

# **INFORMATION STRUCTURE IN EKEGUSII**

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## **DEDICATION**

To:

**GOD ALMIGHTY,**

**ASSUMPTA & JEREMY GESURA**

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## ABSTRACT

The main aim of this thesis is to explore how the pragmatic functions, topic and focus, influence the formal organization and content of two discoursal components: word order, and referential coherence, based on Ekegusii, a Bantu language spoken in Kenya.

The data for the study consists of corpora elicited using question-answer coherence guided by pictures, and elicited monologic narratives. It uses an eclectic approach in describing the role of information structure in Ekegusii. It utilizes Lambrecht's model of information structure, and Bidirectional Optimality Theory to capture both production (by speaker) and comprehension (by hearer) aspects in discourse. Centering Optimality Theory is used to account for the discourse-pragmatics of referential coherence.

The study found out that information structural constraints at the sentential level mainly influence the information state of both canonical and non-canonical constructions word orders. It influences the interpretation, through the pragmatic structuring of propositions, helping the hearer differentiate what is information (focus) in relation to a given topic, and this may induce movement, insertion or deletion of some sentential constituents. However, information structure optionally affects sentential form in Ekegusii.

In relation to how information structure interacts with referential coherence, the results of a corpus based analysis show that alternative ways of coherently referring to participants using nominal expressions in the roles of grammatical subject object and oblique depend on pragmatic functions. Coherence was found out to be driven by a hard constraint

“COHERE” which cannot be violated even by the information structural constraints that licences focus. The focus relations, sentence focus and presentational focus, are therefore associated with low coherence, transitions, not dire incoherence, because the focus relation is typically used for shifting reference in discourse. The topic relations are associated with higher coherence transitions when attention is focused on a given topical entity.

The results of the study demonstrate the need for incorporation information structure, an independent component of grammar, in handling the problem of pragmatic motivation in the grammar of human languages at the micro- and macro-syntactic levels of discourse. Though the study is theory oriented and on Ekegusii, it is relevant to understanding how packaging information affects discourse, by considering the syntax, semantics and pragmatics (the ‘semiotic circle’) of information in general. Is of use to persons who are interested in understanding how messages are to be optimally coded and decoded in human communication by interlocutors in Ekegusii, and beyond any given language.

## LIST OF ABBREVIATIONS AND SYMBOLS

### SYMBOLS

$\phi$	Phi (agreement) - feature	$\forall$	Universal operator
$\emptyset$	Null/Zero elements	$\tau$	Iota operator
$\leftarrow$	Optimal Candidate (Production)	$\eta$	Eta operator
$\rightarrow$	Optimal Candidate (Comprehension)	$\lambda$	Lambda Calculus
$\exists$	Existential operator	$\wedge$	Conjunctive connective
		$\vee$	Disjunction connective
		$\supset$	Implication, ‘if... then’
		$\neg$	Negation
		*	Ill-formed or Suboptimal

### ABBREVIATIONS

ADJ	Adjective	EPP	Extended Projection Principle
ADV	Adverb	FOC	Focus
ARG	Argument	INF	Infinitive
CAUS	Causative	INFL	Inflection
CP	Complementizer phrase	NEG	Negation
COM	Comment	NP	Noun phrase
Comp	Complementizer	OM	Object Marker
DIM	Diminutive		

PP	Prepositional phrase	TOP	Topic
PRED	Predicate	TP	Tense Phrase
PRT	Particle	V	Verb
PRO	Pronoun	VSO	Verb, Subject,
PRO <sub>REL</sub>	Relative pronoun	Object	
Spec	Specifier	vP	Light verb phrase (higher layer of the VP )

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1.: Background to the Study**

Language is basically a vehicle for exchanging information. Information as a component of communication is studied in the fields of philosophy, information theory, cybernetics, psychology, and linguistics. The notion of information (or symbolic information) dealt with, in whichever context, is the same, but different aspects are selected for study depending on the interests of the field of study.

Cooper (1978) considers the most basic idea of information is the state of informedness or information state, that is, the existence in some location-as ‘stored’ information in a complex, organized physical system, for example a library, DNA, the human brain, e.t.c. This is followed by information as it exists when being processed, transformed or communicated. The various disciplines interested in information vary in so far as they choose to understand the internal aspects (the structure or form, the content, the factors involved in generation etc.) or the external aspects of information (the transmission, noise, relevance etc.).

Two levels of information concepts can be stipulated, namely: transmissional information, which is raw information that is produced by a given source; and pragmatic information, which is specific and subsumes syntactic information (Nauta, 1972). Linguistic information encompasses all the notions held in the transmissional, semiotic (psycholinguistic), and metasemiotic approaches.

In the field of semiotics the focus is mainly on the form and content of information vehicles used in communication. Information is borne by three classes of “information vehicles”: signals, signs and symbols (Nauta, 1972). Human communication is carried out using symbols (language symbols) as the information vehicles, which subsumes subordinate characteristics of signals and signs in a hierarchical order. Symbols are a form of “signs of a higher order”, and consist of words used in human language. The study of the symbols in Nauta’s (1972) work considered in three levels: the syntactic level (the formal aspects (of signals, signs or symbols) that entails the form of the information vehicles and their formation rules, the semantic level (the meaning aspects) and Pragmatic level (the effects of information vehicles on interpreters and the uses they make of them). The linguistic interest in information subsumes some of the notions developed in the study of semiotics in so far as they have a bearing on how information is coded and used in language.

Information structure is a component of Linguistic information, and is constituted from the three aspects of information given above. Information structure in a wider sense (globally) refers to the “mechanisms that are involved in distributing information and creating coherence in texts larger than the sentence” (Behrens & Fabricius-Hansen, 2009:10). Coherence depends on normal texture.

Texture is constituted by meaning relations and is related to how listeners perceive coherence as per Hasan (1985: 71). Normal texture depends on structure imposing systems, which are: information structure, theme structure and cohesive harmony. Information structure is a system of sequencing information. It is considered to be an independent system, which is not of a clause but of an “information unit” (cf. Hasan, 1985). The

sequencing of information relies on the rational use of language in so far as the speakers' and hearers' make an effort to minimize the effort of producing and interpreting messages. As to how rationality influences the packaging of information is currently explored in Game theoretic (or Decision theory) pragmatics (see van Rooy (2012); Jager (2012)).

The wider sense (global) of information structure subsumes a narrow sense (local), which is assumed in Lambrecht's (1994) theory, as a sentence level phenomenon. The influence of information structure on sentential elements is not only complex but also multi-faceted. Different components of grammar are not only interdependent but also compete against each other for "the limited coding possibilities offered by the structure of the sentence (Lambrecht, 1994)." Lambrecht considers the structure of the clause as:

...a domain in which the different components of grammar-syntax, morphology, prosody, semantics, information structure-compete and interact with each other, regulated by universal principles and language-specific constraints....(Lambrecht 1994: 12)

For a comprehensive study of information structure Lambrecht (1994:13) recommends that integrative descriptions such as in: "Functional Grammar" (Dik, 1980), "Role and Reference Grammar" (Foley & Van Valin, 1984) and "Construction Grammar" (Fillmore, 1991)) be preferred over modular descriptions.

The study of the information structure at the sentential level has received a lion's share of attention, while that of the interaction between information structure and coherence has received some occasional attention in the past thirty years. Erteschik- Shir (2007:2) observes that there is widespread agreement that information structure units determine word order and

interact with a variety of grammatical phenomena such as intonation, morphology, interpretation and various syntactic phenomena, but not everyone agrees that they determine the coherence of texts beyond the cohesion of the question-answer pairs.

Ohl (2010: 236) claims that constraints on linearization given by autonomous modules: semantics, syntax and pragmatics, even if they are independent from one another, yield absolute restrictions which inevitably result in linearization conflicts. The constraints involved must be weighted, because some restrictions are universally absolute, “but many of them are significantly weaker, and structural systems differ in strength.” The interactions of universal principles and constraints are the main concern of Optimality Theory (Prince and Smolensky, 1993/2004). Optimality theory offers a fundamental guideline for determining the nature and form of constraints in Universal Grammar. It stipulates universal constraints that are “soft” and so are fitted to handle the differences in languages where some universals are relativized, or behave as tendencies. Optimality theory has been the preferred form of representing constraints that determine the interaction between word order and information structure in some studies (Gutierrez-Bravo, 2002; Zerbian, 2006, to mention a few).

This study is a first attempt to theoretically analyse how the formal features of discourse such as word order, the grammatical techniques (e.g. topicalization, ellipsis, negation, etc.), referential coherence, and their interpretation are pragmatically motivated, that is, through the information structure units: topic and focus, in Ekegusii, within an Optimality Theoretic tradition that is bidirectional. It explores the interactions between information structure with the syntactic and discoursal components in Ekegusii in the light of how universal constraints are ranked language-

specifically to determine optimal outputs from both a production (form) and comprehension (interpretation) view.

### **1.1.1: Background of the Language**

Ekegusii is a Bantu language classified under the Eastern Nyanza Sub-group of Lacustrine Bantu (Nurse & Phillipson, 1980). It is spoken by 2.2 million (as per 2010 Census report) people spread in two counties: Kisii and Nyamira.

Ekegusii as per Bosire (1993) has two dialects: the *Rogoro* (Northern) and the *Maate* (Southern) dialect. The *Rogoro* (Northern) dialect is the one used in written works: books for teaching “kikwetu” (Kiswahili for vernacular) in rural schools, bible translations and religious literature; in formal functions and in local language radio. This study will employ the dominant variety (the *Rogoro* dialect), which is used by the majority of speakers.

In representing the word-by-word analysis, the morphemes are cut and labelled using the understanding of the noun and verbal structure that is given below. Ekegusii has a complex noun class system. Nouns have a class prefix. The subject is marked on the verb with a concord marker that depends on the class of the subject noun. The object marker is realized when there is no overt full object noun phrase, thus is a pronominal. The list of the extant noun classes in Ekegusii is as in table (1.1) below:

**Table 1.1: List of noun classes in Ekegusii**

Class	Singular number	Plural number
1	omo- omoremi ('a farmer')	aba- abaremi ('farmers')
1b	mo- taata ('father')	aba- abataata ('fathers')
3	omo- omote ('tree')	eme- emete ('trees')
5	eri- erieta ('name')	ama- amarieta ('names')
7	eke- egesaku ('clan')	ebi- ebisaku ('clans')
9	e- ekabira ('tribe')	či- chikabira ('tribes')
9	e-n- endaagera ('food')	či- chindagera ('foods')
11	oro- oroko ('firewood')	či- chinko ('firewood' pl.)
12	aka- akaana ('a small child')	
14	obo- obokombe ('a hoe')	
15	oko- okogoro ('a leg')	ama- amagoro ('legs')
16	a- ase ('place')	
21	ñ ñamira ('a place name')	

According to Osinde (1998), the noun classes 16, 17 and 18 which are for “place” are functionally merged into one noun class with the prefix *a-*, which relates it to noun class 16 etymologically. Prefixes *pa-*, *mu-* and *ku-* to denote “locative at”, “locative inside” and “locative to” respectively are expressed with a prefix in Ekegusii. Table 1.2 below gives the illustration of the locative prefixes.

**Table 1.2: Illustration of Ekegusii locative noun prefixes**

Class	Ekegusii	Gloss
16	pa-	-ase aisaine ‘at a good place’
17	ku-	-ase aisaine ‘inside a good place’
18	ma-	-ase aisaine ‘to a good place’

### Agglutination and Verbal Morphology

Morphologically, Ekegusii is a highly agglutinative language because most words typically consist of a root and one or more affixes. Each affix represents a grammatical category or meaning.

Ekegusii has complex verbs that take several affixes that include an optional object marker, a subject marker, temporal and aspectual prefixes and suffixes, and applicative and causative morphemes. The following list of morphemes illustrates the richness of verbal morphology:

- a. Assertion or Focus Marker (FM)
- b. Subject Marker (SM)
- c. Tense Marker (T)
- d. Object Marker (OM)
- e. Reflexive Marker (REFL)
- f. Verb Stem (VS)
- g. Applicative Suffix (APPL)

- h. Aspect Marker (ASP)
- i. Causative Marker (CAUS)
- j. Passive suffix (PASS)
- k. Final Vowel (FV)

The list above shows how morphemes are ordered in the verbal complex, and the underlined morphemes are usually mandatory.

## **1.2: Statement of the Problem**

This study handles the problem of the grammatical status of information structure with specific reference to the Ekegusii Language. This problem is part of the bigger question of motivation. The main question is whether information structure influences the form and content of other discoursal components, that is, what determines the form and interpretation of discoursal components such as word order and the grammatical techniques (e.g. movement, insertion or deletion of sentential constituents)?

Linguistic investigations of motivation on word order phenomena are mainly concerned with why constructions with different interpretive and discoursal properties show differences in word order in any particular language at the local or micro-level of analysis. In a purely formal approach to word order, syntax is assumed to be self-contained. If it is taken as being entirely responsible in determining the surface form and content of utterances, the tendency to seek answers by considering a number of syntactic parameters, set to different values in the languages under consideration, such as the Extended Projection Principle, to the exclusion of information structure is considered to be empirically inadequate in accounting for some transformations (e.g movement of sentence constituents within or to the right and left peripheries of the

clause) in human language. The same syntactic components that are responsible for alignment or projection to motivate the structure of sentences, which is not an adequate explanation of data.

On the other hand, in the functional view, pragmatic aspects such as the need of interlocutors to add, delete or substitute information are some of the factors that play a major role in influencing form and content of utterances. To account for just the functional aspects excluding syntactic aspects is equally problematic. Hence there is need to consider information structure in accounting for the form and content of syntactic constructions and texts (or discourse) by integrating both formal and functional descriptions.

The issue of motivation also arises in relation to whether information structure affects discourse coherence. Two claims made in relation to the interactions of the two discoursal components are: it is a mutual reciprocative relation which goes either way, that is, information structure affects coherence and coherence affects information structure; and that they are one and the same or in other words they are just different metaphors of the same phenomena. There has been a bid in the past to reduce information structure to referential status that has its roots in the Functional Sentence Perspective. This calls for the study of nature of the interaction between information structure and referential coherence, which is one of the main realizations of coherence besides relational coherence, to furnish more data to help render the picture a bit clearer. Besides, little interest seems to have been taken in the issue to increase our understanding of the phenomena especially using languages spoken in Africa

Information structure is concerned with how the form of utterances is related to what has been said or not said before, and what is known and what is unknown (the interlocutor's shared knowledge, or common

ground). Little has been researched as far as is known to the researcher in Ekegusii language on how information structure influences the form and contents of other components of discourse such as word order (morphosyntax and its grammatical techniques such as attenuation (ellipsis and pronominalization), insertion (e.g. insertion of negative operators), and movement of constituents), and to achieve referential coherence. This study, therefore, investigates how the pragmatic or information structural considerations, topic and focus, motivate or determine the different word orders in sentences, and achieve referential coherence in discourse in Ekegusii. In order to do so the study seeks to answer the following questions:

- How do the information structural considerations: topic and/or focus affect the formal organization of sentences (word order) and their interpretation (propositional content) in Ekegusii?
- How do the information structure notions of topic and focus achieve discourse coherence, with particular reference to referential (or entity) coherence in Ekegusii discourse?

This study attempts to understand the behaviour of the interactions between the various modules involved in information structure by use of flexible constraints as opposed to fixed rules usually employed in Chomskyian Linguistics. Descriptions based on fixed rules do not easily accommodate exceptional cases; hence they are of limited value in explaining any form of unexpected deviation.

### **1.3: General Objective**

The aim of this thesis is to explore how Information Structural considerations, topic and focus, influence the formal organization and interpretation of discoursal components, in particular the variant word

orders (canonical and non-canonical) and referential coherence in Ekegusii using relevant current theoretical approaches in linguistics.

### **1.3.1: Specific Objectives**

The specific objectives of the study were to:

1. Study how information structure aspects, topic and focus, affect the formal organization (word order) and interpretation (propositional content) of sentences in Ekegusii.
2. Examine how information structure notions, topic and focus, are involved in achieving discourse coherence, with particular reference to referential coherence in Ekegusii discourse.

### **1.4: Justification of the Study**

There are three hundred plus Bantu Languages (cf: Nurse and Phillipson, 2003: 2f), however relatively little research has been carried out on how grammatical expression of information structural categories: topic and focus affects the micro- and macro-syntactic aspects of discourse in most of them. Most of the studies on syntax of topic and focus have been based on European languages which are well documented. Although there are some studies of some grammatical aspects in Ekegusii, e.g. tense by Whiteley (1967), and morphology and phonological aspects (Cammenga,2002); none of them investigates the nature of interactions between information structure and discoursal elements in Ekegusii, a Bantu language spoken in Nyanza, in so far as is known to the researcher. This research also carries on the debate on whether syntax should incorporate information structure (Rizzi, 1997) or whether information structure is best left to extra-syntactic principles.

This study is a first attempt to explore how information structure, an independent information component in the grammar, influences the formal organization and content (interpretation) of sentences and referential coherence in Ekegusii discourse. The study's main contribution is to Linguistic Knowledge, especially to how pragmatic aspects influence syntactic structure. The properties of information structure in Ekegusii are characterized using the intersentential relations of adjacent sentences, which reveal how the antecedent sentence contributes to the form and content of the succeeding sentence. The extent the information structure component interacts with the syntactic component, and discourse coherence in Ekegusii by particular reference to referential discourse coherence.

The work will be of use to researcher's and grammarians working on areas of communication. It shows how interactants structure their information in order to convey the intended meanings. This is of use to anyone interested in improving their communication competence or designing a communication based grammar of Ekegusii or any language with similar morpho-syntactic features.

The findings of the study are generalizable to other Bantu languages that have similar formal content and enable linguists under the disciplines of psycholinguistics; semantics, pragmatics, computational linguistics, and syntax widen their understanding of the communicative aspects – the interplay between information structure as component of information flow with morpho-syntax and discourse coherence- of the language and human language as a whole. The results will also be of use to researches interested in information flow in human languages.

## **1.5: Scope and Limitations**

This study is primarily concerned with how information structure considerations, topic and focus, interact with the micro-syntax elements (word order variability), and macro-syntactic discourse (referential coherence) in Ekegusii discourse. In discussing the issues related to the interpretation of information structures, whenever necessary, semantic aspects as given in formal semantics models that take cognisance of dynamic contexts (non-monotonic) and compositional in orientation will be adduced where necessary. The study is limited to the discourse-semantics-pragmatics and morpho-syntactic interactions in Ekegusii. It excludes the interactions between the morphosyntax and phonological effects such as tone and accentuation. Hence, arguments based on phonological evidence and the optimality theoretic constraints that determine their effects will not be considered.

At the micro-syntactic level of discourse, we will focus on how information structure influences the content and form of canonical word orders with reference to simplex matrix clauses and the non-canonical word orders with reference to selected information structural constructions that involve partial or full movement of sentential elements like the wh-phrases, topicalization, preposing, insertion of sentential elements, with specific reference to negation, and deletion of sentential elements, elliptical constructions that rely on information structural constructions to determine their structure. This study determines how the information structural aspects, the topic and focus relation, pragmatic assertion and presupposition are not only reflected in the grammar of Ekegusii, but also the role they play in determining the form and interpretation of sentences

by employing the methodological procedures and assumptions stipulated in Lambrecht's (1994) theory of information structure.

The study focuses on referential (or entity) discourse coherence in exploring the interaction between information structure and discourse structure. The notion of relational coherence is orthogonal to the concerns of this study, however the minimal relations of dominance and satisfaction relations stipulated by Grosz et.al. (1986) Centering theory are assumed in accounting for global referential coherence. The study assumes two main conditions for coherence, namely: linear (or local/ micro-structural) and global (or macro-structural). Further, Webber (1997) posits that discourse entities or referents can be representations of objects, individuals, events, states, properties and propositions. Entities can be evoked by different types of linguistic expressions, namely, noun phrases, verb phrases, sentences, etc. In this study referentiality is limited to noun phrases (nominal expressions) used to achieve non-empty reference within a particular universe of discourse. The study limits itself to considering inter- and intra-textual aspects of information structural contexts and coherence (referential) to the exclusion of the extra-textual aspects such as the para-linguistic aspects (non-verbal), and speaker attitudes.

The system of rankings, analyses and the constraints determining the interrelationship between information structure (pragmatics) considerations, topic and focus, with syntax and discourse coherence in the study are drawn from Standard Optimality Theory (Smolensky and Prince (1993/2004), the relevant Optimality theoretic models and sub-theories used are: Optimality syntax (Grimshaw, 1997), Centering Optimality Theory (Grosz et. Al. 1986), and are mainly formalized using the Bidirectional Optimality Theory (Blutner, 1998 et. Seq.).

## **1.6: Definition of Terms**

**Candidates:** These are linguistic structures with structural differences that are posited freely, generated, to reveal the structural considerations that allow a particular linguistic structure to be considered optimal or harmonic. In this study the linguistic structures will be the sentences that will be generated by speakers alongside with possible variants that can be possible choices in discourse.

**Clause:** the basic unit of an utterance.

**Constraint:** A structural requirement that may either be satisfied or violated by an output form or candidate in analysis.

**Discourse Segment:** the smaller units that a discourse is segmented into consisting of smaller units of expression. The smallest unit of a discourse unit in this study is a morphological sentence.

**Discourse Segment Purpose:** the intention (or intent) a discourse segment relays.

**Entity:** an object or concept referred to in discourse in subsequent utterances.

**Entity coherence:** coherence that is established through relationships between nominal referents and subsequent usages clauses in texts.

**Focus:** is an informational unit, constituent, entity, or element of a proposition in a sentence that is used to convey new information to an addressee that corresponds to the assertion made about the topic and in some cases it answers a wh-question. In discourse it is the most salient part of a sentence.

**First Mention:** the first referential use of a nominal that evokes an entity in given discourse.

**Global Coherence:** refers to when connections that are established across discourse segments in accordance to purposes that support the discourse intent.

**Information Structure:** refers to the ordering (or sequencing) of the pragmatic functions, topic and focus in information units.

**Information Units:** Refers to the representation of clauses, sentences, paragraphs, and chapters in texts.

**Input:** The underlying, syntactic structures (sentences or utterances), forms before any grammatical process, like reordering or deletion, applies on them.

**Local Coherence:** refers to when referential expressions in adjacent utterances in discourse cohere within a given discourse segment.

**Output:** The surface forms, sentences and utterances, as realized in actual speech.

**Identifiability:** Is the representation of what available or accessible to the interlocutors in their mind in relation to a given entity using given lexemes, mainly articles or pronominal forms.

**Ranking:** This is the ordering of constraints in terms of priority in determining the most optimal output or candidate.

**Referential Coherence:** the establishment of connection between the referents in a discourse through the extensional interpretations of terms though the referential processing of two utterances.

**Referential Expression:** these are linguistic items that used to evoke and keep mental representations of referents, in this study they are mainly entities (noun phrases and pronouns).

**Subsequent Mention:** the persistent usage of a referential expression that is already activated in a given discourse.

**Topic** is an informational unit, entity, proposition or main idea which a sentence/clause or a stretch of discourse is about.

**Topic Continuity:** refers to a discourse segment having one topic or referent that is salient.

**Utterance:** the smallest elementary unit of discourse that a text can be segmented to; it may be a clause, a simple sentence, a complex sentence or a paragraph.

## **1.7: Review of Related Literature**

In this section we review some literature on information structure to reflect the state of art in the area and to motivate the theoretical assumptions and tools employed in the study. The gaps in previous studies are identified in order to be addressed in the study.

### **1.7.1 Information Structure**

As per Lambrecht (1994) information structure is the arrangement of words within a given sentence so as to communicate the pragmatic structure of the underlying proposition. Information structure is applied in sentence-internal divisions into categories like topic-comment, background-focus, focus-ground and theme-rheme, which are expressed at the sentential level.

What is evident from such a view is that information structural notions fall

squarely in pragmatics. Pragmatics is a part of grammar that has to do with the interpretation of sentences non-truth conditionally, that is, it involves the appropriateness of utterances in a given context as per Vallduvi and Engdahl (1996).

Halliday (1967) used the term information structure to account for the fact that the linguistic and extralinguistic context of a sentence can influence the form of a sentence/ As per Chafe (1976) and Lambrecht (1994), depending on the choice of information structure, sentences with the same proposition can be felicitous or not in a given context. Therefore, information structure is considered to be useful in ensuring the coherence of a discourse because it is related to the connection between context and the elements within sentences.

In information and communication theory the quantification of information and the transmissional aspects of information are dealt with. Information theorists hypothesize that information is related to improbability (Nauta, 1972:17). In this view, information is considered as news, that is: "...what is known already is no information. So, something is INFORMATION to the extent that it is unknown, unexpected, surprising, or: IMPROBABLE." (Nauta, 1972: 19). The information theorists consider information as "that which decreases uncertainty". This view is also propounded in systemic linguistics by Halliday and Mathiesen (2004: 8) who define information as "the tension between what is already known or predictable and what is new and unpredictable". Transmission theory focuses on how information is encoded into transmittable signals without considering meaning (cf. Shannon, 1948).

Despite the large amount of research in the area, the exact nature of informational notions remains evasive and controversial according to Levinson (1983). Levinson in his text entitled: *Pragmatics* raises issue with the terminological profusion that is characteristic of the area. He says:

“Terminological profusion and confusion, and underlying conceptual vagueness, plague the relevant literature to a point where little may be salvageable.”(Levinson (1983)).

A number of studies have attempted to solve the problem of terminological profusion by defining the notions related to information structure as in Vallduvi (1993), Kruijff (2001), Zerbian (2006), Akmajian (1979) to mention a few. The aim of the proposed study will not be to clarify the information structure notions but to employ those selected, topic and focus, to account for the interaction between information structure and morphosyntax in Ekegusii.

#### **1.7.1.1. Information in the Optimality theoretic framework**

Kallestinova (2007) employs Optimality theory in accounting for discourse dependent word orders. She argues that discourse dependent sentences result from realignment in the post-syntactic pragmatic component of grammar with a linear structure and that operates with Optimality theoretic-type constraints to determine the optimal output word order in given discourse. According to her analysis the Minimalist Program is only tenable for accounting for basic word order sentences in Russian whereas the pragmatic component is responsible for word order permutations and language specific ranking of constraints resulting in word order variations. The study is based on experimental evidence from elicitation, perception and grammaticality judgement psycholinguistic studies. It is significant to

this study in so far as dealing word order in the pragmatic component is concerned.

Ericsson (2005) examines how utterances are characterised and represented with regard to information enrichment. They are analysed using the information a structural notion of *focus* and *ground*. The constraints on the form and content of utterances are explored using Optimality Theory. He formulates Optimality theory constraints as enrichment rules in determining the ground of an utterance in relation to different parts of the context. The constraints discussed include: distance, parallelism and alternatives for contrastive foci, semantic classes and relevance in terms of relations between questions. The Optimality Theoretic Analysis shows the need for bidirectionality for modelling dialogue. This study will be useful in understanding how ellipsis is represented and analysed within Optimality Theory.

Samek-Lodovici (1996) gives a crosslinguistic analysis and language-internal distribution of null and inverted subjects by considering the information structural constraints. He shows that the interaction of the optimality theoretic styled information structural constraints with markedness constraints determines the distribution of, focussed subjects, canonical subjects, expletives, and null subjects in the preverbal position. The work provides a detailed and complete optimality theoretic syntax.

Gutiérrez-Bravo (2002) shows that Optimality Theory provides a straightforward analysis for two left-peripheral movement operations , topicalization and *wh*-movement (the fronting of interrogative operators) in unmarked and marked word orders in Mexican Spanish. The work will be

of use in understanding how the interaction between word order and information structure is dealt with within Optimality Theory.

Szendroi (2001, gives an account of focus marking in English, Hungarian and Italian within an Optimality Theoretic framework. She investigates the role of syntax and phonology and the mapping between the two in the representation of focus. She observes that the notion of interface economy postulated by Reinhart (1995) that consists of a reference set computation can be interpreted as an Optimality Theoretic evaluation of higher ranked constraints corresponding to the different modules of grammar at the interface between the grammar and the conceptual-intentional systems. The work is significant to this study in understanding how focus marking should be represented in an Optimality Theoretic Framework.

Choi (1996) examines “free” word order in German and Korean from the perspective of constraint interaction in Optimality Theory. The researcher proposes an interface approach in which different components of grammar participate, compete and interact with one another in order to overcome problems inherent in single-component analyses in explaining word order variation. Word order is seen to be motivated and constrained by interactions between syntactic, semantic and discourse principles. The results are significant to this study for it demonstrates the interaction and conflict resolution among Optimality Theoretic constraints in accounting for information structures influence on word order.

In looking into the works so far done utilizing Optimality theoretic frameworks, it was noted that they majorly focus on the unidirectional (productive) aspects of information structure to the exclusion of the comprehensive aspects. Hence this study is a bid to address the latter gap in

analysis. This study assumes an integrated analysis, in which the bidirectional aspects of information structure are described.

### **1.7.1.2. Studies of Information structure on African Languages**

Okombo (1997) considers *topic* and *focus* assignment as key in accounting for Dholuo word order. Okombo employs the pragmatic functions as defined by Dik (1978), in his work *Functional Grammar*, to account for constituent order of Dholuo in preference to the mechanisms suggested by the transformational approach by Chomsky (1976). His work intuitively points to the need of using the information structural considerations (topic and focus) in the description of natural language (speech) data. His is a purely functional approach and thus it does not consider the semantic and structural aspects of most of the structures he describes.

In a later study, Schroeder (2002) the informational components, topic and focus, are considered to be word order phenomena. Hers is a syntactic study that employs a current form of the Principles and Parameters theory that accommodates the information structural components which the transformational approach cannot be used to account for as per Okombo (1997). She notes that the Minimalist Program merely touches on the issue, and does not make a distinction between topic and focus and under Government and Binding, topicalization and focus are treated as left-dislocated constituent movement to the specifier of the Complementizer Phrase similar to the Wh-movement. Schroeder (2001) as in Kiss (1995) uses the feature checking approach, in which binary features ( $\pm$ focus/ topic) are assigned to words, or where focus or topic phrases house checking relations to account for the structural realization of the information structural considerations (topic and focus). As per Kiss (1995), focus and topic do not only determine word order but also language

typology. Discourse configurational languages are considered to be either topic oriented or focus oriented. Kiss (1995) argues for the existence of both a focus Phrase and a [+ Focus] feature in Hungarian. However, contra Kiss (1995), a number of studies reject the idea of allocating sentences the features [+ Focus] or/and [+Topic] in their syntactic representation. Topic and Focus are two primary information statuses that referring expressions may have in a sentence- they are labels of discourse-pragmatic functions besides the structural positions in which they may be manifested (as will be assumed in this study).

Morimoto (2000) discusses the relevance of the notion topic on word order and sentence structure in Bantu languages Kirundi and Kinyarwanda within an Optimality Theoretic framework. The work is significant in so far as it shows how the status of topichood determines if a constituent acts as the grammatical subject in Bantu languages.

Schwarz (2003) investigates how focus is marked by means of word order in Kikuyu in question answer sequences. He gives syntactic account for focus constructions in which the particle *ne* is preposed within a generative grammar framework. The work is important to this study because it will serve as a source for drawing comparisons on how information structure is realized in Bantu languages.

Zerbian (2006) investigates how focus is marked and represented. She argues that focus should be interpreted through context if a language lacks grammatical focus marking. She uses data got from different sources: controlled elicitation, guided spontaneous speech, a corpus study and from texts. The work is of use to this study as it shows how information

structural aspects that involve interaction of prosody, syntax and discourse-pragmatics can be modelled in Optimality Theory.

Ibrahim (2007) does a comparative study of the two Bantu languages, Makaa and Ngyamboon, using the Principles and Parameters and the Minimalist program. The data is got from interviews carried in the field. The study presents findings that show that the languages exhibit the same constraints in expressing focus.

This study, among the studies that consider the role of information structure in the discourse of African languages, may be considered to be closely related to that of Zerbian (2006) and Morimoto that assume an optimality theoretic approach. It attempts to however extend the description to domains that the two did not consider such as negation and referential coherence using a bidirectional approach that takes into account hearers and speakers.

### **1.7.2. Referential Coherence**

Many common genres of discourse have to achieve coherence. Coherence according to Alik (1996:2) is not a “unitary phenomenon” because it can be explained through “some aspects of discourse coherence without providing a complete account of it”. This is the case because judgements about coherence involve considering several components of a communicative situation such as but not limited to the reader, the writer, and the interlocutors shared knowledge of the world, not merely the judgements made on considering a few strings of sentences.

Information structure is also considered by some linguists to be useful in ensuring the coherence of a discourse, it being related to the connection between context and the elements within sentences. In the Prague School

Framework (cf. Danes, 1974), the role of information structure units in determining the coherence of sequences of sentences is given some attention. There are many studies which consider the possible interactions between information structure and discourse coherence which we cannot go into exhaustively here. This study focuses on the Centering theoretic implementation of referential discourse coherence and the extent it is influenced by the information structural considerations, topic and focus.

#### **1.7.2.1 Related Literature on Referential Coherence**

In Centering Theory analyses, some researchers claim that focus is associated with incoherence; an essential component in any given grammar for discourse to progress and sustain interest. Sometimes texts which are remotely related can be considered coherent; hence Alik (1996) prefers the notion of them having degrees of coherence as opposed to being incoherent:

“...coherence...can be present in texts in varying degrees. Texts should not be thought of as coherent or incoherent, rather as more or less coherent: the dividing line between coherent and incoherent texts is a hazy one.”

The notion of incoherence, which some linguists distinguish from uncoherence, is a subset of coherence (Miltsakaki and Kukich, 2000). Since there is no aspect of uncoherence in texts; this study prefers the use of the notion of a coherence gap whenever there is no connection between two adjacent utterances. A coherence gap is realized when adjacent utterances do not exhibit maximal coherence. When one does not have the challenge in filling a comprehension gap in interpreting a sequence of utterances, then we say that the text has maximal coherence. The easiest forms of gaps

to identify are entity coherence gaps as per Tofiloski (2009). Such gaps arise when two utterances have no common entities serving as backward centres among them. This study will benefit from the insights and approaches that consider coherence to be gradient in order to account for the interaction between information structure and discourse coherence.

Coherence does interact with other components of discourse structure. Information structure is sometimes cited as being an accessory component of discourse coherence, or as being dependent on coherence to some extent. The mutual interaction of discourse coherence and information structure is a recurrent theme in the literature. As per van Dijk (1977:45) the specific relations of presupposition, topic-comment, focus, and of information distribution should and may be explained at the coherence level, but in this study we are concerned with how the information structural concepts can be used to account for coherence. Information structure influences referential choices that mark local and global coherence, that is, it determines which entities or referential expressions are realized as aboutness topics in local sentence coherence contexts. The choice between nominal (full lexical Noun phrases) and attenuated (those targeted by processes such as ellipsis or morpho-syntactic reduction (i.e. pronominalization)) forms of reference can be sometimes be based on the distinction between topic and focus.

Discourse reference has been studied in literature that explores how referential form is related to cognitive status of referents (Chafe, 1994; Givon, 1979, 1983; Ariel, 2001, and Gundel et al. 1993 to mention a few). They stipulate cognitive processing factors such as activation, accessibility or salience of mental representations as key determinants of online referential choice and anaphora resolution. The main task of most reference

theories is to explain how speakers' introduce new entities using different referential entities and reference resolution in discourse. This work benefits from the insights that have in the said studies that have influenced the development of Centering Theory and Lambrecht's Theory of Information Structure, which formalize some of the notions dealt with in the study of discourse reference.

Many common genres of discourse have to achieve coherence. In text structuring, information has to be ordered for coherence, that is, for it to be well understood. A discourse which is coherent is one in which an addressee can construct a unitary mental representation (space) for it. Dooley and Levisohn (2001: 27) note that Cohesion, a factor in determining coherence, consists of the linguistic signals, which are cues of conceptual unity (coherence) or of other kinds of unity. Information structure, the indication of topic and focus of a sentence, which is relayed by word order, has some significance in determining coherence. The parallel representation of Information Structure and Centering may reveal how this is achieved in discourse. However, Hoffman (1997) holds a contrary opinion. Hoffman (1997) argues that Centering and information structure have different roles in discourse processing. Information structure instructs a hearer on how to update his or her discourse model with the information in the sentence, while Centering serves to link the sentence to the prior context. Hoffman (1997) considers information structure to be a local phenomenon concerning the information in one utterance.

This study will consider the local and local aspects of coherence in relation to how far as they are influenced by the pragmatic functions, topic and focus in Ekegusii. Hahn & Strube (1996) incorporate the notions of thematicity or topicality, gotten from Functional Centering (Strube &

Hahn, 1996) in dealing with global coherence. This study uses the insights of the studies that explore the nature of referential coherence in the analysis of the interactions between information structure and discourse coherence. Strube & Hahn (1999), propose that the information structure of utterances should be considered in determining the order of discourse entities in the forward looking centre list. In the literature of Centering, a centre is usually defined by grammatical salience. However, some linguists like Kibble (1999) have equated the centre with the "topic" of a sentence and require that this be given as part of the semantic input, so that Centering rules merely reflect the information structure of a discourse. This view is in keeping with the goals of this study.

## **1.8: Theoretical Framework**

The study uses an eclectic approach to account for information structure in Ekegusii. The study bases its understanding of information structure on Lambrecht's (1994) model with particular reference to the notions of topic, focus, pragmatic presupposition and pragmatic assertion. To account for how information structure interacts with discourse structure employs Centering Optimality Theory (Beaver, 2000), incorporated are notions of Standard Centering theory (Grosz and Sidner, 1986) which provides the notions of centres (centre preferred, centre forward, and centre backward) and transitions (rough shift, smooth shift, Continue and Retain) that can be used to model referential coherence. The constraint interactions that ensue due to the conflicts among the information structural constraints and against syntactic and discourse coherence constraints are modelled using Optimality Theory (Prince and Smolensky, 1993) and using relevant extensions such as Bidirectional Optimality Theory (Bluntner, 2000) and Centering Optimality Theory (Beaver, 2000).

### **1.8.1: Lambrecht's Model of Information Structure**

Let us examine the notions that form the basis for our analysis, beginning with the notion of information, and then present the primitives of information structure, namely: pragmatic presupposition, pragmatic assertion, topic and focus. Information as espoused by Lambrecht is not segmentable into individual sentence constituents. Information is established through the manner in which the terms in a proposition relate to each other. He thus proposes that ‘pragmatic states of the denotata of individual constituents in the minds of the speech participants’ and ‘pragmatic relations established between the denotata and propositions’ are the ones that make information possible. He recommends the use of Pragmatic Presupposition (or often just Presupposition) and Pragmatic Assertion in analyzing of information structure, which I will adopt for this thesis.

In the analysis of information structure posited by Lambrecht (1994) propositions consist of pragmatic presuppositions and pragmatic assertions. A proposition can either entirely be constituted by a pragmatic assertion, in sentence focus, or the assertion may carry a set of presuppositions that are inherited or projected from prior contexts. His notion of information being entirely assumed to be pragmatic, he avoids the semantic representation of propositions. The study assumes a three way classification of presuppositions: existential, knowledge and topicality (or Relevance) presuppositions.

In Lambrecht (1994) the representation of presupposition and assertion is not set out in a manner that reveals the formal aspects that we need to discuss the way the proposition is related to surface form. This is evident from the example (1) given below:

(1) Sentence: *My car broke DOWN.*

Presupposition: “speaker’s car is a topic for comment x”

At times two differently formed sentences might express the same logico-semantic content. The difference expressed by the use of one form or another is the realm of Discourse Pragmatics. This is normally broken down into the identification of Topic and Focus (and discourse neutral) sections of a sentence. Topic and Focus do not simply align with features of grammar but there is a strong relation between them. In any given language a variety of grammatical forms are used to express Topic and Focus.

### **1.8.1.1. Focus**

In Lambrecht’s (1994) notion of ‘focus’ it is an element of a pragmatically structured proposition whose occurrence makes it possible for the sentence to express a ‘pragmatic assertion’, that is to convey new information to an addressee. It is that element whereby the presupposition and the assertion differ from each other. A focus denotatum is by definition a communicatively unpredictable element of a proposition. While ‘focus’ is a purely pragmatic notion, ‘focus category’ refers to a pragmatic type with specific formal manifestations in a grammar. In terms of mental states associated with focus it is the complement of topic-hood; hence it corresponds to the assertion made about the topic (Lambrecht, 1994).

Lambrecht (1994) argues that the pragmatic structuring of propositions into presupposed and non-presupposed portions is done cross-linguistically in terms of a small number of types of focus articulation of focus categories, which corresponds to different types of communicative situations and

which is consistently coded in distinct formal types across languages. Lambrecht (1994) distinguishes the following focus categories: Predicate focus (PF), Argument focus (AF) and the Sentence focus (SF) category.

The Predicate Focus category, also referred to as the ‘subject-predicate’, ‘topic-comment’, or ‘Categorial type’, occurs when the predicate is in focus and an argument (typically the subject) is within the presupposition, or when the assertion adds a new predicate to a given argument.

Argument focus category, also referred to as ‘focus-presupposition’, ‘identificational’, or ‘contrastive type’, occurs when an argument is in focus and the predicate (or the open proposition minus the focus argument) is within the presupposition or it adds a new argument to a given predicate.

Lastly, the Sentence Focus category also referred to as the ‘all new’, ‘presentational’, ‘neutral-description’ or ‘thetic type’, in which both the predicate and subject are in focus, and which introduces a new argument and a new predicate.

### **1.8.1.2. Topic**

In this thesis I will be using Lambrecht’s (1994) notion of Topic. Lambrecht (1994) postulates that discourse entities have specific statuses in mental representations of speakers or hearers at the point of a particular utterance such as being highly accessible as believed in and at the current centre of attention by the hearer or speaker. An information structure representation is assigned the status of topic as per its current mental status, which is encoded syntactically, prosodically and morphologically. In defining of topic one should consider the mental statuses that trigger topic marking at information structure, and how topic status affects the morpho-

syntax of a sentence. In this study a distinction between topics and topic expressions will remain stipulated.

Lambrecht (1994) distinguishes between topic referents and the encoding of the referents. Information structure is sometimes realized by syntactic means; hence topic corresponds to grammatical representations, however grammatical elements are not information statuses. To eliminate the confusion between information structure representations and grammatical representation, Lambrecht (1994) differentiates information structure topics and grammatical topic expressions. The topic relation is defined on the level of the proposition, and a topic is a referent in a proposition, which the proposition is about. A topic expression is defined on the syntactic level; a topic expression is a constituent in a sentence that designates a topic referent. The topic of a sentence is what it is about, whereas topic-hood is defined in terms of the ‘aboutness’ condition. This study will follow Lambrecht (1994) who bases his definition of topic on the notion of ‘aboutness’: “the topic of a sentence is the thing which the proposition expressed by the sentence is about,” (Lambrecht 1994: 118). The topic of an utterance is that part to which information is added.

### **1.8.2: Introduction to Optimality Theory**

In this section we expound on the tenets of Optimality theory and its extensions that are used to account for the behaviour of information structure in relation to other modules of grammar in Ekegusii. Optimality Theory (Prince and Smolensky, 1993/2004; McCarthy and Prince, 1993, McCarthy, 2004) is a meta-theory concerned with how constraints in human language interact. This meta-theoretical attribute comes in handy because we can use other theories alongside it. In this study the information structural aspects involve the use of Lambrecht’s (1994) theory of

information structure, and coherence is captured using Centering theory, this are further accounted using constraints in an Optimality theoretic style as stipulated in Centering Optimality Theory.

### **1.8.2.1 Standard Optimality theory**

Standard Optimality theory (Prince and Smolensky, 1993/ 2004) has three main components, the function Generator (Gen), Constraints and evaluation (Eval). In standard Optimality Theory, the function GEN maps a given Input I to a set of possible competing analyses for that input. The input has two functions: (i) it defines the candidate set by specifying the input for GEN, and (ii) Faithfulness constraints refer to the input to penalize deviations from underlying specifications. The input is similar to the underlying representation in generative phonology. The outputs are the individual constructions that may be produced by speakers: both well-formed and ill-formed constructions can enter the candidate list if they are considered possible in human communication.

After candidates are defined by the generator they are then evaluated using a set of violable and ranked constraints, which are in a component of the grammar referred to as the H-EVAL ('Harmonic Evaluation'). In Eval an optimal output is selected for a given input on the basis of a candidate set and a constraint ranking. A constraint profile, a record of constraints that are satisfied or violated by a candidate, is used to select an optimal candidate, which is optimized.

### **1.8.2.2. Bidirectional Optimality Theory**

The bidirectional perspective combines the productive perspective (or Optimality Syntax) and a comprehension perspective (semantico-pragmatic)

A bidirectional optimal pair is both a production (how a speaker expresses meaning in a given language) optimal, as well as a comprehension (how a hearer interprets a sentence or utterance in a given language) optimal. A set of bidirectional optimal pairs can be represented schematically using a Blutner structure (Blutner, 2000) as shown in (2) below:

$$(2) \quad OT_{syn} = \{ \langle m, t \rangle \in Gen \mid \neg \exists t' : \langle m, t' \rangle \in Gen \wedge t' \phi_m t \}$$

$$OT_{sem} = \{ \langle m, t \rangle \in Gen \mid \neg \exists m' : \langle m, t' \rangle \in Gen \wedge m' \phi_t m \}$$

Bidirectional optimization involves description and representation of both dimensions (productive and comprehension) at the same time.

### a. Optimality Syntax (Productive Aspects)

The productive aspects are taken care of using the syntactic constraints that are got from the literature on Optimality Syntax. The development of Optimality theoretic constraints is based on the syntactic tendencies and universals that have been spelled out in Generativist approaches to language. This study is hinged on the Chomskyan tradition. A number of assumptions in minimalism (Chomsky, 1993) are subsumed in Optimality theoretic syntax as practiced by the likes of Grimshaw (1997, et, seq.). Some of the chomskyan assumptions that are of great use in building up the syntactic arguments in Minimalist Optimality Theory and in this study include:

- a. X-bar notion of the syntactic projection (c.f. Chomsky, 1992),
- b. Move- $\alpha$ , which stipulates that any constituent can be moved from one position to another leaving a trace behind.
- c. Phase theory (the Complementizer Phase, and the verb Phase),

- d. Pro-drop parameter (Chomsky, 1981), phonetically null items are structurally present,
- e. Agree: Agreement features are coindexed with nominal constituents, and match their agreement specifications

In an Optimality theoretic Syntax, that assumes the bidirectional view, the input is typically interpretive information, or Logical Form. The output is considered to contain the verbs argument structure and information on the information structural considerations, topic and focus.

In order to derive the syntactic structure of constituents in a sentence, the study employs some constraints given in the literature on Optimality syntax, mainly drawn from Grimshaw (1997). Grimshaw (1997) proposes the phrase structure constraints: SUBJECT and OBLIGATORY-HEAD to account for structural well-formedness of syntactic outputs. The constraint SUBJECT requires that sentences have overt subjects and is violated by null and inverted subject structures.

- (3) SUBJECT (Grimshaw: 1997): The highest A-specifier of a clause must be structurally realized.
- (4) OBLIGATORY HEADS (Grimshaw, 1997): Avoid empty heads.

Grimshaw also stipulates the constraint STAY which militates against the movement of any constraint. This is stated in order to formalize the notion that a trace is left after a constituent is moved out of its canonical position in line with Chomsky's (1993) idea of *shortest movement*. The constraint is given as:

- (5) STAY (Grimshaw, 1995): Traces are not allowed.

## **b. The Comprehension aspects (Semantico-Pragmatics)**

We can now consider the how the interpretations are to be made and translated into formal languages. The sentences are given interpretations in accordance to principles followed by theoretical implementations of Bidirectional Optimality theory (see Bluntner, 1998). In Bidirectional Optimality theory, sentences that are unmarked are interpreted in stereotypical ways, whereas marked constructions receive marked interpretations that are licenced by the contexts in which they are used. Stereotypical meanings may be equated to *I* inferences in neo-Gricean pragmatics, however, the analysis of implicational meanings is orthogonal to this study.

### **1.8.2.3.: Venneman's Extended Logic**

A unique pragmatic-semantic representation as used in Vennemann's (1975) form of Extended Logic is adopted because Classical logic, which is the proposed formal mechanism for the representation of comprehension outputs cannot capture the presuppositions that topical elements bear. Classical logic is monotonic and a non-monotonic system of formal syntax is more suited in capturing the semantics and pragmatics of information structure.

Extended logic, extended by a pragmatic relational predicate for characterizing propositions as presuppositional is adopted to capture the relation between presuppositions and syntactic structure in Ekegusii. It is assumed here that syntax is sensitive to differences between iota definite descriptions, eta indefinite descriptions, and referential constants.

Vennemann's (1975) model of pragmatico-semantic representation characterizes presuppositions inside their matrix structures using a special

‘presupposition pool’. The ‘presupposition pool’ does not belong to individual sentences but to the stretch of discourse under consideration. Information in the pool includes: general knowledge, the situative context, and the completed part of the discourse.

In Vennemann’s (1975) formal treatment of information structure, presuppositions are accorded the status of axioms relative to a discourse that have the power to delimit the range of possible continuations of discourse. The presuppositions are marked by enclosing them in angled brackets $\langle \rangle$ .

Venneman (1975:316) claims that on the first mention of a discourse subject the unique existence of an entity (an individual name) is presupposed and is thereafter referred to by its individual name, a definite description, or a deictic expression (pronoun). By virtue of discourse subject being mentioned by a discourse participant its existence is presupposed in the real or some possible world. He labels the discourse subject *a*, and the predicate that it is predicated of *F* (an open sentence with one free variable). The existential presupposition is represented by brackets $\langle \rangle$  ) in the presuppositional pool as shown in (6) below:

$$(6) \quad \langle (\exists^1 x) (F(x)) \rangle$$

Consider a clause with a topic a predicate *C(x)* is factored in and we have (7):

$$(7) \quad \langle (\exists^1 x) (F(x) \& C(x)) \rangle$$

He then introduces the iota operator (i) to distinguish topics realized by a definite description (8):

(8)  $\langle (\exists x) (F(x) \ \& \ C(x)) \rangle$

The predicate *C* occurs whenever topics are involved. For instance, given the *car* being the topic of the construction in (1), its pragmatico-semantic representation is as given in (9).

(9)  $\langle (\exists^1_c x) (Car \ p(x)) \rangle$

Where  $p(x, r)$  stands for “*r* happened to *x*”, and  $F\text{-}V(r)$  is the *F-ing* act, so the topicality of the car is given with its presupposition followed by the proposition which it realized in as given as in (10). In this case the representation is specifically meant to represent the response for the question ‘*Whose car broke down?*’

(10)  $\langle (\exists^1_c x) (\exists^1 r) (P(x, r) \ \& \ break-down - V(r)) \rangle$

$Car \ p \ ((\exists^1_c x) (\exists^1 r) (P(x, r) \ \& \ break-down - V(r)))$

For the question “what happened?” there is no presupposition accompanying the clause and so we will represent it as shown in (11).

(11)  $Car \ p \ ((\exists^1 r) (P(x, r) \ \& \ break-down - V(r)))$

#### **1.8.2.4. An Example of a Bidirectional Analysis,**

Optimality theory contributes to the description of information structure through the use of “tableau”. The constraints are hierarchically ranked in a constraint tableau. The ranking is done by comparing two candidates as to how they satisfy the structural requirements stipulated in the constraint profile. The constraints are ranked such that the optimal candidate does not or minimally violates the highly ranked constraints compared to its competitors. The number of violations can be used to determine the winning candidate. More than one candidate may and can be expected to be

optimal in a given candidate set. The mapping of an input into an output is represented in a tableau like the one in (1.3) below.

In the example (30) below the Ekegusii language exhibits a conflict between the constraints ALIGN FOCUS, and STAY in discourse-modified sentences in which the object is preposed. The focused constituent moves to the leftmost position in the clause. This is illustrated by the example (12) below:

(12.) *Q: Ni-nki Kiage a-ri-a?*

*FM-What Kiage1C (SG)-eat - FV?*

‘What did Kiage eat?’

a. <sub>FOC</sub> [N-e-ri-toke] <sub>TOP</sub> [Kiage a-ri-re]. (Predicatefocus)

*FM-3SG-banana Kiage1C (SG)-eat-PERF.*

‘It is a banana Kiage has eaten.’

Presupposition:

Focus:

Pragmato-semantic representation:

$\langle (\exists_c^1 x) \text{ eriitoke}_{\text{singular}}(x) \rangle$

$\langle (\exists_c^1 x) \text{ Kiage } p(x) x \text{ Kiage } p(x) \rangle$

$\langle (\exists_c^1 x) x \in (\tau_c x) \text{ eriitoke}_{\text{singular}}(x) \rangle \& \langle \text{ria}(\text{Kiage}(x)) \rangle$

$\text{eriitoke}(\tau_c x) (\text{ria}(\text{Kiage}(x)))$

b. *Kiage o-ri-re eri-tooke.* (Sentence focus)

*Kiage SM-eat-Perf5C (SG)-banana*

‘Kiage has eaten a banana.’

Presupposition: \_\_\_\_\_

Focus: sentence

The focused object in the example above is generated by ranking ALIGN FOCUS above STAY: AF>> STAY. In this constraint ranking, Align

Focus is ranked higher than Stay, because focus induces the positioning of the object against the requirement that it be assigned case by the verb, or be focused in-situ without movement to the preverbal position. From the bidirectional point of view, the constraints have a semantic value that is symmetrical to the syntactic form.

**Table 1.3.: A Bidirectional Constraint Tableau (by Author)**

Interpretation	Form	AlignFocus	AlignTopic	STAY
eriiroke( $\tau_c x$ )(ria (Kiage ( $x$ ))				
☞	a. [FOC Neritoke <sub>i</sub> TOP [TP Kiage ariire $t$ ]]	*	*	
	b. [FOC Kiage [TOP oriire ritoke]]]	*!		
Form	Interpretation			
[FOC Neritoke <sub>i</sub> [TOP sKiage ariire $t$ ]]				
☞	a. eriiroke( $\tau_c x$ ) ( ria (Kiage ( $x$ ))	*	*	
	b. ria (Kiage ( $x$ ) ( $\tau_c x$ )eriiroke	*!		

The table illustrates how constraints are represented in a tableau in a bidirectional analysis.

### 1.8.2.5. Optimality Theoretic Tableau and its Notation

The input is typically represented in the top left-hand corner of the tableau. The constraint ranking of the language is represented to the right of the input displayed left to right by decreasing rank. Solid lines dividing the

columns for each constraint symbolize a strict ranking; dotted lines symbolize an undetermined ranking. The candidates generated by GEN are represented in the cells in the column below the input. When a candidate incurs a violation of a constraint, the violation is represented by an asterisk “\*” in the cell where the row that corresponds to the candidate and the column that corresponds to the constraint intersect. Fatal violations are followed by an exclamation mark “!”. Shading expresses the irrelevance of a candidate's performance on the shaded constraints. For example, candidate (z) fails the highest ranked constraint C1, and is thus suboptimal relative to the remaining candidates (x) and (y), independently of its status on the lower constraints. The optimal candidate is marked with the symbol ‘☞’. Candidate (x) is thus the optimal candidate in the tableau (1.2) above.

