstance, and temporal clauses, because the LSs of linked clauses are linked by a connector, and therefore they are not in a single speech act proposition, but independent ones. Specific to concessive, reason and conditional clauses, their LSs are joined to that of the matrix clause by a subordinate linker, whose semantic content is also added to the sentences. Van Valin argues that since these clauses are not daughters of the sentence node, they cannot have independent IF. Thus, the IF on the LS of the matrix clause extends to the LS of the linked clause, but at no time should the IF be seen to belong to the two LSs at the same time; it belongs to either LS at a time, hence the “Rubin effect”. Recall that concessive and reason clauses were among those cited by Hetterle as having independent IF. This may now be explained along the Rubin effect, to show that they do not have independent IF, as they are not daughters of the sentence node; however, they are subject to principle (4.34) below.

Examples (4.11a) and (4.12) show subordinate clauses with features of assertion found in matrix clauses, yet they are an adverbial and a complement clause, respectively. Sentence (4.11a) and (4.33a) have two *ne* particles; one before the *reason*-subordinate conjunction *tɔndo* ‘because’, and another one after it. The first *ne* I have marked it as the focus marker (FM) and the second, an assertive marker (AM). However, this may not be entirely correct, as these are “unusual” *ne* particles, same as those in (4.33b) which co-occur with an in situ *wh*-word, which is normally not allowed. Thus the labelling reflects the real functions of these particles.

Embedded complement clauses function as direct core object arguments and therefore lie within the PFD, by being an argument of a core. Any unit in the PFD is within the IF, and as such it can be asserted or questioned. The scope of the PFD is a feature of a language’s grammar, but the AFD is contextually determined. In Gĩkũyũ, an entire clause is in the PFD as shown earlier.

Structural and lexical considerations can help determine which clauses may or may not be in the PFD. For the structural considerations, RRG proposes the general structural constraint in (4.34) that governs the PFD in complex sentences (Van Valin 2005:214).

- (4.34) The potential focus domain extends into a subordinate clause if and only if the subordinate clause is a direct daughter of (a direct daughter of) the clause node which is modified by the illocutionary force operator.

According to this principle (as shown by the parenthesis) there can be as many subordinate clauses as a language can possibly allow; thereby reflecting recursivity in languages. This is illustrated in Gĩkũyũ by (4.35), which is represented in Figure 4.22.

- (4.35) a. *Mo-ichi* *ɛi-r-ir-ε* *i-gɔti* *ate* *ai-a-iy-et-ε*
 1-thief 1-RMPST-tell-PFV-FV 5-court CLM 1-RMPST-steal-PFT-FV
 i-riɔ *ne* *tɔndo* *ai-a-re* *na* *ɲaragu*.
 5-food FM CLM 1-RMPST-be COM 9.famine
 ‘The thief told the court that he had stolen food because he was hungry.’
- b. *Mo-ichi* *ai-a-iy-et-ε* *i-riɔ* *ne-ke ?*
 1-thief 1-RMPST-tell-PFT-FV 5-food FM-Q
 ‘Why had the thief stolen food?’

- b` *Ne tɔndo a-a-re na ɲaragu.*
 FM CLM 1-RMPST-be COM 9.famine
 ‘Because he was hungry.’
- c. *Mo-ici ε_i-r-ir-ε i-gɔti atea?*
 1-thief 1-RMPST-tell-PFV-FV 5-court Q
 ‘What did the thief tell the court?’
- c` *Ate a-a-iy-et-ε i-riɔ ne tɔndo a-a-re na ɲaragu.*
 ‘that he had stolen food because he was hungry.’

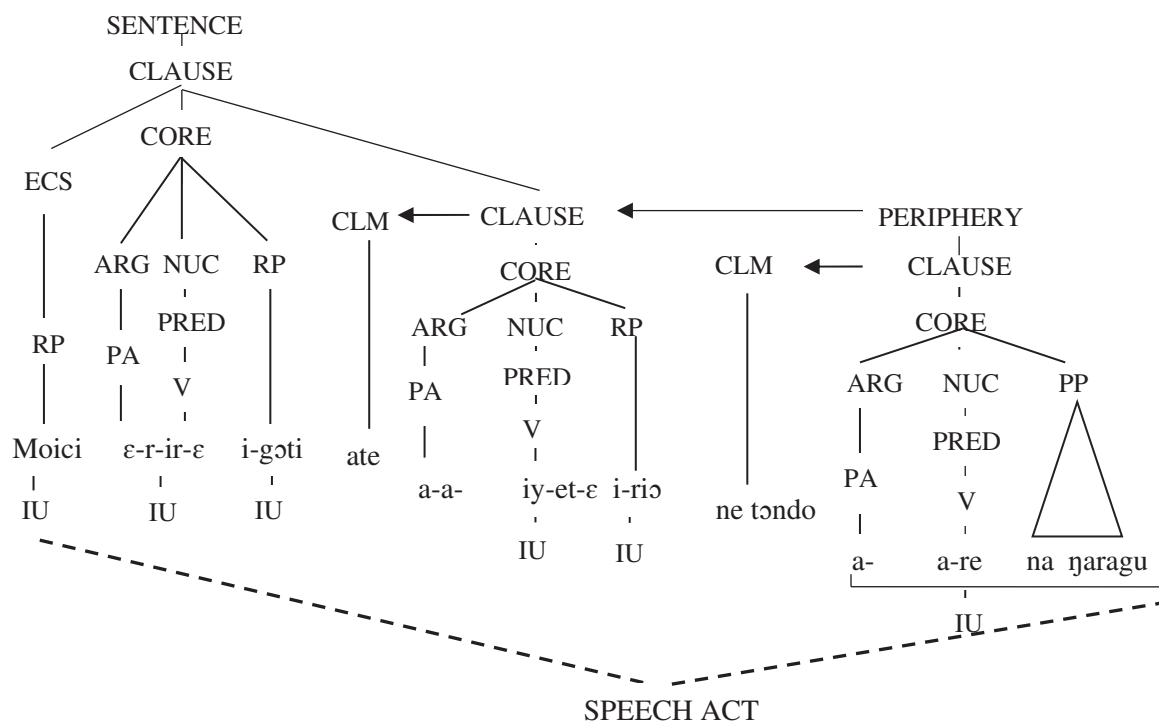


Figure 4.22 Potential focus domain in a sentence

The complement clause in (4.35a) is a direct core argument, and the *reason*-clause is in the periphery of this complement clause. In this case, the PFD spreads across the entire sentence of three clauses as shown by the broken line underneath, but extraction from lower clauses is impossible.

Although the information units (IU) are marked on individual phrases, they can be on an entire subordinate clause, if that subordinate clause can be replaced by a *wh*-word such as *ne-ke* ‘why’ in (4.35b), whose answer is in (4.35b`). In addition, a question such as *What did the thief tell the court?* in (4.35c) has the answer in (4.35c`), which is an *ate*-complement clause. In (4.35b`) the focus is on the entire reason-clause, occasioned by the *wh*-question *ne ke*. It is also possible to have both the complement clause and the reason-clause in focus in a question such as *What did the thief tell the court?* with the answer *That he stole the food because he was hungry*. In that case, the focus is the *ate*-clause. The reason-clause does not answer the question; it adds more information to the answer. The answers that supply new information above are the AFD.

Following Van Valin (2005; 2007) we can further test whether the subordinate clause is in the PFD using a polar question, for example *Did the thief tell the court that he had stolen for*

pleasure? to which the answer would be *No, for hunger*. In that case, the contrastive answer forms the new information, which is contained in the original reason-clause.

A note on the role of *ne* in the sentences above is called for. The reason-clause in (4.35a) can be replaced by *ne ηaragu* ‘because of hunger’, a “reduced PP reason-clause”. This *ne* is different from the *ne* in AM or FM. It is more like the *by*-phrase *ne* in passive clauses, marking periphery subject focus (see 3.55b), except that the one in *ne ηaragu* serves as a reason-clause linkage marker. The obligatory co-occurrence of *tōndo* ‘because’ with the FM may be explained with the help of an observation by Lambrecht (1994:69) that some conjunctions such as *because* have pragmatic properties shown by their compatibility with presupposition or focus. In Gĩkũyũ, this property is shown by the use of *tōndo* ‘because’ in the language.

That *ne* can be a FM and a subordinate conjunction is not unique to Gĩkũyũ. Bickel (1993:24-25) notes that in Kiranti languages (Sino-Tibetan), the same marker is used for both ad-sentential subordination (here called ad-clausal subordination) and for clausal topics, e.g. in Belhare, a member of that group, a detached finite clause, may be focused by restrictive or additive focus particles. The *ne* in reason-clauses is different from the AM as seen in the violation of the single-*ne*-per-clause constraint in (4.33b), which allows *ne* to co-occur with an in situ *wh*-word.

In terms of integration, Bril (2010b:273-274) notes that focused clauses in complex sentences are more syntactically integrated and embedded than topic clauses. For example, fronted adverbial clauses that are detached sentential topics (temporal, conditional and causal clauses) are loosely connected to the matrix clause, and therefore beyond the illocutionary force of the clause.

Bril’s views are evident in Gĩkũyũ, whereby detached adverbial clause do not take the IF of the main clause. Take as example the reason-clause *ne tōndo a-a-re na ηaragu* ‘because he had hunger’ in (4.35a): If detached, this clause requires an obligatory focal resumptive element *ne-keɔ* ‘it is’ before the matrix clause. This resumptive unit is the one that is focused (in the PrCS) and the reason-clause becomes a detached sentential topic.

The contention that the IF of the matrix clause being shared with embedded clauses is further illustrated in (4.36), where an additional *ne* before a reduced adverbial core PP is ungrammatical.

- (4.36) *A-ciari* *ne* *ma-a-inok-ir-ε* *na* *ci-ana* **ne* *thutha*
 2-parents AM 2-RMPST-go.home-PFV-FV COM 8-children AM after
 wa *cukuru* *ko-hing-wɔ*.
 of 9.school 15-close-PASS

‘The parents went home with the students after the school was closed.’

The dependent unit in (4.36) does not have a direct daughter relationship with the matrix core; it is in the core periphery. Thus, following the principle of PFD in (4.34), the dependent unit is interpreted as a single information unit (IU) that is within the PFD of the matrix clause (see Figure 4.23). This is supported by the fact that the ad-core subordinate clause can be questioned and replaced by a *wh*-word as in (4.37a), answered in (4.37b). Example (4.37c) is an intonational question that puts the PP in focus, in order to get the answer in (4.37d), with focus on the preposition. (4.37d) is compared to (4.37d`) with a bad answer, adverb *ira* ‘yesterday’.

- (4.37) a. *A-ciari* *ma-a-inok-ir-ε* *na* *ci-ana* *re?*
 2-parents 2-RMPST-go.home-PFV-FV COM 8-children Q
 ‘When did the parents go home with the students?’
- b. *Thutha* *wa* *cukuru* *ko-hing-wɔ.*
 after of 9.school 15-close-PASS
 ‘after the school was closed.’
- c. *A-ciari* *ma-a-inok-ir-ε* *na* *ci-ana* *mbεεre* *ya*
 2-parents 2-RMPST-go.home-PFV-FV COM 8-children before of
 cukuru *ko-hing-wɔ?*
 9.school 15-close-PASS
 ‘Did the parents go with the children home before the school was closed?’
- d. *Aca,* *THUTHA* *ḍ. Aca, IRA*
 no AFTER *No, YESTERDAY.

From Figure 4.23 we note that the constituents of the matrix clause are the information units (IU), but the peripheral subordinate unit is a single IU, although it has several constituents

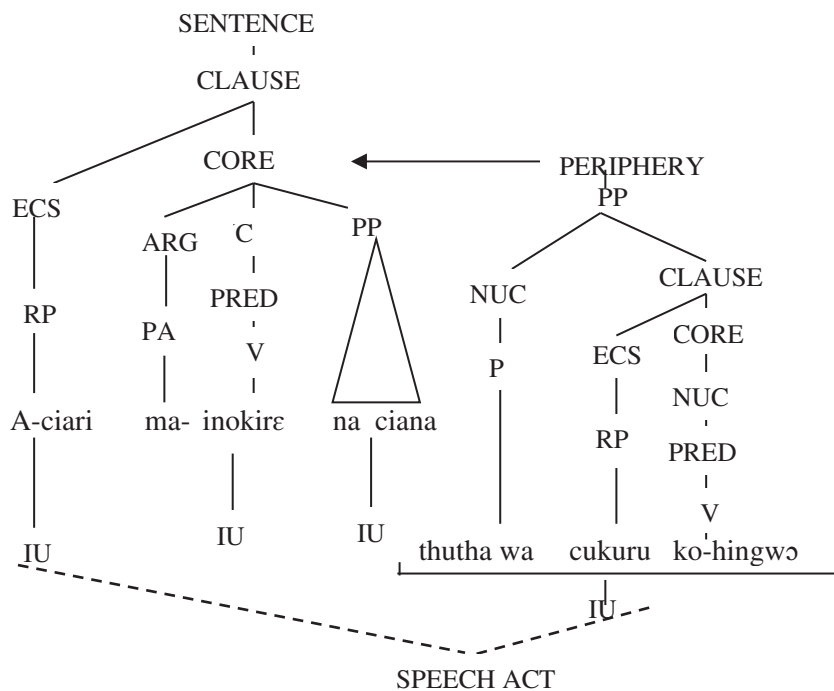


Figure 4.23 Potential focus domain in Ad-core subordination

Van Valin (2005) says that the PFD is easier to determine in languages with dedicated focus-marking morphemes. It is reasonable to include Gĩkũyũ in this category, as we have already identified *ne* as the focus particle.

The distribution of *ne* shows that it does not co-occur with negation, consecutive clauses, infinitives (in the present tense), interrogatives (i.e. it cannot precede *wh*-words in situ, but *ne* is obligatory when *wh*-words are not in situ, but see (4.33c) above), relative clauses, conditional and temporal adverbial clauses, and participial clauses (Armstrong 1967:169; Barlow 1951:34, 43,263-264; Gecaga 1955:19). Bergvall (1987a:92) reported that although *ne* is not found in

dependent (subordinate) clauses, it occurs in subordinate clauses introduced by “bridge verbs”, which are complement clauses.

The lack of *ne* in some subordinate adverbial clauses, especially detached ones, indicates topichood. Some adverbial clauses are shown to be topics by Longacre (1985; 2007), Thompson & Longacre (1985), Thompson et al. (2007) and others. Haiman (1978) claimed that conditionals are indeed topics³¹. As noted earlier, such topical (detached) subordinate clauses may not be focused or asserted. In fact, detached phrases units with TM=*re* do not take *ne*, and most detached units allow the TM enclitic attach on them. They can only be focused through a resumptive unit marked by *ne* and pronominal unit co-referring the detached unit e.g. *ne-keɔ* in (4.38b), *-ke-ɔ*, refers to *ge-tomi*, nominalised from *toma* ‘cause/make’ to get *getomi*, meaning ‘that which makes it happen/causes it’ reason’ or ‘reason’; this is contained in the *reason*-clause.

- (4.38) a. *Ne a-r-ɔker-a tɛnɛ, (ne) tɔndo ne a-r-ɛɛk-a ke-geriɔ.*
 AM 1-PRS-wake.up-FV early (FM) CLM AM 1-PRS-do-FV 7-exam
 ‘He is waking up early, because he is doing an exam.’
- b. *Ne tɔndo ne a-r-ɛɛk-a kegeriɔ (=re) ne-keɔ a-r-ɔker-a tɛnɛ.*
 FM CLM AM 1-PRS-do-FV 7-exam (=TM) FM-7-why 1-PRS-wake.up-FV early
 ‘Because he is doing an exam, that’s why he is waking up early.’
- c. ?*Ne tɔndo a-r-ɛɛk-a kegeriɔ=re a-r-ɔker-a tɛnɛ.*
 FM CLM 1-PRS-do-FV 7-exam=TM 1-PRS-wake.up-FV early
 ‘Because he is doing an exam, he is waking up early.’

Example (4.38b) is a variation of (4.38a) in which the reason-clause is displaced to the left. Example (4.38c) is not fully acceptable because the matrix clause lacks the obligatory second *ne*, and the one with *tɔndo* is not sufficient. The detached unit in (4.38b) even with the *ne* is still structurally dependent on both the “resumptive” constituent and the matrix clause, because with the =*re* ending, it is a sort of “floating” subordinate clause, to use a term from Bennett et al. (1985).

Although in (4.38b) the *ne* before *tɔndo* is optional, the second one is not, and this contradicts the claim that detached clauses cannot be focal or asserted, and the *ne* there may have any of these functions in the subordinate clause.

Thus, there is need to try to account for these particles. The *ne* that appears with *tɔndo* in (4.38b) and other examples, and the one in (4.33b) occurring with an in situ *wh*-word, should be not be taken as either the AM or FM (although marked as such in the examples), because this would violate the constraints of *ne* in Gĩkũyũ sentences. The initial *ne* with *tɔndo* is a property of the subordinator, which is also found with *ondo* as in *ne ondo*, an alternate ‘because’ subordinator. The difference is that the initial one with *tɔndo* is optional, but the one with *ondo* is obligatory. In both, the post-subordinator *ne* is obligatory in clauses.

As for the one in (4.33b) with the *wh*-word, there is reason to take it as the AM, as I have indicated that a statement cannot be intonationally converted into a question if the statement does not have *ne*. Therefore, there seems to be a relation between the assertive *ne* and question formation. Moreover, since the *wh*-question could be fronted to an ex situ next to *ne*, there is no need for another particle since *ne* holds this place for the inverted *wh*-question. In addition, in (4.33b) the focal unit is not even subject, it is an object, but by inversion, it seems as if it is a

³¹ For an alternative argument that conditionals are not topics in Chadic and Adamawa languages see Caron (2006).

subject. This leads us to speculate that this *ne* could be similar to the focal *ne* that focuses on subjects in a PP of passives sentences.

Example (4.39a) is still another of reason adjunct unit, but it is a core adjunct rather than a clause. In this example, particle *ne* indicates ‘reason/because’ even without subordinator *tɔndu*. The reason-core is is “reduced” or nominalized, bearing no tense, aspect or person marking. Unlike (4.38b), which requires a resumptive pre-core unit, the core above can be preposed without one. The *ne* particle occurring with the adjunct core does the work of a subordinator, since introduces adverbial core adjunct; yet there is nothing indicating *reason* meaning.

- (4.39) a. *Mo-rutani ne a-a-he-ir-ε mo-rutwɔ ke-heɔ ne*
 1-teacher AM 1-RMPST-give-PFV-FV 1-student 7-gift CLM
ko-hetok-a ke-geriɔ.
 15-pass-FV 7-exam
 ‘The teacher gave the student a gift for passing the exam.’
- b. *Julie a-a-igu-a ate n-da-ra-reeh-wɔ, nɔ*
 Julie 1-RMPST-hear-FV CLM 1-NEG-PRS-pay-PASS FO
ko-inok-a a-a-inok-ir-ε.
 15-go.home-FV 1-RMPST-go.home-PFV-FV
 ‘When Julie heard that she was not being paid, she immediately went home.’

Sentence (4.39b) contains an initial temporal clause (intonation indicates that it is a temporal unit) which is linked by a complementizer to another unit. A pause separates the first two clauses from the second part of the sentence. The sentence can answer the question, *Julie a-igua atea ne atea ε-εkir-ε?* ‘When Julie heard what, what did she do?’ The underlined question (*atea* ‘what’) in the first unit is answered by complement clause, and the second question in the clause is answered in the second part of the sentence.

Note that in the second part of (4.39b) there is *nɔ*, a focus operator (FO), made up of FM *ne* and *ɔ* ‘only’, a focus-sensitive particle. A verb “copy” is fronted, and it is the main clause that carries the grammatical operators. You may recall from the discussion of focus that verb-fronting is a verb-focusing strategy, and the presence of the FO and verb-fronting indicates focus marking in (4.39b). I note that the clause containing the focal verb cannot be preposed at the front of the sentence as it is.

If (4.39b) were the answer to the question above, then the AFD would begin after the matrix clause to the end of the sentence, and the PFD would be on the whole sentence. If it were only the last part of the clause that is questioned, then the verb-focused unit would be in the AFD alone.

While accounting for focused external clauses in Kĩĩtharaka, Abels & Muriungi (2008) resorted to a taxonomy of clause-embedding predicates suggested by Hooper & Thompson (1973) and the dichotomy of peripheral and central adverbial clauses by Haegeman (2006). Abels & Muriungi limited themselves to the following predicates: strongly assertive predicate (*say*), weakly assertive predicates (*believe*) non-assertive predicates (*deny*), factive predicates (*know*), and semifactive predicates (*discover*) as postulated in Hooper & Thompson’s taxonomy.

Following this division, Abels & Muriungi concluded that focus in embedded clauses is possible with strongly and weakly assertive predicates. However, with non-assertive and factive verbs they note that it is “dubious” to decide if these predicates allow focus in embedded units (Abels & Muriungi 2008: 693). However, some of these dubious examples are correct when

translated into Gĩkũyũ. I illustrate their Kĩĩtharaka concessives (Abels & Muriungi 2008:694, ex. 14), translated into Gĩkũyũ in (4.40).

- (4.40) a. *Ɔna a-nge-k̄rwɔ Maria; ne a-i-ring-ir-ε Joni ne n-go-mu-ɔher-a.*
 FO 1-COND-be Maria AM 1-hit-PFV-FV John AM Isg-FUT-1OM-forgive-FV
 ‘Even though Maria hit John, I will forgive her.’
 b. *Ɔna a-nge-k̄rwɔ ne Joni Maria; a-i-ring-ir-ε ne n-go-mu-ɔher-a*
 FO 1-COND-be FM John Maria 1-hit-PFV-FV AM Isg-FUT-1OM-forgive-FV
 ‘Even if it is John that Maria hit, I will forgive her.’

It is ungrammatical to have *ne* next to *ɔna* ‘even’ both in Kĩĩtharaka and Gĩkũyũ in (4.40). The reason is not so much that these are concessives, as Abels & Muriungi put it, but that *ɔna* is also a focus operator.³² In (4.40b) the focus is on *John*, who is identified as the one who was hit.

Abels & Muriungi also show that the FM in Kĩĩtharaka does not co-occur with temporal adverbial clauses. I adapt their example (15) (Abels & Muriungi 2008:694) with Gĩkũyũ equivalents in (4.41).

- (4.41) a. *Rerea Maria; a-i-ko-rug-ag-a nyama John; ne εj-go-ethamb-ag-a.*
 TEMP Maria 1-PST-cook-PROG-FV 9.meat John AM 1-PST-bathe-PROG-FV
 ‘When Maria was cooking meat John was bathing.’
 b. *Rerea *ne nyama Maria a-ko-rug-ag-a John ne ε-go-ethamb-ag-a.*
 TEMP FM 9.meat Maria 1-PST-cook-PROG-FV John AM 1-bathe-PROG-FV
 ‘When it was meat that Maria was cooking John was bathing.’
 c. *Ne rerea Maria; a-i-ko-rug-ag-a nyama John; ne εj-go-ethamb-ag-a.*
 ‘It was when Maria was cooking meat that John was bathing.’

It is evident that a FM is not allowed inside a temporal clause in both languages (4.41b), as it can give the clause assertion. However, in (4.40c) with *ne* before the temporal clause, it attains a contrastive focus reading. This clefting should not be taken to contradict the note made earlier that adverbial temporal clauses do not take *ne*; it is the assertive *ne* they do not take, not the FM.

Bergvall (1987a:83) noted that *ne* occurs in selected subordinate clauses. She argued that this is determined by the matrix verb. These verb must belong to the class of “ad-sententials” (Bresnan 1968) or “bridge verbs” (Erteschik 1973), and they introduce indirect discourse complements. Such verbs allow lower clauses to attain some “independence” such as marking own assertion (IF). Bergvall described them as “subordinate-yet-main clauses”, calling them “independent subordinates” because they have the features of a main clause (e.g. assertive *ne*). Bennett, in personal communication to Bergvall (1987a:83) calls them “quotes”. However, Bergvall is of the opinion that said “quotes” are more like clauses than direct quotes. I concur with Bergvall, and I will later show precise examples of direct quotes in Gĩkũyũ.

Bergvall uses the dependent/independent parameter rather than main/subordinate parameter to account for the presence or absence of *ne*. For example, dependent clauses such as consecutives, conditionals, RCs, and participles are incompatible with *ne*. I have argued that such dependent units depend on the matrix clause for the expression of declarative illocutionary force indicated by assertive *ne*. In cases where *ne* is used as a focus marker, it can occur with

³² *Ɔna* is an additive focus marker that is also used with nominals. See Bickel (1993:24-25) for additive focus particles that mark focus on detached topics in Belhare.

infinitive-like units in verb-focusing or temporal clauses (4.41c), but not in other cases. Therefore, the occurrence of *ne* depends on the function it has in a construction, but it is an indicator of the focus.

Bergvall's "independent subordinates" are, in my view, embedded clauses with main clause features but cannot be independent as to stand on their own since a subordinator shows their status. The presence of *ne* in these clauses captures the "Rubin effect" I discussed at the beginning of this section. Such clauses indicate assertion, hence the PFD in a clause.

In (4.35), I noted that *ne* is incompatible with ad-core (PP) subordinate units. On the other hand, if the ad-core subordinate unit is displaced to the left with *ne*, as in (4.42), it turns out to be grammatical, since the unit is now a focused cleft.

- (4.42) *Ne thutha wa cukuru ko-hing-wɔ a-ciari*
 FM after of 9.school 15-close-PASS 2-parents
ma-a-inok-ir-ε na ci-ana.
 2-RMPST-go.home-PFV-FV COM 8-children
 'It was after the school was closed that the parents went home with the children.'

I have already indicated that *ne* does not occur in relative clauses. In (4.43a) I show an embedded relative clause containing the FM *ne* next to the nucleus. Examples (4.43b-c) show the ungrammaticality of placing *ne* inside a relative clause. In (4.43) the PFD spreads from the matrix unit to the entire sentence. The RC is a specifically focused constituent in the AFD as indicated by the position of the FM showing that it has been fronted from a lower position in the sentence as seen (4.43a'). Therefore, the RC occupies the PrCS in the LSC.

- (4.43) a. *Mo-thigari a-a-tw-er-ir-ε ate ne mo-ndo o-rea*
 1-policeman 1-RMPST-IplOM-tell-PFV-FV CLM FM 1-person 1-RLPRN
w-a-iye-et-ε ka-βeti a-a-car-ag-i-a.
 1.RSP-RMPST-steal-PFV-FV 12-purse 1-RMPST-look.for-PROG-DC-FV
 'The policeman told us that it was the man who had stolen a purse he was looking for.'
 a' *Mo-thigari a-a-tw-er-ir-ε ate a-a-car-ag-i-a mo-ndo o-rea w-a-iye-et-ε ka-βeti*
 'The policeman told us that he was looking for the man who had stolen a purse.'
 b. [*mo-ndo ne* o-rea w-a-iye-et-ε ka-βeti*].
 1-person FM 1-RLPRN 1.RSP-RMPST-steal-PFV-FV 12-purse
 'the man who had stolen a purse'
 c. [*mo-ndo o-rea ne* w-a-iye-et-ε ka-βeti*].
 1-person 1-RLPRN FM 1.RSP-RMPST-steal-PFV-FV 12-purse
 'the man who had stolen a purse'

To conclude on focus in complex sentences, I note that the predictions of the principle of potential focus domain correctly predicts that PFD can only fall on constituents that are direct daughters of the clause layer. In Gĩkũyũ, this is shown by the occurrence of *ne*, the assertive/focus marker.

I have also shown that reason adverbial clauses in Gĩkũyũ present a unique problem because they allow more than *ne* particles in a clause, consequently challenging some established constraints in the language. This was solved by proposing that the involved *ne* particles do not have the usual AM/FM functions in such sentences. It was also shown that *ne*

can occur with units such as temporal clauses, relative clauses and infinitive units, which are disallowed in ordinary clausal positions, but allowed for reasons of focus. This happens because the concerned units are inverted.

In such a case, since consecutive clauses cannot be inverted, they remain among those dependent clauses that do not co-occur with *ne*; thus they cannot independently assert or focus anything. They permanently depend on the initial clause for interpretation of assertion. Hyman & Watters (1984) also noted that consecutives in Hausa and Fula bear focus. They suspected that their lack of focus could be because of their “non-interaction and non-assertive nature,” as well as being “backgrounded” (Hyman & Watters 1984:258). This is also true for Gĩkũyũ, in which assertion is shared among an initial clause and consecutive clauses. My claim finds support in a conclusion by van der Wal (2014:62) that the absence of focus markers in dependent consecutive clauses “allows the clause to be more integrated in the information structure of the initial clause”. Other than assertion, consecutive clauses do not also mark negation independently, or take question words. This means that that dependence is so entrenched that they cannot exist independently. In terms of information structure, consecutives are so important in the flow of information in sentences that in such cases they are indispensable.

4.7 Chapter summary

In this chapter, I have introduced the theory of complex sentences in RRG. I have identified the four juncture-types nuclear, core, clause, and sentential, and the three nexus relations coordination, subordination and cosubordination. Whereas there are eleven possible combined juncture-nexus types, Gĩkũyũ has evidence for eight types; it lacks the nuclear juncture-nexus type.

In the analysis of the complex RP, seven juncture-nexus types were uncovered. The RP layer allows coordination, cosubordination, and subordination; the core layer allows cosubordination and subordination, and the nucleus layer, subordination and cosubordination.

Focus in Gĩkũyũ complex sentences is possible in the subordinate clauses, thanks to the *ne*- assertive/focus marker and the presences of the “bridge-type” kind of verbs. Although subordinate clauses may appear to have independent IF because of assertive, I have suggested that this can be viewed as the “Rubin effect”, in which assertion can only be seen in one unit of the sentence at a time but not both. In conclusion, the theoretical tools of RRG for analyzing complex constructions have so far been found useful and adequate in the analysis of complex constructions in Gĩkũyũ.

5 Coordination and cosubordination in Gĩkũyũ

5.1 Introduction

In this chapter coordination and cosubordination as nexus relations in Gĩkũyũ are discussed.

5.2 Coordination in Gĩkũyũ

Coordination as a nexus relation is universal (Haspelmath 2007; Zhang 2009), which may explain why it is used to test for constituenthood in the syntax of languages. Coordinating conjunctions, unlike subordinating ones, link words, phrases, or clauses and assign equal rank to the conjoined elements (Schachter & Shopen 2007:45).

Different conjunctions instantiate different types of coordination, e.g. in English *and* is a conjunctive coordination, *but* an adversative coordination, *for* a causal coordination and *or* a disjunctive coordination. The coordinators in such constructions determine the semantic types of those coordinate constructions.

Gĩkũyũ has “many conjunctions” based on the list in Barlow (1951:203-205), but he does not distinguish subordinative conjunctions from conjunctive ones. Elsewhere, Barlow remarked that the consecutive tenses in Gĩkũyũ reduce the need for conjunctions, especially “and” (1951:203), since the consecutive tense links clauses. However, I note that this linkage is not wholly like coordination.

Conjunction *na* is the most ubiquitous, polysemous, and multifunctional conjunction in Gĩkũyũ. It has both coordinative and comitative meanings. This agrees with Stassen’s (2000) contention that many languages use identical markers for both ‘and’ and ‘with’. As a comitative preposition ‘with’, *na* indicates accompaniment, instrument, direction, and for. It may also have a possessive ‘have’ meaning.

A coordinate construction may consist of different types of units, ranging from single nouns over phrases and clauses to sentences. It is variously observed that there are restrictions as to which units can be coordinated by a conjunction such as *na*. For instance, Watters (2007:218) notes that in many African languages, coordination of clauses in sentences differs from that within noun phrases.

The conjunction *na* occurs in a limited conjunctive environments in some languages, e.g. in Kpelle it can only conjoin nominals, but not verb phrases or sentences (Welmers 1973), in Nkore Kiga *na* only links words and phrases (Taylor 1985), in Pare *na* cannot link adjectives modifying nouns (Mous & Mreta 2004), in Lubukusu different constituents are linked by different conjunctions (Gabanamotse-Mogara 2012), and Somali uses three different conjunctions to link nominals, verb phrases, and clauses (Berchem 1991 cited in Haspelmath 2007:21).

In order to differentiate coordination as a nexus relation from conjunction, Van Valin (2005) views coordination as an abstract linkage relation of equal and independent units which is different from conjunction, which is “a formal construction type that may or may not involve coordination” (Van Valin 2005:187, fn. 1). This definition has the advantage of including asyndentic coordination such as juxtaposition (parataxis and hypotaxis).

Lang (1984) views coordination as an underlying principle realized by different types of coordinate structures. He contends that coordinate structures may have overt conjunctions or

they may be “latent” or covert (Lang 1984:7). Lang’s definition is echoed in VVLP (1997) above; it is clear from these definitions that a coordinate relation need not have an overt conjunction or even have any conjunction at all; a common practice in Gĩkũyũ and many other languages.

Haspelmath (2007:1) views coordination as the “syntactic constructions in which two or more units of the same type (words, phrases, dependent clauses, independent clauses or full sentences) are combined in to larger units and still have the semantic relations with the surrounding elements”.

On the notion “same type”, Johannessen (1998) shows a cross-linguistic survey of “unbalanced conjunction /coordination”, in which the coordinated constructions are not of equal status. Elsewhere, Munn (1987) argued that the structure of coordination is asymmetrical since the first conjunct is higher in the structure and it c-commands the second one. In this dissertation, I do not attempt to argue for or against the claims made above, which are based on generative frameworks. Instead, I will illustrate the different types of coordination in Gĩkũyũ.

Coordination in general has been studied considerably, both from theoretical and typological standpoints (Dik 1968; Lang 1984; van Oirsuow 1987; Borsley 1994; 2005; Johannessen 1998; Zhang 2009; Haspelmath 2004a; 2004b; 2007). However, the situation is different in Gĩkũyũ, where the typology of coordination has not been investigated in much detail. For instance, the available Gĩkũyũ grammars (Barlow 1951; Gecaga 1955; Leakey 1978) only deal with aspects of complex sentences in a limited ways, with even less information specifically on coordination. Even in theoretical works on the language, except perhaps Overton (1972), coordination is ignored. The impression created is that coordination is not very important, and this is not surprising, as Lang (1984:15) observed that regularities of coordination are so general that they are unnoticed and at times considered less in need of explanation than other grammatical aspects. In addition, Gabanamotse-Mogara (2012:71) notes that there are few studies on conjunctions in Bantu.

Although I am not aware of a study on coordination in Gĩkũyũ, I will not deal with it comprehensively here; I will only give a basic illustration of coordination in the language.

5.2.1 Conjunctive coordination

Conjunctive coordination is referred to as “*na*-coordination” in this study. *Na*-coordination is found in many Bantu languages (Welmers 1973; Nurse 2008). According to Watters (2000:217), this prevalence may be traced to the fact these languages have conjunctions meaning ‘and’, but none to mean ‘but’ or ‘or’. Watters’ view can corroborated by an isolated example from Gĩkũyũ, where *na* has an adversative (*nɔ*) interpretation, different from its conjunctive meaning (5.1a).

- (5.1) a. *Mo-ndo* *mo-oka* *a-a-m-er-ir-ε* *n-da-he-et-wɔ* *rooa,*
 1-person 1-female 1-RMPST-2plOM-tell-PFV-FV 1-NEG-give-PFT-PASS 11.skin
 na *a-a-re* *na-ru-ɔ.*
 CLM 1-RMPST-have COM-11-IP
 ‘The woman told them that she not been given the skin, but she had it.’
 b. “*Na* *βaβa* *o-to-rehe-er-ε* *mo-gate*”.
 CLM 1.father IIsg-Ipl-bring-APPL-FV 3-bread
 “And father, bring for us bread.”

Example (5.1b) has the conjunction *na* at a clause-initial position. In this case there is no overt constituent that is linked; however, *na* has a pragmatic function of introducing some discourse and connecting to a previous one as additional information or an “afterthought”.

5.2.1.1 Coordination of nouns

Example (5.2) shows possible coordinate constructions with nominal elements such as single RPs (5.2a) and modified RPs (5.2b).

- (5.2) a. *To-ko-gora* *i-kombe* *na* *thaani*.
 Ipl-IMFUT-buy 8-cups and 9.plates
 ‘We will buy cups and plates.’
- b. *I-ci* *ne* *mbori* *n-ɔru* *na* *ngombe* *heenju*.
 10-DEM COP 10.goats 10-fat and 10.cows 10.thin
 ‘These are fat goats and thin cows.’

In some cases, coordination is a bit more complex because of agreement issues, especially when human and non-human RP conjuncts are involved. Similar issues have been recorded in Kiswahili (Marten 2000; 2003; Riedel 2009).

- (5.3) a. *A-tumia* *na* *a-thuuri* *ma-ra-rar-ir-ε* *mo-tito*.
 2-women and 2-men 2-RCPST-sleep-PFV-FV 3-forest
 ‘The women and the men slept in the forest.’
- b. *Ngui* *na* *ci-ana* *ci-ra-rar-ir-ε* *mo-tito*.
 10.dogs and 8-children 8-RCPST-sleep-PFV-FV 3-forest
 ‘The dogs and the children slept in the forest.’
- c. *A-tumia* *na* *ngui* *ma-ra-rar-ir-ε* *mo-tito*.
 2-women and 10-dogs 2-RCPST-sleep-PFV-FV 3-forest
 ‘The women and the dogs slept in the forest.’
- d. **A-tumia* *na* *ngui* *ci-ra-rar-ir-ε* *mo-tito*.
 2-women and 10-dogs 10-RCPST-sleep-PFV-FV 3-forest
 ‘The women and the dogs slept in the forest.’

In (5.3) there are human (men, women and children) and non-human RPs. In (5.3a), *atumia* ‘women’ and *athuuri* ‘men’ show agreement through the PA prefix *ma-* (NC 2) on the verb, standing for plural human participants. Had the conjuncts been *atumia* and *ciana* ‘children’, the *ma*-prefix associated with *atumia*, would overrule NC8 of *ciana*.

One may guess that since *ci-ana* ‘children’ are not equal to an adult, the adults’ NC marker overrides that of children. Both dogs and children have an alternate plural NC 10 (*i-*). Many other animals take the *ci-/i-* PA prefix, except the lion, in class 3/4. In (5.3b), *ngui* ‘dogs’ and *ciana* have the same PA (*ci-*). The PA prefix associated with *atumia* in (5.3c) overrules the NC associated with *ngui*; but the latter cannot overrule the former, as seen in the rejection of (5.3d).

In (5.4a) is a clause with a comitative argument and coordinated arguments (5.4b). The comitative argument in (5.4a) is acceptable as a periphery unit, but not as a conjoined argument as in (5.4b).

(5.4) a. *Mo-riu* *a-Ø-het-ag-a* *thiia* *na* *ngui.*
 1-son 1-PRS-hunt-HAB-FV 10.antelopes COM 10.dogs.
 ‘His son hunts antelopes with dogs.’

b. *Mo-riu* *na* *ngui* *(*ma)(*a)-Ø-het-ag-a* *thiia.*
 1-son and 10.dogs (*2)(1*)-PRS-hunt-HAB-FV 10.antelopes
 ‘His son and the dogs hunt antelopes.’

Example (5.4b) disallows both NC 1 and 2 PA prefixes. If acceptable, it would make both participants the agents. The unacceptability ensures that the dogs remain as instruments and not agents. From (5.4b) it is clear that coordination of an inherently instrumental argument may not be linked with an inherently agentive (human). However, two agents can be joined as in (5.5).

(5.5) *Mo-riu* *na* *mw-are* *ma-Ø-het-ag-a* *thiia*
 1-son and 1-daughter 2-PRS-hunt-HAB-FV 10.antelopes
 ‘His son and daughter hunt antelopes’

Gĩkũyũ does not have a pure bare/base verb coordination (i.e. without person and number), as for example in the English sentence *Pat will eat and drink*, where two bare verbs are linked. Example (5.6a) is ungrammatical compared to (5.6b) because of missing PA prefixes. The RP *guuka* in (5.6b) must not be replicated in the linked unit, since it is already coreferenced by the PA. Therefore, the PA is a pronoun, as it cannot co-occur with its lexical RP, as was concluded for bound pronouns and their object RPs.

(5.6) a. **Guuka* *Ø-a-re-a* *na* *Ø-a-nyu-a.*
 1-grandfather Ø-IMPST-eat-FV CLM Ø-IMPST-drink-FV
 ‘Grandfather has eaten and drank.’

b. *Guuka* *a-a-re-a* *na* *a-a-nyu-a*
 1-grandfather 1-IMPST-eat-FV CLM 1-IMPST-drink-FV
 ‘Grandfather has eaten and drank.’

A question is whether a verb or a core is linked in (5.6b). Since a core consists of an argument and a nucleus, which are evident in the linked units, it is obvious that cores are coordinated in (5.6b). It is difficult to claim nuclear coordination, however, since every nucleus has an argument co-indexed.

5.2.1.2 Core coordination

Coordination is mostly considered at the clausal and phrasal levels, but not at the sub-clausal level, e.g. the core level. This follows from the theories used, most of which do not recognise sub-clausal layers such as cores or nuclei.

The conception of coordination as an abstract linkage relation not necessarily realized by a conjunction is at work in (5.7). These examples separate constructions that appear similar, though they belong to different nexus relations, owing to their morphosyntax.

The initial units in (5.7) contain near future tense and they bear two arguments, subject ‘I’ and object pronoun *-mo-*. The object in the initial units is the agent in the second cores, with their own nuclei and a patient *mote* ‘tree’.

- (5.7) a. *N-go-moi-er-a* *ai-ga-tɛm-ɛ* *mo-te.*
 Isg-NRFUT-1OM-tell-FV 1-DIST-cut-FV 3-tree
 ‘I will tell him to go and cut the tree.’
- b. *N-go-moi-er-a* *ai-gaa-tɛm-a* *mo-te.*
 Isg-NRFUT-1OM-tell-FV 1-RMFUT-cut-FV 3-tree
 ‘I will tell him to cut (in future) a tree.’
- c. *N-go-moi-er-a* *ai-tɛm-ɛ* *mote.*
 Isg-NRFUT-1OM-tell-FV 1-cut-FV 3-tree
 ‘I will tell him to cut the tree.’ (Lit. ‘I will tell him he cuts the tree.)

In (5.7a) the linked core has a distal marker *-ga-*, interpreted as the verb ‘go’, but there is no tense in the unit. Distal markers may have originated from a verb meaning ‘go’ according to Botne (1999). Bennett et al. (1985:214) note the Gĩkũyũ distal marker *-ka/ga-* means ‘go and...’³³. However, adding the conjunction *na* to (5.7a) is ungrammatical, an indication that it is not pure coordination.

Example (5.7b) contains tenses in both units and the conjunction *na* is also disallowed here. Both units bear an IND *-a* FV, compared to all the others it is the only one with two (*-a*) FV, as the others have a SBJV *-ɛ* ending. The SBJV endings have a lot to do with “dependence”, for example, the dependency of Gĩkũyũ purposive clauses is indicated by *-ɛ* in Gĩkũyũ. On the other hand, an IND *-a* ending is found in units containing tense and also in infinitive-like constructions.

What emerges in (5.7b) is that the second unit is a non-coordinate clause that can stand on its own. Furthermore, unlike the other examples, (5.7b) allows a different subject in the second core from that in the first unit, i.e. a totally new referent RP may be introduced. This is additional evidence that this linked unit is a clause, and specifically a subordinate clause.

The linked units in (5.7a) and (5.7c) bear PA arguments but no temporal inflections. Although the translations in English are infinitives, they differ from English infinitives, which do not indicate tense, or arguments. However, like English infinitives, they are not finite since only person is marked³⁴. Even without basing my evidence on the fact that the glosses indicate infinitive readings like those of English, I propose that there are strong indications that (5.7a) and (5.7c) are non-subordinate constructions.

In a non-subordinate core juncture, an argument is normally shared between units. While in English a shared argument may not be overt, in Gĩkũyũ it may be overt or covert, as shown by the co-indexing in (5.7a) and (5.7 c). Although this is also seen in (5.7b), (5.7a) and (5.7c) cannot allow a different participant for the second unit, but (5.7b) does, as indicated above.

The presence of *-ga-* in the second unit in (5.7a) distinguishes it from that of (5.7c), which is a more reduced unit. I am suggesting that (5.7c) is a case of core coordination. This

³³Barlow says that *-ga-* means ‘go’. Thus it is not expected that verb ‘to go’ and distal *-ga-* can co-occur, since it is marking the same constituent twice. However, as seen in (ii), *-ga-* does co-occur with *thie* ‘go’ without any problem.

i. *M-ɛ-er-ɛ* *ma-ga-kɔɔm-ɛ.* ii. *M-ɛ-er-ɛ* *ma-thi-e ma-ga-kɔɔm-ɛ.*
 2OM-PRS-tell-FV 2-DIST-sleep-FV 2OM-PRS-tell-FV 2-go-FV 2-DIST-sleep-FV
 ‘Tell them to go and sleep.’ ‘Tell them to go and sleep.’

Botne’s view of *-ga-* as a distal marker is evident in the examples above, as the hearers are expected to go to a direction *away* from the point of utterance. Thus, this prefix may be a marker of directional.

³⁴ Similar inflected infinitives are reported for Brazilian Portuguese by Martins (2011).

follows from the fact that each core has its own arguments and nucleus, ‘I’ and ‘him’ as arguments and ‘tell’ as nucleus in the first, and arguments ‘he’ and ‘tree’ and ‘cut’ as nucleus in the second core. Recall that our operational definition of coordination does not require that every form of coordination must have a conjunction. Hence, (5.7c) shows asyndentic core coordination.

The linked core unit in (5.7a) is a reduced unit in a non-subordinate relation. If prefix *-ga-* marked directionality, then (5.7a) would be core cosubordination effected by a directional. In fact, there are strong indications that *-ga-* is not a “verb” as shown by its co-occurrence with the verb ‘go’ in the examples in the footnote 31. Thus, (5.7a) can better argued to be core cosubordination than either core coordination or clausal coordination. If *nɔ*, a deontic modal of permission is added, the reading of the clause would be, ‘I will tell him he can/may go and cut the tree’, in which case modality is both on ‘going and on cutting the tree’, therefore demonstrating core cosubordination.

An additional example of core coordination comes from the periphrastic *toma-* (‘make’), causative constructions as in (5.8).³⁵ Song (2001:257) has argued that causative constructions express a “complex macro-situation consisting of two micro-situations or component events”. This is what is contained in periphrastic mono-clausal constructions such as (5.8). The events in the cores can be modified by a common time-positional modifier such as *rocine* ‘in the morning’.³⁶

In (5.8a) the ECS RP *ndɔgɔ* is co-indexed to the PA *e-*, and both the PA and *mwana* ‘child’ are the first and second arguments of verb *toma* ‘make’ in the core. In the second core, the ECS RP *mwana* is also is co-indexed to the PA *a-*, the first core argument of nucleus *kɔrɔra* ‘cough’. Examples (5.8b-c) are the morphological realization of (5.8a), using *-ith-* and *-i-* causative suffixes.

- (5.8) a. *Ndɔgɔ* *ne* *e-i-ra-tom-a* (*mw-ana*_j) *a_j-kɔrɔr-ε* *rocine*.
 9.smoke AM 9-PRS-make-FV (1-child) 1-cough-FV in the morning
 ‘The smoke is making the child to cough in the morning.’
- b. *Ndɔgɔ* *ne* *e-ra-kɔrɔr-ith-i-a* *mw-ana*.
 9.smoke AM 9-PRS-cough-CAUS-DC-FV 1-child
 ‘The smoke is causing the child to cough.’
- c. *Ndɔgɔ* *ne* *e-ra-kɔrɔr-i-a* *mw-ana*.
 9.smoke AM 9-PRS-cough-CAUS-FV 1-child
 ‘The smoke is causing the child to cough.’

I have indicated that (5.8a) is mono-clausal and this can be tested in several ways as shown in (5.9) (see also similar arguments for chiShona by Mugari & Kadenge 2014). In the first core in (5.9a), the patient argument *mwana* is a bound object pronoun, and it is interpreted as the actor of the linked core. Passivization in this clause is unusual because the verb *toma* cannot take the passive suffix. In order to passivize, the verb in the second core assumes the main nucleus function and *toma* is discarded as shown in (5.9b). This points toward the interpretation that

³⁵ See Paris (1999) for similar constructions in Spanish, based on *hacer* ‘make’ infinitives.

³⁶ The fact that cores in *toma*-constructions can be modified by a common time-positional modifier is evidence for the Macro Event Property (MEP). See Bohnemeyer & Van Valin (2017) for more on the MEP.

toma might be a light or auxiliary verb, and not a main verb (see Batteen 2012 for a case on a similar light verbs in Chichewa). The scope of negation in (5.9c) is on the entire clause and not on part of it, although the NEG marker is in the first core. A clausal adverb such as *omothē* ‘today’ has scope over the entire clause and not merely one of the cores, which is clearly a clausal feature (5.9d).