#### **1.8.2.6: Centering theory and Centering Optimality Theory**

In this study the basic theory that informs most analyses is Optimality Theory. Beaver (2003) is the main proponent of Centering Optimality theory (COT). Centering optimality theory as originally stipulated by Beaver (2003) is based on two principles of Centering theory, namely, COHERENCE and SALIENCE. Beaver's (2003) Centering Optimality Theory makes is very similar to Centering theory (CT) because it entails a mete terminological adjustment of concepts posited in the latter. She replaces Centering specific apparatus with optimality based constraints. We shall employ the constraints to explore how the choice of referential expressions that are preffered in topic and focus domains are decided.

The understanding of Coherence in Optimality theory is captured using notions espoused in standard Centering theory (Grosz, Joshi and Weinstein, 1995). Centering theory (Grosz et.al., 1995) is a standard theory of

referential or entity coherence. In this study the notions of centres (Grosz et.al., 1995), transitions, focus sacks (Grosz and Sidner, 1986), focus pops (Walker, 1986) are assumed. In order to demonstrate the gradient nature of coherence the study will employ Strube and Hahn's (1999) notion of "costs". Discourse Structure is build using three components: Linguistic structure (the structure of the sequence of utterances), intentional Structure (the structure of purposes), and attentional state (the state of focus of attention) in the analysis of global coherence.

### **Standard Centering Theory**

In Centering theory, the referential coherence at the local level discourse depends on the transitions made in the course of processing given discourse, rules and a set of constraints. Centering transitions (**Walker et al. , 1998**) are ordered according to degree of coherence as defined in the Transition Ordering rule, shown below.

#### **(13) Transition Ordering Rule:**

Continue is preferred to Retain, which is preferred to Smooth-shift, which is preferred to Rough-shift.

The rule given above of transition states can be represented as shown in (14) below:

#### **(14) Continue> Retain> Smooth-Shift> Rough-Shift**

The rules for computing the transitions, given by walker et.al (1998:6) between two adjacent utterances are shown in Table (1.1) below. They correspond to the four combinations of two variables: whether the "topic" of the current utterance, i.e.,  $C_b(U_i)$ , is the same as the "topic" of the previous utterance, i.e.,  $C_b(U_{i-1})$ , and whether the "topic" of the current

utterance,  $C_b(U_i)$ , is realized in a position saved for salient entities,  $C_p(U_i)$ , the highest ranked entity in the  $C_f$  set. Given the coherence of two consecutive utterances  $U_{i-1}$  and  $U_i$  against the transition states given above, the possible relationships are as in the table 1.1 below:

**Table 1.1.: Centering Theory Transition States (As in: Walker et. al. 1998:3-4)**

	$C_b()=C_b(U_{i-1})$	$C_b(U_i)\neq C_b(U_{i-1})$
$C_b(U_i)=C_f(U)$	Continue	Smooth-Shift
$C_b(U_i)\neq C_p(U_i)$	Retain	Rough-Shift

The four transitions given above reflect four degrees of discourse connectivity. The Continue transition is the most coherent transition. It is computed when the topic of a current unit is the same as the topic of the previous unit and is the highest ranked entity in a current unit. The least coherent is the Rough-Shift transition. The Rough-Shift transition is identified when the topic of a current unit is not the same as the topic of the previous unit and is not realized as the highest ranked entity in the current unit. The Rough-Shift's frequent occurrence also indicates topic continuity, and thus can identify poor topic development in a given corpus. The notion of the Backward-Looking Centre is usually the most salient entity in preceding discourse `that is realized in the processing units that are current.

As per Grosz and Sidner (1998), coherence is easily evaluated in a pair of sentences as opposed to an entire segment. As a result, later analyses of coherence in Centering Theoretic studies attend to pairs of transitions, such as CONTINUE-CONTINUE (CON-CON), RETAIN-CONTINUE (RET-

CON), etc. The transitions sequences can be used to determine the inference cost.

### **Functional Centering and Transition Sequences**

The transition-sequence approach as per Strube and Hahn (1999) can be useful in determining the coherence of texts in relation the Centering transitions that are preferred over others. “Cheap” or “low cost” transition between a pair of coherence transitions occurs when the most salient element, the centre preferred (CP), in the previous utterance is realized in the current utterance. An “expensive” or “high cost” transition for a pair of coherence transitions occurs when the most salient element in the previous utterance is not realized in the current utterance. Eleven possible sequence patterns of the transition types are stipulated and are grouped as being: “low cost”, medium cost and high cost as shown in the table below.

**Table 1.2: Inference cost-based classifications of sequence patterns**  
 (Adapted from Strube and Hahn (1999))

“Low-cost” sequence types	“medium-cost” Sequence types	“high-cost” sequence types
CON-CON,	RET-RET,	CON-SHIFT,
CON-RET,	SHIFT-SHIFT,	RET-CON,
SHIFT-CON,	NULL-CON,	SHIFT
	NULL-RET	

## **Global Coherence**

In Centering Theory, discourse at the Global level is assumed to consist of three interacting components, namely: linguistic structure, the intentional structure, and the attentional state (Grosz & Sidner, 1986). The linguistic structure consists of a sequence of utterances which aggregate into segments. Each segment is represented as a portion of a discourse model. In this, each discourse segment is associated with a local focus space (or discourse topic) which contains salient discourse entities for the given segment. The salient entities include items that have been mentioned before and those that have been made salient by inferential reasoning.

Besides, linguistic structure consists of discourse segments and the relations between discourse segments. Intentional structure deals with the intentions and goals participants have which lead them to generate discourse. Grosz and Sidner (1986) distinguish between discourse purpose (DP), which is the basic purpose of the discourse, and discourse segment purpose, the intention that underlies each discourse segment and contributes to the realization of the fundamental purpose of the discourse.

Discourse segments consist of sequences of utterances that have a specific function. The aggregation of utterances into a discourse segment is related to their intentional structure, i.e. their purpose. The individual utterances contribute to the discourse segment purpose (DSPs) which in turn contribute to the overall discourse purpose (DP). Segments are related in two ways, namely, by dominance or by satisfaction-precedence. When the DSP of  $DS_1$  contributes in some way to the DSP of  $DS_2$ , we have a dominance relation. The satisfaction-precedence occurs in instances which

$DSP_1$  is satisfied before  $DSP_2$ . Hierarchical relations in discourse are captured by the two intention-based relations between segments.

Attention structure is a tool helpful in diagnosing how speakers communicate to hearers, it is useful for tracking which of the multiple entities evoked in discourse one selects to talk about, and how one influences the hearers' attention while retaining topic-continuity. Topic continuity by extension contributes to coherence in discourse. In handling attention structure, it is assumed that each processing unit evokes a set of entities which are ranked according to their salience status in the unit. The highest ranked member of this set is assumed to be the most likely topic of the subsequent unit. It also defines four topic transitions based on the relationship between the backward looking centre and the highest ranked entity of the processing unit.

Global discourse is structured using Focus stacks in centering theory. Grosz and Sidner (1986) assume that the hierarchical structure determines a stack based model of attentional state within a discourse segment. The attentional state records objects and relations that are salient in the discourse. It changes as the discourse progresses with some objects turning out to be more salient while others are dropped. Grosz and Sidner (1986) show that discourse segments are associated with focus spaces that consist of salient entities for given discourse segments. The focus space of each discourse segment is placed in a focus space stack as the discourse progresses. The focus space stack depends on two operations, push and Pop. Focus spaces can be either pushed or popped.

Pushes occur when the discourse segment purpose (DSP) for new segments contribute to the ones for the immediately preceding segments. They are

popped from the stack when they contribute to intentions that are higher in the dominance hierarchy (Grosz and Sidner, 1986:180). The attention of a given discourse is dependent on the recognition of intentional structure. The recognition of a subordinate intention results in pushing a focus space onto the attentional stack. Each intention that contributes to some intention further down in the stack (further up the tree) results in first popping all the intervening focus spaces, and then pushing a focus space for the new intention on the stack (Sidner, 1979' )

Pushes and Pops are useful in introducing temporarily activated entities in the discourse segment that constitutes a single focus space stack. The Discourse Purpose (DP) is the discourse topic of the discourse, or the organising topic. The Discourse Purpose relies on inferential processing, and is not associated with any particular construction in the passage.

### **Centering Optimality Theory (COT)**

The aspects of Centering Theory are accommodated in Optimality Theory by Beaver (2002) who re-interprets the transition schemas as ranked Optimality Theoretic constraints. It is considered possible to apply Centering Optimality Theory to compare the felicity of large texts. This is determined by the counting of violations of constraints in different sentences. The violations are then ranked in a Standard Optimality Theoretic fashion as per Beaver (2002). In Centering Optimality theory the following constraints are stipulated to account for some of the aspects of coherence in discourse:

(15) AGREE

Anaphoric expressions agree with their antecedents in terms of number and gender.

(16) PRO-TOP

The topic is pronominalized.

(17) FAM-DEF

Each definite NP is familiar. This means both that the referent is familiar, and that no new information about the referent is provided by the definite.

(18) COHERE

The topic of the current sentence is the topic of the previous one.

(19) ALIGN

The topic is in subject position.

The study employs the concepts derived from the Lambrechtian model of information structure alongside the theoretical and methodological assumptions of Optimality theoretic subtheories, Bidirectional Optimality Theory and Centering Optimality theory to explore the role of information structure in Ekegusii.

## 1.9.: Research Methodology

This study employs a mixed descriptive design (predominantly qualitative) to study the interaction of information structure, word order (morpho-syntax) and referential discourse coherence in Ekegusii. To determine the distributional aspect of the pragmatic fuctions, topic and focus, in relation to the referential coherence in selected Ekegusii narratives the study

assumed a quantitative approach to the data. The distributional aspects of focus and topic that influence referential coherence are quantitized at a nominal scale (determining the frequency of their realization in the chosen narratives (see Miles and Huberman, 1994).

### **1.9.1.: The Research Area, Sampling Procedure and Informants**

The researcher conducted field research in Kisii County. The area was chosen because speakers Ekegusii and users of the *Rogoro* dialect in particular are found there. The key informants were accessed from rural area catchments, away from kisii town, where the usage of Ekegusii is more frequent.

10 adult informants, five male and five female, aged 60 years and above were purposively selected to participate in the study. The choice of age 60 is pegged on the assumption that the informants have had wide exposure in use of language in various social activities.

### **1.9.2.: Data Elicitation Methods**

The researcher collected data in the field through conversational interviews from respondents and spontaneous renditions of narratives which were recorded and transcribed. The data used in this study was got using two elicitation techniques, a psycholinguistic test, constituting question-answer coherence items; and a direct rendition of narratives by the respondents.

#### **a. The Psycholinguistic Test and Research Instrument**

The data for the study was sourced through personal interviews of the informants (in conversational style) using culture-specific and culture-neutral pictures that guided the exercise. It contained descriptions of tests aimed at eliciting spontaneous sentences or short dialogues with specific

information structural content. Different pictures accompanied the experimental tasks used to elicit just one sentence or a whole dialogue.

The research instrument a semi-structured interview schedule which is given in Appendix 1. A psycholinguistic (Elicitation) experiment, which is experimental in so far as it involves some degree of control of the outcomes, was used to get some of the data..

### **b. Oral Narrative Renditions**

The respondents were requested to give natural renditions (spontaneous) of stories of their own choice which were recorded by the researcher. The researcher got ten narratives from the respondents.

#### **1.9.3: Data Analysis and Presentation**

The researcher analysis at two levels: at the syntactic level of informational representation, focussing on pairwise sentences or more with prior contexts that may be another sentence or a question; and at the discoursal level, focussing on how discourse structure and referential coherence interact with the information structural considerations, topic and focus at the local and global levels.

The text-charting technique (Levinsohn and Dooley, 2001) was used to discover the structure of sentences drawn from Ekegusii as shown in appendix (2). Data charting was used to get the canonical and non-canonical word orders in Ekegusii Discourse. The data were also annotated as per the the salient information structural categories as set out in Lambrecht (1994).

The referential coherence patterns were analysed and represented using centering theoretic mechanisms The study employed a sentence-unit-based

minimal discourse segment in accounting for referential coherence. A corpus study, a nominal count of the frequencies of realization, of three narratives was done to determine the distributional characteristics of referential entities in topic and focus domains as per their form (zero pronouns, full pronouns, full noun phrases).

Logical deductions on the behaviour and structure of information packaging constructions are drawn and represented using tools advanced in Optimality Theory (Smolensky and Prince, 1993). The constraints responsible for the form of the sentences that are produced which have different information structures are presented in constraint tableaux. The data is described; explanations and comparisons are drawn with close reference to relevant literature on information structure.

### **1.10.: Conclusion**

In this chapter, we have presented the basic design, the theoretical framework and the necessary methodological assumptions that inform the study of the interactions between information structure with word order and relational coherence. We conceptualized the framework and set out the design that was used to get the data and carry the analyses in the next three chapters. Literature related to the study was reviewed in order to establish the current state of art in the areas of information structure and discourse coherence.

## CHAPTER TWO

### Canonical Morphosyntax-Informatics Interface in Ekegusii

#### 2.1 Introduction

In this chapter we discuss the syntactic and pragmatic roles of topic and focus in canonical sentences in Ekegusii. The analysis focuses on simplex matrix sentences, mostly from question-answer coherence contexts and some drawn, though rare, from monologic narrative data. Section (2.2) deals with topic constructions, how they are distributed in canonical constructions, the information structural interpretations that are given to them, and which effects are attested in the surface forms. These are followed by the analysis of focus effects in section (2.3). All the topic and focus patterns realized in canonical sentences are set out in Lambrecht's (1996) model of information structure, and there is an attempt to discuss cases which are left out by the theory. The discussion is completed by the representation of interactions of Optimality Theoretic style syntactic and information structural constraints that account for the behaviour of information structure in canonical constructions in Ekegusii in section (2.4).

#### 2.2.: Topic in Canonical Sentences

In this section, we present the topic constructions that are realized in canonical sentences in Ekegusii. The information structural effects in relation to topic constructions include pronominalization in discoursal contexts and the change in the propositional content of the clause. To recapitulate, Topic is here assumed to be what a sentence is about and it may coincides with the sentence's grammatical subject but is not necessarily the grammatical subject. Topic is a semantic property, that is, a unit of meaning, whereas the grammatical subject is a syntactic property. In

order to identify topic Lambrecht (1994) adopts the notion of presupposition. What is presupposed can be ‘familiar’ (‘lit up’, ‘given’, ‘old’, ‘activated’, etc.). However, in some instances there is no one to one relationship between familiarity and presupposition. The information assumed to be presupposed depends on the speaker’s assumptions and the consciousness of the hearer. In the analysis presented, we take cognizance of that, and the fact that presuppositions can be inferred from the textual context (co-text), and the frames (the situations abstracted from their concrete manifestations and stereotyped.). Having established the presuppositions, they are used as organizing principles for incoming information; asserted information is attached to them.

In Ekegusii, both unmarked topic constructions and marked topic constructions in canonical sentences are attested. The unmarked topic is placed immediately before the verb, and plays a topical role in the clause whereas marked topics target any post-verbal sentence constituents and sometimes even the verb itself.

### **2.2.1.: Topic-Comment Relation in Canonical Word Orders**

In this section, we focus on the topic-comment construction as it is realized in Ekegusii as a unmarked construction. In determining unmarked topic constructions this study assumes the distinction between topic and comment, which in Lambrecht (1994) is also referred to as predicate focus. The sentences that bear unmarked topic-comment order analysed in the literature (Costa, 2004; Gutierrez, 2007; Zerbian, 2006 to mention a few) are usually assumed to be limited to SVO orders. The word orders that are unmarked depend or vary in accordance to the verb. If the verb is transitive, then the unmarked word order is SVO; if it is ditransitive, it is SV IO DO; and if it is intransitive it is SV (A).

The topic-comment structure is not realized in Ekegusii exactly as construed in the literature. In the examples given below the various position of topic within the canonical clauses are presented. The examples which are close in form to the topic-comment form that corresponds to the subject and predicate form are first presented before the cases that deviate from this form are examined. It will be shown that topic can be realized by constituents that such as verbs and adverb phrases.

The structure that is posited in the literature does not hold if we recognize the bound morphemes in typical Ekegusii clauses in which the topic expression is repeated by the Subject marker in the verbal. The Subject marker incorporated into the verb is in agreement with the subject of the main clause. This calls for an analysis that stretches the notions of canonical and markedness to accommodate this behaviour of topic expressions to get a more comprehensive picture of information structure. Therefore, taking into consideration the aforesaid observation, a typical unmarked topic construction in Ekegusii assumes the pattern of  $\text{topic}_i\{-(\text{topic}_i) \text{ comment}\}$ . The first element in the sentence is a topic which is predicated by a clause that comments on it. However, some topic expressions are realized within the focus domain, and focus elements can also equally surface within the topic domain as we will see in most examples discussed in this section and the rest of the thesis.

Consider example (20) given below.

(20) Context: N-g'ai Momanyi a-re?

*Foc-where Momanyi CL1(SG)-is*

“Where is Momanyi?”

Answers: (a)  $\text{TOP}[\text{Momanyi}] \text{ FOC}[\text{ni-igo}] \text{ TOP}[\text{a-}] \text{re eke-biira ime}]$

*Momanyi Foc-PTL CL1(SG)-is CL7(SG)-field in.*

“Momanyi is in the field.”

Presupposition: Someone is in X

Presuppositions:

- (i) of knowledge: \_\_\_\_\_
- (ii) of consciousness: The referent ‘Momanyi’ is active in the hearer’s short term memory
- (iii) of topicality: referent Momanyi is the ratified topic of the sentence

Topic Domains: NP and VP

Focus Domain: VP

Syntactic Position:

[CP [IP[<sub>TopP</sub> Momanyi [<sub>VP</sub> niigo a-re [<sub>VP</sub> [<sub>FocP</sub>eke-biira ime]]]

*Momanyi Foc-PTL CL1(SG)-is CL7(SG)-field in.*

Syntactic Topic domain: TopP of Complementizer Phrase

(b.) <sub>TOP</sub>[Momanyi] <sub>FOC</sub>[n'-eke-biira ime <sub>TOP</sub>[a-]re].

*Momanyi Foc-CL7(SG)-field in CL1(SG)-is.*

“Momanyi is in the field.”

In the topic-comment sentences given above in (20. a & b), the definite is realized by the proper name Momanyi and then echoed by the Subject Marker {a-} within the verbal which is here considered to be a topic expression. The practice in most analyses is to ignore the topical nature of

the morpheme that marks agreement, because the verb is considered a neutral position in the analysis of information structure. Previous studies (Zerbian, 2006; Givon, 1976; to mention a few) consider the subject agreement marker to have a historical origin. It is considered to be a reduced full topic which serves as both an anaphorical and a grammatical agreement marker. When the full subject is not present, it is linked anaphorically to the incorporated pronoun, and is restricted to playing the role of topic.

The sentences (20 a. &b.) above exhibit the characteristics of the topic-comment structure in so far as the subject ‘Momanyi’ is the one talked about. The subject is presupposed in so far as it is already activated in the context sentence. The realization of a subject and a topic in a canonical sentence is considered to be an “anomaly” as per the principle of separation of Reference and Role (Lambrecht, 1994: 190). The construction is an aggregate of two functions which if conflated cause difficulties in the extended projection. The same problem is experienced in the case of the subject bearing a focus function (which will be considered in section 2.2.2).

The full lexical noun phrase is not the only topical construction in the sentence, there is the prefix Subject Marker {a-} before the verb that is in an agreement with the subject. The marker here is topical too in so far as it is presupposed however we may consider it marked in so far as the topic-comment structure stipulated in the literature is concerned. Although the topic construction in (31 b.) above has the topic realized in a canonical position (and hence can be considered a canonical topic construction) has the adverbial phrase, which is focalized, moved to a sentence intermediate position. The sentence can be then be categorised both as a canonical

topical construction and a non-canonical focal constructions because it has a topic expression within the focus domain.

In the sentence in (21) below the main issue in the ensuing sentence establishes the subject but the sequential sentence takes up a new subject that is realized as full noun phrase. This noun phrase is in the unmarked sentence initial position in keeping with the topic-comment configuration.

(21) S1     FOC [Keberi a-ga-uta omo-rero isiko y' e-nyomba.] (SS-V O A)

*Keberi 1SG-PST-light 3SG-fire outside of 9SG-house*

S2     TOP [Omo-rero] FOC [TOP[o]-ka-bumbucha].                         (S S-V)

*3SG-fire 3SG-PST-flare*

“Keberi lit a fire outside the house. The fire flared.”

Presupposition: Something did X

Presuppositions:

- (i) of knowledge: The topic, omorero (Eng. Fire) is identifiable
- (ii) of consciousness: The referent ‘Omorero’ (Eng. fire) is active in the hearers short term memory
- (iii) of topicality: referent *omorero* is the ratified topic of the sentence

Topic Domains: NP and VP

Comment Domain: VP

In the sentences given in (21) above, the first sentence is in the all-focus/sentence focus context. In the sentence, the topic and subject of S2, *omorero* ‘fire’ is activated, and in that manner presupposed, but is overtly

realized by the nominal form in order to avoid the problem of ambiguity that may arise if a pronoun were used instead .

Other than the sentence initial position, usually taken up by the subject (the specifier), the topic and other topic expressions can be realized in other positions in the clause in Ekegusii. The topic construction can occur after the focus, and is co-extensive with the entire predicate as in example (22) given below.

(22) Question: Ni-*ng'o o-beeg-et-e e-kondo?*

*Foc-who CL1(SG)-put-FV CL9(SG)l-hat*

Who is wearing a cap?

Answer:  $\text{FOC}[\text{Omo-kungu n-eere}] \text{ TOP}[\text{FOC}[o\text{-}]beeg-et-e e-kondo].$

*CL1(SG)-woman Foc-her CL1(SG)-put CL9(SG)-hat*

“It is the woman who is wearing a cap”

In the ditransitive constructions the topic can also be aligned after the focus. Though the topic position is unmarked the word order within is marked because one of the objects is placed before the subject as illustrated in the examples (23-24) below.

(23) Question: Ni-*nki omo-saacha a-ko-a omw-aana?*

*Foc-what I(SG)-man I(SG)-INF-PRES -give I(SG)-child*

“What is the man giving to the child?”

Answer: a.  $\text{FOC}[\text{Ama-beere}] \text{ TOP}[\text{omo-saacha a-ko-a omw-aana}].$

*I6C(PL)-milk I(SG)-man I(SG)-INF-PRES-give-FVI(SG)-child*

“Milk the man is giving to the child.”

- b. FOC [N'-amabeere] <sub>TOP</sub> [omosaacha akoa omwaana].

“It is milk the man is giving to the child”

(24) Question: Ni-*ng’o* omo-saacha a-ko-a ama-beere?

*Foc-who 1C(SG)-man 1C(SG)-INF-give l5(PL)-milk*

“Who is the man giving milk?”

Answer: a. FOC [Omw-aana]<sub>TOP</sub>[omo-saacha a-ko-a ama-beere].

*1(SG)-child 1(SG)-man 1(SG)-INF-PRES-give-FV  
5(PL)-milk*

“The child, the man is giving the milk”

- b. FOC [N-'o-mwa-ana] <sub>TOP</sub> [omo-saacha a-ko-a ama-beere].

*1(SG)-child 1(SG)-man 1(SG)-INF-ØPRES-give-FV  
5(PL)-milk*

“It is the child the man is giving milk”

Mixed patterns of topic realization are attested further in cases where the Locative functions as the subject. The locative can have a topical component within it despite functioning as an argument focus construction. Such a construction is illustrated by sentence (25) below in which the focus is realized in the midst, whereas the topic is discontinuous. The topic expression is realized by a word that begins with the focus marker {n-} inherited from the question context. The verb is topical given that the act of going to the market is presupposed in the context of the conversation. The focus is a locative adverbial phrase, whose typical position is at the end of

the clause as a compliment to the verb, but has been moved due to the focalization (this construction will be discussed in chapter three as a case of phase sliding). The domain of focus is the entire locative phrase, *n'echiiro ya magombo* (Eng. The market of Magombo).

- (25) Question: N-chiilo ki a-geend-a?

*Foc-market which CL1(SG)- PST go-FV*

“Which market did s/he go?”

- Answer: FOC<sub>TOP</sub> [N'-e-chiilo]ya Magombo] <sub>TOP</sub> [a-geend-a].

*Foc-CL9(SG)-market of Magombo 1sg-ØPRES-go-FV*

‘It is to the market of Magombo she went’

In the multiple foci constructions, topic constructions are ordered in sentence medial position, because the two foci cannot be realized in the sentence initial position due to superiority effects. The topic expression being a verb it should occupy a sentence medial position in a canonical (unmarked) sentence. The sentence medial topic construction is illustrated in (26) below:

- (26) Question: N-ing o-bogoor-et-i-e ki?

*Foc-who Cl1(sg)-carry-FV what*

“Who is carrying what?”

- Answer: FOC [N'e-nyarooka] <sub>TOP</sub> [e-bogoreti] FOC [eke-rogo]

*Foc- CL9sg-girl CL9sg-carry CL7-chair*

“It is a girl who is carrying a chair”

The exemplification of the topic and topic expressions given in this section does not indicate in any special manner, by using some form of morpho-

syntactic-marking, of the realization of information structure in the canonical clauses of Ekegusii. The distribution of the full arguments, subjects or objects, and verbs which serve as topic expressions, are only responsible for anchoring the new information borne by the focus, if they bear a topic relation or are merely reiterated in the answer to ground the answer. Only one topic relation can affect the propositional content while the other topic expressions are only meant to fulfil the structural needs of the sentence for it to be well formed by agreeing with either the subject or the object. This demonstrates that Topic is a floating feature in canonical word order constructions that is superimposed on any phrasal cluster or constituent within the canonical sentence configuration. In sum, the topic expression is not therefore limited to being realized by the subject of the sentence, but can be realized by verb, adverb phrases (compliment) and object of the sentence depending on the question that forms the basis for the sentence given as the answer. In the next section we turn to how topic induces pronominalization in question-answer coherence and discourse linked sentences.

### **2.2.2. Pronominalization of Topic Expressions**

In this section we will discuss the effects of topic in determining pronominal coding in Ekegusii. In this study information structural consideration, topic is assumed to trigger pronominalization in discourse. Pronouns that replace arguments (subjects and objects) and verbal complements in canonical sentences in transential contexts are treated as having a [+ topic] feature for them to be realized by attenuated forms, especially pronouns.

Though the right point for us to describe pronominalization is in Chapter three, as a form of transformation, we deal with here as a form that does not

alter the word order of canonical sentences. The pronominal bearing constructions are dealt with here though they are semantically marked. Most pronouns with the exception of those that also mark gender, person, generic aspects, and possession, are semantically marked because they are semantically empty and rely heavily on their antecedents for their interpretation. The antecedent can be in the same construction or clause, in the case of complex sentences or in an independent preceding clause. The former has been the main focus of syntactic approaches, whereas the latter is dealt with in studies that handle discourse anaphora and coherence (the referential aspects of pronominalization will be taken up in chapter four, that is, the pronominal coding of denotata, due to “referent activation”, which is a feature of the prepositional structure of a given expression that typically evoke consciousness presuppositions (Lambrecht, 1994). Whenever a speaker assumes that the mental representation of the referent is fairly salient or has a high degree of “activeness” in the hearer’s consciousness then the pronominal variable is preferred over the lexical one.)

Some studies in the past have concentrated in determining the categories of pronouns. Five pronouns are available as per Bresnan (2001) who handles pronominalization within an Optimality theoretic approach. The adduced categories are as given below:

- a. Zeros : pronouns with no morphological or syntactic expression
- b. Bound pronominals: affixes with a pronominal content bound to an head
- c. Clitics: syntactically independent pronouns phonologically bound to a head

- d. Weak pronouns: morphologically and phonologically independent pronouns that cannot receive primary sentence accent.

Ekegusii uses absolute pronouns as one of the ways of realizing salient topics and topic expressions in canonical sentences. Absolute pronouns are distributed both in the preverbal and post-verbal positions in the clauses that play topical roles include demonstratives {oyo [+human], eke [+inanimate], eye [+animate]}, zero pronouns, and third person pronouns.

Absolute pronouns used in ekegusii i Absolute pronouns realized in the preverbal context can be illustrated by the sentence S2 in example (27) given below:

(27) Demonstrative pronouns as Subject pro-forms in Ekegusii

[Omobaka obwate etugo yaaye niigo are koruuusia eng'ombe eyemo oyesaaria.]

Omo-gaka o-bwate e-tugo yaaye ni-igo a-re

*CL1(SG)-old man CL1(SG)-have CL(PL)-cattle POSS PTL CL1-PST-is*

ko-ruusi--a      eng'ombe      e-mo      o-ye-saaria.

*AGRS-remove CL9(SG)-cow CL9(SG)-one CL1(SG)-OM-slaughter*  
 TOP [Eye] COM [FOC [nabo TOP [ya]-are koba riikongo, omouko,  
 omosiororo, omotuuro, gose omo-kong'o]

TOP[E-ye] COM [FOC[nabo TOP[ya]-are ko-ba ri-ikongo,

*CL1(SG)-this could SM-PST-is INF-be CL 5(SG)-humped,*  
 omo-uko, omo-siororo, omo-tuuro, gose omo-kong'o]

*CL3(SG)-blind CL3(SG)-mad, CL3(SG)-noisy, or CL3SG)-one-eyed*

“[An Elder wwho had his cattle used to take one cow and slaughter].  
This could be aged, blind, mad, wild or lame”

Presupposition: Something could be x, y... or z.

Presuppositions:

- (i) Of consciousness: The referent *engombe* (The cow (for bleeding)) evoked by a pronominal
- (ii) Of topicality: Types of cow for Bleeding is the ratified topic of the sentence

Topic Domain: NP

In the subsequent sentence in (27) above, the deictic, *eye* “this” serves as a reduced topic (pronominal) of the sentence to which the new information is anchored, fulfilling the structural requirements of the topic-comment construction. The hearer can easily interpret it since it bears an anaphoric relation to the overt focal expression *engombe* “cow” which is activated in the preceding clause. The clause has a comment consisting of the verb and a Subject complement constituted by a list of the attributes of the cow.

Pronouns are also realized in post-verbal contexts. The pronominalization of verbal complements is carried out by means of absolute pronoun or by means of procliticization on to the verbal complex. Pronominalization of the verbal complement by an absolute pronoun in the Ekegusii clauses is illustrated in (28) S2 below:

- (28) Omosigari agakaga ne'chindoswa bakobeka omochie oyio.  
Akabateebia bo.

Lit. “The Constable thought it was a charm they were casting on that home. He told them so”

- (29) Obwango obwo, omoibi oria obwate engasi agateebia oria obwatete engoko ekerenge, “Irania engoko eyio goocha, tooche toyerete ekero omonyene airanire.” Omosikari nére agaancha bo.

Lit. “At that moment, the thief who had the ladder told the one who had the hen by its leg, ‘Return that hen here, we will bring it when the owner has come back.’ The contable agreed to that”

The language also has pronominal complements which appear as clitics attached to the verbal head. The Object Clitic assumes the role of the object and Object Marker. One cannot stipulate a null pronoun in the example (30) below because the sentence gets ill formed when the full object is re-introduced in its slot. An example of a cliticized pronoun in verbal head is given in (41) below:

- (30) [Eye nabo yaare koba riikongo omouko, omosiororo, omotuuro, gose omokong'o.]

Oteebia abaamate baaye gose abatuureti ba-ye-nyenya

<sub>TOP</sub>[E-ye] <sub>FOC</sub>[nabo <sub>TOP</sub>[y]-a-are koba ri-ikongo,

*CL1(SG)-this could SM-PST-is INF-be CL 5(SG)-humped,*

omo-uko, omo-siororo, omo-tuuro, gose omo-kong'o]

*CL3 (SG)-blind CL3 (SG)-mad, CL3 (SG)-noisy, or CL3 (SG)-one-eyed*

O-teebi-a aba-amate ba-aye gose

*CL1(SG)-PRES-tell-FV CL1(PL)-neighbour SAGR-POSS or*

aba-tuureti ba-ye-nyeny-a

*CL1(PL)-neighbour SM-OM-PRES-slaughter-FV*

“This could be old, blind, mad, wild or lame. He asks his neighbour they slaughter it.”

In sentence S2 (30), the object pronoun {-ye-} procliticized in the verb *nyenya* “slaughter” after the subject marker is in anaphoric reference to the pronominal subject *eye* “This” in the previous sentence. If it is dropped from the clause we have a different proposition which talks of slaughtering in general. Hence, the pronoun bears the presupposition that a cow is to be slaughtered.

In Ekegusii, one can be tempted to assume that the pronominal function is played by a bound morpheme that is a prefix in the verb stem; however we assume that this role is taken up by a null pronoun that takes the place of the deleted subject. The null pronominal form is realized in the place of both topical subjects and objects. The pronominal function is not played by the subject marker which is incorporated in the verbal complex. The language also uses absolute pronouns in replacing some topic subjects, complements and objects.

The subject marker is also realized after an overt subject as in the sentence focus construction example (31) given below. The subject *abanto* (people) is followed by the Subject marker prefix {ba-} (“they”). The prefix specializes as a subject marker and cannot be interpreted as a pronoun

neither in the cases where the subject is overt nor when it is replaced by an empty category (the null subject pronoun).

- (31) Context question: Ni-nki ke-genderer-et-e?

*Foc-what CL7 (SG) - PROG-go on-HORT-FV*

“What is going on?”

Sentence [Aba-nto ba-ko-nyunyunt-an-a]<sub>F</sub> (SV)

*IPL-people 1SG-PRES-kiss-RECIP-FV*

“People (a couple) are kissing.”

For the subject marker to take up the role of a pronoun in the language the subject is already activated in the preceding discourse and the definite noun phrase is dropped. In the context where there is a Null subject, the pronoun is not realized by a separate morpheme, though there are there. We may either infer that the Subject Marker takes on a pronominal function and for that to be the topic feature is consider to move since it cannot be realized as a trace element in the clause to the lower point in which it can influence the propositional content of the clause, or it may simply be a distinct form, a pronoun, that exhibits homophony with the Subject Marker with an inherent focus feature. The pronoun serves as the subject and the topic of the sentence. The structure is unmarked in terms of information structure since it takes the topic-comment form and has a categorial interpretation, that is, the comment is entirely or partly the domain of predicate focus. It cannot be considered to be focal, unless it is given some special prosodic prominence.

Ignoring the topicality aspect of the subject agreement markers in the language is possible if we assume that the pro-drop parameter is active in the language. The analysis proposed by Lambrecht (1994) allows for the realization of topic expressions within the focus domain which makes the analysis of structures such as S2 and S3 rather puzzling. If one opts to represent them as being outside the focus domain, then the pronoun has to be considered as a separate entity that has been cliticized into the verbal complex, if considered as part of the verb, then the is the problem of how it contributes to the composition of meaning in the prosodic word. Yet for the structuring of information, the pronoun is seen to bear the topical relation unless we assume that Ekegusii has a Pro-drop parameter and so the topic relation is the function of the null subject. If the null subject serves as a topic of the sentence, then the pronoun remains to be a subject marker with a quasi-topical function in the sentence, that is, it does not serve as an anchoring point for the new information nor does the topic feature have to move from the criterial position it occupies in the left periphery to a non-criterial lower position where it is a floating feature within the verbal complex. This is cannot be settled in vacuo or by going for the simplest intuitive solution of assuming that the subject marker is a pronominal variable.

To resolve the dilemma we need to look at similar behaviour in a different context that can make the picture clearer. Consider the sentence sequence given in (32) below. The canonical example in the third sentence (S3) in (32) illustrates how topical expressions are realized by a subject marker within the focus domain, and the null subject, represented by *pro* with a strikethrough to indicate that it is deleted in the surface.(The nature of ellipsis will be dealt with in chapter three). The null pronominal of sentence

S3 is in an anaphorical relation with the entity that functions as the subject of sentence S1, “eamate eria ya soobo omoiseke” (the kin of the girl).

(32) **S1** E-amate e-ria ya soobo omo-iseke

*CL9 (PL)-neighbour CL9 (PL)-that of home CL1 (SG)-lady*

e-ga-chiik-w-a e-chich-e soobo Okanyangau

*CL9 (PL)-PST-invite-PASS-FV CL9 (PL)-PST-come home  
Hyeana*

ko-maan-a chi-ombe.

*INF-take-FV CL9 (PL)-cow*

**S2** Ekero *pro* ba-ik-a, *pro* ba-ka-maan-a

*When PRO CL1 (PL)-reach-FV, PRO CL1 (PL)-PST-take-FV*

chi-ombe goika ikomi

*CL1 (PL)-cow up to ten*

**S3**  $[\text{TOP } \text{pro} [\text{FOC } [\text{TOP } [\text{Ba}-[\text{ka-raageri-gw-a}]]]]]$  (S-V)

*PRO CL1 (PL)-INF-PST-feed-PASS-FV*

“That kin of the home of the girl was invited to come to the home of hyena to claim dowry .When they arrived; they took cows up to ten. They were fed.”

Presupposition: X were done for something

Presuppositions:

- (i.) of consciousness: The referent ‘The kin of the girl’ is active in the hearers short term memory
- (ii.) of topicality: referent {*ba-*}“They” is the ratified topic of the sentence

Topic Domain: NP and VP

Comment domain: sentence

The subject marker {*ba-*} in sentence (32) above compensates for the subject’s absence and so refers to the current topic under discussion in the portion of a narrative: the kin of the betrothed. The first sentence introduces the topic using a phrase, in the second sentence the referent is pronominalized and pronominal form is repeated in the one word sentence we are analysing. The Topic-Comment form is retained in the case of null pronominalization as in the cases where the full lexical patterns, that is, the subject and object marker function as topic expressions, and the focus domain that is coextensive with the comment subsumes the latter.

Reflexive pronouns are not amenable to an analysis that takes recourse to seeking semantic connectivity or identity between the pronoun and an entity or abstract propositional entities given in a preceding sentence. In most of their uses they have their antecedents realized in the sentence they occur in. The reflexive pronoun in Ekegusii is realized as an infix in the verbal complex. In the example in (33) below, the reflexive pronoun is realized by the infix {-e-} which induces the gliding of the infinitive prefix {go-}.

- (33) S1 Chiebiriinda a-ka-ba o-re mwa ngi' ina ase ama-goro  
amaange.

*Chiebiriinda 1sg-pst-is SM-in her mother's 5pl-for day many*

- S2 Chiebiriinda niigo a-a-nch-et-e gw-e-sibi-a.

*Chiebiriinda ptl 1sg-pst-like-pst-fv inf-SM-wash-fv*

Lit. Chiebiriinda was in her mother's for a long while. She liked to wash herself.

The reflexive pronoun here cannot be interpreted as being topical since it constitutes part of new information in the clause.

In sum, the preceding section demonstrates that topic triggers the reduction full definite and indefinite referents through pronominalization. The pronouns usually are one of the reduced anaphoric expressions that are usually considered to be salient in interlocutors' minds. The pronouns, that serve as topic expression can surface as subjects, and objects of sentences. The process yields defective objects when the reduced object (an object pronominal variable) is incorporated into the verbal in some contexts which will be further considered in chapter three under the sections on ellipsis and object (or/and dative) movement. The first section shows that absolute pronouns are used in some contexts and phonologically null pronouns in others. The reduction of lexical forms or their deletion (lack of lexicogrammatical manifestation) is a clear indicator of shared knowledge in the discourse between the interlocutors.

## **2.3.: Focus in Canonical Constructions**

In this section it is observed that focus does not affect the canonical word order of the sentences but influences the optional surfacing of the morpho-syntactic marker {n-} which indicates focus and gives a pointer of what should constitute the propositional structure or interpretation of the constructions.

### **2.3.1: Unmarked Focus Constructions in Ekegusii**

A typical example of an unmarked canonical information structure construction in Ekegusii is the predicate focus construction which we analysed the topical portion as a topic-comment construction. The predicate focus construction is characterized by “the semantic-syntactic subject, being in the presupposition whereas the “semantic-syntactic predicate” being in focus (Lambrecht, 1994: 230). In this section we examine on the comment segment and argue that the various instantiations of predicate focus affect the interpretation of the canonical word orders rather than their formal organization. In the instantiations of predicate focus that are not marked, their interpretation is stereotypical; whereas in marked cases, it is marked.

The verb phrase, which typically consists of the verbal and its complement, is isolated as the domain of the predicate focus construction. In the literature of syntax, the verb phrase is sometimes assumed to be the head of the sentence that selects the type of sentential elements that can co-occur with it. The number of arguments depends on transitivity of the verb. If it is intransitive, that is, it does not take an object, then the verb is the only domain for focalization whenever the predicate has to be asserted; as illustrated in the subsequent sentence S2 in (34) below:

(34) S1 [Nyaiyoonga a-ga-teebia omo-mura Nyantaaro ba-nyoore  
*Nyaiyoonga 1SG-PST-tell 1PL-man Nyantaaro 1PL-get*  
e-batiiso e-rio a-manye go-kor-a e-nyaangi.]  
9(SG)- baptism 9(SG)-then 1(SG)-will F-do-FV 9 (SG)-  
wedding

S2 <sub>TOP</sub> [Nyantaaro] <sub>FOC</sub> <sub>TOP</sub> [a-] ka-anga.]

*Nyantaaro 1(SG)-PST-refuse*

“Nyaiyoonga told the man Nyantaaro they get baptised so that they may do a wedding. Nyantaaro refused.”

Presupposition: someone did something

Presuppositions:

- i. of knowledge: \_\_\_\_\_
- ii. of consciousness: The referent ‘Nyantaaro’ is active in the hearers short term memory
- iii. of topicality: referent “Nyantaaro” is the ratified topic of the sentence

Assertion: Nyantaaro did x

Focus: x= -kaanga ‘refused’

Focus domain: VP (verb)

The answer in (34) above presupposes that someone did something and asserts that the something was to refuse. Nyantaaro is both the subject and the topic of the sentence. In the predicate-focus, an unmarked articulation of information structure, the subject corresponds to the topic and the remainder, the Verb Phrase (VP), is a comment on the topic.

In Ekegusii, the intransitive verb can also be followed by an adverbial complement. In the literature of Information structure, the topic and focus constructions often arise as answers to *wh*-questions. Focus is determined by using question-answer pairs to identify the constituent which answers a *Wh*-question. Unmarked word orders for different kinds of clauses are assumed to be generated by the use of the sentence-focus context. The sentence focus context is assumed to give rise to word orders in sentences that felicitously answer questions such as ‘*what happened?*’ and ‘*what has been happening?*’ This is attested in languages such as Mexican (Gutierrez-Bravo, 2002) and this study too. However, in Ekegusii, as is demonstrated below, it was found that the unmarked word orders can be generated using the already mentioned questions and any other such as “*where is x?*” which can yield predicate focus, or “*Who did y?*” that yields an argument focus construction.

The sentences adverbial phrases namely, locative (place) and temporal or adverbial phrases of time positioned post-verbally. The adverbial is part of the comment, and therefore within the focus domain. The adverb phrase that serves as the adverbial complement can occur immediately after the verb, in such a case it can be assumed to within the main (matrix) clause as in (37). Sometimes, it can occur as the complement of the object as in (35) below.

(45) Context: N-g’ai e-ndo e-beer-et-e?

*Foc-Where 9SG-lion 9SG-PRES-is-FV*

“Where is the lion located?”

Answer: <sub>TOP</sub>[E-ndo]<sub>FOC</sub> [niigo <sub>TOP</sub>[e]-re e-nsemo ase e-nturago.]  
*9SG-Lion PTL SM-is OM-beside at 9SG-rock.*

“The lion is beside the rock.”

Presupposition: The lion is somewhere

Assertion: The lion is x

Focus: ‘beside a rock’

Focus Domain: the predicate (VP)

In the example given in (36-S2) below, the focus domain is coextensive with the temporal adverb phrase (adverb phrase of time).

- (36) **S1** Nyagetena o-soa riiko ko-uuta na kw-areka o-ruga ech-i-insa  
*Nyagetena 1sg-enter fireplace INF-light INF-set 1sg-PERF-cook 9pl-time*  
e-rioba ri-go- chia nyiera omo-gaaka Nyakerage o-raagera  
botuko.  
*5sg-sun 5sg-PROG-go set 1sg-elder Nyakerage 1sg-eat night*  
**S2** <sub>TOP</sub> [pro <sub>FOC</sub> [TOP [A] - ga-suki-a <sub>TOP</sub> [oro-sasi o-rwo] ase eme-tienyi ikomi  
*NULL PRO SM-PST-push 11(SG)-problem 11(SG)-that for (Pl)-month ten*  
na oyoomo.]]]]  
*and one*

“Nyagetena goes to the kitchen and starts to cook when the sun was about to set, the old man Nyakerage eats at night. He bore the problem for eleven months.”

Presupposition: Nyakerage bore a problem for x

Presuppositions:

- (i) of knowledge: \_\_\_\_\_
- (ii) of consciousness: The referent {a-} ‘He’ is active in the hearers memory hence the null instantiation
- (iii) of topicality: referent “He” realized by the morpheme {A-} is the ratified topic of the sentence

Assertion: Nyakerage bore a problem for x

Focus: x= eleven months'

Focus domain: VP

The focus is characterized by the ability to pragmatically accommodate presuppositional structure. This is illustrated by the sentence (36) above has a marked focus structure, in which we have two topic expressions, the subject marker which bear the phi-features of the deleted subject and the definite noun phrase, *orosasi orwo* ‘that problem’, which anaphorically points back to the presupposed proposition: Nyakerage was mistreated by his wife (by cooking very late into the night).

The focus domain, usually coextensive with the comment, can be tagged along with any number of adverbial phrases after the verb. The Sentence S3 in (37) below illustrates this attribute of predicate focus with two adverb phrases following the main verb. The first is a locative and it is followed by a temporal adverb in the form of a prepositional phrase. Both of them are within the focus domain which also encompasses two topic expressions and a verbal head.

(37) S1 Aba-iseke bo-onsi ba Nyorosa Nyamesaanchwa ba-ga-koora

*IPL-Daughter IPL-all of Nyorosa Nyamesaanchwa IPL-PST-finish*

ama-somo ba-ka-nywomwa.

*I5pl-education IPL- PST-marry.*

S2 Aba-mura boigo, kera oyo-mo a-ka-nyuoma omo-kuungu om-uuya.

*IPL-Son too every 1SG-one 1SG-PST-marry 1SG-woman 1SG-good*

S3 <sub>TOP</sub> [Chiebiriinda <sub>FOC</sub> [<sub>TOP</sub> [a-] ka-ba <sub>TOP</sub> [o-] re mwa ng'in aase ama-góro

*Chiebiriinda 1SG-PST-is 1sg-be POSS mother for OM-years*

ama-ange.]

*OM (PL)-many*

“All the daughters of Nyorosa Nyamesaanchwa completed their education and got married. The sons too, each married a good wife. Chiebiriinda was at her mother’s house for many days”

Presupposition: someone was somewhere

Presuppositions:

a. of knowledge:\_\_\_\_\_

b. of consciousness: The referent ‘Chiebiriinda’ is active in the hearers short term memory

- c. of topicality: referent “Chiebiriinda” is the ratified topic of the sentence

Assertion: Chiebiriinda stayed x

Focus: x= stay at her mother's home (unmarried) for very long'

Focus domain: verb phrase

This demonstrates that more than one proposition can be realized within the focus domain. The propositions are, the adverb of place tells us where Chiebiriinda is: ‘someone is in her mother’s house,’ and the second is on her marital status, which is: ‘someone is still single’. We consider the two to be independent propositions that are within a single focal domain. This is due to the fact that you can split the sentence into two different sentences to express the two aspects of the place and the period like: ‘Chiebiriinda stayed in her mother’s house’ and ‘Chiebiriinda (She) stayed a spinster for a very long time’. The first proposition is overt in the sentence provided and the second is implied and is equally presupposed in the sentence because of what is said in the preceding sentences

In the examples (36-37) above, focus is coextensive with the verb phrase in whereas in the remaining examples the predicate focus domain does not cover the entire predicate, rather the entire verb phrase. Cases similar to them (36-37) are discussed by Gundel and Fretheim (2004) who considers the focalized elements, in Ekegusii this arise from topic expressions being realized within the predicate, which are not coextensive with the entire predicate correlate with the logical predicate. The logical predicate is differentiated from a grammatical predicate which is usually defined as a sentence minus subject. In the cases where the logical predicates occur the

propositional structure of the verb constituent seems to be the main determinant of the beginning and end of the focus domain. As for the grammatical predicates, one cannot easily argue either for the propositional structure or the syntax as being responsible for the beginning and end of the focal domain. Once the focal domain is established, it doesn't necessarily follow that then everything that is left can be huddled under the umbrella of Topic.

The canonical focus structures described above in Ekegusii take the forms schematically represented in (38) below. The first schema (a) represents the cases in which only the subject marker is the topical expression within the predicate, and (b) predicts the possibility of a number of topic expressions, including null instantiations of topic being realized within it.

(48) Canonical Topic-Comment Structures in Ekegusii:

- a.       $\text{TOP}_{\text{TOP}} [\text{SUBJECT} \quad \text{FOC } [\text{TOP}\{\text{SM}\} \dots \text{X} \dots]]$   
 $\qquad \qquad \qquad \text{s } \text{TOP}_t \quad \qquad \qquad \text{FOC } [\text{TOP}\{\text{SM}\} \dots \text{X} \dots]$
- b.       $\text{TOP}_{\text{TOP}} [\text{SUBJECT} \quad \text{FOC } [\text{TOP}\{\text{SM}\} \dots \text{X} \dots]]$   
 $\qquad \qquad \qquad \text{s } \text{TOP}_t \quad \qquad \qquad \text{FOC } [\text{TOP}\{\text{SM}\} \text{TOP}^n \dots \text{X} \dots]$

The form of the canonical f-structure deviate from the one generally posited in the literature because of the morpho-syntactic structure of Ekegusii, the language incorporates morphemes onto the verbal complex which agree with the subject and object which are in some contexts topical. This is possible because focus value is blind to presuppositional structure. In the next subsection we turn to argument and sentence focus, which are marked focus constructions because they reverse the topic-comment or mix it up.

### **2.3.1. Marked Focus Constructions in Canonical Sentences**

This section argues that argument and sentence focus constructions are marked. The argument focus constructions analysed here are realized in a non-canonical position whereas for the sentence focus construction its markedness arises from having no presuppositional structure. The constructions however do not alter the structure of the clause, but influence the way the sentence is interpreted, because they licence propositions that are distinct from the ones the compositional word order, without their being considered, would warrant. Finally, multiple focus constructions which retain the canonical word order on the surface, in which the subject and any other element in the predicate are focalized, are examined. Typically, focus should induce movement of the second focus element to a position where it can be focalized, mostly in the left periphery, but this does not occur because of the superiority effects that only licence the *in situ* focal element.

The canonical sentence with a focus subject Noun phrase is in many ways as the one that has a topical subject noun phrase that we analysed in section (2.2.1) anomalous. The focus function and the subject function are as distinct as topic is from the latter. This is rendered quite evident if we consider that one and the same construction can have up to three focus types realized on it in different contexts. If the syntactic component is sensitive to these differences, then we have to render, say the topic in distinct projections, such as TopP, FocP, but in the case of the sentence focus we will make do with neither, since the focus affects the entire clause. Thus, it is convenient to assume that the canonical constructions bear syntactic projections, with all the associated phi-features, and topic

and focus features are floating features. Therefore, we will overlook the syntax in the meantime.

In Argument focus constructions the domain of focus is a single constituent, and the remainder is an open, pragmatically presupposed proposition. There are two argument focus constructions: one that targets the subject for focussation and the subject *wh*-construction (also referred to as subject extraction in generative literature). We will first consider the subject construction only, because the subject extraction construction behaves syntactically in a similar manner, and is distinct in function and the fact that the focussation does not necessarily have to depend on the preceding context even in discourse linked contexts. In quick mention, in discursal contexts, the subject *wh*-phrase does raise analytical problems given that the referent it may refer to is already activated in the preceding context, and hence can trigger some presuppositions unlike its counterpart in the question-answer coherence which is uttered out of the blue, but cannot be analysed as being a sentence focus construction. The main solution to the problem is that the *wh*-phrase subject, and the focussed subject do not trigger any presuppositions as is the case in topical expressions.

The realization of focus on the subject is considered to be the typical realization of the argument focus construction in the Lambrechtian approach, given that the placement of focus on the post-verbal arguments, the object, and the indirect and direct objects are considered to be sub-types of the predicate focus construction.

In the example (49) below focus is realized by a noun phrase functioning as the Subject of the Simplex matrix clause that is in a question answer

context. Discourse configurational languages are considered to be either topic oriented or focus oriented. Kiss (1995) argues for the existence of both a focus Phrase and a [+ Focus] feature in Hungarian. However, contra Kiss (1995), a number of studies reject the idea of allocating sentences the features [+ Focus] or/and [+Topic] in their syntactic representation. Topic and Focus are two primary information statuses that referring expressions may have in a sentence- they are labels of discourse-pragmatic functions besides the structural positions in which they may be manifested (as will be assumed in this study). One of such critics is Reinhart (2003) who argues that topic and focus are not properties of constituents or nodes; they can be assigned only at the level of the sentence, and should not be encoded in the information in numeration. Topic and focus phrases are assigned at sentence level, not as nodes on a syntactic configuration nor are they binary features of constituents. Zubizaretta (1998) argues that the best solution to the problems associated to topic and focus is to analyse the word order permutations they cause as part of a different component of grammar- a post syntactic component which is in actual sense information structure. Given this order in which the focus comes before the topic component, the case of a focused subject is considered to be marked. The sentence bears an open pragmatically presupposed proposition, “x is sleeping” which is activated by the question which serves as its context. The construction is considered by Lambrecht (1994: 280) to be “semantically incomplete” because of the immediacy of activation, even in discursal contexts, and the fact that there is no sentence initial topic on which the new information of sentence is meant to be anchored to. This renders the construction the notoriety of being discoursally anomalous.

(39) Context: Ni-*ng’o* o-*rair-e?*

*Foc-Who C11-sleep-fv*

‘Who is sleeping?’

Answer:  $\text{FOC}[\text{Omw-ana}]_{\text{TOP}}[\text{FOC} [o] \text{-rair-e.}]$  (SV)

*C11-child C11-sleep-FV*

‘The child is sleeping.’

Presupposition: “x is sleeping”

Assertion: “x=child”

Focus: “child”

Focus Domain: NP

The anomalous nature of the construction is quite evident in the problems it raises when one considers its syntax. The placement of focus on the subject is not considered to yield a canonical information structural construction because when the focus feature acts on it, it triggers movement of the subject out of the Spec IP to a left-peripheral position, the Focus Phrase (FP) of the Split IP. Such an analysis is the focus of the constructions that involve overt movement that are considered under chapter three. The focused subject construction, though on the surface it takes the form of a canonical construction, on the assumption of the functional projection analysis, it exhibits the features of a non-canonical construction. The situation is the same, even if the subject is said to have a topical function. The information structural analysis yields the same result in relation to the subject, for features, topic and focus, move it to the split complementizer phrase (Spec-CP) if they are considered to be discrete Information Structural related projections. On the other hand, assuming that the Topic

and Focus- related features are found in the IP then one may run into the problem of the features (topic and focus) becoming “floating” non-criterial features which are parasitic on Case- and phi-features. In that case they do not have the effect that they can be assumed to have, such as assigning scope as they do when they occur in the left periphery which is a criterial position.

Thus, syntactically, the focussed subject can be represented as shown in (40) below:

- (40) [CP[ FP Moraai [IP t<sub>i</sub> [vP bw'-om-a.]]]]] (SV)  
*Moraai*      *1SG-(PERF- Φ)-dry-fv*  
“Moraai has dried”

In the analysis of the focus construction above, the subject is assumed to move out of the Spec IP leaving behind a trace which is responsible for the conservation of its case features. Though the case is assigned by the verb before the raising of the subject constituent out of the base position in the vP phase.

The second type of a marked information Sentence construction is the sentence focus construction. The sentence focus is considered a case of an unmarked structure because all the sentential constituents lie under the focus domain. The sentence as a result does not bear any presuppositions. Every proposition produced by the sentence is therefore asserted. The sentence focus construction is easy to process given there are fewer context based presuppositions triggered either by the subject or definite description, and the predicate of the sentence. An example of sentence focus is given in (41) below.

- (41) Context: Ni-nki ke-gendererete igaa?  
*Foc-what 7SG-PROG Φ-continue here*  
 ‘What is happening/ going on here?’
- Sentences: (a.) [E-nyomba n-ko-yi-a e-re]<sub>F</sub> **(SV)**  
*9sg-house Foc-INF-burn-fv SAgr.-is.*  
 “The house is burning.”  
 Presupposition: \_\_\_\_\_  
 Assertion: Something is burning  
 Focus: 'The house is burning'  
 Focus domain: Clause
- b.) [Omo-subati o-ko-a omo-iseke o-nde eke-ebwa]<sub>F</sub>  
**(SVO<sub>i</sub>O<sub>d</sub>)**  
*I SG -lady 1 SG -PRES-give 1 SG -girl 1 SG -other  
 7SG-gift*  
 “A lady is giving another girl a gift”  
 Presupposition: \_\_\_\_\_  
 Assertion: Something was done by X to Y  
 Focus: ‘the lady gave a gift to the girl’  
 Focus domain: Sentence/clause
- (c.) [Aba-angina ba-ko-burugera ebi-meri ase omo-gondo.]<sub>F</sub>(SVOA)  
*1PL-old women 1PL-PRES-weed 7PL-crop in 3SG-farm*

Old women weeding for crops in the farm

Presupposition: \_\_\_\_\_

Assertion: Something was done by X&Y somewhere

Focus: ‘the old women weeded crops in the farm’

Focus domain: Sentence/clause

Finally, consider the multiple focus construction, how the realization of two foci affects its form and interpretation. In Ekegusii it is possible for different focus categories to be combined in a single sentence construction in the multiple *WH*-question contexts.

In English, multiple *wh*-questions are assumed to receive a pair listing answer as opposed to being exhaustive, but in the sentences attested in Ekegusii in the question-answer coherence, unlike English, can also be interpreted as being exhaustive. The multiple *wh*-sentence which was used to elicit the multiple foci constructions is as shown in (42) below.

(42) Context: Ni-*ng'o* *ogo-kor-a* *Ki?*

*FOC-Who SM-do what*

‘Who is doing what?’

Sentences: a.  $\text{FOC}[\text{Omo-saacha}] \text{ TOP } [\text{n-ko-gosoori-a a-re}]_{\text{FOC}}[\text{e-nkoyo}]$ .  
 $1Sg\text{-man Foc-PRES-play } 1Sg\text{-is } 9SG\text{-football}$

‘The man is playing with the football.’

Presupposition: Play is what x does to y

Assertion: x= The man and, y = Football

Foci: Omosaacha (man); enkoyo (football)

Focus domains: NP; NP

- b. FOC [Omo-subati] n-ere n-go-toobi-a a-re FOC [e-nkoyo].  
(SVO)

*1SG-Lady Foc-also Foc-PRES-play-Fv 1SG-is 9SG-football*

‘The lady is also playing the ball.’

Presupposition: Playis what x does to y

Assertion: x= omosubaati (lady), y= enkoyo (ball)

Focus: ‘omosubaati (lady); enkoyo (ball)’

Focus domain: NP; NP

The analysis of the element that should be considered to be focal when a sentence is produced through the use of a multiple *wh*-question has two elements that are not presupposed is problematic. In the sentences given above a canonical sentence is produced in which the subject *wh*-phrase sentential constituent is moved to COMP whereas the object *wh*-phrase is generated *in situ*, that is, without any movement out of the object domain. Ekegusii, like English, thus exhibits superiority effects; the first *wh*-phrase is moved whereas the second is not. The superiority effects are active in Ekegusii because you cannot move  $Wh_2$  over the  $Wh_1$  nor is it stranded within the main clause by being moved to a position in the preverbal domain below the specifier of the Inflectional Phrase (IP). The behaviour

of the wh-phrase operator will be further discussed under wh-movement in the next chapter when we will be considering left-peripheral movement.

In conventional analysis the canonical focalization domain is commensurate with the post-verbal domain whereas the topic domain is preverbal. However, if we presume that these aspects are preserved, then the effect of the focal feature is rendered ineffective. In light of the consideration of focalization, we may need to assume for the subject domain a focal domain within the IP, rather than holding the notion that on the application of the focal feature, the realization of the subject is moved out of the IP domain into CP domain and nested under the FP. However, this will go against the functionality of the grammar we are trying to construct if the focal feature only triggers the movement in some instances and is switched off in others despite the environment being the same. Hence, for the exhaustive sentences given as answers for the wh-question we can represent them as the following sentence (43) below:

- (43) [CP [FP Omo-saacha [IP [vPn-ko-gosoori-a a-re [VP [FP e-nkoyo].  
*CL1(SG)-man Foc-PRES-play CL1 (SG)-is CL 9(SG)-football*  
‘The man is playing with the football.’

Cases such as is given above in which we have what can be considered as multiple foci are studied as ‘complex focus’ (Krifka, 1992). There is no consensus in the literature on how to handle the question-answer congruence expected in this construction. Some linguists argue that only one of *wh*-phrases can function as a focus and by extension, only one of the constituents in the target sentence elicited thus can be focal. Rizzi (1997) and Zubizarreta (1998) are the main proponents of the view that sentences can have only one focalized constituent and anything outside the focus is

given information. This is so on the basis of the inexistence of recursive focus-ground partitions.

Lambrecht (1994) holds that a proposition cannot have more than one focus, because it cannot express more than one assertion which usually contributes one piece of information. He deduces this tendency using the cleft construction. The argument is: sentences cannot be clefted twice. It so happens that a multiple *wh*- question cannot contain a cleft and so we cannot have multiple foci. This evidence was disputed by Eilam (2011) who points out that the syntactic constraints that are involved in deriving the constructions under consideration have no bearing on which focal elements can be realized by a construction. This is what is borne in mind in proceeding to posit the multiple foci construction as an answer to a multiple *Wh*-questions. In analysing the multiple *wh*-questions as a multiple foci construction in chapter three, we will be carrying on the assumptions developed here. Krifka posits that true multiple foci are only possible in a semantic sense, because only one of the foci can serve as the information structural focus while the rest are ground (background) elements. Such an analysis is based on the distinction between phonological and semantic focus. Phonological focus is realized by two elements in the clause whereas semantic focus is singular. This holds if the semantic focus is realized by a single proposition which is asserted by the clause, in this case ‘play (x, y)’.

To recapitulate, we have seen the behaviour of the three focus constructions, which are realized on canonical constructions without affecting their formal organization. This is as result of the syntactic constraints being highly ranked over the information structural ones. In

some cases the realization of information structural elements can induce formal reorganization, such cases will be analysed in chapter three.

## **2.4: Optimization of Canonical Constructions**

This section offers an Optimality Theoretic account of how information structure interacts with canonical word orders in Ekegusii set out in the preceding sections. There are three levels of linearization or syntactic computation of word orders that result in complete matrix clauses that yield canonical word orders. The formation of phrases consisting of the specifier, head and complements if necessary, the selection of the arguments by the verb, which is assumed to be the head of a sentence to form a sentence, and the formation of embedded clauses that can serve as complements of the main clause or its arguments. In this section, we focus entirely on the optimality theoretic constraints responsible for the syntactic computation of the kernel clause and how the information structure constraints may affect the computation. Optimality theory considers grammar to consist of the mapping of inputs to outputs that is mediated by a set of well-formedness constraints that are universal in EVAL. The output candidate for a given input is considered ‘optimal’. In this case, a canonically ordered structure is the one which is chosen as the optimal output over all other possible phrase structural descriptions based on sentence internal information. The set of constraints involved in the mapping of phrase structure from the sentence internal grammatical information are minimally violated or not violated at all, but are violated seriously by non-canonical structures. Simply put, the constraints favour canonical structures over non-adjoined canonical structures, and word order permuted structures all factors held constant.

Section 2.4.1 motivates the optimality theoretic constraints that are used to account for the nature of the interactions between information structural

considerations, topic and focus, and the syntax of canonical word orders. Most of the preferred constraints in the literature are based on the syntactic stipulation of the information structural elements in order to account for the stipulation of the representation of topic and focus phrases in the extended projection (EP). This study extends the analysis of realization and interpretation of information structure in canonical constructions by using the insights of Bidirectional Optimality theory (BiOT) which gives both the speaker and hearer view of constructions used in given communication contexts. Section 2.4.2 then implements the analysis using bidirectional constraint tableaus. A Bidirectional approach renders the syntactic and information structural interactions in the language in a clearer and coherent way, which eliminates the ambiguity that is seen in the case of an expression (production) based analysis that does not take into consideration on how a particular construction is interpreted in a given context.

#### **2.4.1.: Mapping and Linearization Constraints in Canonical Constructions**

Ekegusii being a “free” word order language, it has both configurational and non-configurational properties. The Ekegusii, canonical word orders have configurational properties, that is, they have a verb phrase (VP) projection that distinguishes subject from non-subject arguments. The non-subject arguments are assumed to be generated within VP (hence internal) whereas the subject is excluded (as an external argument). The ditransitive clause, [Subject---Indirect Object---Object] shown in (44) is an example of a marked information structural construction that exhibits canonical order and has configurational properties.

- (44) Context: Ni-nki ge-ko-kor-ek-a-n-a ase ebi-icha?  
*FOC-what PTL-INF-PRES-happen-APPL-FV in 9(SG)-picture*  
 “What is happening in the picture?”
- Answer: FOC [Omo-subati o-ko-a omo-iseke o-nde eke-ebwa]  
*I(SG)-lady SM-INF-PRES-give I(SG)-girl OM-another 7(SG)-gift*  
 “A lady giving another girl a gift”

The order in the sentence is context dependent and it is subject to the focus constraint that limits its interpretation and thus rules it out as an unmarked information structure construction. If it were considered using the notion that it should not be subject to any focus constraint as posited by Abraham (1986), one can analyse it using only the sentence internal information such as argument structure, case marking, and grammatical relations among the elements of the sentence. This is the standard view that is utilized in a number of studies. The phrasal structure constraints are preferred in accounting for canonical structures whereas the uses of information structural (semantic or pragmatic) constraints are brought into play whenever we have information structural effects in constructions, that is, in sentences where overt movement occurs.

To account for the linearization of syntactic constituents, Optimality Theory relies on the use of syntactic constraints that serve as filters of what surfaces, that is, the optimal output. In accounting for linear order we assume that the sentential constituents are derived as they are represented on the syntactic tree in accordance to X-bar structure. Zepter (2003), in order to derive the linear organization of the specifier, head and

complement in a phrase, and throughout a syntactic tree, uses general violable constraints on X-bar structure. In order to account for the structure of canonical constructions, Head Left and Generalized Subject, as stipulated in Grimshaw (2001) are of use. This is felt to be more parsimonious in understanding in the syntactic computation, during external merge, as opposed to the approach used by Choi (1996) who conflates all the constraints involved into one constraint: CANONICAL. Choi assumes that the thematic hierarchy generates canonical structures in equal footing with the CANON family of constraints that she posits. The constraints listed under the constraint family that Choi (1996) names as CANON(ICAL) *gf* ('canonical' order based on 'grammatical functions') are stated in (45) below:

(45) CANON<sub>gf</sub>

a. CN<sub>1</sub>

SUBJect should be structurally more prominent than or c-command non SUBJect functions.

b. CN<sub>2</sub>

NonSUBJ functions align reversely with the c-structure according to the functional hierarchy.

The constraint CN<sub>1</sub> above, in conjunction with the endocentricity alignment constraints determine the hierarchical structure in which Subject is the first daughter of S, and Direct Object is the closest sister of V or daughter of V, and the Indirect Object is the next closest daughter of V', that is [<sub>S</sub> SUBJ [<sub>VP</sub> I. OBJ, D. OBJ V]], that yields 'canonical'. In the literature of generative grammar (cf. Radford 1988: 258ff) the notion endocentricity is used to constrain "admissible phrase structure rules". The endocentric constraint is then given, in its revised form as stipulated below:

(46) ENDOCENTRICITY CONSTRAINT (Radford, 1988)

All Constituent Structure Rules are of the form:

$$N^n \rightarrow \dots (n \ m)$$

*Where  $m \neq n$  if ... is null*

The endocentricity condition as given in (46) above only applies to headedness of structures and does not regulate what surfaces as a specifier, adjunct or complement. This is corroborated with the Modifier Maximality Constraint given in (47) below which covers the non-heads that should be maximal projections in clauses and phrases.

(47) MODIFIER MAXIMALITY

'Every non-head term in the expansion of a rule must itself be a Maximal Projection of some category'

The constraints given above are hard constraints within the generative tradition, and should not be violated as assumed in the optimality theoretic framework.

The linearization of constituents can be equally achieved by using the constraints based on the thematic hierarchy (48) and the accompanying constraint CANON  $\theta$  given in (49) below.

(48) Functional hierarchy: Subj>> Obj>> Obj>>Obl>> Adjunct

(49) Canon  $\theta$ : Align elements according to the thematic hierarchy.

To analyse the data of Ekegusii constructions we will rely on a simpler set of constraints. In the canonical constructions in Ekegusii, of which the ditransitive example in (47) above is a kind, the [spec [head complement]]

order is preferred. Grimshaw (1998) defines the constraints at the syntactic level that can be used to analyse the projection of the syntactic constituents. The main constraints that are meant to show how the derivation proceeds are a mix of constraints related to Specifiers, heads and complements got from Grimshaw (1998, 2001) as given in (50-52) below:

- (50) Constraints related to Specifiers:

SUBJECT (SUBJ): Clauses have subjects

CASE-Marking (Case): DPs must be case marked

- (51) Constraint related to heads:

Head Left (HD-LFT): The head is the leftmost in its projections

- (52) Constraint related to complements

Complement Left (COMP-LFT): The complement is the leftmost in its projections

Whenever the clausal elements are ordered during the process of external merge conflicts arise among the constraints that determine the landing positions of the clausal elements. Grimshaw (2001) lays down the mode of how the alignment of the clausal elements proceeds. She presents the idea that the syntactic alignment occurs by every element jostling to be realized in the leftmost position possible. This is in line with the notions established in the minimalist program, in which derivation proceeds from base, that is, to the left. Hence, the SVO word order is generated by the following constraint hierarchy:

- (53) Constraint ranking for linearization of basic word order (SVO):

Spec left >> Head left >> Comp left

Legendre (1996), and Engdahl (59) give constraints that take into consideration the notion of scope as a word order phenomena aspect. A number of scope constraints can be adduced where necessary.

(60) Scope Constraints:

SCOPE: Word order reflects scope. (Engdahl)

FOCUS-SCOPE: A focus of a clause has scope over the part that is presupposed.

Before delving into specific analyses, it is important to look at the problems that are encountered in analysing the subject when it occurs in the preverbal position. The notion of subject plays a very significant role in most of the literature and finds its way in a number of constraints that determine the word order in clauses or the projection of functional constituents into hierarchical structure. In the Generativist model, the subject is defined with reference to the position it occupies in phrase structure. It is an argument that occupies [Spec, IP] (or, [Spec, AgrS]). In most analyses this is distinguished from the practice of associating ‘subjecthood’ to accusative-marked or dative-marked arguments even after the subject has undergone movement to a position that c-commands the argument in [Spec, AgrSP]. The identification of subject and object reflects the order in which arguments are combined in the bottom up formation of the phrase structure. The constraints that are designed in Optimality theory are based on this definition of the subject as we will see below.

In the onset of optimality theory, most researchers have used the constraints that they set out without considering their logical relations. Ranking of the constraints SUBJECT and CASE seems to be one such

inappropriate pairings. In Costa (2004) the constraint SUBJECT is ranked against that CASE to determine various word orders.

Looking at what the two constraints are made to do in language reveals an interesting paradox. The constraint SUBJECT as stated in (61) below stipulates the basic requirement that the subject has to be realized. It militates against null subjects in a language. The constraint SUBJECT is as given in (61) below:

- (61) SUBJECT : The highest A-specifier of a clause must be structurally realized. [Failed when the highest A-Specifier of a clause is left structurally unrealized.]

The constraint CASE is as stated in (62) below:

- (62) CASE : Move Determiner Phrases (DPs) to case-licensing positions  
(subjects To Specifier, Inflectional Phrase [Spec, IP]; objects to [Spec, AgrOP]. [This constraint penalizes movements that occur to non-case assigning positions.]

From a syntactic point of view, the constraint Case is meant to facilitate the derivation of the canonical word order, with the arguments being placed in the positions where they can be assigned case, which is the same thing Choi achieves with the constraint CANON 0. This prevents the movement of arguments to non-case assigning positions in the sentence, and it is complementary to the constraint STAY, which prevents movement. Whereas the constraint SUBJECT given above is meant to facilitate the projection of the entities meant to be subjects to their rightful positions on the functional projection representation. The constraint is considered to prevent the subject position being empty. The latter is the ideally in conflict

with constraints that facilitate the deletion or reduction (pronominalization) of subjects.

In the literature, DROPTOPIC (Grimshaw and Samek-Lodovici, 1994: 194) given in (63) below when satisfied leads to the subject not being realized in the surface, and DROPFOCUS are responsible for deletion of focal material alongside topical expressions.

(63) DROPTOPIC

Leave arguments co-referent with the topic structurally unrealized.  
(Failed when overt constituents are co-referential with the topic.)

For the pronominal to surface, the constraint Parse (or MAX IO) is ranked over DROPTOPIC. No special constraint is posited for the cases of pronominalization in the literature in the syntactic domain. (An optimality theoretic analysis of pronominalization in a constraint tableau is given in table 2.4 below).

Having seen how syntactic constraints determine word order, we now turn to the role of the information structural constraints. The information structural constraints come into play because arguments in a sentence are sometimes associated with either semantic relations or pragmatic relations (Bhat, 1991, in Temurcu 2001). Semantic relations constitute relations of arguments to predicates whereas pragmatic relations such as information structures are of relations of arguments to other arguments in the speech context. Van Valin (1994) also includes syntactic relations in which pragmatic relations are grammaticalized. For some linguists the subject does not typically occupy the preverbal position. The SVO is considered to be a grammaticalization of the pragmatic relation between the subject and object, the subject is topical whereas the object takes a normal focus

function. Haugan (2000: 18) argues that word orders in which the subject is in the topic position are determined by information structure because that is not a subject position. The subject ends there for pragmatic and not syntactic reasons. This is not a very new observation given that in the first of Greenberg's (1966:110) universals he states that "in declarative sentences with nominal subject and object, the dominant order is almost always one in which the subject precedes the object." He goes on to point out that the word ordering relies on the ordering of 'old' and 'new' information. The subject of the sentence represents 'old' information and the object 'new' information. It for this reason that any theoretical that considers such word ordering should include pragmatic functions in the domain of phrase structure which are usually dealt with as mere interpretative effects at Phonetic form (PF) of the interdependence of phrases structures and information structures if considered at all.

When order depends on semantics or pragmatics, they depend on the realization of either focus or topic. In this thesis we do not at any given time assume that linear order is determined by autonomous syntactic principles, but it is due to semantic and pragmatic constraints being overpowered by syntactic constraints. Moreover, in some of the surface structures the clause may begin with given or old information, in our case Topic, while new information (Focus) occurs close to the end of the clause. In such a case the semantic/ pragmatic constraints do not disrupt the linear order is stipulated in Culicover & Jackendoff (2005: 172) as the interface principle: Focus Last shown in (64) below. It is considered to be responsible for linking linear order to information structure.

- (64) **Focus Last**  $\{ \dots X_i \dots \}_k \Leftrightarrow_{\text{default}} \{ YP > XP_i \}_k$
- ↓  
Focus<sub>i</sub>

This principle is operative in Ekegusii canonical constructions in which the focus exponents are in the sentence final position, typically in the predicate focus constructions. In the analysis of such constructions it is inadvisable to overlook the information structural constraints that are responsible for aligning focus and topic features in the canonical construction. In optimality theory this are given as a family of alignment constraints as given below:

- (65) ALIGN FOCUS (XP, Left, YP, Right) : Align the left Edge of the focused constituent XP with the right edge of a verbal YP in the clausal extended projection. Failed by non-aligned focused constituents.
- (66) ALIGN TOPIC : Align the right Edge of the topic constituent XP with the left edge of a verbal YP in the clausal extended projection. Failed by non- aligned topic constituents.

Canonical topic constructions are characterized by the alignment of the topic element in a sentence initial position, as in the predicate construction that adheres to the topic-comment structure. In such construction the subject is contiguous with the topic of the sentence. In lieu of this the constraint ranking for generating the canonical topic constructions are: TOPIC FIRST and ALIGN FOCUS. The TOPIC FIRST constraint is ranked above ALIGN FOCUS so as to have the topic coming before the focalised elements in the sentence. However, the information structural constraints are lowly ranked because the linear order of the clause is determined by the syntax. HEAD LEFT is also dominated by HD-LFT in

this case since it can be violated if the head is moved for the sake of changing the meaning or information of the sentence.

The study retains the above set of constraints in accounting for the behaviour of the information structural considerations, topic and focus, because they preserve the concept of linearization as set out in the generalized linearization constraints in standard Optimality theory. In some studies, the constraints are specifically stated in relation to a given type or notion of focus or topic. An example is Gouskova's (2001), who considers the information structural constraints as mainly involved in triggering movement in languages, Align-R constraint given in (67) below.

(67) Align-R (PRESENTATIONAL FOCUS, CLAUSE):

Align the right edge of presentational Focus with the right edge of the clause.

To recapitulate, linear order in Ekegusii in this study is accounted for using constraints both grammatical constraints and information structural constraints. For canonical word orders to surface, the syntactic constraints, that is, faithfulness constraints that retain the SV (O) word orders such as are picked from Grimshaw (1997) such as SPEC-LFT, HD-LFT, and COMP-LFT together with OB-SPEC are ranked above the information structural constraints. The constraints militate against the information structural effects such as moving the focused or topicalized elements out of their canonical positions. However, there is no general ranking constraint that applies to all the word order aspects in Ekegusii. From the previous examples we found that the canonical word order can represent all the three types of focus. The constraint order for say the cases of sentence focus cannot be the same as that of argument or predicate focus in so far as the

interaction of information structural facts are concerned. In common, they all share the order of the syntactic constraints that govern the placement of heads, linearization and canonicity of word order but they may not necessarily share the same types on information structural constraints. This is as a result of Ekegusii exhibiting cases in which the canonical information structure is aligned symmetrically with the canonical sentences (exhibiting basic word order) especially in some structures that have argument focus and predicate focus. The canonical constructions that have topic-comment, topic-focus structure are unmarked. The unmarked position of topics in Ekegusii is in the subject and unmarked position of the focus is within the verb phrase.

## **2.5.: Optimal Information Structural Constructions in Canonical sentences**

In this section we will focus on Optimality Theoretic constrains that derive the focus constructions in canonical sentences in Ekegusii. The study shows that conflicts between economy constraints with information structural constraints determine the surfacing of the three main focus constructions, predicate focus, argument focus and sentence focus as set out by Lambrecht (1994) alongside the topic constructions that are realized in the sentences. The analysis given for the constructions is distinguished between the cases where lexical arguments are realized in full from the cases where they are reduced due to the realization of arguments by pronominal forms.

The predicate focus construction as we saw early on is also the topic-comment construction. The two labels are given because it is the normal practice in the literature to separate the analysis of focus and topic. (For the

sake of precision, it is advisable to conflate the analysis given here.) Consider the information structural construction given in (68) below. It offers an ideal case in which there is a one to one correspondence between syntactic constituency in an SV (canonical sentence), and information structural considerations alignment. The topic corresponds to the subject and the predicate to the comment. This warrants a unified analysis as we will set out here.

- (68) Context sentence: Ni-nki Nyantaaro akor-et-e?

## *Foc-what Nyantaaro CL1(SG)-PST-do-FV*

## ‘What did Nyantaaro do?’

Sentence:  $\text{TOP} [\text{Nyantaaro}] \text{ FOC} [\text{akaanga}].$

### *Nyantaaro CL1-PST-refuse-FV*

‘Nyantaaro refused.’ (SV)

## Presuppositions:

Of existence: Nyantaaro is the entity activated

Of topicality: Nyantaaro is the topic

The construction given above in (68) has all the elements in the sentence, as they are required to be, assuming the minimal X-bar criteria. If only the syntactic constituents are in focus, the representation could be entirely be accounted for by syntactic constraints, but the construction has a parallel pragmatic component which is responsible for linking the sentence to an appropriate context that disambiguates it. Therefore, the clause has to fulfil all the well-formedness requirements for a declarative sentence and the contextual requirements that determine its interpretation.

Therefore, to explore the structure of the clause, the main constraints are STAY, OP-SPEC, OB-HD are used for derive sentences that bear a canonical word order, that is SV(O)(A) word orders. Assuming an IP analysis of the declarative sentence with a main verb (VP), the projections of the constituents of a clause must have heads: for instance a lexical V heads the VP. These are determined by a constraint like: OP-SPEC, which requires that there be Specifiers, which is fulfilled by the specifier position being filled by the surface subject. There is no head missing from the matrix declarative structure used to express information in the example (68) above, hence the constraint OB-HD is met. Another constraint is Case which is fulfilled whenever the subject is in its prototypical position; before the verb. Lastly, there is a minimal violation of STAY, when the raising analysis of the Subject is considered; the Subject has to be moved out of the VP in order to be in the specifier position. The clause can, as a result of the ranking of the constraints so far given, be represented in an IP analysis as shown in (69) below:

(69) [TOP Nyantaaro<sub>i</sub> [FOC<sub>i</sub> [TOP<sub>a-</sub>] kaang-a]]] (SV)

*Nyantaaro CL1 (SG)-PST-refuse-FV*

“Nyantaaro refused”

Pragmatico-semantic representation:

$\langle (\exists^1_c x) \text{ Nyantaaro } p(x) \rangle$

$\langle (\exists^1_c x) (p(\text{Nyantaaro}, r)) \rangle$

Aanga-V (( $\tau_c x$ ) (p (Nyantaaro, r)))

Refuse-V(( $\tau_c x$ ) (p (Nyantaaro, r)))

In the example given in (69) above, the pragmatic semantic representation of the interpretation is given using Venneman's Algorithm the existential presupposition is given by  $(\exists^1_c x)$ , and the predicate is given as  $p(x,r)$  which means ‘ $x$  did  $r$ ’, this is then given in squared bracketing which can be read as “ For some  $x$  that is Nyantaaro →  $X$  did  $r$ ” given in the first line above. In the final line the entire sense of the sentence inclusive of the existential presupposition, with the topicality represented by the iota is given and the focused element is realized at the beginning, aanga (refuse) The constraint ranking for the predicate focus consists of syntactic constraints that derive canonical sentences dominating the information structural constraints ALIGN TOPIC and ALIGN FOCUS as given in (70) below is:

(70) Constraint hierarchy for Predicate Focus Constructions

SPEC LEFT >>HEAD LEFT>>CASE, STAY >>ALIGN TOPIC >>  
 {ALIGN FOCUS, FOCUS SCOPE}>> FAITH MORPH>>PARSE

The constraint tableau (2.1) below illustrates the competition of constraints that license the predicate focus construction as the optimal candidate. The predicate focus candidate (shown as a. in both the production and comprehension sections of the tableau below) satisfies all the constraints with the exception of the constraint Align Topic, which it violates once because of Subject Marking agreement morpheme {a-} being incorporated into the verbal. The candidate (b) fatally violates the constraint Align topic by aligning it in the focal position (postverbally). Candidate (c) is ruled out because it does not give the full interpretation that is stipulated in the input, and the last candidate is ruled out for deleting the subject on the surface by the constraint Faith M(orph). The constraint Faith M(orph) militates against

the deletion of morphemes in the surface form, which are stipulated in the numeration.

**Table 2.1: Constraint Tableau 1 (by Authour)**

Interpretation	Form	SPECLEFT	HDLFT	STAY-XP	FULL INT	CASE	ALIGN TOPIC	ALIGN FOCUS	FOCUSSCOPE	FAITH M(ORPH)	PARSE
$\langle (\exists_c^1 x) (p (\text{Nyantaaro}, r)) \rangle$ Aanga-V(( $\tau_c x$ )( $p (\text{Nyantaaro}, r)$ ))											
☞	a. $\text{TOP}[\text{IP} \text{Nyantaaro}] \text{FOC} [\text{TOP} [\text{Aka}]\text{-anga}]$						*				
	b. $\text{FOC}[\text{IP} \text{Nyantaaro}] \text{TOP} [\text{FOC} [\text{Aka}]\text{-anga}]$						*!	*			
	c. $\text{FOC}[\text{VP} \text{Nyantaaro oangete.}]$					**!					
	e. $\text{TOP}[\text{VP} \text{Nyantaaro} \text{FOC} [\text{Akaanga.}]]$					*				*!	
Form	Interpretation										
$\text{TOP}[\text{Nyantaaro}] \text{FOC}[\text{ Akaanga}]$											
ঝ	a. Aanga-V(( $\tau_c x$ )( $p (\text{Nyantaaro}, r)$ ))										
	b. $(\exists_c^1 x) (p (\text{Nyantaaro}, r)) \& \text{Aanga-V})$						*!				
	c. $\text{Nyantaaro}((\tau_c x) \& \text{Aanga-V}(\text{ Nyantaaro}, r))$					**!					
	d. $r_1 = \text{df}(\tau_c r)(p (\text{Nyantaaro}, r) \& \text{Aanga-V}(r))$ $Z("r_1")$ Aanga ( $r_1$ )									*!	

The constraint tableau given in (2.1) above only offers a bidirectional analysis that takes into account both the production and comprehension levels of the canonical construction. Using a bidirectional Optimality theoretic analysis, the generation and interpretation of the canonical information structural construction, predicate focus and topic-comment, both realized in the same clause are represented in the tableau (2.1) above. In the tableau the form-interpretation pairs for expressing and interpreting topic-comment and predicate focus are given. Each row bears an input in that is a combination of a surface form (Sf) and an interpretation (i). The tableau represents the competition between paired surface forms and interpretations ([Sf,i]). Bidirectional optimization over these surface form-interpretation pairs results in one or other direction of optimization are blocked.

In the matrix clause given in (70) above, we have given an analysis of structures in which the subject and object are full lexical Noun Phrases (NPs). The analysis offered is commensurate with the full arguments, but reduced arguments (pronominalized) require different constraints and perhaps even a constraint reranking. Consider the sentence S2 below (71) in order to enable to analyse the phenomenon.

- (71) **S1** Omo-gaka o-bwate e-tugo yaaye ni-igo a-re  
*1(SG)-old man 1(SG)-have 9(PL)-cattle POSS PTL 1-PST-is*  
 ko-ruusi--a eng'ombe e-yemo o-ye-saaria.  
*AGRS-remove 9(SG)-cow 79SG)-one 1(SG)-OM-slaughter*
- S2** TOP [E-ye] COM [FOC [nabo TOP [ya]-are ko-ba ri-ikongo,  
*9(SG)-this could SM-PST-is INF-be 5(SG)-humped,*  
*omo-uko, omo-siororo, omo-tuuro, gose omo-kong'o]*  
*3(SG)-blind 3(SG)-mad, 3(SG)-noisy, or 3(SG)-one-eyed*

“An elder who had his cattle used to take one cow and bleed it. This could be aged, blind, mad, wild or lame”

For simple representation we can exclude the multiple noun phrases that serve as the complement to the verb and work with the structure as given in (72) below:

(72 a)       $\text{TOP}[\text{E}-\text{ye}] \text{ COM}[\text{FOC}[\text{nabo TOP}[ya]-\text{are} \text{ ko-ba} \text{ ri-ikongo....}]$

*9(SG)-this    could    SM-PST-is INF-be 5(SG)-humped*

“This could be humped...”

(72 b)      Pragmatico-semantic representation

$\langle (\exists^1_c x) \text{ Engombe } p(x) \rangle$

$X1 =_{df} (\tau_c x) \text{ Engombe } p(x)$

$\langle (\exists^1_c r) (\text{P}(x,;r)) \& \text{ba-V(r)} \rangle$

$R1 =_{df} (\tau_c r) (\text{P}(x,r) \& \text{ ba-V(r)})$

Rikongo ( $\tau_c r$ ) ( $\text{P}(x,r) \& [r_1]p(x)$ )

**Table 2.2. Constraint Tableau 2 (by Author)**

Interpretation	Form	PARSE	DROP TOPIC	SUBJECT	FULL-INT
Rikongo ( $\tau_c r$ ) ( $P(x, r) \& [r_1]p(x)$ )					
☞	a. $\text{TOP} [\text{E-ye}] \text{ COM} [\text{FOC} [\text{nabo TOP} [\text{ya}]\text{-are ko-ba ri-kongo.}]$		*		
	b. $[\text{FOC Engombe eyio TOP} [\text{nabo FOC} [\text{ya}]\text{-are ko-ba rikongo.]}$	*!			
Form	Interpretation				
$\text{TOP} [\text{E-ye}] \text{ COM} [\text{FOC} [\text{nabo TOP} [\text{ya}]\text{-are ko-ba ri-ikongo....}]$					
↘	a. Rikongo ( $\tau_c r$ ) ( $P(\text{engombe}, r) \& [r_1]p(x)$ )		*		
	b. Engombe $p ((\tau_c r) (\exists' r) (P(x, r) \& \text{ba-V}(r) \& \text{Rikongo}(r)))$	*!			

In table (2.2) above the winning candidate win out, because it realizes the topic presuppositions that are in the input. The second candidate loses because it has a different predicate from that given by the input. The winner has engombe (cow) as the topic which is presupposed whereas the second candidate has rikongo (aged cow) as the topic, this disparity of interpretation renders the latter sub-optimal.

### **2.5.1.: Optimality Theoretic Analysis of the Sentence Focus**

The sentence focus construction is distinct from the predicate and argument focus in relation to having neither a topic nor the presuppositions which topic expressions trigger in sentences. The focus domain spreads over the entire sentence; this does not entail the violation of the alignment constraints though.

(73) Context: Ni-nki kegendererete igaa?

*Foc-what going on here*

“What is happening here?”

Sentence: FOC [E-nyomba n-ko-yi-a e-re] (SV)

*9(SG)-house foc-INF-burn-FV SAGR.-is.*

“The house is burning.”

In the example (73) given above, the constraints responsible for the syntax remain the same as in the predicate construction. The information structural constraints are lowly ranked because their effect is not realized on the surface. What changes is that the Topic First constraint is ranked lower than Align Focus, but is not violated because the topic expression is not realized on the surface. The constraint ranking for the sentence focus construction is:

(74) Constraint Ranking For Sentence Focus Construction

SPEC LFT>>HEAD LEFT>>STAY XP >>FULL INT>>ALIGN  
FOCUS >>ALIGN TOPIC

In the constraint ranking, the constraint for aligning focus does not license the alignment of focus over the entire sentence, because the constraint as stated in (62) imposes a restriction as to the extent this has to cover since its use is to have focus realized. Hence any extra clausal element aligned out of the defined locus is counted as a violation. However the violation is not fatal, and the sentence focus construction is a winner in the given constraint ranking. The constraint ALIGN TOPIC is satisfied vacuously by absence of topic in a sentence.

In the table (2.3) below, the first candidate wins because it meets the requirements of the constraint ranking by not realizing any topic relation on the surface realization and in its interpretation. The second candidate (b) is ruled out because it violates the constraint Focus Scope by realizing a topic element in the output, since the scope of the focus is an entire clause as per the input. The third candidate (c) loses because the subject enyoomba (house is) presupposed and so is topical, thus violating the constraint Full Interpretation because in the input the subject is interpreted as a focus element. Finally, the last candidate (d) loses for not faithfully realizing all the required morpho-syntactic content that is required to render it optimal.

**Table 2.3: Constraint tableau 3 (By Author)**

Interpretation	Form	SPEC-LFT	HD-LFT	STAY-XP	FULL INT	CASE	* ALIGN FOCUS	FOCUS SCOPE	ALIGN TOPIC	PARSE
Enyoomba $p((\eta_c x)(P(x) \& yia(x))$										
☞	a. FOC [IP Enyoomba [VP nkoyia [AuxP ere.]						*	**!		
	b. FOC [IP Enyoomba TOP [nkoyia Foc [e]re.]						*	**!		
	c. TOP [IP Enyoomba FOC [nkoyia Top[e]re.]				*					
	f. TOP [VP Enyoomba FOC [nkoyia ere.]	*!								
Form	Interpretation									
FOC [E-nyomba n-ko-yia e-re.]										
✌	a. Enyomba $p((\eta_c x)(P(x) \& yia \text{ ere}(x))$						*			
	b. Enyoomba ( $p(x, r) \& (\exists_c^1 x) yia\text{-V})$ )						*	**!		
	c. $\exists x, yia(x) \& Enyomba(x)$				*					
	d. $r_1 = df(\tau_{cr})(p(\text{Enyoomba}, r) \& yia\text{-V}(r))$ Z("r <sub>1</sub> ") yia(r <sub>1</sub> )	*!								

### 2.5.2.: Optimality Theoretic Analysis of the Argument Focus

In the case of argument focus, which is realized in situ without the word order being adjusted, as in all the previous canonical constructions the word order is derived by the syntax. The argument construction is as in (75) below:

(75) Context: Ni-*ng'o o-rair-e?*

*Foc-Who 1(SG)-sleep-FV*

‘Who is sleeping?’

Answer: [CP [<sub>FP</sub> Omw-ana [IP [<sub>vPO</sub>-rair-e.]]]] (SV)

*I(SG)-child 1(SG)-sleep-FV*

‘It is a child sleeping.’

Pragmatico-semantic representation:

$\langle (\exists^1_c x) (\exists^1 r) (P(x) \& \text{raire} - V(r)) \rangle$

omwana *p* (( $\tau_c x$ ) ( $\exists^1 r$ ) (P(x) & raire - V(r)))

The sentence (79) differs from the unmarked predicate focus construction because the subject is focused and is not presupposed in the textual frame provided by the question answer context. The sentence is canonical syntactically but marked in relation to information structure alignment. In the literature for information structure the subject in the sentence initial position should be interpreted as a topic. When it does so, we have a predicate focus construction. In so far as the syntax of the sentence is concerned, the sentence represents the case in a position where it can be licenced by the verb. Hence SUBJECT, or CASE, as a constraint is highly ranked.

In so far as the focus relation is concerned, to derive the above structure the ALIGN FOCUS constraint dominates the ALIGN TOPIC constraint, whereas the ALIGN TOPIC constraint too is also dominated and does not have equal status with the ALIGN FOCUS constraint. This can be represented as in (76) below:

(76) Constraint Hierarchy for Argument Focus Construction

SPEC LFT >> Head LFT >> Case >> {Align Focus, Focus Scope}  
>> AlignTopic >> Stay >> Parse

The winning candidate in table (2.4) meets the requirements of the constraint hierarchy because it has the form of an Argument focus inspite of violating the constraint Align Focus and Focus Scope due to the focus element {o-}, the subject marker, being aligned outside the focus scope of the sentence. The second candidate (b) because it does not align the focus as per the input, and the last candidate (c) cannot be interpreted as the input.

**Table 2.4: Constraint tableau 4 (by Author)**

Interpretation	Form	SPECLFT	HDLFT	STAY-XP	FULL INTERPRETATION	CASE	ALIGN FOCUS	FOCUS SCOPE	ALIGN TOPIC	PARSE
$\langle (\exists^1_c x) (\exists^1 r) (P(x) \& \text{raire} - V(r)) \rangle$  omwana $p ((\tau_c x) (\exists^1 r) (P(x) \& \text{raire} - V(r)))$										
☞	a. FOC [IP Omwana]TOP[FOC [o]-raire.]] b. TOP [IP Omwana FOC [VP oraire.]]] c. FOC [IP Omwana TOP [VP oraire.]]]					*	*			
							*!			
Form FOC [IP Omwana]TOP[FOC[VP oiraire.]]] “The child is asleep.”	Interpretation									
✌	a. omwana $p ((\tau_c x) (\exists^1 r) (P(x) \& \text{raire} - V(r)))$ b. raire - V $((\tau_c x) (\exists^1 r) (p(\text{omwana}, x))$ c. $r_1 = \text{df}(\tau_c r)(p(\text{raire}, r) \& \text{Omwana}(x))$ $Z(r_1)$ $\text{omwana}(r_1))$									

### 2.5.3.: Optimality Theoretic Analysis of Multiple Foci

The multiple foci pattern offers a challenge not only to the information structural analysis but also in the optimality theoretical analysis, because the multiple foci are not an expected in the surface structure. The tendency in the literature is to suppress one of the focal elements by considering it to be a Contrastive focus topic. The realization of multiple foci is repeated in the example given below as (77) for convenience.

(77) Context: Ni-*ng’o* ogo-kor-a Ki?

*FOC-Who SM-do what*

‘Who is doing what?’

a. Sentence:  $\text{FOC } [\text{Omo-saacha}] \text{ TOP } [\text{n-ko-gosoori-a a-re}] \text{ FOC } [\text{e-nkoyo}].$   
*1Sg-man Foc-PRES-play 1SG-is 9SG-football*

‘The man is playing with the football.’

b. Pragmatico-semantic representation:

$$\langle (\exists_c^1 x) (\exists^1 r) (P(x, r) \& \text{play} - V(r)) \rangle$$

$$\text{omosaacha } p ((\tau x) (\exists^1 x, r) \text{ enkoyo } (y) (P(x, r) \& \text{play} - V(r)))$$

In the constraint tableau below, the candidate (a) surfaces as an optimal one despite violating the constraint Align Focus by having two foci within the topic domain. Candidate b looses out because it despite being well-formed by realizing the object as a topic it not a faithful parse of the input.

**Table 2.5: Constraint tableau 5 (By Authour)**

Interpretation	Form	SPECLFT	HDLFT	STAY-XP	Full Interpretation	CASE	Align Focus	Focus Scope	Align Topic	Parse
$\langle (\exists^1_c x) (\exists^1 r) (P(x, r) \& \text{play} - V(r)) \rangle$ omosaacha $p ((\eta x) (\exists^1 x, r) \text{enkoyo } (y) (P(x, r) \& \text{play} - V(r)))$										
☞	a. FOC[Omo-saacha] <sub>TOP</sub> [n-ko-gosoori-a [FOC a-]re] <sub>FOC</sub> [e-nkoyo]					**				
	b. FOC[Omo-saacha] <sub>TOP</sub> [n-ko-gosoori-a a-re e-nkoyo]					*!				
FOC[Omo-saacha] <sub>TOP</sub> [n-ko-gosoori-a a-re] <sub>FOC</sub> [e-nkoyo]	<b>Interpretation</b>									
✌	a. $\exists x \exists y: \text{omosaacha } p ((\eta x) (\exists^1 x, r) \text{enkoyo } (y) (P(x, r) \& \text{gosooria} - V(r)))$					**				
	b. $\exists x: \text{omosaacha } p ((\tau x) (\exists^1 x, r) (P(x, r) \& \text{gosooria } y - V(r)) \& \text{enkoyo } (y))$					*!				

## **2.6.: Conclusion**

In this chapter the canonical word orders or merely simplex matrix clauses which have the three attested information structural constructions, topic-comment, argument focus, sentence focus, and predicate focus are discussed. The chapter demonstrates that syntax is responsible for the form of canonical word orders (SV (O) (A), SVO<sub>i</sub>O<sub>d</sub>, etc.) and the information structural considerations, topic and focus; mainly affect the propositional content of the clause. Topic and focus do determine the interpretation of the clause in terms of what is presupposed or asserted. This chapter supports the argument that syntax is responsible for the form of a majority of canonical word orders and the information structural considerations, topic and focus; mainly affect the propositional content of the clause, with the exception being the placement of the subject in the preverbal position. A Bidirectional optimality theoretic account of the observed patterns is executed using rankings of syntactic constraints (OB HD, HEAD LFT, etc.), against information structural constraints (Align Topic, Align Focus).

## CHAPTER THREE

### Non-canonicity and Morpho-syntax-Informatics Interface in Ekegusii

#### 3.1: Introduction

Non-canonical constructions are characterized by processes such as movement, which includes instances of adjunction in this study, of some elements (morphemes, words, heads, phrases and clauses) from their typical positions or adjustments of the clausal structure through processes that insert or delete morpho-syntactic elements in the clausal domain. In discussing the grammar of English Huddleston and Pullum (2002: 46-47) draw distinctions between canonical and non-canonical clauses. They consider canonical clauses to be basic whereas the non-canonical ones to be derived. They note five major dimensions of contrast between canonical and non-canonical clauses, with major contrast being that the canonical clause is syntactically more basic or elementary than the non-canonical one. The contrasts are: canonical sentences are positive rather than negative, declarative rather than interrogative, active as opposed to passive, main clause as opposed to subordinate. Non-canonical clauses include exclamatives and imperatives since their subjects do not occupy the basic or default position before the predicator. However not all non-canonical counterparts have well-formed canonical structures from which they can be said to be derived. The understanding of non- canonicity of Huddleston and Pullum (2002) is assumed study in this chapter.

This chapter examines how information structure aspects, topic and focus, influence the interpretation of word orders in modified sentences in Ekegusii. The non-canonical constructions involve the combination of the same or different focus and topic categories in their derivation; this will be explicated case by case. Section (3.2) presents the analysis of topic driven

non-canonical constructions, section (3.3) gives an analysis of focus driven non-canonicity in word order. Section (3.4.) demonstrates how the constraints that derive the constructions analyses in chapter are ranked in an optimality theoretical style.

### **3.2: Topic and Non-canonical Constructions**

The realization of the topic relations and topical expressions affect word order by inducing movement operations or adjustments in clauses in Ekegusii. A strong topic feature can influence the movement of some sentential elements in the sentence. Some of the constructions in which the movement of constituents is influenced by the topic feature that will be the focus of this section include Object movement, and the topicalization of adverbial clauses (a kind of *wh*-movement), which are attested in the Ekegusii language data that we analysed. Elliptical constructions are characterized by the deletion of topical material. For that reason the elliptical constructions are analysed under the section of topic constructions, though one can as well consider them under the focus driven constructions given that the structure preserved in the surface is derived from the part mainly under the focus domain.

In the treatment of topic, Lambrecht (1994: 150) holds that there “is an inherent relationship between topic and pragmatic presupposition”. He however points out that this should not translate to calling the topic of a sentence “presupposed”. He argues that what is presupposed is propositional whereas topic referents are entities and not propositions. In saying that an expression is in the presupposition is commensurate to saying the expression is in focus. In this section we will consider the issues that arise from assuming the notion of pragmatic presupposition in relation to the behaviour of information structure in the language. Some of the

questions that arise are, to what extent do presuppositions determine the content and formal organization of non-canonical constructions? How and which presuppositions that arise in the non-canonical sentences projected? Compound and complex sentences are considered to raise challenges to theories of presuppositions. It is needful to consider whether the notion of pragmatic presupposition adopted by Lambrecht can overcome the issues raised in the literature on presuppositions.

### **3.2.1.: Topic Driven Object Movement**

One of the transformations attested in Ekegusii is the object shift within the matrix clause. In the Ekegusii language, the topic feature influences the realization of the object in a non-canonical position, either at the beginning of the sentence or in an intermediate position. The object is sometimes moved out of the canonical position in the post-verbal position and is incorporated in the verbal complex where it is reduced to a pronominal affix.

Consider the sentence S2 in (78) below.

(78) S1 <sub>TOP</sub> [Omo-rero] <sub>FOC</sub> [<sub>TOP</sub>[o]-ka-bumbucha]. (S S-V)

*CL3 (SG)-fire CL3 (SG)-PST-flare*

S2 <sub>FOC</sub> [E-mbeo e-ka-<sub>TOP</sub> [-yo-]-ira gochi-a ase e-nyomba]SS-VA)

*9SG-wind 9SG-PST-3pl-take towards at 9SG-house*

“The fire flared. The wind bore it towards the house.”

Presuppositions:

- i. Of knowledge: the shared knowledge of The fire flaring
- ii. Of consciousness: referent of “yo”(it) is active in hearer’s short term memory

iii. Of topicality: ‘referent of *it* is ratified topic for sentence’

Assertion: x took it towards y

Focus: x = embeo, y = towards the house

Focus domains: NP, PP

The example given in (78 (S2)) illustrates a case of object movement and reduction, in which the definite *omorero* “fire” is pronominalized into {-yo-} which is the topic of the sentence because it is activated in the previous context. The question that arises is whether the choice is influenced by the topic through the kind of presupposition carried by the pronoun {-yo-}? The answer is yes. The mental state of the speakers has a lot to do with the choice of form to be used in the context. Given that in the previous sentence, the word fire has already been invoked in the minds of the speakers, it is in their common knowledge or activated, it therefore follows that one cannot use the overt lexica item to represent the information. Since the language does not avail an overt pronominal form to represent the reduced form, an object marker which is aligned after the Subject marker is used. The topic is “the fire” which is realized by the affix {-yo-}, which is Object of the sentence that has been placed in the preverbal position. The Object {-yo-} is placed in the verbal complex and is playing the thematic role of victim: The wind has blown the fire. That the fire serves as the ratified topic of the sentence is uncontroversial. As per the information theory, the topic carries a inherent set presuppositions. The pronominalized topic, fire, can be said to carry the existential presupposition, “There was a fire.”

If we consider the preceding context, the topic also inherits the presupposition “There was a fire and it was a conflagration”. These presuppositions are necessary for the understanding of the utterances. The same presuppositions can be still realized if the object is realized by the full lexical item in its canonical position. The two constructions can be said to share both the presuppositions and the propositions that surface. However, as per the information structural considerations the overt object is preferred in contexts where the sentence introduces new entities into discourse whereas the one with the reduced object (pronominalized) is preferred in contexts where there is a precedent in prior discourse. The choice is decided by the felicity considerations induced by information structure. We can therefore conclude that the use of the pronoun in the sentence is restricted by the presupposition of consciousness.

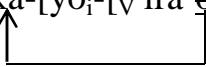
The set of presuppositions, however, borne by the construction goes beyond the ones Lambrecht's restricts his theory for consideration. If we assume the negation test, a traditional form used to test for presupposition we can stipulate presuppositions that go beyond what Lambrecht wants us to take as the possible set presuppositions carried by propositions. As far as Lambrecht is concerned, “the truth of a pragmatically presupposed proposition cannot be affected by an element of negation” (Lambrecht, 1994:152). The negation of the sentence, using the gloss, “The wind took it towards the house” is “The wind did not take it towards the house”. The presuppositions that arise are: “The wind took it (fire) somewhere”. In this case the presuppositions arise from the focus relation. However, for us to overcome this problem, we have to consider the form of the proposition; it seems that in Lambrecht's case, the presuppositions have to be strictly

processed by using the asserted proposition of the construction, in this case, ‘x bore it (fire) towards y’.

The syntax of the sentence is affected by the need to mark the topical nature of the object and therefore yields a marked topical construction in which the object is realized in a non-canonical position. The object (*omorero* “fire”) is moved from its canonical position, that is, after the verb as it is shown in (79 (a)) below, to an intermediate position, since the entire word cannot be embedded within the verbal complex it is reduced to a pronoun ({-yo-} ‘it’) as shown in (83(b)) below.

- (79) a. FOC [E-mbeo e-ka-ira<sub>TOP</sub>[omo-rero] gochia ase e-nyomba]  
*CL9-wind CL9 SG-PST-take CL1 SG-fire towards to CL9 Sg-house*

“The wind took fire towards the house.”

- b. [CP[<sub>AgrsP</sub> E-mbeo[<sub>Agrs</sub> e-[<sub>TP</sub> ka-[yo<sub>i</sub>-[<sub>V</sub> ira  <sub>PP</sub> gochia ase e-nyomba]]]]]]<sub>F</sub>

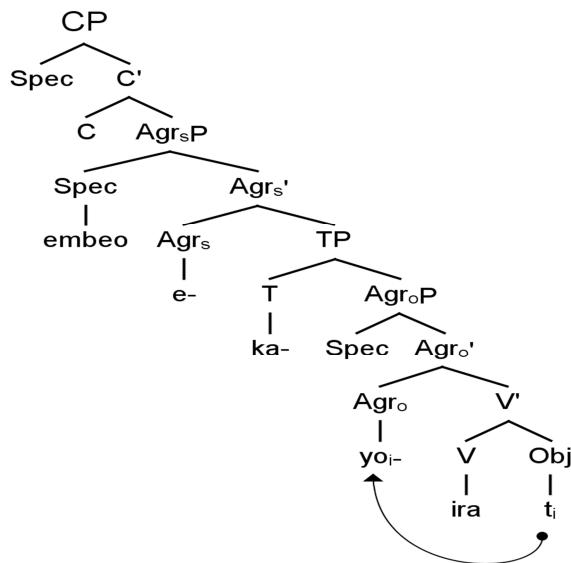
*CL9-wind CL9 SG-PST-PRO-take fire towards to CL9 Sg-house*

“The Wind took it towards the house”

In the sentence (79, b) above the pronoun is incorporated within the verb phrase. The form has been moved from the position it is assigned case due a strong topic feature and is stranded within the matrix clause (in an intermediate position) which is not a CP, or the left periphery. This shows that Ekegusii has a topic position within the matrix clause other than the left edge before the subject. The pronoun has no local agreement feature; it has a distant agreement feature to the overt nominal that is in the preceding co-text. Assuming the notions of case theory, in which the Spec-head

relation enters into the structural Case in the subject position and the object is assigned Case under government by V, then for the object to be assigned case it has to be in the post-verbal position then it is moved to  $\text{Agr}_0$  leaving behind a trace. If we give the clause a CP analysis using the schema proposed in Chomsky (1995:173), excluding the adverbial from the tree, to show the movement of the object we will have the following diagram as shown in (84) below:

(84)



Cliticization in such condition should be considered as one of the Ekegusii language strategies for expressing information structure when it involves the movement of objects in ditransitive constructions.

Despite the complex syntactic issues related in relation to the pronominalized construction. It is noteworthy to recapitulate that their semantic interpretation does not differ from its allosentences with an overt object. The sentence receives the stereotypical meaning despite being

syntactically and pragmatically marked. Let us now turn to two coordinated matrix clauses and see what they have to offer.

In the coordinated clause in (81) below serving as an answer to a multiple wh-question the word order in the first clause is inverted whereas in the second clause the word order in the second clause conforms to the topic-comment order, and in both cases the focus particle {n-} is incorporated to the object for the sake of emphasis.

(81) Question: N-i-ngo o-ko-ri-a e-riitunda na n-i-ng'o o-ko-ri-a e-  
riitoke?

*Foc-who 1-INF-eat-FV 5SG-fruit and Foc-who 1-INF-eat-FV*

*Cl-banana*

‘Who is eating a fruit and who a banana?’

Answer: FOC [Bocheere] TOP [FOC [n-] [e-rii-tunda a-ko-ri-a] ekero  
*Bochere Foc-5(SG)-fruit 1-INF PRES-eat-FV while*  
FOC [Nyakeriga] TOP [a-ko-ri-a rii-toke].

*Nyakeriga CL1-INF PRES-eat-FV banana*

“Bochere is eating an orange while Nyakeriga is eating a banana.”