- (5.9) a. *Ndɔgɔ ne e-ra-mo_i-tom-a a_i-kɔrɔr-ε.*
 9.smoke AM 9-PRS-1OM-make-FV 1-cough-FV
 ‘The smoke is making him to cough.’
- b. *Mw-ana ne a-ra-kɔrɔr-i-ɔ ne ndɔgɔ.*
 1-child AM 2-PRS-cough-CAUS-PASS by 9.smoke
 ‘The child is made to cough by the smoke.’
- c. *Ndɔgɔ n-de-ra-tom-a mw-ana a-kɔrɔr-ε.*
 9.smoke 9-NEG-PRS-make-FV 1-child 1-cough-FV
 ‘The smoke is not making the child to cough.’
- d. *Omothe ndɔgɔ ne e-ra-tom-a mw-ana a-kɔrɔr-ε.*
 Today 9.smoke AM 9-PRS-make-FV 1-child 1-cough-FV
 ‘Today the smoke is making the child to cough.’

Now that I have brought up the idea of causativization and its typological importance, I will briefly describe causativization in Gĩkũyũ below. I will use these examples to illustrate the interclausal relations hierarchy in Chapter 6.

Causativization in Gĩkũyũ is realized syntactically by periphrastic causatives as in (5.8a), (5.9a), and (5.10a), morphologically as in (5.8b-c), (5.9b), and (5.10), and lexically by verbs such as *oraga* ‘kill/break’. Literature on Gĩkũyũ causatives is mainly looked at as a valency-increasing process (Mwangi 2001). Causative *-ith-* is more productive (distributionally and semantically) than causative *-i-* and it occurs with most transitive and ditransitive verb types, while *-i-* occurs mostly with intransitive verbs and with some selected transitive ones. Moreso, *-ith-* has a coercive meaning (‘make’) compared to the non-coercion ‘have’ found in *-i-* usage.

- (5.10) a. *Mw-arimo ne a-a-tig-ith-ir-i-ε a-rutwɔ cukuru.*
 1-teacher AM 2-RMPST-quit-CAUS-PFV-DC-FV 2-students 9.school
 ‘The teacher made the students quit school.’
- b. *Maina ne a-ra-tɛm-ith-i-a a-anakε me-te.*
 Maina AM 1-PRS-cut-CAUS-DC-FV 2-youths 3-trees
 ‘Maina making the youths cut the trees/ helped them cut the trees.’
- b’. *Maina ne a-ra-tɛm-ith-i-a me-te.*
 Maina AM 1-PRS-cut-CAUS-DC-FV 3-trees
 ‘Maina is making someone to cut the trees.’
- c. *Mo-iretu ne a-ra-hom-ith-i-a a-naakε.*
 1-girl AM 1-PRS-strain-CAUS-DC-FV 2-youths
 ‘The girl has caused the youths to strain./‘The girl has strained the youths’.
- c’. *Mo-iretu ne a-ra-hom-i-a a-naakε.*
 1-girl AM 1-PRS-strain-CAUS-FV 2-youths
 ‘The girl is causing the youths to strain.’

d. *Ngaine* *a-a-ur-i-a* *mbura./ *a-ur-ith-i-a mbura.*
 God AM 1-PRS-rain-CAUS-FV 14-rain/
 ‘God has caused the rain to pour.’

Causation types may be distinguished on the basis of direct vs. indirect causation and manipulation vs. directive causation (Song 2001:275ff.). These distinctions may be used on the Gĩkũyũ examples so far given.

Direct and indirect causation has temporal distance between the causing and caused events as a main distinguishing feature. Direct causation is without an intervening event between the events, and in indirect causation there is an intervening event, hence a longer temporal distance.

The manipulative-direct causation involves the causer and the causee, and the relationship between them determines if the causative relationship will be manipulative or directive (Song 2001:277-278). When the causer physically acts on the causee, the causation is manipulative, as the causer manipulates the causee to realize the caused event. The causer can also use non-physical (e.g. verbal or social) means to cause the causee to realize the event.

Periphrastic causatives are indirect causatives in Gĩkũyũ. The causer may not be consciously controlling the realization of the caused event, e.g. smoke is inanimate and therefore cannot manipulate the child. If (5.10a) was periphrastic, the teacher may have unconsciously caused the students to quit school, or even consciously depending on what he did or said. However the morphological *-ith-* causation (5.10) means that the teacher was a direct causer, that his actions were directly responsible for the caused event of students quitting school. Indeed the suffix *-ith-* is described as being coercive, with the causer being in control (Mwangi 2001).

However, looking at (5.8b) without animate (human) causers, and others which may be both coercive and non-coercive (see 5.10b), this conclusion does not hold. The suffix *-ith-* in (5.10b) can mean that the causer (*Maina*) helped the causee (*a-naake*) to cut the trees, meaning *Maina* was also an agent. The other sense is that he may have manipulated them to cut the trees, and in that way he is not a participant in the realization of the caused event. In (5.10b') without another agent of cutting indicated, it means that *Maina* played a supervisory role in the felling of the trees. In summary, causative *-ith-* encodes direct causation, but not when a construction can optionally use either of the morphological causatives.

Mwangi (2001:394) concluded that the suffix *-i-* is used in non-control situations (non-manipulative / non-deliberate situations) such as (5.10c'). In (5.10c') the causer *moiretu* lacks conscious control to cause the causee (*aanake*) to strain, unlike in (5.10c) where she is in control. The RP *wera* ‘work’ can replace *moiretu* as the causer in (5.10c'), but with *wera*, the suffix *-ith-* is disallowed. The claim that *-i-* indicates non-manipulative and non-deliberate causation is evident in (5.10c'), but not in (5.10d), in which ‘God’ is understood to be in conscious control of the caused event, at least from the system of belief. The direct *-ith-* suffix is inapplicable in (5.10d).

Song (2001) suggested that manipulative causation may have either animate or inanimate (human) causees, whereas in directive causation, the causees will be animate and more likely human. Causation with *-ith-* shows this in the given examples.

This is a brief treatment of the typology of causation in Gĩkũyũ and a more detailed investigation is needed, to look into the distribution of causative suffixes, in relation to verb types.

5.2.1.3 Conjunction of clauses

At the clause level, *na*-conjunction links different clauses: subordinate and dependent ones.

- (5.11) *Ne a_i-ra-rem-ir-ε mo-gonda na ne a_i-ra-hand-ir-ε*
 AM 1-RCPST-plough-PFV-FV 3-farm CLM AM 1-RCPST-plant-PFV-FV
mbembε.
 9. maize
 ‘S/he ploughed the farm and s/he planted maize.’

Sentence (5.11) consists of two independent clauses, with identical subjects. Both clauses are fully independent in terms of clausal properties such as tense and assertion. Each of the coordinated clauses requires its own *ne* and aspect marking. Although (5.11) is acceptable, it is not the preferred way of coordinating clauses bearing all the grammatical inflections.

The common and most preferred way of coordinating clauses is demonstrated in (5.12a). The coordinated clauses do not obligatorily require *ne*; the first clause can optionally take it, but it is prohibited in the second clause. Sentence (5.12) also differs from (5.11) in that aspect is only indicated in the first clause but not the second; however, both clauses indicate tense. I note that though the shape of the tense markers is identical, these are not the same. The first *-ra-* is an absolute tense and the second one is a relative consecutive tense (see §5.3.3.1.1 below).

- (5.12) a. *Ne a-ra-rem-ir-ε mo-gonda na a-ra-hand-a mbembε.*
 AM 1-RCPST-plough-PFV-FV 3-farm CLM 1-RCPST-plant-FV 9.maize
 ‘S/he ploughed the farm and s/he planted maize.’
 b. *Kamau_i a_i-a-gor-ir-ε mo-gatε (na-kε) Wanjiru_j na-kε_j*
 Kamau 1-RMPST-buy-PFV-FV 3-bread (and-PRN) Wanjiru and-PRN
a_j-ke-gor-a keki.
 1-CONS₃-buy-FV 9.cake
 ‘Kamau bought bread and Wanjiru bought a cake.’

In (5.12b) the clauses are joined by a “compound conjunction”, *na-kε* “and-clitic pronoun”. The subjects in the clauses are different; *Kamau* is the subject in the first clause and *Wanjiru* in the second. The complex conjunction *na-kε* is responsible for the introduction of different subjects. It is commonly used to join clauses with different subjects, thus it not applicable to both (5.11) and (5.12a), which have identical subjects in the linked clauses. This conjunction occupies varied positioning, either before or after the ECS argument as seen in (5.12b). In addition, the second clause in (5.12b) contains a past consecutive prefix (*-ke-*). If the first clause had recent past (*-ra-*) and perfective aspect (*-ir-*), the second clause should also have *-ra-*, as in (5.12a), although aspect is not marked in the coordinated clause.

Bresnan & Mchombo (1987:769) noted similar compound constituents (“compound conjunction”) in Chichewa, which they termed “synthetic prepositional phrases”. These synthetic PPs have a reduced form of an independent pronoun that is incorporated into a preposition; and they have an anaphoric relation with topics (subjects).

The Gĩkũyũ *na-kε* is particularly different because it cannot be fleshed out as the analytic ones in Chichewa. Nevertheless, the so-called synthetic PPs exist in Gĩkũyũ; but not with reduced independent pronouns. They include *na-we* ‘with/and you’, *na-ɔ* ‘with/and them’ and

na-inyue ‘with/and you’ (plural). Unlike *na-ke*, these are not bound, since they retain their status as independent pronouns (IPs). *-ke*, however, has no equivalent IP and thus it is not a reduced IP.

It seems that *na-ke* behaves like a switch-reference marker or even a topic shifter, as it does in (5.9b), and it is incompatible in (5.11) or (5.12a), where the subjects are identical in both clauses. Thus, *na-ke* introduces a different subject in a linked clause.

In a study of Native American languages, Jacobsen (1967:240) is cited by Austin (1981:309) as having noted that a switch reference marker involving a switch in subject or agent. The languages indicate reference switching with the help of a suffix morpheme, which may or may not have any other meaning. These features are evident in *na-ke*, which has a suffixed morpheme without any other meaning in Gĩkũyũ. An even better description for the Gĩkũyũ marker borrows from Austin (1980:26-7) cited in Jacobsen (1993:265), who noted that in Pitjantjatjara, an Australian language, a switch reference marker is attached to a conjunction.

In Gĩkũyũ it is to the conjunction *na* that *-ke* is attached. However, *na-ke* is not a switch reference marker similar to the switch reference markers found in Papua New Guinea languages such as Amele (Roberts 1988a; Broadway 1997) or Australian languages (Austin 1981) which indicate clause chains, and are hence analyzed as cosubordination.

While switch reference markers in some Australian languages studied by Austin (1981) go with subordinate clauses, *na-ke* in Gĩkũyũ links cosubordinate clauses as in (5.12b), or coordinate clauses as in (4.9a). Calling *na-ke* a “transition marker”, a term from Longacre (2007:401) which indicates that next clause has a different subject, may serve well to distinguish it from the Papua New Guinea type of switch reference markers.

The examples in (5.13) below show different types of coordinated clauses. In (5.13a) an independent clause is linked to a temporal subordinate clause which is followed by a core. The temporal sense in the subordinate clause is indicated by both *-ta-* and the infix *-na-*. Recall that *-ta-* is the negative marker in subordinate clauses, and it normally works closely with prefix *-na-*.

- (5.13) a. *To-ko-ihor-a* *i-riɔ* *na* *to-ta-na-re-a* *to-hɔ-ε*.
 Ipl-FUT-serve-FV 9-food CLM Ipl-NEG-TNS-eat-FV Ipl-pray-FV
 ‘We will serve the food and before we eat, we pray.’
 b. *A-ici* *m-ɔ-ɔk-ir-ε* *na* *ma-ke-iy-a* *na* *ma-ge-thi-e*.
 2-thieves 2-RMPST-come-FV CLM 2-CONS₃-steal-FV CLM 2-CONS₃-go-FV
 ‘The thieves came (and they) stole and they went away.’

Sentence (5.13b) is composed of an initial main clause and two consecutive clauses. None of the constituent units in (5.13b) can stand on its own, not even the finite initial clause. The initial clause, without *ne*, is “dependent”. It is only by adding *ne* that the clause can attain some “stability” or “balance” to be able to stand alone, without the need of consecutive units. On the other hand, there is no way that the consecutive units can be made independent.

The inclusion of *na* ‘and’ before the consecutive clauses is of little grammatical significance, and therefore optional. However, the last *na* signals a finality of events, although it is not necessary. Thus, from (5.13) it is evident that the conjunction *na* can link constructions of other nexus relations such as cosubordination.

Palancar (2012) contends that a conjunction such as ‘and’ can mark sequence or consequence, but this is not the case in Gĩkũyũ. To show result as in (5.14a), *na* is not required at all, and its inclusion in (5.14b) actually adds a contrastive meaning.

- (5.14) a. *A-a-nyu-ir-ε ndawa a-ge-ku-a.*
 1-RMPST-PFV-FV 9-medicine 1-CONS₃-die-FV
 ‘S/he took medicine and s/he died.’
 b. *A-a-nyu-ir-ε ndawa na a-ge-ku-a.*
 1-RMPST-PFV-FV 9-medicine CLM 1-CONS₃-die-FV
 ‘S/he took medicine but/and yet s/he died.’

Sentence (5.14a) is a combination of two clauses showing consecutive sequence of events. (5.14b) has the same clauses but with a conjunction added. Generally, *na* has conjunctive/additive meaning, but the meaning in (5.14b) is an adversative one, indicating that the consequent event is against the expectation of the event in the first clause.

The conjunction *na* links questions in (5.15). The first conjunct is an ex situ question linked to a clause with an in situ one and both questions have identical subjects.

- (5.15) *Ne-ko i-nge-endi-a mbori ci-akwa na n-go-ci-twara atea ?*
 AM-Q I-MOD-sell-FV 10.goats 10.ASSOC CLM I-NRFUT-10OM-take-FV Q
 ‘Where can I sell my goats and how will I take them?’

Conjunction coordination transcends the illocutionary boundaries, in that an interrogative and a declarative clause may be linked as in (5.16). The first clause is a declarative clause linked to an interrogative clause, illustrating the independence associated with coordination.

- (5.16) *Kamεme ne ga-a-thok-ir-ε na ne ha*
 12-radio AM 12-RMPST-become.bad-PFV-FV CLM AM Q
w-a-ka-huti-a ka-ari-a?
 1-PRS-12OM-touch-FV 12-talk-FV
 ‘The radio broke down, and where have you touched it and then it talked?’

Example (5.17) shows ellipsis in coordination, and it further exemplifies the use of *nake*.

- (5.17) a. *Kamau a-ra-rug-ir-ε ngima naked moka moceere*
 Kamau 1-RCPST-cook-PFV-FV 9.ngima CLM 1.wife 3.rice
 ‘Kamau cooked *ngima* and his wife rice /and as for his wife, she cooked rice.’
 b. *Maina a-ra-gor-e-ir-ε mw-are nguɔ naked mo-rii i-rato.*
 Maina 1-RCPST-buy-APPL-PFV-FV 1-daughter 9.dress CLM 1.son 8.shoes
 ‘Maina bought his daughter a dress and his son shoes.’

The second clauses in (5.17) are linked by *nake*, and in all cases the subjects are switched. In (5.17a) the predicate *ruga* ‘cooked’ in the first clause is also assumed to be the one missing in the linked clause. The “applied” predicate ‘buy for’ in the first clause in (5.17b) is also assumed for the linked one, which has a different subject (*mo-rii*) and different undergoer (*i-rato*).

5.2.1.4 Sentence coordination

The examples in (5.18) show coordinate conjunction of sentences. The sentence here is understood as being made up of more than two clauses, regardless of the nexus type they have.

- (5.18) a. *Ma-ta-na-tham-a, ma-a-ikar-et-ε nyomba e-yɔ me-aka ikumi*

2-NEG-TNS-move-FV 2-RMPST-stay-PRF-FV 9.house 9.DEM 4-years ten
na ne m-a-ak-ir-ε ya-ɔ ma-ikar-ang-a ha-nini.
 CLM AM 2-RMPST-build-PFV-FV 9.POSS 2-stay-PSTV-FV 17-little
 ‘Before they moved out, they had lived in that house for ten years, and they built their own, after they stayed for some time.’

- b. *Ma-ta-na-tham-a, ma-a-ikar-et-ε nyomba e-yɔ me-aka ikumi*
 2-NEG-TNS-move-FV 2-RMPST-stay-PRF-FV 9.house 9.DEM 4-years ten
na ma-ge-cɔɔk-a ma-ge-ak-a ya-ɔ thutha wa me-aka etato
 CLM 2-CONS₃-return-FV 2-CONS₃-built-FV 9.POSS after of 4-years three
 ‘Before they moved out, they had lived in that house for ten years and then (later) they built their own, after three years.’

The first sentence in (5.18a) is made up of a left-detached temporal subordinate clause and a matrix clause. It is linked by *na* to another sentence composed of a matrix clause and a right-detached temporal subordinate clause.

Sentence (5.18b) resembles (5.18a), except that it has a cosubordinate sentence as one of the linked units. The conjoined sentence contains a consecutive clause, functioning as a “complex conjunction” ‘and then’, followed by another (reduced) consecutive clause with its object (possessive pronoun *ya-ɔ* ‘theirs (their house)’), and lastly a temporal ad-core PP unit ‘after three years’, which is right-detached. In this example we have sentences with subordinate and cosubordinate features linked together and this shows the versatility of conjunction *na*.

The discussion of *na*-coordination shows that conjunction *na* is very productive and unconstrained with regard to what constituents it can link. This differs from African languages such as Nkore Kiga, Kpelle, Lubukusu, Pare, and Somali which have restrictions on the constituents a single conjunction can link. Welmers (1973:305) admitted that in his study of African languages, he had not encountered a conjunction that could be used to link both sentences and nouns. I have provided evidence that Gĩkũyũ does provide such a conjunction, just as English and other languages.

5.2.2 Adversative coordination

Gĩkũyũ adversative coordination (*nɔ*-coordination) is marked by *nɔ* ‘but’. This morpheme seems to be polysemous or homophonous, having the sense of ‘but’, ‘only’, ‘just’, ‘still’, and even ‘can’, a modal. This morpheme can also make a sentence more emphatic according to Gecaga (1955:108). For the present purposes I will focus on the adversative function of the morpheme.

Adversative coordination expresses a meaning of contrast between statements or events or showing some “expectancy reversal” (Longacre 2007:408). Such features might have been responsible for leading J.Payne (1985) to consider adversative coordination as “marked coordination”, identifying three different types of adversative coordination: semantic opposition, denial of expectation, and preventative adversative coordination.

Gĩkũyũ adversative coordination is very different from conjunctive coordination, in that it cannot link two nominals as in **Maina nɔ Mwangi* ‘*Maina but Mwangi’, unless *nɔ* is interpreted as ‘still/also’ to mean ‘Maina is still Mwangi’, the names referring to the same person.

Vicente (2010) breaks adversative coordination into counterexpectational and corrective. Both types are semantically, pragmatically, and syntactically different. The counterexpectational ‘but’ links both clausal and sub-clausal units, but the corrective ‘but’ links clauses. The only units smaller than a clause it links are cases of ‘gapping’. (5.19) illustrates counterexpectational (contrastive) adversative coordination.

- (5.19) a. *Maina a-a-hetok-ir-ε ke-gerio nɔ n-d-ɔ-ɔn-ir-ε wera*
 Maina 1-RMPST-pass-PFV-FV 7-exam CLM 1-NEG-RMPST-see-PFV-FV 9.work
 ‘Maina passed the exam but he did not find a job.’
- b. **Maina n-da-a-hetok-ir-ε ke-gerio nɔ n-d-ɔ-ɔn-ir-ε wera.*
 Maina 1-NEG-RMPST-pass-PFV-FV 7-exam CLM 1-NEG-RMPST-see-PFV-FV 9.work
 *‘Maina did not pass the exam but he did not find a job.’
- c. *Kariuki a-a-ciar-er-wɔ Nairobi nɔ ti Gethumɔ.*
 Kariuki 1-RMPST-born-APPL-PASS Nairobi CLM NEG Kisumu
 ‘Kariuki was born in Nairobi, but not in Kisumu.’

Example (5.19a) implies that anyone who has passed an exam is expected to get a job, but that has not yet happened in the example. The use of *nɔ* and a negator in the linked clause “counters the expectation” set in the first conjunct clause, and therefore together with the negator, denies it. (5.19a) can also be described as an “antithetical coordinate sentence”, and therefore having an “antithetical sequence structure” (Longacre (2007:409)).The negator cannot be in both clauses, as (5.19b) shows, because no expectation is carried in the first clause that can be counter-expressed in the second clause.

In (5.19c) the first clause states a fact or a truth condition. The linked unit is only a negator and a noun. This example aims at correcting a statement of fact, correcting some information, hence the label “corrective”.

Example (5.20) illustrates “gapping” in an adversative coordination construction, where a linked core is replaced by a single negating word *ca* ‘no’. The negative marker and the adversative conjunction in the linked core achieve the intended counterexpectational or corrective interpretation in the clause.

- (5.20) *A-thuuri ne ma-Ø-nyu-ag-a njɔɔhi nɔ ci-ana ca.*
 2-men AM 2-PRS-drink-HAB-FV 9.beer CLM 8-children no
 ‘The men drink beer but the children don’t (no).’

In this section, some differences between *na*-coordination and *nɔ*-coordination are noted. The latter mostly links larger constituents such as clauses and sentences, while the former links even sub-clausal constituents.

5.2.3 Disjunctive coordination

Disjunctive coordination constructions introduce “choices”. According to Haspelmath (2004b:27), the use of disjunctive coordination is less widespread in languages than conjunctive coordination. Disjunctive coordination (*kana*-coordination) in Gĩkũyũ is marked with the morpheme *kana*.

Languages distinguish between two types of disjunctive coordination: interrogative and standard coordination (Haspelmath 2007:25). (5.21a) below is a coordinated intonational interrogative clause, and (5.21b) is an ordinary coordinated declarative clause with linked consecutive clauses.

- (5.21) a. *To-gor-ε mbuku e-nɔ kana to-gor-ε e-rea ?*
 Ipl-buy-FV 9.book 9.DEM CLM Ipl-buy-FV 9.DEM
 ‘Do we buy this book or do we buy that one over there?’
- b. *Nɔ to-re-ε goko kana to-inok-ε to-ka-rug-ε.*
 MOD Ipl-eat-FV 17.here CLM Ipl-go.home-FV Ipl-CONS₁-cook-FV
 ‘We can eat here or we go home and cook.’

5.2.3.1 Coordinated nominals

Kana is like *na* in that it can link constituents smaller than a clause such as nouns *βaβa* ‘father’ and *maito* ‘mother’ in (5.22).

- (5.22) *βaβa kana maito ne a-g-ɔɔk-a rocio.*
 1.father or 1.mother FM 1-NRFUT-come-FV 9.tomorrow
 ‘Father or mother will come tomorrow.’

5.2.3.2 Coordinated cores

A verbal infinitive is a core because it has a PA (NC 15), a nucleus and it can have an object core argument. The question in (5.23) has a clausal unit and two coordinated verbal (core) infinitives. Both verbal-infinitival cores have NC 15 (*ko-*) and object arguments. The clausal properties (illocutionary force and temporality) occur in the initial clause but not in the coordinated cores.

- (5.23) *Noo w-ε-εnd-εt-ε ko-rug-a i-riɔ kana ko-hor-a nguɔ?*
 FM.Q 1.RSP-PRS-love-PFT-FV 15-cook-FV 5.food CLM 15-wash-FV 10.clothes
 ‘Who loves cooking food or washing clothes?’

5.2.3.3 Coordinated clauses

Recall that *kana* is polyfunctional, as shown in (5.24) where it is used twice in the same construction, once as a complementizer ‘whether/if’ (CLM₁), and once as a disjunctive conjunction (CLM₂). The linked *kana*-complement clause contains IF (*ne*) and a future tense (*-go-*) and it can stand on its own, and therefore a clause. It is linked to another clause which cannot take *ne* because of the negation marker, but it is nevertheless a clause.

- (5.24) *Tw-er-ε kana ne o-go-thie kana n-do-go-thie.*
 IplOM-tell-FV CLM₁ AM IIsg-NRFUT-go CLM₂ IIsg-NEG-NRFUT-go
 ‘Tell us whether/if you will go or you will not go.’

5.2.3.4 Coordinated sentences

Disjunctive coordination like the other types of coordination can link sentences as in (5.25).

- (5.25) *Ma-ta-na-thie=re, rεkε ma-amb-ε ma-re-ε kana*
 2-NEG-TNS-go=TM let 2-NRFUT-first-FV 2-eat-FV CLM
rerea ma-re-cɔɔk-a ne guɔ ma-re-re-a?
 TEMP 2-RMFUT-return-FV it is-then 2-RMFUT-eat-FV
 ‘Before they go, let them first eat or when they come back, it is then that they will eat?’

The first conjunct sentence in (5.25) consists of a topical left-detached temporal clause followed by an imperative clause. The second conjunct sentence also has a temporal clause in the LDP signaled by *rerea* ‘when’, and it is separated from the main clause by *ne guɔ* ‘it is then’. This is sort of a “resumptive” element, since *guɔ* ‘then’ cross-refers with the temporal clause. This is evidence that the temporal clause is outside of the clause as a LDP element, and the compound resumptive element is clause-internal, as a PrCS element. In addition, the linked sentence has an interrogative IF, compared to the imperative (suggestion) in the first sentence.

I have shown that disjunctive coordination works much the same way as conjunctive coordination, linking nouns, cores, clauses, and sentences. Before drawing a conclusion on coordination, it is necessary that I illustrate a few more examples which are related to coordination in general, but not to any of the previously discussed types.

(5.26) indicates causal coordination similar to English ‘for’, realized by conjunction *amu*. This conjunction is listed by Barlow (1951:204) as having two meanings, ‘for’ and ‘because’. This may agree with Longacre’s (1985:251) contention that in English *for* is a “medial link in a ‘reason’ sentence ...” Example (5.26) captures this interpretation, since the reason for the children not inheriting follows from the fact that, biologically, they do not belong to the man.

- (5.26) *N-da-gaa-to-ga-er-a amu a-ug-ag-a to-ti-re a-ake.*
 1-NEG-RMFUT-IplOM-share-APPL-FV CLM 1-say-HAB-FV Ipl-NEG-be 1-POSS
 ‘He will not give us (inheritance) for he says we are not his (children).’

All along coordination is assumed as an abstract linkage relation that is not necessarily instantiated by a conjunction, although conjunctive coordination is form of it. The examples in (5.27) have no overt conjunctions, yet the meanings are coordinative. More precisely, (5.27a) is sequential and (5.27b) is consecutive. Since both clauses can optionally take the conjunction *na*, they are coordinate although they have no overt conjunction.

- (5.27) a. *Ma-g-ɔɔker-a ma-thi-e mo-gonda.*
 2-NRFUT-wake-FV 2-go-FV 3-farm
 ‘They will get up and go to the farm.’
 b. *Mw-a-na-mo-hɔɔy-a ke-ndo a-ke-mu-um-a?*
 2-RMPST-TNS_I-IOM-ask-FV 7-thing 1-CONS₃-2OM-deny-FV
 ‘Have you ever asked him for anything and he denied you?’

Example (5.27b) is unique since it has two morphemes marking “tense”, *a-* remote past and *na*, which I also label as “tense” (TNS_I). Bergvall (1987a:84) also noted this prefix, and she observed

that it is in complementary distribution with *ne*. The prefix is considered by Rose et al. (2002:31) to have an “experiential aspect” meaning, ‘to do something once’. They say that outside Bantu languages, this “aspect” is referred to as the ‘semelfactive’. I think Rose et al. mean that *-na-* belongs to the field of “lexical aspect” or *Aktionsart*, not grammatical aspect. Of course in Gĩkũyũ, *-na-* can be neither grammatical aspect (which is suffixal) nor tense, because is already indicated in the clause, and it makes no sense to have two tense morphemes.

Semelfactive is a verb class (*Aktionsart*) type in RRG – however, in this study I have not dealt with the semantics of verbs; that will remain for future research. As for the prefix *-na-*, I have no concrete solution of its status and nature; hence I will not pursue it any further, other than making a few additional comments whenever I encounter it.

This first part of this chapter was dedicated to coordination in Gĩkũyũ. I have discussed the manifestation of conjunctive, adversative, and disjunctive coordination. Gĩkũyũ conjunctions occur medially when linking units. I have also shown an instance of causal coordination.

It is also evident coordination need not have an overt conjunction; thereby supporting the definition of coordination, being an abstract linkage relation different from any of the coordination types.

5.3 Cosubordination in Gĩkũyũ

Cosubordination is characterized by shared grammatical categories (operators) at a given level of juncture such as nucleus, core, or clause. Operator dependence distinguishes clausal cosubordination from coordination (Van Valin 2005:187). This follows from the fact that individual coordinate clauses are self-sufficient in terms of grammatical operators. In a cosubordinate linkage type, at a given level of juncture, the dependent unit depends upon the matrix unit for the expression of one or more operators meant for that layer (Van Valin 2005:201).

Operator dependence also sets cosubordination apart from subordination. In a cosubordinate relation, a unit in which a certain grammatical category is not coded receives it from another unit in which that operator is coded. On the other hand, subordination is about structural dependence, i.e. where a unit is embedded in a matrix unit, but not on the basis of grammatical categories.

Cosubordination as a distinct nexus relation is controversial. For instance, Foley (2010) and Bickel (2010) question its validity as a nexus relation. Both Foley and Bickel subsume cosubordination under coordination. Foley replaced cosubordination with coordination in his LFG-based analysis of some Papua New Guinea languages. Earlier, Bickel (2003) refined the notion of cosubordination showing that the sharing of grammatical operators need not be obligatory, but he maintained cosubordination as a nexus relation.

However, in their rejection of cosubordination, both Foley and Bickel based their argument on clausal cosubordination, without considering sub-clausal levels (core and nucleus), as done by Van Valin (2015) who provides more evidence validating cosubordination as a nexus relation. Following Van Valin’s (2015) arguments, and with evidence from Gĩkũyũ, there are no convincing reasons not to maintain cosubordination as a nexus relation.

Different authors interpret clause chains differently, depending on the features of the languages under analysis. A common observation in many of these studies is the unclear

distinction between subordination and coordination, i.e. what counts as subordination or as coordination. For instance, Finer (1985), analyzing Amele, concluded that switch-reference constructions in these languages were subordinate (adverbial) clauses. Roberts (1988) rejected the subordinate claims for Amele switch-reference constructions (clause chains), and he showed clause chains were more coordinate than subordinate, and therefore cosubordinate. Broadwell (1997), analyzing Chickasaw and Choctaw also rejected Finer's claims showing that clause chains in the languages are neither subordinate nor coordinate; he did not posit cosubordination, due to his generative analysis.³⁷

The claims above follow from the fact that cosubordination has aspects of both subordination and coordination. We saw that Gĩkũyũ coordinative clauses have a transitory marker or and the conjoined clause lacks some grammatical inflections e.g. aspect. These features may be taken to show that coordination is more manifest in cosubordination than is subordination; especially because subordinate conjunctions do not co-occur with Gĩkũyũ consecutive clauses, but conjunctive conjunction *na* does. In addition, the most common form of coordinated clauses, e.g. (5.12a), clearly shows features of clausal cosubordination.

5.3.1 Operators in complex sentences

In §3.2.2, I introduced operators as postulated in RRG. I also noted that these operators are very important in characterizing the nexus relations in the linkage of different units, because they are the ones that determine cosubordination at any linkage level. Since there is operator dependency in a cosubordinate relation, “...*the linked units are dependent upon on the matrix unit for expression of at least one or more of the operators for that level*” (Van Valin 2005: 201, orig. emphasis). This means that before making a claim about cosubordination in a language, there must be evidence that at least one operator in the matrix unit is shared with another unit at that level, and the level may be the nucleus, core, or clause level. Recall that the sentential layer lacks operators; therefore, there can be no claims of “sentential cosubordination”.

Although I introduced operators such as directionals, aspect, and event quantification in §3.2.2, here I focus on operators that are relevant to cosubordination in Gĩkũyũ. These are: tense, negation, modality (deontic root modality, e.g. ability, permission and obligation), status (external negation, epistemic modality, realis/irrealis), evidentials and illocutionary force.

5.3.2 Core cosubordination

The relevant operators pertaining to core cosubordination are: deontic modality and internal negation. In the core cosubordinate juncture-nexus relation, a core-level operator is shared between one or more cores.

5.3.2.1 Modality

In §3.2.2.5 modality being a necessary operator in the linkage of cores and clauses was introduced. For there to be core subordination based on deontic modality, the scope of the modal should extend beyond the matrix unit that contains it.

³⁷ See also Weisser's (2012b) rejection of coordination in switch-reference constructions, and for more related literature.

I have already shown that argument sharing is one feature of a non-subordinate core linkage. Gast & Diessel (2012a:18) contend that argument sharing is “not only one of the most frequent *symptoms* but also an important *indicator* of clause linkage” (orig. emphasis). They call this kind of dependency “argument-related dependencies”, which is generally associated with clause linkage, for example relative clauses and complements of verbs of wanting and purpose clauses, in which a subject argument is co-referential with a subject in a matrix clause (Gast & Diessel 2012a:19).

Although argument sharing happens in non-subordinate core linkage, RRG does not propose argument-related dependencies. Instead the dependencies pertaining to cosubordination are based on operator dependency. I begin with the examples in (5.28) before illustrating core cosubordination with example (5.29) created from (5.28).

In (5.28a) *mwarimo* ‘teacher’ is the subject of the matrix unit and *morutwɔ* ‘student’ the object argument, and both are arguments of *era* ‘tell’. This object is co-indexed to the PA prefix of the linked core [in square brackets]. The co-indexing indicates a shared argument (*morutwɔ*) which is both an undergoer in the matrix unit and a subject of the linked core.

- (5.28) a. *Mw-arimo* ε -*er-ir-ε* *mo-rutwɔ*_i [*a*_i-*hand-ε* *i-hoa*].
 1-teacher 1-RMPST-tell-PFV-FV 1-student 1-plant-FV 5-flower
 ‘The teacher ordered the student to plant the flower.’
 b. *Mo-rutwɔ*_i *a*_i-*a-ger-ir-i-ε* [*ko-hand-a* *i-hoa*].
 1-student 1-RMPST-try-DC-FV 15-plant-FV 5-flower
 ‘The student tried to plant the flower.’

In (5.28b) the subject in the first unit (*morutwɔ*) is also the subject of the linked core, a verbal infinitive *ko-handa* ‘to plant’ with an object argument *ihoa* ‘flower’. Unlike (5.28a), where the subjects of the first and second units are different, in (5.28b) the subject in both units is identical, since the linked unit has no subject argument, only an object RP. Therefore, the type of participant-sharing in (5.28b) is different from that of (5.28a). The fact that the second unit in (5.28a) has an argument must affect the “tightness” of the linkage. Therefore, it is expected the linkage in (5.28b) is “tighter” than that in (5.28a). Consequently, these two constructions are structurally different and also have different nexus types, as shown by the addition of a modality operator in (5.29).

- (5.29) a. *Mw-arimo*_i *nɔ mohaka* ε _i-Ø-*er-ε* ***mo-rutwɔ***_j *a*_j-*hand-ε* *i-hoa*.
 1-teacher MOD 1-PRS-tell-FV 1-student 1-plant-FV 5-flower
 ‘The teacher must tell the student to plant the flower.’
 b. *Mo-rutwɔ*_i *nɔ mohaka* ***a***_i-***a-geri-ε*** ***ko-hand-a*** ***i-hoa***.
 1-student MOD 1-PRS-try-FV 15-plant-FV 5-flower
 ‘The student must try to plant the flower.’

The deontic modality *nɔ mohaka* ‘must’ is a core-level operator, whose scope extends up to the bolded part of the first core in (5.29a). The subject *mwarimo* in the first unit is obligated to tell *morutwɔ* ‘student’ something, but he has no control on whether the student will plant the flower or not; hence the student is not under any obligation to plant. This is because the linked units

have different arguments and different verbs ‘tell’ and ‘plant’; and the subject in the first unit does not affect the nucleus in the linked unit.

On the other hand in (5.29b), *morutwɔ* ‘student’ is the subject of *ko-geria* ‘to try’ and *ko-handa* ‘to plant’, the nuclei in the linked cores. The fact that there is only one actor argument for both core units, the scope of the deontic modal spreads over the two linked units as shown by the bolded parts. This is made possible by the “tightness” I mentioned, since there is no agent participant intervening between the cores which would somehow block the extension of modality as in (5.29a).

I can conclude that (5.29a) exemplifies core coordination (see (5.7c)) captured by two cores bearing different subjects and also different events, and which are therefore in a coordinate relationship. On the other hand, (5.29b) illustrates a cosubordinate relation, since the deontic modal in the initial core has scope in both cores.

The examples in (5.30) provide an additional property which distinguishes a coordinate core from a cosubordinate one.

- (5.30) a. *Nɔ mohaka o-geri-ε o-thɔɔm-ε (na) o-thɔndɛk-ε mo-ithikiri.*
 MOD Isg-try-FV Isg-read-FV CLM Isg-repair-FV 3-bicycle
 ‘You must try to read and you repair the bicycle.’
 b. *Nɔ mohaka o-geri-ε *na go-thɔndɛk-a mo-ithikiri.*
 MOD Isg-try-FV CLM 15-repair-FV 3-bicycle
 ‘You must try to repair the bicycle.’

Example (5.30a) has no problem having the conjunction *na* ‘and’ before the second core; this is unacceptable in (5.30b). The meaning in (5.30a) is that the subject is required to attempt to study and also to repair the bicycle, and in (5.30b) the subject is required *to try* and *to repair* the bicycle.

The scope of modal *nɔ mohaka* does not extend beyond the first core in (5.30a), although the subjects of the two cores are identical, however the verbs are not. These are two independent cores in an abstract core coordinate relationship, one that has no overt conjunction). That is why it is possible for a conjunction to intervene between the two cores in (5.30a).

In (5.30b) the scope of the modal is on both cores, implying that the subject must both ‘try’ and ‘repair’ the bicycle. This becomes core cosubordination since the modal is shared between the two cores. Ordinarily, nuclear cosubordination is the “tightest” juncture nexus; however, core cosubordination in Gĩkũyũ is the “tightest” cosubordinate linkage, since nuclear cosubordination is impossible. Nevertheless, at clausal level, cosubordinate consecutive clauses tolerate *na*. This is not unusual, considering that linkage at clause level may not be as “tight” as that of levels below it.

Deontic modality is not limited to obligation, it also includes ability and permission. For instance, if the morpheme *mohaka* in (5.29) is omitted, and *nɔ* ‘can’ is retained, the construction achieves an “ability modality”.

Modal *nɔ* in (5.31) marks both permission, in (5.31a) and ability, in (5.31b). In (5.31a) the children are allowed to both ‘come’ and ‘live there’. Thus, the scope of the modality marker *nɔ* in (5.31a), though encoded in the first unit, is assumed to affect the second core, as well,

instantiating a cosubordinate relation. In (5.31b) the modal indicates that the children are able to ‘go home’ ‘wash clothes’, thereby effecting a cosubordinate relation.

- (5.31) a. *Ci-ana* *nɔ* *ci-ok-ε* *go-ikar-a* *ku-ɔ*.
 8-children MOD 8-come-FV 15-stay-FV 16-there
 ‘The children may/can come to live there.’
- b. *Ci-ana* *nɔ* *ci-nok-ε* *na* *ci-hor-ε*.
 8-children MOD 8-play-FV CLM 8-wash-FV
 ‘The children can go home and wash clothes.’
- c. *Reu* *w-a-agere-ir-ε* *w-a-nji-ε* *go-cari-a* *wera*.
 Now IIsg-PRS-be.fit-PFV-FV IIsg-PRS-start-FV 15-look-FV 14.work
 ‘Now you *should* start looking for work.’

In (5.31c) the verb *agerera* translates into ‘should/ought’. According to Barlow (1951:185), Gĩkũyũ expresses both ‘ought’ and ‘must’ in much the same way, as there is “little distinction” between them in “Kikuyu thought”. Of course, ‘must’ can also be expressed by *nɔ nginya* and *nɔ mohaka*, but it is only *agerera* that expresses ‘ought’, which is closest to ‘should’. Nevertheless, I note that the same modal for deontic modality (strong obligation) is used for epistemic (necessity). In (5.31c) the scope of *agerera* extends to the two cores that follow it, resulting in a cosubordinate relation.

The examples in (5.32) are related to (5.30) but they are different in some aspects such as the realized nexus relation.

- (5.32) a. *Nɔ mohaka* *mw-e-er-ε* *Maina* *a-thi-ε* *mo-gonda*.
 MOD IIpl-PRS-tell-FV Maina 1-go-FV 3-farm.
 ‘You must tell Maina to go to the farm.’
- b. *Mw-e-er-ε* *Maina (ate)* *nɔ mohaka* *a-thi-ε* *mo-gonda*.
 IIpl-PRS-tell-FV Maina (CLM) MOD 1-go-FV 3-farm.
 ‘You tell Maina that he must go to the farm.’

The subjects in the linked cores in (5.32a) are different: the PA prefix *mo-* is the subject in the first core and *Maina* is an undergoer of verb *era* ‘tell’ and the subject of verb *thie* ‘go’ in the linked core.

The obligation scope of the modal is on the subject ‘to tell *Maina* something’, but *Maina* is not under any obligation to carry out the event, i.e. ‘to go to the farm’, contained in the second core.

On the other hand in (5.32b), it is *Maina* who is under obligation to carry out the event in the linked core (‘to go to the farm’). (5.32b) accepts *ate* ‘that’ in the second unit, indicating that it is a subordinate clause. Particle *ate* can also be inserted before the modal in (5.32a), but it will not have a complementizer function, and rather a dubitative one.

The examples in (5.33) are instances of non-subordinate linkage effected by prefix *-ke-*. Barlow (1951:145, my emphasis) noted that “the *-ke-* primarily expresses action in progress *only*”, and although called a “tense”, it may not be the most suitable label for this prefix. Elsewhere, it is argued that that temporal relations such as chronological overlap (simultaneity) and chronological succession (sequential: *and then*), are some hallmark features of clause-chaining

(Longacre 1985:264-265; 2007:400). This argument may be extended to Gĩkũyũ and Kiswahili as both languages have morpheme that marks simultaneity.

- (5.33) a. *A-a-ni-gɔr-ir-ε* *ni-ge-in-a.* (Barlow 1951:145)
 1-RCPST-IsgOM-find-PFV-FV Isg-SIM-sing-FV
 ‘He found me singing.’
 b. **A-a-n-gɔr-ir-ε* *n-ge-in-ag-a.*
 1-RCPST-IsgOM-find-PFV-FV Isg-?SIM-sing-PROG-FV
 ‘He found me singing.’

The semantic arguments in (5.33a) are different: the subject of the first core is not the subject of the second core. The subject of the second core is formerly an undergoer (IsgOM) in the first core. The initial core contains aspect (PFV) and the linked core contains a simultaneous (SIM) marker (*-ge-*, an allophone of *-ke-*), but no tense or aspect markers.

The linked core in (5.33b) also has SIM *-ge-* and no tense. The addition of PROG aspect makes it ungrammatical. This is an indication that the prefix *-ke-*, though called a “tense” by Barlow, is neither a tense nor is it grammatical aspect, although it captures events in progress. It should be understood as a temporal linkage morpheme of some kind, rather than either tense or aspect.

There question is whether the above should be considered as core or clausal junctures. This is because the concerned features are temporal notions (aspect and tense) and these features pertain to clauses, not cores. However, closer scrutiny reveals that the linked unit is a reduced unit in comparison to the initial one, i.e. it has no tense or aspect. Although *-ke-* captures the aspectual progression of events, it cannot take a PROG aspect marker and it is not tense.

In the compositional definition of a core, it was shown that a core is made of argument(s) and nucleus. The linked unit in (5.33a) qualifies as a core since it has an argument and a nucleus; according to Foley and Van Valin (1984:255) even a gerund, which is a verb that is stripped of most features except the arguments, can be a core. As such, the second unit does not have tense or aspect, except prefix *-ke-*, which is neither tense not aspect, and it is not a consecutive marker, thus it cannot be a clause. Therefore, (5.33a) is a core cosubordinate construction.

Elsewhere, Watters (1993) encountered *Ip*-constructions in core and clausal constructions in Turkish. These constructions exhibited categorial dependence and argument sharing, similar to what is found in (5.33). Watters concluded that the Turkish *Ip*-constructions occur in both clause and core junctures. The requirement for identical or shared arguments in the cores and clauses was considered as a “peculiarity” of *Ip*-constructions.

Watters’ argument can be extended to the Gĩkũyũ *-ke-*, since the prefix *-ke-* has different functions (consecutive, simultaneous, and others). As a CONS and SIM, *-ke-* realizes cosubordination on the clausal and core layers, respectively. Argument identity is required in both Gĩkũyũ clausal and core cosubordination. In both layers, *-ke/-ge-* has a temporal repercussion, since both consecutive clauses and simultaneous cores do not mark aspect. Therefore, we would not expect a construction having *-ke-* and aspect to be a consecutive construction. My contention is that the SIM *-ke-* has more to do with temporal linkage than with consecutivity.

The examples in (5.34) show the interaction of modality, the SIM and aspect. The subjects in both units are identical in (5.34a), as shown by the co-indexing of *a-rutwɔ* ‘students’ to the two *ma*-PA prefixes. The identical argument allows for the scope of the deontic (ability) modal to be shared between the cores. In (5.34b) the arguments are also identical, but it differs from (5.34a) in that it has progressive aspect in the linked second core. However, the progressive does not seem to change the meaning, as both clauses have the same (simultaneous) interpretation. I add that the subject of the second core could be different, making available the reading, ‘They can read, while they (others) are talking.’ Such a construction is not cosubordination, as the scope of the modal is curtailed.

- (5.34) a. *A-rutwɔ_i nɔ ma_i-thɔɔm-ɛ ma_i-ke-ar-i-a.*
 2-students MOD 2-read-FV 2-SIM-talk-DC-FV
 ‘Students can read as they talk/while talking.’
 b. *A-rutwɔ_i nɔ ma_i-thɔɔm-ɛ ma_i-ke-ar-ag-i-a.*
 2-students MOD 2-read-FV 2-SIM-talk-PROG-DC-FV
 ‘Students can read while talking.’

In (5.35) the subjects in the linked units are different, compared to the identical ones in (5.36). The former is incompatible with a conjunction but the latter accommodates *na*. Also the intonation in the linked units differs, as it is rising in (5.35), and falling in (5.36). It is evident that the *-ke-* prefixes above are different, although morphologically similar. In (5.35) I have labeled it as a simultaneous morpheme (SIM) and in (5.36) as a remote past consecutive marker (CONS₃). Compatibility with a conjunction is an indication that each core represents a distinct event, which is incompatible with SIM, but compatible with CONS₃ in (5.36).

- (5.35) *Maina ɔ_i-ɔk-ir-ɛ *na a_j-ke-in-a.*
 Maina 1-RMPST-come-PFV-FV CLM 1-SIM-sing-FV
 ‘Maina came while someone was singing/ sang.’
 (5.36) *Kamau ɔ_i-ɔk-ir-ɛ (na) a_i-ke-in-a.*
 Kamau 1-RMPST-come-PFV-FV CLM 1-CONS₃-sing-FV
 ‘Kamau came and (he) sang.’

In (5.37a) the subjects must be identical but in (5.37b) they may also differ. (5.37a) indicates simultaneous events. The effect of different subjects in (5.37b) affects the interpretation of the temporal intervals of the core events. In a same-subject interpretation, there is little time span or interval between the two core events, they are in immediate succession or overlap. For the different-subjects interpretation, the interval is longer, since one event (the first core event) follows the second core event, but there is a long interval in between the occurrence of the events.

- (5.37) a. *Maina ɔ_i-ɔk-ir-ɛ a_i-ke-in-ag-a/*a_j-ke-in-ag-a..*
 Maina 1-RMPST-come-PFV-FV 1-SIM-sing-PROG-FV
 ‘Maina came singing /while singing.’
 a’. *Maina ɔ_i-ɔk-ir-ɛ Kiumia a_i-ke-in-ag-a *Waeere.*
 Maina 1-RMPST-come-PFV-FV Sunday 1-SIM-sing-PROG-FV Tuesday
 ‘Maina came on Sunday singing /while singing on *Tuesday.’

b. <i>Kamau</i>	<i>a_i-a-inger-ir-ε</i>	<i>a_i-in-et-ε</i>	<i>/a_j-in-et-ε</i>
Kamau	1-RMPST-enter-PFV-FV	1-sing-PFT-FV	/1-sing-PFT-FV
'Kamau entered and sang immediately. /Kamau entered after someone had sung.'			

In (5.37a) and in (5.37b) with same-subject interpretation, nothing is allowed in between the cores as this would interfere with the “tightness of packaging” between them. The situation in both is relevant for the notion of “Macro-Event Property” (MEP) of Bohnemeyer & Van Valin (2017). MEP is the property that prevents temporal-positional modifiers access to modify a subevent.

Example (5.37a') illustrates the above. The temporal adverb *Sunday*, although in the periphery of the matrix unit, also modifies the event in the second core, and is therefore an independent temporal modifier; *Tuesday* for the second core is disallowed. A temporal modifier at the end of the second core would be interpreted as modifying the whole construction, and not just one of them.

Simple clauses have MEP because they instantiate a single event, according to Bohnemeyer & Van Valin (2017). They single out cosubordinate constructions as the only multi-core units bearing the MEP. This follows from the fact that each core cannot have its own temporal-positional modifier as seen in (5.37a').

The examples in (5.38) will show the effects of having elements in between the cores. The first core in (5.38a) has an oblique PP core argument ‘with the children’. This oblique argument is the subject in the second core. The resultant reading is a simultaneous occurrence of events.

(5.38) a. <i>Maina_i</i>	<i>ɔ_i-ɔk-ir-ε</i>	<i>na</i>	<i>ci-ana_j</i>	<i>ci_j-ke-in-ag-a.</i>
Maina	1-RMPST-come-PFV-FV	COM	8-children	8-SIM-sing-PROG-FV
'Maina came with the children singing.'				
b. <i>Maina_i</i>	<i>ɔ_i-ɔk-ir-ε</i>	<i>*na</i>	<i>ci-ana_j</i>	<i>ci_j-ke-in-a.</i>
Maina	1-RMPST-come-PFV-FV	COM	8-children	8-SIM-sing-FV
'Maina came as the children were singing.'				
c. <i>Maina_i</i>	<i>ɔ_i-ɔk-ir-ε</i>	<i>ci-ana_j</i>	<i>ci_j-in-et-ε.</i>	
Maina	1-RMPST-come-PFV-FV	8-children	8-sing-PFT-FV	
'Maina came after the children had sang/and the children (immediately) sang.'				

The events of ‘coming’ and ‘singing’ in (5.38b) coincide, resulting in a simultaneous reading. Comitative *na* ‘with’ is disallowed because a comitative reading was not intended. Example (5.38c) is ambiguous between an overlap reading (‘Maina came and (immediately) the children sang.’) and a succession of events (‘Maina came after the children had sang.’). The “ambiguity” in (5.38c) does not change the linkage status of the units. For example, the “succession of events” does not result in ad-core subordination since the linked unit (*ci-ana ci-in-et-ε*) cannot be pre-posed, although it is possible in the English translation. The examples above are therefore instances of cosubordination, since core cosubordination is not subject to temporal features.

The interpretation of constructions with the prefix *-ke-* is one of temporality (‘while’), although there is no indication of preposability as in ordinary subordination. I conclude that *-ke-* (simultaneous and succession temporal relations marker) instantiates cosubordination. This

contradicts the subordinate ‘while’ translations seen above, because they cannot be extraposed or preposed as expected in subordination.

My conclusion is comparable to that of Jacobsen (1993:245) about *-q(h)*, a suffix in Nootka, which seems to behave much the same way as *-ke-*. Elsewhere, Good (2003:141) reports that Chechen uses a simultaneous verb for both chaining (cosubordination) and subordination. In Gĩkũyũ, as I show later on, *-ke-* helps to indicate the temporal phases (simultaneous and sequential state of affairs) on the interclausal semantic relations, although it is converbs that have been shown to indicate manner adverbial interpretation (Haspelmath 1995). This discussion is revisited in §5.3.3.1.1.

5.3.2.2 Negation

Negation (internal) is a core-level operator as introduced in §3.2.2.2.1. This kind of negation is referred to as “internal” negation as opposed to “external” or “wide-scope” negation in clauses. In core (narrow-scope) negation a single constituent in the core is negated as in (5.39).

- (5.39) a. *Mo-remi n-da-a-tu-ir-ε ma-tunda ma-ciɔ.*
 1.farmer 1-NEG-RMPST-pick-PFV-FV 6-fruits 6-DEM
 ‘The farmer did not pick those fruits.’
 b. *Ti mo-remi w-a-tu-ir-ε ma-tunda ma-ciɔ.*
 NEG 1.farmer 1.RSP-RMPST-pick-PFV-FV 6-fruits 6-DEM
 ‘It is not the farmer who picked those fruits.’

In (5.39a) it is the object, *ma-tunda ma-ciɔ* ‘those fruits’, that is negated, and in (5.39b) it is the subject. Note that the PA *n-* changes into a resumptive relative prefix (RSP) (*o-*, but realized as *w-*, due to phonological assimilation) which is standard for cleft constructions like these.

The examples in (5.40) further exemplify negation of different constituents in linked cores.

- (5.40) a. *A-rutwɔ ma-ti-kw-εnd-a go-thaiith-wɔ ɔna hanini.*
 2-students 2-NEG-PRS-deserve-FV 15-soothe-PASS even least
 ‘Students do not deserve to be soothed at all.’
 b. **A-rutwɔ ma-kw-εnd-a go-ti-thaiith-wɔ ɔna hanini.*
 2-students 2-PRS-deserve-FV 15-NEG-soothe-PASS even least
 ‘Students deserve not to be soothed at all.’
 c. *A-rutwɔ ma-kw-εnd-a kw-ag-a go-thaiith-wɔ ɔna hanini.*
 2-students 2-PRS-deserve-FV 15-fail-FV 15-soothe-PASS even least
 ‘The students deserve not to be soothed at all.’
 d. *A-rutwɔ ma-kw-εnd-a ma-ti-ga-thaiith-wɔ ɔna hanini.*
 2-students 2-PRS-deserve-FV 2-NEG-NRFUT-soothe-PASS even least.
 ‘Students deserve not to be soothed at all.’

In (5.40a) the NEG marker *-ti-* negates both the predicate in the initial core and everything else after it. The linked core cannot take any NEG marker, *-ti-* or *-ta-*. Since verbal infinitives may not be independently negated, as seen in the ungrammaticality of (5.40b), they take on the polarity established in the initial constituent. This is because the two units are tightly linked, and as such there is no way that one unit may be negated without the other.

However, negation in a verbal infinitive can be realized by the use of *kw-aga* ‘to fail’ as in (5.40c), albeit with a slight change in meaning. This differs from “usual” particle negation since the negating constituent *kw-ag-a* ‘to fail’ is also a non-finite verbal infinitive core, with NC marking (subject) and a nucleus.

The alternative in (5.40d) has the same interpretation as (5.40c), only that the linked constituents have subject PAs. That allows a negation marker to be placed in the linked core without affecting the polarity of the predicate in the first unit.

(5.40a) and (5.40c) are comparable to previous non-subordinate cores with shared arguments that I analyzed as cosubordination. I conclude that the “tightness” in (a) allows or eases the percolation of the negative polarity to yield cosubordination.

On the other hand, (5.40d) allows negative marking in the linked core. I attribute this to the fact that both units are of the same rank, hence in a coordinate relationship, which then allows independent marking of core-level operators. The polarity of the second unit cannot work backwards to share the polarity with the first core. Negation in the cosubordinate core in (5.40a) can be schematically represented as (5.41a) and the coordinate core in (5.40d) as in (5.41b).

- (5.41) a. [CLAUSE NEG[[CORE...][CORE]]]
 b. [CLAUSE[CORE...]NEG[[CORE...]]]

5.3.3 Clausal cosubordination

Clausal operators include tense, status (external negation, epistemic modality, realis/irrealis) illocutionary force and evidentials. In the event that at least one of these operators is shared by clauses in a sentence, a cosubordinate relationship is realized.

5.3.3.1 Tense

Tense as an operator was introduced in §3.2.2.6. Tense and aspect in Bantu is such a huge topic that it has motivated many papers, some of which I have variously cited in this study, and even motivated a book-length treatment by Nurse (2008) .

Stassen (2009:427) suggests that there are some types of verbs in Bantu with a “subordinate mood”. These verbs indicate person/number/gender, but they do not have the tense affixes commonly found in main verbs. In place of the usual tense affixes, they have “subordinating prefixes”. Stassen cites two Kiswahili examples: *-ki-*, which marks conditionals and simultaneity, and *-ka-*, which marks consecutives.

Regarding Stassen’s notion of “subordinating affixes”, I will consider it as “tense dependency” or “temporal-related dependency”, rather than “subordination”. From his description, it is clear that he is not talking about the usual kind of “embedded subordination”. The subordinate mood notion was preferred in Kiswahili because *-ki-* marks both conditional and simultaneous units. In my discussion of simultaneous *-ke-* in Gĩkũyũ, I pointed out that it encodes cosubordination, not subordination. Therefore, the “mood” label is not relevant here. Gast & Diessel (2012:23) note that “tense” encodes “the best known predicate-related dependencies in complex sentences”. These predicate-related dependencies encompass tense, aspect, and mood (TAM). According to them, these TAM dependencies are an “inherent property of converbial clauses” (Gast & Diessel 2012:23). Gĩkũyũ consecutive clauses are like

converb clauses (Haspelmath 1995), because both are often marked for relative tense, and have a lot to do with succession or simultaneity of events.

5.3.3.1.1 Consecutive tenses

Consecutives in African languages have attracted the attention of many researchers (among others: Ashton 1944; Welmers 1973; Hyman 1971; Hyman & Watters 1984; Dahl 1985; Nurse 2008; Rose et al. 2002; Hinnebusch 1979; Hopper 1979; Emanatian 1990; Longacre 1990; Carlson 1992; Satre 2010). Studies specific to Gĩkũyũ were conducted by Barlow (1951), Gecaga (1955), Bennett (1975), and Bennett et al. (1985).

Both Van Valin (1984) and Emanatian (1990) argued that the consecutive *-ka-* instantiates clausal cosubordination in Kiswahili and in Chaga, respectively. Perez (1985:94, fn. 22) noted that consecutives had not been analyzed within the Binding theory of GB, and I am not aware of such a study to date. All the authors above (except Perez) agree on the linking properties of the consecutive.

Dahl (1985:114) observes that “narratives [his term for consecutives] are in some way subordinate or [...] syntactically connected to the preceding verb”. Dahl must have meant that consecutives are “dependent”, but in the sense of being embedded, since the kind of “dependence” found with consecutives is not synonymous with that of subordination. There is no evidence of “subordination” in consecutive clauses; however, they are “dependent” or closely related to a preceding matrix clause. It is this matrix clause that supports the consecutive clauses linked to it, since they share a common subject and have common tense-aspect specification (Parker 1991:190).

As noted by Gast & Diessel (2012), it is evident that tense is very important for the formation and analysis of complex sentences, especially in the discussion of clausal cosubordination. Gĩkũyũ temporally-induced clausal cosubordination largely depends on the consecutive tenses. Bennett et al. (1985:220) noted that consecutives are difficult to treat when they appear as a long string in a sentence, solely dependent on the main clause. According to them, consecutives are a subset of verbal predication in Gĩkũyũ. They add that consecutives are “only partially independent, though they are not clearly subordinated” (Bennett et al. 1985:235). My intent is to characterize this “partial independence” that is not subordination.

A “consecutive tense” is a “special tense-form used to express a sequence of actions or events following on the introductory verb of a statement or a narrative” (Barlow 1951:55, fn- 1). Barlow identifies three main forms of consecutive tenses in Gĩkũyũ, which he labeled as: consecutive (i), (ii), and (iii) (Barlow 1951:150-151). The present consecutive *-ka-* [ka] (also *-ga-* [ya]) is consecutive (i), *-ra-* [ra] (near past consecutive) is consecutive (ii), and “remoter” past consecutive *-kĩ-* [ke] (also *-gĩ-* [ye]) is consecutive (iii). To these, Barlow (1951:150-151) adds prefix *-a-*, the “perfect of immediate tense and future consecutives, which have no specific markers”. These future consecutives are asyndentic; they depend on the established future tense in the first clause.

Nurse (2008) noted that most languages with consecutive tenses have one consecutive marker. He observed that Gĩkũyũ is an exception for having more than one consecutive marker. He presents *-ke-*, *-ka-*, and *-a-* as the Gĩkũyũ consecutive markers (Nurse 2008:120-121). Gecaga (1955) posits three consecutive tenses: *-ke-*, *-ra-*, and *-a-*. Bennett (1975) and Bennett et al.

(1985) propose *-a-*, *-ra-*, *-ke-*, and *-ka-*. It emerges that *-ke-* and *-ka-* are the only prefixes not found in main clauses, while all the other tense markers are dual-purpose, marking both consecutive and ordinarily absolute tenses.

Next, I explicate features of individual consecutive prefixes, except *-ke-* (CONS₃), which is discussed together with similar prefixes at the end of this section. Consecutive (i) is *-ka-*, the present consecutive prefix ('CONS₁'). It follows initial clauses ending with *-ag-* (HAB and PROG) and perfect *-et-*, as in (5.42a-b). It co-occurs with the remote past as in (5.42b), present tense (\emptyset , *-a-*) as in (5.42d), and recent past (*-ra-*) as in (5.42c).

- (5.42) a. *Aka ne ma-a-rem-ag-a na ma-ga-tum-a*
 2.women AM 2-PRS-cultivate-HAB-FV CLM 2-CONS₁-weave-FV
ci-ɔndɔ na ma-k-ɔmba-a nyongo.
 7-bags CLM 2-CONS₁-make-FV 10.pots
 'The women cultivate and weave bags and make pots.' (Barlow 1951:149)
- b. *A-ta-na-thi-e ne a-a-gor-an-et-ε a-ga-ak-a nyomba*
 1-NEG- 'TNS'-go-FV AM 1-RMPST-marry-RCP-PFT-FV 1-CONS₁-build-FV 9.house
na a-ka-ig-er-a moka nduka.
 CLM 1-CONS₁-set.up-APPL-FV 1.wife 9.shop
 'Before he left, he had married, built a house and set up a shop for his wife.'
- c. *Ma-ra-thi-ag-a ma-ka-hand-a waru.*
 2-RCPST-go-PROG-FV 2-CONS₁-plant-FV 10.potatoes
 'They were going (until recently) and plant potatoes.'
- d. *To- \emptyset -hɔy-ag-a to-ka-he-ɔ to-ka-he-an-a*
 Ipl-PRS-pray-HAB-FV Ipl-CONS₁-give-PASS Ipl-CONS₁-share-RCP-FV
to-ka-rathim-wɔ.
 Ipl-CONS₁-bless-PASS
 'We pray, we are given, we give (share with others) and we are blessed.'

Consecutive (ii) is *-ra-* ('CONS₂'), the recent past consecutive prefix. It may follow a matrix clause having *-ag-*, *-et-*, or *-ir-* aspectual suffixes. If *-ra-* is the absolute tense in the main clause; the succeeding unit must also have CONS₂. Note the ungrammaticality in (5.43b) because of inserting CONS₃ *-ge-*, a variant of *-ke-*, which is different from *-ra-*.

- (5.43) a. *Nde-ra-tong-ir-ε mo-ndo nde-ra-mo-geithi-a.* (Barlow 1951:150)
 Isg-RCPST-meet-PFV-FV 1-man Isg-CONS₂-1OM-greet-FV
 'I met a man (yesterday) and I greeted him.'
- b. **Nde-ra-tong-ir-ε mo-ndo nde-ge-mo-geithi-a.*
 Isg-RCPST-meet-PFV-FV 1-man Isg-CONS₃-1OM-greet-FV
 'I met a man (yesterday) and I greeted him.'

In the examples given so far, there is no aspect in all consecutive clauses, leaving the consecutive prefix to "replace" both tense and aspect. The established tenses in the matrix clauses cannot be interchanged mid-way, as seen in the ungrammaticality of (5.43b) above.

The immediate past tense prefix *-a-*, labelled 'CONS₄' here, plays a consecutive role (Barlow 1951:150). It follows initial clauses with *-ag-* or *-ir-* aspectual suffixes. The future consecutive in (5.44b) is assigned ' \emptyset ' and label 'CONS₅'.

- (5.44) a. *Ne ma-ko-re-ag-a ma-a-tig-a ma-a-ku-ɔn-a.*
 AM 2-IMPST-eat-PROG-FV 2- CONS₄-stop-FV 2-CONS₄-IIsgOM-see-FV
 ‘They were eating (or going to eat) and then they stopped, when they saw you.’
- b. *To-ga-thie mo-gonda rociu to-Ø-rem-ε*
 Ipl-NRFUT-go 3-farm tomorrow Ipl-CONS₅-plough-FV
to-Ø-hand-ε to-cɔɔk-ε to-Ø-inok-ε.
 Ipl-CONS₅-plant-FV Ipl-return-FV Ipl-CONS₅-go.home-FV
 ‘We will go to the farm tomorrow, we plough, plant, and then we go home.’

It is worth noting that except for the future consecutive, all other consecutive clauses are in the past. This is because consecutives are “narrative tenses” found in narratives expressing events that happened in the past. It is also evident that all consecutives have dedicated affixes, except the future consecutive. Also, all other consecutives have indicative (-a) endings, but the future has a subjunctive (-ε) ending. Finally, all consecutives tolerate conjunction *na*, but the future consecutive is semi-finite, indicating person and subjunctive mood only.

In (5.44b) the core *to-cɔɔk-ε*, which literally means ‘and we return’, has a coordinative function (see also (5.18b)). In (5.44b) this “complex conjunction core” means ‘and then’. It can be assumed as a “complex conjunction”, as suggested by Van Valin in personal communication to Butler (2003b:219, fn. 27). However, the Gĩkũyũ example differs from the English two-word conjunction ‘and then’ because it is a core. This is not unique to Gĩkũyũ, as Nootka has “sentence introducing words” that occur in absolutive form, bearing ‘and then’ interpretation according to Jacobsen (1993: 246). Jacobsen says that although these sentence connectives have person marking, they are not part of the clause that follows. They are “weakly” dependent on the succeeding clause in that they cannot occur on their own. This is also the case with the Gĩkũyũ example. Such cores are also similar to “conjunctive predicates” (Noonan 2007:144-145, see §6.1.3 (xv)).

Consecutive clauses cannot occur in clause-initial position. Whenever a consecutive clause occurs clause-initially, it is assumed to belong to a previous, covert matrix clause. Tense in a consecutive clause cannot be changed from that established in the matrix clause, nor can it take aspect suffixes. Like simultaneous and connective affixes, consecutives do not co-occur with *ne*, or take negation markers *-ti-* or *-ta-*, or allow any *wh*-word. The intonational framing of a question is possible for the whole sentence, but not for the consecutive clause only.

These limitations show that units containing *-ke-* (simultaneous, connective, or consecutive) are “dependent”. A clear point is that their “dependence” is not analogous to subordination, for example they do not take the subordinate negation prefix *-ta-*. In that case, I conclude that wherever they occur, the *-ke-* affix realizes a non-subordinate relation. As a follow-up to the previous of discussion of *-ke-* in core cosubordination, I will elaborate more on the various *-ke-* prefixes.

Barlow (1951:118-150) identified three syntactically and functionally distinct *-ke-* affixes. He distinguished them as: “infix” *-ke-*, “*-ke-* tense”, and *-ke-* “remoter consecutive tense (consecutive iii)”. I summarize the features of the affixes below. According to Barlow, infix *-ke-* has a “connective” force, meaning ‘so’ or ‘then’, and it does not affect tense and mood, hence it may be affixed to any verb of any mood. This prefix sits directly before the verb root if there is no object pronoun, but before the pronoun, if present. I label this prefix a “connector” (CONN) and it is illustrated in (5.45).

- (5.45) a. *Na-ke* *ɔ-ɔri-ɔ*, *a-ge-ki-ug-a* *atere...*,
 CLM 1.RMPST-ask-PASS, 1-CONS₃-CONN-say-FV CLM
 ‘And so he, when asked, said...’ (Barlow 1951:118)
- b. *Ma-/ra-/ga-/re-/go-/ge-thie* *re?*
 2-/PRS-/RMFUT-/NRFUT-/IMFUT-CONN-go Q
 ‘When are they then going?/When then, will they go?’
- c. *Ge-thie-i* *na* *thaayo*.
 CONN-go-IMP.pl COM peace
 ‘Then you (plural) go in peace.’

Due to phonological assimilation, CONN appears as *-ki-* not as *-ke-* in (5.45a) and it follows the consecutive (CONS₃). The CONN also co-occurs with other tenses as shown in (5.45b). In (5.45c) it connects an utterance to a previous one in a discourse, indicating an ended or finalized conversation. Unlike consecutives, the CONN can occur in a clause-initial position (cf. 5.45c).

I have so far discussed the SIM and the CONN. I showed that there is one “simultaneous” *-ke-* that does not take the *-ga-* PROG aspect suffix, while another does take the suffix. The latter is also called a “*-ke-* tense” taking the forms of *-ke-* and *-ke-...-ag-a* (Barlow 1951:144-146)³⁸. He compares this *-ke-* to the English *-ing* participle or present or past progressive. This prefix is not very different from the SIM prefix. The only difference that exists between them is reflected in the semantic relations they encode, as can be seen in (6.67). The *-ke- ...-ag-a* SIM encodes a modifying subevent of manner as in (6.67c, 1), and the other SIM *-ke-* encodes a temporal relation of simultaneity as in (6.67r, 1). The comparison with the English participle by Barlow may not be reflected in the Gĩkũyũ forms. The Gĩkũyũ forms mark person and they have tense and aspect, but in English there is *-ing* aspect only. A common feature is that in both languages these units are dependent on another unit because of their semi-finiteness.

Example (5.46a) indicates a linked “participle” core, *to-ge-cɔɔk-a* ‘(when) coming back’, and in (5.46b) the core is *a-ke-rer-ag-a* ‘as he cried/crying’, both of which are modifying subevent cores (see also example (5.37a) and (5.38a)). The linked unit in (5.46a) cannot be preposed unless a “compound resumptive” *neguɔ* is introduced before the matrix unit, which makes the pre-posed unit a detached element. The *-ke-* prefix in (5.46c) signals a temporality (‘before’ or ‘until’), I have labeled it TEMP for “temporal” marker. It indicates a temporal adverbial clause.

- (5.46) a. *To-Ø-nɔg-ir-ε* *to-ge-cɔɔk-a* (*-ag-a).
 Ipl-RCPST-be.tired-PFV-FV Ipl-SIM-return-FV (PROG-FV)
 ‘We got tired as we came back/ (when) coming back.’
- b. *A-ra-ari-a* *a-ke-rer-ag-a*.
 1-PRS-talk-FV 1-SIM-cry-PROG-FV
 ‘He is talking as he cries (while crying).’

³⁸Barlow uses the notions of tense and aspect freely. This affix is neither tense nor aspect, since it may or may not co-occur with the PROG aspect. Also, it is a prefix and aspect is suffixal in Gĩkũyũ. It is contradictory to talk of “progressive tenses” as Barlow (1951:144) does. In my view, these affixes, especially SIM and CONN, are temporal linkers. In (5.46c) the affix is marked as TEMP because it marks a temporal adverbial clause.

- c. *Mo-go-ikar-a* *thiko* *ci-gana* *mo-ge-ga-cɔɔk-a?*
 2-NRFUT-stay-FV 10.days 10.how.many 2-TEMP-NRFUT-return-FV
 ‘How many days will you stay (there) before /until you return?’

The discussion of the “remoter past consecutive” *-ke-* (CONS₃) is resumed here. Barlow (1951:150) notes that the time of action encoded by CONS₃ in a sequence of clauses must remain “previous to yesterday”. Consecutive *-ke-* follows an initial unit with the *-ag-*, *-et-*, or *-ir-* aspect suffixes. The conjunctive/sequential property of CONS₃ is seen in (5.47a) where clauses are optionally linked by *na*. In (5.47b) the interpretation may be adversative or conjunctive.

It is adversative if the last unit is separated by a pause or the disjunctive conjunction *no* ‘but’ is placed between them. It can also be the case that that they caught the antelope while it was running away, or they had caught an antelope and it still managed to run away. These distinctions depend on intonation and presence of a conjunction. The consecutive clause in (5.47c) indicates a result or consequence of the event in the main clause.

- (5.47) a. *A-a-kiny-ir-ε* (*na*) *a-ke-rug-a* (*na*) *a-ke-re-a*.
 1-RMPST-arrive-PFV-FV (CLM) 1-CONS₃-cook-FV (CLM) 1-CONS₃-eat-FV
 ‘S/he arrived, cooked, (and) ate.’
- b. *Ne* *ma-a-nyit-et-ε* *thiia* *na/no* *e-ke-ur-a*.
 AM 1-RMPST-catch-PFT-FV 9.antelope CLM 9-CONS₃-run-FV
 ‘They had caught an antelope and /but it ran away.’
- c. *Ne* *a-a-nyu-ag-a* *βangi* *monɔ* *a-ke-gorok-a*.
 AM 1-RMPST-smoke-PROG-FV 9.marijuana a lot 1-CONS₃-be.mad-FV
 ‘He was smoking marijuana a lot and he became mad.’

From the examples adduced, it is evident that the *-ke-* prefixes differ in meaning, function, and also in syntax. The connective affix remains elusive, though it can be said to have “pragmatically inferred connective force”. The simultaneous *-ke-* and the “progressive” *-ke-...ag-a* indicate different interclausal semantic relations. The consecutive prefix *-ke-* indicates a sequence of events. This means that conjunction *na* is unnecessary in consecutive clauses, although not ungrammatical. A common feature in *ke-*prefixed clauses is that none allows *ne* or *ti*; this may be evidence that they are not main clauses, thus they cannot be focused, negated or have their own IF. That they cannot be negated means that they are strictly linked to the initial matrix clause in which these operators are marked. This does not apply to the TEMP prefix, as it can take the subordinate negation prefix *-ta-* to realize a ‘before’-sense.

Other than the *-ke-* prefixes dealt with here as found in Barlow’s grammar, Benson (1964:222) also notes a *-ke-* prefix, whose functions in clauses included connectin units, indicating impatience, emphasis, and signalling a polite request, when it is affixed to an imperative. It can also mean ‘so’, depending on the accompanying tenses. These functions closely resemble those of the CONN prefix.

I have tried to describe environments that the *-ke-* affix occurs. It is not easy to precisely describe the nature of this prefix, but I have tried to show its property of linking elements in complex constructions that it occurs in. In fact, Bennett et al. (1985:165) admit that they did not know how to characterize it. Table 5.1 shows positional and co-occurrence properties of *-ke-* as the connective (CONN), simultaneous (SIM), temporal (TEMP), and consecutive *-ke-* (CONS₃).

Table 5.1 Functional features of affix *-ke-* in Gikũyũ

	Clause ₁	Clause ₂	Clause _{3...nth}	PROG	CONJ <i>na</i>
CONN	yes	yes	yes	yes	yes
SIM	no	yes	no	yes	no
TEMP	yes	yes	no	no	no
CONS	no	yes	yes	no	yes

Table 5.1 shows that CONN and the CONS share the feature of being non-subordinate since they allow *na*-linkage. The CONN and the CONS can occur in longer discourse, since both are narrative. When CONN is used discourse-initially, it is conclusive or it finalizes a discourse. The SIM does not occur initially and one form of it can take PROG aspect. Unlike CONN and CONS, the SIM can only report two to three events. It is odd to have more than that and it does not allow a conjunction. Clauses with the prefix TEMP can occur pre- or post-main-clause, as a temporal adverbial. Like the SIM, TEMP does not allow *na* since *na* is conjunctive and the prefix is subordinate. In all, the consecutive and the connector have many possibilities, which also indicates their linkage properties.

Table 5.2 shows the distribution of absolute tenses, their consecutives tenses and the aspect suffixes they co-occur with. I have included only the simultaneous *-ke-* because it is the only one that co-occurs with consecutives. The temporal is undoubtedly adverbial, hence clause-external, the initial connector is assumed to be external, and the other connective infix is thought to play an “intensifying” role in (5.45a). Its significance seems more pragmatic than syntactic, although this needs to be investigated more deeply.

Table 5.2 Clausal distribution of tenses, consecutives, aspect, and *-ke-* prefix

Absolute TNS	ASP	CONS	Clause _{2...n} TNS	ASP	<i>-ke-</i> affix
RMPST (-a-)	-ir-, -ag-, -et-	-ke-, -ka-	-ke-, -ka-	N/A	SIM
RCPST (-ra-)	-ir-, -ag-, -et-	-ra-, -ka-	-ra-	N/A	SIM
IMPST (-a-)	-Ø-	-a-	-a-	N/A	SIM
PRS (-raa-, Ø)	none	-ka-	-ka-	N/A	SIM
NRFUT (-re-)	-Ø-, -ag-	-Ø-	-Ø-	N/A	SIM
IMFUT (k/go)	N/A	-Ø-	-Ø-	N/A	SIM
RMFUT (-ka-)	-Ø-, -ag-	-Ø-	-Ø-	N/A	SIM

In Table 5.2, consecutive tenses stem from the second clause, have no aspect suffixes. The remote past (-*ke*-) and present (-*ka*-) consecutive tenses are the only ones that are not used as absolute tenses; all the other tenses retain the absolute tense marker as the consecutive, except the future with a zero morph and the present which takes the present consecutive -*ka*-.

SIM -*ke*- and *ke*...-*ag*- do not occur in matrix clauses. This is obvious since they are modifying other events in matrix units, i.e. all initial (matrix) clauses can take SIM (-*ke*...-*ag*-*a*) clauses as second units, to indicate modifying subevents and temporal relations. In addition, these SIM (-*ke*...-*ag*-*a*) clauses can occur as third clauses, after a consecutive clause, for the same modification reasons. In that position, they indicate ‘while’ or ‘as’ meaning.

A comment on arguments in consecutive chains is called for. A subject established in the first clause cannot be re-introduced later in a consecutive chain (see 5.48). Also, an established object can only be represented by a bound Pro (-*ci*- in (5.48)) or PA (-*e*- for *thiia* in (5.47b)), in the succeeding clauses.

(5.48)	<i>Kamau_i</i>	<i>a_i-a-kiny-ir-ε</i>	<i>gw-ake</i>	<i>a_i-ke-rug-a</i>	<i>i-riɔ_j</i>
	Kamau	1-RMPST-arrive-PFV-FV	16-ASSOC	1-CONS ₃ -cook-FV	5-food
	* <i>Kamau</i>	<i>a-ge-ci_j-re-a</i>	* <i>i-riɔ_j</i>	<i>a-ge-kɔɔm-a</i> .	
	Kamau	1-RMPST-5OM-eat-FV	5-food	1-CONS ₃ -sleep-FV	
	‘Kamau arrived at his home, he cooked food, he ate it and then he slept.’				

The constraint above may be a way of avoiding to violate the binding principles. It can also be approached from the notions of intrasentential and intersentential pronominalisation (VVLP 1997:223-33, and section 6.41). Intrasentential pronominalisation is possible either when the lexical RP or the pronoun is not a core argument, or when both are non-core arguments, or when the lexical RP and the pronoun are in different cores within the same clause.

In (5.48) *Kamau* is an extra core argument (ECS) and the PA (*a*-) is the core argument, both are co-referential as they are bound together, though not in the sense of pronoun and lexical referent as they in the same clause. That is why *a*- cannot be a pronoun.

Intersentential pronominalisation is used to determine intersentential coreference or discourse anaphora. A lexical RP e.g. *Kamau* has more ‘referential distance’ (the number of clauses between the referent and its previous mention) compare to a PA. A sequence of clauses with a single topic form a ‘topic chain’ (VVLP 1997:231), and for a chain of clauses to be cohesive, there must be a unifying element, which may be a referent, event, theme, etc.

Example (5.48) is a topic chain and *Kamau* is the topic that unifies it, because it is the one talked about, it is mentioned once, and the PA takes over the referential function. A re-introduction of the topic mid-way would interfere with the cohesion, considering that the topic is still salient, that is why it is disallowed. As for the object RP *i-riɔ* ‘food’, it cannot also be re-introduced since it is talked about in the next clause. To mention it is like introducing a new topic; that is why the the bound object pronoun (-*ci*-) takes over the referential function of lexical object.

Sentence (5.49) differs from (5.48), in that other topics are introduced after the first one (*mothuuri*) has already been introduced. Gikũyũ lacks a switch-reference system akin to that of Papuan languages, which indicates if subjects in a chain are same or different (see Broadwell 1997; Roberts 1988). Gikũyũ mainly tracks referents by pronominal anaphors as shown in (5.49).

(5.49) <i>Mo-thuuri</i> _i	<i>a_i-a-kiny-ir-ε</i>	<i>gw-akε</i>	<i>moka_j a_j-ke-rug-a</i>
2-man	2-RMPST-arrive-PFV-FV	16-ASSOC	1-wife 1-CONS ₃ -cook-FV
<i>ci-ana_k</i>	<i>i_k-ke-re-a</i>	<i>ma_{i,j,k}-ge-kɔm-a.</i>	
8-children	8- CONS ₃ eat-FV	2-CONS ₃ -sleep-FV	
'The husband arrived at his home, his wife cooked, the children ate and they (all) slept.'			

There are different clausal topics and events in (5.49). The husband is the subject in the first clause is *muthuuri*; *moka* in the second clause; and *ciana* in the third and the plural PA *ma-* in last clause includes all of them. The events are of 'arrival', 'cooking' 'eating' and a common event of 'sleeping'. It is the first clause that sets the stage for the succeeding events, and the succeeding events depend on the temporality established in the first clause.

The first topic 'husband' is not affected by the introduction of other topics; for cohesion purposes, they are united in the last event of 'sleeping'. It is possible to exclude both 'wife' and 'husband' from the last event, which means they are left out of the event. Other the final unification of participants, an identical time line of events ensures the cohesiveness of the sentence.

Before concluding on temporal-related dependency, I comment on the exclusion of aspectual suffixes in consecutive clauses. Katamba & Stonham (2006:240) note that the difference between past tense and perfective aspect is 'very blurred'; Dahl (1985:83) says that the perfective and the past tense tend to associate. Since the difference between perfective aspect and past tense is negligible; it may be the reason the perfective is cancelled in consecutive clauses. The progressive aspect is not applicable here because consecutives narrate concluded past events.

Rose et al. (2002:25) called consecutives 'aspectual markers' that indicate subordination. However, this view is not supported by facts in Gĩkũyũ; for instance, consecutive tenses are not suffixes as expected of aspect markers. In addition, it is shown that *-ke-* affixes do not necessarily indicate a subordinate relation. Rose et al. might have called consecutive markers 'aspectual markers' because no aspectual markers are evident in consecutive clauses. Further, the fact that consecutives clauses cannot stand on their own may have led them to conclude that they are subordinate. The analysis presented here is that the inherent dependency in consecutive clauses is not synonymous with 'subordination', but it is cosubordination. Contrary to the views by Rose et al. is Hopper (1979:214) who dismissed the "tense" and "aspect" labels for the Kiswahili affixes, *-ka-* and *-ki-*, which are analogous to simultaneous and consecutive affixes in Gĩkũyũ.

In the light of all the views above, it is evident that the respective consecutive markers subsume both tense and aspect; consequently, both absolute tense and aspect are absent in consecutive clauses. Therefore, the dependency associated with consecutives is 'temporal-related dependency', that includes both tense and aspect. Gast & Diessel (2012) used the term 'predicate-related dependency' to describe a dependency associated with category 'tense', in which aspect was excluded.

Consecutive clauses are in a cosubordinate relationship with an initial clause it follows; it is the matrix clause that extends the absolute tense and aspect properties to the consecutive clause. In both Gĩkũyũ and Kiswahili, the matrix clause precedes the consecutive clauses, and therefore these two languages and most other Bantu languages are 'progressive chaining

languages’ to use the typology of Jacobsen (1993:261). Unexplored here is the question why Gĩkũyũ has more consecutives than other Bantu languages.

5.3.3.2 Status

Status was introduced in sections 3.2.2.5 and 3.2.2.8 as a clausal operator. Status relate to how ‘real’ the proposition expressed in the clause is, or “its ‘status’ in reality” (Pavey 2010:65). Under status, it is shown how epistemic modality (necessity, certainty, probability, realis vs. irrealis,) and external (clausal) negation relate to complex sentences.

The modal prefix *-nge-* in (5.50a) marks possibility of the events, although none of the events mentioned occurred. Usually, consecutive clauses in Gĩkũyũ have an IND-*a* ending. However, the consecutives in (5.50a), (also the future consecutives (5.44b)), are an exception, since they have a SBJV *-ε* ending. This follows from the fact the future is associated with the irrealis. The consecutive clauses in (5.50) have inherited the irrealis property from *-nge-* in the initial clause; thereby indicating the extent of the modal’s scope.

In (5.50a) other than the shared modality, the declarative IF and tense are shared. The constituent clauses may not contain independent IF other than the one already established by *ne*; just like consecutive clause following the principle clause, cannot independently mark tense. Also note that tense is only marked in the main clause; succeeding clauses mark no temporality.

- (5.50) a. *Ne to-nge-r-ɔk-ir-ε to-thenj-ε na to-heh-i-ε nyama.*
 AM Ipl-MOD-RCPST-come-PFV-FV Ipl-slaughter-FV CLM Ipl-roast-DC-FV 10.meat
 ‘We could have come, and slaughtered and roasted the meat.’
- b. *Tɔ go-kɔrwɔ o-ku-um-a Njeremani o-ta-n-dehe-ir-ε*
 INT 16-MOD IIsg-NRFUT-leave-FV 9.Germany IIsg-NEG-IsgOM-bring-PFV-FV
ke-ndo ge-a-kuɔ?
 7-thing 7-ASSOC-there
 ‘Could it be that you will leave Germany before you bring me something from there?’
- c. *W-a-hɔt-a ku-um-a Njeremani o-ta-n-dehe-ir-ε....*
 IIsg-PRS-MOD-FV NRFUT-leave-FV9.Germany IIsg-NEG-IsgOM-bring-PFV-FV
 ‘You may leave Germany before you bring me ...’

Example (5.50b) is ‘speculative’, although there may be other indications that warrant the speaker to ask the question. The interrogative particle *tɔ-* and the modal *kɔrwɔ* have scope over the clauses coming after them. Example (5.50c) expresses the possibility/probability based on *-hɔt-a* ‘may’, to get the interpretation that the hearer may leave Germany before he brings him/her anything.

In § 0, I noted that deontic and epistemic modality are closely related, but they also show some differences, some of highlight some more differences. The subjunctive in Bantu languages is said to indicate aspects of valuative-deontic modality and irrealis (epistemic modality) (Givón 1994; Nkonyani 2013).

- (5.51) a. *A-nake ma-ahɔt-a go-gɔ-ɔk-a ko-hand-a me-te.*
 2-youth 2-MOD-FV 15-RMFUT-come-FV 15-plant -FV 3-trees
 ‘The young men may come to plant trees.’

- b. *A-nake nɔ ma-hɔt-ε go-gɔ-ɔk-a ko-hand-a me-te.*
 2-youth MOD 2-be.able-SBJV 15-RMFUT-come-FV 15-plant-FV 3-trees
 ‘The young can come to plant trees.’
 (Lit. ‘The young can be able to come to plant trees.’)

Sentences (5.51a) states the possibility/probability that the participants might come and plant trees; however, there is no certainty that the two events will happen. The use of the future tense together with modal *ahɔt-* ‘may’ greatly reduces the degree of probability of these events. In (5.51b) the modal *nɔ* ‘can’ works in conjunction with the verb *hɔta* ‘be able’. This verb can be inflected for tense and aspect, which is impossible with modal *hɔta* in (a). Furthermore, ‘be able’ has a subjunctive ending. de Haan (2006) cautions against equating irrealis with the subjunctive; because some languages use other moods such as the optative to express the irrealis. In Gĩkũyũ the SBJV is distinctive as we have seen it occurring with dependent clauses and now with the irrealis, see also (5.50a) above.

Morphologically, epistemic and deontic modality are distinguished by the presence of the subjunctive. Syntactically, deontic modality (ability) employs both an auxiliary and a lexical verb (or in some cases only the auxiliary), while the epistemic modality employs an uninflectable modal, which is not inflected for verbal features such as tense and aspect, just like the auxiliary modal *nɔ* ‘can’, and thus *-hɔta* belongs to the class of auxiliaries.

Hypotheticals and conditionals also fall under epistemic modality, including their realis/irrealis distinction. According to Thompson et al. (2007:255), conditionals containing “real” present tense, past events, and habitual/generic situations are “reality” conditionals, and the “unreality” ones refer to “unreal situations”, which are imaginative (hypothetical and counterfactual) or predictive.

Example (5.52a) is a statement of fact containing present tense. The modality/conditional marker *-nge-* is in the initial clause together with the event of ‘planting’. The event of ‘growing well’ in the second unit is dependent on that of ‘planting with manure’, in the initial clause.

- (5.52) *O-nge-hand-a waru na thumu ne i-kor-ag-a wega.*
 IIsg-MOD-plant-FV 14.potatoes COM 9.manure AM 14-grow-HAB-FV well
 ‘If you can plant potatoes with manure they grow well.’

Irrealis is belongs to hypothetical, conditional, possible, and imaginary events, unlike realis which is about real and necessary events (Pavey 2010:65). Example (5.53) is a conditional with a lexical conditional *kɔrwɔ* ‘if’ marker. Conditionals are revisited in chapter 6.

- (5.53) *Kɔrwɔ tw-ee to-nyɔni tw-ɔ-ɔmbok-a.*
 COND Ipl-be 13-bird Ipl-PRS-fly-FV
 ‘If we were birds, we would fly.’

Example (5.53) contains hypothetical/imaginary events and with *kɔrwɔ* in the protasis of the conditional clause. The conditionality is on both ‘being’ and ‘flying’, the fact that the ‘being birds’ cannot happen invalidates even the possibility of ‘flying’. The assertive marker *ne* does not occur with the protasis or the apodosis in conditionals, regardless of finiteness. This follows

from the fact that one cannot assert that which is not certain or anything hypothetical (irrealis). However this does not apply in (5.52), since the second unit can take an assertive *ne* marker.

Gast & Diessel (2012a:24-25) contend that negation is the next most “prominent” form of “interlacing at the level of proposition interpretation” after the tense-related dependencies. The examples below illustrate the role of negation as a component of status, in linked clauses.

- (5.54) a. *Hende ya manjeneti go-ti-a-re a-ndo*
 Time of emergency 16-NEG-RMPST-be 2-people
ma-a-rem-ag-a me-gonda kana ma-ka-reithi-a ma-hiu.
 1-RMPST-cultivate-PROG-FV 4-farms CLM 2-CONS₁-herd-FV 6.cattle
 ‘During the emergency there were no people cultivating the farms or herding cattle.’
- b. *Hende ya manjeneti go-ti-a-re a-ndo*
 Time of emergency 16-NEG-RMPST-be 2-people
ma-ta-rem-ag-a me-gonda kana ma-ka-reithi-a ma-hiu.
 1-NEG-cultivate-PROG-FV 4-farms CLM 2-CONS₁-herd-FV 6.cattle
 ‘During the emergency there were no people who were not cultivating the farms or herding cattle.’

In (5.54a) negation is marked by the main clause negation morpheme *-ti-*. Owing to the clause it is found in, the polarity contained in the initial main clause percolates to the others coming after it. Therefore, all the events in the other units following it are denied.

Example (5.54b) differs from (5.54a) in that it has two negation markers, *-ti-* and *-ta-*, and it means that ‘all the people cultivated and herded animals’. The subordinate clause with *-ta-* is a relative clause modifying *ando* ‘people’ which is the object argument of the first clause. Essentially, the scope of the negator *-ti-* is narrowed to the core argument *ando* in (5.54b), but negation in (5.54a) has a much wider scope, covering the entire clause. Hence it is analyzed as clausal cosubordination, realized firstly by primary negation, and secondly by the consecutive.

I have already noted that a consecutive clause cannot have its own assertion or negation. However, Bennett (1975:77, fn. 2) says that negation in consecutive constructions is rare, but possible in written language. His example (Bennett 1975:60, ex. 7) is adapted here as (5.55a).

- (5.55) a. *Ne ma-a-thi-ir-ε, ma-ke-βaar-a, ma-ti-ɔn-ε mo-ndo.*
 AM 2-RMPST-go-PFV-FV 2-CONS₃-look-FV 2-NEG-see-FV 1-person
 ‘They went, looked (and), didn’t see anyone.’
- b. *Ne ma-a-thiire ma-ke-βaar-a, ma-ti-ɔn-ir-ε mo-ndo.*
 AM 2-RMPST-go-PFV-FV 2-CONS₃-look-FV 2-NEG-see-PFV-FV 1-person
 ‘They went and looked, they didn’t see anyone.’

Bennett’s example is best analyzed as core argument negation rather than consecutive negation. One, the clause contains the main clause NEG *-ti-*, yet it is not the initial clause. Two, the construction does not “sound very acceptable”, though it can be improved by adding *na* ‘and’ before the last unit (Bennett has ‘and’ in the gloss, however). That way it is more correct, and it is clear that the event of ‘see’ in the clause is being negated; however, it is not in a consecutive clause but in a conjoined main clause.

Another possibility is to have the clause as in (5.55b), with the last unit being a finite clause with its own NEG prefix. Note that unlike Bennett’s example with commas after each

Thus, when consecutive negation is required, it takes the form of main clause negation. That may explain why Bennett noted that consecutive negation is rare. However, Bennett's last clause is a "reduced clause", but that is not enough to call it a consecutive clause, as there are other reduced clauses which are not consecutive clauses. The key is negation: if consecutives forbid *ne*, even *-ti-* is also forbidden.

Illocutionary force as a clausal operator was introduced in §3.2.2.9. A clause may have interrogative, imperative, optative, or declarative illocutionary force (IF). In this section, I illustrate how shared illocutionary force realizes clausal cosubordination in Gikūyū.

In §3.2.2.9.1, I argued that the particle *ne* indicates declarative illocutionary force (DEC IF) and when it is not there, a zero \emptyset does it. To this point I have already shown that *ne* is poly-functional, with functions ranging from being a copula, a focus (cleft) marker, an agentive preposition marker (*by*), a marker of reason subordinate clauses, an assertive/declarative marker, and more.³⁹

- Example (5.56a) has a DEC marker, hence it can stand independently on its own, as a statement of fact. However, (5.56b) without the DEC marker cannot stand on its own, even with the finite predicate it has. It is “intonationally dependent” and lacks a complete thought. It can be made “intonationally independent” if the predicate part is intonationally raised, to get an interjectory or exclamative reading such as: *A-thuuri mɔɔkire!* ‘But the men came!’ or ‘The men have come!’

(5.57) a. *Ngui ne i-Ø-re-ir-ε.*
 10.dogs DEC 10-RCPST-eat-PFV-FV
 'The dogs ate.'
 b. *?Ngui i-Ø-re-ir-ε* (nyama).
 10.dogs 10-RCPST-eat-PFV-FV (9.meat)
 'The dogs ate'

177

(5.58) contains a set of clauses, but only (5.58a) has a pre-clausal *ne*; nevertheless, both clauses are grammatical. To account for the disparity, we can argue that the initial clause in (5.58a) extends its clausal feature of assertion (and tense) to its linked unit, while (5.58b) attains its “stability” by virtue of having another unit (complement) after the verb, analogous to verbs that need a constituent (object or adverb) in order to have complete sense.⁴⁰ In isolation, the linked units in (5.58) cannot stand independently, as is characteristic of cosubordinate and subordinate clauses. However, unlike in subordination where a unit can be preposed, the clauses above cannot be preposed.

- (5.58) a. *Ne ma-r-ɔɔk-ir-ε* *ma-ke-in-ag-a*.
 DEC 2-RCPST-come-PFV-FV 2-SIM-sing-PROG-FV
 ‘They came while singing/singing.’
- b. *Ma-r-ɔɔk-ir-ε* *ma-ke-in-ag-a*.
 2-RCPST-come-PFV-FV 2-SIM-sing-PROG-FV
 ‘They came while singing/singing.’

The initial clauses in (5.58) contain absolute tense *-ra-* and aspect *-ir-*, and then second units bear the SIM *-ke-* and the progressive aspect *-ag-*. It was demonstrated earlier on that *-ke-* occurs in ‘dependent’ units; and even in (5.58) it is dependent. Indeed (5.58) illustrates that SIM is not a tense, because, whereas the first unit in can become an exclamative, the linked SIM unit cannot; meaning that it lacks some clausal features, one of them IF and the other tense. This explains my claim above that in (5.58), these clausal operators are shared between the linked units.

Cristofaro (2003:32) suggests some syntactic tests to decide if a unit in a complex sentence is asserted or not. To do that, one can switch the IF value of any of the units; for example, from an assertion to a question. When this question-conversion test is applied on the initial unit in (5.58), differences emerge as shown in (5.59).

- (5.59) a. *Ne ma-r-ɔɔk-ir-ε?* b. **Ma-r-ɔɔk-ir-ε?*
 DEC 2-RCPST-come-PFV-FV 2-RCPST-come-PFV-FV
 ‘Did they come?’ ‘Did they come?’

The initial clause in (5.58a) can be turned into a question by intonation as seen in (5.59a), but not the initial unit in (5.58b) which is inconvertible as in (5.59b). It can only be salvaged if *ne* is added as in (5.59a) or adding another constituent for instance a *wh*-word such as *re* ‘when’ or *ko/ha* ‘where’, or a PP *na o* ‘with who’. The addition of an *in situ wh*-word, rules out *ne* in the clause, as it does not ordinarily co-occur with *in situ wh*-words.

Another syntactic test suggested by Cristofaro involves negation, based on the fact that only the asserted part of the clause can be negated. Negation in the initial unit in (5.60) prohibits the aspect suffix, the RCPST tense marker *-ra-* changes to *na*, and assertive *ne* is replaced by *-ti-* (5.60).⁴¹

⁴⁰ Particle *ne* provides some “stabilizing effect” in clauses. A similar particle in Kamba was called a “stabilizer” by Whiteley & Ndumbu (1962). Kunene (1975) also notes that *ya-* in Zulu has the same effect.