Pressupositions:

- i. Of knowledge: There are identifiable individuals of whom one is eating a banana and the other a fruit.
- ii. Of Consciousness: \_\_\_\_\_
- iii. Of Topicality: “The act of eating a banana and a fruit”

Assertion: x is eating a fruit and y a banana

Focus: x = Bochere, Y = Nyakeriga

Focus Domains: NP<sub>1</sub>, NP<sub>2</sub>

In example (81) above contrastive topic influences the surfacing of the focus marker {n-} for the sake of differentiating the first topical expression in the coordinated clause consisting of two argument focus constructions of equal weight. This shows that the focus marker is not exclusively used in focal contexts as a focus marking device, it can also be used to mark contrast. The behaviour of information structural constructions cannot be fully accounted for using the axioms set out in Lambrecht's theory. The difficulty arises because the theory does not address the projection problem that arises in compound sentences. This is due to the difficulty which was noted in the case of canonical constructions that arise from multiple-*wh* questions. It is stipulated in Lambrecht (1994:329) that "one proposition cannot express two assertions" as we have done by using a conjunction in the representation in (81) above.

The focus marker {n-} is used alongside topic elements to achieve special stress or contrastive focus meant to point out the different objects that are referred to. In addition, we noted that the first sentence involves the movement of the object out of its non-canonical position as opposed to the second clause that exhibits canonical word order. Such strategies may be surmised to arise from the struggle of one of the topic expressions competing for argument status in the proposition.

The question that arises is whether the generalization arises from sentences such as the one we have above or not. We have one common denominator in the sentence, that the two individuals are involved in one act, eating, however the problem arises due to their eating something different. We

won't be in the same mess if in case they were partaking of bananas and oranges. This can be made explicit by the sentence given in (82) below as an answer to *who was eating what*:

- (82) Bochere and Nyakeriga were eating bananas and oranges

Assertion: Bochere and Nyakeriga were eating x and y

In such a case the inheritance of presuppositions is straightforward, and the proposition can be assumed to be one. However, in cases as the one we have in (81), there is need to recognize more than one proposition which is compound. As far as the theory is concerned a clause can only have one focus domain (Lambrecht 1994:333). This renders it impossible to account for constructions such as the one given in (82) above in the information structural approach assumed in this study.

### **3.2.2.: Topic Driven Movement of adverbial clauses**

In this section we analyse some adverbial clauses in Ekegusii language using a movement analysis approach, and as a subset of *wh*-movement. The section will utilize three constructions that are realized in the corpus used in this study, namely, temporal adverbial clauses (when-clause), adverbial clauses of reason and conditional clauses that take a topic interpretation.

As per a movement analysis, adverbial subordinate clauses and adverbs are placed in the sentence initial position in the clauses that we consider here. Adverbial clauses are moved to the left, or preposed due to topic movement, and so receive a topic interpretation. The clauses are linked to prior sentences which they follow by restating or wrapping up a state of affairs which has already been mentioned in the previous discourse, hence creating a background for the new information expressed in the main clause. The

moved clauses are realized as topic, however there are examples in which the subordinate clauses realize information structural partitions, that is, have a topic and focus elements in the preposed clause. The latter cannot be accounted for by assuming that they mainly driven by either of the pragmatic functions. The cases in which the topic subject Noun Phrase is moved into a subordinated clause that is focused is discussed in section (3.3.3.).

The ekero “when” clause in ekegusii is topicalized, that is, moved to the left periphery, in order to link the current clause to the previous one by talking of the state of affairs established in the antecedent sentence as shown in the following examples.

Consider the temporal clause given in (83) below. Temporal clauses can be analysed as presuppositional expressions which bear an anaphoric relation to an antecedent in a preceding sentence in discourse (cf. Geurts, 1999; and Van der Sandt (1992)). As per Johnston (1994), temporal clauses express a temporal relation between two events.

- (83) [Ekiagera obokeendu bwarengeo, abaana abwo bagauta omorero  
omonge baote.]

TOP Ekero omo-rero o-yio o-genderer-et-e gw-ok-a,  $\emptyset$  ba-ka-ment-a  
obo-nyansi riiko.

When 3sg-fire 3sg-that 3sg-go on-pres-fv inf-light-fv, PRO  
SM(1sg)-pst-add-fv 14pl-grass hearth

- Lit. [...]when that fire was going on lighting, ~~children~~ added grass in the  
hearth.

The preposed clause in sentence (83) above is a temporal clause. The clause reflects a temporal relation relating the period of the adding to the time a fire had been already lit, that is, the fire in the adverbial clause is the same one that is given mention in the previous sentence. Hence there is an identity relation between the fire the children are adding grass to and the one that had been lit in the preceding sentence. This establishes a binding relation between the temporal adverbial clause and the preceding comment clause. The adverbial clause in turn serves to locate the new event within a supposed period in which fire was on in the narrative. The semantic representation of temporal interpretation is given with an index for the interval  $i$  with which the main clause event  $\psi$  is interpreted. The ekero “when” clause gives the duration within which the fire was lighting, which is not a new event since it has already been activated in the preceding sentence.

(83')  $\lambda i[\exists e[(\text{Omorero (ekero gwoka(e) \& meenta(children, grass))}) (e) \wedge i = f(e)]$

$\lambda i[\exists e[\text{Fire (when lighting (e) add(children, grass, e))} (e) \wedge i = f(e)]$

(84) [omorero oyo onye naase enyoomba obwaata, yaayia.]

<sub>TOP</sub>Ekero e-nyoomba ya-yi-ir-e engencho eye, Abagusii niigo ba-go-teeb-a

*When 9sg-house Pst-burn-pres-fv way this, Abagusii ptl 1pl-inf-say-fv*

*nga “ya-rii-rw-e ama-ache”.*

*That SM-eat-pres-fv 5pl-water.*

Lit. [...] when the house burns this way, Abagusii used to say that “it has been eaten by water.”

- (85) [Onye n’engombe, gose omoonto enkooba yaaka, niigo agokwa agwo ago]

<sup>TOP</sup>Ekero ama-ache a-ri-ir-e omo-nto, kero keende Abagusii niigo ba-go-chaak-a

*When 5pl-water 5pl-eat-pst-fv 3sg-person, when other Abagusii ptl 1pl-inf-start-fv*

go-kong’ ont-a chi-tebe, gose ebi-nto bi-go-ak-a e-riogi.

*Inf-hit-fv 9pl-tins, or 7pl-thing 7pl-inf-make-fv 5pl-noise*

Lit. [...] When water has eaten a person, sometimes Abagusii used to begin hitting cans or anything that makes noise.

In the following examples, the ekero “when” clause is used to indicate the completion of a state of affairs, involving a speech act of telling:

- (86) [(Abaana abanene bakaminyoka gochia mogoondo goteebia abaibori baabo buna enyoomba yaabo yayiire.]

<sup>TOP</sup> Ekero ba-a-teebi-gw-a, aba-ibori ab-wo ba-ka-rut-a ama-koombé n’e-mioro inse.

*When 1pl-pst-tell-pst-fv 1pl-parent 1pl-those 1pl-pst-throw-fv 14pl-hoe and 3pl-hatchet down*

Lit. [...] When they were told, those parents threw hoes and hatchets down.

- (87) [...Chi-rooti chigatomwa chigeende goteebia Abasoongo bageende soobo. Onye tari bo, rororio ankio bebeeke ang'e korwaana eseegi.]

<sub>TOP</sub>Ekero ba-igeti-e ama-ng'ana a-yio ase Abasoongo, chi-rooti chi-ga-tom-w-a

*When 1pl-deliver-fv 5pl-news 5pl-that to Whites, 1pl-spy 1pl-inf-send-pst-fv*

koirana ng'a Abasongo ti-bari ko-geend-a soobo

*.back that whites NEg-will inf-go-fv home*

- Lit. [...] when they got the embassage to whites, ambassadors were sent back that whites won't go to their home.

The conditional clause in (88) below in the subsequent sentence restates the matter of the question and then clarifies the issue in the second clause. The propositosition in the if clause does not introduce new information into the discourse.

- (88) [Naatakeretwe kaare omoke?]

<sub>TOP</sub>[Onye ta-a-takeret-w-e], rirorio niigo a-rok-ir-e omo-iri o-ye eke-reecha.

*If NEg-1sg-cleanse-pst-fv, then ptl 1sg-name-pst-fv 1sg-relative 1sg-spirit*

- Lit. Was he cleansed while young? If not cleansed, then he was named after a kin ancestral spirit.

The conditional constructions given in (89) below are moved to the left periphery due to a topic feattue, and have a topic interpretation. In the first conditional clause, the verb is focused, but both the arguments are topical, the intended discourse move is to emphasize the idea of having a child, the

referential subject is realized in the main clause and is therefore represented by a zero subject.

- (89) [Koreende ng'a aise gotakera omwana oye anyorire, rirorio aba bakomobwatia tibagokwa.]  
Onye <sub>TOP</sub>  $\Phi$ [o<sub>FOC</sub>-[tag-et-e] omw-ana o-ye], niigo omo-kungu o-yio are  
*If PRO 1sg-want-pst-fv 1sg-child OM-hers, ptl 1sg-woman 1sg-that 1sg-is-pst*  
ko-bwat-i-a chi-ngencho chi'obo-takeri.  
*Inf-follow-pst-fv 9pl-way of 14pl-cleansing*

- Lit. But if she cleanses her own child she has got, then the ones who follow don't die. If she wanted her own child, that woman followed the ways of cleansing.

Adverbial clauses that entail movement to the left periphery (to the complementizer) are analysed as cases of “topicalization”. Topicalization is a general term for any construction that is moved to the sentence initial position in Lambrecht (1994: 31). According to Lambrecht, “in topicalization constructions, non- subject constituents are topicalized, that is, marked as topic expressions by being placed in the sentence-initial position normally occupied by the subject.” The topicalized constituents can stand in a topic or focus relation to the proposition expressed in a sentence, but we will be mainly concerned with the topic relation in this point of the discussion, the focused topicalized clauses are dealt with in section (3.3.3).

Besides, in the course of non-topics becoming topics the topic status of the subject is never ruled out. Therefore sentences can have two topic

expressions. On the other hand, Fanselow & Lanertova (2010) argue that the use of the term ‘topicalization’ in the context of movement to Spec CP is a misnomer and they call the movement to Spec CP in declaratives the ‘left periphery movement’. They hold that topic and foci are fronted as subsets of the LP-movement contexts. Some elements can go there in the absence of any discourse motivation such as sentential adverbs and subjects.

The analysis of *wh*-phrase movement is analysed at two levels, namely in creating local dependencies, due to movement of the *wh*-phrase element in the embedded clause, and long distance dependencies when the entire embedded clause is fronted in the sentence. Complement preposing falls under the latter type. The local dependency of a *wh*-phrase is illustrated by the sentence (90) below and is not in any way related to the long distance dependency created by the adjunction of the entire clause, it being a mere case of substitution meant to fill up an empty slot for an empty specifier.

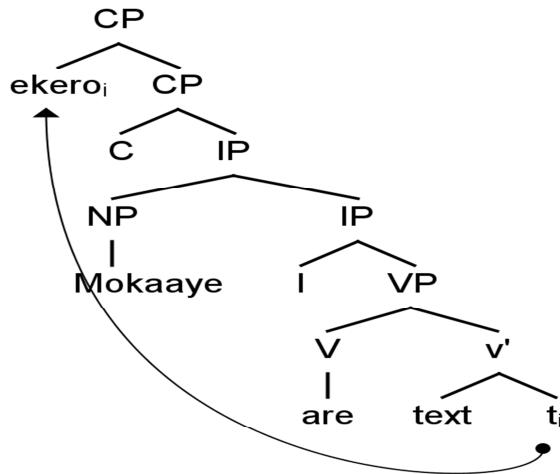
- (90) a. Nyakerage aka-nyoora obo-kong'u [CP ekerɔ<sub>i</sub> mo-kaaye a-re-eng-

e Morito \_t<sub>i</sub>\_.]

*Nyakerage 1(SG) -go 14(SG)-problem when PRO-wife 1(SG)-is-PST-FV pregnant]*

“Nyakerage got problems when his wife was pregnant”

- c. Phrase structure representation of *wh*-movement in the when clause.



The movement that creates the local dependencies can only be accounted for in terms of syntactic considerations, as arising out of the *wh*-criterion, but the long distance movement is not completely explained unless an information structural account is given. Hence in the long distance dependencies involving fronting of complementized clauses should be assessed using the information structural considerations, in this case, whether they are motivated by the topic feature.

In Ekegusii, as in English, complement preposing is felicitous in some contexts in which the complement is discourse-old. In such cases it acts as a link to entities already evoked in preceding discourse and act as topic promoting constructions. The temporal clauses can also be considered to be derived by a movement of a temporal operator to the left periphery, with the additional consideration of a topical feature that acts on the entire clause for the sake of providing a background discourse context to the main clause that follows in (91) below. Given a Lambrechtian approach, the

distribution of preposed temporal clauses can be related to the notions of assertion and non-assertion. The sentence in (91) below is fronted due to its presuppositional structure (non-assertion.)

- (91) (After the children set the house on fire they go to the farm and inform parents)

TOP [Ekerbaa-teeb-igw-a *pro<sub>k</sub>*]<sub>i</sub>, COM [aba-ibori a-bwo ba-ka-rut-a  
*REL-When 1(PL)-parents 1(PL)-parents 1(PL)-those 1(PL) -*  
*PRES-throw-FV*  
ama-kombe n'- emi-oro nse \_t<sub>i</sub>\_.]  
*(PL)-hoe and 3(PL)-machete down*

“When they were told, those parents threw hoes and machetes down.”

The temporal subordinate clause does not evoke a discourse referent. It is mainly assumed to refer “to the circumstances of a predication” (Lambrecht, 1994: 347). The expression *when they were told* can be considered to be a referential expression because it can be anaphorically referred to as “*then*”. In a case such as this in which the content of the adverbial subordinate clause is considered to be a referent, it is accorded an ‘active’ status, and hence bears presuppositions. The main presupposed proposition it is meant to relay, that justify its sentence initial position that is usually the reserve of the subject is, “They were told something.” The proposition “The house was burning’ which was activated in the previous discourse is not expressed overtly, hence is deleted (the deletion analysis will be dealt with under ellipsis).

Syntactically, the clause in (91) can be assumed to be derived by moving to the left periphery (Spec CP) where it functions as a link to the previous discourse, because it deals with already activated referents that are referred to by a null pronoun which carries the presupposition of consciousness. This pragmatic explanation is more fitting as opposed to the syntactic one. The syntactic explanation lays the burden on the movement of the when phrase “ekero” to a sentence initial position as schematically represented in (92) below. However, we saw that the same movement occurs even when the subordinate clause is in a postverbal position, hence cannot be a sufficient cause for the preposing of the entire subordinate clause.

- (92) [CP Eker...*pro<sub>k</sub>*, [IP abaibori abwo [VP bakaruta [<sub>v'</sub> amakombe ... \_\_\_\_]]]]
- 

The When-clause in (92) above can be analysed as a case of adjunction to the left periphery. It still preserves the attributes of an adjunct, because a placement in any other position in the clause does not affect the contribution it makes to the clause. The adjunction attribute is exemplified by the sentence given in (93) below in which the when-clause is placed in a sentence initial, medial and final positions:

- (93) (Eker... baateebigwa) abaibori abwo (Eker... baateebigwa) bakaruta  
amakombe n' emioro nse (Eker... baateebigwa)

TOP [Eker... baa-teeb-igw-a *pro<sub>k</sub>*]<sub>i</sub>, COM [aba-ibori a-bwo ba-ka-rut-a  
*REL-When 1(PL)-parents 1(PL)-parents 1(PL)-those 1(PL) - PRES-*  
*throw-FV*  
ama-kombe n'- emi-oro nse t<sub>i</sub>.]  
*(PL)-hoe and 3(PL)-machete down*

“(When they were told) those parents (When they were told) threw hoes and machetes down (When they were told).”

The propositional content of the when-clause in (93) above remains the same despite the variation of its placement in relation to the matrix clause, however there are some problems that one can experience once the clause is placed in the sentence internal position. In light of this it is fitting to handle similar adverbials as adjunction, because they can be linearized as right-adjunction, medial adjunction or as left-adjunction.

- (94) a. (After the children have brought the person who starts slaughtering the cow)

<sub>TOP</sub> [Ekero eng’ombe ekona konyenywa], omonyene otoma abaana bauta omorero na gotuumba chiinko chimbese riiko.

<sub>TOP</sub> [Ekero e-ng’ombe e-kona ko-nyeny-w-a],

*When 9(SG)-cow 9-is INF-PRES CONT-slaughter-PASS-FV*

omo-nyene o-tom-a aba-anaba-uta omo-rero na go-tuumb-a

*1(SG)-owner 1-send 1-Children 1-light 3(SG)-fire and INF-pile-fv*

chii-nko chi-mbese riiko.

*11(PL)-firewood 11CL-raw in the hearth.*

“While the cow was being slaughtered, the owner sends the children to light and pile raw wood on the fire.”

- b. (while the thieves have set the ladder on the fence and want to steal the chicken)

<sub>TOP</sub> [Riria a-ye-bwat-ir-e eke-renge a-tag-et-e ko-ye-ng’usa goocha

nse,]

*When 1SG-9SG-hold-PST-FV 9SG-leg 1SG-want-FV INF-9SG-pull towards down*

COM [omo-sigari o-reenge go-et-a a-ka-ba-siok-er-a ng'a sio!]

*1SG-police 1SG-PST is INF-pass-FV 1SG-PRES-appear like sio*

“When he got hold of its leg wanting to pull it down, a constable who was passing came upon them suddenly.”

In the adverbial clause of reason that is within the CP domain (in the left periphery) in (95) below, the clause carries the proposition that the thieves did not get the owner at home. Here we have the clause referring using a negative polarity clause to the state of affairs, about the absence of the owner which is a presupposed fact, but it is the base for anchoring the matrix clause, bearing a cause-effect relation of the event that form the main proposition of the clause.

(95) <sub>TOP</sub> [Koreende ase e-ngenchoba<sub>T</sub>-ta-mo<sub>T</sub>-nyoor-a nka],

*But for 9CL-reason 1CL PL-NEG-ØPST-1CL SG-get-FV home*

<sub>FOC</sub> [<sub>TOP</sub> [ba]-a-<sub>TOP</sub> [ye<sub>i</sub>]-butor-a t<sub>i</sub> e-miyo pro <sub>TOP</sub> [te]-e-tam-a.]

*1 CL-PST-9CL-cut-FV 3CL-throat NEG-3CL-run-FV*

“But because they did not find him at home, they cut the throat so it may not run.”

The left peripheral adverbial clauses given in (92-95) above have the attribute of linking previous discourse or provide discourse background for the main clause and therefore topical. They are used to assist in the topic

continuity chain of the discourses in which they occur, besides serving as the topic of the entire sentence on which the second clause comments on.

### **3.2.3.: Topic Driven Ellipsis**

In this section we present data in which the topic related lexical items are not realized in the surface form in speech. Ellipsis can target any of the sentential elements in a clause, either due to it being presupposed in the discourse that has foregone, due to mere avoidance of syntactic redundancy or because an issue is a part of a given discourse and should not be focussed. In this section we will focus on information structurally induced ellipsis within a subsequent sentence (in a pairwise sequence of sentences or more) due to it being in the interlocuters “common ground”, cases of ellipsis due to syntactic requirements will be avoided.

In deleting the material, the topic part of the expression is deleted whereas the focused part is realized. Further, we consider cases of deletion in discourse, and propose that in cases of subject deletion, the subject marker in the verbal does not subsume the role of topic but the topical feature is realized by a zero pronoun, the same can be said of the dropping of the object.

Before considering particular cases of ellipsis, let us first clarify the notion of ellipsis. In the literature of linguistics, the standard explanation given for ellipsis is that it consists of the mapping a syntactically incomplete sentence from a syntactically complete one. Whenever ellipsis occurs, it does not affect the semantic interpretation of the construction, that is, it does not affect the Logical Form.

The expressions targeted are usually licensed by the presence of an antecedent, which are in an identity relation. The identity may be either

syntactic or semantic, or both. The cases that are handled in this section will deal with constructions whose precedents are inter-sentential rather than intrasentential. Some intrasentential varieties of ellipsis, especially in contexts involving coordination of clauses, are simple cases of deleting of syntactically redundant elements; to require of them to be amenable to information structural effects requires some stretching of the applicability of our theoretical mechanisms.

Some of the cases of ellipsis occur because of anaphoric relations that exist between two independent sentences or utterances. The most common example of such is what is referred to as Zero, also severally referred to as null anaphora, *pro* or  $\Phi$ , in the introduction of pronominalization in Chapter two. Chomsky (1982) brought up the debate on zero on stipulating empty categories. The deletion of the subject was the main motivation for the construal of the null categories for language that have a PRO-Drop parameter. This was taken up by Huang (1994, 2000) who further categorized null subjects into three, namely: referential, quasi-argumental and expletive.

Ekegusii can be categorized under incorporational and non-configurational languages described by Baker (1991). It has rich subject agreement morphology and such is usually correlated to the tendency to drop the subject. In Chapter two, we analysed sentences with null pronouns that surface in the subject position in the clause. In this section we shall analyse it as an instantiation of a null subject. The subject gap in that respect is in a null pronoun, *pro*, which shares its phi-features with the subject marker. The subject is deleted but the Subject marker is retained for the purpose of extension. As per Kucerova (2008), syntactic structures with null subjects can be well-formed if they have syntactic substitutes that satisfy the

extension requirement. The sentences that illustrate similar behaviour by the null subject in Ekegusii are given in (96-101) below. The underlined nominals that function as zero subjects in the subsequent sentence are represented with {Φ}.

(96) Deletion of subject in subsequent clauses

- a.  $\text{FOC} [\text{Abwo kare, } \underline{\text{chiamate}} \text{ niigo chiamenyete amo}]$ .  
*There past, 1C(PL)-neighbour FM-PTL 1C(PL)-PST-live-PST-FV together*  
 $\text{TOP} [\text{pro FOC} [\text{TOP} [\text{Chi-}] \text{ a- risi-aamo}]]$ . (S-VA)  
*1C (PL) -graze-PST-FV together*  
 Lit. “Long ago, neighbours used to live together. They grazed together.
- .b.  $[\text{Ekerø } \underline{\text{omorero}} \text{ oyio ogendererete gwoka, bakamenta obonyansi riilo}]$ . Keeri keeri,  $\text{TOP} [\Phi] \text{ FOC} [\text{okabumbuucha okabwata gesara}]$ .
- Lit. [...] Soon ~~fire~~ flaring caught the roof.
- c.  $[\underline{\text{omogaaka}} \text{ oyoomo orange omotoonu, agasaabora ekuuri, akayeroma.}]$  Top [  $\text{TOP} [\Phi]$  ]  $\text{FOC} [\text{TOP} [\text{a-}] \text{gatakuna}$   $\text{TOP} [\text{enyama}]$  ore  $\text{FOC} [\text{n'}obwooba}]$ .
- lit [...] ~~Old Man~~ chewed meat having fear.

The deletion of topical elements in the clause targets mainly those that are salient in the discourse, and so can be easily recovered. Hence, the rest of the topical elements, though realized in the previous sentence can be overtly realized as the case with *enyama* ‘meat’ in example (96c) above.

The deletion of subjects is not only realized in simplex matrix clauses, but also in main clauses of complex clauses.

The deletion process in some complex clauses cannot be accounted by considering syntactic clause internal relations between the constituents. In the sentence given in (97) below, the ellipsis of the subject cannot be recovered by considering the sentence in isolation but is recovered from the preceding sentence. Such a construction is dependent on the fact that the sentence is part of a discourse unit in which the discourse topic is salient, and so need not be realized overtly in subsequent clauses.

(97) Deletion of the subject in main clause of a complex sentence

- a. [Ekiagera obokeendu bwarengeo, abaana abwo bagauta  
omorero omonge baote.] Ekeromorero oyio ogendererete  
gwoka,  $\emptyset$  bakameenta obonyansi riiko.

Lit. [...] when that fire was going on lighting, children addes grass  
into hearth

The coordinating constructions typically bear a number of gapping constructions in which topical expressions are deleted. Examples are illustrated in (98) below:

(98) Context: Ni-*ng'o bw'-oma?*

*Foc-who 1SG-PST  $\emptyset$ -dry*

“Who dried”

Answer: i. FOC [MoraanBinsari] TOP [FOC [bo]-oma.] (S&SV)

*Moraan and Binsari 1C (PL)-PST  $\emptyset$ -dry*

“Moraan and Binsari dried”

Presupposition: “x & y dried”

Focus: “Moraa and Binsari”

Assertion: “x & y = Moraa and Binsari”

Focus Domain: Compound NP

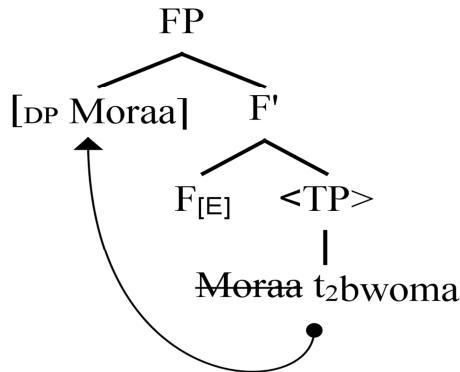
Answer: ii.  $\text{Foc} [\text{DP Moraa}] \text{ Top } [\text{VP.} \underline{\text{bwo-oma}}]$

*Moraa IC(SG)-PST-dry*

“Moraa ~~dried~~”

The construction in (98 (ii)) above is usually accounted for using what Merchant (2001:74) refers to as the “ellipsis” approach. In the “ellipsis” approach the fragment answer is a syntactically elliptical form standing in for a full sentential structure. The fragment undergoes movement to a clause peripheral position, designated spec FP, with a head projection, F, which hosts a feature E, before ellipsis occurs. The feature E (Ellipsis) also probes for the feature T (Topic) to licence the deletion of some elements in the host clause TP, out of which the fragment has moved. The verbal assigns case as it does to cases internal to the clause. Merchant argues that such fragments move because they are sensitive to islands. The syntactic projection of the fragment is illustrated in (99) below:

(99)



The deleted subjects in Ekegusii are considered to be replaced by a null pronominal variable in the surface in our analysis of constructions that involve the deletion of the subject. The Null subject and the referential *pro* is also attested in the ditransitive construction given in the answer in the question-answer coherence context in (100) below.

(100) Deletion of the subject in a ditrastive object-movement clause

Question: Ni-nki omo-saacha a-go-kor-a

*Foc-what CL1-SG-man CL1-INF-do-fv*

Lit. “What is the man doing?”

Answer: *pro FOC [n'-omwa-ana TOP [á-] kó-à ama-beere]*

*φPRO Foc-Cl1-child CL1-INF-give CL-PL-milk*

Lit. “~~The man~~ to the child giving milk”

The null subject analysis is usually justified by considering the subject marker as having the attributes of a subject but lacks a D feature. The features enable the gap to surface as a pronoun since the subject marker as

an agreement marker bears the phi-features of the subject, namely, number, person, gender and case. In addition, one cannot overburden the subject marker since it already functions as an agreement marker, which is in keeping with Principle B of binding theory that requires a pronoun to be unburdened while in its domain.

The Ekegusii language does also have an elliptical construction that is replaced by a null pronoun in the object position despite the lack of object markers in the language. In considering the evidence of the ditransitive sentences in Ekegusii on how information structure affects the formal organization of sentences, it is evident that one may not have to consider the subject marker in the null subject contexts as subsuming the role of sentence topic. The role is played by the null pronoun, *pro*, which is represented in the examples given in (101) below. The examples of the distribution of null pronouns in the ditransitive context are given in (101) below:

(101) . Question: Ni-*ng'o* omo-saacha a-ko-aama-beere?

*Foc-who* *CL1-SG-man*      *CL1-INF-*  $\emptyset$  *PRES-give* *CL-PL-milk*

“Who is the man giving milk?”

Answer:      *FOC [N'-omwa-ana] TOP [a-ko-a] Pro.*

*Foc-Cl1-child* *CL1-INF-give*  $\emptyset$  *PRO*

“It is a child he is giving milk.”

The null pronoun which bears the topic function is therefore realized in the sentence final position as in (101) and sentence initial position as in (100) above in the Ekegusii language. The pronoun incorporated into the verb

leaves behind a gap, a null pronoun to bear the roles that cannot be borne along into the verbal domain. The result is a marked form in which the pronoun is not in complementary distribution with the NP it replaces. This anomaly arises because it is not the syntax in play, but an information structural device acting post-syntactically.

Ellipsis of topical expressions plays a key role in clause complexing in Ekegusii. The sentence in (102) below appears as a topicalized clause in the left periphery playing the role of a scene setting topic of the clause whereas the rest of the sentence (the matrix clause) is the comment. The clause is actually a case of phase synthesizing, by that I mean, the merging of a one phase or more into another phase. This involves a multitude of a number of syntactic processes which transform two clauses into one clause.

(102)

(After the children set the house on fire they run to the farm to inform parents)

TOP [Ekerero baa-teeb-igw-a *pro<sub>k</sub>*]<sub>i</sub>, COM [aba-ibori a-bwo ba-ka-rut-a  
*REL-When 1(PL)-parents 1(PL)-parents 1CL (PL)-those 1(PL)-PRES-*  
*throw-FV*

ama-kombe n'- emi-oro nse \_t<sub>i</sub>\_.]

*14(PL)-hoe and 3(PL)-machete down*

“When they were told, those parents threw hoes and machetes down.”

The sentence in (102) above can be well understood by breaking it into two sentences. The sentence consists of a passive clause in the left periphery of another clause. The two clauses are merged into two and because of the

effect of faithfulness to a constraint that preserves the event order relations between them, which is the reporting of the children that a fire has caught the house precedes the act of throwing down the hoes. The sentence shows the cause-result event relation. The two sentences can be given as, by labelling them E<sub>1</sub> and E<sub>2</sub> with the E standing for event. The bits that have been deleted are represented with a strikethrough.

(103) E<sub>1</sub>: Abaibori-bagatebigwa ~~na~~ abaana buna

*1CL (PL)-parents OM-PST-tell-PASS-FV by 1CL (PL)-*

*children REL*

~~enyomba nkoyia e re.~~

*CL (SG)-house SM-PRES-burn-FV OM-is*

“The parents were told by the children that the house is burning.”

E<sub>2</sub>: Abaibori abwo bakaruta amakombe

*1CL (PL)-parents 1CL (PL)-those 1CL (PL) - PRES-throw-FV*

*14CL (PL)-hoe*

n’emioro inse

*and 3CL(PL)-machete down*

“The Parents threw their hoes and machetes down.”

The two sentences as independent clauses can be assumed to have the entire clause complex available to them: consisting of two Phases, the v'phase and the CP-phase. This is schematically represented below:

(104) [CP C [TP T [ϕ] [v'P V' [VP ... [CP]]]]]

What happens, in the combining of the two sentences, is that the passive clause is merged into the second clause, but the complementizer is extracted from a lower clause internal position in the process of reconstruction, as shown in the representation in (109). This is rendered more grammatical by the deletion of all topical expressions. Verb Ellipsis occurs, which enables the first clause to dominate the second one, and so establishing a topic-comment relation between them. The entire process of complexing occurs post-syntactically (internal merge which acts in a stratal manner). The process is long and cannot explain the way such a structure is acquired, the easy route is that any presupposed material is deleted to make way for the bits that surface, this bits have to comply with the edge-features of the phases they get into and the process is partially motivated by information structure. The deletion of topical elements in discourse is an information structural effect in the Ekegusii language as shown in the discussion above.

### **3.3: Focus and Non-canonical Constructions**

This section of the study investigates how word order permutations and adjustments, that is, transformations, arise due to the focalisation of constructions in Ekegusii. Some of the constructions that exhibit movement, and insertion that is triggered by the information structural consideration, focus, include: those involving movement like *wh*-movement, in constructions that generate focal responses; and insertion of negative operators, such as the correctional (negative) focus constructions are considered. However, there is one exceptional case of focus that is not amenable to a focus feature driven movement, the sentence focus (also referred to as the presentational focus construction) which preposes adverb phrases and complements due to pragmatic accommodation of

presuppositional structure. Section (3.2.1.) examines negative or correction focus which involves the insertion of a negative operator that entails the change of polarity of the answer and considers how the focus sensitive particle *Only* interacts with negation in determining the propositions that are ratified in the output's interpretation. Section (3.2.2) considers the wh-movement of Wh-phrases and clauses to the right and left peripheries, Section (3.2.3) Examines constructions that entail movement of focussed constructions to sentence medial positions away from their canonical position.

### **3.3.1.: Focus and Insertion**

In this section of the study focuses on negative polarity constructions which entail the insertion of negative forms, adverbs and particles, which are not availed in the previous discourse. The negation is given a focus interpretation or introduces information that is interpreted as new (having information focus). We also analyse how negation is affected by the presence of the inserted focus sensitive particle *only* in scopal terms.

Languages express (propositional) negation ( $\neg p$ ) using not, as in English, and nominal expressions such as nobody, nothing, etc. *Yaaya* “No”, *onde* “*nobody*”, and *birati* or *kende* “*nothing*”, are some of the words used to mark negation in Ekegusii. Ekegusii includes the use of incorporational morphemes, which are affixed to the verbal complex as a way of marking negation. The examples (105-107) below illustrate the use of negation using negative affixes {*ta-*, and *ti-*} and an indefinite negatives, *birati* (*Nothing*) and *yaaya* (*no*), (underlined) in Ekegusii:

(105) S1: Koreende o-ria o-re ko-reet-a e-ndaagera

*But I(SG)-that I(SG)-is-PST INF-bring-FV (PL)-food*

e-mbonge ni-igo a-re go-seng'ensigwa neero.

*(PL)-weeviled Foc-PTL INF-sent away with it*

S2: Ta-a-re ko-e-gw-a nyama.

*NEG-I(SG) - PST-is INF-give-PASS-FV meat*

S3: Ni-igo a-re ko-iran-a birati.

*Foc-PTL I(SG)-PST-is INF-return nothing*

S4: Ndaagera mboonge ti-yaa-re ko-gor-w-a ontuune.

*Food with weevils NEG-PST- is INF-PST-buy-PASS-FV barter*

Lit. “But the one who brought weevil-eaten food was sent away with it. S/he wasn’t given Meat. S/he went back with nothing. Food with weevils was not bought in the exchange”

(106) S1 Eker Ogasusu na ng’ina ba-ika ase omo-gaaka ba-ka-nyoor-a

neere o-book-ir-e ko-bwati-a omo-ong’ina.

S2 Ani, omo-ng’ina ekero a-boog-et-e *ta-a-teeb-eti-e* omo-gaka  
*keende.*

Lit. But, the Old woman when she woke up did not tell the old man anything

(107) Ogasusu: I-nchwo goo-ch-a a-ye....

*Hare: I(2PER)-come toward-come-FV I(SG)-you*

“Hare: You come over here....”

Omorendi: I-nchwo aange aa ti-n-dor-w-a. Yaaya Ogasusu.

*Guard: I(2PER)-come near here NEG-I(SG)-PRES-see-PASS-FV.*

*No Hare.*

“Guard: You come near so I am not seen. No, Hare.”

Ogasusu: Bi-into ti-bi-ir-i boigo. Gate naa-ye ore n'-enchara.

*Hare: (PL)-thing NEG-SM-PRES-is-FV that way. PTL I(SG)-you  
SM-is with hunger*

“Hare: Things are not so. You are the one with hunger.”

Before we embark on examining how the information structure consideration, focus, interacts with negation, let us get some overview of the properties of negation. In general, negation enables us to contradict, deny, misrepresent and convey irony (Horn, 2010). In cases where negation occurs, according to Kuno (1999: 147) there is an affirmative proposition that is denied as in (108 b) below.

(108) a. Affirmative Proposition: WXY

e.g. ‘I can speak English and French’

b. Negative Proposition: not (WXY)

Where Z= {V-X}, V being the set of elements under discussion

e.g. ‘I cannot speak any other language.’

This notion of having two propositions as shown in (108) above applies to negation in so far as the negative proposition is preferred to the negative one. The negative proposition contradicts the affirmative proposition. Horn (1989) in the first chapter examines the history of how contradiction has been studied in the Aristotelian tradition. Contradiction is considered to be a relation between a pair of propositions such that when one is true the other is false, as by the law of the excluded middle. The Law of the Excluded Middle says that if only one of any two opposite propositions is true.

(109) Law of the excluded Middle (LEM):  $\neg p \vee$

Contradiction is determined by the Law of Contradiction besides the Law of the Excluded Middle. The Law of Contradiction stipulates that two opposite propositions cannot be true simultaneously. It schematically represented in (110) below:

(110) Law of Contradiction (LC):  $\neg(p \ \& \ \neg p)$

In some sentential contexts, negation is considered to be an operator that makes a sentence downward entailing with respect to the verb phrase (VP). The concept of downward entailing was introduced by Ladusaw (1980). He gave the definition schema as shown in (111) below:

(111) An expression  $\delta$  is *downward-entailing* iff  $\forall x \forall y (x \subseteq y) \rightarrow ([[\delta]](y) \subseteq / \Rightarrow [[\delta]](x))$

where the choice between  $\subseteq$  and  $\Rightarrow$  depends on whether  $\delta'(y)$  and  $\delta'(x)$  are sets (in which case the former must be a subset of the latter) or propositions (in which case the former must entail the latter). In the examples given

below, (a) entails (b), the VP denotes a subset of the denotation of the VP in (a).

- (112) a. Mora ta-a-che-ti.

*Mora NEG-1(SG)-come-NEG*

“Mora didn’t come”

- b. Mora taacheti reero

*Mora NEG-1(SG)-come-NEG today*

“Mora didn’t come today.”

All classes of negative elements: negative markers, negative quantifiers, n-words and semi-negatives share the element of downward entailing, though it is not the only property that underlies negation. The notion of downward entailment is however not considered by some researchers to be a sufficient condition for determining negative contexts.

Giannakidou (1999) introduces the notion of anti-veridicality in order to strengthen the notion of downward entailment. The notion of anti-veridicality is derived from non-veridicality. Anti-veridicality and non-veridicality are defined as below:

- (113) Let  $Op$  be a propositional operator

- a. If  $Op(p) \rightarrow p$  is logically valid,  $Op$  is veridical; otherwise it is non-veridical.
- b. If  $Op(p) \rightarrow \neg p$  is logically valid,  $Op$  is anti-veridical.

Once anti-veridicality is stipulated, it is possible to define a negative context as per Zeiljestra (2004: 44). A negative context is a context that is introduced by an anti-veridical operator or a context that gives rise to a negative implicature that contains a negation,

- (114) A negative context C is introduced in sentence S iff
- S contains an anti-veridical operator *Op* that introduces C; or
  - S contains an operator *Op* due to which S gives rise to a negative implicature S' that contains an anti-veridical operator *Op'*.

The notion of negative elements is defined with reference to anti-veridicality as

- (115) A negative element is an element that under well-defined conditions introduces a negative context.

Given the notions of negative contexts and negative elements it is possible to account for negation in human languages (Zeljestra, 2004).

In the literature on negation (Klima, 1964; Zanuttini, 1995), three main syntactically defined types of negation are stipulated, namely: sentential negation, constituent negation and meta-negation. The definition of negative contexts applies to both the definition of constituent and sentential negation. Sentential negation is that which the entire proposition falls in the scope of the negative operator. In Constituent negation the negation is applicable only to a particular constituent. Finally, meta-negation scopes over more than the clause; it has neither constituent nor sentential scope (cf. Christensen, 2005: 38-40).

The realization of negation in some constructions does not affect the basic word orders but is still considered to be non-canonical because it introduces a lexeme, the negation marker, which is not expected in the surface level. The negative is inserted with the effect of altering the proposition that is expected by the question context. In some of the narrative passages analysed, sentential negation, realized in the spine of the clause, exhibits the trait of having no effect in the ordering of some of the constituents. Consider the following examples. In the paradigm in (116) below the negative is incorporated into the verbal as a prefix. In such circumstances it does not affect the word order as such. Despite the medial position of negation operator has scope over the entire clause but affects the entire focused. The reordering of the sentence moves the locative clause, which is in a poset relation to the topic, Ogasusu, of the preceding lines due to the need for topical elements occurring in the sentence initial position, and establishing a link with the previous discourse.

(116) S1 Ogasusu na Okanyangau ibaare abasaani.

S2 Abakoobesi chiombe baire aari soobo omoiseke.

S3 FOC [Soobo TOP [Ogasusu] omo-iseke ta-re-eng-e oo].

*Home Ogasusu 1sg-girl Neg-is-pst-fv there*

Lit. “Hare and Hyeana were friends. He escorts with them cows they take there at the home of the girl. In the home of Ogasusu a girl was not there.”

(117) S1     <sub>TOP</sub> [Omoreendi] FOC [tarooche ekero <sub>TOP</sub> [Ogasusu] asoete  
mochie].

S2     FOC [Aba-ana ti-ba-rooche ekero <sub>TOP</sub> [Ogasusu] a-go-so-a  
nyoomba].

*1pl-child Neg-SM-see-fv when Hare SM-Inf-enter-fv house*

Lit. “The guard did not see when Hare entered the compound.“The  
Children did not see when Hare entered the house”

The topical presuppositions evoked by the topical expression in clause (117) above are preserved by the process of fronting of the locative Soobo Ogasusu. This leaves the negative expression which scopes the subject Omoiseke ‘girl/lady’ intact. The notion of the types of presuppositions carried by various sentential elements does not include the presupposition carried by the entire clause, that is: “Cows can be got, in the given cultural context of the story, through marriage.” Such presuppositions, though central in the processing the sense of the clause are not taken into account in the theory of information structure by Lambrecht (1994).

Within the verbal the negative operator can also be infix or suffixed but that does not change its scopal effect, that is, that it affects the entire sentence and not a given constituent, in the sentences provided.

(118) S1     [Obóko o-bwo bo-ga-kw-a, chi-ombe chi-ka-iran-a.] <sub>TOP</sub>

S2     [Nyangi e-ria] FOC [t- [<sub>TOP</sub> -e-] chie-ti\_ko-b-a].

Lit. “The Marriage failed, cows returned. Wedding that never was to be.”

(119) S1 [Aa! Chi-ga-kwa eyemo ase eyemo.]

S2 TOP [Okanyangau] FOC [rende aga-chi-ta-ko-nyoor-a TOP

*Hyeana then 1sg-go-NEG-get-fv*

[ngombe] a-ko-nywom-er-a].

*9pl-Cow 1sg-inf-marry-appl-fv*

Lit. “Aa. They died one by one. Hyena did not get cows to marry with.”

The cases of sentential negation discussed above show that negation has wide scope. However, negative operators can have narrow scope, in which the negation affects only a given constituent. In the sentences in the discourses (120-122) given below, the negation the clauses embedded post-sententially are negative whereas the initial clause is outside the scope of the negation.

(120) S1 [Aba-mura ba-ka-mo-saner-a, a-gend-a o-iran-a mwa- ng’ina.]

S2 A-ka-geend-a a-ra aange a-tari ko-góm-a.

*1sg-PST-go-Fv 16pl-place many 1sg-NEG inf-stay-FV*

Lit. Men desired her, she would go and return to her mother’s. she went many times without staying.

(121) S1 Ago-koorwa go-taach-w-a, ama-nyiinga a-yio a-nug-w-a o-

bwango o-bwo ta-twek-a mo.

S2 Ni-igo ba-a-re ko-nugun-er-a ebi-te ebibese, tari ebi-omo.

*Foc-ptl 1pl-pst-is inf-stir-appl-fv 7pl-stick 7pl-raw, Not 7pl-*

*dry*

Lit. Finishing fetching that blood, it is mixed immediately not to spoil.  
They used to stir with raw sticks, not dry ones.

(122) S1 [Aba-gusii nigo ba-a-re kwe-egen-a ng'a omo-kuungu o-  
reenge go-kwe-rw-a aba-ana kera omw-aka na-reenge n'ama-  
mocho gete a-reenge ko-ger-a chi-sokoro chi-a-moa ege-  
susuro.]

S2 Koreende ng'a a-ise go-taker-a omw-ana o-ye a-nyor-ir-e,

*But if 1sg-be Inf-cleanse-fv 1sg-child 1sg-her 1sg-get-pres-fv,  
rirorio aba-ba-ko-mo-bwati-a ti-baa-gokw-a.*

*then 1pl(OM<sub>1</sub>)-1pl(OM<sub>2</sub>)-inf-1sg(SM)-follow-fv Neg-fut-die-fv*

“Abagusii used to belief that a woman who used to loose children every year had some mistake that made ancestors punish her. But that if she cleanses her child she has got, then those who follow it won’t die.”

Negation can also target left-peripheral constituents. In some cases, the scope of the negation is limited to the elements in the left-periphery; as in the paradigm given in (123) below.

(123) a. S1 Naatakeretwe kaare omoke?

S2 Onye ta-a-taker-et-w-e, rirorio ni-igo a-rok-ir-e omo-iri  
*if Neg-1sg-cleanse-pst-Pass-fv foc-ptl 1sg-name-pst-fv  
1sg-relative*

*o-ye eke-reecha.*

*OM-its 9sg-spirit*

Lit. “Was one cleansed while young? If one was not cleansed, then he was named after a kin ancestral spirit.”

b. S1 Ni-igo ba-ko-ya-nyoor-a ekero ba-konyeny-a chi-ng’iti

echi.

S2 Koreende tari bo-taambe ba-are ko-nyeny-a chi-ng’iti  
echi.

*But not 14sg-always 1pl-pst-use Inf=slaughter-fv 9pl-animal these*

Lit. “They get when they are slaughtering these animals. But it is not always they used to slaughter these cows.”

c. S1 Ng’ai kwa-ire-et-e e-mbori?”

S2 Na, “Yaaya, inche i-naa-rair-e.”

*That “No, me 1sg-PSt-sleep”*

Lit. Where did you take the goat? That. “No, I was asleep.”

In the complex-compound clause given in (124) below, the negation in the main clause scopes over the two negative coordinated subordinate clauses.

(124) Chi-rochio n-chi-e-many-et-e- ng’ a ti-chi-ri ko-ri-a e-ng’ang’uura  
*9pl-them Neg-9sg-know-pst-fv that NEG-9pl-PRes-is Inf-eat 9pl-curd*  
naende ti-chi-bwat-i e-nda buna nyaituga.

*And Neg-9pl-have-neg 9sg-stomach like Cow.*

Lit. They didn't know that they don't chew curd and they don't have a stomach like cow.

In the analysis of negation and how it interacts with information structure, the most common method employed to elicit correction patterns is the yes-no question. The yes-no questions license Negative polarity questions as negation and conditionals do. The correction pattern, elicited using Yes-No questions, positions the negative item *Yaaya* ('NO') in a sentence initial position. The negative indefinite *Yaaya* ('NO') plays the role of a prosentence negation marker and as a Focus marker. The following are the focus paradigms employing Yes-no questions and error correction in Ekegusii:

(125) Question: Omo-kungu n'-omo-saacha a-go-ak-a?

*CL1 Sg-woman FOC-CL1 Sg-man CL1-PRES-hit-FV*

"Is the woman hitting the man?"

Answer: a. [Yaaya, n'-eke-rogo]<sub>F</sub> a-go-ak-a. (NEG OSV)

*No, foc- CL7- chair Cl1-PRES-hit-FV*

"No, it is a chair she is hitting"

Presupposition: Something was hit

Assertion: something=a chair

Focus: 'a chair'

b. [CP [<sub>FP</sub> Yaaya, [<sub>FP</sub> n'-eke-rogo [<sub>IP</sub> [<sub>NegP</sub>[<sub>vPa</sub>-go-ak-a.]]]]]]]

No, foc- CL7- chair Cl1-PRES-hit-fv

“No, it is a chair she is hitting”

The answer in (125) carries the presupposition that something was hit and asserts that the thing that was hit is a chair. The inverted negative may be interpreted as a focused element because it cannot be deleted in case of ellipsis. In the illustration given above, the new victim is also accorded a focal interpretation despite the fact that it seems to be partially presupposed by the mention of a wrong victim as the object of the question. The other elements can be dropped because they are contextually presupposed though, so topical, because of their prior mention. We also consider the correction focus sentence as a case of meta-negation because the scope goes beyond the sentence, in the sense that includes the proposition that is contradicted in its sense. Given in full, the sentence would be said as follows:

(126) Yaaya, ta-ri omo-saacha a-go-ak-a, n'-eke-rogo a-go-ak-a.

*No, NEG-is 1sg-man 1sg-Inf-hit-fv Foc-7sg-chair 1sg-Inf-hit-fv*

“No, it isn’t the man she hitting, it is the chair she is hitting”

The analysis of the syntax of the inverted negative is here analysed as a case of a left peripheral movement. The negative phrase, yaaya “no” is assumed to be moved out of the verb phrase to the Focus Phrase of Spec CP due a strong [+focus] feature. The analysis here avoids the moving of the inverted negative to the Spec-NegP which may be considered to be partially involved in making the negative move. This is to make clear our priority of showing that focus is the one involved in moving the negative to the left peripheral position. Now, if there is shared responsibility, it is hard to consider the Spec-NegP as an element of the split CP, which is a reserve

of information structural components. In some studies the NegP is assigned in into a Pole Position, in which all items meant to mark polarity are said to be moved to out of main verb (the V2 position). In order to avoid the stipulation of multiple NegP position, we reserve this to the main verb position and consider the NegP to be licenced for negation at a lower position and the negation is conserved as it is moved to the CP for it to be marked for focus.

In addition to the inverted negative, the object of the sentence is also pied-piped in the focus phrase of the Split CP due to a strong focus feature leaving a trace in its base position. The object shift in this case violates the *Holmberg's Generalization* (Holmberg, 1999) stated below in (127).

- (127) Object shift cannot move across the surface position of its case designer and is therefore dependent on verb movement.

Negatives or clauses with negative polarity are affected by information structure and come in a variety of forms. The patterns that are attested in Ekegusii include focussed negation with non-subjects (adverbials and objects), that which targets the modifier of a logical subject, and that with focused particles. Focused negation is a case of correction. Lambrecht (1994: 283) observes that the presupposition, assertion, and focus of such constructions are similar to replies to statements with an erroneous constituent. Lambrecht notes that one does not generally ask a question to which one does not expect an answer. Error correction statements involve the contradiction of a presupposition carried by the question; hence an erroneous argument is negated in the reply. The erroneous argument, however, likewise provides a filler, and its replacement is focal, just as the replacement of the *wh*-word is focal. In both cases, the replacement is

unpredictable from the question or corresponding erroneous reply. The element that the negation is associated with is contrasted with another constituent of the same kind. Consider the replies in the paradigm in (128) below, they involves some discrepancy between the question and the answer:

(128) Focused negation targeting the modifier of a logical subject:

Question    Aba-ana ba-rabi o-reenga a-e-t-e  
*CL1(PL)-child SM-which you-think SM-give CL7(PL)-  
ebi-tabu (aba-ke gose aba-nene )?*

*Book CL1(PL) Small or CL1 ( PL)-big.*

Answer    Tari aba-ana aba-ke a-e-t-e ebi-tabu,  
*NEG CL1(PL)-child CL1 (PL)-small SM-PST-give-FV  
CL7(PL)-book,*  
m-ba-ri aba-nene a-e-t-e.

*FOC-CL1 (PL)-that CL 1(PL)-big SM-PST-give-FV*

“It is not the small children he gave books, it is the big ones he gave”

(129) Corrective Focus on Locative

Question    Omo-te m-bosio bwe e-nyomba o-tene-i-n-e?  
*CL3 (SG)-tree front of CL9 (SG)-house CL3-stand-  
PRES-FV*

“Is the tree standing before the house?”

Answer    Yaaya, Maega ye e-nyomba.  
*NEG, behind of CL9-house*

“No, it is behind the house.

If we consider the questions in the paradigm (123) to which they are answers to, they cannot be considered the most felicitous or the most appropriate replies expected in the given contexts. There is a feeling that an affirmative version of the reply is more appropriate; only that the facts in the context will not fit with the answer. If the state of affairs that the negation denotes do not hold, the replies, from a communicative point of view are appropriate as answers to questions such as, *Which children do you think he did not give the books to?*. The answer's constituent with the negation, like ‘...he didn't give the big ones.’ will for instance evoke the pragmatic presupposition carried by the question ‘*Which children didn't he give books to?*’ The affirmative answer is unmarked in relation to the presuppositional features in the questions given above, the negative answers are marked. However, if the question that bears negation is asked, the presuppositional features will be satisfied, but the negation will be topical and not focal in such a context.

The theoretical explanation given on how negation behaves in relation to information structure in Lambrecht's theory is not exhaustive. The notion of assertion which is stipulated is not expounded on to include the way negation behaves alongside the use of the focus sensitive particles such as{-oka} in Ekegusii which corresponds to *Only* in English. Focus particles relate new propositions containing focussed constituents with contextually available propositions containing alternatives (Hasegawa, 2010). Focus particles as per Konig (1999) are classified into two sub-classes, additive and exclusive particles. *Only* is an example of an exclusive particle, whereas *also* and *even* are additive particles.

For exclusive particles, propositions containing alternatives are part of the set of true propositions. The particle -ka (*only*) expresses two propositions, and excludes one proposition from the set of contextually accepted propositions. The exclusive particle *only*, besides being a focus expression, in the sense of not being in the presupposition of any constituent in the antecedent clause, is assumed for licensing of Negative Polarity Items (NPIs). It does so by excluding one of the topical expressions in the preceding clause. The exclusive particle is also considered to have a negative meaning. Besides expressing an exclusive proposition it has a secondary negative proposition as given below:

- (130) a. Primary exclusive proposition:  $P(f) \wedge \forall x (x \neq f \rightarrow \neg P(x))$
- d. Secondary negative proposition:  $P(f) \wedge \forall x (x \neq f \rightarrow \neg P(x)) \rightarrow \neg Q$ .

Where  $Q$  is a contextually determined proposition. The secondary negative proposition says that if the primary exclusive proposition holds, the contextually determined proposition does not.

- (131) Moraan bweka ocha.

‘Moraan only came’

$(\text{came}(\text{Moraan}) \wedge \forall x (x \neq \text{Moraan} \rightarrow \neg \text{come}(x))) \rightarrow \neg Q$

(Which means that Moraan’s coming implies that a contextually determined  $Q$  does not hold)

Horn (2002) introduces the notion that the phrases that are in the scope of *only* (the prejacent) are “assertorically inert”. He defines assertoric inertness as:

Semantically entailed material that is outside the scope of the asserted, and hence potentially controversial, aspect of utterance meaning counts as ASSERTORICALLY INERT and hence as effectively transparent to NPI-licensing and related diagnostics of scalar orientation. (Horn 2002: 62)

The exclusive particle {-ka} “only” licences Negative Polarity Items (NPI)s given that the prejacent of only is assertorically inert. Consider example (132), there is no individual to substitute for the constituent marked by the exclusive particle *bweka* “only”, Mora: there is no one other than Mora who came.

(132)           Mora bwe-ka o-ch-a

*Mora SM-PTL SM-come-FV*

‘Only Mora came.’

- c. Prejacent: Mora came
- d. Assertion: No one except Mora came
- e. yMora came and there is nobody other than Mora who came
- f. Mora’s coming entails that a contextually determined proposition Q does not hold

The exclusive particle *Only* and everyone except express both a prejacent and an exceptive proposition.