⁴¹ Not all tenses and aspect suffixes are affected this way. IMPST, RMPST, and all futures are unaffected. The perfective with RMPST is not affected, and the progressive is also not affected even with the RCPST.

(5.60) <i>Ma-ti-n-ɔɔk-a</i>	<i>ma-ke-in-ag-a/</i>	<i>ma-ta-ko-in-a</i>
2-NEG-TNS-come-FV	2-SIM-sing-PROG-FV	2-NEG-TNS-sing-FV
‘They did not come while singing/singing.’/		without singing.

The initial clause in (5.60) contains the main clause negation marker *-ti-*. The scope of negation extends to the second clause, which lacks negation itself. This may be paraphrased as, *It is not the case that they came singing*. Negation can be introduced in the second unit with the subordination negation marker *-ta-*, which changes into a “manner” adjunct ‘without singing’.

Since the second unit cannot take *-ti-*, there is evidence that such a unit is not asserted. There is also strong evidence that *-ta-* occurs in non-asserted units, considering that complement clauses such as those of utterance predicates, e.g. *uga* ‘say’, have *ne*, hence are asserted and that they take *-ta-*, the subordination negation marker.

It is clear that the *ne*-marked matrix units are fully independent. From the foregoing, it is also evident that *ne* plays a role in realizing intonational interrogative IF, as only those units with *ne* are convertible into questions. This might agree with Barlow’s (1951) claim that *ne* is similar in function to auxiliary ‘did’ in English. In that case, *ne* is a marker of IF, the same as auxiliary ‘do’, which is crucial in question formation in English. However, Gĩkũyũ has no auxiliary movement to frame questions as it can be done in English.

It is already noted that consecutive units do not tolerate particle *ne* as in (5.61a); if present in consecutive chain, *ne* resides with the matrix initial clause. One possible reason for the non-occurrence of *ne* and consecutive units is that consecutive clauses are part of a cosubordinate relation based on shared illocutionary force in Gĩkũyũ, and therefore, they do not need another *ne*, because the initial clause already has one, and whose scope spreads to the dependent consecutives. Even when *ne* is not overtly marked, the consecutive still do not take *ne*, since sometimes DEC IF is indicated by a zero-morpheme.

- (5.61) a. *Ne a-a-thɔɔm-ir-ε i-βuku *ne a-ke-rek-i-a.*
 DEC 1-RMPST-read-PFV-FV 5-book DEC 1-CONS₃-finish-FV
 ‘He read the book and finished (it).’
- b. **Ne a-a-thɔɔm-ir-ε i-βuku a-ke-rek-i-a kee?*
 DEC 1-RMPST-read-PFV-FV 5-book 1-CONS₃-finish-FV Q
 ‘He read the book and he finished what?’
- c. **Ne mo-hor-ε-i.* d. **Ne a-rɔ-hetok-a ke-geriɔ.*
 DEC 2OM-beat-FV-IMP.pl DEC 1-OPT-pass-FV 7-exam
 ‘Beat him!’ ‘May he pass the exam.’

Note that in (5.61b) the wh-question word is disallowed, since *ne* does not co-occur with an *in situ* wh-question words, although *ne* must co-occur with a wh-question, when the latter is *ex situ* or partially-displaced, see (5.62) below. In addition, *ne* is obligatory when an assertive clause is intonationally converted into a question.

Without *ne*, examples (5.61c) and (5.61d) can be grammatical imperative and optative clauses, respectively. The inclusion of *ne* in these examples contradicts their inherent IF, hence the ungrammaticality. It was shown that in Gĩkũyũ, other than intonational question, there are three basic questions types: *in situ*, *ex situ*, and partially displaced. The latter two obligatorily take *ne* as illustrated in §3.2.1.5, example (3.9), and §3.2.2.9.2, example (3.40).

In (5.62a) the *wh*-word can be *ex situ* appearing as *ne-re* ‘when’ or in situ as *re* ‘when’, but in both cases the scope extends to both clauses, regardless of the position. This scope is also indicated intonationally on both clauses, with a raised intonation on the *ex situ wh*-word extending to the following clause. In the case of in situ at clause-final position, the intonation steadily rises and it reaches the highest peak on the *wh*-word.

Example (5.62b) is unacceptable because of the different question types it contains, i.e. *re* ‘when’, and *kee* ‘what’, because the two question words require different answers. (5.62b) can be redeemed if the different questions are coordinated as in (5.62c), thereby making the conjuncts independent and allowing each clause to bear a different question type.

- (5.62) a. *Ne-re* *ma-r-ɔɔk-ir-ε* *ma-ra-rug-a* *i-riɔ* (re)?
 (FM-INT) 2-RCPST-come-PFV-FV 2-CONS₂-cook-FV 5-food (INT)
 ‘When did they come and cook the food?’
- b. **Ne-re* *ma-r-ɔɔk-ir-ε* *ma-ra-rug-a* *kee*?
 FM-INT 2-RCPST-come-PFV-FV 2-CONS₂-cook-FV INT
 ‘When did they come and cook what?’
- c. *Ne-re* *ma-r-ɔɔk-ir-ε* *na* *ne-kee* *ma-ra-rug-ir-ε*?
 FM-INT 2-RCPST-come-PFV-FV CLM FM-INT 2-RCPST-cook-PFV-FV
 ‘When did they come and what did they cook?’
- d. *Ne-kee* *ma-r-ɔɔk-ir-ε* *na* *ma-ra-rug-a*?
 FM-INT 2-RCPST-come-PFV-FV CLM 2-CONS₂-cook-FV
 ‘What did they come and cook?’
- e. **Ma-r-ɔɔk-ir-ε* *ne-kee* *ma-ra-rug-a* ?
 2-RCPST-come-PFV-FV FM-INT 2-CONS₃-cook-FV
 ‘They came and what cooked?’

In (5.62d) the *wh*-word is displaced from the object position of the second clause to an *ex situ* position at the initial position of the first clause. Although the *wh*-word originates from the object position of the second clause, once displaced it lends its scope to the initial clause as well. This does not mean that before the displacement, the scope was not bi-clausal, on the contrary, it was; this is merely the usual question formation process in Gĩkũyũ. The *wh*-question cannot be displaced to an *ex situ* position in the second clause as seen in the ungrammaticality of (5.62e), because it excludes the initial clause, with which it shares tense, and with which it therefore is in a cosubordinate relation.

Although not explicitly tested in Gĩkũyũ, Bickel’s (2010:81) notions of “extensible” and “conjunct” IF scopes may be applicable. In the “extensible” type, the IF extends to either a matrix clause alone or both a matrix clause and a dependent clause, but never to a dependent clause alone. In the “conjunct” type, the IF extends to both the matrix and dependent clauses. Considering that dependent consecutive clauses cannot mark DEC or INT illocutionary force independently, they may then be subject to the “extensible” and “conjunct” IF scopes.

I suggest that interrogative IF is shared between clauses if the *wh*-word is *ex situ* regardless of the clause it originally belonged to, as in (5.62a) and (5.62d), or if it is displaced to a final position while originally belonging to an initial clause as in (5.62a). However, interrogative IF is not shared if it is in the *ex situ* position of a second clause as in (5.62e). Having its own *wh*-word excludes the second clause from the initial one with which they form a

unit. Since the second unit is semi-finite, it is dependent and cannot bear any IF. For such examples, even before IF is said to be shared, the second unit is already dependent on the initial clause for tense. This satisfies the requirement that a cosubordinate nexus requires that at least one operator at the concerned linkage level must be shared. In (5.62a) and (5.62d) more than one operator is shared: tense and illocutionary force. The examples in (5.63) may help shed more light on the scope of the *wh*-words in non-subordinate constructions.

- (5.63) a. *Ne-ko a-a-thi-ag-a *ko ko-hand-a (ko) mbembe (ko)?*
 FM-Q 1-PRS-go-HAB-FV Q 15-plant-FV (Q) 10.maize (Q)
 ‘Where does he (usually) go to plant maize?’
- b. *A-ra-ko-er-ir-ε ate (ne) a-ga-thi-e re?*
 1-RCPST-IIsgOM-tell-PFV-FV CLM (AM) 1-RMFUT-go-FV Q
 ‘When did he tell you that he will go?’ (Lit. He told you [he will go] when?)
- b’. *A-ra-ko-er-ir-ε re ne a-ga-thi-e?*
 1-RCPST-IIsgOM-tell-PFV-FV Q AM 1-RMFUT-go-FV
 ‘When did he tell you that he will go?’ (Lit. He told you when [he will go]?)
- c. *A-ra-ko-er-ir-ε (ate) a-ga-thi-e re?*
 ‘When did he tell you that he will go?’ (Lit. He told you (that) [he will go when?])

In (5.63a) the *wh*-word can be in three different places: ex situ, after the undergoer ‘maize’, or before the undergoer ‘maize’, but not before the verbal infinitive core. This is because verbal infinitives do not allow *ne* when they are in that position. Consequently, since they disallow *ne*, they are not also expected to allow a *wh*-word. I have argued above that similar examples are cases of cosubordination, and therefore the same applies to (5.63a), with IF and tense being the shared clausal operators.

Sentence (5.63b) differs from earlier examples in that the *wh*-word does not belong to the element adjacent to it, but to the initial clause. The English translation of (5.63b) may be ambiguous, but the Gĩkũyũ sentence is not. Evidence comes from the answer to the question in (5.63b), which may be *ira* ‘yesterday’, but never *rocio* ‘tomorrow’, because the *wh*-word is in the core periphery of the first unit (see Figure 5.1). Thus, the *wh*-word must belong to the initial unit. In (5.63b) the *wh*-word can also be placed before the second unit as *ne-re* ‘it is when’ without affecting the scope.

In (5.63b’) the *wh*-word belongs to the first clause to which it is closest, and it also has *ira* ‘yesterday’ as answer. In this example, *ne* obligatorily precedes the second unit because it is asserted; hence there are two linked clauses (see Figure 5.1). In (5.63c) the answer to the question is *rocio* ‘tomorrow’ and not *ira*, since it is the ‘going’ that is questioned, and not the ‘telling’. These examples illustrate how the potential focus domain may be realized in subordinate clauses. Important to note in these examples is that the *wh*-word *re* ‘when’ is in the core periphery, a position also occupied by location/temporal PPs.

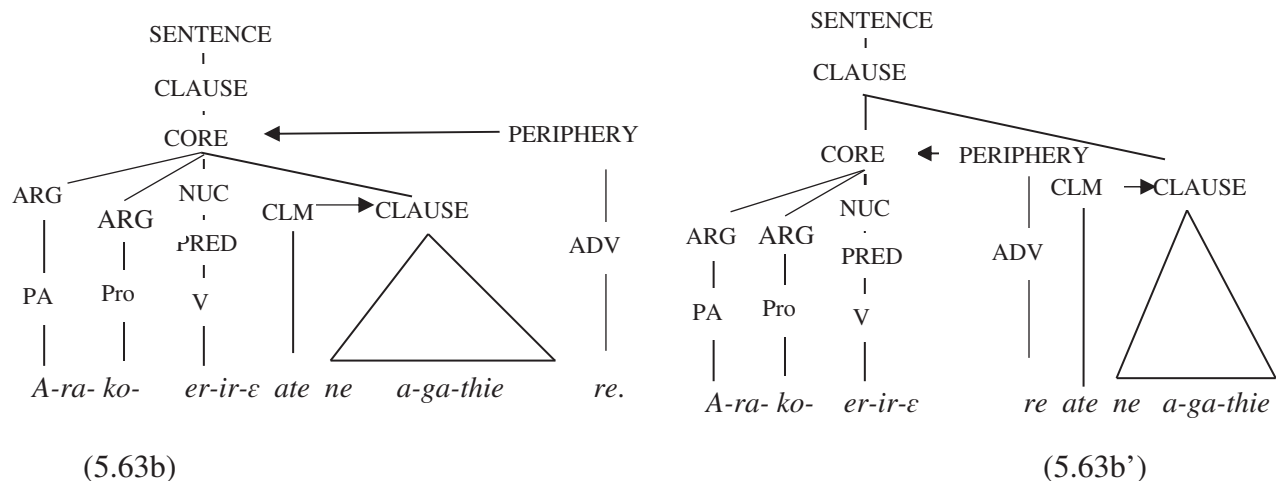


Figure 5.1 Ad-core peripheral wh-words

In §3.2.2.9.2, I introduced the use of particle *kaĩ* [kae] in questions in the discussion of interrogative IF operator. I noted then that it does not behave like wh-question words, although it is used to form questions. This particle may be likened to the Kiswahili question particle *je*.⁴² Bickel (2010) showed that *je* realizes cosubordinate nexuses in Kiswahili. Elsewhere, Nicolle (2000) gave examples of clauses in which the scope of *je* extended to an entire clause. He also noted that in some questions *je* indicated “a sense of surprise or shock” and was therefore compatible “with a variety of exclamations” (Nicolle 2000:181).

Particle *kae* is used in both polar (yes/no) and content questions in Gĩkũyũ. In comparison, *je* and *kae* behave similarly, albeit with some slight differences. First, *je* can occur clause-internally as a question suffix, but *kae* cannot. Second, when *je* occurs in an initial clause position, it is set off by a pause, thus behaving like a “framing device” (Nicolle 2000:181). On the other hand, there is no pause separating *kae* from the rest of the clause. They are similar in that both accommodate wh-words, and they can indicate surprise or an “unexpected event”. The example in (5.64) elaborates on *kae*.

- (5.64) a. *Kae go-tuk-ir-ε?*
 PTCL 15-become.dark-ASP-FV
 ‘Oh it has become dark?’
- b. **Kae ne go-tuk-ir-ε?*
 PTCL AM 15-become.dark-PFV-FV
 ‘Oh it has become dark?’
- c. *Kae go-tukir-ε*
 PTCL 15-become.dark-PFV-FV
 ‘How fast did it become dark early?!’
- tɛnɛ atea?*
 early Q

While (5.64a) is grammatical, (5.64b) is not, because it contains the assertion marker *ne*. This indicates that *kae* and *ne* are in complementary distribution, most likely because their functions in the clause are in conflict. (5.64c) contains both *kae* and a wh-question *atea* ‘how’. It is optional to have *kae* or *atea* without affecting the interrogative IF of the clause. There seems to be a division of labor between *kae* and wh-words. Unlike (5.64b), in which the declarative and

⁴²Nicolle (2000) is a Relevance-theoretic discussion of the interpretive use of *je* in Swahili. He reports that *je* is first and foremost an interrogative marker, and its interpretative uses are limited to its position in a clause, or when it is prosodically separated from a clause.

the interrogative IF clash, (5.64c) is grammatical because both *kae* and *atea* mark identical IF; therefore, they can co-exist without any conflict of IF.

Although not pursued in this thesis, there is a strong indication that *kae* indicates surprise (‘why!’, ‘how!’, ‘what!’), and would thus be analyzable as a “mirative” (Delancey 1997; 2001; Hyslop 2011; de Haan 2012). Miratives indicate a state or event that a speaker did not anticipate or unexpected information. It is also argued that there is a strong link between miratives and IF (de Haan 2012; Brugman & Macaulay 2015), indeed (5.64) shows imperative and interrogative IF. In sum this indicates the properties of *kae* in Gĩkũyũ pertain to clauses.

- (5.65) a. *Mo-rɔ-he-a* *nda* *mo-ge-cong-a*.
 2-OPT-burn-FV 10.stomach 2-SIM-dosing-FV
 ‘May your stomachs burn while you dose/dosing.’

Example (5.65) indicates optative IF, with the prefix optative marker *-rɔ-* in the initial clause. The scope of the IF marker spills over to the next semi-finite unit in this “curse-like” expression. Earlier I showed that the assertive marker *ne* is disallowed in optative constructions, as this would also contradict the IF established in the initial clause.

Example (5.66) is an imperative (“advisory”) clause. The second unit is less finite (with only the person marked) compared with the initial clause, which contains person-marking, tense, and a reflexive prefix. As is common with imperatives, none of the units mark aspect.

- (5.66) *W-e-e-hith-ε* *wo-inok-ε*.
 IIsg-PRS-RFL-hide-FV IIsg-go.home-FV
 ‘Hide yourself and go home!’ [lit. You hide yourself you go home.]

The imperative IF is contained in the initial clause and is extended to the second unit; the second unit could as well be an imperative on its own. However, in (5.66) the event in the linked unit is meant to follow the event in the first clause. Hence, the first clause determines the occurrence of the second event to mean ‘so that you go home’. This resembles the sequential feature in consecutive clauses. As is evident with other non-*ne*-IF clauses, assertive *ne* is also disallowed in (5.66).

5.3.3.4 Evidentials

Evidentiality was briefly introduced in §3.2.2.7. Studies on evidentiality in African languages hardly go beyond the study of reported speech; hence, evidentiality remains a poorly studied area in these languages (Dimmendaal 2011:128). As a contribution to the study of evidentiality, this section illustrates evidentiality in Gĩkũyũ and its role in complex sentences.

In his typology of evidentiality, de Haan (2012) identifies direct and indirect evidentials. The former shows that the speaker bore witness to the event described, and the latter that the speaker was not an eye-witness (de Haan 2012:1024). The indirect evidentials may be “hearsay” (quotatives) or “inferential”. Hearsay evidentials denote that the speaker heard about the event or action from another source elsewhere and the inferential denotes that the speaker bases their belief on some evidence (de Haan 2012:1025). Kihara (forthcoming) showed that the Gĩkũyũ *ate* (and its variant forms *aterere*, *atere*) may be a complementizer, a hearsay marker, an evidential, a dubitative, a quotative, or a demonstrative, among other functions.

Evidentiality in a language may be marked grammatically (morphologically) or lexically, with use of affixes or lexical words/particles. The use of particles to mark evidentiality is common with indirect evidentiality (de Haan 2012:1030-1031). Complementizers are sources of evidential markers according to Aikhenvald (2004).

Following de Haan's typology that quotatives can be evidentials, and Aikhenvald's contention that complementizers are possible evidential markers, I propose that other than its complementizer function, *ate* is also an indirect evidential marker. It is a kind of evidential marker distinct from the English lexical evidentials such as *reportedly* and *allegedly*.⁴³

- (5.67) a. *Ate m-ε-eteke-et-i-ε (ate) go-ti-a-re o-ndo ɔna o-mwε*
 EVD 2-RMPST-believe-PFT-DC-FV CLM 16-NEG-PST-be 14-thing even 14-one
o-nge-a-rεm-ir-ε mo-thuuri o-ciɔ.
 14-MOD-PST-defeat-PFV-FV 1-man 1-DEM
 'They believed that there wasn't anything that could have defeated that man.'
- b. *Ithe ate a-a-mε-εr-ir-ε ma-ti-ka-na-mo-gay-εr-ε ke-ndo.*
 1.father EVD 1-RMPST-2OM-tell-PFV-FV 2-NEG-FUT-TNS-1OM-share-APPL-FV 7-thing.
 'Their father (is alleged to have) told them not to give him (another son) anything (from his estate).

The particle *ate* in an initial clause position in (5.65a) is not serving as a complementizer, unlike the internal *ate* which is serving as a complementizer. The initial *ate* is an evidential marker indicating that what the speaker is saying is not an eyewitness account, but rather secondhand knowledge from another source. The speaker is only reporting what they have read or heard from another source. At that position, *ate* may be interpreted as meaning: 'it is alleged', 'it is said', or 'I heard that...'.⁴³

The EVD marker in (5.65b) is clause-internal but core-external. In that position, it is different from an optional *ate* that can be placed before the linked unit as a complementizer meaning 'that'.

In its position in (5.65b), *ate* can switch places with the ECS element *ithe* 'father'. This kind of mobility is uncharacteristic of complementizers. The particle *ate* in that position is interpretable as a clausal operator, which in turn allows it to be considered a "speaker-oriented category" in the sense of Kroeger (2005:166). Such categories signal doubt (dubitative), surprise (mirative), and evidentiality, showing whether the speaker's basis for belief is hearsay or direct observation.

5.4 Summary of the chapter

This chapter dealt with coordination and cosubordination in Gĩkũyũ. Four types of coordination – conjunctive, adversative, disjunctive and causal – and their semantics were discussed.

Coordinate clauses in Gĩkũyũ are sequentially fixed; they cannot be preposed, as the first clause anchors the rest. In the preferred form of conjunctive clausal coordination, conjoined clauses do not mark aspect, a clear indication that they depend on the first conjunct.

⁴³ For the use of the English lexical evidentials see de Haan (2012:1030-1032).

Coordination and consecutive clauses are related, because the latter are compatible with the conjunction *na* ‘and’, and they also have a coordination translation even when without *na*. They differ, however, on the nexus type, as the consecutives are cosubordinate.

to subordination, as coordinate and cosubordinate (sequential and simultaneous) units cannot be preposed as in subordination. Although it is not the case that coordination and cosubordination are unclear nexi in Gĩkũyũ, there are studies that report features of mixed nexus types, e.g. Dooley (2010a) reports “quasi-coordination” in Mbya Guaraní, where dependent clauses show coordinate features, and Kwon & Polinsky (2008) show that coordinate *ko*-constructions in Korean are ambiguous between subordination and coordination, but not cosubordinate.

Evidence for core and clausal cosubordination is also illustrated. At the core level, deontic modality is mainly responsible for the cosubordination. Clausal cosubordination is realized through shared IF (declarative, interrogative, imperative, and optative), shared temporality (tense, aspect, and simultaneity), and shared epistemic modality. The consecutive clause is the main driver of clausal cosubordination. The particle *ate*, in addition to being a complementizer, is also an evidential operator, which realizes a form of clausal cosubordination.

I have also discussed four different types *-ke-* prefixes: the simultaneous, the connector, the temporal, and the consecutive *-ke-*. The simultaneous, the connector, and the consecutive *-ke-* all realize core and clausal cosubordination, and the temporal *-ke-*, ad-clausal subordination.

In terms of chaining directionality, Gĩkũyũ is a SVO language and “right-branching” in the words of Van Valin (2001), and therefore the initial clause is most finite. It shares the operators with the dependent units following it on the right side, that is the scope of the operators is passed on to the dependent units coming after the matrix unit. Therefore, Gĩkũyũ is a “progressive clause chaining” language in Jacobsen’s (1993) typology of clause chaining languages.

Because of the strong indications that evidentiality, illocutionary force, and modality are closely intertwined, particles *ate* and *kae* may be considered as “miratives, with many indications that it might be a clausal operator.

Finally, the RRG concept of cosubordination proves helpful in the analysis of Gĩkũyũ complex sentences. Without it, it would have been impossible to systematically explain the conjunctive nature of consecutive clauses among other important aspects of complex sentences.

6 Subordination in Gĩkũyũ

6.1 Introduction

Subordination is generally understood as structural embedding of clauses. It is widely accepted that subordinate clauses are introduced by general subordinators such as complementizers, relativizers, and adverbializers (Schachter & Shopen 2007:49), or functional-specific subordinators such as temporal subordinate linkers, logical subordinate linkers, and contrastive or purposive linkers (Dixon 2006:2).

Lehmann (1988:182) narrows the notion of subordination to hypotaxis (subordination of a clause) and embedding (subordinate dependency). Cristofaro (2003) argued against the assumption that adverbial clauses function like adverbs of the main clause predicate, because it is not cross-linguistically valid. She revised the notion of subordination as “a particular way to construe the cognitive relation between two events, such that one of them (the dependent event) lacks autonomous profile and it is construed in the perspective of the other event (the main event)” (Cristofaro 2003:2). She says that it is the cognitive relation that matters, not the clause type.

However, I consider both the cognitive relation and the clause type to be important when describing subordination in a language. For instance, a morphosyntactically different construction can realize the same cognitive relation. Hence it is important to account for the morphosyntax of such clause types, together with the cognitive relation they encode. In addition, her definition does not consider the different layers of subordination as conceived in RRG. Also Cristofaro’s definition seems to exclude relative clauses, since they are not events, yet they are clearly part of subordination.

Aware of such definitions and others, this study is guided by the notion of subordination as suggested in RRG. This chapter is structured as follows: I begin by describing complementation and complement types in Gĩkũyũ and later I discuss core subordination based on RRG theory. This is followed by a closer look at clausal subordination and then sentential subordination. Next, the interclausal syntactic and semantic relations are discussed, and a chapter summary comes last.

6.2 Subordination in Gĩkũyũ

Bennett et al. (1985:229) identify three types of subordinate clauses in Gĩkũyũ: noun-modifying, verb-modifying, and topicalized, interpreted as relative clauses, complementation, and adverbial clauses, respectively. Although most adverbial clauses may be “topicalized”, not all of them are topics; therefore, I will call them “topicalized” if they indeed function as “discourse topics” in sentences.

6.2.1 Complementation in Gĩkũyũ

As a follow-up to §4.3.2.3 on complementation, a typology of Gĩkũyũ complementation is illustrated in this section. Studies on complementation by Noonan (1985/2007), Cristofaro

(2003), Kroeger (2005), and Dixon (2006, 2010) are considered in this undertaking, but I will resort to an RRG-theoretical analysis.

There are two approaches to complementation: a purely syntactic approach, such as advocated by early generative grammar and GB, and the semantic approach factoring in the semantics of the complement-taking predicate and/or the complementizer. This approach may consider both the selection and form of the complement clause and their choices from a syntactic or semantic standpoint (Van Valin & Wilkins 1993:505-506).

Noonan (2007) identifies four types of complements (*that*-clauses, infinitives, gerunds, and participials) and thirteen types of complement-taking predicates (CTPs), most of which I will illustrate in Gĩkũyũ.

6.2.2 Complementizers in Gĩkũyũ

I assume the general consensus found in Gĩkũyũ linguistic literature that *atĩlate* is a complementizer akin to ‘that’ in English (Barlow 1951; Gecaga 1955; Myers 1975; Overton 1972; Mugane 1997b; Bennett et al. 1985; Perez 1985; Clements 1984; Bergvall 1987; Schwarz 2003). It is also agreed that *atĩrĩlatere* and *atĩrĩrĩlaterere* are related to *ate*. Kihara (forthcoming) argues that in addition to their functions as subordinators, *ate* and its variants have discourse-pragmatic and syntactic-semantic functions.

The other Gĩkũyũ complementizer is *kana* ‘whether/if’, which is morphologically similar to the disjunctive conjunction *kana* ‘or’. Complementizer *kana* bears both usages of ‘whether/if’, similar to ‘whether’ in English (Radford 1988, 2004; Carnie 2013; van Gelderen 2013) and illustrated in (6.2).

6.2.3 Gĩkũyũ complement types

The following are complement types found in Gĩkũyũ (bolded parts): *that*-(*ate*-) clause in (6.1a), subjunctive complement in (6.1b), infinitive in (6.1c), nominal-infinitive (verbal-noun) in (6.1d) and (6.1d’).

- (6.1) a. *Ma-a-ug-ir-ε* ***ate*** ***ma-ko-inok-a*** ***omothe***.
 2-IMPST-say-PFV-FV CLM 2-NRFUT-go.home-FV today
 ‘They said that they will go home today.’
- b. *Ma-r-εnd-a* ***mε-εndi-ε*** ***mo-gonda***.
 2-PRS-want-FV 2-sell-SBJV 3-farm
 ‘They want to sell the farm’ (lit. They want they sell the farm)
- c. *Ma-r-εnd-a* ***ko-εndi-a*** ***mo-gonda***.
 2-PRS-want-FV 15-sell-IND 3-farm
 ‘They want to sell the farm.’
- d. ***Ko-rumana*** ***ko-u*** ***gw-akε*** *ko-r-ɔnani-a* *atea?*
 15-insult-RCP-FV 15-DEM 15-his 15-PRS-show-FV Q
 ‘What does that insulting of his show/indicate?’
- d’. *Ne* *a-a-tho-ir-ε* ***gw-ecɔki-a*** ***ko-u*** ***kw-anyu***.
 AM 1-PRS-hate-PFV-FV 15-grumbling 15-DEM 15-your
 ‘He hates that grumbling of yours’

The complement clause in (6.1a) is introduced by the complementizer *ate*. In (6.1b) the complement of the main clause verb is a non-finite subjunctive clause without tense and aspect. The final vowel *-ε* in the clause is the subjunctive marker. In (6.1c) an infinitive complement can be seen that also lacks person and temporal markers and bears NC 15, which is normally reserved for infinitival units. Although it is possible to add *ate* in (6.1b-c), its function would not be that of a complementizer as in (6.1a), but rather as a discourse particle with pragmatic implications, e.g. to indicate disbelief.

The subject in (6.1d) is a “nominal-infinitive” showing nominal modifications (demonstrative and possessive pronoun). It also shows agreement on the verb through NC 15 marker. In (6.1d') a nominal-infinitive is the complement of the verb.⁴⁴

6.2.4 Classes of complement-taking predicates in Gĩkũyũ

The types of Gĩkũyũ CTP classes presented here are mostly based on Noonan's (2007) typology.

(i) Utterance predicates

Utterance predicates (*uga*, ‘say/report’, *era* ‘tell’, *oria* ‘ask’, etc.) describe transfer information by an agentive subject to an addressee(experiencer), and the complement clause carries the transferred information (Noonan 2007:121). Included here are direct quotations (direct discourse), or indirect quotations (indirect discourse). However, Cristofaro (2003:108) rejects direct discourse as complementation, arguing that direct discourse contains the only original speaker's state of affairs. Nevertheless, because a direct speech unit fills a position that can be occupied by an argument, it is valid to consider it as complementation (cf. Van Valin 2007).

- (6.2) a. *A-ra-ug-ir-ε* (ate) *ne* *a-g-ɔɔk-a* *rociu*.
 1-RCPST-say-PFV-FV CLM AM 1-NRFUT-come-FV tomorrow
 ‘S/he said (that) s/he will come tomorrow.’
- b. *βaβa* *a-r-ɔri-a* *(kana) *mw-ana* *ne* *a-ra-re-a*.
 1.father 1-PRS-ask-FV CLM 1-baby AM 1-PRS-eat-FV
 ‘Father is asking whether/if the baby is eating.’
- c. *N-da-n-ɔig-a* *kana* *ne* *a-go-thɔndek-a*. (Barlow 1951:204)
 1-NEG-TNS-say-FV CLM AM 1-NRFUT-make.it-FV
 ‘He didn't say whether he is going to put (it) right./ ‘He didn't say whether he will repair it.’
- d. *Nd-a-mw-er-ir-ε* *atere* “Oka na *i-timo* *re-aku na* *ngɔ*.”
 1-RMPST-1OM-tell-PFV-FV CLM come COM 5-spear 5-your and 9.shield
 ‘I said to him, “Bring your spear and shield”.’ (Gecaga 1955:112)

Two complementisers *ate* ‘that’ and *kana* ‘whether’ feature in (6.2). The former introduces verbs of saying, telling, reporting, etc., and the latter verbs of asking, wondering, etc. In (6.2c), however, it is used with a verb of saying together with negation. This does not contradict the above point since *ate* can be added before *kana* in (6.2c) without any ungrammaticality.

⁴⁴The notion of “verbal-infinitive” refers to Gĩkũyũ constructions that behave more like English infinitives and “nominal-infinitive” to those that resemble gerunds in English. However, none of them are exactly like English examples. See §6.2.5.1.1 for more details on these “hybrid constructions”.

The question is why there should be two complementizers next to each other, a situation that is not allowed in a language like English, but valid in other languages such as Polish and Dutch (Frajzyngier 1995). It is claimed that *ate* is more than a complementizer, which is why it takes varied syntactic positions, depending on its function in clauses in which it occurs (Kihara forthcoming). Further, whereas *ate* can be omitted in sentences, *kana* is obligatory.

(6.2d) contains a direct discourse unit introduced by *atere*. Note that the clause following the matrix predicate is a clause itself, similar to the ones in (6.2a-c) bearing the assertive particle *ne*. (6.2d) is an imperative and it differs from the declarative in the matrix clause. I consider (6.2d) as subordination akin to complementation.

(ii) *Propositional attitude predicates*

These predicates convey an attitude regarding the truth of the expressed proposition (Noonan 2007:124). The attitude is expressed by positive verbs such as *believe*, *think*, *suppose*, and *assume*, or negative ones such as *not believe*, *doubt*, and *deny*, or *gw-eciria* ‘to think, to assume, to suppose’, *gw-eteekia* ‘to believe’, and *ko-huana* ‘to appear, seem’.

- (6.3) a. *A-ndo me-eciri-ag-i-a ate a-thongo ɔ-ɔthe ne a-tɔngu.*
 2-pepole 2-think-HAB-DC-FV CLM 2-europeans 2-all COP 2-rich
 ‘People assume that all Europeans are rich.’
 b. *Nj-etek-et-i-ε ate nɔ ma-hɔt-ε go-tɛg-a ngware.*
 1sg-believe-PFT-DC-FV CLM MOD 2-be.able-FV 5-catch-FV 10.guinea fowl
 ‘I believe (that) they can catch guinea fowls.’
 c. *Mondo o-ciɔ a-huan-a ta ε-ε-mo-rwaru.*
 1-man 1-DEM 1-seem-FV CLM 1-COP-1OM-be.sick
 ‘That man looks as if /like he is sick.’

Verbs like ‘think’ and ‘believe’ will optionally take the complementizer *ate*, and ‘seem, appear’ can take *ta* or *kae*. The complement clauses in (6.3a-b) are full clauses, but the one in (6.3c) is not and cannot stand on its own, as none can if marked by complementizer *ta*.

(iii) *Pretence predicates*

These predicates use verbs such as *imagine*, *pretend*, *make believe*, *fool (into thinking)*, and *trick (into thinking)*. Guerrero (2004b:288) calls *pretend* a “negative factive”. The state of affairs described by *pretend* predicates is not of the “the real world”, and although it is not indicated in the complement, the state of affairs is taken as hypothetical (Noonan 2007:126). The Gĩkũyũ *pretend*-predicate is equivalent to the verb *-e-tua* ‘make oneself’, whose complement may be a noun or a clause. In (6.4) the state of affairs in the complement is not true – Dani is not crying and he may not be foolish.

- (6.4) *Dani a-r-ε-tu-a ate ne a-ra-rer-a/ ke-rimo.*
 Dani 1-PRS-RFL-make-FV CLM AM 1-PRS-cry-FV/ 7-fool
 ‘Dani is pretending that he is crying/ to be a fool.’

(iv) *Commentative predicates (factives)*

Noonan (2007:127) opts for the term “commentative” instead of the traditional “factive”, because according to him the former is “a general term and characterises the range of predicate

uses”. Commentatives and propositional attitude predicates are similar in that they have human subjects that are experiencers, and they comment on the proposition that has “a form of an emotional reaction or evaluation (*regret, be sorry, be sad*)” (Noonan 2007:127).

- (6.5) *Wanja* $\varepsilon\text{-}\varepsilon\text{rir-ir-}\varepsilon$ *ko-gor-a* *ma-embe* *a-ta-rɔr-et-ε* *wεga*.
 Wanja 1-RMPST-regret-PFV-FV 15-buy-FV 6-mangoes 1-NEG-look-PFT-FV well
 ‘Wanja regretted buying mangoes without looking at them carefully.’

(v) *Predicates of knowledge and acquisition of knowledge*

Predicates of knowledge include *know, discover, realise, find out, forget*, also *dream*, and *see* and *hear*, when not used as immediate perception verbs (Noonan 2007:129).

- (6.6) a. *Ne* *ndɔɔn-a* *ate* *ne* *mo-rek-ir-i-ε* *wera*.
 AM Isg-PRS-see-FV CLM AM 2-IMPST-finish-PFV-DC-FV 14-work
 ‘I have seen that you finished the work.’
 b. *Ne to-ra-meny-ir-ε* *ate* *ne* *wε* *o-r-ɔy-ir-ε* *mbεca*
 AM Ipl-RCPST-know-PFV-FV CLM FM II.IP IIsg-RCPST-take-PFV-FV 10.money
 ‘We discovered/learned that it was you who took the money.’
 c. *Nde-ra-rɔt-ir-ε* *n-ge-go-a* *ke-rima*.
 Isg-RCPST-dream-PFV-FV Isg-SIM-fall-FV 7-hole
 ‘I dreamed falling into a big hole.’

(vi) *Predicates of fearing*

These predicates include *be afraid, fear, worry*, and *be anxious*. The *fear*-predicates can take both finite and non-finite (infinitive) complement clauses. They take infinitive complements “when an ‘equi-relation’ exists between notional subjects” (Noonan 2007:131).

The observations above are valid in Gĩkũyũ as seen in (6.7), albeit with some differences. Noonan also notes that *fear*-predicates have some cross-linguistic “peculiarities”, especially when negation is considered. For instance, in English an affirmative complement clause must be affirmative for it to be interpreted as such. However, in Latin a complement clause has to be negative to be interpreted as positive, and vice versa (Noonan 2007:131). This is also evident in Gĩkũyũ as seen in example (6.7b).

- (6.7) a. *Ne* *nde-r-etiger-a* *ko-inok-a* *nd-e-wiki*.
 AM Isg-PRS-fear-FV 5-go.home-FV Isg-be-alone
 ‘I fear going home alone.’
 b. *Ma-ra-mak-a* *ma-ti-ka-nyit-wɔ/* *ko-nyit-wɔ*.
 2-PRS-afraid-FV 2-NEG-NRFUT-arrest-PASS/ 15-arrest-PASS
 ‘They are afraid of (being arrested) to be arrested/They are fearing being arrested.’
 c. *N-do-r-etiger-a* *ko-gw-a/* *n-do-ka-gw-ε* *ha-u?*
 IIsg-NEG-PRS-fear-FV 15-fall-FV IIsg-NEG-NRFUT-fall-FV 17-there
 ‘You do not fear falling there? / Are you not afraid of falling there?’

The complements in (6.7a) are a verbal-infinitive and a semi-finite core. Examples (6.7b-c) show that a verbal-infinitive is possible, but optional. In (6.7b) the complement core contains a

negation marker that is not reflected in the translation. The clause has an affirmative interpretation comparable to what was noted in Latin above. However, if a matrix unit with negation is linked to an infinitive core in (6.7c), the negation has scope in the linked verbal-infinitive.

It is different when a negated matrix clause is linked to a negated finite clause. In such a union, the negation in the linked unit is null, as negation is marked by the matrix clause. Thus, the second clause in (6.7c) is like (6.7b) because in both the negation marker is redundant. Another “peculiarity” in these examples is that *ne* cannot occur in the complement clauses, even those without a negation marker. This means that the clause/sentence-like complement clause is not possible; therefore, the second units are inherently dependent, as they cannot stand independently.

(vii) *Desiderative predicates*

The desiderative predicates express a desire by the experiencer. An experienced subject expresses a desire that is stated in the complement clause (Noonan 2007). Desiderative predicates include *wish*, *want*, *hope*, and *desire*. Noonan divided them into three classes, the *hope*-class, the *want*-class, and the *wish*-class, noting that languages distinguish the three classes, albeit with some differences. I will illustrate the three classes with an example of each.

- (6.8) a. *To-r-ehək-a* *go-ga-cɔɔk-a* *mw-eri* *o-ciɔ* *o-nge*.
 Ipl-PRS-hope-FV 15-RMFUT-return-FV 3-month 3-DEM 3-other
 ‘We hope to return next month.’
- b. *A-naake* *a-ingə* *ne* *m-erir-ag-er-i-a* *go-thie* *ro-raya*.
 2-youth 2-many AM 2-wish-HAB-APPL-DC-FV 15-go 9.overseas.
 ‘Many youths wish/desire to go overseas.’
- c. *A-ndo* *ma-r-ɛnd-a* *ma-hɛ-ɔ* *ma-wera*.
 2-people 2-PRS-want-FV 2-give-PASS 6-jobs
 ‘People want that they are given jobs.’
- c’ *A-ndo* *ma-r-ɛnd-a* *ko-hɛ-ɔ* *ma-wera*.
 2-people 2-PRS-want-FV 15-give-PASS 6-jobs
 ‘People want to be given jobs.’

Gĩkũyũ desideratives take both infinitive and semi-finite or “reduced” complements (6.8c). Noonan contends that *want*-class predicates takes either the subjunctive or the infinitive, depending on whether the subjects are identical. With identical subjects, an infinitive is used, but with different subjects, a subjunctive is used.

Noonan’s observation does not neatly obtain in (6.8c), since the second unit is not an infinitive, yet identical subjects may be (ambiguously) assumed. The ambiguity of subject interpretation pertains to the second unit. A different situation obtains in (6.8c’) with a verbal-infinitive complement clause, and the subject in the initial clause is assumed for both units.

(viii) *Manipulative predicates*

Manipulative predicates take two forms, simple causative with verbs such as *make*, *force*, *threaten*, *cajole*, *let*, and *persuade*, or some jussive verbs such as *command*, *order*, *request*, and *ask*. (6.9) illustrates two Gĩkũyũ manipulative predicates: *toma* ‘make’ and *thaitha* ‘persuade’.

- (6.9) a. *Ne ma-theena ma-tom-ir-ε ny-εndi-ε ngɔmbε ya-kwa.*
 FM 6-problems 6-make-PFV-FV I-sell-FV 9.cow 9-mine
 ‘It is problems that made me sell my cow.’
- b. *Nyina a-a-thaith-ir-ε mw-ana a-re-ε i-riɔ.*
 1.mother 2-RMPST-persuade-PFV-FV 1-child 1-eat-FV 5.food
 ‘The mother persuaded the child to eat the food.’

The causative verb *toma* ‘make’ shows that the state of affairs (selling the cow) in the complement clause was realized, but the same cannot be said of *thaitha* ‘persuade’ in (6.9b), as it is not clear whether the child ate the food or not after being persuaded to do so.

(ix) *Modal predicates*

Modal predicates involve predicates that express modality i.e. degree of certainty (epistemic), and obligation or permission (deontic). In the discussion of epistemic and deontic modality in §0 and §5.3.2.1, I identified modal verbs such as *hɔta* ‘be able’ and *nɔ* ‘may, can’. Example (3.34) is repeated here as (6.10).

- (6.10) a. *Maina a-hɔt-a ko-nin-a ma-rigo ikomi.*
 Maina 1-MOD-IND 5-finish-FV 6-bananas ten
 ‘Maina may/might finish ten bananas.’
- b. *Maina nɔ a-hɔt-ε ko-nin-a ma-rigo ikomi.*
 Maina MOD 1-be.able-SBJV 15-finish-FV 6-bananas ten
 ‘Maina is able to/can finish ten bananas.’

Both clauses in (6.10) have infinitive cores for complement units. In (6.10a), the speaker’s level of certainty about the complement clause’s event is quite low, compared to that in (6.10b) about the subject’s ability to finish ten bananas, in which the subject’s ability to finish is certain. I noted that examples such as (6.10a) bear epistemic modality and such as (6.10b) deontic modality.

According to Noonan (2007:138) “modal predicates are excellent candidates for clause or lexical union”. In RRG, epistemic modality is a clausal operator and if it is shared between clauses, a cosubordinate union is obtained. In §5.3.2.1 I showed that that these modal predicates have a role in linking core and clausal units.⁴⁵

⁴⁵ Noonan’s (2007) notion of “clause union” is a bit confusing. He uses it to describe “reduced clauses”, a matrix and a complement predicate which share grammatical relations (Noonan 2007:83). He also notes that modal predicates effect clause union, citing English modals such as *can*, *should*, *may*, and *must* (Noonan 2007:138). The second use of the notion of “clause union” is the one I consider relevant for clauses, but I prefer the term “clausal cosubordination” to “clausal union” which may also refer to “nuclear cosubordination” (Van Valin, personal communication), which differs from clausal cosubordination. Lexical union is illustrated with a Turkish morphological affix *-meli* ‘ought’. which is affixed on the verb stem (Noonan 2007:139). The Turkish example illustrates core cosubordination.

(xi) *Achievement predicates*

Achievement predicates exist as positive achievements with verbs such as *remember to*, *happen to*, *manage*, and *chance*, in which the event is realized, and as negative achievements with verbs such as *try*, *forget to*, *fail*, and *avoid*, in which the event is not realized or achieved. I illustrate negative achievements in (6.11a) and positive achievements in (6.11b).

- (6.11) a. *Kirisi ne a-a-riganeirwɔ go-twarithi-a mo-ithikiri.*
 Chris AM 1-RMPST-forget 15-ride-FV 3-bicycle
 ‘Chris forgot (how) to ride/ riding a bicycle.’
 b. *Na o-ririkan-ε ko-hing-a mo-rangɔ o-ki-um-a.*
 and IIsg-remember-FV 15-close-FV 3-door IIsg-SIM-leave-FV
 ‘And you remember to close the door when leaving.’

(xii) *Phasal (aspectual) predicates*

Phasal predicates denote a phase in the development of a state of affairs, expressing a temporal phase of an event, such as its beginning, continuation, or completion. This explains why phasals are equated to “aspect” (see “aspectuals” by Newmeyer 1969 in Noonan 2007:139). In English, “phases” of state of affairs use verbs such as *begin*, *start*, *continue*, *resume*, *finish*, *stop*, and *cease*.

- (6.12) a. *Mbembe ne ci-anj-et-i-ε go-kor-a.*
 10.maize AM 10-start-PFT-FV 15-grow-FV
 ‘The maize has started to grow.’
 b. *Ne ma-a-tig-ir-ε ko-nεgen-a.*
 AM 2-IMPST-stop-PFV-FV 15-make noise-FV
 ‘They stopped making noise.’
 c. *Ma-βundi ne ma-a-reki-a gw-ak-a ki-ugo.*
 2-workmen AM 2-IMPST-finish-FV 15-build-FV 7-shed
 ‘The workmen have finished building the shed.’
 d. *Mo-tumia a-ra-amb-ir-ε go-tig-a go-thuur-a mbembe,*
 1-woman 1-RCPST-start-PFV-FV 15-stop-FV 15-sort-FV 10.maize
a-ny-ɔni-ε njera.
 1-IsgOM-show-FV 9. way
 ‘The woman (first) stopped sorting the maize, to show me the way.’

The examples in (6.12a-c) have *start*, *stop*, and *finish*, respectively, as phasal predicates. (6.12d) contains a predicate meaning ‘cease or interruption’. The stem *-amb-* can be conjugated to mean both ‘first’, and ‘start/begin’. When the ‘begin’ meaning is intended, it takes the suffix *-i* (*amb-i-a*) and in this form it is obligatorily followed by an infinitive without tense and aspect conjugations.

However, when the target is to mean ‘interrupt’, the stem *-amb-* in the matrix clause must have tense and aspect as in (6.12d), but the other units following it need not have these conjugations. In a RRG analysis, (6.12d) shows core cosubordination in the non-finite cores (*go-tiga* and *gothuura*), while the clause is an ad-clausal periphery unit containing reason/purpose intention.

(xiii) *Perception predicates*

Perception predicates convey a speaker's viewpoint of an event. They include: 'see, hear, watch, feel,' etc. Noonan (2007:142-4) calls such predicates 'immediate perception predicates'.

- (6.13) a. *Nde-r-ɔn-ir-ε* *a-ndo* *ma-ke-iy-a* *ma-tunda* *ma-a* *βaβa*.
 Isg-RCPST-see-PFV-FV 1-people 2-SIM-steal-FV 6-fruits 6-POSS 1.father
 'I saw people stealing my father's fruits.'
- b. *Ne to-ra-mo-igu-ir-ε* *hwae* *mo-ke-ari-a* *mw-anere-ir-ε*.
 AM Ipl-RCPST-IIplOM-hear-PFV-FVnight IIpl-SIM-talk-FV IIpl-shout-PFV-FV
 'We heard you last night talking loudly.'
- c. *Nde-ra-igu-ir-ε* *ate* *moka* *ne* *a-a-mo-tig-ir-ε*.
 Isg-RCPST-hear-PFV-FV CLM 1.wife AM 1-RMPST-1OM-leave-PFV-FV
 'I heard that his wife left him.'

The perception predicates in (6.13a-b) indicate that the speaker directly perceived the events mentioned. In such cases dubitative/hearsay *ate* is disallowed because it contradicts direct perception (Kihara forthcoming). Logically, cases of direct perception do not require an indicator of the source of information, because it is "direct evidence", as opposed to (6.13c), which may be hearsay, meaning it is possible for the speaker not to be the source of that information; in such cases *ate* can be allowed as in (6.13d).

(xiv) *Negative predicates*

According to Noonan (2007:144), there are languages that do not mark negation lexically or morphologically. Instead they use a complement predicate to realize negation. The examples in (6.14), repeated from (5.42a & c), show that Gĩkũyũ is one such language.

- (6.14) a. *A-rutwɔ* *ma-ti-kw-end-a* *go-thaiith-wɔ* *ɔna* *hanini*.
 2-students 2-NEG-PRS-deserve-FV 15-soothe-PASS even least
 'Students do not deserve to be soothed at all.'
- b. *A-rutwɔ* *ma-kw-end-a* *kw-ag-a* *go-thaiith-wɔ* *ɔna* *hanini*.
 2-students 2-PRS-deserve-FV 15-fail-FV 15-soothe-PASS even least
 'The students deserve not to be soothed at all.'

Negation in (6.14a) is morphologically marked by *-ti-*. In (6.14b) the complement of verb *enda* 'deserve' is *kw-ag-a* 'to fail', formed from the root verb *aga* 'not/fail to get'. This core (*kwaga*) has a negative role, negating the next core *go-thaiith-wɔ* 'to be soothed'. This happens without a negative marker, primary (main clause) negator *-ti-* or secondary (subordinate) negator *-ta-*.

(xv) *Conjunctive predicates*

Conjunctive predicates bear the meaning of conjunctions such as 'and' and 'and then'. In some languages, for example Lango, such predicates may contain aspect and person markers (Noonan 2007:145). I noted that a core with *-cɔɔka* is conjunctive in (5.44b). (6.15) illustrates this further.

- (6.15) *Ma-a-to-rɔr-ir-ε* *ma-ge-cɔk-a* *ma-ge-thi-e*.
 2-RMPST-IplOM-look-PFV-FV 2-CONS₃-return-FV 2-CONS₃-go-FV
 ‘They looked at us and then they went away.’

Although *-cɔka* as a main verb means ‘to return’ or ‘to come back’, it has none of these senses in (6.15); instead it is a kind of a ‘complex conjunction’. This conjunctive core contains a PA (*ma-*) and a consecutive tense (*-ge-*), but no aspect which is in the initial matrix clause. Both the conjunctive core and the one following it cannot stand alone, whether singularly or as a unit. They need to be associated with the initial matrix clause. This shows that the conjunctive core needs an element to link, and that it is not a clause, hence it cannot exist in isolation.

In the discussion of the typology of complementation in Gĩkũyũ, I mentioned how RRG would analyze some of those constructions. Based on what I have so far presented, I develop a RRG theoretical analysis of subordination, beginning with forms of core subordination and followed by clausal subordination.

The notion of subordination in RRG is re-characterized into two subtypes: daughter subordination and peripheral subordination (Van Valin 2005; 2007). The former leans to complementation and the latter to adverbial subordination, where subordinate junctives such as PP adjuncts and adverb adjuncts are adjunct modifiers. All the layers of the LSC, except the sentential layer, have a periphery, and the subordinate modifiers of these layers occupy a periphery of the concerned layer. For example, an ad-core periphery adjunct modifies a core layer, and it occupies the core periphery. Such an adjunct is part of “ad-core subordination”, since it modifies the matrix core. Adverbial clauses modify clauses and since they occupy the periphery of the clause (clausal periphery), they are called “ad-clausal subordinate clauses”.

Mathiessen & Thompson (1988:280-281) note that, although adverbial clauses are subordinate, they are not embedded like complement clauses, since they are not syntactic elements of a matrix clause. This is the same idea that RRG has in terms of peripheral subordination.

That the adjuncts, ad-core and ad-clausal subordinate units occupy a periphery is additional evidence for their functional similarities. I have shown examples of ad-clausal subordinate adjuncts that are converted into ad-core periphery adjuncts such as (4.16a) and others will be given later in this chapter.

However, ad-clausal subordinate adjuncts differ from ad-core subordinate adjuncts. For instance, ad-core adjuncts express the spatial or temporal settings of a core event, thus they rightly occupy the core periphery, just as PPs do in simple clauses. On the other hand, ad-clausal adjuncts express notions such as reason, condition, and concession of the event expressed in an entire clause. Nevertheless, ad-core adjuncts that encode reason or concession also occupy the clause periphery.

The typology of subordination in Gĩkũyũ based on RRG notions is captured by Figure 6.1. Daughter subordination takes the form of core, clause, sentence, and peripheral subordination exists as ad-core and ad-clausal subordination. I do not show ad-nuclear subordination, though it exists in some languages such as Lakhota (Van Valin 2005:196-197), but it is not found in Gĩkũyũ, and therefore it is not discussed in this study.

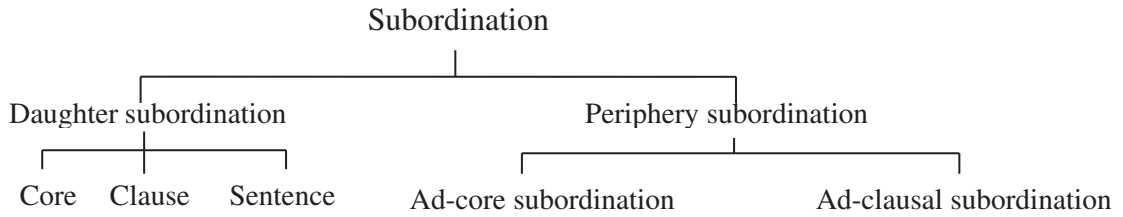


Figure 6.1 Subordination types in RRG.

6.2.5 Core subordination

6.2.5.1 Core (daughter) subordination

Daughter subordination has a subordinate unit as a daughter of a higher node. The higher node may be a sentence (sentential subordination), clause (clausal subordination), or core (core subordination). Complement clauses are examples of core juncture (daughter) subordination, in which an embedded subordinate clause functions as a core argument of a verb in a matrix clause.

- (6.16) a. *Mw-arimo ne ɔ-ɔn-ir-ε ate Wanja ne ε-εk-et-ε*
 1-teacher AM 1.RMPST-see-PFV-FV CLM Wanja AM 1.RMPST-do-PFT-FV
*wera wega.*⁴⁶
 14.work well
 ‘The teacher noticed that Wanja had done the work well.’
- b. *βaβa a-r-ɔri-a kana mw-ana ne a-ra-he-ɔ i-riɔ.*
 1.father 1-PRS-ask-FV CLM 1-baby AM 1-PRS-give-PASS 5-food
 ‘Father is asking whether the baby is being given food.’

Since *ɔna* ‘see’ in (6.16a) is a transitive verb, the second argument position is filled by a complement clause introduced by complementizer *ate* ‘that’. In (6.16b) the complement clause of the predicate *oria* ‘ask’ is a clause introduced by the complementizer *kana* ‘whether’ and it also fills an argument position.

In English, a *that*-clause can function as an “object” argument as in (6.17a), a “subject” argument as in (6.17b), a passivized “subject” as in (6.17c), and the complement clause may be clefted as in (6.17d).

- (6.17) a. The teacher was surprised [that Wanja had done her work well].
 b. [That Wanja had done her work well] surprised the teacher.
 c. [That Wanja had done her work well] was noticed by the teacher.
 d. It was [that Wanja had her work well] that the teacher noticed.

Turning to Gĩkũyũ, while an *ate*-clause can be a core undergoer argument as in (6.16a), example (6.18a) shows that it cannot be a core “subject” argument as it can be in English.

- (6.18) a. **Ate Wanja ne ε-εk-et-ε wera wega ɔ-ɔn-ir-wɔ*
 CLM Wanja AM 1.RMPST-do-PFT-FV 14.work well 1.RMPST-see-PFV-PASS
ne mw-arimo.
 by 1-teacher
 ‘That Wanja had done the work well was seen by the teacher.’

⁴⁶ The PA marker *a-* and the RMPST tense marker *a-* are assimilated by the environment of the vowel *ɔ-* on the verb. The same goes for (6.18). This is also happens with high (mid) back *ũ* [o], and high (mid) front *ĩ* [e].

- b. *Ne ate Wanja ne ε-εk-et-ε wera wεga mwarimo*
 FM CLM Wanja AM 1.RMPST-do-PFT-FV 14.work well 1-teacher
ɔ-ɔn-ir-ε.
 1.RMPST-see-PFV-FV
 ‘It was that Wanja had done the work well that the teacher noticed.’
- c. *Wanja ne ɔ-ɔn-εk-an-ir-ε ate ne*
 Wanja AM 1.RMPST-see-STAT-RCP-PFV-FV CLM AM
ε-εk-et-ε wera wεga.
 1.RMPST-do-PFT-FV 14.work well
 ‘Wanja was seen to have done the work well.’
- c’ *Ne ku-ɔ-ɔn-εk-an-ir-ε ate Wanja ne ε-εk-et-ε*
 AM 15-RMPST-see-STAT-RCP-PFV-FV CLM Wanja AM 1.RMPST-do-PFT-FV
wera wεga.
 14.work well
 ‘It was seen that Wanja had done the work well.’

It is not possible to passivize the *ate* complement clause by the usual passive suffix *-wɔ*, as seen in the ungrammaticality of (6.18a), but it is possible to cleft it in (6.18b), similar to the English example in (6.17d).

The closest that Gĩkũyũ can come to passivizing the *ate*-clause is as in (6.18c) through some morphological verbal derivations.⁴⁷ However, in (6.18c) it is an actor (*mwarimo*) that is suppressed and this is not characteristic of antipassives. Clearly (6.18c) is a kind of “raising-to-subject” construction. Although it has a passive interpretation, regular Gĩkũyũ passives are normally realized by suffixes *-wɔ* or *-iɔ*.

Van Valin (personal communication) brought to my attention that in Romance and Slavic languages, there are two types of passives: one with a past participle (as in English) and another that is formed from reflexive morphology that suppresses the actor. Example (6.18c) appears analogous to the Romance/Slavic type of passive. Lazzarini-Cyrino’s (2014) discusses the enclitic *se* which marks reflexive, anticausative, and passive in Portuguese. He extends the claim to other Romance languages such as Italian, Spanish, and French, and shows similar findings in Slavic languages such as Romanian and Czech.⁴⁸

The other option that can realize a passive is to have an expletive as in (6.18c’) shown by *ku-* (NC 15), where the actor argument is still suppressed with the help of RCP. In this example, the actor cannot even be marked by the preposition ‘by’ in a PP, unlike in (6.18c) where it is optional.

Example (6.16a) is represented in Figure 6.2. The complement clause is a core argument as it takes the position which can be taken by an ordinary RP

⁴⁷ Kihara (2016) showed that the Gĩkũyũ RCP *-an-* has an antipassive function, whereby an indirect argument is deleted, just as an agent RPs are deleted in (6.18c).

⁴⁸ See Centineo (1996) and Bentley (2004) for a RRG analysis of Italian *si*-constructions, and González Vergara (2009) for Spanish *se*-constructions.

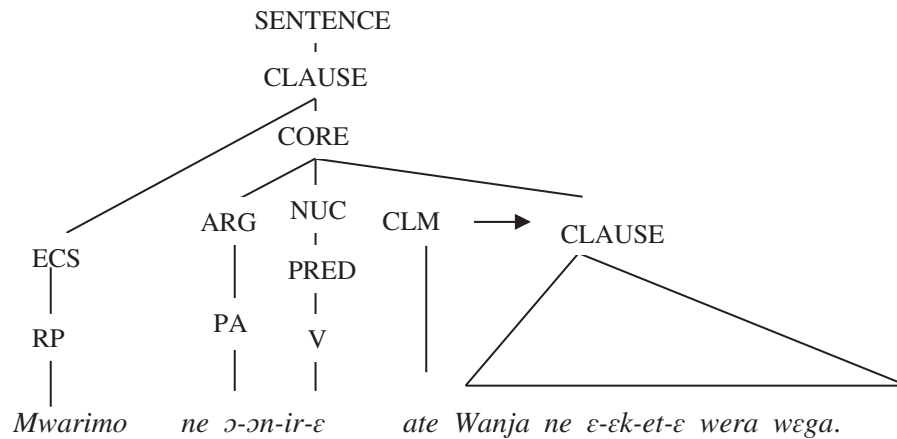


Figure 6.2 Core (daughter) subordination representation of (6.16a)

In (6.19) the complement cores are different from those in (6.16a) as they are not introduced by a complementizer. The complement cores in (6.19) have similar functions as ordinary object RPs would have there. The core in (6.19a) is a past participle, with both person and tense marked, but no aspect. In (6.19b) the linked core contains *-ke-* which makes it a present participial core. This core has its own object argument *rw-embɔ* ‘song’.

- (6.19) a. *Ne nj-igu-ir-ε wa-a-in-a.*
 AM Isg-hear-PFV-FV IIsg-RCPST-sing-FV
 ‘I heard you sing (once).’
 b. *Ne nj-igu-ir-ε o-ke-in-a rw-embɔ.*
 AM Isg-hear-PFV-FV IIsg-PAT-sing-FV 11-song
 ‘I heard you singing a song.’

The examples in (6.19) show that core arguments may be complement clauses introduced by a complementizer *ad* in (6.16a) or reduced constructions such as these ones in (6.19).

Verbal-infinitives, like the other cores above, occupy an argument position as in (6.20) and are therefore a core argument, although they are cores themselves. For this reason, they have been largely regarded as cases of subordination akin to complement clauses (Croft 2001:321).

- (6.20) *ε-kw-εnd-a ko-me-gor-a.* (Barlow 1951:126)
 1-PRS-wish-FV 15-9OM-buy-FV
 ‘He wishes to buy it.’

This example leads us to the discussion of Gĩkũyũ verbal- and nominal-infinitives as forms of core subordination.

6.2.5.1.1 Gĩkũyũ verbal- and nominal-infinitives

Van Valin (2005:190) asserts that *that*-clauses and gerunds are “canonical examples of subordination”. This is slightly more complicated in Gĩkũyũ, and generally in Bantu languages, considering the mixed nature of gerund/infinitive equivalents.

Rose et al. (2002:44) caution that the notion of “infinitive” in European languages does not apply neatly in Bantu languages. The Bantu “infinitives” are not like their English counterparts, as they have nominal and verbal features. For example, they allow nominal modifiers (DEM, POSS) as well as verbal modifiers such as adverbs. Mugane (2003:244) calls

such Gĩkũyũ constructions “infinitive-gerunds”, although he admits that they do not have the properties of both gerunds and infinitives as found in English.

What I am referring to as the “verbal-infinitive” is a construction similar to the English *to*-infinitive that functions as a verb complement and has verbal features. The “nominal-infinitive” is a construction which has more nominal functions, similar to an English gerund. Although these features are used to distinguish these two constructions, they are not watertight as function switching is evident for example in (6.1d’), which is a complement but with nominal features. These are my terms, but in this section I will use them interchangeably with those of other writers.⁴⁹

These Bantu constructions have interesting properties, showing verbal and nominal qualities such as NC15 marking, taking arguments, allowing verbal derivations and nominal modifications. Thus, they are described as a “mixed or hybrid construction” (Bresnan 1997; Mugane 2003). They have also been discussed by Ashton (1944) and De Vos & Riedels (2013) for Kiswahili, Perez (1985) for Gĩkũyũ, Visser (1989) for Xhosa, and Creissels & Goddard (2005) for Tswana.

These mixed constructions have syntactic differences. For example, in Xhosa, a “verbal-infinitive” has verbal conjugations, e.g. negation, aspect, tense, or can be modified by adverbs, and a “gerund” can be a subject, object, or genitive (Visser 1989). Gĩkũyũ hybrids can be arguments; they allow future tense and habitual aspect conjugations, and they also allow modifications such as adjective modification, demonstratives, and adverbs. They further allow verbal derivations such as reflexive, causative, and applicative. Evidence from Xhosa and Gĩkũyũ indicates that these mixed constructions have verbal and nominal qualities.

Considering the conjugations and modifications just mentioned above, the Bantu infinitives are different from those of English. Indeed, Mugane (2003:254) shows that the Gĩkũyũ nominal-infinitive can be modified by adjectives and adverbs, but English gerunds cannot, as shown by Malouf (2000).

In (6.21) the verbal-infinitive shows verbal features such as temporal conjugations (FUT -*ka-*, and habitual aspect -*ag-*) and derivational inflections (reciprocal -*an-* and persistive -*ang-* suffixes) and it allows *kainge* ‘often’ as an adverb, a feature of verbs. In (6.21b) the verbal-infinitive has a reflexive -*e-*, a reversive -*or-*, and a peripheral PP element *meigwa* ‘thorns’ (‘from the thorns’). In other examples such as (6.20) the object is bound inside or it may be a RP object as in (6.1c) and others.

- (6.21) a. *Mw-ahɔt-a go-ka-na-an-an-ang-ag-a na Wamboi kainge.*
 2-MOD-FV 15-RMFUT-TNS-see-RCP-PRSTV-HAB-FV COM Wamboi often .
 ‘You may constantly be seeing each other (in future) with Wamboi.’
 b. *Ma-ra-geri-a ko-e-hat-or-a me-igwa.*
 2-PRS-try-FV 15-RFL-release-REV-FV 4-thorn
 ‘They are trying to release themselves from the thorns.’

Perez (1985:81) compared infinitive and gerunds in English with similar constructions in Shona, Kirundi and Gĩkũyũ; she concluded that these Bantu languages have infinitives but no gerunds,

⁴⁹For Xhosa, Visser (1989:157ff) distinguishes between clausal and nominal infinitives (my verbal and nominal infinitives, respectively).

unlike English which possesses both. However, she showed that Gĩkũyũ is slightly different from the others (Perez 1985:29 fn. 2). I would argue the Bantu constructions differ from those of English rather than say they do not exist.

In (6.22a) a nominal-infinitive is the subject in that clause. Like ordinary lexical RP subjects it occupies the ECS and it is cross-referenced to a PA on the verb. In this case, its function is like that of a gerund in English. The Gĩkũyũ example has nominal modification (demonstrative and possessive) which are not found the verbal infinitive in (6.21), but see (6.1d'). Indeed, the modifiers can be left out but the nominal status is still retained as in (6.22b).

- (6.22) a. *Go-thɔɔm-a ko-u gw-ake go-ti-ra-to-tɛithi-a.*
 15-read-FV 15-DEM 15-his 15-NEG-PRS-IplOM-help-FV
 'That studying/reading of his is not helping us.'
- b. *Go-thɔɔm-a ne ɛ-end-ɛt-ɛ./ Ne ɛ-end-ɛt-ɛ go-thɔɔm-a*
 15-read-FV AM 1-like-PFT-FV/
 'Reading/studying, he likes./ He likes reading/studying.'
- b'. *Ne go-thɔɔma ɛ-end-ɛt-ɛ.*
 FM-15-read-FV 1-like-PFT-FV
 It is reading/studying, he likes/Reading/studying he likes.'
- c. **Ne a-ko-end-ɛt-ɛ.*
 'He likes it (reading/studying).'

Additional evidence that the nominal-infinitive above is a core argument is the fact that it can be fronted for contrastive focus (with *ne*) as in (6.22b') or topicalized (without *ne*) as in (6.22b), just like any other object argument in that position. However, Mugane says that it is not possible to have a nominal-infinitive as a bound object argument (see 6.22c) as with other nouns (see 6.20), although that is debatable.⁵⁰

In English the infinitives of verbs such as *want*, *try*, and *persuade* are not like *that*-complement clauses. To prove this, some syntactic tests are suggested by Van Valin (2005:189-190). These are passivizing an infinitive complement, clefting it, or "promoting" it to a subject argument position. For example, in (6.23) the tests show that in English, the infinitive cannot be passivized (6.23b), or clefted (6.23c).

- (6.23) a. Peter wanted to break the stick.
 b. *To break the stick was wanted by Peter.
 c. *It was to break the stick that Peter wanted.
 (cf. It was the stick that Peter wanted to break.)

The same tests, passivisation, subject argument promotion and *ne*-clefting are tried out in Gĩkũyũ using verb *ko-geria* 'to try' as the matrix in (6.24); this cannot take a noun for an object.

⁵⁰ A question such as (i) may be answered with the verbal infinitive replaced by a bound object pronoun as in (ii).

- a. *Ne o-tho-ir-ɛ ko-negena ko-u gw-aake kw-a ɔɔ mo-thenya?*
 AM IIsg-hate-PFV-F 15-grumbling 15-DEM 15-his 15-of each daily
 'Do you hate that daily grumbling of his?'
- b. *Ee ne nde-go-tho-ir-ɛ monɔ.*
 Yes AM Isg-15OM-hate-PFV-FV very
 'Yes I hate it, very much.'

The verbal complement of the matrix verb is made of verb *-ruga* ‘cook’ with *keki* ‘cake’ as its object argument.

- (6.24) . a. *Muthoni a-ra-geri-a ko-rug-ag-a keki.*
 Muthoni 1-PRS-try-FV 15-cook-HAB-FV 9.cake
 ‘Muthoni is trying to bake a cake.’ (Lit. Muthoni is trying to be baking a cake.)
- b. **Ko-rug-ag-a keki ko-ra-geri-ɔ ne Muthoni.;*
 15-cook-HAB-FV 9.cake 15-PRS-try-PASS by Muthoni
 ‘Baking a cake was tried by Muthoni.’
- c. *Ne ko-rug-ag-a keki Muthoni a-ra-geri-a ko-rug-ag-a.*
 AM 15-cook-HAB-FV 9.cake Muthoni 1-PRS-try-FV 15-cook-HAB-FV
 ‘It is to bake a cake that Muthoni is trying to bake.’
- d. *Ne ko-rug-ag-a Muthoni a-ra-geri-a ko-rug-ag-a keki.*
 AM 15-cook-HAB-FV Muthoni 1-PRS-try-FV 15-cook-HAB-FV 9.cake
 ‘It is to bake a cake that Muthoni is trying to bake.’

(6.24b) shows that it is impossible to passivize the verbal-infinitive and therefore it cannot be a subject argument. Clefting the verbal-infinitive is possible, although it comes with some constraints. In the discussion of focus in §3.3, I showed that to place focus on the verb, the verbal unit must be fronted and *ne*-marked as in (6.24c), and a “copy” of the fronted verb (the one in boldface) must be left in the base core. If the fronted verb carries its object along as in (6.24c), only a “copy” of the verb remains in the base. However, if only the verbal-infinitive is fronted (*ne*-marked), the object argument remains with the “copy verb” as in (6.24d).

This kind of focusing is evidence that the verbal-infinitive has verbal features, and that it has a nominal function in (6.24), since even nouns in the position can be fronted and *ne*-marked or simply fronted as in topicalization.

The tests are not fully operational in Gĩkũyũ, whether for the nominal-infinitive in (6.22) or the verbal-infinitive in (6.24). Passivization and subject promotion tests fail in the examples, but the clefting test works for both constructions. Compared to English where the *try* infinitives do not pass any of the tests, Gĩkũyũ allows clefting. There seems to be a correlation with *that*-complement clauses, since Gĩkũyũ allows *ate*-clauses in object positions, but not in the subject position (see 6.18, also 6.24).

The verb *ko-geria* ‘to try’ always requires a verbal-infinitive complement, and never an ordinary RP argument. However, some verbs such as *ko-enda* ‘want’ can take either a verbal-infinitive complement or a RP, and it may pass more tests than *ko-geria*.

Nevertheless, both verbal- and nominal-infinitives are dependent as they cannot exist on their own, even when with the verbal conjugations (see 6.21a), although they are not introduced by any subordinating conjunction. Since they can be replaced a single RP, they can be clefted and topicalized, which is evidence that they are dependent undergoer core arguments, the same as *ate* complement clauses, with which they share distribution limitations.

6.2.5.1.2 Raising and control in Gĩkũyũ

Related to the above are “matrix-coding constructions” or “raising” constructions (Van Valin 2001). The matrix-coding constructions take two forms: “raising to subject” and “raising to object” (Van Valin 2005:250).

VVLP (1997:562) note that verbs that realize matrix coding as PSA constructions are either intransitive (e.g. *be certain* in English) or atransitive (e.g. *appear, seem*). The predicate *ɲekana* in (6.25) is also atransitive, as it has argument-reducing derivations, reciprocal/passive and stative. Another example is *ko-ekainε* ‘be known/believed’ and *ko-huana* ‘be like, appear, seem’.

Perez (1985) observed that “raising to subject” constructions in Shona, Kirundi, and Gĩkũyũ differ from those of English and other European languages. Notably, Bantu raising verbs permit finite complements but not infinitive ones in Gĩkũyũ (see 6.25b). The complement of the matrix-coding verb *ɲekana* ‘seem’ is not an infinitive as in English, but a finite clause.

- (6.25) a. *Ne ko-r-ɲ-ek-an-a ate Kirici ne a-ra-kor-a narua.*
 AM 17-PRS-be seen-STAT-RCP-FV CLM Chris AM 1-PRS-grow-FV fast
 ‘It seems that Chris is growing fast.’
- b. *Kirici ne a-r-ɲ-ek-an-a ne a-ra-kor-a/ *go-kor-a narua*
 Chris AM 1-PRS-see-STAT-RCP-FV AM 1-PRS-grow-FV 15-grow-FV fast
 ‘Chris seems that he is growing fast’./‘Chris seems to be growing fast.’
- c. *Ne ko-oe-ek-an-in-ε ate Ouma ne ɔ-ɔrag-ir-ε moka.*
 AM 17-know-STAT-RCP-?-FV CLM Ouma AM 1.RMPST-kill-PFV-FV 1.wife
 ‘It is believed/known that Ouma killed the wife.’
- d. *Ne ko-oe-ek-an-in-ε ne Ouma w-ɔ-ɔrag-ir-ε moka.*
 AM 17-know-STAT-RCP-?-FV FM Ouma 1.RSP-RMPST-kill-PFV-FV 1.wife
 ‘It is believed that it was Ouma who killed the wife.’
- e. *Ne ko-oe-ek-an-in-ε moka ɔ-ɔrag-ir-wɔ ne Ouma*
 AM 17-know-STAT-RCP-?-FV 1.wife 1.RMPST-kill-PFV-PASS by Ouma
 ‘It is believed that the wife was killed by Ouma.’

In (6.25a) the subject *Kirici* is in the embedded clause. The matrix unit contains an expletive *ko-* which belongs to NC 17 referring to general location. Bresnan & Kanerva (1989) reject an expletive analysis of *ko-* in Chichewa, and the same may be claimed for some Gĩkũyũ constructions.

In (6.25b) *Kirici* is the “raised subject” in the “matrix-coding as privileged syntactic argument (PSA)” construction or a “matrix-coding-as-subject” construction. Unlike in English, Gĩkũyũ cannot allow an infinitive or even a verbal-infinitive as the complement of the raising predicate as seen in the rejection of *go-kor-a* ‘to grow’ (but see (6.27b) below where another subject-raising construction with *ko-huana* ‘appear/seem’ allows an infinitive complement. However, a semi-finite core such as *a-ge-kor-a* 1-PAT-grow-FV ‘growing’ can be allowed. In the example the PA (NC1 *a-*) are similar in both the initial and second units. The complementizer *ate* is optionally allowed in (6.25b) since the clause is finite. This kind of raising from a finite clause in Bantu is referred to as “Hyper-raising” (Zeller 2006; Carstens & Diercks 2013).

In (6.25c) we find an embedded finite clause introduced by *ate*, in which *Ouma* is the subject and *moka* ‘the wife’, the object. *Ouma* may be raised to a subject position as *Kirici* above. In (6.25d) *Ouma* is the focused subject of the relative clause and *moka* remains the object argument.

(6.25e) is a “matrix-coding-as-object” construction, in which the object argument is raised from its post-verbal object position to a preverbal subject position. This is only possible if

the passive is used to make the undergoer take the actor position and the actor is relegated to an oblique argument. The embedded clause is still finite and nothing prevents the inclusion of the assertive marker *ne* before the predicate.

After this quick overview of subject and object raising in Gĩkũyũ, I will now take a look at related control constructions.

A control construction has a missing syntactic argument, which is normally interpreted as being identical to a matrix core argument (VVLP 1997; Van Valin 2005). Control constructions are part of the constructions that I have been referring to as “non-subordinate constructions” whose feature is a shared semantic argument.

Cutrer (1993) investigated the semantics and syntax of control constructions in English and showed that they can be accounted for by considering the semantics of the matrix predicate, nexus type, and pragmatic factors. These are also relevant considerations in the analysis of control constructions in Gĩkũyũ. A Gĩkũyũ control construction is given in (6.26a). The subject RP *Wamboi* is cross-referenced with the PA *a-* in the core. A different core argument in the linked core is forbidden because the PA is interpreted as the missing argument in the linked core, as shown by the cross-indexed zero-morph. Therefore, this PA is both the “subject” and “controller” in this (subject-controlled) construction.

- (6.26) . a. *Wamboi a-r-ɛnd-a ko-re-a i-ini.*
 Wamboi 1-PRS-want-FV 15-eat-FV 5-liver
 ‘Wamboi wants to eat the liver.’
 b. *Wamboi_i a-r-ɛnd-a (Kamau_j) a_{ij}-re-ɛ i-ini.*
 Wamboi 1-PRS-want-FV (Kamau) 1-eat-FV 5-liver
 ‘Wamboi wants to eat the liver./ Wamboi wants Kamau to eat the liver.’
 c. *Wamboi nda-r-ɛnd-a ko-re-a i-ini.*
 Wamboi 1-NEG-PRS-want-FV 15-eat-FV 5-liver
 ‘Wamboi does not wants to eat the liver.’
 d. *Wamboi_i n-da_i-r-ɛnd-a a_j*_i-re-ɛ i-ini.*
 Wamboi 1-NEG-PRS-want-FV 1-eat-FV 5-liver
 ‘Wamboi does not want him to eat the liver.’

The example in (6.26b) is ambiguous, but without an overt object RP, *Wamboi* is assumed as co-referenced to the PA in the linked core and therefore the subject of the second core, that is, she is the one who *desires* to *eat* the liver.

However, with an overt RP, *Kamau*, the PA in linked core must be cross-referenced with *Kamau*, being the closest argument. While it is possible to introduce a different RP in (6.26b), I noted above that this is forbidden in (6.25a). This is an indication that the constructions are different.

The “different-subject” interpretation is also seen in examples with negation (see (6.26c-d)). Example (6.26c) is like (6.26a) because *Wamboi* is the subject in both units. The negation denies that Wamboi wants to eat the liver; no other argument may be assumed as the one being denied. On the other hand, in (6.26d) *Wamboi* cannot be the subject of the second core; it is another RP argument that is cross-referenced with the PA.

The different possibilities above have a bearing on the kind of nexus relations there are. Constructions with shared arguments (as (6.26a) and (6.26c)) are non-subordinate constructions – they may be coordinate or cosubordinate, but not subordinate. Both (6.26a) and (6.26c) are

identical except that the latter contains negation. In terms of juncture–nexus type, both are core cosubordinate constructions. The presence of negation in one does not affect the juncture-nexus type of the other.

Example (6.26b) is a core coordinate construction because it is not an obligatory control construction such as (6.25b). This follows from the presence of a PA in the second core which makes the linkage looser than that in (6.26a) and (6.26c).

In place of “subject” and “object” notions, RRG uses the notions of “pivot” or “controller”, or “privileged syntactic argument” (PSA), all which are closely related. The last three notions have been variously mentioned in this dissertation, but they have not been elaborated, and I do not intend to do so now (see VVLP 1997: Chapter 6); Van Valin 2005: Chapter 4), and Van Valin 2009 for a detailed discussion of these notions).⁵¹

Controllers can trigger cross-reference (verb agreement) and help in the determination of a missing argument in a linked unit, and pivots are the missing arguments in a linked core. Based on the above, in (6.26a) *Wamboi a-* is the controller-PSA in that it defines the argument cross-reference on the predicate *enda* ‘want’ and it has the “privileged role” of determining the “missing” argument in the linked core. The missing argument in the second core is the pivot. Thus, in (6.26a), *Wamboi* is a “double controller”, controlling cross-reference and helping in the interpretation of the missing argument. Although the pivot is the missing argument, it should be thought of as excluding an overt PA which is controlled by a higher controller as in (6.26b).

In Gĩkũyũ, verbs such as *ko-geria* ‘to try’ only allow an infinitive complement as in (6.24), while some raising verbs such as *onekana* ‘seem’, do not take an infinitive unit, illustrated in (6.25b). However, another raising verb, *ko-huana* ‘to appear/seem’, only allows an infinitive complement, as example (6.27) shows. In (6.27), the raising verb, *ko-huana* and *go-kɔrwɔ* ‘to be’ form a ‘compound tense’.⁵² Without *kɔrwɔ*, the matrix verb takes *ko-rwara* ‘to become sick’ as complement, which means it will happen in the future; but with *go-kɔrwɔ*, it is interpreted as the present/existing situation.

(6.27) *Mw-ana* *a-huan-a* *go-kɔrwɔ* *a-re* *mo-rwaru/* *ko-rwara*.
 1-child 1-seem-FV 15-be 1-COP 1-sick / 15-become sick
 ‘The child seems to be sick.’

Both Perez (1985) and Visser (1989) propose that a phonologically empty pronominal (PRO) is a subject in infinitive clauses in Gĩkũyũ and Xhosa, respectively. They regarded PRO as both a pronominal and an anaphor with person, gender, and number. In my analysis the overt person-marker is a cross-reference PA, which is a core argument, and no PRO is assumed. Perez does not distinguish between missing and overt arguments, opting to see both of them as PRO, one being null and the other overt. There is a marked difference when the argument of the linked

⁵¹ The PSA is somewhat comparable to the notion of “subject”, but PSA is a construction-specific notion, unlike “subject” which is a property of grammar (Van Valin 2009:46). Controller and pivot can be subsumed in the PSA.

⁵² Mugane (1997b:124) calls *kɔrwɔ* ‘be’ a “tense and aspect/modality complex”, which occurs in a “compound tense construction”. Although interpreted as ‘be’, *kɔrwɔ* differs from ordinary copulas because it takes tense and aspectual markings. For example copula *-re* in (6.27) can only have a PA marker, but *kɔrwɔ* takes various aspect suffixes as shown by Mugane (1997b:124-140). It might be reasonable to analyze it as an auxiliary considering the following example: *A-ga-kɔrwɔ a-re mo-rwaru*. 1-RMFUT-be 1-COP 1-sick ‘He will have been sick.’ This *kɔrwɔ* is always used together with *-re*, and never alone. Other *kɔrwɔ* particles are used as modals (see (3.35)) or as conditional markers.

core is there or missing, as seen in (6.26); therefore, the presence or absence of arguments should not be ignored.

In (6.26b) I noted that an overt PA in the linked core makes it a coordinate construction, but without one (e.g. in (6.26a)), it has a cosubordinate interpretation. It is therefore impossible to adopt Visser's or Perez's argument that PRO is present in both cases, as this ignores the very clear semantic differences. In any case, RRG does not postulate phonologically null elements, thus no PRO is postulated and the prefix arguments are assumed as core arguments, different from a missing argument. I would also not assume an "abstract complementizer" in such constructions as suggested by Parodi & Quicoli (2013:334).

The theory of obligatory control (VLP 1997:544) states that causative and jussive verbs have undergoer control and all other M(-actor)-transitive verbs have actor control. The causative example in (6.28a) below attests this theory in Gĩkũyũ. In (6.28a) the undergoer (-ny-IsgOM) is the controlling argument of the linked core. There cannot be a different interpretation, and nothing is allowed between the matrix unit and the linked core.

Control properties are also evident in other types of constructions such as purposes constructions (see 6.28b). Semi-finite verbal-infinitive cores serve as purpose complements in Bantu languages such as Tswana, Xhosa, and Gĩkũyũ. It is the intrinsic meaning of the matrix verb that determines the form of the complement, for example "infinitival" purposive or otherwise. In Xhosa, applied matrix verbs subcategorize for "infinitival" complements (Visser 1989:173). In Gĩkũyũ, a purpose clause is not a complement of an applicative verb as it is in Xhosa (see 6.28b).

- (6.28) a. *Kamau a-ra-ny-ɔn-i-a* *ko-rem-a* *na* *ka-mote*.
 Kamau 1-PRS-IsgOM-see-CAUS-FV 15-cultivate-FV COM 12-stick
 'Kamau is showing me to plough with a stick.'
- b. *A-inok-a* *tɛnɛ* (*)*neguɔ* *go-thambi-a* *nyomba / a-thambi-ɛ* *nyomba*.
 1-go.home-FV early CLM 15-wash-FV 9.house / 1-wash-FV 9.house
 'He has gone home early to clean the house'
- c. *Nd-a-mu-ɔn-ir-ɛ* *a-kuu-et-ɛ* *ngo*.
 Isg-RMPST-1OM-PFV-FV 1-carry-PFT-FV 10.firewood
 'I saw her carrying firewood.'
- (Barlow 1951:136)

The matrix predicate in (6.28b) has two possible complements, a verbal-infinitive and a subjunctive clause. The verbal-infinitive purpose core prohibits a reason subordinator such as *neguɔ* 'so that/in order that', whereas a semi-finite subjunctive core allows it. This is evidence that the subjunctive is subordinate but the verbal-infinitive core is not.

The infinitive purpose unit cannot be preposed, but the subjunctive clause with *neguɔ* can be preposed; therefore, it can be called a "rationale clause", as used by Cutrer (1993:175) and originally from Bach (1982). Such a rationale clause is analyzed as clausal subordination in RRG and the purpose clause is a core cosubordinate unit, so tight that it resists anything between the cores.

Another example of a non-embedded subordinate complement similar to the verbal-infinitive is the second unit in (6.28c). Barlow (1951:134-135) notes that *et-ɛ* (his "perfect tense", but my perfect aspect) is commonly found in subordinate clauses, and should be

interpreted as the English simple past, progressive tense or as a participle. In (6.28c) the bound object pronoun *-mu-* is the controlling argument in the linked core, as shown by the co-indexing.

In conclusion, I note that although the Gĩkũyũ raising and control constructions are not deeply analyzed in this study, it is evident that RRG's syntactic-semantic approach to these constructions is quite revealing, and a more focused study is required. It emerged that that Gĩkũyũ infinitive-like control constructions are cases of cosubordination, not subordination. In addition to the failure of infinitives in the syntactic tests and here below I add other reasons for their non-subordinate nature.

One, like consecutives, the infinitive-control constructions are resistant to clause order restrictions, therefore they cannot be subject core arguments. Two, like consecutives they are desententialized/deranked, lacking inflections such aspect and any form of tense marking, and are therefore dependent on the matrix core for their expression, thereby effecting clausal cosubordination. Three, a sentence such as (6.27b) shows shared epistemic features through *go-korwə*, analyzable as an auxiliary, and this is clausal cosubordination. Lastly, it is already established in non-subordinate relations that arguments are shared.

6.2.5.2 Ad-core (periphery) subordination

Temporal and locative PPs occupy a core periphery position on the LSC (see 6.29), and because ad-core subordinate adjuncts may be temporal or locative, they should also occupy the core periphery in the LSC (see 6.30).

- (6.29) a. *Wanjohi ɔ-ɔn-ir-ε mo-rio thutha wa nyomba /miitha.*
 Wanjohi 1-RMPST-see-PFV-FV 1-son after of 9.house /9.mass
 'Wanjohi saw his son behind the house / after mass.'
 b. [CLAUSE[_{CORE} *Wanjohi[ɔ-ɔn-ir-εmo-rio* [_{PERIPHERY} *thutha wa nyomba/miitha*]]]]

be-behind' (nyomba,[**see'** (Wanjohi, morio)]), **be-after'** (miitha, [**see'** (Wanjohi, morio)])

The temporal core adjunct with *mberε* 'before' requires the preposition *ya* 'of' as seen in (6.30). In (6.30b) the temporal 'before'-sense is indicated morphologically by a *-ta-*, considered a negation marker in subordinate clauses, without which the unit will still have a temporal meaning.

- (6.30) a. *To-geith-ir-i-ε tata mberε ya ko-inger-a kanitha.*
 Ipl-RCPST-greet-PFV-DC-FV 1.aunt before of 15-enter-FV 9.church
 'We greeted auntie before (our/her) entering the church.'
 b. *To-geith-ir-i-ε tata a-ta-na-iinger-a kanitha.*
 Ipl-RCPST-greet-PFV-DC-FV 1.aunt 1-NEG-TNS-enter-FV 9.church
 'We greeted auntie before she entered the church.'

In (6.30a) the interpretation of the controlling argument in the linked core is ambiguous. It can refer to 'we' or 'auntie', but the most natural reading is that the matrix core actor is also the controller in the linked core. In (6.30b) the reference of the PA unambiguously refers to 'auntie'. The adjunct may also be *a-ta-iinger-et-ε* 'before she entered/entering', where perfect aspect is

introduced, getting rid of the prefix *-na-*. This prefix seems incompatible with aspect, indicating that it has more to do with aspect than with tense. It is a chronological marker of ‘before’.

Whereas the core adjunct in (6.30a) can be preposed, the linked core in (6.30b) cannot, unless additional syntactic interventions such as having *tata* as a detached unit with a resumptive argument in the matrix unit. Such a preposed core will also be in a detached position and this can no longer be ad-core subordination. This shows that it is more closely linked to the core than the ‘before’ adjunct (*mbere*). As it is, (6.30b) is not a type of ad-core subordination, since it cannot be preposed. It belongs to a different nexus-juncture relation (clausal cosubordination) in which preposing of constituent elements is only marginally allowed, and in which there is evidence that temporal properties in the construction are shared.

Example (6.31a) has an anterior temporal preposition *thutha* ‘after’ and although (6.31b) lacks a temporal subordinator, the second unit is a temporal adjunct with an analogous meaning to that in (6.31a), and both adjuncts can be preposed, as shown for (6.31a) in (6.31d).

- (6.31) a. *Maina a-ak-ir-ε nyomba thutha wa ko-gor-a ke-εya.*
Maina 1-RMPST-build-PFV-FV 9.house after of 15-buy-FV 7-plot
‘Maina built a house after buying a plot.’
- b. *Maina a-ak-ir-ε nyomba a-a-gor-a ke-εya.*
Maina 1-RMPST-build-PFV-FV 9.house 1-CONS-buy-FV 7-plot
‘Maina built a house after he bought a plot.’
- c. *Thutha wa ko-gor-a ke-εya Maina a-ak-ir-ε nyomba*
after of 15-buy-FV 7-plot Maina 1-RMPST-build-PFV-FV 9.house
‘After buying a plot, Maina built a house.’
- d. [CLAUSE [CORE *Maina a-ak-ir-ε nyomba* [PERIPHERY *thutha wa ko-gor-a ke-εya*]]]

The temporal preposition *thutha* ‘after’ in (6.31a) obligatorily takes *wa* ‘of’ and the complement unit must be a reduced infinitival core. This is similar to ‘after’ in the English clause *Peter drank some juice after eating the roll*. The Gĩkũyũ example is equivalent to the English gerund (*after eating the roll*). I note that in Gĩkũyũ such subordinate ad-cores are reduced cores and sometimes will or not have person markers, tense, or aspect, meaning that the core is a gerund.

However, the preposition *thutha* cannot have a finite clausal complement as in English; in ‘Maina built a house **after he bought a plot**’, *thutha* only allows a nominal-infinitive core, which looks like an English gerund. Example (6.31c) represents both (6.31a) and (6.31b) since the adjuncts in both examples are in the core periphery positions.

In (6.32a) the copula *ne* is the main predicate, and the temporal unit headed by the preposition *kuuma* ‘from/since’ is a left-detached element, which could also be displaced to the right-detached position to get the reading: ‘It is ten years from that time till now’.

- (6.32) a. *Kuuma hende eɔ nginya reu ne me-aka i-komi.*
from time DEM till now COP 3-years ten
‘From that time till now, it is ten years.’ (Gecaga 1955:73)
- b. *Na-ci-ɔ ci-ana ci-ito, Ngai o-ci-giter-ε kumana na*
and-8.IP 8-children 8-POSS God 1-8OM-protect-FV from ?
ma-ondo ma-rea m-ɔɔthe m-ɔɔru.
6.thing 6-RLPRN 6-all 6-bad
‘And as for our children, God protect them from all things that are bad.’

- c. [_{LDP}Nacio ciana ciito, [_{CORE}Ngai ocigiterε [_{PP}kumana na [_{RP} maondo marea moothe mōoru]]]].

In (6.32b) a PP appears as an optional oblique core argument. Therefore, it cannot be a case of ad-core subordination, since it is a core argument. On the left is a left-detached unit represented in the verb by a bound pronoun (*-ci-*, 8OM); example (6.32b) is represented in (6.32c). I have not glossed the morpheme *na* here – usually it has a conjunctive/comitative function, but here I am not certain of its function, other than that it must follow the preposition *kumana* ‘from’. The temporal unit in (6.32a), is a L/RDP unit effecting sentential subordination in the construction.

The order of ad-core and ad-clausal subordinate units is illustrated in (6.33). In (6.33a) the temporal ad-core subordinate unit modifies the core event, and the ad-clausal reason clause follows it. The meaning is that auntie gave *Maina* a banana before they got into the car, for the reason that *Maina* had become hungry. The order of subordinate units is changed in (6.33b), with the reason-clause preceding the temporal unit. This completely changes the original meaning. It now means that *Maina* got hungry before getting in to the car, which is different from the original meaning, because the temporal unit was meant to modify the giving event in the matrix unit. This is an indication that ad-core subordinate units are meant to modify an event in the matrix clause, and ad-clausals are external to them, in order to modify the clause.

- (6.33) a. *Tata a-a-he-ir-ε Maina_i i-rigo mberε ya ko-inger-a ngaari*
 1.aunt 1-RMPST-give-PFV-FV Maina 5-banana before of 15-enter-FV 9.car
tōndu ne a_i-a-hooti-e.
 CLM AM 1-RMPST-hungry-FV
 ‘Auntie gave Maina a banana before getting into the car because he was hungry.’
 b. *Tata a-a-he-ir-ε Maina_i i-rigo tōndu ne a_i-a-hooti-e mberε ya ko-inger-a ngaari*
 ‘Auntie gave Maina a banana because he was hungry before getting into the car.’

To sum up this section, I have shown that ad-core subordination in Gĩkũyũ is generally indicated by temporal prepositional phrases and semi-finite temporal adjuncts. A temporal preposition or PP cannot have a finite clause for a core complement, similar to English. I have also shown that the ad-core subordinate unit precedes that of the ad-clausal subordination.

6.2.6 Clausal subordination

Clausal subordination focuses mainly on adverbial clauses which form part of the subordinate part of a clause. In this section I present a typology of Gĩkũyũ adverbial clauses, followed by an RRG analysis.

6.2.7 Types of ad-clausal subordination

Generative linguists have rekindled their interest in adverbial clauses in the recent past, especially because of their syntactic distribution (Haegeman 2012). But it is not only generativists that have renewed their interests in adverbial clauses, as can be seen in output of literature on adverbial clauses in recent years. However, this interest has yet to make the jump to Bantu linguistics.

Cross-linguistically, an adverbial clause is characterized by subordinating conjunctions, special verb forms, and word order (Thompson et.al 2007:238). These devices hold in Gĩkũyũ. Gĩkũyũ has these “special verb form” adverbial clauses, which have no subordinator, and they take specific positions. These kinds of adverbial clauses realize hypotactic subordinate relation (see Lehmann 1988; Palancar 2012).

The discussion of adverbial clause shed more light on the juncture-nexus types introduced in chapter 4. The kind of linkage types between units will show both the semantic and syntactic sides of the constructions.

i. Temporal relations

Temporal clauses or relations exist as temporal posteriority (‘before p, q ; p follows q ’), temporal anteriority (‘after p, q ; p precedes q in time), immediate anteriority (as soon as p, q) temporal overlap (‘when p, q ’), simultaneous durative (‘while p, q ’), temporal co-extensiveness (‘as long as p, q ’), and *terminus ad quem* (‘until p, q ’) (Kortmann 1997:84-85); see also Cristofaro (2003:156) and Hetterle (2015:3).

Some of these relations are also found in Gĩkũyũ and they will be illustrated in this section, beginning with the temporal overlap interclausal relation in (6.34).⁵³

- (6.34) a. *Rerea* *ɔ-ɔn-ir-ε* *mbeca,* *ke-ndo* *ke-a* *mbεere*
 when 1-RMPST-see-PFV-FV 10.money 7-thing 7-of first
 a-a-gor-ir-ε *ne* *ngaari.*
 1-RMPST-buy-PFV-FV COP 9.car
 ‘When/once he got money, the first thing he bought was a car.’
- b. *Mu-ɔ-ɔk-a* *mo-nj-et-ε.*
 Ipl-NRFUT-come-FV Ipl-IsgOM-call-FV
 ‘When you come, (you) call me.’

The temporal adverbial *rerea* ‘when’ marks the adverbial clause in (6.34a). The adverbial clause is not fixed, as it can be extraposed to the end of the sentence or before the copula *ne* to read: ‘The first thing he bought, when he got money, was a car’. On the other hand, (6.34b) has no temporal subordinate marker, although it has temporal meaning and like in (6.34a), the linked unit can be preposed or post-posed. The examples in (6.34) exemplify both *when*-relation and *after*-relation meanings. In (6.34a), the state of affairs of buying a car happened after the subject got the money, just like that of event calling/waking him that happens after the coming.

While a consecutive clause cannot be preposed, (6.35a) is not constrained because together with the consecutive tense, it also contains a TEMP *-ke-* prefix that indicates temporal adverbial clauses (see §5.3.3.1.1). As for (6.35b), the matrix clause is separated from the rest of the text by a pause. However, it is not possible to prepose the entire temporal clause, probably due to the “weight”. However, in (6.35c), made from (6.35b), the adjunct unit linked to the matrix clause can be preposed, showing that it is an adjunct. The difference between the two is: (6.35a) is anterior (before) and (6.35b) is posterior (after); while (6.35c) indicates hypotactic subordination through juxtaposition.

⁵³ The discussion of simultaneous constructions in chapter 5 showed them as dependent, but they may not all be cases of adverbial subordination like “converbs” (see Haspelmath 1985; Hetterle 2015).