In the answers given below in (133-134), the word {-oka} “only” comes after the subject that it associates with and is used to licence the topic expression that precedes it:

(133) Question    Omambia n-ko-nyw-a a-re ama-rwa amo ne esigaara?

*Omambia Foc-INF-drink-FV SM-is 5(PL)-beer and  
9(SG)- cigarette*

“Does Omambia drink beer and smoke?”

Answer    Yaaya, Omambia n-'ama-rwa oka a-ko-nyw-a.

*NEG, Omambia Foc-CL5(PL)-beer only CL1(SG)-INF-  
drink-FV*

“No, Omambia only drinks beer.”

In some cases the focus sensitive particle, {-oka} only, occurs sentence finally after the focussed constituent as in the examples given below:

(134) Question    Ateeka n-'a-bwaat-e e-nyomba n-'e-ngombe?

*Ateeka Foc-Cl SG-Φ PRES-has CL9 SG-house and CL-  
9 SG-cow*

“Does Ateeka have a house and a cow?”

Answer    Yaaya, ni-igo a-bwaat-e e-nyomba yo-oka.

*Neg, Foc-PTL 1(SG)-has-FV 9(SG)-house OM-only*

“No, he has a house only.”

(135) Question    Mayieka n-'ebi-rogo na ebi-kooroto a-reent-et-e?

*Mayieka foc-Cl7-pl-chair and CL7 PL-shoe Cl SG-  
bring-PST-fv*

“Did Mayieka bring chairs and shoes?”

Answer Yaaya, Mayieka niigo a-reent-et-e ebi-rogo bi-oka.

*No, Mayieka PRT CL1 SG-bring-PST-fv CL7 PL-chair  
CL7-only*

“No, Mayieka brought shoes only.”

(136) Question Ba-ana ki a-e-t-e ebi-taabu?

*CL1(PL)-child which M-PST-give-FV CL7(PL)-book*

“Which children did he give books?”

Answer Ni-igo a-e-t-e aba-ana aba-ke bo-oka

*Foc-PTL CL1(SG)-PST-give-FV CL1 (PL)-child  
CL1(PL)-small only*

ebi-tabuta-e-ti ba-ari aba-nene

*Cl(PL)-book, NEG-PST-give CL1(PL)-those*

*CL1(PL)-big*

The sentences involving the use of only alongside the negative are not accounted for in the literature. They can be seen as involving a pseudo-correction sequence and some ellipsis of one of the topic expressions in the surface by the use of only. In this case the presuppositions are not a determinant of the exclusion of one of the topics. The answers have an additional anomaly besides their denial of some matter in the previous sentence, because the conjunction behaves like the logical disjunctive connector ( $\vee$ ). The responses are felicitous responses for example of ‘Did Mayika bring chairs or shoes?’ but the question to which they are answers to is ‘Did Mayieka bring chairs and shoes’ in which case we expect an

affirmative answer. It seems that negation has a tendency of surfacing under anomalous pragmatic conditions.

The final pattern we consider, given in (137), is of verum focus (verb focus) that can be considered as a subtype of correction focus. In this case, the verb is corrected, unlike cases in which the arguments and complements of the verb receive focus, when the negative is inserted. In this case the proposition, “She got the book” is denied by the proposition “she did not get the book” in the answer.

(137) Question    Na-nyoor-et-e ege-tabu eke a-reenge ko-rigi-a?

*Did-get-PST-FV 7(SG)-book which 1(SG)-PST-is INF-PRES-look-FV*

“Did s/he get the book s/he was looking for?”

Answer    Yaaya, ta-nyor-ee-ti ege-tabu a-reenge ko-rigi-a.

*No, Neg-get- PST-NEG 7(SG)-book 1(SG)-PST-is INF-look-FV*

“No, s/he didn’t get the book s/he was looking for.”

The sentence given above has been analysed as discontinuous negation (de Zwarts, 1999) or Negative Concord (Giannakidou, 1998). The negative particle is followed by a verbal with two negative affixes: a negative prefix and suffix, all of which contribute to one negation in the semantics.

Before wrapping up the discussion of the corrective focus example in which the operator Yaaya “No” is involved, it is in keeping to find out whether it is a scope bearing marker in the contexts it occurs. Does the scope of the negative phrase affect the scope of *oka* “only” in the sentence where they co-occur. It is important to recognize that the negative operator

Yaaya “No” or the other forms of expressing negation and the exclusive particle Oka “only” do not have the same syntactic properties in Ekegusii. The negative constructions are typically inserted in before the words the scope over, whereas the exclusive particle comes after the words it modifies. The syntactic positions are illustrated using the negative word tari “Not” and -ka “Only” in (138) below. The word bweka “alone” in example b is homophonous with the particle bweka “only”. In example (a) below, the word tari is an isolated negative, whereas the second is an incorporated negative morpheme {ta-}. In general, the negative expressions are placed before the words they scope over whereas the exclusive particle comes after the words or phrases they scope over in Ekegusii.

- (138) a. Ta-ri Ogasusu bwe-ka ...

*Neg- PRES TNS- is Hare SM-alone*

Not Hare only....

- b. Ogasusu ta-ri bwe-ka...

*Hare Neg- PRES TNS- is SM-alone*

Hare not-is alone...

The negative operator subsumes the exclusive particle under its scope, while the exclusive particle only scopes over the the noun it modifies. In some sentences the exclusive particle renders part of the matter that is introduced by the negative by rendering part of the clause inert, resulting in a positive clause and the negative part is deleted in the surface as in the case given below in (139).

(139) Question Ateeka n'a-bwaat-e e-nyomba n'e-ngombe?  
*Ateeka OP-SM-have-FV OM-house and OM-cow*

“Does Ateeka have a house and a cow?”

Answer Yaaya, niigo a-bwaat-e e-nyomba yooka.  
*Neg PTL SM-have-FV OM-house only*  
“No, he has a house only.”

The negative operator yaaya “no” in (139) above refutes some of sense of the proposition which is expected in a forgone sentence. However it does not have any scope over the affirmative clause. The exclusive particle, yooka “only” has scope over the noun phrase enyoomba “a house”, whereas the negative can be assumed to scope over the deleted bit of the clause. .

The interaction between the exclusive focus sensitive particle, only, and negation in ekegusii varies as per the type of negation involved. In the double concord cases, the multiple realized negation scope over the entire clause, in the interaction of negation with the exclusive particle, it either scopes over a deleted negative clause or it scopes over the entire clause including the particle Only, or they have asplit scope whenever the particle Only renders the assertion inert.

To close our discussion, negation can be considered to be focussed, since it is not presupposed in the preceding contexts that it arises from in an information structural analysis. The focus feature allows the negation to surface in constructions though it is semantically vacuous. The notion of the proposition being divided into two chunks, one pragmatically asserted whereas the other is pragmatically presupposed does not hold when

negation has the focus sensitive particle sensitive particle *only* (*oka*). The particle *Oka* (*only*) introduces assertorially inert proposition which is only visible to the semantics and not the pragmatics of the sentence. The theory eschews semantic aspects that would enable us to describe the focus sensitive particles.

### 3.3.2.: Wh-movement

In this section we turn to how information structural considerations, topic and focus interact with *wh*-movement, which usually considered a syntactic process that affects the formation of *wh*-questions and the movement of the *wh*-phrase in adverbial clauses, especially when adverbial clauses are moved to the left periphery. Ekegusii typical adverb and object *wh*-phrases are moved to the left periphery partly due the effect of the *wh*-criterion, and partly due to information structural considerations. *wh*- subject phrase extraction occurs in situ, but Ekegusii has a subject *wh*-phrase extraction in which a resumptive pronoun occupies the position that should be occupied by a gap behind left by a *wh*-subject when it is moved to the right periphery

*wh*-questions are forms of *wh*-movement; which entail some movement of the *wh*-phrase from the point of extraction to a sentence peripheral position or some intermediate position (stranding or partial *wh*-movement) due to information structural and scope interpretation considerations.

Full *wh*-movement entails the movement of the *wh*-phrase to the left periphery or to the right periphery. It is not entirely restricted to moving into the right periphery. Some *wh*-movements that involve focus reconstruction effects may also move the *wh*-phrase to the right periphery. Movement of the *wh*-phrase to the right periphery involves the extraction of the *wh*-phrase in the *Wh*-subject then moving it to a sentence final

position leaving behind a trace that is repaired by a resumptive pronoun as shown in example (140) below.

(140) E-ki Ki-a-be-et-e ni-nki?

*7SG-RES PRO. 1SG-is-PST there Foc-which?*

‘What happened is which?’

In Ekegusii, the *wh*-phrase in most of the *wh*-questions used in this study did represent the focus element, and the answers provide new information. Both *wh*-phrases for sentential elements typically realised in pre-and post-verbal positions undergo movement. In simple *wh*-questions, the *wh*-word moves from its original site, *wh*-subject, *wh*-object or non-argument positions, to a specifier position (SPEC CP), leaving a trace in its extraction site.

For instance the example in (141) below involves the movement of the *wh*-phrase from the *wh*-subject to a specifier position where it can give the scopal interpretation of the sentence as a question. In this case the *wh*-phrase is moved out of the specifier of IP in the CP for purposes of focalization. In this study we hold that the subject *wh*-phrase occurring in the sentence initial position is focussed *in situ*, and so does not move to a left peripheral position which is assumed to be a criterial position for assigning a focus interpretation and to assign scope.

(141) Ni-*ng’o<sub>i</sub>* bw-oma *t<sub>i</sub>*?

*Foc-who 1SG-dry-Ø-PST TNS*

“Who dried?”

Pressuposition: Someone dried.

Open Pressuposition: “the person who dried has x identity”

Assertion: The desire to know the identity of the person who  
dried.

Focus: X dried

Focus Domain: Operator (Wh-phrase)

The example in (141) above is a canonical construction: a type of subject raising construction; the wh-word thus does not entail any movement into the left-periphery as other wh-phrases as observed to do. Besides, the construction has the same characteristics as the argument focus construction as per the description given in Lambrecht (1994). In the Lambrechtian approach (cf. Lambrecht, 1996: 282), it is not declarative sentences only that have assertions. Interrogatives also do. The argument focus construction has a subject that is focussed, while the rest of the sentence constitutes segments that carry presuppositions and are therefore topical. In the sentence given above, the sentence asserts the desire of the speaker to know the identity of the person or persons who have dried. The interrogative sentence is equally assumed to carry presuppositions; this is despite the fact that it does not have any preceding context. This contradicts the basic premises on which Lambrecht’s theory, that is, the notion that only topical expressions that are introduced in a preceding context can bear presupposition. If the words in a question can be presupposed in the absence of prior mention, then we can revert to the old assumption that there are constituents that inherently presuppositional. The notion of inherent presuppositionality depends on the assumption of modality, or “worlds” which is avoided in the theory Lambrecht sets out. The argument for inherent presuppositions is raised in relation to quantificational

determiners and not verbs (cf. Cresti, 1995: 70). We cannot justify the notion of wh-questions bearing presuppositions in any of their constituents in the absence of a preceding context unless the notion of modality, or extralinguistic aspects of language are brought into play.

This study holds that the wh-feature, the Focus feature comes into play in order to have the questioning word moved to the left peripheral position. The analysis of the movement of the wh-phrase from the wh-subject differs from the *wh*-verb complements (objects and adjuncts) because they do not occur in the sentence final positions in some wh-questions, which can be considered the canonical position. Hence the extraction of *wh*-verb complements entails *wh*-movement. The *wh*-questions in (142) below involve the adjunction of *wh*-phrase from the post-verbal position to a preverbal position where it gives scope interpretation to the clause.

- (142) a. N-g’ai e-ndo e-beer-et-e?

*Foc-where 9SG-lion 9SG-is-HOR-fv*

‘Where is the lion located?’

- b. N-g’ai e-mbori ya-re-eng-e aa ya-geend-a?

*Foc-where CL9SG-goat CL9SG-is-PST-fv here CL9SG-go-*  
*ØPST-FV*

‘Where did the goat that was here go?’

Ekegusii exhibits two *wh*- subject phrase extraction patterns: one in which resumptive pronouns occupy the position that should be occupied by a gap behind left by a wh-subject when it is moved to the right periphery. This occurs in order not to have the sentence getting ill-formed; thus the moved element leaves behind a resumptive pronoun. The constructions given in

(143- 144) illustrate the use of resumptive pronouns in cases where the question wh-phrase moves to the right. Pragmatically, the constructions are used when the speaker already knows the answer to the question or for rhetorical purposes when the answer is already provided or can be construed from the preceding discourse. It is structured to distinguish it from the information seeking type of wh-question.

- (143) a. O-yo o-re-nge oo ning’o?

*1SG-RES PRO. 1SG-is-PST there Foc-who?*

‘The one who was there is who?’

- b. E-ki ki-a-ger-et-e obo-kima bo-ka-yi-a ni-nki?

*7SG-what 7SG-INF-make-FV 14SG-porridge 14SG-PST-cook-Fv Foc-what*

“What made porridge to cook is what?”

In the examples (143 a. & b.) given above the sentence initial pronouns “oyo”(who) and “eki” (what), that replace the moved subject, to occupy a position that should be occupied by a gap in the process of moving the wh-phrase from the wh-subject in the sentence initial position to the sentence final position. The resumptive pronoun has the same interpretation as that of a gap and it is bound by the operator subject wh-phrases (ning’o “who” and ninki “what”). However the resumptive pronouns in Ekegusii cannot alternate with gaps, this is not possible as shown by the example of the question with a trace shown below.

- (144) \*  $t_i$  O-ren-ge oo ni-ngo?

*\* $t_i$  1SG-is-PST there Foc-who*

“The one there is who?”

The notion of *wh*-movement is based on how one construes the manner the *wh*-phrase is extracted. If one considers that the underlying clause is a matrix clause as (a) then we can consider there to be a case of multiple *wh*-movement. The *wh*-phrase will first be extracted from the Subject that is in Specifier position, due to Topicalization considerations, that is the name Ombui is already in the interlocutors memory, thus it is presupposed and can be interpreted as being topical, then it will be moved to the Spec, CP from which it will move to the sentence final position for emphasis or due to contrastive focus or a focus feature that has been activated to render to the presupposed information some prominence. In that case it entails multiple *wh*-movement.

However, if clause (143 b) is considered to be the one the *Wh*-phrase is extracted from, then it will be a case of the Subject being moved out of the Specifier position after specifier raising has occurred to the sentence final position before the extraction occurs. In the second case, the focalization would already have occurred and the *Wh*-criterion would be the sole reason for extraction. The movement of either the multiple moved *wh*-phrase or the lexeme is driven by information structural considerations but the formation of the *wh*-question in example 145 (b) below.

(145) a. (i.) Ombui n-e-ere o-reenge oo.

*Ombui Foc-one CL1 SG-ØPST-is there*

“Ombui is the one who was there.”

*Or N’Ombui oreenge oo.*

*Foc-Ombui CL1 SG-ØPST-is there*

“It is Ombui who was there.”

- ii. E-ngareka neero ya-ger-et-e obo-kima bo-kayia  
*Foc-9CL(PL)-envy make-PST-FV 14SG-porridge 14SG-PST-cook-Fv*
- Or* N'-eng'areka ya-ger-et-e obo-kima bo-kayia  
*Foc-9CL(PL)-envymake-PST-FV 14SG-porridge 14SG-PST-cook-Fv*
- “Envy is the one that made food to cook”
- b. (i) Oyo o-reenge oo n' Ombui  
*RES CLI SG-ØPST-is there is Ombui*  
 “The one who was there was Ombui”
- (ii) Eki kiagerete obokima bokayia n'engareka.  
*7SG-what 7SG-INF-make-FV 14SG-porridge14SG-PST-cook-Fv Foc-envy*  
 “What made porridge to cook is envy.”

It is evident that movement can occur after other forms of syntactic movement have taken place. Syntactic movement leaves behind traces or resumptive pronouns, hence as much as information structural aspects are involved; the information structural features do not switch off syntax but act through it for information to be conveyed.

### 3.3.3.: Focus Stranding in Main Clauses

Focus stranding, a form of short-distance, clause internal or intra-clause stranding, is characterized by the movement of sentential constituents from their canonical position to another within the clause, either to a non-argument position or to a non-operator position, after the probe of the focus

feature occurs during the merge process. The movement occur due to information structural consideration because it receives a different interpretation from the canonical construction in which the constituent does not move and is focussed *in situ*. Partial wh-movement is also a type of focus stranding.

The constructions below in (146), though they share the material that is asserted, the sentence in (i) has a distinct presuppositional structure from the one in (ii). The former has an additional interpretation that it is a specific chair, a reading that cannot be given to the latter. Hence the two constructions are not synonymous.

(146) Question: Ni-nki Omo-kungu a-go-ak-a?

*Foc-what CL1(SG)-woman CL1(SG)-PRES-hit-FV*

What is the woman kicking”?

Answer: a. (i.) Omo-kungu [n'-eke-rogo ]<sub>fa</sub>-go-ak-a. (SOV)

*CL1(SG)-woman Foc-CL7-chair CL1(SG)-PRES-hit-FV*

“The woman the chair is kicking.”

Presupposition: The woman X is kicking

Assertion: Something=a chair

Focus: 'chair'

(ii.) Omo-kungu n-go-ak-a a-re eke-rogo.(SVO)

*CL1(SG)-woman Foc-INF-PRES-hit-FV SM-PRES-is*

*CL7-chair*

“The woman is kicking the chair.”

Presupposition: The woman is kicking X

Assertion: Something = a chair

Focus: 'chair'

- b. [IP Omo-kungu [FP n'-eke-rogo<sub>i</sub>[VP a-go-ak-at<sub>i</sub>\_\_\_\_.]]]

CL1 Sg-woman Foc-CL7-chair CL1 SG-PRES-hit-fv

“The woman is kicking the chair.”

In Ekegusii, the focus feature can act on a constituent, moving it out of its base position but further movement to the left periphery is blocked. In most cases the object is stranded in a preverbal position immediately after the subject as shown in (146, b) above. A similar case involving topical movement was dealt with earlier on in topical movement. Hence this movement is not restricted to the effect of the topic feature, but is an information structural movement in general.

The focus stranding is not only restricted to matrix clauses, wh- questions also undergo stranding when the wh-phrase fails to reach the sentence initial position or the sentence final, which is the criterial position for focus assignment. The paradigm in (147) below illustrates the wh-extraction case in which the object wh-phrase occurs is stranded and fails to access the sentence initial position in which it can assign scope to the rest of the question. Whenever the object wh-phrase is moved, it leaves a trace in the canonical post-syntactic position from which it is extracted, and where its phi-features are preserved. It however does not alter the interpretation of the sentence. This construction may be the most felicitous in eliciting of object shift constructions that are realized in the language.

- (147) a. O- rengerereti Ni-nki<sub>i</sub>Morara a- kor- a t<sub>i</sub>?  
*1C(SG)- think Foc-What Morara NOM 1C(SG)- do- FV*

‘What do you think Morare did?’

- b. Morara ni-nki<sub>i</sub> a- kor- a t<sub>i</sub>?  
*Morara Foc-What 1CL(SG)- do- FV*  
 ‘What did Morara do?’

The example (148) below illustrates the stranding of an adverbial wh-phrase. The overt pronoun occurs in the sentence initial position in which it functions as the topic of the clause. Because of the information structural function of topic, the overt pronominal is preferred to a focussed element. Hence the question operator fails to reach the sentence initial position in which it can assign scope to the rest of the sentence.

- (148) E-chi-inde n-g’ai chi-a-geend-a?  
*SM-CL9(PL)-other Foc-where CL9(PL)-PRES-go-FV*  
 ‘Others, where did they go?’

The *wh*-phrase in the example (148) above does not leave behind a trace, because adverbs are meant to be adjoined in any point in the clause.

### 3.3.4.: Focus Driven Movement of Adverbial Clauses

Focus driven movements of adverbial clauses in Ekegusii are realized in two patterns, one in which the subordinate clause is within a single focus domain, and a second in which a topic relation, functioning as subject, is moved into the position immediately after the complementizer (Force<sup>o</sup>). The latter pattern in temporal and conditional adverbial clauses in Ekegusii occurs because they optionally exclude main clause phenomena (MCP)

such as argument fronting unlike English (Cf. Haegeman, 2009). The left periphery has a number of discoursal functions like establishing referential coherence (which will be dealt with in chapter four), foregrounding and backgrounding of information, which are not under consideration here.

We first consider the movement of subordinate clauses to the left periphery that affected focus feature in discourse and the entire clause may be within a single information focus domain. Examples of clauses that are so moved to the left periphery because of a focus feature and perhaps in order to fulfill discoursal requirements like changing the attention of the speaker, include: *ekiagera* “because” and *ase engecho* “by way/ reason” relative clause of reason as in the following underlined subordinate clauses given here in (149) below. The examples involve movement of the adverbial clauses without argument movement to the left periphery, however topical clitics can be realized in some of the clauses moved to the left periphery, as in the conditional clause in (149) below.

(149) Temporal adverbial clause movement

(Contextualizing co-text):

[Rituko erimo abanyene omochie bakageenda mogoondo maambia.  
Bagatiga abaana inka.]

(one day the owners of the home went to the shamba. They left the children at home)

Ekiagera obo-keendu bwa-reng eo, aba-ana a-bwo ba-gauta omo-rero  
omo-onge ba-ot-e.

Because 14pl-cold PST-is, 1pl-child 1pl-that 1pl-pst-light 3pl-fire  
3pl-a lot 1pl-warm-refl

Lit. [...] Because coldness was there, children those lit fire a lot.

(Contextualizing co-text):

[Buna ekona kobeekwa riteera igoro kwagachia, ereru niigo ekoboeranigwa chindigi chimbibo, chitanyare gosansooka, gose goswenta goocha nse.]

(As it is being roofed, the ceiling is strengthened with strong twigs, so that it won't loosen, or to sink in.)

*FOC[Ama-kia aya,\_FOCase engencho eme-goye e-gor-et-e, chi-reru ni-15pl-Times this, because 3pl-barks 3pl-lack-pst-fv, 9pl-stumps*

*igo chi-go- akerani-gw-a eme-sumari.*

*foc-ptl 9pl-is Hit-PASS-fv 3pl-nail*

Lit. Nowadays, because the barks are rare, the building posts are nailed.

#### (150) Conditional adverbial clause movement

(Contextualizing cotext): Describing what happens and is done when lightning strikes

[Ekeru chiinguru chiaichoire ase amare ime, chiaateka na gosookia obomesu bokogosa.]

(when the clouds have been charged, they burst and release flashes of light)

*FOC [Onye  $\Phi$  [chi-] ire [chi-] nyiinge mono goetania ekerengo],  $\Phi$  chiarunda gochia nse chisoe amaroba ime.*

Lit. [when the energy/powers is/are saturated in the clouds, it bursts and releases flashes frightening.]

If  $\Phi$  they-are too much than the required amount,  $\Phi$  they-flow down and get into soil.

- (151) (Contextualizing cotext): Describing what happens and is done when lightning strikes

[Beegena ng' a onye niigo enkoba yamoaka endigitani y' obwoba, nabo eriogi erio riragere abe buya, abooke.

(They believe that if lightning hit the person into shock from feat, maybe the noise can make the person to be well)

FOC [Onye TOP[ya- TOP[mo- FOC[-itire TOP[o-kuu-r-e], niigo a-go-tubw-a ama-tiicha aria

*If SM-OM-pres-kill OM-die-PRES-fv, ptl OM-cover-fv cpl-soil that  
a-se ya-a-mo-it-er-a.*

*16-where SM-OM-kill-pres-fv*

- Lit. They believe that the lightning gave him a shock, perhaps that noise can cause him to be well, to wake up. If it has killed him to death, he is covered with clods where it killed him.

The Onye clause “IF-clause” in (151) above has a focus interpretation because it introduces an unpreserved proposition into the discourse. In the Onye-clause above the topic element is not realized both in the main and the matrix clause and can only be resolved using the topic subject markers {*chi-*} “they” incorporated in the verb *-ire* ‘is’ and the quantifier *-nyiinge* ‘much’. The subject marker aids in recovering the ellipted subject. The clause is ill-formed if it stands on its own, because one cannot then tell what it is about.

The movement of temporal and conditional adverbial clauses to the left periphery is in some contexts accompanied with the movement of topical elements such as the subject nominal phrase (topical arguments) and clitics incorporated to verbs and adjectives in Ekegusii. The analysis of such clauses gives the impression that there has been some form of information partitioning of the subordinate clause as in (152) below. The noun phrase *Chiinguru echī* “These powers/energies” is topical and it is moved to the subject position of the relative clause while the subject position in the main clause, where it is supposed to be, is left empty. In this case the movement to the left of the wh-clause involves the pied piping of the subject to fill the empty subject slot in the subordinate clause. In the sentence (152), the subordinate clause includes a topic subject in the main clause, while

(152) Movement of Topic subject into topicalized adjunct

(Contextualizing Co-text): [Chiinguru echī niigo chigotooka chiinsemo ao ao.]

(These energy is found in various points )

Ekerō <sub>TOP</sub> [chi-inguru e-chi] <sub>FOC</sub> [chi-a-icho-ir-e ase ama-re ime],  
*When 9pl-energy SM-pl this 9pl-Pres-fill-fv in pl-cloud, Φ chi-aatek-*  
*a na go-sooki-a obo-mesu bo-ko-gos-a.*

*Φ 9pl-break-fv and Inf-release-fv 14pl-flash 14pl-inf-scare-fv*

- Lit. [These powers are found in various parts.] When these powers fill in the clouds, *Φ* they-burst and release flashes frightening.

(153) Movement of Topic Object into Adjunct clause

[Orabia ase ayio na koyachecha buya. Ogokoora, ochaka korosa enyomba.]

Onye FOC [TOP [o- ] gan-eti-e TOP [e-nyomba] e-re O, rirorio niigo *If SM(1sg)-pres-desire-fv 9sg-house 9sg-is there, then ptl a-go-ak-er-a eke-gingi gati gati ase a-ria a-chech-ir-e.*

*SM-inf-hit-Appf-fv 7sg-peg red-centre 16-there 16-where 16-dig-pst-fv*

- Lit. [He slashes that place and straightens it well. Finishing, starts setting the house. ] If he wanted the house to be there, then he used to put a peg at the centre of the straightened ground

The same happens in the context of left peripheral reason clauses as in (154) below.

- (154) [Abarwani ba Gusii bakanaaria Abasongo ase bareenge.]

FOC Ase engencho TOP [aba-songo] ba-many-et-e ng' a ama-timo y' Aba-gusii

*Because SM(1pl)-white 1pl-know-pst-fv that 15pl-spear of 1pl-gusii ta-ako-bua chi-mbuunde chi-abo, ba-ga-chaay-a Abagusii mono mono.*

*Neg-Inf-beat 9pl-gun 9pl-their, 1pl-inf-spite-fv Abagusii Red-much*

- Lit. [Gusii fighters besieged where the white-men were.] Because White-men knew that Abagusii spears cannot beat their guns, they despised the Abagusii so much.

- (155) [Abaana ba Bochaberi boonsi niigo babwate ebieni amaache ko, tibareenge n'oboongo- bw'gosooma.]

[Ase engeecho TOP [Bochaberi] FOC [TOP [ne-]ere mo-buucha ibu], aba-ana ba-aye niigo

*Because Bochaberi Foc-is 1bsg-fetcher ash, 1pl-child of-her ptl*

ba-chaay-et-e aba-iga ba Nyorosa, neere Nyamesaanchwa.

*Ipl-discriminate-pst-fv Ipl-these of Nyorosa, being the second wife*

- Lit. [All Bochaberi's children had great beauty but they did not have brains for reading. ] Because Bochaberi is the first wife, her children despised these ones of Nyorosa, the second wife.

The reason adverbial clauses presented (154-155) above include the topic subject in them. In sentence (155) the topical entity Abasoongo “white-man” is realized there because there is a shift in the subject from the previous sentence. In the second sentence, the clause maintains the subject which was introduced in the previous sentence; however, the previous sentence seems to be different since the participant is in the genitive case, whereas in the subsequent sentence she is the one new information is added about in the subordinate clause.

The clauses represented above (in 152-155) are analysed in the literature (c.f. Haegeman, ) as unique cases of subordinate cases that violate the requirement that topical arguments should not be realized in the subordinate clauses. The tendency is parametrized as an inviolable constraint in syntax; however, we have seen that it can be violated in order to fulfill discourse structuration constraints. The clauses are however moved to the left peripheral positions to express a focus interpretation (introduce new information). The topic constituents are included because there is a slight shift in the sense of a given topic, or the fact that an object has been elevated to a subject to be talked about in the current clause. Such behavior is due to the need to generate coherent speech which is further dealt with in Chapter four.

### **3.4.: Optimization of Non-Canonical Constructions**

In this section we give an Optimality Theoretic analysis of the constructions that are affected by information structural considerations, topic and focus, in order to move either to the left or the right peripheries of the clauses, to be stranded in marked positions in the clause, and some constituents get deleted or inserted in the clause. Most of the analyses employed in this section greatly rely on the development of constraints in Optimality Syntax literature primarily by Grimshaw (1997), Costa (2004) and Samek-Lodovici (2006).

Some matrix and complex sentences in Ekegusii given in this chapter undergo fronting or some form of movement to an intermediate position and are accompanied with marked word orders. The constraints that are normally used to derive word order permutations in matrix clauses stipulated in the literature for Optimality Theory consist of information structural constraints: ALIGN FOCUS (the rightmost constituent bears focus) and TOPIC-FIRST (the topic is clause initial), this constraints are meant to preserve the canonical form alongside with the case preserving constraints that are basically syntactic in canonical word orders that we examined in Chapter Two. The case assigning constraints, SUBJ-CASE and OBJ-CASE, that require the subject and object respectively to occur in their case positions, the functional projection constraints such as: SPEC-IP AND SPEC-AGROP; and the economy constraints that militate against constituent movement such as STAY are seen to be responsible for determining whether the canonical word orders are preserved or re-ordered to suit the interpretation of the clause in given contexts ( most of the syntactic constraints are discussed in Grimshaw (1997)). This are the patterns that were manifest in the canonical constructions in chapter one.

To account for movement, most of the constraints that maintain the basic word order are dominated by the information structural constraints that drive movement to the left periphery, such as the alignment constraint, ALIGNFOCUSLEFT, which is responsible for some cases of *wh*-movement to the Low Focus position in the exploded CP when it dominates case licensing constraints and STAY which militate against movement of constituents during internal merge. However, this cannot be fully adduced in cases where the movement of constituents is stranded within the main clause.

To account for head movement during the process of internal merge to a phrasal or clausal specifier positions, especially for the wh-phrases functioning as heads (as COMP) of the embedded clauses in the Complementizer phrase (CP), in order to fulfilling the edge requirement a specific constraint is required. We adopt Zepter's (2003) constraint LEX(ICAL) HEAD EDGE for accounting for the surfacing of lexical heads on the edges of phrases and clauses. This constraint is considered to be licence non-uniformity in configurations, which result in non-canonical word orders. LEX HEAD EDGE- forces lexical heads to surface at the edge of their local phrases, i.e., closer to the edge than any complement or specifier. LEX HEAD EDGE demands edge alignment without specifying one particular edge. Both a left-peripheral and a right- peripheral orientation are equally satisfactory to this constraint. In this form of analysis all languages share the characteristic of preferring the configuration [spec [head-comp] in some environments, and mixed patterns are the result of answering the needs of LEX HEAD EDGE in different ways. This constraint is in conflict with the constraint Operator Specifier

(OP-SPEC) that moves operators instead of lexical heads to the specifier position.

In cases where movement stranded, that is, a constituent is moved to an intermediate position, there is need to think of the constraint that bars the movement to the left periphery. Some Linguists perceive that the cases of movement within the matrix clause may not be due to information structural considerations because the constituents do not move to the Complementizer Phrase Position in the left periphery.

Constraints that facilitate transformations at the clausal level are:

- those that license the movement of constituents : FOCSCOPE, ALIGN FOCUS, ALIGN TOPIC
- those that license the deletion topicalized constituents: DROPTOPIC
- those that insert or strand constituent

Faithfulness constraints that preserve the canonical form of clauses:

- those that licence the insertion of structure or constituents into clause: \*STRUCTURE,
- those that restrict movement: STAY
- those that restrict deletion: PARSE

The ranking of the marked-ness constraints, which here include the information structural constraints over the faithfulness constraints determine the transformations that we analyse in the constructions examined in this section of the thesis.

### **3.4.1.: Optimization of Topic Driven Transformations**

This section gives an optimality theoretic analysis of topic driven word order permutations in matrix and embedded clauses. The movement of nominal and pronominal objects attested in the language is analysed using the optimality theoretic constraint ALIGN TOPIC LEFT, which induces the movement to the left, which can be blocked by other constraints that make the object not move to a left peripheral position. Besides, the elements that are moved into the left periphery undergo some reconstruction; some topical expressions that are assumed to be discourse old are deleted necessitating further changes to a number of sub-clausal elements. One major reconstruction effect that we will analyse here is the ellipsis of topical expressions due to the constraint DROP TOPIC being ranked over PARSE (or DEP IO).

For accounting for the movement of embedded clauses the set of constraints required is not different from those responsible for operator movement, because of the additional load of issues that come with the derivation of dependent clauses. Grimshaw (1997) considers CP-embedding resulting in complex clauses to be due to bridge verbs that allow for it to occur. CP- and TP- (VP-) embedding can occur if two candidates have the same constraint profile. In cases where there is movement of the complementizer, then we have to account for the complementizer-trace effects. In order to account for wh-movement in

general, because the movement of the complementizer is not distinct from the movement of the questioning word, Grimshaw proposes a constraint that reflects the tendency for operators such as wh-expressions to appear in a specifier position from which they take scope of which OP-SPEC given below is one.

(156) OP-SPEC

A syntactic operator (e.g. a wh-expression) must be in a specifier position which allows it to c-command everything within its scope.

The Topic feature, in the canonical context can influence movement of nominal elements and pronominal elements to the left from their canonical positions to a clause internal position, what we referred to as object stranding in our discussion. The pronominal form surfaces in cases where in the preceding context is topical. In an Optimality Theoretical analysis the null pronominal is the result of the constraint Drop Topic being ranked over the Parse constraint. The analysis of the null pronoun is not distinct from its occurrence within the canonical clause context, because it does not involve any movement, if that were possible. On the other hand the overt pronominal involves some movement to the leftmost position in the clause possible.

(157 a) Movement of the Object Pronoun

[<sub>CP</sub> [<sub>AgpsP</sub> E-mbeo <sub>FOC</sub>[<sub>Agps</sub> e<sub>T</sub>-[<sub>TP</sub> ka-[yo<sub>iT</sub>-[<sub>V</sub> ira emorerot<sub>i</sub> [gochi-a enyomba]]]]]]<sub>F</sub>

“Wind took it toward the house”

(163 b) Pragmatico-semantic representation:

$\langle (\exists_c^1 x) (\exists^1 r) (P(x, r) \& \text{ira} - V(r) \& \text{gochia enyomba}(r)) \rangle$

Embeo  $p ((\tau x) (\exists^1 x, r) \text{Omorero}(y) (P(x, r) \& \text{ira} - V(r) \& \text{gochia enyomba})$

Embeo  $p ((\tau x) (\exists^1 x, r) (P(x, r) \& \text{ira} - V(r) \& \text{gochia enyomba})$

The movement of the object out of its canonical position is triggered by the requirement that topic elements should precede focal ones. This has led to the formulation of constraints that specifically address these phenomena separately, which is not the case in this study. One such a practitioner is Broekhuis (2006), who focuses on object shifting and analyses it without considering the derivation process of all sentential elements, hence he uses an ALIGN FOCUS which targets only the objects, as given in (158) below:

- (158) ALIGN FOCUS : Align objects representing new information to the right edge of the clause.

One constraint found in Broekhuis (2006) which is of use in this study is D-PRONOUN given in (159) below:

- (159) D-PRONOUN : Definite pronouns must move outside of the VP.

To induce movement, this study uses the following constraint ranking to move the pronoun out of the canonical object position to where it is incorporated in the verbal morpheme after the subject marker which blocks its movement above it because it bears the phi-features of the subject. The movement to the leftmost position is blocked by the constraint SUBJECT, which dominates D-PRONOUN and ALIGN TOPIC, unranked because they do not conflict in any way, whereas ALIGN FOCUS is highly ranked because the sentence we are analysing has the subject occupied by a Noun Phrase that is focussed, as shown in (160) below:

(160) Constraint ranking for object shift of object pronominal

ALIGN FOCUS>>SUBJECT>> ALIGN TOPIC,

D-PRONOUN,>>STAY

The interactions of the constraint ranking are illustrated by the constraint tableau given in (3.1) below.

**Table 3.1. Constraint Tableau 6 (by Author)**

Interpretation (input)	Form (output)	ALIGN FOCUS	SUBJECT	ALIGNTOPIC	D-PRONOUN	STAY
Embeo $p ((\tau x) (\exists^1 x, r) (P(x, r) \& ira - V(r) \& gochia enyomba))$	a. [CP [Agrs <sub>P</sub> E-mbeo <sub>F</sub> [Agrs e <sub>T</sub> -[TP ka-[yo <sub>iT</sub> -[v ira <u>omoreret<sub>i</sub></u> [gochi-a enyomba]]]]]] <sub>F</sub>					
	b. [CP [Agrs <sub>P</sub> E-mbeo <sub>F</sub> [Agrs ekaira omorero[gochi-a enyomba]]]]] <sub>F</sub>			*		
Form (input)	Interpretation (output)					
[CP [Agrs <sub>P</sub> E-mbeo <sub>F</sub> [Agrs e <sub>T</sub> -[TP ka-[yo <sub>iT</sub> -[v ira <u>omoreret<sub>i</sub></u> [gochi-...]]]]]] <sub>F</sub>						
g	a. Embeo $p ((\tau x) (\exists^1 x, r) (P(x, r) \& ira - V(r) \& gochia enyomba))$					
	b. Embeo $p ((\tau x) (\exists^1 x, r) Omorero(y) (P(x, r) \& ira - V(r) \& gochia enyomba))$			*		

The case of a full object entails movement out of the VP, to a point next to the Subject and in most cases involves the imbrication of the focus marking morpheme on the object and the deletion of the subject. In order to derive these cases that entail the movement of the indirect object out of the verb

phrase, the constraint ALIGNTOPIC is responsible. This is illustrated by the example of direct object shift in (111) below which is derived in a context closely related to the one dealt with above in (table 3.1). No new constraints are required, reranking the constraints used in (160) above gives us the form given below

(161 a) Question: Ni-*ng'o* omo-saacha a-ko-aama-beere?

*Foc-who CL1-SG-man CL1-INF-ϕ PRES-give  
CL3(P)L-milk*

“Who is the man giving milk?”

Answer: *pro FOC [n'-omwa-ana TOP [á-] kó-à ama-beere]*

*ϕPRO Foc-CL1-child CL1-INF-give CL3(P)L-milk*

“~~The man~~ to the child giving milk”

(161 b) Pragmatico-semantic representation:

$\langle (\exists_c^1 x) \text{ Omosaacha } p(x) \rangle$

$\langle (\exists_c^1 x) \text{ Omosaacha } p(x) \& \dot{a} - V(r) \& \text{amabeere } (r) \rangle$

$\langle (\exists_c^1 x) (\exists^1 r) (P(x, r) \& \dot{a} - V(r) \& \text{amabeere } (r)) \rangle$

Omwaana  $p((\tau x) (\exists^1 x, r) \text{ omosaacha } (y) (P(x, r) \& \dot{a} - V(r) \& \text{amabeere } (r)))$

Omwaana  $p ((\tau x) (\exists^1 x, r) (P(x, r) \& \dot{a} - V(r) \& \text{amabeere } (r)))$

Unlike the pronominal form, the phrasal nature of the full noun calls for us to consider how the constraints that bar the movement of phrasal constituents out of their phase boundaries are violated. The canonical word

orders are linearized by the syntactic constraints, but they are also bound to comply with phasal restrictions. One of the requirements that clausal constituents are supposed to be faithful to is the collocational restriction to case relations in the sentence. The canonical word order of ekegusii is for ditransitive clauses is  $SVO_iO_d$ , but the construction under consideration, due to focus, has the focussed object in the leftmost position, the recipient, after deleting the agent of the sentence. In order to account for the missing subject in optimality theory, the constraint drotopic is ranked over the constraints that require that the input candidates all be realized on the surface, this is done by the following sub-hierarchy given in (162).

(162) Subhierarchy for subject deletion in Ekegusii

DropTopic >> Subject >> Parse

The positioning of the indirect object is also governed by abutment constraints (e.g. Abut-OBJ (V-HD), Abut-NP (CL-HD) and Abut-CLP (Q-HD)) proposed by Morimoto (2001). The abutment constraint can be extended by stating it in relation to the indirect and direct object functions too as: Abut- $O_iL$  (V-HD) and Abut- $O_dL$  (V-HD), the two can be set in a pair in which the former is a winner in a clause. The movement of the indirect object to the leftmost position of the clause is induced by a focus feature too. The subhierarchy for movement of the indirect object can therefore be given as in the subhierarchy below:

(163) Subhierarchy for focus induced movement of indirect object in Ekegusii

ALIGN FOCUS L >> SUBJECT >> STAY, ABUT- $O_iL$  (V-HD)

**Table 3.2: Constraint tableau 7 (by Author)**

Interpretation (input) Omwaana $p ((\tau x) (\exists^1 x, r))$ (P ( $x$ , $r$ ) & à - V( $r$ ) & amabeere ( $r$ ))	Form (output)	ALIGNFOCUS	DROPTOPIC	SUBJECT	STAY	Abut-O <sub>i</sub> L(V-HD)
☞	a. $pro_{FOC} [n'-omwa-ana$ TOP [á-] kó-à ama-beere] <sub>F</sub>				*	*
	b. $FOC[Omosaacha_{TOP[o-}$ kó-à omwaana amabeere]	**!	*			
Form (input) $pro_{FOC} [n'-omwa-ana$ TOP [á-] kó-à ama- beere]	Interpretation (output)					
↘	a. Omwaana $p ((\tau x) (\exists^1 x, r))$ (P ( $x$ , $r$ ) & à - V( $r$ ) & amabeere ( $r$ ))				*	*
	b. Omosaacha $p ((\tau x) (\exists^1 x, r))$ (P ( $x$ , $r$ ) & à - V( $r$ ) Omwaana ( $r$ ) & amabeere ( $r$ ))	**!				

The wh-elements in Ekegusii questions are fronted due to the ranking of violable information structural constraints higher than structure preserving constraints. In the literature, the phenomenon is accounted for by pitting the constraints OP-SPEC, which requires that an operator be in specifier position; \*TRACE, which disallows traces; and SCOPE-OP, which requires that the highest specifier of an extended projection over which an operator takes scope contain a marker of that scope in the form of an instance of that operator. In Ekegusii SCOPE-OP and Align Focus dominate \*TRACE which dominates OP-SPEC. This constraint hierarchy is responsible for the *wh*-fronting in Ekegusii.

- (164) a. Operator in Specifier (OP-SPEC):

*Wh*-operators must occupy a specifier position from which they c-command all elements of the extended V projection over which they have scope.

- b. Lexical Government of Traces (T-LEX-GOV):

A trace is lexically governed.

The constraints given above, OP-SPEC and T-LEX-GOV are ranked above STAY (an economy constraint) in deriving the movement of operators in human languages. In order to account for the behaviour of embedded clauses that are moved to the left-periphery the rankings of the Optimality theoretic universal constraints usually used to account for wh-movement, as those that will later be used to derive wh-questions, are used.

In tableau (3.3) the constraints that generate the preposed when-clause given in (165) are presented. The topic feature influences the movement of the clause to the left periphery. Hence the dominance of Topic Left over Stay determines the fronting of the when clause so that it can serve the role of discourse linking, and for easy access of the hearer to the presuppositions that render the sentences proposition accessible for ease of interpretation.

- (165 a) [TOP]Ekerɔ<sub>i</sub> baateebigwa [COM [TOP]abaibori abwo] [TOPba-]  
[karuta [<sub>v</sub> amakoombe nse  $t_i t_j$ ]]]

- (165 b) Pragmatico-semantic representation:

$$\langle (\exists_c^1 x) \text{abaigori } p(x) \rangle$$

$\langle (\exists^1_c x) (\exists^1 r) (P(x, r) \& \text{teebigwa} - V(x) \& \text{ruta-} V(r) \& \text{amakoombe}(r) \& \text{nse} \rangle$

Amakoombe  $p ((\tau x) (\exists^1 x, r) \& \text{ruta-} V(r) \text{abaigori}(x)(r) \& \text{nse}) \& (P(x, r) \& \text{teebigwa} - V(x)$

In the table (3.3) below, the candidate (a) is a winner because it aligns the topical compliment to the left, whereas the second candidate loses because the clause is not moved out of the canonical complement position. The candidate is a winner despite it violating the constraint, Align Topic by realizing foci in the subordinate clause.

**Table 3.3: Constraint Tableau 8** (by Author)

Interpretation (input)	Form (output)	ALIGNTOPIC	COMP-LFT	STAY	ALIGNFOCUS
Amakoombe $p ((\tau x) (\exists^1 x, r) \& \text{ruta-} V(r) \text{abaigori}(y)(r) \& \text{nse} \& (P(x, r) \& \text{teebigwa} - V(r))$					
☞	a. [TOP Ekerɔ ba- [FOC teebigwa [FOC [TOP abaibori abwo] [TOP ba-] karuta amakoombe nse $t_i t_j$ ]]]	** *		*	*
	b. [TOP abaibori abwo [FOC bakaruta [ <sub>v</sub> amakoombe nse [CP Ekerɔ baateebigwa]]]]	*!			
Form (input)	Interpretation (output)				
[TOP Ekerɔ baateebigwa [FOC [TOP abaibori abwo] [TOP ba-] [karuta [ <sub>v</sub> amakoombe nse $t_i t_j$ ]]]]					
⌚	a. Amakoombe $p ((\tau x) (\exists^1 x, r) \& \text{ruta-} V(r) \& \text{nse} \& \text{abaigori}(y)(r) (P(x, r) \& \text{teebigwa} - V(r))$				
	b. Abaigori $((\tau x) (\exists^1 x, r) \&& \text{teebigwa} - V(r) \text{ ruta-} V(r) \& \text{Amakoombe } p \& \text{nse})$	*!			

### 3.4.2.: Optimization of Focus Driven Non-canonical Constructions

In this section we analyse non-canonical word order in ekegusii (that undergo transformations such as movement, insertion and deletion of elements in the surface forms) due to information structure, with particular reference to focus using optimality theoretic constraints. We argue that the movement is triggered by the constraint ALIGN FOCUS LEFT, because it is assumed that the left periphery is the target of the focus feature induced movement in the clauses.

The wh-phrase given in (166) below involves adjunction to the left periphery.

(166 a) [CP [FOC Ninki<sub>i</sub> [IP omwana [VPA-ko-ria t<sub>i</sub>?]]]]]

(166 b) Pragmatico-semantic representation:

$\langle (\exists_c^1 x) \text{omwana } p(x) \rangle$

$\langle (\exists_c^1 x) p(\text{omwana}, x) \& \text{Ria-V(r)} \rangle$

Ninki  $p(\text{omwana}, x)$  & Ria-V(r)

The adjunction of wh-phrases to the left periphery in Ekegusii is effected by the constraint ranking given in (167) below.

(167) Ranking in Ekegusii for adjunct wh-movement to the left-periphery:

ALIGNFOCUSLEFT, >>OP-SPEC >>T-LEX-GOV,\*TRACE>>  
STAY

In Ekegusii, the OP-SPEC constraint exhibits some conflict with the ALIGNFOCUSLEFT Constraint, because the operator can be moved

without being affected by the Focus feature. In the event of such a case, the ALIGNFOCUSLEFT constraint is dominated by OP-SPEC.

**Table 3.4: Constraint Tableau 9** (by Author)

Interpretation (input) Ninki $p(\text{omwana}, x) \&$ Ria-V(r)	Form (output)	AlignFOCUSLeft	OP-SPEC	T-LEX-Gov	*Trace	STAY
👉	a. [CP [FOC Ninki <sub>i</sub> ] TOP [IP omwana [VPA-ko-ria t <sub>i</sub> ?]]]					*
	b. FOC [CP [IP Omwana [VPakoria <sub>TOP</sub> [VPninki?]]]]	*!				
	c. TOP [CP [IP Omwana [VPakoria <sub>FOC</sub> [VPki?]]]]		*!			
	d. FOC [CP ki] <sub>TOP</sub> [IP omwana [VPA-ko-ria t <sub>i</sub> ?]]]	*!				
Form (input) [CP [FOC Ninki <sub>i</sub> ] TOP [IP omwana [VPA-ko-ria t <sub>i</sub> ?]]]	Interpretation (output)					
✌️	a. Ninki $p(\text{omwana}, x) \&$ Ria-V(r)					
	b. $p(\text{omwana}, x) \&$ Ria-V(r) Ninki	*!				
	c. $p(\text{omwana}, x) \&$ Ria-V(r) Ki		*!			
	d. Ki $p(\text{omwana}, x) \&$ Ria-V(r)	*!				

The optimal candidate violates the STAY constraint because it moves the operator out of the VP to a sentence initial position. If cyclic movement across the VP phase and the Dependent Phrase (DP) is assumed, then the number of violations can be increased to two, since the constraint will be violated any time the constituent is moved. In the sentences (b.) and (c.) given in the constraint tableau, the constraint OP-SPEC which is

responsible for making the operator movement out of the light verb (vP) position to the CP slot does not occur. The first sentence obeys the requirements of the constraint hence moves out of the verb complement position where it leaves a trace. Sentence (c) is basically determined by OPSPEC because it does not bear a focus feature. Sentence (d) is ill-formed, besides it does not realize the focus marking Morpheme {ni-}, meaning that it's movement to the left periphery is purely due to operator movement, however the morpheme cannot be interpreted at that position. Though the sentence satisfies the requirements of the constraint profile, it fails in the realization of the focus marking morpheme, which shows that focus is an attribute of the input specifications, hence it flouts the constraint AlignFocusLeft by deleting the focus bearing morpheme.

In the case of argument positions, *wh*-phrases can originate in SPEC VP or in the complement of the VP. In the table below the *Wh*-phrase originates from an argument position (*wh*-adverbial) where it serves the adjunct (adverb of place/ locative), hence it should adhere to OB HD. Hence OB HD dominates STAY.

(168) Obligatory Head (OB-HD): A projection has a head. (Grimshaw 1997)

In the competition by the candidates given in table (3.4) below the winning candidate satisfies the constraint profile by moving the wh-phrase to the leftmost position. Candidate (b) fails by violating the constraint OP-Spec by failing to move to the specifier position where it can have scope over the entire clause. The last case involves the stranding of the operator within the clause hence fatally violating the requirement of moving to the leftmost position as per the focal requirement.

**Table 3.5: Constraint Tableau 10 (by Author)**

Interpretation (input)	Form (output)	SCOPE-SPEC	Align Focusleft	OP-SPEC	OB-HD	* TRACE
$\exists x \rightarrow x \text{ (goat):Go (where, } x) \& \text{is}(x) \& \text{here}$						
☞	a. [CP [FP Ngai <sub>i</sub> [IPembori [CP yareenge aa [VPyageenda t <sub>i</sub> ]]]]]]					**
	b. [IP Embori [CPyareenge aa [VP yageenda [v' ngai]]]]			*!		
	c. [IP Embori [CP yareenge aa [CP ngai [VP yageenda]]]]		*!			*
Form (output)	Interpretation (Output)					
[CP [FP Ngai <sub>i</sub> [IPembori [CP yareenge aa [VPyageenda t <sub>i</sub> ]]]]]]						
✌	a. $\exists x \rightarrow x \text{ (goat):Go (where, } x) \& \text{is}(x) \& \text{here}$					
	b. $\exists x \rightarrow x \text{ (goat):is (goat) \& here \& go (where)}$			*!		
	c. $\exists x \rightarrow x \text{ (goat):is (goat) \& here \& (where) \& go}$		*!			

The interaction between OP SPEC and STAY in which the former dominates the latter as in the table bars *wh*-in situ (b) from surface as the optimal candidate

### 3.4.3.: Optimality Theoretic Analysis of Negation

In this section we explore the relation between negation and information structure in Ekegusii using a strong bidirectional approach by considering pairs of form and meaning. We shall use constraints that have stipulated so

far for information structure and get the ones stipulated on negation in the literature. In section (3.2.1) we analysed a variety of negative constructions, such as meta-negation, negative concord, negative polarity items licensed by negation and negative indefinites. The negation operators considered in section (3.2.1) are focal by nature because they licence propositions that do not carry any presuppositions that would render them topical. In order to account for negation in her work, de Swarts stipulates the constraint FOCUSLAST in order to account for the occurrence of negative indefinites in the sentence final (post-verbal) position. We will however prefer the use of the constraint ALIGNFOCUS in order to give a uniform analysis of the facts we are dealing with.

Negative sentences are interpretationally and formally marked in relation to affirmative sentences. For negative interpretations of sentences to surface in the output, that is, the syntax, negative syntax has to be overtly marked for it to be captured in the meaning. De Swart proposes the constraint FaithNeg (Faith Negation) as stated (169) below to license negation in the surface realization of sentences:

(169) FaithNeg

Reflect the non-affirmative nature of the input in the output

FaithNeg aims at a faithful reflection of input features in the output, hence is a faithfulness constraint. Negation is ranked against the markedness constraint \*Neg:

(170) \*Neg : Avoid negation in the output

The constraints FaithNeg and \*Neg have a role both in Optimality theoretic syntax and semantics. In order to account for aspects like double negation

and Negative concord, more constraints are stipulated: the maximising Constraints. The Maximization constraint MaxNeg is syntactic whereas IntNeg is semantic.

(171) MaxNeg

Mark ‘negative variables’ (i.e. the arguments that are interpreted within the scope of negation)

(172) IntNeg

Force Iteration (i.e. every negative expression in the form contributes a semantic negation at the first-order level in the output)

(173) NEG-SCOPE: The position of negative phrases reflects their scope

In this study we also adopt the constraint NEG-SCOPE, which will enable us to discuss the scopal issues related to negation. The various types of negation raise issues in relation to what their scope is in given clauses. The scope relations of constituents in sentences are marked in given syntactic positions. The negative element is considered to have a scope position as the specifier of a Negative Phrase (NgP). If the negative is not in the head position it is assumed to move or is realized by an empty category in the SpecNgP in order to mark scope.

In the example given in (174) below, the scope of the negative phrase is consanguineous with the verb phrase, hence doesn’t have to move. The negative phrase reflects its scope, hence it is ranked below constraint Stay.

(174) STAY >> NegScope

Focus particles like “only” which sometimes are interpreted as negative compete for interpretive scope of negation in a sentence. Then the question

arises as to how the negative scope is distinguished from the scope of an exclusive particle. The particle also has a negative interpretation as the negative operator does. In some contexts this conflict is resolved by the deletion of some sentential matter. Consider the example in (175) below. The complementizer clause has scope over matter in the complementizer phrase which has been deleted as shown in the representation in (176) below. The scope of the two inserted elements is demarcated by their occurrence in different sentential units, which have been derived from two different sentences, if an underlying syntax is assumed. The proposition that arises in the sentence in which the two inserted focus operators occur are quite distinct. In the first, the entire clause, *omambia nkonywa are amarwa amo ne esigaara* “omabia drinks beer and smokes” that carries the presupposed information is deleted, whereas in the second clause the negated phrase, *ne-esigara* “and cigarette”, is deleted because of the selectional restrictions of the focus particle *oka* “only”.