- (6.35) a. *Ne a-go-ikar-ang-a a-ge-ka-inok-a.*
 AM 1-NRFUT-stay-PRSTV-FV 1-TEMP-CONS₁-go.home-FV
 ‘He will stay longer before he goes home.’
- b. *Ne nd-a-maak-a monɔ monɔ nd-a-igu-a ate a-ndo*
 AM Isg-IMPST-surprise-FV very very Isg-IMPST-hear-FV CLM 2-people
mɔ-ig-ag-a a-tumia ma-ti-re ko-ro-a ma-a-ro-ir-ε
 2-say-HAB-FV 2-women 2-NEG-COP 15-fight-FV 2-RMPST-fight-PFV-FV
mbara-ine ya Mau Mau.
 9.war-LOC ASSOC *Mau Mau*
 ‘I was very, very surprised, when I heard that people say women did not fight in the
Mau Mau war.’ (Mūtiiri 4:18)
- c. *Ne nd-a-maak-a monɔ monɔ nd-a-igu-a orea a-ndo*
 AM Isg-IMPST-surprise-FV very very Isg-IMPST-hear-FV what 2-people
mɔ-ig-ag-a.
 2-say-HAB-FV
 ‘I was very, very surprised, when I heard what people say.’

The sentences in (6.36) show ‘temporal posteriority’ or *before*-relations, and all the second units can be pre-posed. In (6.37a) it is the subordinate negation prefix *-ta-* and preifx *-na-* that together realize the posterior *before*-sense. Thompson et al. (2007:247-49) contends that the *before*-clauses are “conceptually negative from the point of view of the main clause event”, citing also evidence in Mandarin, Lakhota, and Turkish. Hetterle (2015:136) also says that negative polarity is “part of the constructional property of the *before*-clause”; the examples in (6.36) support the claims above.

- (6.36) a. *Amba w-e-thamb-ε m-ɔɔkɔ o-ta-na-re-a.*
 First Isg-RFL-wash-FV 2-hands- Isg-NEG-TNS-eat-FV
 ‘First wash your hands before you eat.’
- b. *Mbεεε ya o-re-ε w-e-thamb-ε m-ɔɔkɔ*
 before of Isg-eat-FV Isg-RFL-wash-FV 2-hands
 ‘Before you eat wash your hands.’
- c. *N-yu-ag-a o-cooro o-yo kamoira nd-uug-ε.*
 Isg-drink-PROG-FV 14-porridge 14-DEM CLM Isg-cook-FV.
 ‘Be drinking this porridge before/while I cook (something).’

In (6.36b), the preposition *mbεεε* ‘(in) front or before’ is used, the same as *thutha* ‘behind or after’ to indicate temporality. In (6.36c) *kamoira* (also *moira*) carries a ‘before’ sense, although it also means ‘while, until’ according to (Barlow (1951:204). The event of ‘drinking’ happens before that of ‘cooking’. The temporal anteriority, ‘*after*-relation’, encodes an event that happens after a prior one as in (6.37).

- (6.37) a. *Ne ko-ra-ur-ir-ε ma-a-kiny-a ge-cagi.*
 AM 16-RCPST-rain-PFV-FV 2-CONS-arrive-FV 7-village
 ‘It rained after they arrived at the village.’

- b. *Ma-a-kiny-a* *ge-cagi* *ne* *ko-ra-ur-ir-ε*.
 2-CONS-arrive-FV 7-village AM 16-RCPST-rain-PFV-FV
 ‘After they arrived at the village, it rained.’

In (6.37a), the state of affairs of ‘raining’ occurred after the subject’s arrival at the village, and the anterior sense is coded by the linked semi-finite core. If the temporal adjunct, *ma-a-kiny-a ge-cagi* is preposed as in (6.37b) a focal element *ne-guɔ* FM-then ‘it is then’ may or may not be added. Nevertheless, this adjunct temporal unit remains a detached unit with or without *ne-guɔ*. However, with *ne-guɔ* the adjunct is a detached unit with a resumptive element, because *guɔ* ‘then’ will be referring back to the “time” in the adjunct, while *ne* is the FM, and therefore *ne-guɔ* will be in the PrCS. If the matrix clause did not have the AM *ne*, then *ne-guɔ* or *ne* is obligatory if the adjunct unit is preposed, but both cannot co-occur in the same clause. As (6.37b) shows, *ne-guɔ* is not needed.

Note that the preposed adjunct contains CONS₄ (-a-, IMPST tense), yet it is preposed, which would not happen with consecutives -ke-, -ka-. This is further evidence that the CONS that are also absolute tenses (-a-, -ra-) have lesser restrictions than the “true” CONS (-ke-, -ka-).

Although the examples in (6.38) lack temporal subordinators, some temporal constituents in them may be preposed. In (6.38a) a temporal clause follows the subject topic, although nothing prevents it from being preposed (detached unit), or after the matrix clause, or even at the final sentence. This unit has three possible positions: initial, its current position, and at the end of the matrix clause, before *ko-igw-a*.

- (6.38) a. *Gukai,* *a-ke-ari-a* *ni-d-ε-end-ag-a* *ko-igw-a*
 1-grandfather 1-TEMP-talk-FV 1-NEG-RMPST-like-HAB-FV 15-hear-FV
mo-ndo_j *a_j-ke-mo_i-karari-a.*
 1-person 1-PAT-1OM-dispute-FV
 ‘Grandfather , when he was talking, he did not like to hear anyone disagreeing with him.’
- b. *To-ge-kiny-a,* *ne* *ma-a-rek-et-i-ε* *wera* *w-ɔthe.*
 1pl-TEMP-arrive-FV AM 2-RMPST-finish-PFT-DC-FV 14.work 14-all
 ‘When (by the time) we arrived, they had finished all the work.’
- c. *Ne ma-a-rek-et-i-εwera w-ɔthe, to-ge-kiny-a.*
 ‘They had finished all the work, by the time we arrived.

In (6.38b) the temporal adjunct stands in the LDP, separated from the matrix clause is ‘*They had finished all the work*’. It is also possible to have it in the RDP as in (6.38c). The temporal adjunct as it cannot be inside the assertive marker *ne*, and therefore it is outside the clause.

In (6.38b) the temporal adjunct stands in the LDP, separated from the matrix clause ‘*They had finished all the work*’. It is also possible to have it in the RDP as in (6.38c). The temporal adjunct as it is cannot be inside the assertive marker *ne*, and therefore it is outside the clause.

Sentence (6.39) contains an *until*-temporal clause with subordinator *kinya/nginya* ‘until, up to’, which effects a terminus ad quem relation. It marks an end point of the ‘crying’ event in the matrix unit, and the realized or “reached” end point event, “falling asleep”. A feature of (6.39) is that the linked unit cannot be fronted since the events are logically successive.

- (6.39) *Ka-ana ka-a-rer-ir-ε kinya ga-ge-kɔm-a.*
 12-baby 12-RMPST-cry-PFV-FV until 12-CONS₃-sleep-FV
 ‘The baby cried until it fell asleep.’

ii. *Reason and purpose relations*

In a reason relation, a dependent event is the “reason” for the occurrence of the main core event. I discuss reason and purpose relations combined, although I showed that infinitival purpose units belong to a different juncture-nexus (see 6.28b). Guerrero (2011) notes that purposes clauses are considered part of adverbial clauses. She claims that purpose clauses are related semantically to consequential (reason and causal) and sequential clauses.

Although purpose clauses have subordinate meaning, they lack some subordinate features such as those of preposing common with adverbial subordinate clauses. Therefore, they must belong to a different linkage relation, and I have already said they are cosubordinate, rather than subordinate. However, because of the semantic relation they have with reason adverbial clauses, they are discussed together.

Reason relations use the *reason*-linkers *tɔndo* and *ne ondo*, both meaning ‘because’; although particle *ne* alone can indicate reason (see 6.40c). The subordinators *tɔndo* and *ondo* differ in that *tɔndo* is optionally preceded, but obligatorily followed by *ne* ((*ne*) *tɔndo* *ne*) and *ondo* is obligatorily preceded and obligatorily followed by *ne* (*ne ondo ne*) if the *reason* clause is finite. If it is not finite, e.g. the *reason* core in (6.40c), *ne ondo wa* ‘because of’, is used.

- (6.40) a. *Mo-rutani ne a-a-hor-ir-ε mo-rutwɔi ne tɔndo ne*
 1-teacher AM 1-RMPST-beat-PFV-FV 1-student FM because AM
a-a_i-go-ir-ε ke-geriɔ.
 1-RMPST-fail-PFV-FV 7-exam
 ‘The teacher beat the student because s/he failed the exam.’
 b. *Ne tɔndo ne a_i-go-ir-ε ke-geriɔ, mo-rutani ne a-a-hor-ir-ε mo-rutwɔi*
 ‘Because he failed the exam, the teacher beat the student.’
 c. *Mo-rutani a-a-hor-ir-ε mo-rutwɔ ne ko-gwa ke-geriɔ.*
 1-teacher 1-RMPST-beat-PFV-FV 1-student CLM 15-fail 7-exam
 ‘The teacher beat the student for failing the exam.’
 d. *Mo-rutani a-a-hor-e-ir-ε mo-rutwɔ ko-gwa ke-geriɔ.*
 1-teacher 1-RMPST-beat-APPL-PFV-FV 1-student 15-fail 7-exam
 ‘The teacher beat the student for failing the exam.’

The subordinate clause in (6.40a) can be pre-posed to be like (6.40b). However, this is only possible when the matrix clause contains assertive *ne*, without it the construction sounds odd. Another possibility thought not illustrated, is that pre-posing allows the undergoer *mo-rutwɔ* to have a bound pronoun in the matrix predicate, since the PA co-referenced with that in the pre-posed clause.

In (6.40c) a verbal-infinitive core realises the *reason* relation. For it to be pre-posed it requires to be attached to *ne ondo wa* or *ne tɔndo wa* ‘because of’. The *reason*-relation can also be indicated by an applicative (cf. 6.40d), but such applicative *reason*-cores, do not occur with *ne*, and the applicative cannot have a *reason*-clause as explained below.

Applicativization is a valence-altering process that adds an argument. It is plausible to argue that the *reason* core *ko-gwa ke-gerio* “failing exam” is the added argument, considering it a subjectless gerund of the English type. Additional support comes from above where I have said that for the reason phrase to be preposed, it takes *ne ondo wa* and prepositions normally often take nominal arguments. This may seem to contradict earlier distinctions of verbal-nominal infinitives, it is not the case, since the *reason* phrase remains a nominal-infinitive.

In (6.41a) the complement clause introduced by *ate* contains a temporal core adjunct in the core periphery. In (6.41b) the ad-core subordinate adjunct is preposed to a clause-initial position. In this position the ad-core unit can take the particle *ne* but not while in its former core periphery position. Its position in (6.41b) is the PrCS position, which accommodates displaced or “topicalized” or narrow-focused units in a clause. Comparing (6.41b) with (6.41c), the ad-core unit does not take *ne*, and there is the addition of *ne-guɔ* (FM-then) ‘it is then’, which I described as a complex resumptive marker for large units such as cores or clauses. Thus, the ad-core adjunct is in a detached position, and the resumptive unit is in the PrCS of the lower clause.

It is worth noting that as a detached unit, the ad-core adjunct in (6.41c) can take the TM (=re) but not the FM *ne*. That it cannot take FM *ne* differentiates it with one in the PrCS in (6.41b), and this is evidence that inversion does not necessarily make a fronted unit detached.

- (6.41) a. *Ithe_i* *a_i-a-ug-ir-ε* *ate* *ne* *a_i-ka-moj-he-ε* *ngaari*
 1.father 1-RMPST-say-PFV-FV CLM AM 1-RMFUT-1sgOM-give-FV 9.car
 a_j-a-um-a *thukuru*.
 1-IMPST-leave-FV 9-school
 ‘His father said that he will give him the car after he (son) leaves school.’
- b. *Ithe* *a-a-ug-ir-ε* *ate* *ne* *a-a-um-a* *thukuru*
 1.father 1-RMPST-say-PFV-FV CLM FM 1-IMPST-leave-FV 9-school
 a_i-ka-moj-he-ε *ngaari*
 1-RMFUT-1sgOM-give-FV 9.car
 ‘His father said that it is after he leaves school that he will allow him the car.’
- c. *Ithe* *a-a-ug-ir-ε* *ate* *a-a-um-a* *thukuru* *ne-guɔ*
 1.father 1-RMPST-say-PFV-FV CLM 1-IMPST-leave-FV 9-school FM-then
 a_i-ka-moj-he-ε *ngaari*
 1-RMFUT-1sgOM-give-FV 9.car
 ‘His father said that after he leaves school, it is then, he will allow him the car.’

Purpose clauses have enough interesting properties to have warranted many articles and even book-length studies such as Jones (1991) and Schmidtke-Bode (2009).

In purpose clauses two states of affairs are linked, whereby a main event is carried out with an intention of realizing a dependent one (Cristofaro 2003:157). The same subject is required for both the matrix and the linked unit. It is important to keep in mind that, in cases where an actor is shared or has control in a linked clause, the relation between them is a non-subordinate one.

Gĩkũyũ also uses *neguɔ* ‘so that’ and *ne geetha* (*ne+geetha*) ‘in order that/so that’ for reason/purpose subordinate conjunctions.⁵⁴ The morphology of *neguɔ* and *ne geetha* shows relatedness to *ne*, and indeed in (6.40c) *ne* marks the *reason* core.

⁵⁴ This *neguɔ* is a subordinate conjunction of reason, different from the *ne-guɔ* [FM-PRN] in (6.41c) and others.

The infinitive constitutes a purpose domain in many languages (Hetterle 2015:87). Haspelmath (1989) has traced infinitives to the grammaticalization of a purpose marker. In Gĩkũyũ (verbal-) infinitives are used as purpose clauses, although they are not exclusively purpose relations. Perez (1985:5-6) observed that Shona, Gĩkũyũ, and Kirundi do not allow infinitive complements. However, it was demonstrated that verbal-infinitives can occur as verb complements, and some of them may be interpreted as a clausal reason relation.

- (6.42) a. *A-arimo ma-rok-ag-a cukuru tene go-thomithi-a a-rutwo.*
 2-teachers 2-go.early-HAB-FV 16-school early 15-teach-FV 2-students
 ‘The teachers go to school early in order to teach the students.’
 b. *A-arimo ma-rok-ag-a cukuru tene ma-thomithi-ε a-rutwo.*
 2-teachers 2-go.early-HAB-FV 16-school early 2-teach-SBJV 2-students
 ‘The teachers go to school early to teach the students.’

A verbal-infinitive (6.42a) or a subjunctive clause (6.42b) may be used to indicate purpose relations. Indeed Barlow (1951) says that the main function of SBJV *-ε* is to indicate purpose clauses. The reason/purpose linkers, *negu* and *ne geetha* are optional with a subjunctive clause, but disallowed with a verbal-infinitive purpose clause (see 6.28b). While a subject may be different in a subjunctive clause although the interpretation is that of togetherness in carrying the activity, in purpose units there is no ambiguity of participants, because the matrix core and the linked unit share an actor.

Another reason/purpose subordinator is *amu* in (6.43); it has both ‘because’ and ‘for’ meaning. In (6.43a), Barlow (1951:204) shows *amu*, and *amurĩ* [*amur=re*] as having the same meaning. In Barlow’s examples, the subordinator has a clitic *=re* attached, similar to the two TMs as it introduces an intonational break. This clitic disallows *ne*, but without it, *ne* is allowed (6.43c). The enclitic here might have some other function different from that of a TM, most probably a deictic/pointing function that points to the reason of going. Kihara (forthcoming) points out that *-re* and *-rere* in *aterere* may have demonstrative connotations.

- (6.43) a. *Ne n-go-thie, amu=re ne n-gw-εnd-a ko-geithani-a gw-itu.*
 AM Isg-NRFUT-go CLM AM Isg-NRFUT-want-FV 15-greet 16-home
 ‘I will go, for I wish to greet the people at home.’ (Barlow 1951:204)
 b. *Mwathani n-deithi-a amu nd-ε mw-ehia ɔna w-a-ny-ɔn-a.*
 1.Lord Isg-help.me-FV CLM Isg-COP 2-sinner even 1-PRS-IsgOM-see-FV
 ‘Lord, help me for/because I am a sinner even as you see me.’ (wa Thiong’o 1986:72).
 c. *Ne n-ga-mo-gor-er-a ngu ne amu mo-re a-akwa.*
 AM Isg-RMPST-IIplOM-buy-APPL-FV 10.clothes AM CLM IIpl-COP mine
 ‘I will buy you clothes because /for you are mine (children).’

The above examples put into focus the difference between *because*-clauses, which are normally presupposed, and *for*-clauses, which are expected to be asserted. In the examples already seen with *tɔndo* and *ondo*, *ne* co-occurred with these linkers and *amu* also co-occurred with *ne* in (6.43c) and can be inserted in (6.43b). I assume that the linked units are asserted. Since these clauses are intonationally separated from the matrix unit and they cannot stand on their own, there is reason to suspect that they are both functionally and syntactically adverbial.

As provided for in RRG, on the one hand, detached units on the left of the matrix unit, e.g. preposed adverbial clauses, are expected to occupy the LDP as left-detached elements. On the other hand, the theory also provides a right-detached position for those elements that are detached to the right. A common denominator for these elements in both positions is that they are intonationally separated from the matrix clause. Therefore I am proposing that the clauses linked by *amu* in (6.43) are clausal RDP units with an adverbial function. This makes them different from reason clauses linked by *tɔndo* and *ondo*, but they are nevertheless subordinate adverbial clauses.

iii. Causal relations

In a *causal* relation, some external factor either impels an actor to act or causes a state to come into being; there is generally an external motivation (Givón 2001b:335). *Causal* and *reason* relations are related as seen in the *reason* core in (6.44a) and the *causal* relation in (6.44b).

The *reason* core in (6.44a) means that the death was as a result of heart disease, and in (6.44b) it is the heart disease that caused the death, as seen in the passive construction.

- (6.44) a. *Mo-mbunge a-ra-ku-ir-ε ne ko-rwar-a mo-rimo wa ngɔɔɔɔ.*
 1.parliamentarian 1-RCPST-die-FV CLM 15-be.sick-FV 3-disease of 9.heart
 ‘The parliamentarian died because of a heart disease.’
 b. *Mo-mbunge a-r-ɔrag-ir-wɔ ne mo-rimo wa ngɔɔɔɔ.*
 1.parliamentarian 1-RCPST-killed-PFV-PASS by 3-disease of 9.heart
 ‘The parliamentarian was killed by a heart disease.’

iv. Manner relations

Manner clauses indicate the relationship between the manner of the state of affairs in the matrix clause and that of the dependent clause is the same. In (6.45) the particle *ta* ‘like/as’ links a subordinate unit to a matrix clause, but the linked clause cannot be preposed.

- (6.45) *A-ra-ari-a ta a-ko-rer-a.*
 1-PRS-talk-FV CLM 1-NRFUT-cry-FV
 ‘He is talking like he will cry.’

In (6.46a) the manner relation is coded by a negative prefix *-ta-*, similar to the one found in before-relation clauses, only that this one does not co-occur with the infix *-na-*, and that it means ‘without’, not ‘before’. The linked unit describes how the matrix event is being carried out. In (6.46b) the manner relation is realized by a participial core *ma-tenger-et-ε* ‘running’, describing how the matrix clause event is done. One feature of such manner adverbial clauses is that they cannot be preposed. Their resistance to be preposed is similar to the prefix *-ke-* clauses discussed in §5.3.3.1.1.

- (6.46) a. *Ma-ra-rem-er-a ma-ta-ko-riβariβ-a riia.*
 2-PRS-weed-FV 2-NEG-TNS-shake-FV 10.weed
 ‘They are weeding without shaking (off the soil on) the weeds.’
 b. *A-rutwɔ ma-thi-ag-a cukuru ma-tenger-et-ε.*
 2-pupils 2-go-HAB-FV 9.school 2-run-PFT-FV
 ‘Pupils go to school running’.

v. Concessive/contrastive relations

The concessive/contrastive involves presupposed contrast or concession in the matrix clause. There are “definite” and “indefinite” concessive clauses (Thompson et al. 2007:262-3). English marks definite concessives with *although*, and indefinite ones (meaning ‘no matter what’, or ‘whatever’), with indefinite pronouns or quantifiers such as *whoever*, *whatever*, and *wherever* (Thompson et.al. 2007:263). Concessive relations in English also use ‘even if’ (Quirk & Greenbaum 1973:325; Givón 2001b:336). In Gikūyũ, *ɔna* ‘although/even’, together with other constituents, indicates the concessive relations (see 6.47).

- (6.47) a. *ɔna go-tuek-a ne n-gw-ɛnd-ɛt-ɛ, n-di-ing-e-go-kɔber-a mbia.*
 even be.the.case-FV AM Isg-PRS-like-PFT-FV Isg-NEG-MOD-IIOM-lend-FV 10.money
 ‘Even though I like you, I cannot lend you money.’
- b. *ɔna ma-mo-thaith-ɛt-ɛ o-guɔ w-ɔthe n-da-ma-rɛk-ir-ɛ ma-ger-ɛ hɔ.*
 even 2-1sgOM-plead-PFT-FV DEM all 1-NEG-2OM-let-PFV-FV 2-pass-F 17-there
 ‘Even after all that pleading with him, he did not allow them to pass through there.’

The examples in (6.47) are definite concessives. The definiteness is seen in the fact that they can be paraphrased as “in spite of *the fact* that” (Thompson et al. 2007:262). The counter expectancy is indicated by *ɔna* together with the negation marker in the matrix clause. The expectation in (6.47a) would be that the speaker would lend the hearer money, since he likes them, but this is canceled by the negation in the matrix clause. The same meaning holds in (6.47b), since it was expected that after much pleading, they would be allowed to pass through, but that does not happen. Indefinite concessives shown in (6.48) have a ‘no matter what’ or ‘whatever’ sense.

- (6.48) a. *ɔna kana oo a-ug-ɛ, n-di-ko-rut-a.*
 even if who 1-PRS-say-FV Isg-NEG-NRFUT-give-FV
 ‘No matter who says, I will not give (money).’ (lit. Even if who says, I will not give.)
- b. *ɔna a-nge-nj-ek-a atea n-di-ka-mu-ɔher-a.*
 even 1-MOD-Isg-do-FV Q IIsg-NEG-RMFUT-IOM-forgive-FV
 ‘No matter what he does to me, I will never forgive him.’

vi. Simultaneous relations

Simultaneous adverbial clauses are formed either by a marker that signals simultaneity or by continuative, durative, or imperfective aspect (Thompson et al. 2007:254).

Gikūyũ does not have a lexical morpheme similar to ‘while’ in English. The simultaneous relation is coded by SIM *-ke-*, a verbal inflection prefix, which is only compatible with *-ag-*, the progressive/habitual marker, capturing the imperfective, durative, and continuative nature of simultaneous constructions in (6.49b-c) (see also §5.3.3.1.1).

The adjacent units in (6.49a) realize the simultaneity in the question. The linked core may be prep-posed provided the matrix clause contains *ne*, since it will have become a declarative clause as in: *To-rogam-et-ɛ ne to-ko-ari-a* ‘while standing, we can talk.’

The fact that (6.49a) is an intonational question does not contradict an earlier claim that such questions require *ne*. The matrix unit in (6.49a) needs *ne* to be converted into a question as

in *ne tokoaria*? ‘Shall we talk?’, but the .second unit does not need *ne* to be converted as in: *Torogamete*? ‘While standing?’ This question shows disbelief and it is closer to an echo question. It is therefore evident that the features of the second unit are the ones involved and that is why *ne* can be omitted and an interrogative is still possible.

- (6.49) a. *To-ko-ari-a* *to-rogam-et-ε?* b. *Ma-ra-thi-ir-e* *ma-ke-rer-ag-a*
 Ipl-PRS-talk-FV Ipl-stand-PFT-FV 2-RCPST-go-PFV-FV 2-SIM-cry-PROG-FV
 ‘Shall we talk (while) standing?’ ‘They went away while crying /crying.’
- c. *Ma-ke-rem-a* *mɔ-ɔn-ir-ε* *nyɔɔka* *nene*.
 2-SIM-plough-FV 2-see-PFV-FV 9.snake 9.big
 ‘When they were ploughing, they saw a big snake.’

As in (6.49a), the second unit in (6.49b) cannot be preposed unless it becomes a marked contrastive element. However, the SIM-temporal clause in (6.49c) can either be in a clause-initial or in a clause-final position. On the RRG temporal hierarchy (Van Valin 2005:211), the second units in (6.49a-b) are “modifying sub-events” and in (6.49c) it is a temporal sequence/simultaneity event.

vii. Conditional relations

Conditional clauses take different forms and types. While some consider them as part of adverbial clauses (e.g. Thompson et al. 2007), others consider them as subordinate but not adverbial (e.g. Hengeveld & Wanders (2007:211). Hengeveld & Wanders say that conditionals are not clausal modifiers like adverbial clauses although they are subordinate. In Gĩkũyũ, both conditional clauses and some other adverbial clauses are preposable and this is evidence that both are subordinate.

Various aspects of Gĩkũyũ conditionals clauses are described by Gecaga (1955), Barlow (1951), and Leakey (1978). Although they agree that the morpheme *-nge-* and *ɔkɔrwɔ* indicate Gĩkũyũ conditionals; there is no real consensus on types of conditional clauses or their syntax. For instance, Gecaga (1955:65) says that a near future conditional is formed by *angekɔrwɔ* and *akɔrwɔ*. Barlow (1951:162) on his part contends that *kɔrwɔ* (and also *akɔrwɔ*, *ɔkɔrwɔ*, *ɔngɔrwɔ*, and *angɔrwɔ*) are used as the English ‘if’, noting that *-nge-* is not used with these forms (note the contradiction with Gecaga’s example ‘*angekɔrwɔ*’).

Benson (1964:230) distinguishes *ɔkɔrwɔ* on a morphological basis, claiming that without prefix (*ɔ-* or *a-*), *kɔrwɔ* expresses doubt about the actuality of the condition, and with it it expresses probability of the condition. In this study, I will not try to resolve this question now, but I will illustrate some types of conditional relations.

The examples below show a simple conditional clause (6.50a), counterfactual conditional (6.50b), and hypothetical conditional (6.50c). Both *-nge-* and *kɔrwɔ* can be used in the same sentence, but not in the same clause. The protasis is separated from the apodosis, which has assertive *ne*, except in (6.50c), because *ne* does not co-occur with (hypothetical) conditionals.

- (6.50) a. *O-nge-rɔr-a* *wega* *ne* *o-ku-ɔn-a* *mo-ndo* *o-kɔɔm-et-ε*.
 IIsG-COND-look-FV well AM IIsG-PRS-see-FV 1-man 1.sleep-PFT-FV
 ‘If you look keenly you will see a man sleeping.’

- b. *Kɔrwɔ ne mw-ɔk-ir-ε kiumia ne mo-nge-a-mu-ɔn-ir-ε.*
 COND AM 2-RMPST-come-PFV-FV Sunday AM 2-MOD-RMPST-1OM-see-PFV-FV
 ‘If you had come on Sunday, you would have seen him.’
- c. *I-nge-re mothɔɔmu ta wε i-nge-re ko-raya monɔ.*
 Isg-COND-be learned like I.IP Isg-COND-be 16-far very
 ‘If I were learned like you, I would be far much better (than now).’
 (Lit. If I were learned like you, I would be very far, very advanced).

Example (6.51a) is a concessive ‘even if’ conditional. The concession, conditional and contrastive clauses overlap in English (Quirk et al. 1985). That may explain why *-nge-* and *kɔrwɔ* are common in concessive and contrastive relations in Gikūyū. A combination of *ɔna* ‘even’ with conditional infix *-nge-* and *kɔrwɔ* ‘be/if’ is illustrated in (6.51a) from *Mutiiri 4*, (p.20).

- (6.51) a. *ɔna ange-kɔrwɔ to-ti-re wera o-nge tw-a-rut-ir-ε*
 even COND-be Ipl-NEG-be 14.work 14.other Ipl-RMPST-do-PFV-FV
ne tw-a-thik-ir-ε a-aku-o.
 AM Ipl-RMPST-bury-PFV-FV 2-dead
 ‘Even if we did not do any other work that we carried out, we buried the dead.’
- b. *Ma-ta-nge-a-nyu-et-ε ndawa ne ma-nge-a-ku-ir-ε.*
 2-NEG-COND-RMPST-drink-PFT-FV medicine AM 2-COND-RMPST-die-PFV-FV
 ‘Had they not taken medicine, they would have died.’
- c. *W-ɔna w-ɔk-a tene o-huur-ε nyomba.*
 IIsg-if/when IIsg-come-FV early IIsg-mop-FV 9.house
 ‘If/when you come early, mop the house.’

(6.51b) is a hypothetical negative conditional with negation marked by *-ta-*. (6.51c) is both a temporal and conditional. The morpheme root *-ɔna* is both ‘when’ and ‘if’, and it accepts number and person-marker changes. It is argued that temporal adverbial linkers such as ‘when’ bear a conditional meaning (Diessel 2008; Hetterle 2015); this is evident in (6.51c).

A feature of the conditional clauses presented is that they are not rigidly fixed. The protasis freely moves to both ends of the apodosis, just like common adverbial clauses. The positioning of conditionals makes them possible clausal discourse topics (see Haiman 1978).⁵⁵

viii. *Absolutive relations*

Absolutive clauses are what Givón (2001b:338-342) calls “participial adverbial clauses”. Hengeveld & Wander (2007) say that absolute clauses form a “co-subordinating narrative construction”, adding that they are optional and lack an indicator of the “semantic-functional relationship” between them and the main clause. For those features, Hengeveld & Wander (2007:210) do not consider absolute clauses as adverbial clauses.

An absolutive unit is marked as being subordinate to the main clause, although there is nothing grammatically explicit indicating this relationship between them. The subordinate relationship is instead derived from the pragmatic and linguistic context (Thompson et al.

⁵⁵Caron (2006) argues against Haiman’s views, noting that in some Chadic and Adamawa languages, conditionals bear the features of focus and not topics.

2007:264). This subordinate status may be coded by way of nominalization or by a subordinating morpheme.

Gĩkũyũ uses nominalization strategy as in (6.52a), whereby a nominal-infinitive core precedes the matrix clause. It is also possible to place the actor (Chris) at the beginning of the clause, to precede the nominal-infinitive core. The initial units in (6.52a-b) are both semi-finite cores, which need the second units they are attached to.

- (6.52) a. *Go-kiny-a mo-cie uguɔ, Kirisi ɛ-ɛ-ti-ir-i-ɛ i-riɔ.*⁵⁶
 15-arrive-FV 3-home that Chris 1-RMPST-ask-PFV-DC-FV 5-food
 ‘Immediately upon arriving home, Chris asked for food.’
- b. *Kirisi a-a-kiny-a mo-cie uguɔ, ɛ-ɛ-ti-ir-i-ɛ i-riɔ.*
 Chris 1-RMPST-arrive-FV 3-home that 1-RMPST-ask-PFV-DC-FV 5-food
 ‘Immediately after Chris arrived home, he asked for food.’
- c. *Kirisi ɛ-ɛ-ti-ir-i-ɛ i-riɔ, a-a-kiny-a mo-cie uguɔ.*
 ‘Chris asked for food, immediately after he arrived home.’

In (6.52b) the initial unit is semi-finite (with only tense), compared with the adjacent one which has both tense and aspect. Therefore, the initial unit is not independent as it is; it requires the second unit. Like in (6.52a), the actor (*Chris*) may be with the initial unit or with the second one. The initial core in (6.52a) cannot be extraposed, whereas the initial one in (6.52b) can be extraposed, but not together with the subject (*Chris*), which must remain behind to be with the matrix clause as in (6.52c). This is because the subject must be coreferential with the PA; consequently, the subject must precede the PA, and not follow it, unless it is right-dislocated.

As stated variously in this work, lack of some TAM features encodes dependency. The initial cores in (6.52a-b) are semi-finite, hence “structurally imbalanced”, unlike the finite matrix clause. As such, even without a subordinator, their initial position in the clause makes them candidates for clausal subordination.

In a cosubordinate relation, the concerned units cannot stand independently. For example, in clausal cosubordination with shared tense the dependent unit must follow the finite clause, not precede it, Gĩkũyũ being a progressive-chaining language. Therefore, (6.52a) cannot be cosubordinate, and (6.52b) is disqualified because a cosubordinate relation is very tight linkage and does not allow separation of linked units, lest this tight linkage is broken. Thus, (6.52b) cannot be cosubordinate, since the dependent unit may be preposed and extraposed.

ix. *Substitutive relations*

The subordinating marker *hando ha* ‘instead of’ (lit. ‘in place of/somewhere of’) indicates a substitutive relation. This subordinator has a NC 16 marker of ‘specific/limited space’ and its concordance morpheme *ha*. It is comparable to a morpheme of Spanish origins *lugar de* ‘in place of’ found in Isthmus Zapotec (Thompson et al. 2007:263). The substitutive unit presents an expected event or state versus an unexpected one. This expected event or state is derived by some form of pragmatic presupposition (Givón 2001b:336).

⁵⁶*Oguɔ* is normally a demonstrative ‘like that’, but here it encodes immediacy, i.e. *as soon as, immediately*.

- (6.53) a. *Ma-a-thi-ir-ε* *go-thak-a* *mo-βira* *hando ha* *go-thɔɔm-a.*
 2-RCPST-go-PFV-FV 15-play-FV 3-ball CLM 15-read-FV
 ‘They went to play football instead of studying.’
- b. *Hando ha* *ma-thɔɔm-ε* *ma-a-thi-ir-ε* *go-thak-a* *mo-βira.*
 CLM 2-read-SBJV 2-RCPST-go-PFV-FV 15-play-FV 3-ball
 ‘Instead of studying, they went to play football.’
- c. *Ne* *to-re-ε-i* *i-riɔ* *i-ci* *hando ha* *to/go-ci-tε-εl*
 AM IIpl-eat-FV-IMP 5-food 5-DEM CLM IIpl/15-5OM-throw.away-FV/
 ‘Let us eat this food rather than we throw it away/ to throw it away.’

The dependent core may be a verbal-infinitive (6.53a) or a subjunctive (6.53b). As is characteristic of subordination, the substitutive core is not fixed; it can be in clause-initial, as in English and other languages, or clause-final position as in (6.53a).

6.2.8 Sentential subordination

Subordination is commonly understood as a property of sentences. The sentential juncture was introduced in VVLP (1997) but it was further elaborated upon in Van Valin (2005). In RRG, the distinction between clause and sentence and sub-clausal levels of core and nucleus is important, because subordination is posited at all levels. A sentence can be made up of a single clause and an optional left- or right-detached element, or more than one clause.

Sentential subordination can take the form of detached units or direct discourse complement clauses (Van Valin 2005; van Putten 2014a; 2014b; Matić et al. 2014; Matić et al. 2016). In Gĩkũyũ, Bennett et al. (1985:221) noted that some “loose-floating units which are topicalised are a problem to clause-based analysis in Kikuyu”. These “loose-floating units” are structurally subordinate to the matrix clause. I solve the “problem” noted by Bennett et al., by proposing that the “loose-floating units” are detached elements marking sentential subordination.

I propose the examples in (6.54) as instances of Gĩkũyũ sentential subordination. In (6.54a) the initial clause is a temporal clause headed by *rerea* ‘when’. The second clause is also dependent, bearing a consecutive marker *-ke-*, and the reading of the clause is coordinate, note ‘and he saw...’, yet there is no coordinating conjunction in the vicinity. This is a possible case of cosubordination (see §5.3.3). Both of these clauses have the enclitic *=re*, the topic marker, which intonationally separates them from the matrix clause. In §0, it was shown that *=re* indicates left-detached units, which occupy the LDP, a position that is a direct daughter of the sentence.

(6.54a) has more than one LDP unit with *=re*. Such is also found in Japanese, where more than one unit may contain the topic marker *wa-*. Matić et al. (2016) also reported that in Tundra Yukaghir, Whitesands, and Avatime, there can be more than one LDP in a sentence; the same is applicable to Gĩkũyũ.

- (6.54) a. *Rerea* *a-a-kiny-ir-ε* *gw-aake=re* *a-ke-ɔn-a* *o-rea*
 when 1-RMPST-arrive-PFV-FV 16-POSS=TM 1-CONS₃-see-FV RLPRN
ci-ana *ci-ake* *ci-a-tangek-ag-a=re* *ne* *a-a-tu-ir-ε*
 8-children 8-POSS 8-PRS-suffer-PROG-FV=TM AM 1-RMPST-decide-PFV-FV
i-tua *ate* *n-da-kana-ci-tiga-an-er-i-a* *rengε.*
 7-decision CLM 1-NEG-never-8-leave-RCP-APPL-DC-FV again.
 ‘When he arrived at his place and he saw how his children were suffering, he made a decision that he would never leave them again’.

- b. *Ne a-a-βut-ir-wɔ, rerea ma-a-mo-nyit-ir-ε a-ke-iy-a.*
 AM 1-RMPST-sack-PFV-PASS CLM 2-RMPST-1OM-catch-PFV-FV 1-PAT-steal-FV
 ‘He was sacked, when they caught him stealing.’

In (6.54b) the matrix clause is followed by a temporal clause which is in the RDP because it is intonationally separated from the matrix clause. Clauses in the RDP do not take a TM enclitic, like the LDP clauses in (6.54a). A possible reason is that topics are not expected to be at the end of a clause, since they are supposed to be what is talked about and cannot be talked about if they are the last units in a clause. That is why the RDP is an “antitopic”, since it is an afterthought that simply adds more information (see 6.54b).

The kind of LDP topics above will be called “external discourse topics”, because they are external to the main clause (Reinhart 1981; Lambrecht 1994; 2001; van Putten 2014a; 2014b).

A simplified representation of (6.54a) is shown in (6.55). Because of the monotony of the enclitic *=re* in their speech, Gĩkũyũ speakers are said to be “addicted” to it (Barlow 1951). Thus it is not surprising that (6.54a) has more than one clause with *=re*.

(6.55) [LDP...*=re* [LDP...*=re* [CLAUSE...]]]

Direct discourse in Gĩkũyũ is introduced by *aterere* and *aterere*, related to complementizer *ate* ‘that’. In RRG, direct discourse (quotation/speech) is considered a form of sentential subordination, and therefore the Gĩkũyũ examples are also forms of subordination especially because direct discourse may be introduced by specialized complementizers or quotatives.

T. Payne (2006:295) contends that “direct speech complement clauses are always the most independent complement type in any language”, and Weber (1989:20), quoted in Kroeger (2005:226), says of Huallaga Quechua that “direct quotations are embedded but not subordinate [...] to the clause that frames them” and that it is a “separate discourse” and independent entity. Thus, direct quotes are not complements (Kroeger 2005:226); they are forms of “indirect subordination” (Hengeveld 1998:336). One can argue that the direct discourse fills an argument position, for example *He told me something*! “*Bring me a pen.*”

The examples in (6.56) are sentences with direct discourse units introduced by quotatives; they function as complements; and therefore forms of subordination.

- (6.56) a. *Ma-ra-nj-er-ir-ε aterere “Tw-e na ngaragu go-ko*
 2-RCPST-IsgOM-tell-PFV-FV QUOT Ipl-have COM 9.hunger 15-here
ma-tuko ma-ya”.
 6-days 6-DEM
 ‘They told me, “We have a famine here now”.’ (Gecaga 1955:112)
- b. *Mo-ici o-ciɔ a-ke-rogam-a a-ke-ori-a mo-thigari aterere*
 1-thief 1-DEM 1-CONS₃-stand-FV 1-CONS₃-ask-FV 1-policeman CLM
 “*Wεε=re nie ne w-a-ny-ɔn-ir-ε n-gu-eet-ε ke-ndo?*”
 Isg=TM Isg AM 1-RMPST-IsgOM-see-FV Isg-carry-PFT-FV 7-thing
 ‘That thief stood and asked the policeman, (As for) you, (as for) me, did you see me carrying anything?’

In (6.56a), the direct quotation is introduced by *aterere*. The linked quotation is a declarative clause, with all its clausal operators (see also (6.2d) with an imperative direct discourse clause).

The fact that the matrix clause in (6.56a) has past tense and the quotation the present tense is further evidence of operator independence in the direct quotation. This shows the kind of independence inherent in quotations. However, like ordinary complement clauses, they may be introduced by a complementizer. Therefore, they are like complement clauses in that they are structurally subordinate to a matrix clause.

In (6.56b) the initial clauses, *akerogama akeoria* ‘he stood and he asked’, are dependent consecutives clauses, thus this example has both structural and grammatical operator dependence. This example further demonstrates independence of quotations, since the quotation is interrogative. The question has a cliticised *=re* to *wεε* ‘you’, an external independent personal pronoun (IP), followed by another IP *nie* ‘me’, cross-referenced to the bound object argument (IsgOM) in the verb. This means that (6.56b) has two LDP elements, on *wεε=re* and *nie*.

In both detached and direct discourse forms of sentential subordination, the subordinate elements are separated from the matrix clause by an intonation break. The subordinate constructions in these sentences are not integrated into the matrix clause, e.g. the temporal clauses in (6.54a) and the quotations in (6.56). This is significant in regards to the flow of information.

The intonation breaks give the utterance that follows some prominence, and this leads to the claim that quotation markers are information structure particles (Kihara, forthcoming). It is also arguable that this ordering is motivated by information structure needs, in conjunction with the syntax and phonology domains. Thus, the detached LDP is an external discourse topic of a sentence, a direct quotation is new information, and a right-detached unit is an afterthought, additional informational to explain the thought in the matrix clause.

In (6.57), within a subordinate complement clause is a dislocated element, contrary to some claims that a dislocated unit cannot be within a subordinate clause (see van Putten 2014b:143-150 for similar examples in Avatime, and also various views on competing claims about dislocated units in subordinate clauses).

(6.57) *Tw-εr-ir-wɔ* *ate* *me-kɔra* *ya-kou,* *o-nge-εnd-a*
 Ipl-RMPST-tell-PFV-PASS CLM 4-thug of-there IIsG-COND-want-FV
n-de-ga-go-theni-ε, *w-oig-ε* *ngui* *njooru.*
 4-NEG-PRS-IIOM-harass-FV IIsG-rear-FV 10.dogs 10.fierce
 ‘We were told that the local thugs, if you want them not to harass you, you rear fierce dogs.’⁵⁷

The phrase *me-kɔra ya-kou* ‘thugs of that place’ is the subject in complement clause in (6.64). This RP is separated from its PA by a parenthetical conditional core *o-nge-εnd-a* ‘if you want’, and at the end is an imperative clause. Both the RP and the parenthetical core are dislocated elements, since they readily take the enclitic *=re*. They differ in that the RP has a resumptive bound argument in the verb, while the core cannot have a resumptive pronoun.

It is evident that dislocation occurs inside a subordinate clause, considering the position of the complementizer. The internal clause with a conditional core, is part of sentential subordination, considering that the final clause is an imperative, meaning it has independent IF, akin to direct discourse clauses.

⁵⁷ *Me-kɔra* ‘thugs’ take noun class 3/4, instead of 1/2 for humans, probably because of their wayward behavior.

Example (6.57) supports a claim by Matić et al. (2014) that subordination need not be syntactic, since it can be semantic, i.e. a clause is modified or functions as a semantic argument. Above, the adverbial clause has additional information with a conditional clause and it is semantically connected to the final advisory and suggestive imperative clause.

6.2.9 Gĩkũyũ relative clauses

This section describes Gĩkũyũ relative clauses (RCs) as part of subordination. RCs were mentioned as part of the complex RP modification in § 4.5.3, and that discussion is extended in this section.

Compared to studies of RCs in southern Bantu languages, Gĩkũyũ RCs have not received robust consideration. Even in studies that have said something on them, for example Clements (1984a; 1984b) and Bergvall (1986; 1987a; 1987b), they are often only dealt with peripherally. These studies follow Barlow's (1951) contention that Gĩkũyũ RCs have no relative pronouns, claiming that they are equivalent to the English sentence *The man I saw yesterday is dead*. However, Barlow (1951:115-116) does talk of relative pronouns in Gĩkũyũ, but not in the context of RCs. Bergvall (1987a:107) for her part notes Gĩkũyũ RCs have no overt relative pronouns (such as *who* or *which*) or complementizers (*ate* 'that').

While case-marked relative pronouns pervade Indo-European languages, other languages do not have them at all (Comrie & Kuteva 2005). In fact, not even all Bantu languages have relative pronouns or relativizers. Zeller (2004) demonstrated that Sotho, Tsonga and Venda RCs have relative pronouns or relativizers, while the Nguni languages RCs have relative concord marked cliticized on the verb, a fact confirmed by Simango (2006) for Nguni languages. The so-called "relative concord marker" is called a "relative subject prefix" (RSP) in this work, because it takes the same position as a regular subject PA.

In regards to claims made about Gĩkũyũ RCs, I follow Kroeger's (2005:234-235) distinctions between relative pronouns and relativizers. A relativizer is "a special type of complementiser" which marks a modifying clause in a RC. In English, *that* is both a relativizer and a complementizer, and the *wh*-words work as relative pronouns in English RCs. Kroeger notes that in other languages, relative pronouns are derived from definite articles, demonstratives or *wh*-words. Thus, he defines a relative pronoun as "an anaphoric element which introduces the modifying clause and takes the head as its antecedent" (Kroeger 2005:234).

However, despite the distinction, there is a problem particularly because in English, the relativizer *that* and relative pronoun *whom* are interchangeable as in *The woman **whom/that** I love is moving to Argentina* (Kroeger 2005:232).⁵⁸ He argues that whereas relative pronouns are some type of pronoun or an anaphoric NP, relativizers are not. As pronouns, relative pronouns show concordance (number, gender, animacy), depending on the features of the antecedent noun, and will often be inflected for case, a property of nouns. On the other hand, a relativizer does not show similar changes. While it is true that Gĩkũyũ does not use *ate* as a relativizer, it is not the case that *ate* cannot be found in a RC. It is used as an interpretive particle, but not as a relativizer or complementizer as in (6.58b).

⁵⁸ This does not work in all cases, e.g. *the man to **whom** I gave a book* vs. **the man to **that** I gave the book*.

- (6.58) a. *Iβuku re-rea nde-ra-gor-ir-ε ira ne re-or-ir-ε.*
 7-book 7-RLPRN Isg-RCPST-buy-PFV-FV yesterday AM 7-RCPST-lost-PFV-FV
 ‘The book which I bought yesterday got lost.’
- b. *Iβuku ate nde-ra-gor-ir-ε ira ne re-or-ir-ε.*
 7-book PTCL Isg-RCPST-buy-PFV-FV yesterday AM 7-RCPST-lost-PFV-FV
 ‘The book that I bought yesterday got lost.’
 (Lit. ‘Just imagine or would you believe that a book I bought yesterday got lost.’)

Following Kroeger’s definition, *re-rea* ‘which’ in (6.58a) is a relative pronoun because it shows number (sg) and gender (NC 7) concordance and it is anaphoric to the antecedent RP *iβuku* ‘book’. Replacing *re-rea* with, for example, *o-rea* ‘who’, which has human reference, is ungrammatical.

On the other hand, *ate* in (6.58b) does not show agreement features, yet it cannot be posited as a relativizer, because of the semantic difference it introduces. The particle registers disbelief and surprise, and stresses the unexpected nature of the event that a book recently bought had got lost.

As noted earlier on, relative pronouns may derive from demonstratives and this is evident in Ngemba (Chumbow 1977) and in Sotho (Zeller 2004). Barlow (1951:56) observes that in Gĩkũyũ, “when the antecedent is definite, one of the demonstrative adjectives *oyo*, *orea*, *ocio* [...], must be associated with it”. My contention is that in addition to the “demonstrative adjectives”, there are other pronouns that take the root *-real-ria*, the root for most question words in Gĩkũyũ. For instance, Barlow’s demonstrative *orea* ‘that’ has a corresponding counterpart *oorea* ‘who’, which is phonologically distinct because it has a long vowel.

This above is not unique to Gĩkũyũ among the Bantu languages. Riedel (2010) reports that in Haya, the demonstrative and relative pronoun are morphologically similar, but they have tonal differences. In Gĩkũyũ, they are tonally and morphologically different.

Example (6.59) shows a demonstrative and a relative pronoun co-occurring, and here they are tonally and morphologically different, which are features that set them apart. This example makes it clear that demonstratives and relative pronouns are distinct. Therefore, I can conclude that Gĩkũyũ has relative pronouns.

- (6.59) *E-erea nyomba e-rea a-ra-gor-ir-ε.*
 9-DEM 9-house 9-RLPRN 1-RCPST-buy-PFV-FV
 ‘That is the house which he bought.’

The examples in (6.60) show that different arguments in a clause can be relativized. An agent is relativised in (6.60b), a benefactive in (6.60c), a theme in (6.60d), and a location in (6.60e).

- (6.60) a. *Nyina a-ra-gor-er-ir-ε mo-rio βurana nduka-ine.*
 1. mother 1-RCPST-buy-APPL-PFV-FV 1-son 9.sweater 9.shop-LOC
 ‘The mother bought for her son a sweater at the shop.’
- b. *Nyina o-rea o-ra-gor-er-ir-ε mo-rio βurana nduka-ine.*
 1. mother 1.RLPRN 1-RCPST-buy-APPL-PFV-FV 1-son 9.sweater 9.shop-LOC
 ‘The mother who bought for her son a sweater at the shop.’