(175) Question    *Omambia n-ko-nyw-a a-re ama-rwa amo ne e-sigaara?*

*Omambia foc-inf-drink-fv 1sg-is 5pl-beer and 9sg-cigarette*

“Does Omambia drink beer and cigarette?”

Answer    *Yaaya, Omambia n-'amarwa oka akonywa.*

*Neg, Omambia 1sg-is 5pl-beer foc-inf-drink-fv  
“No, Omambia only drinks beer.”*

(176) *Yaaya [omambia nkonywa are amarwa amo ne esigaara], Omambia n'amarwa [ne-esigara] oka akonywa.*

“No Omambia takes beer and cigarette, Omambia only beer and cigarette takes.”

The construction above cannot be said to violate the requirements for the constraint NegScope, because the information that it scopes over is deleted because it can be recovered from the previous sentence. The need to express information without a lot of unnecessary redundancy leaves the negative operator hanging.

The typical sentential negation constructions in Ekegusii consist of basic word orders with the negation {ta-} incorporated in the verbal complex. Consider the sentence in (177) below

- (177 a) [TOP Omoreendi [FOC tarooche ekero [TOP Ogasusu] [TOP a-] soete mochie]

Lit. “The guard did not see when hare entered the home.”

- (177 b) Syntactic and semantic representations

- a. Omoreendi [<sub>NegP</sub> *Op* tarooche ekero Ogasusu asoete mochie]

“The Guard didn’t see when Hare entered home”

- b. Pragmatico semantic representartion

$$\langle (\exists_c^1 x) \text{omoreendi } p(x) \rangle$$

$$\langle \neg \text{see} (\underline{\text{enter}}(\text{Ogasusu}, \underline{\text{mochie}}) \& (\exists_c^1 x) p(\text{omoreendi}, x)) \rangle$$

In the sentence given in (183) above, the negation does not occur in a sentence initial position since the constraint SUBJECT that requires the highest A-specifier of the extended projection be filled militates against it. Besides, the specifier functions as the topic of the sentence, hence obeying the constraint Align Topic. However, the constraint Align Topic is not in conflict with Subject. The constraint SpecHd then dominates FaithNeg. The FaithNeg is not in conflict with Align Focus.

The constraint ranking hierarchy for the sentential negation pattern is as given in (178) below:

- (178) {SUBJECT, Align Topic}>>{FaithNeg, Align Focus}>>\*Neg

**Table 3.6: Constraint Tableau 11 (Sentential Negation in Ekegusii) (by Author)**

Interpretation $\neg$ rora( <u>soa</u> (Ogasusu, mochie) ( $\exists_c^1 x$ ) p (omoreendi, x)	Form	SUBJECT	ALIGN TOPIC	FAITHNEG	ALIGNFOCUS	*NEG
	[TOP Omoreendi [FOC tarooche ekero [TOP Ogasusu] [TOP a-]soete mochie]		**			
	ekero [TOP Ogasusu] [TOP a-]soete mochie], [TOP Omoreendi [FOC tarooche.	****!				
Form [TOP Omoreendi [FOC tarooche ekero [TOP Ogasusu] [TOP a-]soete mochie]	Interpretation					
	$\neg$ rora( <u>soa</u> (Ogasusu, mochie) ( $\exists_c^1 x$ ) p (omoreendi, x)		**			
	( $\exists_c^1 x$ ) Ogasusu & <u>soa</u> (x, mochie)& $\neg$ rora (omoreendi)	****!				

Ekegusii has a pattern of sentential negation in which more than one negative operator is realized. In the error correction patterns we have instances in which the negative operator in the left-periphery is either

followed by an affirmative main clause or another negative clause. The latter is reffered as a case of negative concord, and is illustrated in (179. S2) below:

(179 a.)      S1      Bakoboori na, “Emboori yaareenge aa, ng’ai  
yaachiete?”

Lit. They asked that, “the Goat that was here, where did it go?”

S2      Na, “Yaaya, inche tiinkomanya.”

Lit. “That, ‘No, I don’t know.’”

(179 b.)      Pragmatico semantic representation:

$(\exists x) Ogasusu p(x))$

$\exists x \rightarrow Ogasusu(x) \neg \& (\neg maanya(x, ngai) \& ere(emboori))$

$\exists x \rightarrow Ogasusu(x) \neg \& (\neg Know(x, where) \& is(goat))$

The realization of the first negative in the complement position cannot be considered to have scope over the entire sentence. The second negative is the one that has a substantive scope over the proposition that is expressed by the clause. The first negative *yaaya* “no” does not violate the constraint Neg Scope, because it scopes over the sentential elements that have been deleted because of being topical as we argued for the sentence in (185) above. It also violates the constrainy MaxNeg because its interpretation is not calculable sententially. The impact of the usage of the first negation is that it cancels the presupposition that is posited in the previous sentence or question context which is the same function fulfilled by the second negative operator, hence they express a single negation when considered in

a whole. However, the negation marker in the complementizer has a discoursal value in so far it denies what the first speaker posits, but no syntactic value or interpretation can be accorded to it.

As per Haegemann and Zanuttini (1991), Negative concord is analysed using the constraint INSERT which outranks UNISPEC. They consider it to be more optimal to “associate multiple negative operators with a single Spec Neg P”, that is, more than one negative element is adjoined to the SpecNegP, the negative features are “factorized”, and as a result only a single negation is expressed. A similar idea is given in Higginbotham and May (1981) who in handling multiple *wh*-questions assume there is an absorption of the [+Wh] features and such sentences express a single question. The analysis is to them a more efficacious way of handling negative concord as opposed to analyses in which extra structure is inserted to provide each with its own scope position. In this analysis, the constraint “Move” is given to account for the covert movement of the other negative operators to the single head. This then allows for an analysis as in the following constraint hierarchy below:

- (180) AlignFocL, Head>> {Insert, Move}

The constraint Hierarchy for the negative concord construction is given in (187) below:

- (181) Constraint hierarchy for Negative Concord in Ekegusii:

FaithNeg, Align Focus, NegScope>> \*Neg>>MaxNeg>>\*Insert

**Table 3.7: Tableau 12 (Negative Concord in Ekegusii) (by Author)**

Interpretation	Form	FaithNeg	AignFocus	NegScope	* Neg	MaxNeg	* Insert
$\exists x \rightarrow Ogasusu(x) \neg \& (\neg \& maanya(x, ngai) \& ere (emboori))$ $\exists x \rightarrow Ogasusu(x) \neg \& (\neg \& Know(x, where) \& is (goat))$							
☞	Yaaya, inche tiinkomanya. No, I don't know						**
	Yaaya, inche nimanyete. No, I Know.	*!					*
Form	Interpretation						
Yaaya, inche tiinkomanya. No, I don't know							
✌	$\exists x \rightarrow Ogasusu(x) \neg(p)$ $(\neg \& maanya(x) \& ere (emboori))$			*			
	$\exists x \rightarrow Ogasusu(x)$ $(\neg \& (maanya(x, ngai) \& ere (emboori)))$	*!					

The optimality theoretic analysis above demonstrates that the realization of the negative operators in ekegusii is partially driven by a focus feature. The concord negation in Ekegusii does not obey the logical law of double negation because the various negative operators scope over distinct propositions. The negative operator yaaya “no” scopes over a presupposed clause elements evoked in the previous sentence, whereas the negation in the main sentence scopes over the main clause. In cases where the focus

particle is inserted, the extraposed negative does not scope over the main clause in which the focus particle *oka* “only” occurs. The occurrence of *oka* however renders a second negative inert, and hence it is excluded in the surface, does rendering the constraints that would licence negation in the main clause dormant.

### 3.3.4.: Multiple Wh-Movement and Resumptive Pronouns

In Ekegusii, the movement of the wh-phrase can be moved out of the sentence initial position for further emphasis or contrastive focus, in a context where the questioned element is already presupposed.

- (182) Eki kiagerete obokima bokayia ninki?

“What made porridge to cook is what?”

The input for the Multiple Wh-adjunct movement to the sentence final movement is given in (183 b) below. The first structure is the input for the *wh*-adjunct before it is moved out of its base position in the VP-Complement position (or the light verb (*v'*) position), which is post-verbal.

- (183) a. [CP [IP obokima [VP bokayia [v' ninki<sub>i</sub> kiagerete .]]]]  
b. [CP Ninki<sub>i</sub> kiagerete [IP obokima [VP bokayia [v' t<sub>i</sub>.]]]]

In recognising the complete cycle of movement that generate the multiple *Wh*-adjunct movement construction some researchers opt for the serial derivation procedure. Within Optimality theory, this is done by deriving the first movement in a separate tableau followed with a second on. Hence the tableau below will derive the *wh*-adjunct movement:

**Table 3.8: Constraint Tableau 13 (by Author)**

Interpretation (Input)	Form (Output)	AlignFocusLeft	TRACE	LEX-TRACE	OP-SPEC	STAY
make (?x, P) & to cook(P)"						
	a. [CP Eki kiagerete [IPobokima [VP bokayia [v' [FP ni-nki]]]]]	*!				
☞	b. [CP Ninki;kiagerete [IP obokima [VP bokayia [v' t <sub>i</sub> .]]]]]				*	
	c. [CP [IP obokima [VP bokayia [v' ninki;kiagerete.]]]]				*!	
Form (Input)	Interpretation (Output)					
[CPNinki           kiagerete [IPobokima           [VP bokayia?]]]]]						
	make (x <sub>i</sub> , p) & to cook (?x <sub>i</sub> ,P)	*!				
✌	make (?x, p) & to cook (p)					*
	cook (p) & make (?x, p)				*!	

In the sentences provided above both the *Wh*-adjunct in situ construction (c.) and the Multiple *Wh*-adjunct construction (a.) are rendered sub-optimal by adversely violating the AlignFocusLeft Constraint, the former because of the failure of the *wh*-adjunct operator failing to move out of its base position and the latter because it moves the *wh*-adjunct to the sentence final position.

In the case of multiple *wh*-phrase movement, the constraint \*TRACE dominates OP-SPEC, in order to effect the movement of the *wh*-phrase to a sentence final position. This is represented in the table below:

**Table 3.9: Constraint Tableau 14**

Interpretation (Input)	Form (Output)	Align Focus	Align Topic	TRACE	LEX-TRACE	OP-SPEC	*RES
make ( $x_i, p$ ) & to cook ( $?x_i$ )							
☞	a. [CP <i>Eki kiagerete</i> [IP <i>obokima</i> [VP <i>bokayia</i> [V <sub>v</sub> [FP <i>ni-nki</i> ]]]]]						*
	b. [CP <i>Ninki<sub>i</sub>kiagerete</i> [IP <i>obokima</i> [VP <i>bokayia</i> [V <sub>v</sub> [T <sub>i</sub> .]]]]]			*!			
Form (Input)	Interpretation (Output)						
a. [CP <i>Eki kiagerete</i> [IP <i>obokima</i> [VP <i>bokayia</i> [V <sub>v</sub> [FP <i>ni-nki</i> ]]]]]							
✌	a. make ( $x_i, p$ ) & to cook ( $?x_i$ )						*
	b. make ( $?x, p$ ) & to cook			*!			

In the table, the multiple wh-phrase clause wins over the typical wh-phrase fronting question because it does not violate the constraint \*TRACE which militates against the realization of a trace.

### 3.3.5.: An Optimality theoretic analysis of Adjunct Movement

The study, in sections (3.1.2.) and (3.3.3) discussed adverbial clauses which are topicalized due to discourse factors, which are driven by the need to realize the pragmatic functions of topic and focus respectively. In order to describe how the topicalization of adverbial clauses behaves in Ekegusii we will focus on the wh-phrase headed clauses in this section. The analysis of wh-phrase movement is analysed at two levels, namely in creating local dependencies, due to movement of the wh-phrase element in the embedded

clause, and long distance dependencies when the entire embedded clause is fronted in the sentence.

The local dependency of a wh-phrase is illustrated by the sentence below:

- (189) a. Nyakerage a-ka-nyoora obo-kong'u [CP ekero<sub>i</sub> mo-kaaye

*Nyakerage 1CL-INF-go CL14-problem [when PRO-wife*

*a-re-eng-e Morito \_t<sub>i</sub>\_.]*

*1CL-is-PST-fv pregnant]*

“Nyakerage got problems when his wife was pregnant”

For accounting for the movement of embedded clauses as in the example (a) given above the set of constraints required are those responsible for operator movement, because of the additional load of issues that come with the derivation of dependent clauses, and the information structural constraints that licence the movement to the left periphery. The constraints responsible for the fronting of the wh-phrase cannot bear the entire burden of moving other clausal elements as is the case in some analyses which take recourse to the notion of pied-piping to account for the movement to the left periphery.

Grimshaw (1997) considers CP-embedding resulting in complex clauses to be due to bridge verbs that allow for it to occur. CP- and TP- (VP-) embedding can occur if two candidates have the same constraint profile. In cases where there is movement of the complementizer, then we have to account for the complementizer-trace effects. In order to account for wh-movement in general, because the movement of the complementizer is not distinct from the movement of the questioning word, Grimshaw proposes a

constraint that reflects the tendency for operators such as wh-expressions to appear in a specifier position from which they take scope of which OP-SPEC given below is one.

- (190) OP-SPEC: A syntactic operator (e.g. a wh-expression) must be in a specifier position which allows it to c-command everything within its scope.

The wh-elements in Ekegusii questions are fronted due to the ranking of violable information structural constraints higher than structure preserving constraints. In the literature, the phenomenon is accounted for by pitting the constraints OP-SPEC, which requires that an operator be in specifier position; \*TRACE, which disallows traces; and SCOPE-OP, which requires that the highest specifier of an extended projection over which an operator takes scope contain a marker of that scope in the form of an instance of that operator.

- (191) a. Operator in Specifier (OP-SPEC):

Wh-operators must occupy a specifier position from which they c-command all elements of the extended V projection over which they have scope.

- b. Lexical Government of Traces (T-LEX-GOV):

A trace is lexically governed.

The constraints given above, OP-SPEC and T-LEX-GOV are ranked above STAY (an economy constraint) in deriving the movement of operators in human languages. In order to account for the behaviour of embedded clauses that are moved to the left-periphery the rankings of the Optimality theoretic universal constraints usually used to account for wh-movement,

as those that will later be used to derive wh-questions, are used. Consider the sentence given as (192) below.

- (192) [(Abaana abanene bakaminyoka gochia mogoondo goteebia abaibori baabo buna enyoomba yaabo yayiire.]

TOP Ekero ba-a-teebi-gw-a, aba-ibori ab-wo ba-ka-rut-a ama-koombe n'emi-oro inse.

*When 1pl-pst-tell-pst-fv 1pl-parent 1pl-those 1pl-pst-throw-fv 14pl-hoe and 3pl-hatchet down*

Lit. [...] When they were told, those parents threw hoes and hatchets down.

In Ekegusii SCOPE-OP and Align Focus dominate which OP-SPEC dominates \*TRACE. Thus the constraint hierarchy is responsible for the wh-fronting in Ekegusii is as given in (193) below.

- (193) The constraint hierarch for topic driven Adjunct movement

AlignTopicLeft >> OPSpec>>\*TRACE>> Stay

**Table 3.10.: Constraint Tableau 15 (by Author)**

Interpretation (Input)	Form (Output)	ALIGNTPCLFT	STAY
Teebigwa(x) & ruuta (abaigori, amakoombe) & inse			
	a. [CP [Force Ekerɔi [TopP baateebigwa [IP abaibori abwo [VP bakaruta [V amakoombe nse t <sub>i</sub> t <sub>j</sub> ]]]		**
	b. [CP [IP abaibori abwo [VP bakaruta [V amakoombe nse [CP [FORCE Ekerɔi [TopP baateebigwa]]]	*!	
Form (Input)	Interpretation (Output)		
[CP [Force Ekerɔi [TopP baateebigwa] [IP abaibori abwo [VP bakaruta [V amakoombe nse t <sub>i</sub> t <sub>j</sub> ]]]			
	a. Teebigwa(x) & ruuta(abaigori, amakoombe) & inse		**
	b. Teebigwa (x) & ruuta (abaigori, amakoombe) & inse	*!	

For a case of focus driven movement of an adverbial clause consider the example (194) given below.

(194) [Rituko erimo abanyene omochie bakageenda mogoondo maambia.

Bagatiga abaana inka.]

[FOCEkiagera obokeendu bwarengeo, [TOP abaana abwo [FOCbagauta omorero omoonge baote.]]]

a. Syntactic representation(production):

[CP [FORCE Ekiagera<sub>i</sub> [FOC obokeendu<sub>j</sub> bwarengeo<sub>k</sub>, [IP [SpecIP p abaana abwo [v' bagauta [VP omorero omoonge [CP [v'baote t<sub>i</sub>t<sub>j</sub>t<sub>k</sub>]]]]]]]]].

b. Pragmatico-Semantic Representation (comprehension):

$\exists x_1 \rightarrow (\text{obokeendu}): \text{renge } (x_1) \leftarrow \exists x_2 \rightarrow (\text{abaana}): \text{uta } (x_2, \text{omorero}) \& \text{Omoonge} \& \text{ota } (\text{abaana})$

The constraint hierarchy for focus induced topicalization is as given in (195) below:

(195) Constraint hierarchy for focus topicalization of adverbial clause

AlignFocusLeft>>OPSPEC>>STAY

**Table 3.11: Constraint Tableau 16 (by Author)**

Interpretation (Input)	Form (Output)	ALIGNFOCUSLFT	STAY
$\exists x \rightarrow (obokeendu): \text{renge}$ $(x) \leftarrow \text{uta } (\text{abaana}, \text{omorero})$ & Omoonge & ota (abaana)			
	a. [CP [FORCE Ekiagera <sub>i</sub> [FOC obokeendu <sub>j</sub> bwarengeo <sub>k</sub> , [IP [SpecIP p abaana abwo [v' bagauta [VP omorero omoonge [CP [v'baote t <sub>i</sub> t <sub>j</sub> t <sub>k</sub> ]]]]]]]]].		***
	b. [IP [SpecIP p abaana abwo [v' bagauta [VP omorero omoonge [CP [v'baote [CP [FORCE Ekiagera [FOC obokeendu bwarengeo]]]]]]]]].	*!	
Form (Input)	Interpretation (Output)		
[CP [Force Eker <sub>i</sub> [TopP baateebigwa <sub>T</sub> [IP abaibori abwo [VP bakaruta [v' amakoombe nse t <sub>i</sub> t <sub>j</sub> ]]]]]			
	a. $\exists x_1 \rightarrow (obokeendu): \text{renge } (x_1) \leftarrow$ uta abaana, omorero) & Omoonge & ota (abaana)		***
	b. $\exists x \rightarrow (\text{abaana}): \text{uta } (x, \text{omorero})$ & Omoonge & ota (abaana) & renge (obokeendu)	*!	

The third pattern that occurs in Ekegusii is the one in which both the focus and topic function are realized in the left periphery. This instantiation is a case of the emergence of the unmarked, which induces the movement of the topic element to the sentence initial position, as per the requirements of the constraint TOPIC FIRST. Consider the example (196) given below:

(196) [Chiinguru ech<sub>i</sub> niigo chigotooka chiinsemo ao ao.]

Eker<sub>TOP</sub> [chiinguru ech<sub>i</sub>] FOC [chiaichoire ase amare ime],  $\emptyset$  chiaateka na gosookia obomesu bokogosa.

Lit. [These powers are found in various parts.] When these powers fill in the clouds,  $\emptyset$  they-burst and release flashes frightening.

a. syntactic representation

[CP [FORCE Eker<sub>TOP</sub> [chiinguru<sub>i</sub> ech<sub>i</sub>] [FocP chiaichoire ase amare ime [IP [<sub>SPecIP</sub>  $t_i$ [\_v·chiaateka na gosookia] [\_VP obomesu] [CP[\_v·bokogosa

b. Pragmatico-Semantic representation

$\exists x$  (chiinguru): ichora(x, amare)  $\rightarrow$  aateka (x) & sooki (x, obomesu) & goosa

In the constraint tableau given below in table 3.12 the winning candidate is selected by fulfilling the constraint AligTopicLeft. The surbonited clause moves to a sentence intial position in order to be linked to the previous sentence. Whereas, the second sentence fatally violates the constraint.

**Table 3.12: Constraint Tableau 17 (by Author)**

Interpretation (Input)	Form (Output)	ALIGNTOPICLIFT	ALIGNFOCUSLIFT	STAY
$\exists x \text{ (chiinguru): } \text{ichora}(x, \text{amare}) \rightarrow \text{aateka}(x) \& \text{sooki}(x, \text{obomesu}) \& \text{goosa}$				
	a. [CP [FORCE Ekerø [TopP chiinguru <sub>i</sub> ech <sub>i</sub> [FocP chiaichoire ase amare ime [IP [SPecIP t <sub>i</sub> [ <sub>v</sub> chiaateka na gosookia [VP obomesu [CP[ <sub>v</sub> bokogosa [CP[FORCE Ekerø [ <sub>v</sub> chiaichoire [VP ase amare ime]]]]]]]]]	*	***	
	b. [IP [SPecIP chiinguru <sub>i</sub> ech <sub>i</sub> t <sub>i</sub> [ <sub>v</sub> chiaateka na gosookia [VP obomesu [CP[ <sub>v</sub> bokogosa [CP[FORCE Ekerø [ <sub>v</sub> chiaichoire [VP ase amare ime]]]]]]]]]	*!		
Form (Input)	Interpretation (Output)			
[CP [FORCE Ekerø [TopP chiinguru <sub>i</sub> ech <sub>i</sub> [FocP chiaichoire ase amare ime [IP [SPecIP t <sub>i</sub> [ <sub>v</sub> chiaateka na gosookia [VP obomesu [CP[ <sub>v</sub> bokogosa]]]]]]]]]				
	a. $\exists x \text{ (chiinguru): } \text{ichora}(x, \text{amare}) \rightarrow \text{aateka}(x) \& \text{sooki}(x, \text{obomesu}) \& \text{goosa}$	*	***	
	b. $\exists x \text{ (chiinguru): } \text{aateka}(x) \& \text{sooki}(x, \text{obomesu}) \& \text{goosa} \leftarrow \text{ichora}(x, \text{amare})$	*!		

### 3.5.: Conclusion

In this chapter we analysed the influence of Information structure on non-canonical constructions. The information structural constructions that are attested in the Ekegusii data collected that are analysed in this chapter

include word order permutations such as topicalization, negatives (Correctional focus), object movement constructions, and *wh*-movement. Word order adjustment is analysed by considering some cases of ellipsis (gapping) within the clauses that have been moved out of the main clause (the verb Phase) to the sentences peripheral positions, technically referred to as the complementizer phase (CP phase). The formal organization of non-canonical constructions is supposedly influenced by information structural considerations as is it claimed by a number of researchers in the literature such as Vallduvi (1993), Rizzi (1997), and Lambrecht (1994). The form also determines the interpretation of the constructions to some extent. We have demonstrated that information structure influences both the formal organization and interpretation of non-canonical constructions in the Ekegusii language. Movement and adhesion to the left periphery, and movement of clausal elements into intermediate positions in the matrix clauses is considered to arise either from the influence of topic and focus features which may be weak or strong.

From an optimality theoretical perspective it is argued that information structural constraints which are ranked above the syntactic constraints that prevail against any form of movement in the sentence domain are responsible for the formal reorganization or adjustments (e.g. deletion) that are observed in the non-canonical constructions examined. The constructions that undergo overt movement to the left periphery have been analysed as working under the influence of the constraints ALIGN FOCUS and ALIGN TOPIC, in cases where ALIGN FOCUS dominates ALIGN TOPIC the focus precedes the topic and vice versa which in turn are ranked above the syntactic constraints such as CASE and STAY which are meant to prevent any form of movement from canonical positions.

## **CHAPTER FOUR**

### **The Discourse Pragmatics-Informatics of Referential Coherence**

#### **4.1.: Introduction**

In the previous two chapters of analysis, the relation between information structural considerations, topic and focus, were limited to how they interact in the subsequent sentence (at a micro-syntactic level of discourse). The analysis of the interactions between information structure and coherence can be done both at the intrasentential level (in reference to clause complexing and compounding), and by considering intersentential dependencies. This chapter will not consider the intra-sentential aspects of referential coherence in Ekegusii. In this chapter the study investigates how information structure achieves coherence in discourse with particular reference to referential coherence (also referred to as entity coherence). Sections 4.2 to 4.4 set the data and discussions on how information structure interacts with discourse coherence at the local level (Micro-syntactic level); sections 4.5 to 4.6 deal with how the information structure aspect, topic influences global referential coherence (at a macro-syntactic level) in Ekegusii discourse and finally Section 4.6 presents an Optimality Theoretic implementation of Centering, following Beaver (2000) in accounting for discourse coherence in Ekegusii.

#### **4.2.: Referential Coherence**

The coherence dimension of discourse usually includes a referential dimension to some extent. Coherence is assumed to be related to sentences and propositions and is mainly achieved through referential coherence at both the microstructure (local) and macrostructure (Global) levels. Reference, in general, has to do with the objects, referred to sometimes as referents, denotata or extensions, denoted by sentences or parts of

sentences. The objects can be distinguished between extensional and intensional objects. Extensional objects consist of “facts” in some possible world, whereas intensional objects are conceptual or of a possible nature. Referential aspects such as the facts denoted by a discourse, for example, states of affairs, actions and events have spatial, conditional, or temporal organization (Van Dijk, 1977). The reference explored in this study is limited to what happens within a text (endophoric reference that has to do with intensional objects) rather than how it is achieved in relation to correlating with the objects that exist in worlds (exophoric reference that has to do with extensional objects).

In order for referential coherence to occur referential relationships have to be processed, that is, undergo referential resolution. The referential relations in a text are achieved through anaphoric reference (co-reference). Anaphoric reference is a cover term for pronoun resolution, temporal resolution and the resolution of definite descriptions. The notion of a discourse entity embraces the notion of anaphors but it goes beyond the considerations given to the concept in syntactic analyses.

Clark (1997) distinguishes between direct and indirect reference. Direct reference is when an entity refers directly to an object, event or state previously mentioned. This can be achieved by use of repetition of full nouns, which are either synonymous or antonymous. On the other hand, there is indirect reference. Indirect reference is further divided into two: that which is achieved “by association”, and that which is achieved “by characterization”. Indirect reference by association occurs when reference to something is associated with a part rather than to the entity as a whole, that is, in a poset relation, is meronymous, or is subordinate to a superordinate or hyponym. By indirect reference by characterization,

reference is made to an object that plays a role in an event or circumstance that has been mentioned. The connections between referents in the case of indirect reference resolution may at times require inferential processing. Some studies try to distinguish inferential from referential processing. However, inferential processing is sometimes necessary for determining the referential links that contribute to the coherence of a given text. Much of the global referential coherence of texts requires inferential processing to determine the connection between the different discourse segments that constitute a whole unified text.

Reference forms do interact with various surface-level linguistic factors such as information structure (focus, topic), cohesion, backgrounding, coherence, etc. It is claimed that information structure effects on referential coherence can be attested by the choice of referential expression forms (Yoshida, 2008:23), and that focus and topic equally contribute to the salience of the referential entities in discourse (Arnold, 2004). Referential coherence depends on co-referential expressions in sequences of propositions at macro-structural (global) level. At the local level, a speaker's choice between nominal and attenuated forms may be based on the distinction between topic and focus.

#### **4.2.1.: Referential and Non-Referential Expressions and in Ekegusii**

In this section we introduce the inventory of referring expression within Ekegusii discourse that can enable us to track referential coherence. Full noun phrases, pronouns, subordinate phrases or adverbial phrases can be used to refer. In this study we focus on nominal referents. Of the expressions which are considered to be referential, nominals are the most preferred in such a role. Reference assignment in discourse constitutes

reference forms such as nouns, noun phrases, proper names or definite descriptions and pronouns.

In Ekegusii discourse, quantifying term operators like the numerator oyoomo “one” or indefinite pronouns like *gete* “someone” can serve to indicate indefiniteness; and in others they can be used in as indefinite specifiers in ekegusii discourse. In the sentences given below, the usage of the underlined pronouns is indefinite.

(197) *Oyoomo* as an indefinite determiner of a noun phrase

Agwo kare, omo-gaambi oyoomo nareenge oreenge kogaambera abaanto abaange mono.

“There past, one leader was there who governed so many people.”

The stereotypical usage of oyoomo is to indicate number as in the extract below:

(198) *Oyoomo* as a quantifier of a noun phrase

[Egetureri ki’ogochaaka eseegi gekabugigwa.] Omorwani oyoomo agasegesa n’eriitimo koboko gochia ase abasoongo ng’a chigi chigi. Akabeta omosongo oyoomo riitimo ekerenge igoro ng’a chwa!

“[...] one fighter ran with spear in hand to whitemen like *chigi chigi*. SM-stabbed one Whiteman spear on foot like *chwa*!”

(199) *Gete* as an indefinite determiner of a noun phrase

Rituko erimo omosoongo gete agaacha ase bw’omogaambi oyio.

“One day, some white man came to that leader.”

Once the referent is activated in the mental representation of the hearer, the demonstrative pronouns may be used to help in tracking participants in Ekegusii. The tracking of participants depends on co-referential or anaphoric use, that is, whenever a term “has picked out as referent the same entity that some prior term in the discourse picked out (Levinson, 1983:66)). The demonstrative pronoun is basically a deictic, however deictics have been noted to have non-deictic (anaphoric and non-anaphoric) uses in the study of discourse deixis as per Levinson (1983:66-67)

In the extract given below, the main referent is activated using the quantifier “oyoomo” and subsequent reference is with the demonstrative *oyio* “that” as in the extract (200) given below. The usage of the pronouns is optional; the construction cannot be infelicitous if the pronouns are not used to indicate identifiability.

(200) Omosoongo oyoomo nareenge origete embiisi bwoye. Ekeroyakoorire koroosia endaagera, embiisi niigo yaare gotomwa yageenda kogora ebiinto korwa etuuka yareenge egeka korwa bw’omosoongo oyio. Omosoongo oyio niigo are koa embiisi rikaratasi rikwoorokia abiinto bigochia kogorwa.

“One whiteman there was who employed servant in his home. When it finished making food, the servant used to be sent goes buy things from shop which was far from that white. That white used to give the servant paper showing things which were going to be bought.”

## Proper Names

In a text in which human characters are the main actors, the narrator can name the entities. Examples are as given below. In the extract (201) below the main referent is introduced in the second sentence after she has been

referred to using the terms, *omongina oyoomo* “old woman one”, and *omongina oyio* “old woman that”. They are activated in the focus domain of the third sentence and then foregrounded as sentence subjects, in a topic role, in the subsequent sentence. The discourse progresses by switching between them till its conclusion; hence they serve as the main referents of the discourse.

- (201) Abwo kare, omoongina oyomo nareenge omenyete ase ekegoro gekorokwa Riang'oombeenene. Omong'ina oyio niigo areenge korokwa Nyageteena nómogaka oye Nyakerage. Nyagetenan Nyakerage bakamenyana amo ase amatuko amaange batari na abaana- ase engaki yemiaka ikomi na etaano

“There past, there was one old woman who lived on the hill called riang'oobeenene. That old woman used to be called Nyageteena and her husband Nyakerage. Nyakerage and Nyageteena lived together for so many days without children- for a period of fifteen years.”

- (202) Omokungu oyoiga Nyamesanchwa niigo arenge korokwa Nyorosa. Nyorosa niigo abwate abamura batato na abaiseke babere.

The proper name can be introduced in a list of names as in (203) below. The entity under focus is given prominence by being mentioned first in the order of preference, then is referred to anaphorically in a sentence which is some distance from the first mention.

- (203) Abaiseke barobwo Chiebiriinda, Nyoorian, Nyaetin na Nyaachabo niigo baare kogeenda ng'ina obaroomeng'ana obairania nyoomba. Booonsi bagachiakorora ayio bakaaka oyoomo Bogere, oyoonde Boteende na boombera obotaayaayi. Chiebiriinda niigo abuete boonsi ase ekieni.

The proper name can also be used in contexts where it has not been activated in the previous sentence in Ekegusii, as in the presentational sentence below and then identified by an incorporated object marker and pronoun {-mo-} in the subsequent coordinate sentence.

- (204) Nyaiyonga niigo a-reenge omo-iseke oyo-omo ase e-nseemo ya Miruuka Bogiraango ya Sugusu. Ise na ng’ina niigo baamokiinetie na komosomia buya, agakoora amasomo a ikomi na kabere.

Lit. “Nyaiyonga was one of the girls from the side of Miruuka Bogirango of the North. Her Father and mother had raised and educated her well; she completed schooling at class twelve.”

Referential expressions that evoke new discourse entities are typically introduced by the sentence focus construction. The discourse entities can be superordinate terms, or generic terms, such as *echiingiti* “animals”, or chiamate “neighbours”, and they are succeeded by pronouns, In this examples, zero pronouns are used to continue talking about the said entities, if this goes on for a considerable stretch in discourse and later picked up after being deactivated, they become discourse referents.

- (205) Kare kare kare, echiingiti chionsi pi niigo chiakamenyire amo aase amanani ime. Niigo  $\emptyset$  chiakariire endaagera eyeemo amo naende ereeng’aine ase ekereengo kiabo chiabekeeranete.

Lit. “Long, long, long ago, all the animals lived together in the bushes. They used to eat the same food together and of as much in quantity as they had set for each other.”

- (206) Abwo kare, chiamate niigo chiamenyete amo.  $\emptyset$  Chiarisia amo.

Lit. “Long ago, neighbours used to live together. They graze together.”

In the subsequent discourse segments, the switches to other entities depend on the switch of topic or actors in the discourse, these can be realized by full nouns in the subject or object position in the previous utterance before they are activated as is illustrated in the examples in (209) below. The temporarily activated entities in subsequent discourse segments usually depend on whether they are subparts of a given general topic or are independent entities that are introduced to the discourse which are situationally linked to the circumstances being related.

In the extract given in (207) below, the propositional referent activated by subordinate clause ... *ekero enyomba ekobunwa* “when the house is broken” is converted to a nominal form *ribuno* “the breaker” is introduced as a full noun in the subject position of the sentence and is followed by a null pronoun  $\Phi$  in the subsequent sentence.

- (207) Obosereti niigo bokoera ekero enyomba ekobunwa. Ribuno  
riasmekwa ase egechuuria.  $\Phi$  Riaserebanigwa na koreng'anigwa  
buya buya.

“Thatching ends when the house is broken. The breaker is stuck to the tip. ~~The breaker~~ is spread and put in order very finely”

Non-referential expressions do not evoke discourse entities, that is, they not persist in subsequent discourse by being realized by anaphors. The temporarily activated referential expressions do fall under the category of non-referential expressions, for example in (208) below the underlined referent *emeyeega* “festivals” is only activated temporarily in the discourse, it only is referred to in the first sentence and can only be inferred in the subsequent sentence by the mention of *gochiikana* ‘invitation’. It does not become a discourse entity in the discourse because it does not contribute to

the theme of the discourse, hence it passes out of the interlocutors' attention. Besides, the noun occurs in a focused preposed clause that begins with the focus sensitive operator *nonya* “even” which blocks the noun’s activation as a discourse entity. Seemingly, nouns within the scope of *nonya* “even” do not evoke entities.

(208) Nonye emeyeega yarenge, echiarenge gokorera amo

“Even when there were festivals, they used to do them together.”

Other focus sensitive operators that serve the same purpose in the language are: *konyoora* “already” as given in the example below. Besides, the nominal, *enchara* “hunger” which falls under the scope of *Konyoora* in the sentence (209) below is a preposed predicative nominal due to the passive transformation.

(209) Konyoora enchara yabariire kerage.

“Already hunger had eaten them a lot.”

## Negatives

The use of negation in Ekegusii optionaly renders the domain it occurs in opaque to reference. In a number of uses, the negation does not target the main entity, but refers to a temporal entity as in the examples given in (210) below. In (210) the temporarirly activated subject *omoiseke* “girl” is negated. The utterance is made in order to motivate the decision of the hare to steal cattle. Since there was no girl in hare’s home, no dowry would be available through her being married off. The sentence is meant to code a cultural presupposition into the discourse: in the Abagusii community a man married using the dowry of a sister who had been given away.

(210) Ogasusu na Okanyangau ibaare abasani. Abakoobesi chiombe baire

aari soobo omoiseke. Soobo Ogasusu omoiseke taarenge oo. Naatagete chiombe anywome.

- Lit. Hare and Hyeana were friends. He escorts cows they take there in the home of the girl. In the home of hare a girl was not there. He wanted cows to marry.

In the example given in (211) below, the negation affects the state of affairs but does not affect the referential status of the entity *omonyene omochie* ‘the owner of the home’ in the fourth sentence of the sentence. The negation on the entity does not render its referential status inactive, hence it is later referred to using a pronominal form {*o-*} “he” in the last sentence.

- (211) Bakamoteebia ng’a omonyene omochie niigo abatomete engoko ache konyenyera abageni. Korende ase engencho bataamonyora nka, bayebutora emiyo tetama. Eriinde bayesuunga abwo enakonyititoka amanyiinga. Ogoocha ayesuungore aiyekere abageni baaye.

- Lit. They told him that the owner of the home had sent them a chicken to slaughter for his visitors. But because they did not get him at home, they cut its throat so that it may not escape. So they hang it there to drain blood. He comes and unhangs it to cook for his visitors.

In short, the Ekegusii language uses names, full noun phrases, zero subjects and pronominal form as discourse referents. In the ensuing sections, the study explores how these entities are chosen in relation to the information domains they occur in in discourse in order to illustrate interrelation between information structure and coherence.

### **4.3.: Topic and Referential Coherence at the Local Level**

In this section we demonstrate how the topic relation interacts with referential discourse coherence in Ekegusii at the local level of analysis. Discourse should be relevant with respect to some topic to be coherent. Co-referential or anaphorical relations or are used to achieve coherence, and the topic relation plays a central role besides the world knowledge that specifies the actions related in a given discourse. In analysing Local referential coherence we will focus on a one utterance (or sentence) window, that is, a give a pair-wise sentence analysis of the selected discourse extracts.

#### **4.3.1: Topic and the Centre Backward Transition**

The centre backwards in Ekegusii, are predominantly realized by referential expressions functioning as both subjects and topics in the sentence as opposed to objects. Hence the topic-comment structure is the one preferred in structuring discourse. The object is not preferred given that it occurs in the focus domain, and acts as a marked topic in contexts in which it occurs. In previous analyses presented in chapters two and three, we noted that both subjects and objects can serve as topics in sentences, and thus by extension they serve as centre backwards in modelling coherence.

The extracts in (212-215) below show contexts in which full Subjects surface in discourse as backward looking centres (topics).

- (212) 1. a. Ani omo-nyene niigo a-ye-butor-et-e emi-oyo,  
*But CL1 SG-owner PTL SM-OM-cut-PST-FV OM-PL-throat*
- b. aka-nye-sung-a,

*SM-OM-PST-hang-FV*

- c. e-riinde a-ka-geend-a e-chiilo ko-gor-a ebi-into.

*Then CLISM-PST-go-FV OM-market INF-buy-FV PL-thing*

“The owner had cut it the throat, hung it, so that he could go to the market to buy things”

**Table 4.1: Centering Analysis**

U	CF/CB	TRANSITION			TRANSITION SEQUENCE	
1 a	CF: omonyene ‘owner’ , engoko, emioyo ‘throat’)  CB= engoko ‘chicken’	(U1) NULL	(U1,U2) CONT		(U1, <u>U2</u> ) NULL- CONT	
b	CF: omonyene, engoko, echiiro “market”, ebiinto ‘things’  CB: engoko					(U1,U2, <u>U3</u> ) CONT- CONT
c	CF: omonyene, engoko’, echiiro , ebiinto  CB: engoko			(U2,U3) CONT		

The extracts in (213) below illustrate the use of full NPs as objects that realize backward centres in succeeding discourse.

- (213) U1. Ogasusu ka-rokwo buna ka-re a-gake niigo ka-are ko-e-gw-a  
*DIM-it like DIM-is SM-small PTL DIM-PST-is INF-give-PASS-FV*

e-ndaagera yaaye ka-ye-gach-a ka-any-a-ko-ri-a  
*OM-food its DIM-OM-keep-FV DIM-PROG-INF-eat-FV*  
 ng'ora, ng'ora buna ka-nar-et-e.  
*RED-Slow like DIM-HAB-use-PST-FV.*  
 “Hare being small he used to be given its food and keep it to eat little by little as it is used to.

<b>CB:</b>	[endaagera ‘food’]
<b>CF:</b>	[ogasusu “hare, endaagera]
<b>TRANSITION : SMOOTH SHIFT</b>	

U2. E-chii-ngiti chi-nde chi-reng’aine Ogasusu ase omo-beere,  
*OM-PL-animal PL-other PL-equal-sized to Hare in OM-body,*  
 buna E-geseengi, E-gesiimba n’e-chi-inde, chi-gachaak-a  
*like OM-squirrel, OM-skunk and OM-PL-other, PL-start-ΦPST-*  
 kwe-gach-er-a e-ndaagera ya-abo  
*INF-keep-APPL-FV OM-food POSS-their*  
 “Other animals with the same size as hare in body, like the squirrel, skunk and others, started to keep for themselves their food.”

<b>CB:</b>	[endaagera ‘food’ ]
<b>CF:</b>	[ echiingiti ‘animals’, endaagera]
<b>TRANSITION : RETAIN</b>	

In the extract given in (213) above, the next centre, a full noun phrase, functions as the object (with a semantic role of victim) is the topic of the sentence. It however has a lower degree of saliency because it does not appear in the centre forward as a preferred centre.

- (214) U1. A-ka-nyoor-a omo-sigari nao a-re.

*1sg-pst-get-fv 1sg-constable there 1sg-is*

“He found the constable there.

**CF :** [omonyene engoko, Omosigari ]

**CP:** [omonyene ]

**CB:** [omonyene engoko ]

**TRANSITION = CONTINUE**

- U2. Omo-sigari a-ka-mo-teb-i-a ama-ng'ana onsi buna a-reenge.

*1sg-constable 1sg-pst-om-tell 5pl-news all as 5pl-was*

“The constable told him all that happened as it was.”

**CF:** [ omosigari, omonyene engoko ‘owner of chicken’ ]

**CP:** [ omosigari ‘constable’ ]

**CB:** [ omosigari ]

**TRANSITION: SMOOTH SHIFT**

#### **4.3.2.: Topic and Referential Pronoun-Noun elternations**

Topic management in discourse depends on the use of pronouns for reference to entities that are topical. Pronoun production is assumed here to

be dependent to some extent on the information-structural notion of topic. As per Grosz et. al. (1995) and Lambrecht (1994) the primary role of pronouns is to show that a given discourse continues to be about one entity. There is no direct role between pronominalization and grammatical role.

As per Centering Pronoun Rule (Grosz and Sidner, 1986), not all instantiations of pronominal reference are associated with a topic entity. The analysis of an utterance in which only a single pronoun occurs it can be easily be assigned the topic status. In cases where more than one pronoun is realized in an utterance only one pronoun is considered to be topical whereas the rest are to be considered non-topical entities. Consider the examples given in (215) below, the topic can be easily assigned to the pronouns in the subsequent sentences. In the examples given below, the demonstrative pronouns *oyo* “this one” and *echi* (these) a plural form of *eye* “this”.

(215) U1 Ekeru e-kerama ki-a-muntan-ir-e, omo-te omo-nyerere

*When 9sg-roof 9sg-pres-complete-perf-fv, 3sg-tree 3sg-thin*

*omo-chongororoku o-tieri-gw-a na o-sok-w-a gesara.*

*3sg-straight 3sg-sharpen-pass-fv and 3sg-stuck-pass-fv tip.*

U2 O-tenen-igw-a boronge na go-siberan-igw-a a-roro bokong'u.

*3sg-stand-pres-pass-fv properly and inf-tie-pst-pass-fv 16-  
there tightly*

U3 E-rio niigo o-songog-et-e gochia igoro mono

*9sg-pl ptl 3sg-protrude-pst-fv towards high much*

U4    O-yo n'oro e-gechuuria

*3sg-this is 9sg-tip*

Lit. “When the roof is completely thatched, a thin straight stick is sharpened and stuck at the tip. It is put on well and tied there tightly. Then it is sticking upwards so much. This is the tip.”

(216) U1    Chi-ndigi chi-a-bog-w-a ke-rama go-etanan-a, goika ki-amunta.

*9pl-planks 9pl-pres-tie-pass-fv 7sg-roof inf-round, till 7sg-tight*

U2    Echi niigo chi-ko-bek-w-a ko-bwatekan-a buna obo-sereti bo-gooch-a ko-ba.

*This ptl 9pl-inf-put-pass-fv inf-depending-fv like 14sg-thatching 14sg-come-fv be*

Lit. “The sheafs are tied round the roof, till it is covered. This are put anticipating the way the thatch will be.”

Much as we have shown that centering theory can predict the entities that determine coherence in discourse by tracking a single pronoun, there are some uses of pronouns that it does not include in the picture. There are instances in discourse in which the pronoun can replace either a single sentential constituent or an entire clause for ease of coherence processing. In the sentences given in (217) below the Ekegusii preform *bo* “so/ to that” is used to replace entire clauses.

(217) U1 Omo-sigari a-ga-kag-a ne'chi-ndoswa ba-ko-beek-a omo-chie oyio.

*1sg-constable 1sg-pst-think-fv its 9sg-spells 1pl-inf-put-fv 3sg-home 3sg-that*

“The Constable thought it was a charm they were casting on that home.”

U2 A-ka-ba-teebi-a bo.

*1sg-pst-1pl-tell-fv so*

“He told them so.”

(218) U1 “I-rani-a e-ngoko e-yio go-ocha, to-oche to-ye-ret-e ekero

*1pl-return-fv 9sg-hen 9sg-that inf-back, we-come we-OM-bring-fv when 1sg-*

omo-nyene a-iran-ir-e.”

*Owner 1sg-return-fut-fv*

U2 Omo-sikari n'e-re a-ga-anch-a bo.

*1sg-constable and him 1sg-pst-agree-fv so*

“Return that hen here; we will bring it when the owner has come back. The constable agreed to that.”

It is assumed in Centering theory (Grosz and Sidner, 1986 et. seq.) that pronouns function as the default device for representing the centre backward ( $C_b$ ) in human language. This tendency holds in so far as

Ekegusii discourse is concerned. In the Ekegusii discourse given below, the first sentence has a Full Noun Phrase, consisting of the noun followed by a deictic as the determiner; this is succeeded in the next discourse by a numeral *Oyomo* (one) as the subject. The subject in the succeeding discourse segment is in an anaphorical relation with *abamura*. Semantically, the deictic is in a poset relation with the word “*abamura*” (boys), since the sentence states that the hare is one of the boys.

(219) U1. Omo-mura o-yo o-ko-nywom-a,...a-ga-chiik-a aba-mura  
ba-ande

*Isg-boy 1sg-this 1sg-inf-marry-fv 1sg-pst-invite-fv 1pl-boy  
1pl-other*

“The young man, who was marrying, called Hyena, invited other young men.”

**CB:** NOCB

**CF:** [omomura ‘boy’, abamura ‘boys’]

**CP:** [Okanyangau ‘Hyeana’ ]

**TRANSITION = ROUGH SHIFT**

U2. O-yomo o-bo no Ogasusu

*Isg-one 1sg-of them is Hare*

“One of them was Hare.”

**CB:** [abamura ]

**CF :** [abamura , ogasusu ‘hare’ ]

**CP:** [ abamura]

**TRANSITION : SMOOTH SHIFT**

#### **4.3.3.: Topic and referential Noun-Noun alternations**

The use of full nouns as a way of indicating the referential status in discourse is considered to be highly marked. The use of pro-forms (full pronouns or zero) is considered to be the default form of entities that have already been activated in the discourse.

#### **4.3.4.: Topic and referential noun-zero alternations**

The subject position can be occupied by full noun phrases sometimes in cases where even overt pronouns are considered highly marked, though in such domains empty pronouns are the expected unmarked forms. In chapter three we argued that ellipsis in question-answer coherence contexts is basically topic driven. Ellipsis is prevalent in the question and answer contests, in which the topical material is all deleted to avoid redundancy, leading to gapping and in discursal contexts, elliptical constructions are realized using null pronouns. In the previous chapters, especially in chapter three, we pointed out that ellipsis is mainly driven by the information structural consideration, topic. The elements that are deleted are those that can be recovered from the preceding discourse. In the question answer coherence contexts we have the entire presupposed material deleted leaving only the focus element. This establishes a coherence relation between the questioning context and the response. The question answer coherence that relies on ellipsis is illustrated in (220) below:

(220) Question: O-yo o-r'e-ng-e oo ni-ng'o?

*C11-SM-the one SM-is-PST-FV there Foc-who*

“The one who was there is who”

Answer: Moraan.

In order, to determine the influence of information structure on coherence in discourse we require a minimum of three utterances. The question-answer contexts are suitable only for handling intra-sentential coherence; hence we will not discuss the construction further. In this section we examine how the ellipsis can be used to reveal the way that information structure interacts with coherence.

The discourse entities in the subject position of the sentence are the main determinants of coherence in line with the tenets of centering theory. The subject position in canonical constructions is the most prominent and is usually the preferred centre of the centre forward list and is more likely to be the one chosen as the target for being the centre backward in the following sentence. In discursal contexts, the topic of the sentence is usually established by a full indefinite which is reduced to a pronominal form in the following constructions if the same topic is still under discussion. In the example of the discourse given below the subject is *Chiamate* (“neighbours”) is established in the first sentence and in the subsequent sentences the topic is realized by the null subject pronominal.

(221) U1 <sub>FOC</sub> [*Abwo kare, chi-amate niigo chi-a-menye-et-e amo.*]

There past, CL1 PL-neighbour PRT CL1-PST-live-PST-fv  
together

U2 <sub>TOP</sub> [ $\Phi_{FOC} [TOP [Chi-] arisia amo]$ ].

*CL1 PL- PST- graze-fv together*

U3 <sub>TOP</sub> [ $\Phi_{FOC} [TOP [Chi]-amenyete amo]$ ].

*CL1 PL-PST-live-PST-fv together*

U4    TOP [Φ FOC [TOP Chi]-arenge gokorera emeremo amo].

*CL1PL-were-PST-fv PST-INF-do-fv CL3-work together*

Gloss: “Long ago, neighbours used to live together. They grazed together. They lived together. They used to do work together. Even when there were festivals, they used to do them together. They used to invite each other.”

**Table 4.2: Centering Analysis**

U	CF/CB	TRANSITION			TRANSITION SEQUENCE
1	<b>CF:</b> Chiamate <b>CB=</b> NULL				
2	<b>CF:</b> Chiamate, Chiombe <b>CB:</b> Chiamate	(U1, <u>U2)</u> CONT			
3	<b>CF:</b> Chiamate <b>CB:</b> Chiamate		(U2, <u>U3)</u> RET		(U1,u2, <u>U3) CONT-</u> RET
4	<b>CF:</b> Chiamate, emeremo <b>CB:</b> Chiamate			(U3, <u>U4)</u> RET	(U2,U3, <u>U4)</u> RET-RET

In the discourse example given in (225) above, the second line is used to topicalize the main entity *chiamate* “neighbours”, which has been introduced in the opening sentence of the discourse segment. The sentences are divided into four discourse utterances S1-4, which qualify the

question under discussion: “how well neighbours used to co-exist”; however not all the discourse units bear the overt topic under discussion explicitly. The zero subject and prefix form, *Chi*, are adopted in the second sentence on and play the roles of topic expressions, the latter is nested within the verb phrase (predicate) that is the domain of the focus of the proposition, and also functions as a subject marker in the clauses it occurs. The role of the subject marker is to indicate that there is a zero subject which it can be used to recover. In this case it is useful for establishing the anaphoric relation to previous discourse. It is the zero subject and not the subject marker that is used to maintain the topic by referring to the main agents of the events posited in the discourse unit, that is, to co-specify the topic.

Zero pronouns are also found in contexts where an entity has been interrupted by a side sequence in discourse as in the extract in (222) below. The zero pronouns represent the entity, omonyene omochie “owner of the compound”. If the entity “omonyene omochie” is to be recovered, the hearer has to rely on the preceding co-texts of the utterance, which may be up to a maximum of seven in the Cache theory (Walker, 1998). The notion of recency is usually adduced in relation to such usage. The discourse analysts who employ recency take into account atleast three sentences to help one to decode the referent associated to the zero pronominal usage, in the discourse extract the full mention of the entity is given in U1 and in U2 with the reduced incorporated pronominal *-mo-*, and in the sentence we are referring to by a zero subject pronominal and the subject marker morpheme {*o-*}.

(222) U1     $\Phi$  Ba-ka-mo-teebi-a ng'a omo-nyene omo-chie

*PRO CL1(SM)-PL-PST-OM-tell-FV that CL1(OM) SG-owner*

niigo a-ba-tom-et-e e-ngoko a-che

*PTL OM-SM-send-PST-FV CL3(OM)-chiken OM-come*

Ko-nyeny-er-a aba-geni.

*INF-slaughter-REC-FV CL1(PL)-guest.*

“They told him that the owner of the home had sent them a hen to slaughter for his guests.”

U2    Korende ase engencho ba-taa-mo-nyor-a nka,

*But Because CL1(PL)-NEG-OM-get-FV home,*

ba-ye-butor-a emi-oyo te-tam-a.

*SM-OM-cut-FV CL3(SG)-throat NEG-run-FV*

“But because they did not get him at home, they cut its throat so that it may not run.’

S3    E-riinde ba-ye-sung-e abwo e-na ko-nyititok-a ama-anyinga.

“So that they hang it there to drain blood.”

S4     $\Phi$  O-gooch-a aye-suungore a-iyek-er-e aba-geni ba-aye.

“When he comes he unhangs it to cook for his guests.”

The argument for using a zero pronominal to account for the referential aspects of the discourse and not the subject marker can be due to the frequent usage of the subject marker in the sentence. If one was to replace

the assumed zero contexts by associating the subject with the subject markers in the sence we will have a construction as the one below:

- (223) ~~Omonyene omoechie~~ Ogooch-a ~~Omonyene omoechie~~ ayesuungore  
~~Omonyene omoechie~~ aiyekere abageni baaye.

“When he comes he unhangs it to cook for his guests.”

The usage of ellipsis goes beyond the mere deletion of the entity of the main topical entity in focus in a given discourse sequence. The temporarily activated entities do get deleted too as shown in (224) below. In the example below, the entity, obosubuni is a sub-topic, being the focus of attention in the three utterances presented. The entity is not taken into account in the analysis of referential coherence, because of the assumption that only one entity can be the topic under discussion in any sentence or utterance.

- (224) U1     $\Phi$  a-ka-bwat-a obo-subuni a-ga-chi-a rooche, ba-ka a-ga-ik-a  
                    aaria ase o-rooche

“*PRO* took the tails and went to the river, till he got there at  
the river.”

- U2    Oga-susu a-ga-tong-a obo-subuni ase e-teente

“Hare stuck ~~the tails~~ into the marsh.”

....

- U3     $\Phi$  agatoonga ~~obosubuni ase e-teente~~.

*PRO* he stuck ~~the tails into the marsh~~

- (225) U1    SCENE SET. [Aani,] FOC [TOP [i-]gamwagete amaanyinga aaria

atigarete igoro]

“As it is, he had smeared that blood that was left over yesterday.”

- U2    <sub>TOP</sub> [Amaanyiinga aria atigareete] <sub>FOC</sub> [embori eeria yaanyenetywe].