- c. *Mo-rio o-rea nyina a-ra-gor-er-ir-ε βurana nduka-ine.*
 1-son 1RLPRN 1. mother 1-RCPST-buy-APPL-PFV-FV 9.sweater 9.shop-LOC
 ‘The son who the mother bought a sweater for at the shop.’
- d. *βurana e-rea nyina a-ra-gor-er-ir-ε mo-rio nduka-ine.*
 9.sweater 9-RLPRN 1. mother 1-RCPST-buy-APPL-PFV-FV 1-son 9.shop-LOC
 ‘The sweater which the mother bought for her son at the shop.’
- e. *Nduka-ine e-rea nyina a-ra-gor-er-ir-ε mo-rio βurana.*
 9.shop-LOC 9-RLPRN 1.mother 1-RCPST-buy-APPL-PFV-FV 1-son 9.sweater
 ‘The shop from which the mother bought her son a sweater.’

Relative clauses are characterized and categorized based upon many features. Some characterization is based on the presence or absence of a head RP (referent), i.e. the headless vs. headed RCs (but see Dixon 2010: 317 rejecting this criteria). Further features are the position of the head RP, i.e. internally- vs. externally-headed RCs, or how the modifying clause relates to the head RP, i.e. restrictive vs. non-restrictive RCs. Another criterion is proposed by Zeller (2004), who makes a distinction between direct and indirect RCs. The head RP in a direct RC corresponds to the grammatical subject in the RC, and in indirect RCs, the RP does not correspond to the subject RP, but rather to another constituent.

Watters (2000) claims that all African languages have restrictive RCs, but not all of them make a distinction between restrictive or non-restrictive RCs; however, the languages encode the non-restrictive sense through apposition (see also du Plessis 2010: 33 on the same). Example (6.61) is an appositive construction where the phrase *mo-rata wa-kwa* ‘my friend’, tells more about the proper noun *Githu*.

- (6.61) *Githu , mo-rata wa-kwa ne a-a-n-deith-iri-ε.*
 Githu 2-friend 2-POSS AM 1-RMPST-IsgOM-help-PFV-FV
 ‘Githu , my friend, helped me.’

Examples in (6.62) are externally-headed RCs as well as restrictive ones. In these examples, the modifying clause identifies the head referent in some unique way, separating it from many others similar to it. Restrictive RCs provide information that helps to narrow down the identification of the referent (see 4.31d).

- (6.62) a. *Mo-ndo o-rea mo-kuhe tu-ɔn-ir-ε.*
 1-person 1-RLPRN 1-short Ipl-RCPST-see-PFV-FV
 ‘The short person, whom we saw.’
- b. *Mo-ndo mo-kuhe o-rea tu-ɔn-ir-ε.*
 1-person 1-short 1-RLPRN Ipl-RCPST-see-PFV-FV
 ‘The short person, whom we saw.’

Most studies on Bantu RCs report more on restrictive RCs than on non-restrictive ones; this may be due to that fact that most of them have restrictive RCs and fewer languages make distinctions between them, as noted by Watters (2000) above.

Simango (2006:288) suggests that the structural similarity in both restrictive and non-restrictive RCs blurs the distinction between them, and therefore non-restrictive RCs lack additional structural insight of Bantu RCs. A related claim comes from Kroeger (2005:231) who

notes that differences in the structures of restrictive and non-restrictive RCs are minimal or even non-existent in many languages.

The comma intonation clearly distinguishes non-restrictive RCs in English and in some other Indo-European languages, but it is not applicable in Gĩkũyũ. (4.30b) is repeated here as (6.63a).

- (6.63) a. *Maina o-rea w-end-ag-i-a ma-kara ne a-g-ok-a*
 Maina RLPRN RSP-sell-HAB-DC-FV 6-charcoal AM 1-NRFUT-come-FV
 ‘Maina, who sells charcoal, will come.’
- b. *Mo-tumia o-rea w-end-ag-i-a ma-kara ne a-g-ok-a*
 1. woman RLPRN RSP-sell-HAB-DC-FV 6-charcoal AM 1-NRFUT-come-FV
 ‘The woman, who sells charcoal, will come.’

The English translation in (6.63a) is a non-restrictive RC, with a comma intonation after *Maina*, the proper RP, about whom more parenthetical information is given. In non-restrictive RCs, the head is identified independently and the modifying clause only adds information (Kroeger 2005: 231). However, there is no intonational difference between (6.63a) and (6.63b) as Gĩkũyũ does not have comma intonation. It is also evident that both proper and common RPs are modified in the same way, and that there are no structural differences. The RC in (6.63b) delineates the reference of a particular woman; it is not just adding information about her, and is therefore restrictive.

Proper names are normally considered to carry with them some degree of “givenness” and thus they are thought to be understood or known (Nordstrom 2010:92). Therefore, in (6.63a) the RC modifying the proper name is more for additional background information than for identification. However, some RCs are different even when a proper name is modified, as in (6.64) below.

- (6.64) *Nde-ra-cari-a Maina w-end-ag-i-a ma-kara.*
 Isg-PRS-look.for-FV Maina RSP-sell-HAB-DC-FV 6-charcoal
 ‘I am looking for (one/a) Maina who sells charcoal.’

Example (6.64) does not have a relative pronoun and the RC is marked by the RSP. In the context that someone is looking for a *Maina* whom he has never met he may ask for this person as framed in (6.64), which is to identify one *Maina* from so many who carry the name. The hearer may not know this person, and therefore the referent is not definite. Indeed, du Plessis (2010: 45) notes that the optionality of the relative pronoun is dependent on definiteness or indefiniteness of the antecedent, and in (6.64) the referent is not definite due to the omission of the relative pronoun.

Thus, (6.63a) is a non-restrictive RC, because *Maina* is known and the modifier clause is additional information. On the other hand, (6.64) is considered restrictive, since the proper name *Maina* is not definite, because the relative pronoun is omitted, leaving the RSP to indicate the RC status. My contention is that the non-restrictive and restrictive distinction can be determined by the presence or absence of a relative pronoun.

There are also RCs without head nouns, “headless” or “free” RCs, which are headed by relative pronouns instead of lexical nominals. The relative pronoun bears the noun class marker

of the missing noun, which is understood or is recoverable from the discourse context. (6.65) illustrates a “headless” RC, in which the relative pronoun bears NC 14 for *ondo* ‘thing’.

- (6.65) *O-rea* *a-rutwɔ* *ma-re-ek-ir-ε* *ne* *ooru*.
 14-RLPRN 2-students 2-RMPST-do-PFV-FV COP bad
 ‘What the students did is bad.’

Focus marking and relative clauses in Gĩkũyũ meet in clefting (see 6.66, repeated from 3.55a).

- (6.66) *Ne* *mw-ana* *o-re-ir-ε* *i-yembε* .
 FM 1-child 1RSP -eat-PFV-FV 5-mango
 ‘It is the child that/who ate the mango.’

To focus a subject argument, it has to be fronted to the left, and the complement of that argument takes the form of a cleft. Singular third person subjects give the best view of what happens, whereby the subject PA *a-* changes to RSP *o-*. Other persons’ PAs do not change in form, but they are indicated as RCs by a high tone on the relative clause.

In this discussion of relative clauses, I have attempted to show the structure and types of Gĩkũyũ RCs. In particular, I have shown that the language has relative pronouns and that they should not be confused with demonstratives, as has been in the past. I claim that the omission of the relative pronoun has semantic repercussions such as distinguishing restrictive RCs from non-restrictive ones. I have also shown apposition realizes non-restrictive forms in Gĩkũyũ.

6.2.10 Interclausal semantic relations and interclausal relations hierarchy

Studies on complex sentences usually propose a set of semantic or syntactic relations that hold between units in complex sentences. The very well-known include Givón’s (1980) “binding hierarchy” and later, the “functional-syntactic continuum of clause and event integration” (Givón 2001b). Foley & Van Valin (1984) developed the “interclausal semantic hierarchy and syntactic bondedness hierarchy”. Another well-known relation is Lehmann’s (1988) continuums of hierarchical downgrading, syntactic level, and explicitness of linking. Bickel (1993) suggested “the integration continuum” and T. Payne (1997) the “clause combination continuum”. Cristofaro (2003) proposed the “semantic integration hierarchy and other hierarchies”, Hetterle (2015) the “multifunctionality scale of adverbial relations and the explicitness scale of adverbial relations”. VVLP (1997) and Van Valin (2005; 2007) further developed the Foley & Van Valin (1984) version into the “interclausal relations hierarchy”, which is also what I will apply for this study.⁵⁹

The juncture-nexus types identified in RRG are syntactic, but they also express some semantic relations between the linked units such as causation, sequential, and simultaneous others. These relations are captured in the Interclausal Semantic Relations Hierarchy (ISemRH). I illustrate the semantic relations with examples from Gĩkũyũ in (6.67). Where no suitable Gĩkũyũ example is found, English examples from Van Valin (2007:81-88) are used.

⁵⁹ A comparison between the interclausal relations hierarchy and other models mentioned is interesting and valuable; however, it is beyond the scope of the present study.

(6.67) *Interclausal Semantic Relations*

a. **Causative** [1]: the bringing about of one state of affairs directly by another state of affairs, usually an event or action, e.g. *Kim painted the table red.*

b. **Phase**: a separate verb describes a facet of a temporal state of affairs, e.g. onset, continuation or termination. (see 6.12a,c)

Mbembe ne ci-anj-et-i-ε go-kor-a. 'The maize has started to grow.'

Ma-βundi ne ma-a-reki-a gw-ak-a ki-ugo.

'The workmen have finished building the shed.'

c. **Modifying sub events**

1. **Manner**: the manner in which a motion is carried out (see 5.37a)

Maina ɔi-ɔk-ir-ε ai-ke-in-ag-a.

Maina 1-RMPST-come-PFV-FV 1-SIM-sing-PROG-FV

'Maina came singing/while singing.'

2. **Motion**: motion accompanying another motion event (see 6.46b).

A-rutwɔ ma-thi-ag-a cukuru ma-tenger-et-ε.

'Pupils go to school running'.

3. **Position**: stance while doing an action (see 6.49a)

To-ko-ari-a to-rogam-et-ε?

'Shall we talk (while) standing?'

4. **Means**: the means by which an action was carried out e.g. *Sam opened the box by slicing it with a knife.*

d. **Psych-action**: a mental disposition regarding possible action on the part of the participant in the state of affairs (see 6.8c' and 6.11a).

A-ndo ma-r-εnd-a ko-he-ɔ ma-wera.

'People want to be given jobs.'

Kirisi ne a-a-rigane-ir-wɔ go-twarithi-a mo-ithikiri.

'Chris forgot (how) to ride/ riding a bicycle.'

e. **Purposive**: one action is carried out in order to realize another event (see 6.42a)

A-arimo ma-rok-ag-a cukuru tene go-thɔmithi-a a-rutwɔ.

'The teachers go to school early in order to teach the students.'

f. **Jussive**: the expression of a command, request, or demand. (see 5.32; 5.28a below),

Mw-arimo ε-εr-ir-ε mo-rutwɔ ai-hand-ε i-hoa.

'The teacher ordered the student to plant the flower.'

g. **Causative** [2]: A directed action/event is geared towards the realization of an event. (see 5.8a)

Ndɔgɔ ne e-ra-tom-a mw-ana a-kɔrɔr-ε.,

'The smoke is making the child cough.'

- h. **Direct perception:** the unmediated apprehension of an act, event, or situation through the senses. (see 6.19c, 6.13a)

Ne nj-igu-ir-ε o-ke-in-a rw-embɔ.

‘I heard you singing a song.’

Ne nde-r-ɔn-ir-ε a-ndo ma-ke-iy-a ma-tunda ma-a βaβa.

‘I saw people stealing my father’s fruits.’

- i. **Indirect perception:** a deduction about an event, act, or situation made from some evidence (e.g. someone sees the evidence that work is completed e.g. (6.6a).

Ne ndɔɔn-a ate ne mo-rek-ir-i-ε wera.

‘I have seen that you finished the work.’

- j. **Proposition attitude:** the expression of a speaker’s attitude, judgment, or opinion regarding a state of affairs.(see 6.3b)

Nj-etek-et-i-ε ate nɔ ma-hɔt-ε go-tɛg-a ngware.

‘I believe (that) they can catch guinea fowls.’

- k. **Cognition:** an expression of knowledge or mental activity,(see 6.6b)

Ne to-ra-meny-ir-ε ate ne-we o-r-ɔy-ir-ε mbɛca

‘We discovered/learned that it was you who took the money.’

- l. **Indirect discourse:** an expression of reported speech (see 6.1a)

Ma-a-ug-ir-ε ate ma-ko-inoka omothe.

‘They said that they will go home today.’

- m. **Direct discourse:** the direct quotation of a speech event (see 6.2d and 6.56a)

Nd-a-mw-er-ir-ε atere “Oka na i-timo re-aku na ngɔ.”

‘I said to him, “Bring your spear and shield”.’

Ma-ra-nj-er-ir-ε aterere “Tw-e na ngaragu go-koma-tuko ma-ya”.

‘They told me, “We have a famine here now”.’

- n. **Circumstances:** the spatial or temporal parameters of an event (see 6.30a; 6.31b)

To-geith-ir-i-ε tata mberɛ ya ko-ing-er-a kanitha.

‘We greeted auntie before (our/her) entering the church.’

- o. **Reason:** the motivation or cause of for an action or event.(see 6.40a-c; 6.41)

Mo-rutani a-a-hor-ir-ε mo-rutwɔi ne tɔndo ne a-go-ir-εke-geriɔ.

‘The teacher beat the student because s/he failed the exam.’

- p. **Conditional:** an expression of what consequence would hold, given the conditions in a state of affairs (see 6.50b; 6.51b) .

Kɔrwɔ ne mw-ɔk-ir-ε kiumia ne mo-nge-a-mu-ɔn-ir-ε.

‘If you had come on Sunday, you would have seen him.’

Ma-ta-nge-a-nyu-et-ɛndawa ne ma-nge-a-ku-ir-ε.

‘Had they not taken medicine, they would have died.’

- q. **Concessive:** the content of the main clause holds unexpectedly, compared to the content of the subordinate clause (see 6.47a,

Ona go-tuek-a ne n-gw-end-et-ε, n-di-ing-e-go-kəber-a mbia.

‘Even though I like you, I cannot lend you money.’

r. **Temporal**

1. Simultaneous states of affairs: one event is coterminous with another event (5.34a-b).

A-rutwɔɪ nɔ maɪ-thɔɔm-ε maɪ-ke-ar-i-a.

‘Students can read as they talk/while talking.’

2. Sequential state of affairs: one event follows another temporally, with or without temporal overlap (see 6.37a).

Ko-ra-ur-ir-ε ma-a-kiny-a ge-cagi.

‘It rained after they arrived at the village.’

M-ɔ-ɔk-ir-ε ma-a-rug-et-ε.

‘They came and cooked immediately

- s. **Temporary unordered states of affairs:** the temporal relation between the states of affairs is unexpressed.

<i>A-ciari</i>	<i>ma-thi-ag-a</i>	<i>wera</i>	<i>na-ciɔ</i>	<i>ci-ana</i>
2-parents	2-go-HAB-FV	14.work	CLM-8-they	8-children
<i>i-thaka-ag-er-a</i>	<i>keharɔ-ine.</i>			
8-play-HAB-APPL-FV	7-field-loc			

In the overview of RRG, the semantic representation was introduced in §0. Although the representation was not elaborated upon, the lexical decomposition was illustrated. An RRG decompositional system for a formal characterization of the semantic relations such as the ones above was suggested by Ohori (2001) and adapted into RRG (see Van Valin 2005; 2007). This representation is shown in (6.68) below.

- (6.68) a. Causative [1] ...CAUSE...
 b. Phase BECOME/INGR, KEEP, TERMINATE
 c. Modifying subevents
 1. Manner **do'**(x,[**MOTION'**(x)]...) ^
 [**MANNER.OF.MOTION'**(x)]
 2. Motion **do'**(x,[**MOTION'**(x)] ^ [**pred₂'**x,(z)])
 3. Position **do'**(x,[**STANCE'**(x)] ^ [**pred₂'**x,(z)])
 4. Means **do'**(x,[...] ^ [**pred₂'**(x,z)])
 d. Psych-Action **MENTAL.DISPOSITION'**(x,[LS...x...])
 e. Purposive **want'**(x,LS₂) ^ DO(x,[LS₁] \diamond CAUSE [LS₂]))
 f. Jussive [**do'**(x,[**say'**(x,y)))]CAUSE[**MENTAL.DISP.'**
 (y,[LS...y...])]
 g. Causative [2] [**do'**(x, \emptyset)] CAUSE[**undergo'**(y,[LS...y...])]
 h. Direct perception **PERCEIVE'** (x, [LS...y...])
 i. Indirect perception **PERCEIVE'** (x,[LS])

j. Propositional attitude	BELIEVE' ((x,) [LS])
k. Cognition	KNOW' (x, [LS])
l. Indirect discourse	do' (x,[say' [LS{ <i>TNS</i> }]])
m. Direct discourse	do' (x,[say' [LS{ <i>IF</i> }]])
n. Circumstances	be-LOC/TEMP' ([LS ₁], [LS ₂])
o. Reason	[LS ₁] BECAUSE' [LS ₂]
p. Conditional	[LS ₁] ⊃ [LS ₂]
q. Concessive	[LS ₁] IN.SPITE.OF' [LS ₂]
r. Temporal	[LS ₁] ∧ [LS ₂]
	[LS ₁] & [LS ₂]
s. Situation-situation	[LS ₁] & [LS ₂]

From the decompositional system “cause” appears as causative [1] and causative [2]. Causative [1] has an identical LS with a lexical causative verb such as *una* ‘break’ and morphological (*-ith-* and *-i-*) causatives, and causative [2] contains a matrix LS of an overt causative verb and an embedded LS. Here we might include Gikūyū periphrastic causatives constructions (see 5.9). The relations from (6.68o-s) contain embedded logical structures. For example, in the *reason* relation, the LS for the matrix clause is linked to or embedded by ‘BECAUSE’ to a second clause containing the *reason*. The concessive relation in (6.68q) contains the LS of matrix clause and it is linked by ‘IN SPITE OF’ to the LS of the concession clause. For more, on explanatory notes, the reader is referred to Van Valin (2005, 2007).

All the above-mentioned interclausal semantic relations are placed on the ISemRH. In this hierarchy, the relations are presented in a continuum of integration, from the closest, on top, to the loosest, at the bottom. The relations in the hierarchy can be formalized in a RRG lexical decompositional system, which has not been done here, but interested readers are referred to Van Valin (2005; 2007).

RRG also proposes an Interclausal Syntactic Relations Hierarchy (ISynRH). In this hierarchy, the eleven juncture-nexus types are hierarchically organized. One of the principles behind this hierarchy explains the linkage features of junctures: It indicates that nuclear junctures are tighter than core junctures. In turn the core junctures are tighter than clausal junctures, with the sentential juncture being the loosest.

The second principle concerns the nexus relations. In this principle, cosubordination is the tightest nexus relation and coordination the loosest with subordination falling in between. These principles were proposed in the syntactic bondedness hierarchy, the precursor of the ISynRH, in order to capture the “relative strength of the syntactic bond between junct in a complex construction” (Foley & Van Valin 1984:264).

Put together, the ISynRH and the ISemRH form the Interclausal Relations Hierarchy in Figure 6.3. The syntactic relations of the ISynRH lay side by side with the semantic relations of the ISemRH. These hierarchies aim at explaining the degree of linkage in complex sentences, both semantically and syntactically.

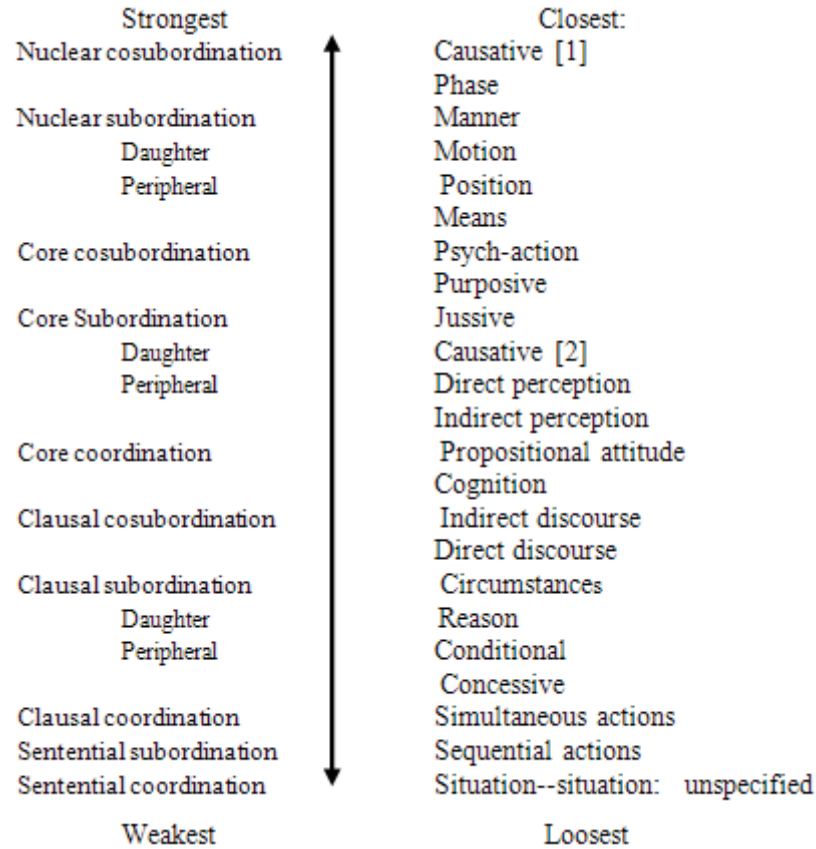


Figure 6.3 Interclausal Relations Hierarchy

Van Valin (2007:85) contends that the relationship holding between the syntactic and semantic relations hierarchy is very complex, since it is not a one-to-one relationship, although it has cross-linguistic regularities. The general idea of the interaction between the two hierarchies is that the closer the semantic relation between two propositions, the stronger the syntactic linkage between them. Therefore, close strong interactions are also realized by the strongest syntactic juncture-nexus types highest on the hierarchy.

It is already established that Gĩkũyũ has eight juncture-nexus types, lacking only the nuclear-based juncture types. Even without them, the language is able to indicate the closest relations, both syntactically and morphologically, e.g. causative [1].

The causative in Gĩkũyũ is indicated morphologically by *-i/-ith-* and syntactically by periphrastic causatives (Causative [2]). Gĩkũyũ does not have a Causative [1] construction, but the morphological causative is closest to Causative [1]; however, it is ruled out because it is not a complex construction. The English example is a nuclear cosubordinate construction, in which a state is realized after an event. A Causative [1] construction is tighter than a periphrastic Causative [2], with two events such as the Gĩkũyũ example. That is why Causative [2] is lower on the hierarchy, while Causative [1] is the highest on the hierarchy, an indication of its tightness.

It is possible for a single construction to realize more than one semantic or syntactic relation. For example, modifying subevents (such as manner and motion), sequential, and

simultaneous relations are realized by the various *-ke-* prefixes, and they also realize different nexus relations, specifically subordination or cosubordination.

Indeed the syntactic and semantic features of the various consecutive clauses and *-ke-* prefixes become relevant in the Interclausal Relations Hierarchy. It is here that the semantics of the prefixes show where such clauses lie on both of the hierarchies. For example, the consecutive tenses realises the “Temporal” semantic relation – specifically, the sequential states of affairs as we saw that consecutive clauses indicate sequential or successive events, with or without temporal overlap. On the other hand, *-ke-* prefixes realize the simultaneous state of affairs of the “Temporal” semantic relation. I showed many examples that encode different events’ time intervals, such as overlapping, simultaneous, successive events and events that are neither of these mentioned, but they are temporality-related.

According to Van Valin (2007:85), the semantic relations at the top end of the hierarchy should ideally be realized by the linkage types on top and the same goes for those at the bottom of the hierarchy. Considering Gĩkũyũ complex constructions, this view calls for some comment.

In the light of the above view, we might argue that syntactic and semantic integration of linked clauses is reflected in their order in a complex sentence. Therefore, the weaker the link, the easier it is to separate a linked unit from another; and the stronger the link, the harder it is to separate a linked unit.

In view of this, I argue that those linked units that can be extraposed are a weaker form of linkage, and those that resist extraposition are a stronger form of linkage. Therefore, considering reason, conditional, and concessive as examples, these types of relations freely allow pre- and postpositioning of linked clauses. Thus, they fall under the weaker form. On the other hand, if we take purpose, simultaneous and sequential linked clauses, these have fixed positions; they are not displaceable. Except for the sequential consecutive, which optionally allows the conjunction *na* ‘and’, purpose and simultaneous do not allow anything to interfere with the linkage. In my view, this shows how integrated they are with each other, syntactically and semantically.

While purpose clauses are higher on the hierarchy than the reason, conditional, and concessive relations are; it should be expected that the stronger integrated forms of simultaneous and sequential clauses be higher than the reason, conditional, and concessive relations. While this may seem as an oversight, it is not, because the sequential and simultaneous events are modifying subevents which are already high up the hierarchy. Thus, having them below does not mean they are weaker than, say, conditionals.

This discussion of the semantic hierarchy in Gĩkũyũ is not conclusive. Investigating the semantic side of the Interclausal Relations Hierarchy, which according to Van Valin (2007) has not been robustly studied compared to the syntactic side, is an important task, but a detailed investigation remains a future undertaking. Overall, the aspects of Gĩkũyũ complex sentences are represented convincingly in the hierarchy.

This chapter set out to introduce subordination in Gĩkũyũ. Gĩkũyũ complement-taking predicates and their complement types were presented. Following the RRG theory of subordination; core subordination, ad-core periphery subordination and ad-clausal subordination as forms of adjunct modification were illustrated.

Under clausal subordination, different types of adverb clauses as part of ad-clausal periphery subordination were illustrated. The position of ad-clauses in Gĩkũyũ reveals that

discourse-pragmatic factors contribute to the position, noting that, whereas in some clauses the ad-clauses may be pre-or postposed, there are those have fixed positions. Sentential subordination was also discussed and illustrated. It emerged that detached clauses and direct discourse clauses realize sentential subordination.

Gĩkũyũ relative clauses are also discussed. Unlike previous studies, I showed that Gĩkũyũ has relative pronouns but no relativizer, and that the relative pronoun should not be confused with the demonstrative, as has been the norm. It was also shown that Gĩkũyũ has non-restrictive and restrictive RCs, arguing that the presence or absence of a relative pronoun plays a role in the determination of the type of RC. Apposition was found to indicate non-restrictive RCs.

Finally, an attempt was made to place Gĩkũyũ complex sentences within the syntactic and semantic hierarchies as proposed in RRG. It emerged that the possible complex sentences in Gĩkũyũ fit in the hierarchies.

7 Summary and conclusion

This dissertation set out to investigate the Gĩkũyũ complex sentences within the Role and Reference Grammar (RRG) framework. I began with a background discussion on the notions of coordination and subordination as clause linkage relations. In the discussion I pointed out a general lack of consensus, especially with regard to the notion of subordination. In spite of the inadequacies of these relations, I found both relations relevant as a starting point for the discussion of Gĩkũyũ complex sentences.

After an attempt to analyze some Gĩkũyũ complex sentences based on the coordination and subordination, it emerged that, whereas Gĩkũyũ displays typical examples of coordination and subordination, these relations are unable to account for all types of complex sentences in the language. It became evident that some Gĩkũyũ complex sentences require a different analysis in order to account for the different types of complex constructions in the language. In order to do this, I employed the theoretical tools of Role and Reference Grammar (RRG), which proposes more theoretical solutions towards the typological analysis of complex sentences.

The goal of the study was thus to investigate the morphosyntactic aspects of Gĩkũyũ complex constructions based on the theoretical tenets of the RRG framework. I set out to investigate one main question: What are the constituent units in Gĩkũyũ complex sentences and what syntactic relations exist between them? To answer this question, I developed three sub-questions, namely (i) what is the composition of complex sentences in Gĩkũyũ?, (ii) can the RRG theoretical concepts explicate the Gĩkũyũ complex sentences?, and (iii) to what extent can the RRG theoretical tools account for the interaction of syntax, semantics, and pragmatics in Gĩkũyũ complex sentences? An introduction to various linguistic features of Gĩkũyũ was presented as part of the background for later analysis.

In Chapter 2 I presented a review of literature on general issues of complex sentences, and studies on clause-linkage based on RRG. This was followed by a review of complex sentences in Bantu studies. It emerged that studies of complex constructions in Bantu languages are few and theoretically-inclined to the generative theories. Also notable from the reviewed literature on Bantu was that the output studying Southern African languages was higher compared to that studying Eastern African and especially Kenyan Bantu languages. A review of previous studies in Gĩkũyũ revealed that there has to date been no study that dealt with Gĩkũyũ complex sentences in good detail – a lacuna this study sought to fill. In addition, the review also revealed that RRG has yet to be applied to Bantu languages, hence necessitating this undertaking.

Additionally, an overview of relevant aspects of RRG was presented, so as to lay a foundation for the later application of the theory. The syntactic representation was discussed, with most focus being on the features of the layered structure of the clause. I also introduced the focus projection and semantic representation. Also introduced was the theory of macroroles, RRG's notion of transitivity and the status of grammatical relations in the theory.

In Chapter 3, RRG theoretical concepts were applied to Gĩkũyũ simple clauses. The LSC components were introduced, discussed and illustrated with Gĩkũyũ examples. The LSC as postulated was shown to capture Gĩkũyũ clauses accurately. A schema for the Gikuyu LSC was proposed, in which it was noted that the pronominal anaphor is always the first core argument

and the second core argument may either be a lexical RP or a pronoun, but not both of them in the same clause. The components of the operator projection were also discussed, and at the end of this discussion, I posited tense, negation, deontic and epistemic modality, illocutionary force, and evidentials as the relevant operators in Gĩkũyũ. A schema for the order of these operators was also suggested. In the same chapter, I discussed the focus projection, and showed that the Gĩkũyũ focus typology conforms to that suggested in RRG.

Chapter 4 introduced the theory of complex sentences in RRG. I showed examples of nuclear, core, clausal, and sentential junctures and the tripartite division of the nexus relations: coordination, subordination, and cosubordination. I demonstrated that Gĩkũyũ complex sentences are composed of core, clausal and sentential junctures. These junctures, together with the three nexuses, should ideally form nine nexus-juncture types; however, since there are no sentential operators for the sentential layer, sentential cosubordination does not exist. Overall, Gĩkũyũ has eight juncture-nexus types out of the possible eleven, since the language lacks a nuclear nexus-juncture type.

A discussion of the Gĩkũyũ complex RP revealed that it has all seven juncture-nexus types (NUC_R cosubordination and subordination, CORE_R cosubordination and subordination, and RP coordination, cosubordination, and subordination). Also discussed was focus in complex sentences, finding that in Gĩkũyũ, the potential focus domain spreads to subordinate clauses in complex sentences. These possibilities are opened up by the so-called “bridge verbs”, which allow a subordinate clause to be a daughter of the clause, and by the fact that the language allows some in situ *wh*-words in subordinate clauses. The reason-clauses seemed unique in this respect, because they allow an in situ *wh*-word and *ne* to co-occur in the same clause, which is not ordinarily possible. For that reason, I concluded that the *ne* that co-occurs with the subordinator is a complex conjunction and the *ne* that is usually the assertive marker is a placeholder for focus, since it cannot be declarative if there is an interrogative in situ *wh*-word in the clause. The particle *ne* helps in revealing the presence of the PFD in subordinate clauses.

In Chapter 5 I discussed coordination and cosubordination in Gĩkũyũ. I described conjunctive, disjunctive adversative and causal forms of coordination. One especially interesting finding was that the conjunction *na* ‘and’ can link any constituent in Gĩkũyũ, unlike in some Bantu languages where its linkage ability is limited to certain constituents.

Evidence of operators such as deontic modality, narrow negation and the simultaneous prefix *-ke-* provided a basis to posit core cosubordination in Gĩkũyũ. There was also evidence of clausal cosubordination based on tense, consecutive and simultaneous markers (temporal-based cosubordination). In addition, I showed that illocutionary force, clausal evidential, and status (epistemic modality and realis/irrealis divide) encode clausal cosubordination in Gĩkũyũ.

The discussion of cosubordination also entailed a detailed discussion of consecutive tenses and related *-ke-* prefixes. It emerged that Gĩkũyũ has five consecutive tenses, unlike most languages with just one. Two of those consecutives (recent past *-ra-* and immediate past *-a-*) are also absolute tenses in main clauses, while the future consecutive has a null marker (*-∅-*) in the consecutive clauses. Consecutives *-ke-* and *-ka-* do not occur in main clauses at all, and they always encode a consecutive or sequential sense. They do not accept any aspect suffixes. Due to this uniqueness and the fact that they are very similar to others found in Bantu, I claim that these are the “real” consecutive tenses, while the others have a dual-role of marking absolute and

consecutive tenses. However, the motivation behind these many consecutive tenses in Gĩkũyũ was not pursued further.

The *-ke-* prefixes showed various semantic event intervals such as simultaneity, overlap, and succession of events. The temporal semantic relations realized by the *-ke-* prefixes and the combinations they form with other aspectual suffixes have a direct bearing on the interclausal semantic and syntactic hierarchies. They, for example, indicate the modifying subevent of manner and temporal relations (simultaneity and sequentiality). These *-ke-* prefixes are capable of both subordination and cosubordination, as the TEMP *-ke-* indicates a temporal adverbial clause while SIM *-ke-* indicates cosubordination.

Subordination in Gĩkũyũ was discussed in Chapter 6. I described a typology of Gĩkũyũ complementation and a typology of adverbial clauses was presented. The various adverb clause types showed varied syntactic behaviour. Based on the RRG theory of subordination, I elaborated on core (daughter) subordination, ad-core peripheral, ad-clausal subordination and sentential subordination. I also discussed raising and control constructions in Gĩkũyũ, based on the RRG theory of control and raising. The morphosyntactic features of Gĩkũyũ relative clauses were also discussed, pointing out that it is valid to make a claim for the existence of relative pronouns which should not be confused or lumped together with demonstratives. I presented evidence of restrictive and non-restrictive RCs and argued that the presence or absence of the relative pronoun has effects on the type of RC.

Also discussed in Chapter 6 is the interclausal semantic and syntactic relations hierarchies. Based on these semantic and syntactic relations, Gĩkũyũ complex sentences support most of the posited semantic and syntactic relations. However, the language lacks the Causative [1], which is nuclear cosubordination, and the modifying subevent of ‘means’, as proposed in the hierarchy.

In conclusion, it is known that RRG was developed as a typological universal linguistic theory applicable to typologically diverse languages such as languages such as those without verb phrases and or grammatical relations. This typological orientation has enabled the theory to describe Gĩkũyũ, a language that was not one of the languages originally considered, demonstrating the universality of RRG as a linguistic theory. Especially helpful is the notion of cosubordination, without which some complex sentences cannot be accounted for accurately. Additionally, the RRG theory of subordination helps distinguish the different forms of subordination. The analysis of Gĩkũyũ confirms that coordination, subordination and cosubordination are valid nexi.

It was not possible to investigate all aspects of Gĩkũyũ complex sentences. Aspects of linking in complex constructions, or the complex *wh*-constructions and other issues were not studied. I suggest a study of these issues, and a deeper look into the Interclausal Relations Hierarchy. These and others will benefit the larger field of Bantu linguistics and RRG theory.

References

- Abdoulaye, M. L. (1992). *Aspects of Hausa morphosyntax in Role and Reference Grammar*. PhD dissertation. University at Buffalo. Available on the RRG website.
- Abels, K. & Muriungi, P. (2006). The focus particle in Kĩĩtharaka. *ZAS Papers in Linguistics*, 46, 1–20.
- Abels, K. & Muriungi, P. (2008). The focus marker in Kĩĩtharaka: Syntax and semantics. *Lingua*, 118, 687–731.
- Aboh, E. O. (2006). When verbal predicates go fronting. *ZAS Papers in Linguistics* 46, 21–48.
- Aboh, E. O. & Dyakonova, M. (2009). Predicate doubling and parallel chains. *Lingua* 119, 1035–65.
- Aikhenvald, A. (2004a). *Evidentiality*. Oxford: Oxford University Press.
- Aikhenvald, A. (2004b). Gender and noun classes. In G. Booij, C. Lehmann, J. Mugdan, S. Skopeteas (eds.), *Morphology: An international handbook on inflection and word-formation*, Vol.2, 1031–1045. Berlin, New York: Walter de Gruyter.
- Allen, J. A. (2011). *A Role and Reference Grammar analysis of Kankanaey*. Texas: SIL.
- Armstrong, L. (1967). *The phonetic and tonal structure of Kikuyu*. London: Dawsons.
- Andrews, A. (2007). Relative clauses. In T. Shopen. (ed.), *Language typology and syntactic description. Vol. II: Complex constructions* (2nd edn.), 206–235. Cambridge: Cambridge University Press.
- Ashton, E. O. (1944). *Swahili grammar: Including intonation*. Essex: Longman.
- Austin, P. (1981). Switch-Reference in Australia. *Language* 52(2). 309–334.
- Barlow, A. R. (1927). The use of the copula with the Kikuyu verb. In C. Meihoff (ed.), *Festschrift Meinhof: Sprachwissenschaftliche und andere Studien*, 223–227. Hamburg: Kommissionverlag von L. Friedrichen.
- Barlow, A. R. (1951). *Studies in Kikuyu grammar and idiom*. Edinburgh: William Blackwood & Sons.
- Batteen, C. (2012). The structure of the *do/make* constructions in Chichewa and Chichewa English. *Studies in the Linguistic Sciences: Illinois Working Papers*. 1–16. <http://hdl.handle.net/2142/35292>, downloaded 12 July 2016.
- Bearth, T. (1999). The contribution of African linguistics towards a general theory of focus. Update and critical review. *Journal of African languages and Linguistics* 20. 121–156.
- Bearth, T. (2003). Syntax. In D. Nurse, & G. Phillipson, (eds.). *The Bantu languages*. 121–139.
- Bennett, P. R. (1975). Narrative style and the consecutive. *African Languages/Langues Africaines* 1. 58–80.
- Bennett, P. R. (1986a). The role of pause in discourse and its place in linguistics: Some evidence from Eastern Bantu. *Language Sciences* 8, 1. 63–79.
- Bennett, P. R. (1986b). Grammar in the lexicon: Two Bantu cases. *Journal of African languages & Linguistics* 8. 1–30.
- Bennett, P. R., Biersteker, A., Gikonyo, W., Hershberg, S., Kamande, J., Perez, C., & M. Swearingen. (1985). *Gikuyu ni kiogire: A first course in Kikuyu*. Madison: The African Studies Program of the University of Wisconsin-Madison.
- Bentley, M. E. (1999). Head-marking vs. dependent-marking in Swahili, Kikuyu, and Chichewa. In Paul F. A. Kotey (ed.), *New dimensions in African linguistics and languages*. 165–175. Trenton, N.J.: Africa World Press.
- Bentley, D. (2004). Unexpressed arguments: *Si*-constructions in Italian. In B. Nolan (ed.). *Book of proceedings: International Role and Reference Grammar conference*. 17–48, Dublin: Institute of Technology Blanchardstown. Available on the RRG website.
- Benson, T. G. (ed.) (1964). *Kikuyu-English dictionary*. Nairobi: Oxford University Press.

- Bergvall, V. L. (1983). Wh-Questions and island constraints in Kikuyu: A reanalysis. In J. Kaye, H. Koopman, & D. Sportiche, & A. Duga. (eds.). *Current approaches to African linguistics*, Vol. 2. 245–260. Dordrecht: Foris Publications
- Bergvall, V. L. (1986). A typology of empty categories for Kikuyu and Swahili: In G. Dimmendaal (ed.). *Current approaches to African linguistics*, Vol. 3. 55–70. Dordrecht: Foris Publications.
- Bergvall, V. L. (1987a). *Focus in Kikuyu and universal grammar*. Doctoral dissertation. Harvard University. (UMI).
- Bergvall, V. L. (1987b). The position and properties of in situ and right-moved questions in Kikuyu. In D. Odden (ed.), *Current approaches to African linguistics*, Vol. 4. 37–55. Dordrecht: Foris Publications
- Bergvall, V. L. (1988). Pronominalization and discourse function in Kikuyu. *Niger-Congo Syntax and Semantics* 1, 87–96.
- Bickel, B. (1993). Belhare subordination and the theory of topic. In K. Ebert (ed.), *Studies in language linkage* (papers from the first Köln-Zürich workshop) (Arbeiten des Seminars für Allgemeine Sprachwissenschaft 12). 23–55. Zürich: University of Zürich
- Bickel, B. (2010). Capturing particulars and universals in clause linkage: A multivariate analysis. In I. Bril. (ed.). 51–104.
- Blakemore, D. & Carston, R. (2005). The pragmatics of sentential coordination with *and*. *Lingua* 115. 569–589.
- Blass, R. (1989). Pragmatic effects of coordination: The case of ‘and’ in Sissala. *UCL Working Papers in Linguistics*. 32–51. London: University College London.
- Bohnenmeyer, J & Van Valin, R.D. Jr. (to appear 2017) The Macro-Event Property and the layered structure of the clause. *Studies of Language*.
- Borsley, R. D. (1994). In defence of coordinate structures. *Linguistic Analysis* 24. 218–246.
- Borsley, R. D. (2005). Against ConjP. *Lingua* 115. 461–82.
- Bresnan, J. (1970). On complementizers: Towards a theory of complement types. *Foundations of Language* 6. 297–321.
- Bresnan, J. (1972). *Theory of complementation in English syntax*. PhD dissertation. MIT.
- Bresnan, J. & Mchombo, S. A. (1995). The lexical integrity principle: Evidence from Bantu. *Natural Language and Linguistic Theory* 13(2). 181–254.
- Bresnan, J. (1997). Mixed categories as head sharing constructions. In M. Butt & T. Holloway (eds.), *Online proceeding of the LFG conference*. CSLI publications. www.csli-publications.stanford.edu. Stanford California
- Bresnan, J. & Kanerva, J. M. (1989). Locative inversion in Chichewa: A case study of factorization in grammar. *Linguistic Inquiry* 20(1). 1–50.
- Bresnan, J. & Mchombo, S. A. (1987). Topic, pronoun, and agreement in Chichewa. *Language* 63. 741–82.
- Bril, I. (ed.). (2010a). *Clause linkage and clause hierarchy: syntax and pragmatics*. Amsterdam: John Benjamins
- Bril, I. (2010b). Informational and referential hierarchy. In I. Bril (ed.). 269–310.
- Brugman C. M, & Macaulay, M. (2015). Characterizing evidentiality. *Linguistic Typology* 19(2). 201–237.
- Butler, C. S. (2003). *Structure and function: A guide to three major structural-functional theories. part 2: From clause to discourse and beyond*. Amsterdam & Philadelphia: John Benjamins.
- Bybee, J. L. (1985). *Morphology: A study of the relation between meaning and form*. Amsterdam/New York: John Benjamins.
- Cable, S. (2013). Beyond the past, present, and future: Towards the semantics of ‘Graded Tense’ in Gĩkũyũ. *Natural Language Semantics* 21. 219–276.

- Cain, B. & Gair, J. (2000). *Dhivehi (Maldivian)* (Languages of the World/Materials 63). Munich: Lincom Europa.
- Carnie, A. (2013). *Syntax: A generative introduction*. (3rd edn.). Oxford: Wiley-Blackwell.
- Caron, B. (2006). Condition, topic and focus in African languages: Why conditionals are not topics. *ZAS Papers in Linguistics* 46. 69–82.
- Carlson, R. (1992). Narrative, subjunctive and finiteness. *Journal of African Languages and Linguistics* 13. 59–85.
- Carstens, V. (1991). *The morphology and syntax of determiner phrases in Kiswahili*. A Phd dissertation. University of California: Los Angeles.
- Carstens, V. & Diercks, M. (2013). Parameterizing case and activity: Hyper-raising in Bantu. In S. Kan, C. Moore-Cantwell, & R. Staubs (eds.), *Proceedings of the North East Linguistic Society* 40. 99–118. Amherst: GLSA.
- Centineo, G. (1996). A lexical theory of auxiliary selection in Italian. *Probus* 8. 223–271.
- Chafe, W.L. (1986). Evidentiality in English conversation and academic writing. In W.L. Chafe & J. Nichols (eds.), *Evidentiality: The linguistic coding of epistemology*. 261–271. Ablex Publishing: New Jersey.
- Childs, G.T. (2003). *Introduction to African linguistics*. Philadelphia/Amsterdam: John Benjamins.
- Chomsky, N. (1957). *Syntactic structures* (*Janua Linguarum* no 4). Gravenhage: Mouton.
- Chomsky, N. (1965). *Aspects of the theory of syntax*. Cambridge MA: MIT Press.
- Chomsky, N. (1981). *Lectures on government and binding*. Dordrecht: Foris.
- Chumbow, B. (1977). Relatives as determiners: A case from Ngemba. In P.F.A. Kotey & H. Der-Houssikian (eds.), *Language and linguistic problems in Africa* (Proceedings of the Seventh Conference on African Linguistics). 283–302. Columbia: Hornbeam Press.
- Clements, G. N. (1984a). Principles of tone assignment in Kikuyu. In G. N. Clements & J. Goldsmith (eds.), *Auto segmental studies in Bantu*. 281–339. Dordrecht: Foris
- Clements, G. N. (1984b). Binding domains in Kikuyu. *Studies in the Linguistic Sciences* 14. 37–56.
- Comrie, B. (1976) *Aspect*. Cambridge: Cambridge University Press.
- Comrie, B. (1985). *Tense*. Cambridge: Cambridge University Press.
- Comrie, B. (1989). *Language universals and linguistic typology* (2nd edn.). Oxford: Blackwell.
- Cormack, A. & Smith, N. (2003). What is coordination? *Lingua* 115. 395–418.
- Creissels, D. (2005). A typology of subject and object markers in African languages. In F. K. E. Voeltz (ed.), *Studies in African linguistics typology*. 43–69. Amsterdam: John Benjamins.
- Creissels, D., Dimmendaal, G. J., Frajzyngier, Z., & König, C. (2008). Africa as a morphosyntactic area. In B. Heine & D. Nurse (eds.), *A linguistic geography of Africa*. 86–150. Cambridge: Cambridge University Press.
- Creissels, D. & Godard, D. (2005). The Tswana infinitive as a mixed category. In S. Müller (ed.), *Proceedings of the 12th international Conference on Head-Driven Phrase Structure Grammar*. 70–90. CLSI Publications.
- Crisma, P., Marten, L. & Sybesma, R. (2011). The point of Bantu, Chinese and Romance nominal classification. *Rivista di Linguistica* 23(2). 251–299.
- Cristofaro, S. (2003). *Subordination*. Oxford: Oxford University Press.
- Croft, W. (2001). *Radical construction grammar: syntactic theory in typological perspective*. Oxford: Oxford University Press
- Croft, W. (2003). *Typology and universals* (2nd edn.). Cambridge: Cambridge University Press.
- Croft, W. (2013). Agreement as anaphora, anaphora as coreference. In D. Bakker & M. Haspelmath, (eds.), *Languages across boundaries: In memory of Anna Siewierska*. 95–117. Berlin: Mouton de Gruyter.

- Culicover, P. W. & Jackendoff, Ray. (1997). Semantic subordination despite syntactic coordination. *Linguistic Inquiry* 28. 195–217.
- Dahl, Östen. (1985). *Tense and aspect systems*. Oxford: Basil Blackwell.
- Dalgish, G. M. (1979). Syntax and semantics of the morpheme *ni* in Kivunjo (Chaga). *Studies in African Linguistics* 10(1). 47–64.
- Deen, U.K. (2006). Subject agreement in Nairobi Swahili. In J. Mugane, J. P. Hutchison, & D. A. Worman (eds.). *Selected Proceedings of the 35th Annual Conference on African Linguistics*. Cascadia Proceedings Project. 225–233.
- DeLancey, S. (1997). Mirativity: The grammatical marking of unexpected information. *Linguistic Typology* 1. 33–52.
- DeLancey, S. (2001). The mirative and evidentiality. *Journal of Pragmatics* 33. 369–382.
- Demuth, K. (1989). Maturation and the acquisition of the Sesotho passive. *Language* 65(1).56–80.
- Demuth, K. (1990). Subject, topic and Sesotho passive. *Journal of Child Language* 17(1). 67–84.
- Demuth, K. (1995). Questions, relatives, and minimal projection. *Language Acquisition* 4(1&2). 49–71.
- Demuth, K. & Harford, C. (1999). Verb raising and subject inversion in Bantu relatives. *Journal of African Languages and Linguistics* 20. 41–61.
- Demuth, K. & Johnson, M. (1988). Discourse Function and Agreement in Setawana. *Niger-Congo Syntax and Semantics* 1. 77–85.
- Dery, J.E. (2007). Pragmatic focus and word order variation in Tagalog. *Language and Linguistics* 8.1. 373–402.
- Diessel, H. (2008). Iconicity and sequence: A corpus-based analysis of the positioning of temporal adverbial clauses in English. *Cognitive Linguistics* 19(3). 465–490.
- De Vos, M. A. & Riedel, K. (2013). Swahili coordinated infinitives and non-canonical case-marking. A conference paper presented at the 5th Bantu conference in Paris, June 2013.
- de Haan, F. (2006). Typological approaches to modality. In W. Frawley, E. Eschenroeder, S. Mills, & T. Nguyaen (eds.), *The expression of modality*. 27–70. Berlin: Mouton de Gruyter.
- de Haan, F. (2012). Evidentiality and mirativity. In R. I. Binnick (ed.), *The oxford handbook of Syntax*. 1020–46. Oxford: Oxford University Press.
- de Vries, M. (2002). *The Syntax of relativization*. PhD Dissertation. University of Amsterdam. LOT dissertation series, 53.
- Dik, S. C. (1968). *Coordination: Its implication for the theory of general linguistics*. Amsterdam:North-Holland.
- Dik, S. C. (1997). *The Theory of Functional Grammar, Part 2. Complex and derived constructions*. K. Hengeveld (ed.). Berlin/New York: Mouton de Gruyter.
- Dik, S. C. (1980). Seventeen sentences: Basic principles and application of functional grammar. In E. Moravcsik & J. R. Wirth (eds.), *Syntax and semantics: Current approaches to syntax* 13. 45–75. New York: Academic Press.
- Dimmendaal, G. J. (2008). Africa's verbal final languages. In B. Heine & D. Nurse (eds.). *A linguistic geography of Africa*. 272–308. Cambridge: Cambridge University Press.
- Dimmendaal, G. J. (2011). *Historical linguistics and the comparative study of African languages*. Amsterdam/Philadelphia: John Benjamins.
- Dixon, R. M. W. (2006). Complement clauses and complementation strategies in typological perspective. In R. M. W. Dixon & A. Y. Aikhenvald (eds.), *Complementation: A cross-linguistic typology*. 1–46. Oxford: Oxford University Press.

- Dixon, R. M. W. (2010). *Basic linguistic theory: Grammatical topics, Vol.2*. Oxford: Oxford University Press.
- Dixon, R. M. W. (2012). *Basic linguistic theory: Further grammatical topics, Vol.3*. Oxford: Oxford University Press.
- Dooley, R. A. (2010a). Exploring clause chaining. *SIL Electronic Working Papers in Linguistics*. Retrieved on 12-7-2011, from: www.sil.org/resources/publications/entry/7858
- Dooley, R. A. (2010b). Foreground and background in Mbyá Guaraní clause chaining. In K. A. McElhanon & G. Reesnik (eds.), *A mosaic of languages and cultures: Studies celebrating the career of Karl J. Franklin*. 90–110. Dallas: SIL eBooks 19. SIL. Retrieved on 12-7-2011, from: www.sil.org/silepubs/Pubs/52526/52535.pdf
- Downing, L. J, Railland, A., J. Beltzung, Manus,S., Patin ,C.,& K. Riedel (eds.), (2010). *Papers from the workshop on Bantu relative clauses*. ZAS Papers in Linguistics 53. .Berlin: ZAS. Available: www.zas.gwz-berlin.de/zaspil.html
- Downing, L. J. & Mtenje, A. (2011). Prosodic phrasing of Chichewa relative clauses. *Journal of African Languages and Linguistics* 32. 65–112.
- Dowty, D.(1979). *Word meaning and montague grammar*. Dordrecht: Riedel.
- du Plessis, J. A. (2010). Comparative syntax of the African languages of South Africa (Bantu languages): The relative clause in the African languages of South Africa (Bantu languages). Unpublished Ms. SUN scholar Research Repository, Stellenbosch University. 12 Nov 2013.<http://hdl.handle.net/10019.1/4884>
- du Plessis, J. A. (2012). Distribution and control properties of the infinitive in Xitsonga. Unpublished Ms. SUN scholar Research Repository, Stellenbosch University.<http://hdl.handle.net/10019.1/19384> 12 Nov 2013.
- du Plessis, J. A. & Visser, M. (1992). *Xhosa syntax*. Pretoria: Via Afrika.
- Edelsten, P. & Lijongwa, C. (2010). *A grammatical sketch of Chindamba- A Bantu language (G52) of Tanzania*. Köln: Rudiger Koppe.
- Emanatian, M. (1990). The Chaga consecutive construction. In J. Hutchison & V. Manfredi (eds.). *Current approaches to African linguistics* 7. 193–207. Dordrecht: Foris
- Ernst, T. (2004). *The syntax of adjuncts*. Cambridge: Cambridge University Press.
- Evans, N. (2007). Insubordination and its uses. In I. Nikolaeva (ed.), *Finiteness: Theoretical and empirical foundations*. 366–431. New York: Oxford University Press.
- Fabricsius-Hansen, C. & Ramm, W. (2008). Editors' introduction: Subordination and coordination from different perspectives. In C. Fabricsius-Hansen & W. Ramm (eds.), *'Subordination' and 'Coordination' in sentence and text: A cross- linguistic perspective*. 1–30. Amsterdam: John Benjamins.
- Finer, D. (1985). The syntax of switch-reference. *Linguistic Inquiry* 16. 35–55.
- Foley, W. A. (1986). *The Papuan languages of New Guinea*. Cambridge: Cambridge University Press.
- Foley, W. A. (2010). Clause linkage and nexus in Papuan Languages. In I. Bril. (ed.) (2010a). 27–51.
- Foley, W. A. & Van Valin, R.D., Jr. (1984). *Functional grammar and universal grammar*. Cambridge: Cambridge University Press.
- Ford, K. C. (1975). The tones of nouns in Kikuyu. *Studies in African Linguistics* 6(1). 49–65.
- Ford, K. C. & Clements, G. N. (1978). Down step displacement in in Kikuyu (abstract). *Studies in African Linguistics* 9(3). No pages.
- Gabanamotse-Mogara, B. (2012). Conjunction in Bukusu. *Maranga: Journal of Language and Literature* 22. 71–81.
- Gast, V. & Diessel, H. (2012a). The typology of clause linkage: Status quo, challenges, prospects. In V. Gast & H. Diessel (eds.), *Clause-linkage in cross-linguistic perspective: Data-driven approaches to cross-clausal syntax*. 1–36. Berlin: Mouton de Gruyter.

- Gecaga, B. M. (1955). *A short Kikuyu grammar*. Nairobi: Macmillan Kenya.
- Githiora, C. (2003). Gĩkũyũ orthography: Past and future horizons. In C. Githiora, H. Littlewood, and V. Manfredi (eds.), *Kinyĩra njĩra! Step firmly on the pathway! Trends in African Linguistics* 5. 85–95. Africa World Press. Lawrenceville: New Jersey.
- Givón, T. (1975). Focus and scope of assertion: Some Bantu evidence. *Studies in African Linguistics* 6. 185–205.
- Givón, T. (1976). Topic, pronoun, and grammatical agreement. In C. N. Li (ed.), *Subject and topic*. 149–188. New York: Academic Press.
- Givón, T. (1980). The binding hierarchy and the typology of complements. *Studies in Language* 4(3). 333–377.
- Givón, T. (1994). Irrealis and the subjunctive. *Studies in Language* 18(2). 265–337.
- Givón, T. (2001a). *Syntax: A functional-typological introduction. Vol.1* (2nd edn.). Philadelphia/Amsterdam: John Benjamins.
- Givón, T. (2001b). *Syntax: A functional-typological introduction. Vol.2* (2nd edn.). Philadelphia/Amsterdam: John Benjamins.
- Good, J.(2003).Clause combining in Chechen..*Studies in Language* 27:113-170.
- González Vergara, C. (2009). One rule to rule them all: Logical structures for Spanish non-reflexive *se* sentences. In Guerrero, L., Cerda, S. I., & Belloro, V. A. (eds.). (2009). *Studies in Role and Reference Grammar*. 361-379. Mexico: Universidad Nacional Autonoma de Mexico.
- Greenbaum, S. (1983). The treatment of the clause in a sentence. In S. Greenbaum & G. Leech, & J. Svartvik (eds.), *Studies in English Linguistics*. 17-30. London & New York: Longman.
- Greenbaum, S. (1991). *An introduction to English grammar*. Essex: Longman
- Gregory, M. L. & Michaelis, L. A. (2001). Topicalisation and left dislocation: A functional opposition revisited. *Journal of Pragmatics* 33. 1665–1706.
- Grover, C. (1994). Coordination. In Asher, R.E.(ed).(1994) *Encyclopaedia of language & linguistics* Oxford : Pergamon.Vol.2.pp.762-768.
- Guerrero, L. (2004a). Complement taking perception verbs in Yaqui. In B. Nolan (ed.). 92–109.
- Guerrero, L. (2004b). *The syntax-semantic interface in Yaqui complex sentences: A Role and Reference Grammar analysis*. A PhD Dissertation. SUNY: Buffalo. Available on the RRG website.
- Guerrero, L. (2006). *The structure and function on Yaqui complementation* (Studies in Native American Linguistics 54). Munich: Lincom Europa.
- Guerrero, L. (2008). Yaqui complementation, an example of a syntax-semantic mismatch. In R. J. Edwards, P. Midtlyng, K. Stensrud, C. Sprague. (eds.), *Proceedings from the Panels of the 41st Meeting of the Chicago Linguistic Society* 41(2). 175–188. Chicago: Chicago Linguistic Society.
- Guerrero, L. (2011). Clause linkage and purpose clauses in southern Uto-Aztecan languages. In W. Nakamura (ed.), *New perspectives in Role and Reference Grammar*. 217–245. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Guerrero, L. (2012). On relative clauses and related constructions. In B. Comrie & Z. Estrada-Fernandez (eds.), *Relative clauses in the languages of the Americas: A typological overview*. 98–126. Amsterdam/Philadelphia: John Benjamins.
- Guerrero, L., Cerda, S. I., & Belloro, V. A. (eds.). (2009). *Studies in Role and Reference Grammar*. Mexico: Universidad Nacional Autonoma de Mexico.
- Güldemann, T. (1997). Prosodic subordination as a strategy for complex sentences construction in Shona: Bantu moods revisited. In R. K. Herbert (ed.), *African linguistics at the cross-roads: Papers from Kwaluseni*. (1st world congress on African linguistics, Swaziland, 18-22, July 1994). 75–98. Köln: Rüdiger Köppe.

- Güldemann, T. (2003). Present progressive vis-à-vis predication focus in Bantu, a verbal category between semantics and pragmatics. *Studies in Language* 27(2). 323–60.
- Güldemann, T. (2005). Asyndentic subordination and deverbal depictive expressions in Shona. In N. P. Himmelmann & E. Schultze-Berndt (eds.), *Secondary predication and adverbial modification: The typology of depictives*. 332–354. Oxford: Oxford University Press.
- Güldemann, T. (2010). Preposed verb doubling and predicate-centered focus. Paper presented at the International conference of the SFB 632, Potsdam, 08.-10.07.2010.
- Güldemann, T. & Fielder, I. (2013). Verb fronting in Bantu in typological perspective. Paper presented at the Predicate-centered focus types: B7 project meeting, Humboldt-Universität zu Berlin, Dec. 10, 2013.
- Güldemann, T., Fielder, I., Morimoto, Y., & Prokhorov, K. (2010). Preposed Verb Doubling and Predicate-centered Focus. Paper presented at the International Conference SFB 632. Information Structure. Berlin: University of Potsdam / Humboldt Uni.
- Güldemann, T., Zerbian, S. & Zimmermann, M. (2015). Variation in information structure with special reference to Africa. *Annual Review of Linguistics* 1. 155–178.
- Guthrie, M. (1967). *The classification of Bantu languages*. London: Dawsons of Pallmall.
- Haegeman, L. (2006). Argument fronting in English, Romance CLLD, and the left periphery. In R. Zanuttini, H. Campos, E. Herburger, & P. Portner (eds.), *Crosslinguistic research in syntax and semantics: Negation, tense, and clausal architecture*. 27–53. Washington, D.C.: Georgetown University Press.
- Haegeman, L. (2012). *Adverbial clauses, main clause phenomena, and the composition of the left periphery: The cartography of syntactic structures, Vol 8*. Oxford: Oxford University Press
- Haiman, J. (1978) Conditionals are topics. *Language* 54, 564–589.
- Haiman, J. & Thompson S. A. (1984). “Subordination” in universal grammar. *Proceedings of the Tenth Annual Meeting of the Berkeley Linguistics Society*. 510–523.
- Harford, C. (1997). Empty operator raising in Kitharaka. *Studies in African Linguistics* 26. 111–129.
- Harries-Delisle, H. (1978). Contrastive emphasis and cleft sentences. In J. Greenberg (ed.), *Universals of human language. Vol. 4. Syntax*. 419–486. Stanford University Press.
- Hasegawa, Y. (1996). *A study of Japanese clause linkage: The connective TE in Japanese*. Stanford /Tokyo: CSLI Publications & Kurosio Publishers.
- Haspelmath, M. (1989). From purposive to infinitive-A universal path of grammaticization. *Folia Linguistica Historica* 10(1-2). 287–310.
- Haspelmath, M. (1995). The converb as a cross-linguistically valid category. In M. Haspelmath & E. König (eds.), *Converbs in a cross-linguistic perspective*. 1–55. Berlin/New York: Mouton de Gruyter.
- Haspelmath, M. (2004b). Coordinating constructions: An overview. In M. Haspelmath, (ed.).(2004a). *Coordinating constructions*. 3–39. Amsterdam/Philadelphia: John Benjamins.
- Haspelmath, M. (2007). Coordination. In T. Shopen (ed.), *Language typology and syntactic description, Vol. 2: Complex constructions*. (2nd edn). 1–51. Cambridge: Cambridge University Press.
- Haspelmath, M. (2010). Comparative concepts and descriptive categories in cross-linguistic studies. *Language* 86(3). 663–687.
- Haspelmath, M. (2013). Argument indexing: a conceptual framework for the syntactic status of bound persons forms. In D. Bakker & M. Haspelmath, (eds.), *Languages across boundaries: In memory of Anna Siewierska*. 197–226. Berlin: Mouton de Gruyter.
- Haumann, D. (1997). *Syntax of subordination*. Tübingen: Niemeyer Verlag.

- Heath, T. (2003). Makaa (A81). In D. Nurse & G. Philippson (eds.), *The Bantu languages*. 335–348. London: Curzon Press.
- Hedinger, R. (2008). *A grammar of Akoose: A northwestern Bantu language*. Dallas: SIL.
- Heine, B. & Nurse, D. (2008). Introduction. In B. Heine, & D. Nurse (eds.), (2008). *A linguistic geography of Africa*. Cambridge: Cambridge University Press.
- Henderson, B. (2007). The syntax of agreement in Bantu relatives. In F. Hoyt, N. Seifert, A. Teodorescu & J. White (vol.eds.), *Texas Linguistics Society 9: Morphosyntax of underrepresented languages*. 167–184. CSLI Publication.
- Hengeveld, K. (1998). Adverbial clauses in the languages of Europe. In J. van der Auwera and D. P. O’Baill (eds.), *Adverbial constructions in the languages of Europe*. 335–419. Berlin: Mouton de Gruyter.
- Hengeveld, K. (2012). Referential markers and agreement markers in Functional Discourse Grammar. *Language Sciences* 34(4). 468–479.
- Hengeveld, K. & Hattner, M. M. Dall’Aglio. (2015). Four types of evidentially in the native languages of Brazil. *Linguistics* 53(3). 479–524.
- Hengeveld, K. & Mackenzie, J. L. (2008). *Functional Discourse Grammar: A typologically-based theory of language structure*. New York: Oxford.
- Hengeveld, K. & Wanders, G. (2007). Adverbial conjunctions in Functional Discourse Grammar. In M. Hannay & G. J. Steen (eds.), *Structural-Functional studies in English grammar: In honour of Lachlan Mackenzie*. 209–226. Amsterdam/Philadelphia: John Benjamins.
- Hetterle, K. (2015). *Adverbial clauses in a cross-linguistic perspective*. De Gruyter Mouton: Berlin
- Hewson, J. & Nurse, D. (2005). The relationship of tense and aspect in the Gikuyu verb. In K. Bostoen & J. Maniacky (eds.), *Studies in African comparative linguistics with special focus on Bantu and Mande*. 281–311. Tervuren: MRAC.
- Hinnebusch, T. J. (1979). Swahili. In T. Shopen (ed.), *Languages and their status*. 209–293. Cambridge: Winthrop Publishers.
- Hopper, P. J. (1979). Aspect and foregrounding in discourse. In T. Givón (ed.), *Syntax and semantics: Discourse and syntax*, Vol. 12. 213–241. New York: Academic Press.
- Hooper, J. B. & Thompson, S. A. (1973). On the applicability of root transformations. *Linguistic Inquiry* 4. 465–497.
- Hopper, P. J. & Traugott, E. C. (2003). *Grammaticalization*. 2nd edn. New York: Cambridge University Press.
- Horie, K. & Comrie, B. (eds.) (2000). *Complementation: cognitive and functional perspectives*. Cambridge: Cambridge University Press.
- Horvath, J. (1995). Structural focus, structural case, and the notion of feature-assignment. In K. E. Kiss (ed.), *Discourse configurational languages*. 28–64. Oxford: Oxford University Press.
- Hyman, L. M. (1971). Consecutivization in Fe’Fe. *Journal of African Linguistics* 10(2). 29–43.
- Hyman, L. M. & Watters, J. R. (1984). Auxiliary focus. *Studies in African Linguistics* 15. 233–273.
- Hyslop, G. (2012). Mirativity in Kurtöp. *Journal of South Asian Languages* 4(1). 43–59.
- Iribemwangi P. I. & Kihara, C. P. (2011). The Gikũyũ Reference Phrase: A Role and Reference Grammar [RRG] Perspective. *Baraton Interdisciplinary Research Journal* 2. 46–57.
- Jacobsen, W. H., Jr. (1993). Subordination and cosubordination in Nootka: Clause combining in a polysynthetic verb-initial language. In R.D. Van Valin Jr. (ed.) (1993a). 235–271.
- Jelinek E. (1984). Empty categories and non- configurational languages. *Natural Language and Linguistic Theory* 2:39-76.

- Johannessen, J. B. (1998). *Coordination*. (Oxford Studies in Comparative Syntax). Oxford University Press: Oxford.
- Johnson, M. R. (1980). A semantic description of temporal reference in the Kikuyu verb. *Studies in African Linguistics* 11(3), 269–320.
- Johnson, M. R. (1977). *A semantic analysis of Kikuyu tense and aspect*. Doctoral dissertation, Ohio State University.
- Jones, C. (1991). *Purpose clauses*. Dordrecht: Kluver.
- Katamba, F. & Stonham, J. (2006). *Morphology*. 2nd edn. New York. Palgrave Macmillan
- Kawasha, B. (2007). Subject-agreeing complementizers and their functions in Chokwe, Luchazi, Lunda, and Luvale. In D. L. Payne and J. Peña (eds.), *Selected Proceedings of the 37th Annual Conference on African Linguistics*. 180–190. Somerville, MA: Cascadilla Proceedings Project
- Kawasha, B. (2006). The structure of complement clauses in Lunda. *Studies in African Linguistics* 35(1). 1–32.
- Keach, C. N. (1980). *The syntax and interpretation of the relative clause construction in Swahili* PhD dissertation. University of Massachusetts: Amherst.
- Keach C. N. (1995). Subject and object markers of agreement and pronoun incorporation in Swahili. In A. Akinlabi (ed.), *Theoretical approaches to African linguistics*. 109–116. Trenton: Africa World Press.
- Keenan, E. L. (1985). Relative clauses In T. Shopen (ed.), *Language typology and syntactic description. Vol 2: Complex constructions*. 140–170.
- Kemmer, S. (1993). *The middle voice*. Amsterdam & Philadelphia: John Benjamins.
- Kihara, C. Patrick (2010). *The morphosyntax of the Gĩkũyũ simple sentence: A Role and Reference Grammar Approach*. Unpublished MA thesis. University of Nairobi.
- Kihara, C. Patrick (2016). Polysemy in Gĩkũyũ verbal derivations: A Role and Reference Grammar analysis. A conference paper presented at the 6th international Bantu conference at the University of Helsinki, Finland on 24 June 2016.
- Kihara C. Patrick. (Forthcoming). A functional analysis of the complementiser *ate* in Gĩkũyũ. Submitted to the *University of Nairobi Journal of Language and Linguistics*.
- Kimenyi, A. (1980). *A relational grammar of Kinyarwanda*. University of California: Berkeley.
- Kimenyi, A. (1981). Linkless clauses in Bantu. In W. R. Leben (ed.), *Precis from the Twelfth Conference on African Linguistics. Studies in African Linguistics: Supplement* 8. 85–89. Los Angeles: University of California.
- Kioko, A. N. (2005a). On determining the primary object in Bantu. *South African Journal of African Languages* 20(3). 225–233.
- Kioko, A. N. (2005b). *Theoretical issues of in the grammar of Kikamba: A Bantu language*. Munich: Lincom Europa.
- Kochelman, P. (2003). The Interclausal Relations Hierarchy in Q`eqchi` Maya. *International Journal of American Linguistics* 49. 25–48.
- Kortmann, B.(1997). *Adverbial subordination: A typology and history of adverbial subordinators based on European languages*. Berlin & New York: Mouton de Gruyter.
- Kroeger, P. R. (2004). *Analyzing syntax: A lexical-functional approach*. Cambridge: Cambridge University Press.
- Kroeger, P. R. (2005). *Analyzing grammar: An introduction*. Cambridge: Cambridge University Press.
- Kula, N. C. & Cheng, L. (2007). Phonological and syntactic phrasing in Bemba relatives. *Journal of African Languages and Linguistics* 28. 123–148.
- Kunene, E. (1975). Zulu pronouns and the structure of discourse. *Studies in African Linguistics* 6. 171–184.

- Kuteva, T. & Comrie, B. (2005). The typology of relative clause formation in African languages. In F.K.E. Voeltz (ed.), *Studies in African linguistic typology*. 209–229. Amsterdam/Philadelphia: John Benjamins.
- Kwon, N. & Polinsky, M. (2008). What does coordination look like in a head-final language? In B. Lewandowska-Tomasczyk (Ed.), *Asymmetric events*. 87–102. Amsterdam: Philadelphia: John Benjamins.
- Lambrecht, K. (1986). *Topic, focus and the grammar of spoken French*. PhD dissertation. University of California: Berkeley.
- Lambrecht, K. (1987). Sentence focus, information structure, and the thematic-categorical distinction. *Berkeley Linguistic Society* 13. 366–382.
- Lambrecht, K. (1994). *Information structure and sentence form. Topic, focus, and the mental representations of discourse referents*. Cambridge: Cambridge University Press.
- Lambrecht, K. (2000). When subjects behave like objects: An analysis of the merging of S and O in sentence focus constructions across languages. *Studies in Language* 24 (3). 611–682.
- Lambrecht, K. (2001a). A framework for the analysis of cleft constructions. *Linguistics* 39(3). 463–516.
- Lambrecht, K. (2001). Dislocation. In M. Haspelmath, E. König, W. Oesterreicher & W. Raible (eds.), *Language typology and language universals: An international handbook*. Vol. 2, 1050–1078. Berlin: Walter de Gruyter.
- Lang, E. (1984). *The semantics of coordination*. (Studies in Language Companion Series) translated by John Pheby. Vol 9. Amsterdam: John Benjamins.
- Leakey, L.S.B. (1978). *First Lessons in Kikuyu*. Nairobi. Kenya Literature Bureau.
- Lehmann, C. (1988). Towards a typology of clause linkage. In J. Haiman, & S. A. Thompson. (eds.), *Clause combining in grammar and discourse*. 181–225. Amsterdam/Philadelphia: John Benjamins.
- Letsholo, R. M. (2006). The role of tone and morphology in the syntax of the Ikalanga DP. *Southern African Linguistics and Applied Language Studies* 24(3). 291–309.
- Letsholo, R. M. (2009). The ‘forgotten’ structure of Ikalanga relatives. *Studies in African Linguistics* 38(2). 131–154.
- Letsholo, R. (2013). Complementisers in Setswana: Their forms, meanings, and complementation. *LASU* 4(1). 56–74.
- Lewis, M. P. (ed.) (2009). *Ethnologue: Languages of the world*. (16th edn). Dallas: SIL International. Online version: <http://www.ethnologue.com/>.
- Liong, K. T. (2004). Adverbial clauses, recursion, and a missing linkage type. In B. Nolan (ed.). *Linguistic theory and practice: description, implementation and processing: Book of proceedings* International RRG Conference 2004. 162–180. Dublin: Ireland.
- Longacre, R. E. (1985). Sentences as combination of clauses. In T. Shopen (ed.), *Language typology and syntactic description. Vol 2: Complex constructions*, 235–286. Cambridge: Cambridge University Press.
- Longacre, R. E. (1990). Storyline concerns and word order typology in East and West Africa. In R.E. Longacre (ed.), *Storyline concerns and word-order typology in East and West Africa. Supplement 10, Studies in African Linguistics*. Los Angeles: The James. S. Coleman African Studies Center and Berkeley: Dept. of Linguistics, University of California.
- Longacre, R. E. (2007). Sentences as combination of clauses. In T. Shopen (ed.), *Language typology and syntactic description. Vol 2: Complex constructions*. 372–420. Cambridge: Cambridge University Press.
- Lyons, J. (1968). *Introduction to theoretical linguistics*. Cambridge: Cambridge University Press.
- Maganga, C. & Schadeberg, T. (1992). *Kinyamwezi: Grammar, texts, vocabulary*. Köln: Rüdiger

Koppe Verlag.

- Manfred, V. (1993). Verb focus in the typology of Kwa/Kru and Haitian. In F. Byrne & D. Winford (eds.), *Focus and grammatical relations in Creole languages*. 3–51. Amsterdam/Philadelphia: John Benjamins.
- Matić, D. (2003). *Topics, presuppositions, and theticity: An empirical study of verb-subject clauses in Albanian, Greek, and Serbo-Croat*. PhD dissertation. Universität zu Köln.
- Matić, D., van Gijn, R. & Van Valin, R.D., Jr. (2014). Information structure and reference tracking in complex sentences: An overview. In R. van Gijn, J. Hammond, D. Matic, S. van Putten & A. Vilacy Galucio (eds.), *Information structure and reference tracking in complex sentences*, 1–45. Amsterdam: John Benjamins.
- Matić, D., van Putten, S. & Hammond, J. (2016). Integrated and non-integrated left-dislocations: A comparative study of LD in Avatime, Tundra Yukaghir & Whitesands. In J. Fleischhauer, A. Latrouite, & R. Osswald (eds.), *Further investigations of the syntax-semantics-pragmatics interface*. 343–371. Düsseldorf: Düsseldorf University Press.
- Marten, L. (2000). Agreement with conjoined noun phrases in Swahili. *Afrikanische Arbeitspapiere* 64. *Swahili Forum*, VII. 75–96.
- Marten, L. (2003). The dynamics of agreement and conjunction. *Lingua* 115.527–547.
- Martins, A. F. (2011). *The inflected infinitive in Brazilian Portuguese*. Master thesis. Heinrich-Heine-Universität.
- Matthiessen, C. & Thompson, S. A. (1988). The structure of discourse and subordination. In J. Haiman & S. A. Thompson (eds.), *Clause combining in grammar and discourse*. 275–329. Amsterdam/Philadelphia: John Benjamins
- Maw, J. (1969). *Sentences in Swahili: A study of their internal relationships*. SOAS: University of London.
- Mchombo, S. (2004). *The syntax of Chichewa*. Cambridge: Cambridge University Press.
- Mithun, M. (2003). Pronouns and agreement: The information status of pronominal affixes. *Transactions of the Philological Society* 101(2). 235–278.
- Moezziour, F. (2012). Persian Cleft Constructions: A Role & Reference Grammar Analysis. *ITB Journal* 22. 91–123. Available at: <http://www.itb.ie/files/journal/issue-22.pdf>.
- Moezziour, F. (2013). Toward rethinking Left-Detached Position and Pre-Core Slot in RRG, paper presented at the Role and Reference Grammar conference, Freiburg University.
- Mohamed, M. A. (2001). *Modern Swahili grammar*. Nairobi: East African Publishing House.
- Mous, M. & Mreta, A. (2004). The commitative/conjunctive preposition *na* in Chathu (Pare), A Bantu language of Tanzania. *South African Journal of African Languages* 4. 219–229.
- Mugane, J. M. (1997a). *Bantu nominalization structures*. PhD dissertation. University of Arizona. UMI
- Mugane, J. M. (1997b). *A paradigmatic grammar of Gĩkũyũ*. Stanford: CSLI Publications.
- Mugane, J. M. (1998). Gĩkũyũ NP morpho-syntax. In I. Maddieson & T. Hinnesbusch (eds.), *Language history and linguistic description in Africa: Trends in African linguistics* 2. 239–248. Trenton & Asmara: African World Press.
- Mugane, J. M. (2003). Hybrid constructions in Gĩkũyũ: Agentive nominalizations and infinitive-gerund constructions. In M. Butt & T. H. King (eds.), *Nominals: Inside and out*. 235–265. Stanford: CSLI Publications.
- Mugane, J. M. (2006). Necrolinguistics: The linguistically stranded. In J. Mugane, J. P. Hutchison, & D. A. Worman (eds.), *Selected Proceedings of the 35th Annual Conference on African Linguistics*. Cascadilla Proceedings Project. 10–21.
- Mugari, V. & Kandenge, M. (2014). ChiShona periphrastic causatives as complex predicates: An HPSG analysis. *South African Journal of African Languages* 34(1). 97–105.
- Munn, A. (1987). Coordinate structure and X-bar theory. *McGill Working Papers in Linguistics* 4. 121–140.

- Mutahi, E. K. (1983). *Sound change and the classification of the dialects of southern Mt. Kenya*. In B. Heine, W. J. G. Möhlig, & F. Rottland (eds.), *Language and dialect atlas of Kenya; Supplement 4*. Berlin: Dietrich Reimer Verlag.
- Mwangi, P. (2001). The syntax and semantics of causative affixes in central Kenya Bantu. *South African Journal of African Languages* 21(3-4). 387–395.
- Myers, A. (1971). Assertion and Presupposition in Kikuyu. In: K. Chin-Wu & H. Stahlke (eds.), *Papers in African Linguistics*. 135–140. Edmonton/Champaign: Linguistic Research, Inc.
- Myers, A. (1975). Complementizer choice in selected eastern Bantu languages. In R. K. Herbert (ed.), *Proceedings on the Sixth Conference on African Linguistics*. OSU WPL 20. 184–193.
- Ngonyani, D. S. (1999). X⁰-movement in Kiswahili relative clause verbs. *Linguistic Analysis* 29 (1-2). 137–159.
- Ngonyani, D. S. (2001). Evidence for head raising in Kiswahili relative clauses. *Studies in African Linguistics* 30(1). 59–73.
- Ngonyani, D. S. (2003). *A grammar of Chingoni*. Munich: Lincom Europa.
- Ngonyani, D. S. (2013). The subjunctive mood in Kikisi, Kindendeule and Chingoni. *Journal of Linguistics and Language Education* 7(2). 1–19
- Nicolle, S. (2000). Markers of general interpretive use in Amharic and Swahili. In G. Andersen & T. Fretheim (eds.), *Pragmatic markers and propositional attitude*. 173–188. Amsterdam/Philadelphia: John Benjamins.
- Nicolle, S. (2014). Discourse functions of demonstratives in eastern Bantu narrative texts. *Studies in African Linguistics* 43(1-2). 113–132.
- Nichols, J. (1986). Head-marking and dependent-marking grammar. *Language* 62(1). 56–119.
- Nolan, B. (ed.) (2004). *Book of proceedings: International Role and Reference Grammar conference*. Dublin: Institute of Technology Blanchardstown. Available on the RRG website.
- Noonan, M. (1985). Complementation. In T. Shopen (ed.), *Language typology and syntactic description vol. 2: Complex constructions*. 42–138. Cambridge: Cambridge University Press.
- Noonan, M. (1992). *A grammar of Lango*. Berlin/New York: Mouton de Gruyter.
- Noonan, M. (2007). Complementation. In T. Shope, (ed.). *Language typology and syntactic description vol. 2: Complex constructions* (2nd edn.). 42–138. Cambridge: Cambridge University Press.
- Nordstrom, J. (2010). *Modality and subordinators*. Amsterdam/Philadelphia: John Benjamins.
- Nurse, D. & Philippson, G. (eds.). (2003). *The Bantu languages*. London: Curzon Press.
- Nurse, D. (2008). *Tense and aspect in Bantu*. Oxford: Oxford University Press.
- O'Connor, R. (2008). A prosodic projection for Role and Reference Grammar. In R.D. Van Valin, Jr. (ed.) (2008a). 227–245.
- Olson, M.A. (1981). Barai clause structures: Toward a functional theory of interclausal relations. PhD dissertation .Australian National University.
- Omondi, L. N. (1983). Serial verbs in Dholuo: A transformational analysis. Berlin. In R. Vossen, M. Bechhaus-Gerst (eds.), *Nilotic studies: Proceedings of the international symposium on languages history of the Nilotic peoples. Kölner Beiträge zur Afrikanistik* 10. 185–206. Cologne: Dietrich Reimer Verlag.
- Overton, H. J. (1972). *A generative-transformational grammar of the Kikuyu language based on the Nyeri dialect*. A PhD dissertation, Louisiana State University. UMI. Ann Arbor.
- Palancar E. L. (2012). Clausal juxtaposition and subordination: New light from Otomi. In V. Gast & D. Holger. (eds.), *Clause linkage in cross linguistic perspective: Data driven approaches to cross-clausal syntax*. 37–76. Berlin/Boston: Walter de Gruyter.

- Palmer, F. R. (2001). *Mood and modality*. (2nd edition). Cambridge: Cambridge University Press.
- Palmer, J. (1986). *Mood and modality*. Cambridge: Cambridge University Press.
- Paris, L. A. (1999). *The Spanish causative constructions 'hacer-infinitive'. A Role and Reference Grammar description*. MA thesis. Buffalo: SUNY. Available on the RRG website.
- Parker, E. (1991). Conditionals in Mundani. In S. Anderson & B. Comrie (eds.), *Tense and aspect in eight languages of Cameroon*. 165–189. Dallas: SIL/The University of Texas.
- Parodi, C. & Quicoli, A. C. (2013). Complementation. In S. Luraghi & C. Parodi (eds.), *The Bloomsbury companion to syntax*. 325–341. London: Continuum
- Pastor, A. O. (2001). Complex structures in Role and Reference Grammar: Some problematic cases. *Journal of English Studies* 3. 165–178.
- Payne, J. (1985). Complex phrases and complex sentences. In T. Shopen (ed.), *Language typology and syntactic description*, Vol. 2: *Complex constructions*. 3–41. Cambridge: Cambridge University Press.
- Payne, T. E. (1997). *Describing syntax: A guide for field linguists*. Cambridge: Cambridge University Press.
- Payne T. E. (2006). *Exploring language structure: A students' guide*. Cambridge: Cambridge University Press.
- Payne, T. E. (2011). *Understanding English grammar*. Cambridge: Cambridge University Press.
- Pavey, E. L. (2004). The English *it*-cleft constructions: A Role and Reference Grammar analysis. Available on the RRG website.
- Pavey, E. L. (2010). *The structure of language: An introduction to grammatical analysis*. Cambridge: Cambridge University Press.
- Perez, C. H. (1985). *Aspects of complementation in three Bantu languages*. PhD dissertation. Bloomington: Indiana University Linguistics Club.
- Quirk, R. & Greenbaum, S., Leech, G., & Svartvik, J. (1985). *A comprehensive grammar of English*. Longman: London.
- Ransom, E. N. (1986). *Complementation: its meanings and forms*. Philadelphia/Amsterdam: John Benjamins.
- Rangkupan, S. (1997). An investigation of *hay* complex constructions in Thai. Available on the RRG website.
- Reinhart, T. (1981). Pragmatics and linguistics: An analysis of sentence topics. *Philosophica* 1. 53–94.
- Riedel, K. (2009). *The syntax of object marking in Samba: A comparative Bantu perspective*. PhD dissertation. Utrecht: LOT dissertation series 212. www.lotpublications.nl
- Riedel, K. (2010). Relative clauses in Haya. In L. Downing, A. Railland, J. Beltzung, C. Patin & K. Riedel (eds.), 211–225.
- Rezai, V. (2003). *A Role and Reference Grammar analysis of simple sentences in Farsi (Modern Persian)*. Available on the RRG website.
- Roberts, J. R. (1988). Amele switch reference and the theory of grammar. *Linguistic Inquiry* 19 (1). 45–63.
- Roberts, J. R. (2012). Serial verbs in English: An RRG analysis of catenative verbs. *Functions of Language* 19(2). 201–234. Philadelphia/ Amsterdam: John Benjamins.
- Rose, S., Beaudoin-Lietz, C. & Nurse, D. (2002). *A glossary of terms for Bantu verbal categories: With special emphasis on tense and aspect*. Muenchen: Lincom Europa.
- Sabel, J. (2000). Partial *Wh*-movement and the typology of *Wh*-questions. In U. Lutz, G. Muller & A. von Stechow (eds.), *Wh-scope marking*. 409–446. Amsterdam/Philadelphia: John Benjamins.

- Satre, S. A. (2010). The consecutive morpheme in Bamileke-Ngomba. *Studies in African Linguistics* 3. 35–76.
- Scancarelli, J. (2003). Clause combining constructions. In W. J. Frawley (ed.), *International encyclopedia of linguistics* Vol. 1. (2nd edn.). 321–325. Oxford: Oxford University Press.
- Schachter, P. & Shopen, T. (2007). Parts of Speech. In T. Shopen. (ed.), *Language typology and syntactic description* Vol.1: *Clause structure* (2nd edn.). 1–60.
- Schröder, H. (2013). Clause chaining in Toposa: A pragmatic approach. *Lodz Papers in Pragmatics* 9.1. 25–44.
- Schaefer, R. P. & Gaines, R. (1997). Toward a typology of directional motion for African languages. *Studies in African Linguistics* 26(2). 193–220.
- Schaub, W. (1985). *Babungo*. Croom Helm: London.
- Schmidtke-Bode, K. (2009). *A typology of purpose clauses*. Philadelphia/Amsterdam: John Benjamins.
- Schwarz, F. (2003). Focus marking in Kikuyu. In R. Eckardt (ed.), *Question and focus: ZAS papers in linguistics* 30. 41–119.
www.zas.gwz-berlin.de/fileadmin/material/ZAsPIL_volltexte/zp_30/zaspil30.pdf
- Schwarz, F. (2007). Ex situ focus in Kikuyu. In E. O. Aboh, K. Hartmann, & M. Zimmermann (eds.), *Focus strategies in African languages: The interaction of grammar and focus in Niger Congo and Afro Asiatic Languages*. 181–204. Berlin: Mouton de Gruyter.
- Shimojo, M. (1995). *Focus structure and morphosyntax in Japanese: Wa and Ga and word order flexibility*. A PhD Dissertation, SUNY: Buffalo.
- Shimojo, M. (2009). Focus structure and beyond: Discourse pragmatics in Role and Reference Grammar. In L. Guerrero, S. Ibáñez Cerda & V. A. Belloro (eds.), *New Studies in Role and Reference Grammar*. 113–142. México: Universidad Nacional Autónoma de México.
- Shimojo, M. (2011). The left periphery and focus structure in Japanese. In W. Nakamura (ed.), *New perspectives in Role and Reference Grammar*. 266–293. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Siewierska, A. (1999). From anaphoric pronoun to grammatical agreement marker: why objects don't make it. *Folia Linguistica* 33(1-2). 225–252.
- Siewierska, A. (2004). *Person*. Cambridge: Cambridge University Press.
- Simango, S. R. (2006). Verb agreement and the syntax of ciNsenga relative clauses. *Southern African Linguistics and Applied Language Studies* 24(3). 277–290.
- Smith, C. (1997). *The parameter of aspect*. 2nd edition. Dordrecht : Riedel .
- Song, J. J. (2001). *Linguistic typology: Morphology and syntax*. Routledge: London.
- Stassen, L. (1985). *Comparison and universal grammar*. Oxford: Blackwell.
- Stassen, L. (2000). AND-languages and WITH-languages. *Linguistic Typology* 4. 1–54.
- Stassen, L. (2009). *Predicative possession*. Oxford: Oxford University Press.
- Stiebels, B. (2007). Towards a typology of complement control. In B. Stiebels (ed.), *Studies in complement control*. *ZAS Papers in Linguistics* 47. 1–80. Available: www.zas.gwz-berlin.de/zaspil.html
- Squartini, M. (2007). Investigating a grammatical category and its lexical correlates. *Rivista di Linguistica* 19(1). 1–6.
- Taylor, C. (1985). *Nkore Kiga*. Croom Helm: London.
- Thompson, S.A. & Longacre, R.E. (1985). Adverbial clauses. In: T. Shopen (ed.). *Language typology and syntactic description, Vol. 2: Complex constructions*. 171–234. Cambridge: Cambridge University Press.
- Thompson, S, A., Longacre, R. E., & Hwang, S. J. (2007). Adverbial clauses. In T. Shopen (ed.), *Language typology and syntactic description, Vol. 2: Complex constructions* (2nd edn). 237–299. Cambridge: Cambridge University Press.

- Treis, Y. (2000). *Komplexe Sätze im Kxoe (Namibia)* [Complex sentences in Kxoe (Namibia)]. MA thesis. Universität zu Köln, Institut für Afrikanistik.
- van Oirsouw, R. R. (1987). *The syntax of coordination*. London: CroomHelm.
- van Putten, S. (2014a). *Information structure in Avatime*. Nijmegen: Max Planck Institute for Psycholinguistics.
- van Putten, S. (2014b). Left dislocation and subordination in Avatime (Kwa). In R. van Gijn, J. Hammond, D. Matic, S. van Putten & A. Vilacy Galucio (eds.), *Information structure and reference tracking in complex sentences*, 71–98. Amsterdam: John Benjamins.
- van der Wal, J. (2014). Subordinate clauses and exclusive focus in Mahkuwa. In van Gijn et al. (eds.). 45–69.
- Heusinger, K. von (1999). *Intonation and information structure*. Habilitationsschrift, University of Konstanz.
- Van Valin, R. D., Jr. (1977). *Aspects of Lakhota syntax*. Unpublished PhD dissertation. University of California, Berkeley.
- Van Valin, R. D., Jr. (1984). A typology of syntactic relations in clause linkage. *Proceedings of the Tenth Annual Meeting of the Berkeley Linguistics Society*. 542–558.
- Van Valin, R. D., Jr. (ed.) (1993a). *Advances in Role and Reference Grammar*. Amsterdam: John Benjamins.
- Van Valin, R. D., Jr. (1993b). A synopsis of the Role and Reference Grammar. In R. D. Van Valin Jr. (ed.) (1993a). 1–164.
- Van Valin, R. D., Jr. (1995). Toward a functionalist account of the so-called extraction constraints. In B. Devriendt, L. Goossen and J. van der Auwera (eds.). *Complex structures: A functionalist perspective*. 29–60. Berlin: Mouton de Gruyter.
- Van Valin, R. D., Jr. (1999). A typology of the interaction of focus structure and syntax. In E. Raxilina & J. Testelec (eds.), *Typology and the theory of language: From description to explanation*. 511–524. Moscow: Languages of Russian Culture.
- Van Valin, R. D., Jr. (2001). *An introduction to syntax*. Cambridge: Cambridge University Press
- Van Valin, R. D., Jr. (2005). *Exploring the syntax–semantic interface*. Cambridge: Cambridge University Press.
- Van Valin, R. D., Jr. (2007a). The Role and Reference Grammar analysis of three-place Predicates. *Suvremena lingvistika* 63. 31–63.
- Van Valin, R. D., Jr. (2007b). Recent developments in the Role and Reference Grammar theory of clause linkage. *Language and Linguistics* 8(1), 71–93.
- Van Valin, R. D., Jr. (2008b). RPs and the nature of lexical and syntactic categories in Role and Reference Grammar. In R. D. Van Valin Jr. (ed.), (2008a). *Investigations of the syntax-semantics-pragmatics interphase*. 161–178. Amsterdam: John Benjamins.
- Van Valin, R. D., Jr. (2009). Privileged syntactic arguments, pivots, and controllers. In L. Guerrero, S. I. Cerda, & V. A. Belloro (eds.). 45–69.
- Van Valin, R. D., Jr. (2010). Role and Reference Grammar as a framework for linguistic analysis. In B. Heine & H. Narrog (eds.), *The Oxford handbook of linguistic analysis*. 703–738. Oxford: Oxford University Press.
- Van Valin, R. D., Jr. (2012). Some issues in the linking between syntax and semantics in Relative Clauses. In B. Comrie & Z. Estrada-Fernandez (eds.), *Relative clauses in the languages of the Americas: A typological overview*. 47–64. Amsterdam/Philadelphia: John Benjamins.
- Van Valin, R. D., Jr. (2013). Head-marking languages and linguistic theory. In B. Bickel, L. A. Grenoble, D. A. Peterson, & A. Timberlake (eds.), *What's where why? Language typology and historical contingency. A festschrift to honor Johanna Nichols*, 91–124. Amsterdam: John Benjamins.

- Van Valin, R. D., Jr. (2014). On the place of information structure in a grammar. *Comunicación, Cognición, Cibernética. Actas del XXXI Congreso de AESLA*. 86–106.
- Van Valin, R. D., Jr. (2015). Cosubordination. Paper presented at the 2015 RRG conference in Heinrich Heine Universität, Düsseldorf, Germany.
- Van Valin, R. D., Jr. & LaPolla, R. (1997). *Syntax: structure, meaning and function*. Cambridge: Cambridge University Press.
- Van Valin, R. D., Jr. & Wilkins, D. P. (1993). Predicting Syntactic Structure from Semantic Representations: *Remember* in English and its Equivalents in Mbarntwe Arrernte. In R. D. Van Valin Jr. (ed) (1993a). 499–531.
- Vendler, Z. (1967). *Linguistics in philosophy*. Ithaca: Cornell University Press.
- Verstraete, Jean-Christophe (2003). Two types of coordination in clause combining. *Lingua* 115. 611–625.
- Verstraete, Jean-Christophe (2007). *Rethinking the coordinate-subordinate dichotomy: Interpersonal grammar and the analysis of adverbial clauses in English*. Berlin/New York: Mouton de Gruyter.
- Vicente, L. (2010). On the syntax of the adversative coordination. *Natural Language and Linguistic Theory* 28. 381–415.
- Visser, M. (1989). The syntax of the infinitive in Xhosa. *South African Journal of African Languages* 9(4). 154–183.
- Vitale, A.J. (1981). *Swahili syntax*. Dordrecht: Foris Publications.
- Walusimbi, L. (1976). *Relativization and focusing in Luganda and Bantu*. Doctoral dissertation. University of California: Los Angeles.
- Watters, J. K. (1993). An investigation of Turkish clause linkage. In R. D. Van Valin, Jr. (ed.). (1993a). 535–559.
- Watters, J. R. (2000). Syntax. In B. Heine & D. Nurse (eds.), *African languages: An introduction*. 194–230. Cambridge: Cambridge University Press.
- Welmers, W. E. (1973). *African language structures*. Berkeley: University of California Press.
- Weisser, P. (2013). In between subordination and coordination: A minimalist analysis of the left subordinating and-construction. In F. Heck & A. Assmann (eds.), *Rule interaction in grammar*. (Linguistische Arbeitsberichte 90). 301–331. Universität Leipzig.
- Weisser, P. (2012). Is there switch-reference marking in coordinated clauses? In P. Weisser, (ed.), *Perspectives in switch-reference: Local and empirical distribution*. (Linguistische Arbeitsberichte 90). 165–190. Universität Leipzig.
- Wekker, H. & Haegeman, L. (1985). *A modern course in English syntax*. London: Routledge.
- Whiteley, W. H. (1966). *A study of Yao sentences*. Oxford: Clarendon Press.
- Whiteley, W. H. & Ndumbu, J. M. G. (1962). Some problems of stability and emphasis in Kamba one-word tenses. *Journal of African Languages* 2. 61–80.
- Wesana-Chomi, E. (1973a). Review Article -Swahili sentence structure. *Kiswahili* 42(2) & 43 (1). 102–122.
- Wesana-Chomi, E. (1973b). Towards the syntax of complex sentences in Swahili. *Kiswahili* 43(2). 30–51.
- Yang, B. (1994). *Morphosyntactic phenomena of Korean in Role and Reference Grammar: Psych-Verb constructions, inflectional verb morphemes, complex sentences, and relative clauses*. PhD Dissertation: SUNY at Buffalo. Available on the RRG website.
- Yuasa, E. & Sadock, J. M. (2002). Pseudo-subordination: A mismatch between syntax and semantics. *Journal of Linguistics* 38. 87–110.
- Zeller, J. (2004). Relative clause formation in the Bantu languages of South Africa. *Southern African Linguistics and Applied Language Studies* 22(1&2). 75–93.

- Zeller, J. (2006). Raising out of finite CP in Nguni: The case of *fanele*. *Southern African Linguistics and Applied Language Studies* 24(3). 255–275.
- Zhang, N.N. (2009). *Coordination in syntax* Cambridge: Cambridge University Press.
- Zwart, Jan-Wouter (1997). Rethinking subject agreement in Swahili. Manuscript, NOW/University of Groningen.

Other sources of data

- Mũtiiri: Njaranda ya mũikarĩre*, 4.1994. Mũtiiri abirika: Princeton academic press.
- wa Thiong'o, N. (1986). *Matigari ma njirũũgi*. Nairobi: Heinemann Kenya