“Blood that was left ove, from that goat that was slaughtered”

- U3    <sub>FOC</sub> [<sub>TOP</sub> [A]-chieete akabwata riria baraire, agaaka <sub>TOP</sub>[Ok-nyangau amaanyinga] omonwa]

“He went and took when they were asleep; he smeared Hyeana ~~blood~~ on the mouth.”

- U4    <sub>TOP</sub> [Agaaka ~~amaanyinga~~] omonwa igoro

“He smeared ~~blood~~ on the mouth.”

- U5    <sub>TOP</sub> [Akamwaaka ~~amanyiinga~~ ~~omonwa~~ ~~igoro~~]

“He smeared on him ~~blood on the mouth~~.”

For these other referential expressions to be incorporated in an account of coherence, there is need for centering theory to recognize more than sentential entity as being topical. There are other subordinate topical relations which are ignored in both information theory analyses, and centering theoretic analyses of coherence.

Finally, in this section we have shown that topicality determines to an extent that a given entity will be realized by a zero pronominal. We also adduced the notion of recency to explain instances where the zero pronominal cannot be recovered by reference to a preceding sentence. Such

behavior of ellipsis cannot be accounted fully through anaphorical coherence processing which plays a critical role in pronoun resolution in a cetering theoretic account.

#### **4.3.5.: Distributional Characteristics of Topic Entities**

The distribution of subjects and objects that function as centre backward ( $C_b$ ) for the two narratives, “Echitigere” (given in appendix 3.2 ) and “Abaibi (given in appendix, 3.4), from a total of 24 segments, is given in Table 4.3 below. The centre backward is not the topic of a given utterance, but it is a diagnostic device for detecting the existence of anaphoric reference between two constructions that shows that a coherence relation exists between them.

**Table 4.3.: Frequency of backward Centres in two Narratives  
(Echitigere and Abaibi)**

Centre	NOCB (%)	Cb (%)	Subject $C_b$ (%)	Object $C_b$ (%)
“Echitigere”	7 (26.92)	19 (73.08)	17 (89.47)	2 (10.53)
“Abaibi”	4 (8.51)	43 (91.49)	37(86.05)	6 (13.95)

The data summarized in table 4.3 above indicates that subjects are the preferred over objects as entities that play the role of center backwards in the creation of local referential coherence in the two texts examined. The objects that are activated as topics are marked because they fall under the focus domain. This shows that the focal domain does not entirely block the

entities that are mentioned in it from serving as topics in the evolving discourse.

**Table 4.4.: Distribution of Subjects as Centres and their Transitions (Echitigere)**

SUBJECT	CONTINU E (%)	RETAIN (%)	Total (%)
Full NP	0	0	0
Null Pronoun	19 (86.36)	2(0.09)	21 (86.45)
Overt Pronoun	1 (0.05)	0	1 (0.05)
<b>TOTAL</b>	<b>20 (86.41)</b>	<b>2(0.09)</b>	<b>22 (100)</b>

The statistics of the distribution of the entities from a corpus study of two Ekegusii narratives is illustrated in tables 4.5 below. An exploration of two Ekegusii narratives (provided in appendix 2.2 and 2.3) reveals null subject pronouns are preferred over the overt pronouns and Full Noun phrases (NPs) in realizing the centre backwards in discourse. The distribution of null pronominal subjects as opposed to full NPs in representing the centre backward and the topic relation in Ekegusii is fortified when both narratives are considered. This is shown in the table combining the results from the two narratives below.

**Table 4.5. Distribution of Transitions of Subject entities for two Narratives**

SUBJECT	CONTINUE (%)	RETAIN (%)	SMOOTH-SHIFT (%)	ROUGH-SHIFT (%)	Total (%)
Full NP	2 (3.64)	0	9(16.36)	10 (18.18)	21 (38.18)
Null Pronoun/Zero	24 (43.63)	2(3.64)	7(12.73)	0	33 (60)
Overt Pronoun	1(1.82)	0	0	0	1(1.82)
TOTAL	27 (49.09)	2(3.64)	16 (29.09)	10 (18.18)	55 (100)

Ellipsis is considered to be one of the linguistic means for signalling coherence. Ellipsis contributes lot in modelling coherence of constructions in Ekegusii. The null pronominal or zero subject with an occurrence frequency of 43.63% is the default form for representing backward centres in the language with the CONTINUE transition as shown in table 4.5 above. Zero pronouns found in topic domains are the ones have the highest frequency of usage in Ekegusii for the expression reference continuation or topic continuity. As per centering theory, zero referring-entities are linked with topic chaining and discourse coherence through the distribution of referring expressions that correlate with center transition patterns (Walker, Joshi and Prince, 1998).

**Table 4.6.: Distribution of Subjects acting as Centres and their Transitions (Echitigere)**

SUBJECT	CONTINU E (%)	RETAIN (%)	Total (%)
Full NP	0	0	0 (o)
Null Pronoun	19 (86.36)	2(9.09)	21 (95.45)
Overt Pronoun	1(4.55)	0	1(4.55)
<b>TOTAL</b>	<b>20 (90.91)</b>	<b>2(9.09)</b>	<b>22 (100)</b>

#### **4.4.: Focus and Referential Coherence**

In this section we present the focus constructions which are responsible for establishing entities which serve as referential expressions in subsequent discourse and create incoherence. These two features of focus are important in defining new discourse units, shifting from one issue to another in a given discourse unit and so establishing local coherence (or incoherence). Incoherence is not equated with uncoherence, since it does not distort information to the extent that it cannot be interpreted, but merely adds to existing discourse units.

##### **4.4.1.: Sentence Focus and Topic Switch**

The sentence focus or presentational clauses are the key construction in activating the entities that become backward centres ( $C_b$ ) through any one of the entities that are introduced in them having a cataphorical relation with the topic of the subsequent clause in pair-wise sentences that occur in the beginning of new texts and in subsequent new discourse segments.

The presentational sentences act cataphorically on the next referential expression, however it takes three construction before coherence is established in the contexts where there is no previous discourse segment as shown in the examples (226) given below. The centering analysis of how sentence focus contributes to coherence is given in table (4.7).

- (226) DS 1: (U1) <sub>FOC</sub> [Rituko erimo, aba-ibi ba-bere n-go-et-a ba-renge omo-chie gete.]

*Day one 1pl-thief 1pl-two foc-inf-pass-fv 1pl-were 3sg-home certain*

- (U2) <sub>FOC</sub> [Konyoora e-nchara ya <sub>TOP</sub> [ba]- ri-ir-e kerage.]

*Already 9pl-hunger 9pl-1sg-eat-pst-fv much*

- (U3) [<sub>TOP</sub>Ba-ka-ror-a [<sub>FOC</sub>e-ngoko e-suung-ir-e [<sub>TOP</sub>suku-

nyuma]

*1pl-pst-see-fv 9sg-hen 9sg-hang-pst-fv out-behind*

“One day, two thieves were passing by a certain homestead. They were already famished. They saw a chicken hanged in the backyard.”

**Table 4.7: Centering analysis for discourse initiating sentence focus in “Abaibi Abangaini”**

U	CF/CB	Ref. Form	Type of Entity	IS	Centering transition		Transition Sequence
1	<b>CF:</b> Abaibi, Omochie <b>CB:</b> NULL	NP	← new entity A	Focal	(U1, <u>U2</u> ) ROUGH SHIFT	(U2, <u>U3a</u> ) CONT	U1, U2, <u>U3a</u> SHIFT- CONT
2	<b>CF:</b> Enchara, abaibi <b>CB:</b> Abaibi	Φ	Main Topic	Topic			
3 a	<b>CF:</b> Abaibi, engoko, suku-nyuma <b>CB:</b> Abaibi	Φ	Main Topic	Topic			

The degree of coherence is low in the discourse sequence given in extract (226) above, because the sentence that follows does not place any of the two entities, that is *abaibi* “thieves” and *omochie* “home” activated in the presentational focus unit (U1), instead a new entity, *Enchara* is focused on, that is given temporary focus of attention as the preferred centre, hence licensing a rough shift transition, which is costly in establishing of coherence.

The degree of coherence for entities that are reactivated using sentence focus constructions is distinct from the cases where the new entities are activated. Reactivated old-entities exhibit a SHIFT-CONT transition sequence as shown in the table (4.8) whereas we have a NULL-SHIFT transition sequence in contexts where the entities are new in the discourse

- (227) DU 1 (U4c) ... e-riinde a-ka-geend-a e-chiilo ko-gor-a ebi-into.  
... 9sg-then 1sg-pst-go-fv 9sg-market inf-buy-fv 7pl-thing
- DU 2 (U1) Aba-ibi a-bwo ba-ga-eta-eta oro-bago goeta,  
1pl-thief 1pl-those 1pl-pst-pass 11sg-fence round
- DU2 (U2) ti-baa-ror-a mo-nto ande.  
Neg-1sg-pres-see-fv 1b-person anywhere

“...then he went to the market to buy things.

Those thieves went here and there around the fence, they didn’t see a person anywhere”

**Table 4.8: Centering analysis for an entity reactivating sentence focus in “Abaibi Abangaini”**

D U	U	CF/CB	Ref. Form	Type of Entity	IS	Centering TRANSITION	TRANSITION SEQUENCE
1	4 c	<b>CF:</b> Omoibi, Orobago <b>CB=</b> NULL	Φ	Subtopic	Topic	(1-U4c, <b>2-U1)</b> ROUGH SHIFT	(DU1- U4c, U1, <b>U2) SHIFT-</b> CONT
2	1	<b>CF:</b> Abaibi,0robago <b>CB:</b> Abaibi	NP	←returne d entity A	Topic		
	2	<b>CF:</b> Abaibi, omonto <b>CB:</b> Abaibi	Φ	Main Topic	Topic	(U2,U3 a) CONT	(U1, U2, <b>U3) CONT-</b> CONT

In the sequence given in (228) below, and the centering analysis in table 4.9., we have e case where as per a local coherence analysis the entity omosigari “constable” is analysed as new. The context represents the subject referent omosigari “constable” as being in a focus domain because

the preceding clause has a set of entities in the centre forward list, viz *omonyeene* “owner”, *engoko* “chicken”, and *abageni* “visitors”, which are not realized in the clause we are considering, for it has a seeming set of new entities, namely *Omosigari*, *chindoswa* and *abaibi* “thieves” due to the subject switch. The entity *abaibi* “thieves” is realized by a pronominal form, which indicates its topical status, however the focus of the sentence is not directed at it. Of the two other entities mentioned in full nominal forms, it is *chindoswa* “magical things” which is new in the discourse but *Omosigari* “constable” had already been activated. The extract is given in (228) below:

- (228) S1 O-gooch-a a-ye-suungore a-iyek-er-e aba-geni baa-ye.

*1sg-come-fv sm-om-unhang 1sg-cook-Rec-fv 1pl-visitor 1pl-his*

‘On coming he unhangs it to cook for his guests.’

- S2. Omo-sigari a-ga-kag-a ne’chi-ndoswa ba-ko-beek-a omo-chie  
o-yio.

*1sg-constable 1sg-pst-think-fv its 9sg-spells 1pl-inf-put-fv 3sg-home 3sg-that*

“The Constable thought it was a charm they were casting on that home.”

- S3 A-ka-ba-teebi-a bo.

*1sg-pst-1pl-tell-fv so*

“He told them so.”

**Table 4.9.: Centering analysis of new entity activation new sentence focus in “Abaibi Abangaini”**

D U	U	CF/CB	Ref. Form	Type of Entity	IS	Centering TRANSITION		TRANSITION SEQUENCE	
5	1 7	CF: Omonyene, engoko, abageni  CB= engoko	Φ	Sub Topic	Topic	(1-U4c, <u>2-U1)</u>		(DU1- U4c, U1, <u>U2)</u>	
6	1	CF:Omosigari, Chindoswa, Abaibi,0mochi e  CB: Abaibi	NP	←New entity	Topic	ROUGH SHIFT		SHIFT- CONT	(U1, U2, <u>U3)</u>
	2	CF: Omosigari, abaibi, <del>chindoswa</del>  CB: Abaibi	Φ	sub Topic	Topic	(U2, <u>U3</u> a) CONT			CONT- CONT

In recapitulation, in discussing the coherence patterns realized by sentence focus constructions we have seen that those that occur in discourse initial positions where they introduce new entities sometimes exhibit the same characteristics with those used in reactivating old discourse entities in the subsequent discourse. Both licence rough shift transitions in the subsequent sentences, and hence have very low coherence. However, the sentence focus in a context where there is an antecedent utterance, though it bears the same rough shift transition in the subsequent construction, it differs from the case where there is no antecedent by having a SHIFT-SHIFT transition which is less costly compared to the NULL-SHIFT transition within the three construction coherence window. The SHIFT-Shift transition has a medium transition cost.

#### **4.4.2.: Predicate Focus and Topic Switch**

The Predicate focus construction plays a central role in the structuring of discourse. It constitutes a big portion of the Ekegusii discourse that was analysed in this study. In the analysis of the constructions that bear predicate focus constructions in the previous chapter we pointed out that the form is not limited to the pattern in which the topic occurs in the beginning and is followed by the comment. The construction can be discontinuous, or realize the topic and comment in a number of unexpected ways due to contextual effects. In this section we argue that the movement of the focus components in the predicate focus construction can be due shift reference and to render temporarily activated referents prominent before they are dropped.

The focus can be fronted for the sake of according a temporary entity prominence as in the sentence S2 in the extact (229) below.

(229) S1      $\Phi$  Chiarenge gokorera emeremo amo.

*CL(PL)-use-PST-Fv Inf-do-PST-FV PL-work together*

They used to do work together.

<b>CB</b>	= [Chiamate]
<b>CF</b>	= [Chiamate, emeremo]
<b>CP</b>	= [Chiamate]
<b>TRANSITION = CONTINUE</b>	

S2 FOC [Nonye eme-yeega ya-reenge,  $\Phi_{TOP}$  [echi]-are-ng-e go-kor-er-a amo.]

*Even CL (PL)-festival SAgr-was-pst-fv Even CL (PL)-festival SAgr-was-pst-fv*

Even when there were festivals, they used to do them together.”

<b>CB</b>	= [Chiamate]
<b>CF</b>	= [Emeyeega, Chiamate]
<b>CP</b>	= Emeyeega
<b>TRANSITION = RETAIN</b>	

S3       $\emptyset$  Chi-a-renge go-chiik-an-a...

*PRO CLI(PL)-PST-is-F INF-invite-REC-FV*

They used to invite each other.

<b>CB</b>	= [ Chiamate]
<b>CF</b>	= [Chiamate]
<b>CP</b>	= [Chiamate]
<b>TRANSITION = CONTINUE</b>	

The clause postposed in the sentence S2 in the extract above gives the entity emeyeega “festivals/ occasions” temporary focus of attention that only runs in the sentence and the subsequent one. The construction makes the topic entity to be less salient and thus reduces the degree of coherence, marked by the RETAIN transition; instead of the construction achieving maximal coherence, marked by a CONTINUE transition. With the preceding clause, the sentence has a CONTINUE-RETAIN sequence,

whereas with the succeeding sentence it has a RETAIN-CONTINUE sequence. The former has a low cost transition but the latter is a high cost transition. Hence, the clause affects the coherence of the subsequent clause, hence increasing the processing cost. The focused entity introduced by the preposed clause induces a lower degree of coherence by making the topical entity not to be salient.

#### **4.4.3.: Focus and Distribution of Referential Entities**

Focused entities specify information (presupposed) that is added to the explicitly stated information in inferential textual updating, in other words they are in a cataphoric relation to the entities that serve the role of marking topics in a discourse. In order to get a clearer picture of the interaction between focus and coherence, we considered how focussed referential entities that are anaphorically related to the entity in the focus domain are realized by the four transitions, namely continue, retain, smooth shift and rough shift, the results of which are displayed in the tables (4.10 - 4.11) below. In table (4.5) we display the results after examining the entities which are focussed in the Ekegusii narrative “Abaibi Abangaini”. The entities that are focal may be noted in contexts we have either SMOOTH SHIFT or ROUGH SHIFT transitions. Hence, the transitions mainly used by object- referents are the SMOOTH SHIFT which activates the entities in the previous discourse, or those which are in a poset relation with the new entity that is activated, whereas ROUGH SHIFT introduces or reintroduces entities that are not availed by the centre forward list of the previous discourse.

Subjects function as ROUGH Shifts in Ekegusii discourse, as opposed to objects which do not as shown in tables (4.8 and 4.9). This is due to the

elevation of the topical elements to subjects in succeeding discourse, in order to make them the topics on which new information is anchored onto. In the analysis of two narratives, labelled “Echitigere” (see Appendix 2.2) given in tables (4.10) below, the former narrative has more rough shifts, hence is characteristically less coherent than the latter which has relatively fewer rough-shifts.

**Table 4.10.: Distribution of Subjects acting as Centres and their Transitions (Echitigere)**

SUBJECT	SMOOTH-SHIFT (%)	ROUGH-SHIFT (%)	Total (%)
Full NP	3(9.67)	1(3.23)	4 (12.90)
Null Pronoun	5(16.12)	0	26 (83.87)
Overt Pronoun	0	0	0
TOTAL	8(25.79)	1 (3.23)	31 (100)

**Table 4.11.: Distribution Focussed Object entities and their Transitions**

Transition Form	SMOOTH SHIFT (%)	ROUGH SHIFT (%)	Total (%)
Full Bare NP	1 (33)	0	1 (33)
Full NP+Det	2 (67)	0	2 (67)
Null Pro	0	0	0
Overt Pro	0	0	0
Others	0	0	0
Total	3 (100)	0	13 (100)

#### **4.5.: Information Structure and Global Referential Coherence**

Discourse structure is a supra-sentential syntactic structure as per Grosz and Sidner (1986), and Asher and Lascarides (2003). The situational context and even the entire discourse affecting the interpretation of utterances is considered in marking global coherence in Centering Theory. Global structure is closely related to intentionality. Grosz and Sidner (1986) consider the global structure of discourse to consist of linguistic structure, intentional structure and attentional state. Linguistic structure has to do with the linguistic properties of utterances, intentional structure with the intentions associated with the utterances and the attentional state with the salient semantic entities, relations and intentions at any point in the flow of discourse.

Besides, linguistic structure consists of discourse segments and the relations between discourse segments. Intentional structure deals with the intentions and goals participants have which lead them to generate discourse. Grosz and Sidner (1986) distinguish between discourse purpose (DP), which is the basic purpose of the discourse, and discourse segment purpose, the intention that underlies each discourse segment and contributes to the realization of the fundamental purpose of the discourse. The linguistic structure level is where the information structure is involved in. information structure is key in determining how information is packaged, this includes how referents are chosen, activated and rendered accessible in a discourse depending on the mental representations of the interlocutors, that is what is known or assumed to be “common ground”. Topics are crucial in maintaining the common ground.

#### **4.5.1: Topic and Global Coherence**

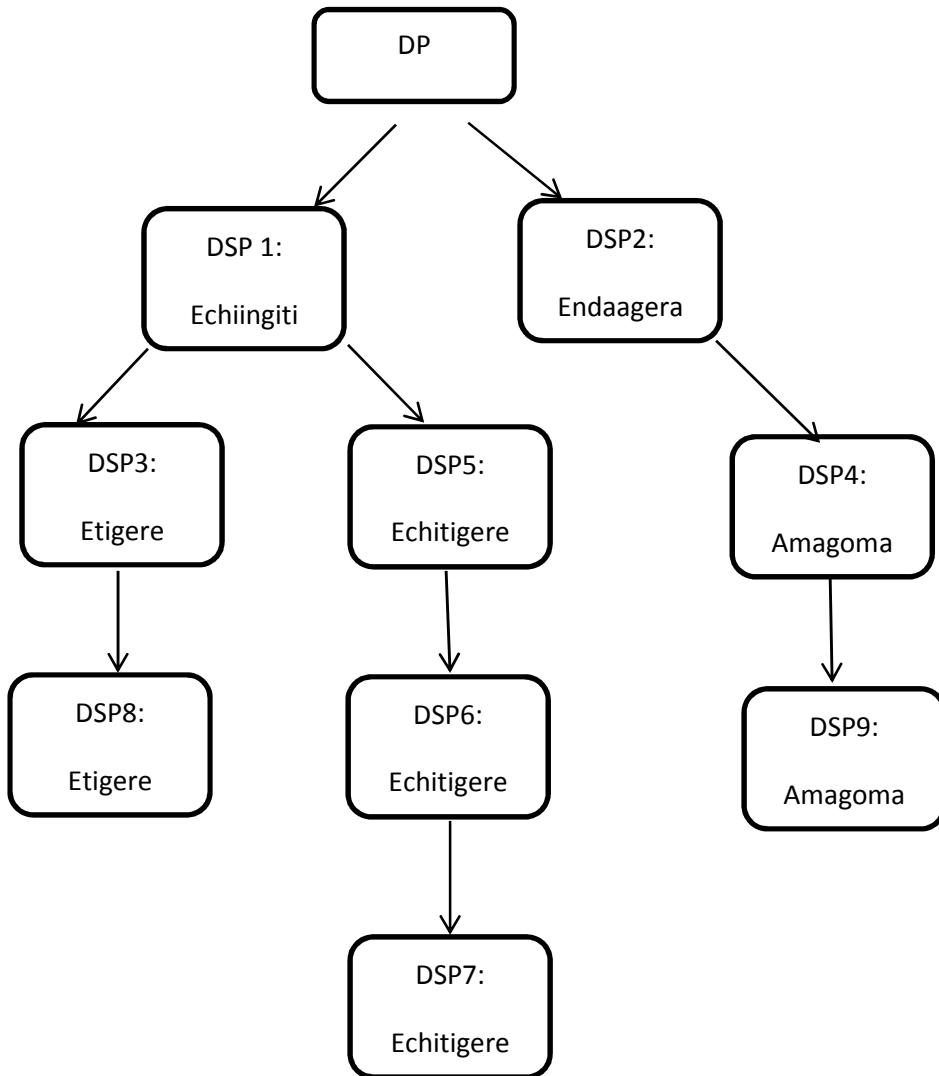
Discourse topicality serves to organise the overall structure of discourse. Central is the notion of “aboutness” for themes, and topics as an indicator of the conceptual nature of discourse topicality. Sentences do not have topics in isolation (Slank, 1977: 425). An analysis of sentence topic, if it goes beyond the syntax of a specific construction, must involve what Lambrecht calls “discourse understanding”. Lambrecht (1994: 117) makes use of cognitive notions such as activation status, but has little to say about the notion of discourse topic.

Discourse themes and topics are structural as well as conceptual phenomena and can be defined in terms of linguistic structures (discourse units) or in terms of conceptual structures in mental representation. In the build up of discourse the main controlling theme is not overtly stated in the narrative. The narrative is developed by the development of local discourse topics, running through single discourse units conterminous with a paragraph. However, within some discourse segments other segments are embedded and developed temporarily without breaking the discourses topical continuity.

In order to get a glimpse of how the discourse segments are interrelated with each other in the entire echitigere “Donkeys” narrative given in the table in appendix (3.3) in terms of their attentional state in order to form a whole we can represent them using the tree diagram in Fig. (4.1) below. In the representation the first box is for the discourse purpose (DP) which is commensurate with the main discourse referents introduced in the text; the discourse purpose is developed by various discourse segment purposes. The discourse segment purposes are either continuations of an initial discourses segment purposes (typically realized by topic-comment

constructions) or involve a shift to new ones (may be realized by topic-comment or sentence focus constructions).

**Fig 4.1: Tree Representation of Attention in the Echiitigere Narrative**



#### 4.5.2.: Focus Space Stacks and Global Referential Coherence

If we consider the Narrative on Hyena and Hare, the discourse purpose can be represented by the question: “How did neighbours co-exist in the past?” The first paragraph builds on this theme, which is more of a general introduction which alerts the hearers on what the main narrative is about.

The excerpt (230) below focuses entirely on the Discourse Segment Purpose (DSP): the description of the activities that neighbours used to do together. The segment is dominated by the discourse purpose, that is, to represent the nature of the way neighbours co-exist. The excerpt below is the discourse segment under consideration:

(230) 0 Abwo kare, chi-amate ni-igo chi-a-menye-et-e amo

*There past, CL9 (PL)-neighbour PTL CL9 (PL)-PST-live-PST-FV together*

“Long ago, neighbours used to live together.”

1 Chi-a-risi-a amo.

*CL1(pl)-pst-GRAZE-fv together*

“They grazed together.”

2 Chi-a-mey-et-e amo.

*CL9-PST-live-FV together*

“They lived together.”

3 Chi-arenge go-kor-er-a eme-remo amo.

*CL(PL)-use-PST-Fv Inf-do-PST-FV PL-work together*

“They used to do work together.”

4 Nonye eme-yeega ya-reng, e-chi-are-ng-e go-kor-er-a amo.

*Even CL (PL)-festival SAgr-was-pst-fv SM-they-use-PST-FVINF-do-PST-FV together*

“Even when there were festivals, they used to do them together.”

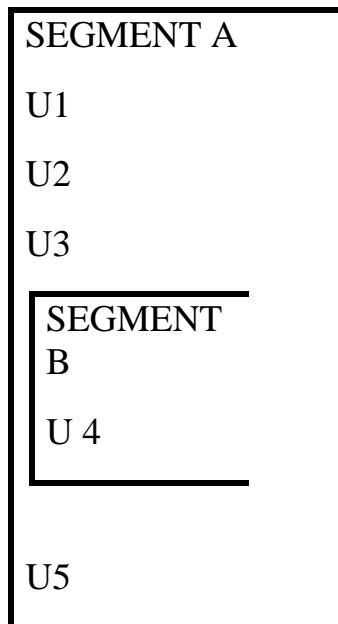
5 Chiarenge gochiikana...

*CL1(PL)-PST-is-FV INF-invite-REC-FV*

“They used to invite each other.”

The focus is on the entity, neighbour, which is activated in the first sentence of the discourse, and is realized by a zero pronoun in the subsequent three discourse utterances, then is pushed in the fourth sentence, which involves an adverbial phrase which is preposed proffering prominence to a new temporarily activated entity, *emeyeega* “festivities”. This entity is again popped in the next utterance. This enables the speaker to activate some entities that will be available in subsequent discourse. The stack can be represented as shown in (231) below.

(231) Focus Stack with embedded segment



In the focus stack given in (231) above utterance 5 is a pop in the discourse segment. It pops the main topical entity *chiamate* “neighbours” to the top using a zero pronoun, and the temporarily activated entity, *emeyeega* “festivities” can be inferred from the use of the verb *ogochiikana* “inviting each other”. The focus push is mandatory in achieving switch reference, but

the focus pop operation is optional in the language, this is demonstrated in the extract given in (232) below.

In the spontaneous oral narrative, “How Donkeys Begun to make Balls of Dung” (In Appendix 2.2), the discourse is rendered globally coherent by concentrating on the theme of food handling. The narrative then undergoes development through three levels; it begins with the sharing of food and the problem of some animals taking more than their fair share; then it proceeds to describe what the donkeys did with their share, the problem that caused and hare intervenes to save them from the mess, where the narrative ends. The excerpt below illustrates how the first discourse unit in the narrative is structured

- (232) U1. FOC [Kare kare kare, ech-i-ingiti chi-onsi pi ni-igo  
*Long-Red-Red, (PL)-animal (PL)-all EXPL Foc-PTL (PL)-PST-*  
chi-aka-men-yir-e amo aase amanani ime].  
*live-PST-FV Together in (PL)-bush inside*
- U2 FOC [Ni-igo TOP [chi] –a-ka-ri-ir-e e-ndaagera eyeemo amo naende  
*Foc-PTL (PL)-PST- INF-eat-PST-FV OM-food one together and*  
e-reeng’ain-e ase ekereengo kiabo TOP [chi-] a-bekeeran-et-e].  
*OM-equal in (PL)-quantity*
- U3. FOC [Enchogu n’endo chi-re n’eme-bere eme-nene, niigo  
*Elephant and Lion 9pl-pst-is 3pl-bidy 3pl-big , ptl 9pl-pst-were*  
chi-a-reenge Ko-gaanger-a [TOP e-ndaagera e-nyiinge mono]  
*Inf-grab-fv 9pl-food 9pl-much most*  
ko-et-er-a ogo-togony-a kwabo]

*inf-through-pst-fv 15sg-shout-fv their*

- U4. O-gasusu ka-rokwo buna ka-re a-gake niigo ka-are  
*CL1-hare DIM-it like DIM-is CL1-small PTL DIM-PST-use*  
ko-e-gw-a e-ndaagerayaaye  
*INF-give-PASS-FV CL9(PL)-food POSS-its*  
ka-ye-gach-a ka-any-a-kori-a ng'ora,- ng'orabuna ka-nar-et-e  
*PST-OM-keep-FV SM-PROG-eat-FV RED-slow as DIM-use-PST-FV*

- U5. Echii-ngiti chi-nde chi-reng'aine Oga-susu ase omo-beere, buna  
*CL9(PL)-animal CL9-other CL9-equal Hare in CL3-body, like*  
E-ge-seengi, E-ge-siimba n'e-chi-inde,chi-ga-chaak-a  
*CL7-squirrel CL7-skunk and others L9-INF-start-FV*  
REFL-keep kwe-gach-er-a e-ndaagera yaabo  
*CL9-food their*

“Long, long, long ago, all the animals lived together in the bushes. They used to the same food together and of as much in quantity as they had set for each other. Elephant and lion have big bodies; they used to eat a lot of food through their roaring. Hare being small, he used to be given food and keep it to eat little by little as it is used to. Other animals with the same size as hare in body, like the squirrel, skunk and others, started to keep for themselves their food.”

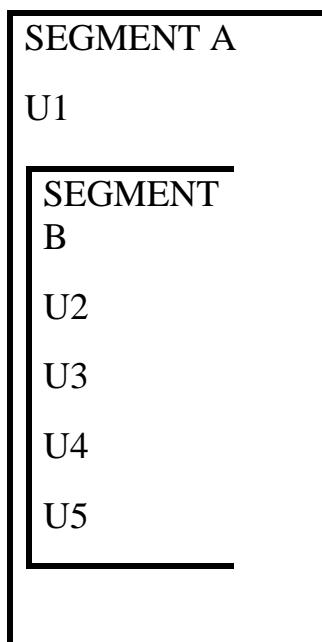
The excerpt (232) above consists of a global discourse unit: “How animals lived in the bush” with a number of segments each dealing with “How some animals used their shared food” The examination of the discourse shows that the intentions of structuring the narrative are in conflict with the

intentions of developing coherent discourse units. The segment discourse purpose is to introduce how the animals handled their food. At a global level, the discourse is build around the entities: animals and food.

The first discourse unit in most narratives examines has many internal topic shifts, because of the need to introduce more entities into the discourse which are potential discourse referents. A similar pattern of having many transitions also is exhibited towards the end of narratives. However so disjointed, the embedded discourse units are held together obliquely through the events revolving around a single intention. Hence what is predicted in the previous consideration of local coherence as incoherent is accounted for in relation to the link to a single discourse unit intention, which is also sometimes referred to as the question under discussion or a sub-topic of the narratives discourse topic. Hence the notion of coherence requires the consideration of the global level in order not to miss out the link between incoherent discourses segments at the clausal level.

The discourse stack above can be described as consisting of one discourse segment purposes which, however is developed by embedding of a subordinate discourse segment purpose, which furher has three embedded discourse segment purposes, which are pushed and quickly popped. The pushed focsed entites in the embedded discourse purpose segment are borne by postposed clauses which are prominent. This is diagrammatically represented in (233) below.

(233) Focus Stack with embedded discourse segment purposes



The two extracts (230 and 232) above show that the attentional structure of a single discourse segment can bear more than one discourse segment purpose. The intentional structure of a given discourse segment can be supported by other minor utterance level purposes. In the second extract, the discourse develops by introducing the discourse entity, endaagera “food”, which is the main discourse topic of the narrative. In the embedded segment B, the sentences bear distinct utterance level intentions, utterance three focuses on the behavior of elephant and Lion, utterance 4 on how Hare handled his food, and utterance 5 on how the other small animals did. The discourse then switches to the main illustrative subtopic which revolves around how the donkeys handle their food, which forms the main action of the narrative. The stack above however does not have any focus pop at the end of the stack.

The narrative also proceeds with the main focus stacks being interrupted by pushing new entities to the top, realized by first mentions, and popping

others, or with return pops of old the old entities that had been temporarily deactivated, or realized by subsequent mentions in cases where there another old entity is reactivated as a new discourse referent in a discourse segment.

#### **4.5.3.: Topic and Subsequent Mention**

In order to establish the correlation between the information structural consideration, topic and global coherence we considered the realization of referring expressions that are activated in the Centre forward, this include the expressions that function as backward centres and those which are activated and mention thereafter, explicitly and implicitly, in different points in the discourse. The analysis of the occurrences of subsequent mention in one narrative (given in Appendix 1.1) is as given in the table (4.12) below:

**Table 4.12: Subsequent Mentions in one Narrative**

<b>Form C<sub>f</sub></b>	<b>Bare NP (%)</b>	<b>NP+Det (%)</b>	<b>Zero Pronoun (%)</b>	<b>Overt Pronouns (%)</b>	<b>Total (%)</b>
Subject	12 (6.22)	6 (3.11)	98 (50.78)	18 (9.33)	134 (69.43)
Object	34 (17.62)	0	15 (7.77)	0	49 (25.39)
Others	10 (5.18)	0	0	0	10 (5.18)
Total	56 (29.02)	6 (3.11)	113 (58.55)	18 (9.33)	193 (100)

#### **4.6.: Focus and Global Referential Coherence**

Global coherence of discourses can be analysed at two levels: within discourse segments and across discourse segments. At the level of the discourse segment, the coherence depends on local word ordering in the

utterances and on the sentence types that occur in the discourse sequence. The ideal discursal window for determining how referents contribute to coherence in local coherence is usually three sentences. However, in some cases we do have side sequences which interrupt the coherence patterns of the units. Sometimes, a single sentence may serve as a discourse segment.

The role of focus coherence within a discourse segment (at the global level) is not so distinct from the role it plays in relation to establishing local coherence. In both cases it is used to introduce new entities into the discourse. However, the notion of global coherence within the discourse segments reveals that discourse is incoherent in some cases where the Centring mechanism predicts incoherence in considering adjacent constructions. The coherence mismatches between the local and global levels are illustrated in (234) below. At the global level the segment given as 2(b.) has a continue transition whereas given a local coherence analysis it is given a Smooth Shift transition. This gives the impression that coherence has distinct relative values in relation to the level of consideration.

(234) S1. PRO<sub>FOC</sub> [TOP [Chi] -a-renge go-kor-er-a eme-remo amo].

*9pl-pst-use inf-do-pst-fv 3pl-work together*

“They used to do work together.

**CB** : Chiamate (neighbours’)

**CF**:Chiamate , emeremo (work)

**TRANSITION = CONTINUE**

- S2. FOC [Nonyeeme-yeega ya-reenge], PRO TOP [Echi-a-renge] FOC  
[go-kor-er-a amo].

*Even 3pl-festivals 3pl-were, 1pl-pst-wer inf-do-pst-fv together*

“Even when there were festivals, they used to do them together.”

**CB** : Chiamate

**CF** : Chiamate, Emeyeega (festivals)

**TRANSITION = CONTINUE**

In the example given above, the proposed clausal unit that introduces a short term entity *emeeyeega* “festivities/ occasions” into the discourse unit. It is a first mention which anticipates the reference other festivities that occur in the entire discourse, if considered as being in a poset relation or as a super ordinate term, as the discourse progresses in case of any mention of a type of a festivity, which will be considered to be subsequent mentions. The discourse, later moves on to discourse units that deal with the betrothal, and the frustrated event: the actual espousal of the lady by Hyena. However, the event-based analysis cannot be supported by the mechanisms of centering theory which track attention in relation to the referential expressions used in discourse.

#### **4.6.1.: Sentence Focus and Global Discourse Coherence**

In this section we demonstrate that sentence focus has the role of introducing discourse topical entities. The discourse initiating sentence focus constructions in some of the narratives examine show that the construction contributes to global discourse coherence by introducing the main discourse intention through presenting the main topic entities.

The sentence focus construction in some of the narratives bears the superordinate term which characterizes the entities that are later introduced. In the extract given in the table below, the sentence focus in the beginning of the narrative introduces the main actors in the discourse, *chiingiti* “the animals”. The animals constitute what Grosz considers to be the Actor Focus of the narrative, whereas the second sentence activates the discourse Focus, *endaagera*, “food” , also from the second sentence, we can infer that the theme of the narrative is how they used to share food or do anything about it. In the course of the narrative, the discourse intention shifts to what *Chiitigere* “the donkeys” did with their food. The latter is a sub-topic used to illustrate the main topic of what animals did with their food.

Discourse segment (3) in table (4.11) above begins with a sentence focus construction begins a new discourse segment purpose: to express the way *etigere* “donkey” influenced the *chitigere* “donkeys” to wrap their food in banana leaves. The transition it has is RET-SHIFT, which is a high cost transition. The intention is dominated by the main theme, “how the animals handled their food”. Though the topic management of the discourse is not only left to sentence focus constructions. The new segments can also be begun by constructions with topic and focus relations as we will show below.

#### **4.6.2 Predicate Focus, Left Periphery, and Global Coherence**

The topic-comment constructions are not realized in the prototypical form in the course of the discourse. The typical clause form of the sentences that are used in the carrying on of the topic in Ekegusii discourse are zero subject clauses.

In the case of the global usage of Focus constructions, the Ekegusii language employs constructions with the focus placed on the left periphery either to temporarily activate some embedded discourse segment or to begin a new discourse segment. In most cases the topic elements occur in points where they are not discoursally prominent and so have low coherence value. This is because new entities are foregrounded for the sake of emphasis. This is illustrated discourse segment 2 U2 extracted from the table (4.15) above here repeated as (235) below:

- (235) DS 1 U2      <sub>FOC</sub> [Niigo <sub>TOP</sub> [ chi-]a-ka-ri-ir-e e-ndaagera eyeemo amo  
*Ptl 9pl-pst-eat-pst-fv 9pl-food one together*  
naende e-reeng'aine ase eke-reengo ki-abo  
*and 9pl-equal in 7pl-measure 7pl-their*  
<sub>TOP</sub>[chi]a-bekeeran-et-e].  
*9pl-put-pst-fv*
- DS 2 U1      <sub>FOC</sub> [Enchogu n'endo chi-re n'eme-bere eme-nene, niigo  
*Elephant and Lion 9pl-pst-is 3pl-bidy 3pl-big , ptl*  
chi-a-reenge Ko-gaanger-a [<sub>TOP</sub> e-ndaagera  
*9pl-pst-were Inf-grab-fv 9pl-food 9pl-much most*  
e-nyiinge mono] ko-et-er-a ogo-togony-a kwabo]  
*inf-through-pst-fv 15sg-shout-fv their*  
“They used to eat the same food and of equal amounts  
as per the agreed amounts they set for each other.

Elephant and Lion have big bodies; they used to eat too much by their roaring”

The topic comment clause is used in a sequence of constructions in which the topic has been established. It does not serve a distinct role in the development of global discourse structure. This is illustrated by utterance (2) in the discourse sequence given in (236) below

- (236) DS4 U1 Chi-rochio n-chi-a-many-et-e ng'a ti-chi-ri ko-ri-a -  
*9pl-them foc-9pl-pst-know-pst-fv that Neg-9pl-is inf-eat-fv*  
eng'ang'uura naende ti-chi-bwat-i e-nda buna nyaituga.  
*9pl-curdAnd Neg-9pl-have-fv 9sg-stomach like cow*  
U2 TOP[Echi-tigere chi-onsi]FOC[TOP[chi-]ka-geend-a amo  
ase eke-buundu  
*9pl- donkey 9pl-all 9pl-pst-go-fv together 16-place 7sg-seclusion*  
kiabo ti-TOP[chi-]taage-t-i TOP[echii-ng'iti chii-nde]  
TOP[chi-]ror-e obo-  
*their Neg-9pl-want-neg-fv 9pl-animals 9pl-othe 9pl-see-fv 14pl-*  
ng'aini bwabo TOP [bwo-ko-boa e-ndaagera ama-goma  
amo-omo] na *secret their of-inf-wrap 9pl-food 5pl-banana-leaves together RED and*  
ko-mer-a bogara].  
*Inf-swallow-fv whole*

“They did not know that they do not chew cud and they did not have a stomach like a cow. All donkeys went together on their own secluded place, they did not want other animals to see their clever way of wrapping food in dry banana leaves and swallowing without chewing.”

#### **4.6.3.: Focus and Distribution of First Mentions**

The entity, neighbours, is considered to be a continue transition as opposed to a rough shift as analysed in the case of local coherence in the analysis given in (160) above. In order to show the correlation between focus and global coherence, one Ekegusii narrative Hyena and Hare was analysed for the frequency of first mentions of most entities that are picked from the centre forward ( $C_f$ ) list as is shown in the Ekegusii Narrative (in Appendix 2.1) and the results are as shown in table (4.13) below:

**Table 4.13: First Mentions in one Narrative (given in Appendix 1.1)**

Form $C_f$	Bare NP (%)	NP +Det (%)	Zero Pronoun (%)	Overt Pronouns (%)	Total (%)
Subject	11 (30.56)	3 (8.33)	0	0	14 (38.89)
Object	15 (41.67)	0	2 (5.56)	0	17 (47.22)
Others	5 (13.89)	0	0	0	5 (13.89)
Total	31 (86.11)	3 (8.33)	2 (5.56)	0	36 (100)

#### **4.7.: Optimization of Referential Discourse Coherence**

In this section we represent the interactions between information structure with discourse structure and referential (or entity) coherence in Ekegusii discourse. In Centering Optimality Theory, six linearly ranked constraints are used instead of the generalizations stipulated in the BFP resolution algorithm. Two levels of representation: form and meaning, are assumed. The level of form is a syntactically analysed sentence, and the meaning is the mapping from referring NPs in the sentence for their referents. The constraints that are responsible for maintaining coherence in discourse include:

(237) PRO-TOP (Hendriks and de Hoop, 2000)

The topic is pronominalized.

(238) FAM-DEF (Beaver, 2000)

Each definite NP is familiar. This means both that the referent is familiar, and that no new information about the referent is provided by the definite.

(239) COHERE (Beaver, 2000)

The topic of the current sentence is the topic of the previous one.

(240) ALIGN (Beaver, 2000)

The topic is in the subject position.

In the analysis of the relation between discourse coherence and information structure one cannot rely entirely on the constraints stipulated by Beaver (2000), like: COHERENT; and so it is necessary to bring on

board some constraints that are used to license incoherence in discourse. Mattausch (2000) in investigating the generative strategies employed to maximize coherence in discourse uses Optimality theoretic constraints. He proposes that in order to avoid redundancy in the output it is necessary that the subject is changed as the discourse proceeds. In order to ensure the speaker's economy the constraint he labels INFORMATIVITY comes into play. This constraint is as stated below:

(241) **INFORMATIVITY** (Mattausch, 2000)

Given a context C, a segment  $\alpha$  is licensed in a discourse only if it affects a context-change in C.

Beaver (2000) in accounting for anaphora states the constraint Cohere which is stated below:

(242) **COHERE**

The topic of the previous sentence is the topic of the current sentence.

However, in our study of discourse, we chose to work with the clause (that has its own subject and verb) as the minimum segment of discourse instead of a sentence. The constraint as it is can only be good for determining local coherence; we can restate the constraint by including the qualifier Local so as to avoid the problem of assuming that it can apply to global coherence:

(243) **LOCAL COHERE**

The topic of the previous clause is the topic of the current clause.

In cases where the current topic of a clause is the topic of the previous clause, the constraint applies in a straightforward manner. The constraint is violated in any case where the topic of the previous clause is not the topic of the current one. However, this predicts two case scenarios, one in which we have a topic shift, then coherence is violated but what results is incoherence, and the second one is in which it is fatally violated by an uncoherent antecedent.

The constraint that ensures local coherence does have other constraints that play a supportive role. Beaver (2000), Hendricks and de Hoop (2000), formulate constraints to account for the interpretation of anaphoric elements which depend on the notion of topic. Beaver (2000) uses *topic* in the place of *backward-looking centre*. According to her the *topic* of a sentence is an entity referred to both in the current and the previous sentence, such that the referring expression in the previous sentence is minimally oblique. The constraint that is responsible for anaphorical coherence of topical entities is as stated in (244) below, whereas (245) is formulated to capture the formal requirements for an entity that occurs in subsequent sentences in coherent discourse.

(244) TOPICALITY (Hendricks and de Hoop, 2000)

As an antecedent for an anaphor, choose a topic.

(245) PRO-TOP (Beaver, 2000)

The (unique) topic of a sentence is pronominalized.

The notion of topic used in Hendricks and de Hoop is primarily a semantic or a pragmatic one, related to the so-called ‘aboutness’ of a discourse, fronted in, e.g., Vallduví (1990) and Dekker and Hendriks (1995). In

contrast, Beaver's notion of topic is one which is primarily a syntactic notion: for every sentence there is exactly one topic; the topic is the "most salient discourse entity" in a sentence; the most salient entity in a discourse is the one appearing in the least oblique argument position; only entities from a previous sentence are salient. In effect: the topic of a sentence is any entity that was referred to in the previous sentence. If there is more than one such entity, then the tie is broken by comparing the elements in terms of their respective canonical positions in the previous sentence. If there is no such entity, then the topic is the subject of the current sentence.

#### **4.7.1. Optimization of referential Coherence at the local Level**

In analysing of referential coherence we noted that the referents that are used predominantly in topical contexts are Zero pronominals, demonstratives full pronouns and full nominals (names, noun phrases etc.). The distributional analysis of these entities in topic domains showed that the zero pronominal is the most preffered, whereas the full noun is the least preffered.

Let us examine the constraints that determine the choice of the zero pronominal in ekegusii using example (246) below.

(246)      S1:    <sub>FOC</sub> [Abwo kare, chiamate niigo chiamenyete amo].  
                NOCB; Cf = *Chiamate*; C<sub>P</sub> = Chiamate; Transition = NIL

**S2:**    <sub>[TOP φ</sub> <sub>FOC</sub> <sub>[TOP</sub> [Chi] -arisia amo].

C<sub>b</sub> = *Chiamate*; Cf = *Chiamate*; C<sub>P</sub> = *Chiamate*; Transition =  
CONTINUE

a. pragmatico-semantic representation:

$$\langle (\exists_c^1 x) \text{ Chiamate } p(x) \rangle$$
$$\langle (\exists_c^1 x) \text{ Chiamate } p(x) \& \dot{a} - V(r)$$
$$\text{Risia } p ((\tau x) (\exists^1 x, r) \text{ Chiamate } (y) (P(x, r) \& \dot{a} - V(r))$$
$$\text{Risia } (r)$$

The second sentence fulfils the constraints that require that the topic of the sentence be pronominalized. The subject of the sentence is topical. It is already established in the previous sentence and is within the hearers' memory, so it is deleted. The deletion of the subject is licensed by the constraint DROP TOPIC, stated below:

(247) DROP-TOPIC: "Arguments coreferent with the topic are structurally unrealized."

In order to account for constructions that carry on a topic, the constraint local Cohere and those that licence topical interpretation dominate the constraint for informativity that can trigger a topic shift (switch reference) in a discourse unit or the discourse. The constraint ranking for coherent sentences can be given as below:

(248) Constraint Hierarchy for the Zero Subject Entity

AGREE>>    DROP    TOPIC    >>    LOCAL    COHERE    >>  
INFORMATIVITY >> PARSE >> ALIGN

The sentence below and the accompanying constraint tableau illustrate the constraint interactions that license coherent constructions in the discourse. The constraint tableau representation of the facts is as below:

**Table 4.14.: Constraint Tableau 18**

Interpretation (Input)	Form	AGREE	DROP TOPIC	COHERE	INFORMATIVITY	PARSE	ALIGN
Risia (r) “Graze (r)”							
👉	a. PRO FOC[TOP[Chi] - arisia amo]  b. TOP[Chiamate]FOC [TOP [Chi-]arisia amo]						
Form (Input)	Interpretation (Output)						
PRO FOC[TOP[Chi] - arisia amo]							
👉	a. Ex: Chiamate: Risia (r) &amo “Ex: Neighbours: Graze (r)& together”						
	b.Ex: Chiamate: Risia (Chiamate)& amo “Ex: Neighbours: Graze (Graze)& together”	*	!				

In the competition of the two constraints shown in constraint tableau 12 (table, 4.14) above, the loser is rendered less optimal by the constraint that requires that the topic be pronominalized. The first is optimal but violates the constraint informativity by bearing a topical element, but the constraint informativity is ranked low because of the need to anchor information in the discourse.

To represent the constraints used to select an optimal pronominal form in the subsequent sentence consider the sentence given in (249) below.

(249) U1: Chi-ndigi chi-abo-gw-a ke-rama go-etanan-a, goika kia-munt-a.

U2: E-chi niigo chi-ko-bek-w-a ko-bwat-ekan-a buna obo-sereti bo-

gocha koba.

Lit. “The sheafs are tied round the roof, till it is covered. This are put anticipating the way the thatch will be.”

(250) The Constraint Hierarchy for a pronounominalized entity

AGREE >> PRO TOP >> >> COHERE >> ALIGN >>  
INFORMATIVITY >> PARSE

**Table 4.15: Constraint tableau 19**

Interpretation (Input)	Form	AGREE	PRO TOP	LOCAL COHERE	ALIGN	INFORMATIVITY	PARSE	SUBJECT
$\exists x: \text{beka} (r_1)$								
☞	a. <u>Echi</u> niigo chikobekwa kobwatekana buna obosereti bogocha koba.							
	b. <u>Chindigi</u> niigo chikobekwa kobwatekana buna obosereti bogocha koba.		*!					
<b>Form (Input)</b> [Chindigi chiabogwa kerama goetanana, goika kiamunta.] <u>Echi</u> niigo chikobekwa kobwatekana buna obosereti bogocha koba.	<b>Interpretation (Output)</b>							
☒	a. $\exists x: \text{beka} (r_1)$							
	b. $\exists x: \text{beka} (\text{Chindigi})$		*!					

The constraints that are used to licence the usage of reduced entities apply across the board in cases where ellipsis or pronoun use occurs. Hence the subtle realizations of pronouns, those which are considered in Centering Theory, and the use of the determiner, with the exception of personal pronouns which have nospecific constraints to account for their use in discourse.

#### **4.7.2.: Optimization of Focus and Referential Coherence**

Topic switch usually occurs through the introduction of new referents in a given discourse. This is a necessary component for discourse progression. Interlocutors can so change from one participant to another for purposes of relaying the required information.

The introduction of new referents affects the referential coherence of the discourse. However, the participants do always fit in the descriptive coherence of the discourse. There should be a constraint for coherence that should facilitate the coherence of newly introduced entities in discourse but no such constraint exists in the literature on coherence so far. The best one can do is to rank the constraint that establishes coherence against one that facilitates informativity, that is, the introduction of new information in discourse. The constraint Informativity should then not only be used to introduce new referents (entities or participants), but also be extended to other discourse functions of the focus domain like giving temporal prominence to new sub-topics. The constraint ranking for licensing topic switch through the change of entities is given in (260) below.

(260) INFORMATIVITY >> COHERE

The ranking above cannot be used to licence coherent information that is also new, or partially new. The fact that new information is also coherent implies that the constraint, “Cohere” is basically inviolable in any given discourse. Hence, the aspect of coherence can only be relativized in terms of degree.

In the example (261) below we have an instance where there is a topic shift has occurred in discourse.

(261) [Bono rende,<sub>TOP</sub> [ omomura oyio] FOC[ konyora <sub>TOP</sub>[o-isaneire.]

“Now then, that young man had come of age”

**CB** = *omomura*; **CF** = *omomura*; **CP** =

*omomura*;

**TRANSITION = SMOOTH SHIFT**

<sub>FOC</sub> [Omobaka nyene na abaigori nyene bagatoma esigani]

“The real Father and the real parents sent a go between”

**CB** = *Abaigori* “parents”; **CF** =  
*Abaigori, 'parents'* *esigaani* “go-between”;  
**CP** = *Abaigori* “parents”;

**TRANSITION = ROUGH SHIFT**

In the example given above the second sentence marks a new twist in the events of the story and has a sentence focus. It leads to a rough shift transition which marks incoherence in the discourse. The proposition marked by the focus relation is realised in the discourse due to the constraint INFORMATIVTY as and other constraints that facilitate its realization like, Align Focus, and Focus Scope. The hierarchy responsible for the realization of switch reference is as given below:

(262) Constraint hierarchy for Topic Switch

{Informativity, Align Focus Left, Focus Scope}>>Subject>> Local  
Cohere>>Parse

**Table 4.16: Constraint tableau 20**

Interpretation (Input)	Form (Output)	INFORMATIVITY	ALIGN FOCUS	FOCUS SCOPE	SUBJECT	LOCAL COHERE	PARSE
$\exists xy: \text{toma } (x, y, \text{esigani})$ $\exists xy: \text{sent } (x, y, \text{go-between})$							
☞	a. FOC [Omobaka nyene na abaigori nyene bagatoma esigani]  b. TOP [Omobaka nyene na abaigori nyene]FOC[ bagatoma esigani]				*		
Form (Input)	Interpretation (Output)						
FOC [Omobaka nyene na abaigori nyene bagatoma esigani] “The real Father and the real parents sent a go between”							
☞	a $\exists xy: \text{toma } (x, y, \text{esigani})$ $\exists xy: \text{sent } (x, y, \text{go-between})$  b $\exists x: \text{toma } (\text{omobaka}, \text{abaigori}, x, )$ $\exists xy: \text{sent } (\text{elder,parents, go-between})$	*				*	

In the constraint tableau above, the candidate in a. wins over the candidate in b. because it is new in the discourse and is entirely informative. It marks a topic shift in the discourse and so violates the constraint Local Cohere

which requires the constraint to have a preceding clause with a similar topic. The constraint Informativity is fatally violated by the second sentence that has a topic-comment structure, meaning that the topics have a precedent in the previous discourse which is not the case for the sentence involved. Further constraints on faithfulness to the input can also be adduced to evaluate the form that can surface in the discourse.

#### **4.8.: Conclusion**

This Chapter explored the interactions between the information structural considerations, topic and focus, and referential coherence at the global and local levels of discourse representation. The form of entities was examined in relation to the information structure domains they occur: focus and topic domains. The analyses of the discourse units are carried out using the mechanisms of Centering Theory, which capture both the cost and degrees of coherence as per the transition sequences of the adjacent sentences using a two or three sentence windows as the minimum contexts for representation of referential discourse coherence at the local level. At the local level it was observed that topic old entities are associated with higher coherence transitions such as CONT-CONT, CONT-RET, and RET-RET Whereas SHIFT-SHIFT and NULL-SHIFT transitions associated with focussed entities. The global level was examined using either discourse segments (commensurate with a paragraph) or entire narratives. The study considered how focus stacks are structured in relation to topic continuity, and the roles of focus and topic relations in relation to the global structure of monologic discourse. The study considered how focus stack operations pops and pushes correlate to topic and focus in order to affect referential coherence at the global level. The final section of the study attempted an optimality theoretic analysis of the facts observed.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### **5.1. Summary of Findings and Conclusions**

The data in the study focused on three objectives. The first objective was to determine how information structure affects the formal organization and content in sentences in the Ekegusii language. This objective is examined in chapters two and three.

In chapter two we examine how the information structural considerations, topic and focus affect canonical word orders. In canonical sentences the focus relation mainly changes the interpretation, that is, the information content of the clause. The same clause structure can realize a number of distinct propositions which are marked by topic (including topic expressions), and focus on given syntactic domains coextensive to known phrasal or clausal constituents. The different orderings of focus and topic relations, of the propositional elements, introduce a new pragmatic interpretation. The subject, the object, the predicate, and the complements, receive Topic and Focus interpretations *in situ*, as instantiations of argument and predicate focus, whereas sentence focus constructions are neutral in so far as information is concerned. Therefore, the information structural component optionally determines the interpretation of canonical sentences.

The topic relation induces pronominalization in canonical sentences in contexts where the subject is activated, and therefore presupposed, in preceding discourse or in the topic. Subject markers realized within the verbal complex bear either topic or focus relations play no significant role in the presence of overt lexical subjects do not determine the interpretation

of clauses because they have no role in structuring propositions in Ekegusii. The subject marker serves neither a syntactic nor a pragmatic role, though it bears the replica of features, topic or focal, as the antecedent discourse referent it is associated with, however it is necessary for the verb to be semantically well-formed in the given utterance. Subject markers are realized uniformly whether the subject is explicit or implicit, whereas object markers are absent in the verbal configuration when the lexical object is explicit. The object markers in cases where they are realized have an effect on the interpretation of clauses since they have semantic roles to play in the sentence or utterance.

Chapter three implemented an analysis on how the information structural considerations, topic and focus affect non-canonical word orders. Three transformations, namely movement, ellipsis or deletion and two closely related cases of insertion of the negative operator and the focus particle – *oka* “only”, are analysed in relation to how they behave in topic and focus domains. Topic driven constructions moved to the left periphery due to a topic feature. Preposed adverbial phrases, the object and dative object sometimes are blocked from accessing the left periphery, and focus constructions analysed also exhibited both movement and stranding too. Only cases of multiple movement of the subject *wh*-phrase had the subject moved from a sentence initial position to a sentence final position, with the resumptive pronoun occupying the position where the trace is expected to prevent semantic and syntactic ill-formedness.

On examining elliptical and pronominalized constructions it was found out that the elements targeted for reduction were mainly topical constructions. The presuppositions triggered by previous mention in the discourse frame are not realized by overt lexical items but are either reduced to pronominal

variables or empty categories. The morpho-syntactic agreement affixes, for subject and object, though of no use syntactically nor pragmatically in the canonical word order context, are of great use in the non-canonical word order constructions. In cases where the subject is realized by an empty pronominal (PRO), the subject marker takes up the role of licensing the deletion by bearing the phi-features (Case) and topic that render the elliptical construction grammatical. Whereas, the object marker is not realized in the cases where there is an overt object or pronoun. Whenever the object marker is pronominalized because it is topical it is incorporated into the verbal complex in which it acquires a defective object case assignment.

Negation was utilized to predict how insertion of some elements is dependent on information structure. The negative operator is focal because it changes the information value by denying an antecedent proposition in discourse. The scope of the negative operator in some constructions is split from that of only, hence they do not display any domain conflicts in terms of the focus projected. Their focus relations are equally independent. The study concludes that features topic and focus are fully or partially involved in influencing reordering of word orders, and the realization of information structure markers: pronominalization (reduction), ellipsis (deletion) at the sentential level.

The second objective was to analyse how information structure achieves referential (or entity) discourse coherence in Ekegusii. With regard to the formal aspects of the relationship between information structure and local referential coherence, the following formal aspects were attested: reduced nominal forms (zero pronouns and full pronouns) are the preferred forms in marking both the topical relation, and coherence at the local level of

analysis. The subject is realized in the cases of definite reference interchangeably by Null pronouns and full bare subject pronouns. Overt pronouns playing a minimal role effecting coherence in Ekegusii narrative discourse. Full nominal forms (proper names, noun phrases (N+Dem) are the preferred realizations of focus, and switch reference in Ekegusii. Full nominal may introduce new entities or re-introduce those which have been deactivated for a while in a given discourse (or communication situation). Full nominal forms also surface in topical domains for other discoursal purposes like giving additional information about a given participant, and cases where failure to use a full noun phrase might result in the hearer or reader not identifying the participant involved.

At the global level of analysis, discourse topics and intentions can be inferred from entire discourse segments; hence the form of individual entities is not important at the global level of analysis. The informational structural considerations, topic and focus both contribute in calculating the discourse topic. Maximal coherence is achieved by the topic relations, whereas focus contributes to low coherence wherever discoursal changes such as introduction of new subjects or entities or events occurs. Focus plays the role of introducing new entities, whereas both the topical entities focal entities which appear as subsequent mentions are markers of global coherence in the discourse. The focus space stacks that are responsible for discourse structuration rely on the push operation, associated with focussed, and prominent preposed clauses (movement of clauses to the left periphery) which push new temporarily activated entities to the top of the stack in order for it to be possible to add new information into the stack in Ekegusii discourse. Optional focus pops which return the discourse to the main discourse segment entity, topical entity, which has already been

established in the discourse segment, are correlated with entities realized in topic domains. The referential entities that mark coherence in Ekegusii also mark information structural considerations, topic and focus, and the patterns of attestation are predictable unless other constraints on discourse structure apply.

The third objective was to find out which constraint rankings determine the form and content of the morpho-syntactic and referential coherence in Ekegusii. Optimality theoretic analyses to the interactions between information structure and discourse in Ekegusii show that the constraints for licensing topic and focus movement are lowly ranked for canonical word order constructions. The various multiple foci or topics are constrained by the constraint on scope. Information structural constraints dominate linearization constraints in cases where they move (e.g. in topicalization to the left periphery), delete (ellipsis) and insert (e.g. in negation) constituents. Information structural constraints can act alongside some syntactic constraints when they do not have to induce information structural permutations and adjustments, as in the case of wh-movement. In some cases, some linearization (syntactic) constraints prevent movement induced by information structural constraints from within the matric clause as in cases of object stranding.

In relation to referential coherence, it is argued that the constraint ‘cohere’ is a hard constraint, unlike most constraints stipulated in Optimality Theory. Hence, the focus relation does not induce a violation of the constraint that licences local and global coherence in discourse. At the local level of coherence, the choice of topic and focus referential entities is determined by the interactions between information structural constraints and coherence constraints that act in parallel in discourse. The study

however could not capture how global coherence is determined by information structural considerations because that cannot be traced to a single construction nor can the constraint tableaus bear large tracts for evaluation. This may require a statistical form and a way of calculating degrees of coherence of entire discourse units.

In *toto*, at the sentential level the information structure considerations, topic and focus; optionally affect the formal organization and interpretation (propositional content) of word order in Ekegusii. The linearization of canonical word orders is independent of information structure, whereas some word order adjustments and permutations may not be possible without the intervention of both or either topic (or presuppositional structure) and focus features. Thus, the study of pragmatic functions, topic and focus, should inform some syntactic and discursal analyses of linguistic structures. Information structure is important in understanding constructions whose form and content is pragmatically motivated. There is therefore need to adduce information structural constraints in accounting for some peculiar characteristics of constructions that delete, insert, or move some constituents to sentence peripheral positions or marked positions within the matrix clause (e.g. stranding or object scrambling).

In the discursal level, both topic and focus relations are involved in achieving referential coherence to some extent. The variant word orders have an impact on coherence depending on whether they serve a topic or focus function. Whenever they are focal, they induce a change in the topic of discussion by introducing new entities (referents or participants); and if topical, they carry on the existing topic. The choice of referents, full or reduced, is dependent in some contexts on whether they are associated with either topic or focus. Focus and topic is associated with the type of

coherence transition that given referents will take. Focus-referents are associated with switch reference which results in low degrees of coherence as opposed to topic-referents. The focus referents are less frequent in discourse as compared to topic-referents. It is therefore evident that one language users inherently use more topic-referents in a bid to render their discourse more coherent. A good conceptualization of how information structure interacts with coherence by persons involved in production of messages (speakers and writers for that matter) and recipients (listener's and readers) can help optimize the interchange of information in any given communication event.

## **5.2. Recommendations of the Study**

The study limited itself to data drawn from Ekegusii; more research should be carried out in related Bantu languages to establish a more comprehensive picture of the linguistic phenomena covered in this study. The research on interactions between information structure and other modules of grammar in language in so far as they affect or affected by: processing, perception (deictic), tone or accent, which were not within the scope of the study can be looked into.

The researcher explored the interaction between information structure and discourse coherence by considering direct referential coherence, further research should be carried out to explore the implicit or indirect referential coherence. More research is needed on how information structure interacts with other elements of referential coherence such as inferential relations, relational and temporal relations, and state of affairs.

The strategies that speakers and writers use in maximizing the transfer of information in given communication situations can be examined beyond

the domains that can be conceptualized by considering textual aspects captured by discourse-pragmatics, semantics and syntax (or the semiotic circle), such as sociolinguistics, evolutionary linguistics, cognitive linguistics, psycholinguistics, and phonology.

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## **APPENDICES**

### **APPENDIX 1**

#### **Research Instrument: Semi-Structured Interview Schedule**

##### **Introduction to Tests for elicitation**

The data for the study was sourced through personal interviews of the informants (in conversational style) using culture-specific and culture-neutral pictures that guided the exercise. It contained descriptions of tests aimed at eliciting spontaneous sentences or short dialogues with specific information structural content. Different pictures accompany the experimental tasks used to elicit just one sentence or a whole dialogue.

##### **Sample Situations from Elicitation Experiment**

###### **Information Structure in Ekegusii**

<b>P-SF 01-001</b>	Women Cultivating(Transitive)
	

Question: *Ninki Kegokorekana ase ebicha?*

‘What is happening on the picture?’

Answers: a. *Abaangina bakoburugera ebimeri ase omogondo.*

‘Old women weeding for crops in the farm.’

b. *Abaangina bakoburugera ebimeri mogondo.*

‘Old women weeding for crops in the farm.’

c. *Nkoburuga bare.*

‘(They) are weeding.’

P-SF 01-002	Woman Giving Present(Ditransitive)
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Question: *Ninki Kegokorekana ase ebicha?*

‘What is happening on the picture?’

Answer: *No’omoiseke okoeebwa ekeebwa.*

“It is a girl being given a gift.”

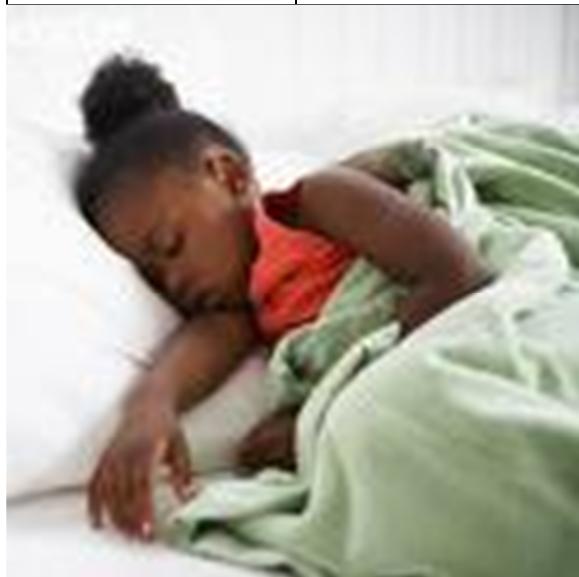
Question: *Ningo okorwa ekeegwa?*

‘Who is giving the gift?’

Answer: *Omosubati okoa omoiseke onde ekeebwa.*

“A lady giving another girl a gift.”

<b>P-AF 01-</b> <b>005</b>	Girl Sleeping(intransitive)
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Question: *Ningo oraire?*

‘Who is sleeping?’

Answers: a. *Omwana oraire ekerogo igoro.* SVA

‘A child is sleeping on the chair.’

b. *Omwana oraire* SV

‘A child sleeping’

## APPENDIX 2

### DATA CHARTING

	Column 1	Column 2	Column 3					Column 4
Reference	Introducers & left- dislocated elements	Preposed elements	S	V	(IO)	(DO)	Post Nuclear elements	
1.1.>1	<i>Ri-</i> <i>tuko</i>	<i>eri-</i> <i>mo</i>		<i>aba-</i> <i>ibi</i>	<i>ba-</i> <i>bere</i>	<i>ngo-eta</i>	<i>ba-</i> <i>renge</i>	<i>omo-</i> <i>chie</i> gete ((A)Locative)
	M- SG- Day	AgrA (M)- one	SM- PL- thief	AgrS- two	CL(INF)- pass	AgrS- are- PST		(NomM- SG)- home certain
	Gross : One day, two thieves were passing by a certain home. (Presentational- All New Focus)							
1.1>2		<i>Konyoora<sub>F</sub></i>	<i>e-nchara<sub>F</sub></i>	<i>Ya<sub>T</sub>-ba<sub>T</sub>-rii-re<sub>F</sub></i>				<i>keráge<sub>F</sub> (PC)</i>

		Already	SM(SG)- hunger	PASS- they (PRO) -eat-PST PART.			Much (A)
Gross : Already hunger had eaten them so much (passive)							
1.1>3			<i>Ba<sub>T</sub>-</i>	<i>-ka-ror-a<sub>F</sub></i>		<i>e-ngóko<sub>F</sub></i>	
			PRO-they	-INF-see-FV		OM(SG) - hen	
			<i>e<sub>T</sub>-</i>	<i>-suung-ir-e<sub>F</sub></i>			<i>siko<sub>T</sub> nyuma<sub>T</sub></i>
			it AgrO	-hang- TNS(PRES)-FV			Out behind (the home) (A)
			<i>e<sub>T</sub>-</i>	<i>-roochi-e<sub>F</sub></i>		<i>o-motwe<sub>T</sub></i>	<i>nse<sub>f</sub></i>
			it AgrO	-face-TNS (PRES)-FV		OM(SG)- head	Down (A)

			e <sub>T-</sub>	-kona ko-nyititok-a <sub>F</sub>		a- manyinga <sub>T</sub>	
		it AgrO		-was Cl- drip-TNS-PRES CONT- FV		OM (PL)-blood	
Gross : They saw a hen hung behind the home, head facing down,							
1.1>4		Ani	omonyene	niigo ayebutorete		emioyo	
				a-ka-yesunga			
		Eriinde	a-k-agenda				
			Ko-gor-a		e-bi-nto	e-chiiro	

			tibaa-ror-a		monto	Ande
						mo-chie o-yio
	They tried pretensively to ask for the way but they did not get anyone to tell them, they knew that no one was in that home.					

## APPENDIX 3

### NARRATIVES USED IN ANALYSING DISCOURSE WITH CENTERING REPRESENTATIONS

#### APPENDIX 3.1.

##### **Buna Ogasusu Ariete Okanyangau Chiombe**

- 0. *Abwo kare, chiamate niigo chiameyete amo.* A SVA**

“Long ago, neighbours used to live together.”

$C_b = NIL$ ;  $C_f = Chiamate$ ;  $C_p = Chiamate$ ; TRANSITION =  
ROUGH SHIFT

- 6 *Chiarisia amo.***

“They grazed together.”

$C_b = Chiamate$ ;  $C_f = Chiamate$ ;  $C_p = Chiamate$ ; TRANSITION =  
CONTINUE

- 7 *Chiameyete amo.* SVA**

“They lived together.”

$C_b = Chiamate$ ;  $C_f = Chiamate$ ;  $C_p = Chiamate$ ; TRANSITION =  
CONTINUE

- 8 *Chiarenge gokorera emeremo amo.***

“They used to do work together.”

$C_b = Chiamate$ ;  $C_f = Chiamate, emeremo$ ;  $C_p = Chiamate$ ;  
TRANSITION = CONTINUE

- 9 *FOC[Nonye emeyeega yarenge, TOP[echi]arenge gokorera amo.] CSVA***

“Even when there were festivals, they used to do them together.”  
 $C_b = Chiamate$ ;  $C_f = Emeyeega, Chiamate$ ;  $C_p = Emeyeega$   
TRANSITION = RETAIN

**10 Chiarenge gochiikana...**

“They used to invite each other.”

$C_b = Chiamate; C_f = Chiamate; C_P = Chiamate;$  TRANSITION =  
CONTINUE

**11 [Engaki eyemo nyaigete]FOC, ekero... [Eamate**

*eyemo...][omomura oyomo]TOP [akiinire aganetie anywome]* FOC.

“One time came when in one neighbourhood one young man had  
matured and desired to marry.”

NOCB;  $C_f = Omomura, chiamate; C_P = Omomura;$   
TRANSITION = ROUGH SHIFT

**12 [Eamate ya Okanyangau...]TOP**

“The neighbours of Hyeana.”

$C_b = Chiamate; C_f = Chiamate; C_P = Chiamate;$   
TRANSITION = SMOOTH Shift?!!

**13 Bono rende, omomura oyio konyora oisaneire.**

“Now then, that young man had come of age.”

NOCB;  $C_f = Omomura; C_P = Omomura;$  TRANSITION =  
ROUGH SHIFT

**10 Omogaka nyene na abaigori nyene bagatoma esigani**

“The father himself and the parents themselves sent a go-between.”

NOCB;  $C_f = omogaka, abaigori, esigani; C_P = omogaka;$   
TRANSITION = ROUGH SHIFT

**14 Agachia akarigia omoiseke.**

“He went and looked for a lady.”

$C_b = Omogaka; C_f = omogaka, omoiseke; C_P = omogaka;$   
TRANSITION = CONTINUE

*15 Eamate eria ya omoiseke egachiikwa.*

“That kin of the lady was invited”

NOCB; C<sub>f</sub>= *Eamate yo omoiseke*; C<sub>P</sub>= eamate yo omoiseke;

TRANSITION = ROUGH SHIFT

*16 Baari bagaacha.*

“Those came.”

C<sub>b</sub> =*Eamate y' omoiseke*; C<sub>f</sub>= *Eamate y' omoiseke*; C<sub>P</sub>

=|Eamate y'omoiseke

TRANSITION = CONTINUE

*17 Eamate eria ya soobo omoiseke egachikwa echiche soobo*

*okanyangau komaana chiombe.*

“That kin of the home of the girl was invited to come to the home  
of hyeana to claim dowry.”

C<sub>b</sub> =*Eamate*; C<sub>f</sub>= *Eamate y' omoiseke, okanyangau, chiombe*

C<sub>P</sub> =Eamate; Transition = CONTINUE

*18 Ekero baika, bakamaana chiombe goika ikomi. ba-ka-maan-a  
chi-ombe goika ikomi.*

“When they arrived, they took cows up to ten.”

C<sub>b</sub> =*Eamate yo omoiseke*; C<sub>f</sub> = *Eamate y omoiseke'*, *chiombe* ;

C<sub>P</sub>=Eamate y'omoiseke; Transition = CONTINUE

*14 Bakaraagerigwa.*

“They were fed.”

C<sub>b</sub>=*Eamate yo omoiseke*; C<sub>f</sub> = *Eamate y omoiseke'*; C<sub>P</sub>=Eamate  
y'omoiseke

Transition = CONTINUE

*Bakanyenyewa chimbori.*

“They were slaughtered for goats.”

$C_b = Eamate yo omoiseke$ ;  $C_f = Eamate y omoiseke'$ , chimbori;  
 $C_P = Eamate y'omoiseke$ ; Transition = CONTINUE

19 *Bakanywa amarwa bogákia.*

“They drunk beer till morning”

$C_b = Eamate yo omoiseke$ ;  $C_f = Eamate y omoiseke'$ , amarwa  
 $C_P = Eamate y'omoiseke$ ; Transition = CONTINUE

*Bwaikire mambia abagaaka bakaimoka, be esigani, bagakoobwa  
bakageenda.*

$C_b = Eamate yo omoiseke$ ;  $C_f = Eamate y omoiseke'$ ,  $C_P = Eamate$   
y'omoiseke

Transition = CONTINUE

“Come morning the elders arose, of the go-between, they were  
escorted and left.”

20 *Abamura nabwo bagakooba chiombe gochia ómókó,*

$C_b = NOCB$ ;  $C_f = Abamura'$ , *chiombe, omoko*;  $C_P = Abamura$   
Transition = rough Shift

igaari ase omomura agochia konywoma

$C_b = Oboko$ ;  $C_f = oboko$ ;  $C_P = oboko$ ; Transition = smooth shift  
“The boys also escorted cows to the in-law, there where the  
young man was going to marry.”

21 *Rituko rigaika[Bono] ria-a bachiigete[Bono]buna chiombe  
chikogeenda.*

“The day arrived that was set on how the cows were to go.”

$NOC_{b;}$ ;  $C_f = Rituko, eamate y'omomura, chiombe$   
 $C_P = Rituko$ ; Transition = Rough Shift

22 *Omomura oyo okonywoma, okorokwa okanyangau, agachika  
abamura baande.*

“The young man, who was marrying, called Hyeana, invited other young men.”

NOCB;  $C_f = omomura$  (*Okanyangau*), *abamura*

;  $C_P = Okanyangau$

Transition = Rough Shift

23 *Oyomo obo no ogasusu.*

“One of them was Hare.”

$C_b = abamura$ ;  $C_f = abamura, ogasusu$ ;  $C_P = abamura$ ; Transition = smooth shift

24 *Ogasusu na Okanyangau ibaare abasani.*

“Hare and Hyeana were friends.”

$C_b = ogasusu$ ;  $C_f = ogasusu, okanyangau$ ;  $C_P = ogasusu$ ;

Transition = smooth shift

25 *Abakoobesi chiombe baire aari soobo omoiseke.*

“He was to help escort the cattle they take to the home of the Lady.”

$C_b = ogasusu$ ;  $C_f = ogasusu, abamura, omoiseke$ ;  $C_P = ogasusu$

Transition = CONTINUE

26 *Soobo Ogasusu omoiseke tarenge oo.*

“In Hare’s home a lady was not there.”

$C_b = ogasusu$ ;  $C_f = Ogasusu, omoiseke$ ;  $C_P = ogasusu$ ;

Transition = CONTINUE

27 *Naatagete chiombe anywome.*

He wanted cows for marrying.”

$C_b = ogasusu$ ;  $C_f = ogasusu, chiombe$ ;  $C_P = ogasusu$ ;

Transition = CONTINUE

28 *Akanyoora onyoorire ribaga neere ara’nyore chiombe.*

“He found he’s got the chance too to get cattle.”

$C_b = ogasusu$ ;  $C_f = ogasusu, chiombe$ ;  $C_P = ogasusu$ ;  
Transition = CONTINUE

29 *Bono rende, bagatoma riicho erio ria chiombe isano'n'emo.*

“Now then, they sent that herd of fifteen cows.”

NOCb;  $C_f = Abaamate, chiombe$ ;  $C_P = Abaamate$ ;  
Transition = CONTINUE

30 *Ogasusu neere obwate ikomi na okanyangau na abamura  
babwaate isano.*

“Hare was the one who had ten and Hyeana and the other young men had five.”

NOCB;  $C_f = ogasusu, chiombe, abamura$ ;  $C_P = ogasusu$ ;  
Transition = Rough Shift

31 *Ogasusu agaachia, akageenda bwango bwango.*

“Hare went, he walked very quickly.”

$C_b = ogasusu$ ;  $C_f = ogasusu$ ;  $C_P = ogasusu$ ;  
Transition = Smooth shift

32 *Noomanyete buna Ogasusu akogenda.*

“You know how Hare walks.”

$C_b = ogasusu$ ;  $C_f = You, Ogasusu, chiombe$ ;  $C_P = You$ ;  
Transition = Retain

33 *Agachiminyokia.*

“He chased them.”

$C_b = ogasusu$ ;  $C_f = ogasusu, chiombe$ ;  $C_P = ogasusu$ ;  
Transition = CONTINUE

34 *Noomanyete buna ogasusu akominyoka.*

“You know how Hare runs.”

$C_b = ogasusu$ ;  $C_f = ogasusu$ ;  $C_P = ogasusu$ ;  
Transition = CONTINUE

35 *Agachiimokia akageenda.*

“He chased them and went.”

$C_b = ogasusu; C_f = ogasusu, chiombe; C_P = ogasusu;$

Transition= CONTINUE

36 *Noroache ense na'yarenge rinani.*

“You see the earth was bushy.”

$\text{NOCB}; C_f = ense, rinani; C_P = ense;$  Transition = Rough Shift

37 *Akageenda akabisa chiombe nke, echinde agachiira.*

Aka-geend-a aka-bis-a chi-ombe n-ke,

$C_b = ogasusu; C_f = ogasusu, chiombe ;C_P = ogasusu;$

Transition = CONTINUE

e-chinde aga-chiir-a

$C_b = Chiombe; C_f = Chiombe, ogasusu, chiombe; C_P = Chiombe;$

Transition = Smooth shift

“He went and hid some cows, others he escorted.”

38 *Chiria abisa agachibutora ebimincha.*

Chi-ria a-bis-a

$C_b = Chiombe; C_f = chiombe, ogasusu, ; C_P = chiombe;$

Transition = CONTINUE

aga-chi-butor-a ebi-mincha

$C_b = ogasusu; C_f = chiombe, ogasusu; C_P = ogasusu;$

Transition = smooth shift

“Those he hid he cut their tails.”

39 *Akabwata obosubuni agachia rooche, baka agaika aaria ase orooche.*

Akabwata obosubuni agachi-a rooche,

$C_b = ogasusu; C_f = chiombe, obosubuni, rooche; C_P = ogasusu$

Transition = continue

baka agaika aaria ase orooche

$C_b = ogasusu; C_f = ogasusu, rooche; C_P = ogasusu;$

Transition= continue

“He took the tails and went to the river, till he got there at the river.”

*40 Ogasusu agatonga ase eteente.*

$C_b = ogasusu; C_f = ogasusu, obosubuni, eteente; C_P = ogasusu$

Transition = continue

“Hare stuck into the marsh.”

*41 Eteente omanyete nase amaache agoeta igoro ye esasaati.*

“A marsh you know is where water goes over reeds.”

$C_b = eteente; C_f = eteente, amaache, esasaati; C_P = eteente$

Transition = smooth shift

*42 Agatoonga.*

“He stuck.”

$C_b = eteente; C_f = ogasusu, obosubuni, eteente; C_P = ogasusu$

Transition = Retain

*43 Agatoonga.*

“He stuck”

$C_b = ogasusu; C_f = ogasusu, obosubuni, eteente; C_P = ogasusu;$

Transition = smooth shift

*39 Ogochaaka gokuura, “Kai..yaa! yaa!... Chiombe chiachiire. Chiarimeire rooche.”*

$C_b = ogasusu; C_f = ogasusu, chiombe, rooche; C_P = ogasusu;$

Transition =Continue

“he started shouting, “Kai.. yaa! Yaa!..the cows have gone. They have gone into the river.””

46 *Achi kong'uusa igo,*

$C_b = eteente$ ;  $C_f = ogasusu, obosubuni$ ;  $C_P = ogasusu$ ;

Transition = continue

eke-mincha ke-ria geecha ko-boko

NOCB;  $C_f = ekemincha, koboko$ ;  $C_P = ogasusu$ ;

Transition = Retain

“He pulls that way, that tail comes into his hand.”

47 *Okanyangau achi kongúusa iga, ekemincha keria akong'uusa*

*geecha koboko.*

Oka-nyangau a-chi ko-ngúus-a iga,

$C_b = ekemincha$ ;  $C_f = okanyangau, ekemincha$ ;  $C_P = okanyangau$

Transition = Retain

eke-mincha ke-ria ako-ng'uus-a geecha koboko

$C_b = ekemincha$ ;  $C_f = ekemincha, okanyangau, koboko$ ;

$C_P = ekemincha$

Transition = continue

, that tail he pulls comes into his hand.”

48 “*Baisia yaa, chiarimeire rooche. Imaa.*”

NOCB;  $C_f = abamura, chiombe, rooche$ ;  $C_P = abamura$

Transition = rough shift

“Boys yaa, they have sunk into the river. See.”

49 “*Nchitigarete ibere.*”

$C_b$  = *chiombe*;  $C_f$  = *chiombe*;  $C_p$ =*chiombe*;

Transition = Retain

“The remaining are three.”

50 Aga-chi-a ko-ng’uus-a e-chi-inde, “Yaa, n’<sup>a</sup>-go-teebi-a chi-a-riimeir-e.

“He tried to pull out others, “Yaa, didn’t I tell you they have sunk.””

51 E-chi-inde n-d’ooche ch-ire; a-aria ma-ate ase o-rooche ro-erer-et-e

“Others in the river are; down there where the river ends.”

53 To-geend-e to-chi-rigi-e, yaa.”

“Let’s go look for them, yaa.”

54 *Akamoetia gochia maate*.

“He led the down.”

55 *Kaani aaria naasibete ase egesarara maega echinide ibere*.

“There he had tied behind a bush two others.”

56 *Bakogeenda bagoteema chiria chiinde*.

“They went and took those others.”

57 *Bakogeenda soobo omoiseke*.

“They went to the lady’s home”

58 *Bono rende bakoboorigwa*, “*Yaa bono mwareentire chiombe?*”

“now then they were asked, “Yaa now you have brought cows?””

59 “*Ee.Twareentire omogaaka.*”

“Yes,we have brought old man.”

60 “*Echiinde ng’ai chiageenda.*”

“Where have others gone?”

61 “*Aiya!Echiinde echiarimera eteente ime.*

“Aiya! Others sunk into the marsh.”

62 “*Imaa ebimiincha eebi, naa biabutoka tobwate koboko.*”

“look, the tails are here, they got cut we have them in our hands.”

63 “*Kai! Amangana ayio namakong’u*”

“Kai! That is bad news.”

64 *Basi bono..ee..bakaraara.*

“Then now...eh..they slept.”

65 *Baakorugerwa.*

“They were cooked for.”

66 *Baakoraagera igo.*

“They ate so.”

67 *Maambi bakobooka bakogeenda.*

“They woke in the morning and left.”

- 68 *Ekero bageenda, bono rituko rigaika.*

“When they left, now the day came...”

- 69 *Egaika engaki bagoochia gotwara enyangi ekorokwa echoorwa.*

“The time came they were going to have the festival called *echoorwa*.”

- 70 *Bono bakageenda...bakageenda, Okanyangau na abamura bande.*

“Now they went...they went. Hyeana and the other young men.”

- 71 *Ogasusu nere noa are.*

“Hare too was there.”

- 72 *Chiombe chiria orusirie oirire o'mosubati omwabo neere achie konywomera.*

“Those cows he has taken them to his sister he too to go and marry with.”

- 73 *Kaani chiombe ne echia okanyangau chiareenge.*

“The cows were of hyeana.”

- 74 *No'bongaini bwaye neere arigeetie eriinde neere anywoome.*

“It is his means that he too looked for so that he too marries.”

75 *Bono rende, bagooika rituuko ria enyangi, nainde Ogasusu oyo bakaimoka.*

“Now then, the time for the wedding came, again Hare is there, they got ready.”

76 *Bareenge obosaani na Ogasusu mono.*

“They were great friends with Hare.”

77 *Bono bagoika aaria bakonyenyewa.*

“Now they got there and were slaughtered for.”

78 *Bakoraagera bogákia.*

“They ate till morning”

79 *Bakoarerwa, ekero banyuure amarwa baararire.*

“They were spread for, when they had drunk and felt sleepy.”

80 *Bono riria baraarire, ogasusu akobooka botuko akoruusia embori yareenge oo.*

“Now when they had slept, Hare got up at night and took a goat that was there.”

81 *Akageenda akabisa, maambia eriinde achie koira aaria ase óbókó bwaye.*

“He went and hid it, so that in the morning he would go and take it to his in-laws.”

82 *Koreende, maambi bagochi kobooka bakanyoora mboori yabo*

*teiyo.*

“As it is, when they woke up in the morning their goat was not there.”

83 *Bakoboori na, “emboori yaareenge aa, ng’ai yaachiete? ”*

“They asked, “”the goat that was here, where did it go?”

84 *Na, “Yaaya, inche tiinkomanya.”*

“That. ‘No, I don’t Know.’””

85 *“Ki twabanyenyere te eyemo. Eyemo egatigaara aa.*

*Ng’ai yaachiete?”*

“Were you not slaughtered for one and one remained here?

Where did it go?”

87 *Ogasusu agoieitia na “kai! Ntwe ntwaaraire.Ntookomanya.”*

“Hare blurted that, “hey! We were asleep, we cannot know.”””

88 *“Aa!Abageni aba naki? Ng’ai emboori yaachiete?*

(89) *Naki emboori yarwa aa yaagenda?*

“Ha! How is it visitors? Where did the goat go? How did the goat leave here and go?”

90 *“Riigereeriria momonwa momanye ng’o oriete.”*

“Look at the mouth to know who ate.”

91 Oga-susu o-oga na “Kaai! Ntu e-twaa-rair-e, nto-ko-many-a.”

“Hare shouts that, “Hey! We were asleep, we cannot know.”””

- 92     “*Imoratorootote morore naki tore..motorigerereri amagoko, maa, moroore naki tore.*”

“You can frisk us to see how we are, look at our hands, here, and see how we are.”

- 93     *Bagoochikorigereeria, bakonyoora amaanyinga.*

“When they looked, they found blood.”

- 94     “*Oyo obwate amaanyinga omonwa, oyio neere.*”

“The one with blood on the mouth, that is the one.”

- 95     *Aani, igamwagete amaanyinga aaria atigareete igoro*

“As it is, he had smeared that blood that was left over yesterday.”

- 96     *Aria atigareete, embori eeria yaanyenyetwe.*

“That was left over, From that goat that was slaughtered”

- 97     *Achieete akabwata riria baraaire, agaaka Okanyangau*

*omonwa.*

“he went and took when they were asleep, he smeared Hyeana on the mouth.”

- 98     *Agaaka omonwa igoro.*

“He smeared on the mouth.”

- 99     *Akamwaaka*

“He smeared on him.”

- 100 *Akamwaaka erinde bogokia Erinde*, “*Omomura oyo neere okonywooma gaa!*  
“He smeared on him so that when they arise, so that. “Is this the young man whi is marrying here!””
- 101 *Ndooche no omoibi Kwaare?*  
“I see you are a thief?”
- 102 *Ng’ai kwareete embori?*”  
“Where did you take the goat?”
- 103 *Na, “Yaaya, inche inaaraire.”*  
“That, “No, I was asleep.””
- 104 *“Amaanyinga aya reende ng’ai arweete?”*  
“This blood then where did it come from?”
- 105 *“Naaye kwaariete emboori.”*  
“It is you who ate the goat.”
- 106 *Bono, Obóko obwo bokabuutoka.*  
“Now, the engagement was broken.”
- 107 *Bakageenda.*  
“They left.”
- 108 *Agaseerigwa.*  
“He was sent away.”

109 *Obóko obwo bogaakwa, chiombe chikairana.*

“The engagement died, the cows were returned.”

110 *Nyangi eria techieti koba.*

“That wedding was never to be.”

111 *Bwa! Kare nabo yareenge.*

“Ha! The past was like that.”

112 *Amangana y'ogokuumia!*

“Deeds to wonder at.”

113 *Ogasusu neere, akabwaata chiombe Chiiria chiarenge  
o'mosubati omwabo, akarigeerigwa obóko akanywoma.*

“Hare too, he took those cows which were at his sister's place,  
he was found a wife and married.”

114 *Rende bono omomura oyo Ogasusu nabo achandeete  
Okanyangau igo goika orooche Okanyangau taachi  
konywooma.*

Now then this young man Hare did trouble Hyeana so till you  
see hyeana never married.

115 *Chiombe chiaye, Ogasusu agakora emeremo akanywomera.*

His cows, hare worked his way and used them to marry.

116 *Ogasusu agaachi ere akanywooma.*

“Hare, he did get married.”

117 *Chiombe chiinde chigachaaka korwara, chigachaaka gokwa eyemo ase eyende.*

The other cows started to ail, the started dying one after another.

118 *Chigakwa.*

“They died.”

119 *Entira egaita.*

“Anthrax killed.”

120 *Enyakeramo egaacha egaita.*

“came and killed.”

121 *Aa! Chigakwa eyemo ase eyemo.*

“Ah! They died one by one.”

122 *Okanyangau rende agachi-takonyoora ngombe akonywomera.*

“Hyene then did not get cows to marry.”

123 *Bono achi rende korigia omoiseke onde kaa ache*

*anywome..(Gesture:*

Nothing)

“Now he was to look for another lady then he marries....”

124 *Bono orache, moochokoro, kare nabo yarenge igo.*

“Now see, grandchild, the past was like that.’

*125 Noonye bareenge gokora emeremo amo, norooche ogokora  
koria emeremo amo, obokong'u mbwarenge'oo?*

Even if they used to work together, you see that doing work  
together, there were problems.

## APPENDIX 3.2.

0. <sub>FOC</sub>[*Kare kare kare, echiingiti chionsi pi niigo chiakamenyire amo aase amanani ime*].

“Long, long, long ago, all the animals lived together in the bushes.”

1. <sub>FOC</sub>[*Niigo<sub>TOP</sub>[ chi-]akariire endaagera eyeemo amo naende ereeng’aine ase ekereengo kiabo<sub>TOP</sub>[chi]abekeeranete*].

“They used to the same food together and of as much in quantity as they had set for each other.”

$C_b = \text{echiingiti}$  ‘animals’;  $C_f = \text{echiingiti}$  ‘animals’ $\text{endaagera}$  “food” ;

TRANSITION = Continue

2. <sub>FOC</sub>[*Enchogu n’endo chire n’emebere emenene*,

“Elephant and lion have big bodies;”

$C_b = \text{Enchogu}$  n’endo “elephant and lion”;  $C_f = \text{enchogu}$ , endo, emebere;

TRANSITION = Smooth SHIFT

3. <sub>FOC</sub>[*niigo chiareenge kogaangera [TOPendaagera enyiinge mono]*  
*koetera ogotogonya kwabo*].

“They used to eat a lot of food through their roaring.”

$C_b = \text{Enchogu}$  n’endo “elephant and lion”;  $C_f = \text{enchogu}$ , endo, endaagera, ogotogonya;

TRANSITION = Continue

4. <sub>FOC</sub>[*Ogasusu karokwo buna kare agake niigo kaare koegwa*  
*TOP[endaagera yaaye]* <sub>FOC</sub>[*ka-TOP[ye]gacha kaanyakoria ng’ora, ng’ora*  
*buna kanarete*].

“Hare being small he used to be given food and keep it to eat little by little as it is used to.”

C<sub>b</sub> = endaagera; C<sub>f</sub> = ogasu, endaagera;

TRANSITION = SMOOTH SHIFT

5. *Echiingiti chinde chireng'aina Ogasusu ase omobeere, buna Egeseengi, Egesiimba n'echiinde, chigachaaka kwegachera endaagera yaabo.*

“Other animals with the same size as hare in body, like the squirrel, skunk and others, started to keep for themselves their food.”

C<sub>b</sub> = food endaagera ;C<sub>f</sub> = echtingiti, ogasu, squirrel egeseengi, skunk “egesimba”, food “endaagera”

TRANSITION = Retain

6. FOC[*Etigere ase engaki eyeiga konyoora teramanya ng'a mwanyabaanto nareo*].

“The Donkey by this time had not already known that humans existed.”

C<sub>b</sub> = Etigere; C<sub>f</sub> = etigere, engaki, mwanyabanto;

TRANSITION = Smooth Shift

7. TOP[*Etigere*] FOC[TOP[e]*karengereria*] FOC[TOP[e]*gateebia echiamwabo chionsi chibe chikoboa* TOP[*endaagera*] *yaabo ase ebituundi ebituundi ase amagoma amoomo eriinde chiamera bogara*].

“Donkey thought out and told all others to tie their food in little bundles in banana leaves so that they ingest them without chewing.”

C<sub>b</sub> = etigere “donkey”; C<sub>f</sub> = etigere “donkey”, chitigere “donkeys”, endaagera “food” amagoma “banana leaves”;

TRANSITION = Continue

8.  $\text{TOP}[\text{Chirochio FOC}[n\text{chiemanyete ng'a ti}_{\text{TOP}}[\text{chi}]\text{ri koria eng'ang'uura naende ti}_{\text{TOP}}[\text{chi}]\text{bwati enda buna nyaituga}].$

“They knew that they do not chew cud and they do not have a stomach like that of a cow.”

Chi-rochio n-chi-a-many-et-e ng'a ti-chi-ri ko-ri-a e-ng'ang'uura

$C_b = \text{chitigere}$  “donkeys”;  $C_f = \text{chitigere}$  “donkeys”, “eng’ag’uura” “cud”

TRANSITION = SMOOTH SHIFT

naende ti-chi-bwat-i e-nda buna nyaituga

$C_b = \text{chitigere}$  “donkeys”;  $C_f = \text{chitigere}$  “donkeys”, enda “stomach”, nyaituga “cow”

TRANSITION = Continue

9.  $\text{TOP}[\text{Echitigere chionsi}]_{\text{FOC}}[\text{TOP}[\text{chi}]\text{kageenda amo ase ekebuundu kiabo ti-}\text{TOP}[\text{chi}]\text{taageti TOP[echiing'iti chiinde] TOP}[\text{chi}]\text{røre obong'aini bwabo TOP[bwokoboa endaagera amagoma amoomo] na komera bogara}].$

“All the donkeys gathered together in a secret conclave for the did not want the other animals to see their means of tying food in dry banana leaves and swallowing without chewing.”

E-chitigere chi-onsi chi-ka-geend-a amo ase eke-buundu ki-abo

$C_b = \text{chitigere}$  “donkeys”;  $C_f = \text{chitigere}$  “donkeys”, ekebuundu “meeting place”;

TRANSITION = Continue

ti-chi-taageti e-chiing'iti chi-inde chi-ror-e obo-ng'aini bw-abo bwo-ko-bo-a e-ndaagera ama-goma amo-omo na ko-mer-a bogara

$C_b = \text{chitigere}$  “donkeys”;  $C_f = \text{chitigere}$  “donkeys”,  $ekebuundu$  “meeting place”  $\text{chiingiti}$  “animals”  $\text{obongaini}$  “cleverness”  $\text{amagoma}$  (banana leaves);

TRANSITION = Continue

10.<sub>FOC</sub>[*Ase ogochaakera eriituko ritang'ani*] <sub>TOP</sub>[ *amagoma amoomo*] <sub>FOC</sub>[<sub>TOP</sub>[ *a*] *kareenta obokong'u*].

“For a start on the first day dry banana leaves gave them a problem.”

$C_b = \text{amagoma}$  “banana leaves”;  $C_f = \text{eriituko}$  “day”,  $\text{amagoma}$  “banana leaves”  $\text{obokongu}$  “problem”;

TRANSITION = SMOOTH SHIFT

11.<sub>TOP</sub>[*Echitigere*] <sub>FOC</sub>[<sub>TOP</sub>[ *chi*] *kaeenana echibisi chiokorigia* <sub>TOP</sub>[*amagoma amoomo*]].

“The donkeys gave each other turns for looking for dry banana leaves.”

$C_b = \text{echitigere}$  “donkeys”;  $C_f = \text{echitigere}$  “donkeys”,  $\text{echibisi}$  “turn/lot”  $\text{amagoma}$  “banana leaves”  $\text{obokongu}$  “problem”;

TRANSITION = ROUGH SHIFT

12.<sub>FOC</sub>[<sub>TOP</sub>[*Chi*] *gachoora omoraai oreenge korokwa Segesa neere omonyakerogo*].

“They chose a leader called Segesa was their chairperson.”

$C_b = \text{echitigere}$  “donkeys”;  $C_f = \text{echitigere}$  “donkeys”,  $\text{omoraai}$  ‘leader’,  $\text{Segesa}$ ;

TRANSITION = CONTINUE

13.<sub>FOC</sub>[*Omoriiki neere Masiato*].

“The secretary was Masiato.”

NOCB, C<sub>f</sub>=omoriiki “secretary” Masiato, TRANSITION = ROUGH SHIFT

14.<sub>TOP</sub>[*Segesa na Masiato*] <sub>FOC</sub>[*niigo* <sub>TOP</sub>[*chi*] *areenge* <sub>TOP</sub>[*echii*] *ngusu ase okominyoka echimbero*].

“Segesa and Masiato were very light in running fast.”

NOCB,C<sub>f</sub>=Segesa & Masiato, okominyoka; TRANSITION = ROUGH SHIFT

15.<sub>FOC</sub>[*Erituuko ritaang’ani, emeremo ya* <sub>TOP</sub>[*Segesa na Masiato*]],<sub>FOC</sub>  
[<sub>TOP</sub>[*chi*] *gakora emeremo emeseera né* <sub>TOP</sub>[*chiamwabo*]  
<sub>FOC</sub>[<sub>TOP</sub>[*chi*] *kagooka*].

“On the first day in work Segesa and Masiato did very good work and their colleagues were very delighted.”

C<sub>b</sub>= Segesa & Masiato, C<sub>f</sub>=Segesa & Masiato, Chitigere;

TRANSITION = Smooth SHIFT

16.*Ko bono* <sub>TOP</sub>[*echitigere chionsi*] <sub>FOC</sub>[<sub>TOP</sub>[*chi*] *gachaaka kwemurunkania igoro y’ogosookia esike*].

“But now all the Donkeys started to complain about defecating dung,”  
NOCB, C<sub>f</sub>=echitigere, esike; TRANSITION = ROUGH SHIFT

17.<sub>TOP</sub>[*Esike*] <sub>FOC</sub>[<sub>TOP</sub>[*e-*] *gachaaka gosooka ere echaintoki-echiintori enyomo pa* <sub>TOP</sub>[*chi*] *gwekemia*].

“Dung started to come out in hard crumbs making the push hard.”

C<sub>b</sub>= esike,C<sub>f</sub>=esike;TRANSITION = SMOOTH SHIFT

18.<sub>FOC</sub>[*Ogasusu agateebia*] <sub>TOP</sub>[*Etigere,*]<sub>FOC</sub>[ ‘*Boono tiga orore buna ingokoa eriogo* <sub>TOP</sub>[*yaa Oga* *tigere*].’

“Hare told Donkey, “Now see how I will you medicine yaa Donkey.””

NOCB, C<sub>f</sub>=ogasusu, etigere, eriogo; TRANSITION = ROUGH SHIFT

19. <sub>TOP</sub>[*Ogasusu*] <sub>FOC</sub>[<sub>TOP</sub>[*gaka*] *reenta amakoromiinyo gakaa* <sub>TOP</sub>[*Ogatigere buna eriogo*].

“Hare brought snails and gave Donkey as medicine.”

C<sub>b</sub>= ogasusu, C<sub>f</sub>=ogasusu, amakoromiinyo, ogatigere, eriogo;  
Transition = Smooth Shift

20. <sub>FOC</sub>[*Echiintori chikaba echintoondi chiigosoka bwango bwango naende chimintogete chigatiga amagoma*].

“The crumbs became small balls that come out very fast and separated from the banana leaves.”

### APPENDIX 3.3

**Table 4.11. Global structure of the *Echiitigere* “Donkeys” Narrative**

DS		Utterance	Centers	Transition
1	1	FOC [Kare kare kare, echiingiti chionsi pi niigo chiakamenyire amo aase amanani ime].	CB: NOCB CF:Echiingiti, amanani CP: Echiingiti	NULL
	2	FOC [Niigo TOP[chi-] akariire endaagera eyeemo amo naende ereeng'aine ase ekereengo kiabo TOP[chi]abekeeranete].	CB: Echiingiti CF:Echiingiti, endaagera CP: Echiingiti	CONTINUE
2	1	FOC[Enchogu n'endo chire n'emebere menene, niigo chiareenge kogaangera [TOP endaagera enyiinge mono] koetera ogotogonya kwabo]	CB: endaagera CF: Enchogu n'endo, endaagera CP: Enchogu n' endo	ROUGH SHIFT
	2	FOC[Ogasusu karokwo buna kare agake niigo kaare koegwa TOP[endaagera yaaye] FOC[ka-TOP[ye]gacha kaanyakoria ng'ora, ng'ora buna kanarete].	CB:endaagera CF: Ogasusu, endaagera CP:endaagera	RETAIN
	3	Echiingiti chinde chireng'aina Ogasusu ase omobeere, buna Egeseengi, Egesiimba n'echiinde, chigachaaka	CB: endaagera CF: Echiingiti, endaagera	

		kwegachera endaagera yaabo.	CP: Echiingiti	RETAIN
<b>3</b>	1	FOC[Etigere ase engaki eyeiga konyoora teramanya ng'a mwanyabannto nareo.	CB: Etigere mwanyabaanto CF:Etigere, CP: etigere	SMOOTH SHIFT
	2	TOP[Echitigere chionsi]FOC[ TOP[chi]kageenda amo ase ekebuundu kiabo ti-TOP[chi]taageti TOP[echiing'iti chiinde] TOP[chi]rore obong'aini bwabo TOP[bwokoboa endaagera amagoma amoomo] na komera bogara].	CB: Chitigere ekebuundu, Chingiti,edageera, amagoma CF: Chitigere, CP: Chitigere	CONTINUE
	3	TOP [Chirochio FOC [nchiemanyete ng'a ti TOP [chi-] ri koria eng'ang'uura naende ti TOP [chi-] bwati enda buna nyaituga].	CB: Echitigere eng'ang'uura, nyaituga CF:Echitigere, CP: Echitigere	CONTINUE
	4	TOP [Echitigere chionsi] FOC [ TOP [chi-] kageenda amo ase ekebuundu kiabo ti-TOP[chi-] taageti TOP[echiing'iti chiinde] TOP[chi-] rore obong'aini bwabo TOP[bwokoboa endaagera amagoma amoomo] na komera bogara].	CB: Echitigere CF:Echitigere, ekebuundu, echiingiti, obongaini, endaagera, amagoma CP: Echitigere	CONTINUE

DS		Utterance	Centers	Transition
4	1	FOC [Ase ogochaakera eriituko ritang'ani'] TOP [amagoma amoomo] FOC [TOP [ a-] kareenta obokong'u].	CB: Amagoma CF:erituko riitangani, amagoma, obokong'u CP: eriituko riitangani	NULL
	2	TOP [Echitigere] FOC [TOP [chi-] kaeenana echibisi chiokorigia TOP [amagoma amoomo].	CB: Amagoma CF:Echitigere, echibisi, amagoma amaomo CP: Echitigere	SMOOTH SHIFT
5	1	FOC [TOP [Chi-] gachoora omorai oreenge korokwa Segesa neere omonyakerogo].	CB: Echitigere CF:Echitigere, omorai CP: Echitigere	SMOOTH SHIFT
	3	FOC [Omoriiki neere Masiato].	CB: NOCB CF:omoriiki, Masiato CP: Omoriiki	SMOOTH SHIFT
	4	TOP [Segesa na Masiato] FOC [niigo TOP [chi-] areenge TOP [echii-] ngusu ase okominyoka echimbero].	CB: NOCB CF:Segesa na Masiato CP: Segesa na Masiato	SMOOTH SHIFT

DS		Utterance	Centers	Transition
	5	FOC [Erituuko ritaang'ani, emeremo ya TOP [Segesa na Masiato]] FOC [TOP [chi-] gakora emeremo emeseera né TOP [chiamwabo] FOC [TOP [chi-] kagooka].	CB: Chitigere  CF: Eriituko riitangani, Segesa na Masiato, emeremo, chitigere	NULL
6	1	Ko bono TOP [echitigere chionsi] FOC [TOP [chi-] gachaaka kwemurunkania igoro y'ogosookia esike].	CB:Chitigere  CF:Echitigere, esike	CONTINUE
	3	TOP [Esike] FOC [TOP [e-] gachaaka gosooka ere echiintoki-echiintori enyomo pa TOP [chi-] gwekemia].	CB: Chitigere  CF:Esike, echiintoki, Chitigere	RETAIN
7	4	FOC [Ogasusu agateebia] TOP [Etigere,] FOC ['Boono tiga orore buna ingokoa eriogo TOP [yaa Oga <sup>tigere</sup> ].'	CB: Etigere  CF: Ogasusu, Etigere, eriogo	SMOOTH SHIFT
	5	TOP [Ogasusu] FOC [TOP [gaka] reenta amakoromiinyo gakaa TOP [Oga <sup>tigere</sup> buna eriogo].	CB: Oga <sup>tigere</sup>  CF: Ogasusu, amakoromiinyo; Oga <sup>tigere</sup>	RETAIN

<b>8</b>	6	FOC [Echiintori chikaba echintoondi chiigosoka bwango bwango naende chimintogete chigatiga amagoma].	CB: NOCB CF: echintori, amagoma	NULL
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## APPENDIX 3.4.

### **Abaibi Abangaini**

0. *Rituko erimo, abaibi babere ngoeta barenge omochie gete.*  
“One day, two thieves were passing by a certain home.”
1. *Konyoora enchara yabariire kerage.*  
‘Already hunger had eaten them.’
2. *Bakarora engoko esuungire suku-nyuma eroochie omotwe nse, ekona konyititoka amanyiinga.*  
‘They saw a chicken hanged in the backyard with the head facing downwards, dripping blood ’
3. *Ani omoneyene niigo ayebutorete emioyo, akanyesunga, eriinde akageenda echiiro kogora ebiinto.*  
‘The owner had cut its throat, hanged it, then went to the market to buy things.’
4. *Abaibi abwo bagaetaeta orobago goeta, tibarora monto ande.*  
‘Those thieves passed here and there by the hedge, they did not see anyone.’
5. *Bagatema kweboorisia enchera, korende tibanyoora monto onde okobateebia, igo bakamanya ngá monto tari mochie oyio.*  
‘They tried pretentiously to ask for the way, but they did not get anybody to tell them, so they knew that no one was in the home.’
6. *Bakagooka kerage.*  
They rejoiced a lot.
7. *Bakabeka engasi orobago.*  
‘They put a ladder on the fence.’

8. *Oyomo akariina.*  
‘One climbed.’
9. *Akarambaria asungore engoko eria baire soobo koria.*  
‘He reached out to unhang the chicken they take it to their home to eat.’
10. *Riria ayebwatire ekerenge atagete koyeng’usa gocha nse, omosigari orange goeta akabasiokera ng’a sio!*  
‘When he held its leg wanting to pull it down, a constable who was passing by came upon them unexpectedly.’
11. *Akababoria eki batagete gokora omochie oyio.*  
‘He asked them what they wanted to do in that home.’
12. *Bakamotebia ng’a omonyene omochie niigo abatomete engoko ache konyenyera abageni.*  
They told him that the owner of the home had sent them the chicken to slaughter for his guests.’
13. *Korende ase engencho batamonyora nka, bayebutora emioyo tetama.*  
‘But because they didn’t get him at home, they cut its throat so that it may not run away.’
14. *Eriinde bayesunge abwo ena konyititoka amanyinga.*  
‘So that they hang it there it keeps on draining blood.’
15. *Ogoocha ayesungore aiyekere abageni baaye.*  
‘On coming he unhangs it to cook for his guests.’
16. Omosigari agakaga ne’chindoswa bakobeeaka omochie oyio.
17. Aka-ba-teeb-ia bo.  
“He told them so”

18. *Obwango obwo, omoibi oria obwate engasi agateebia oria obwatete engoko ekerenge*, “*Irania engoko eyio goochua, tooche toyerete ekero omonyene airanire.*”
19. *Omosikari néere agaancha bo.*  
The constable accepted so.
20. *Oria agasungora engoko eria, erio omosigari akababwatisia korusia engasi.*  
That one unhanged that chicken, then the Constable assisted them to remove the ladder.
21. *Bakaira engoko soobo.*  
*They took the chicken home.*
22. *Bagatiga omosikari oangageete agwo.*  
They left him hanging around there.
23. *Keeri keeri, omonyene engoko agasioka.*  
Soon the owner of the chicken appeared.
24. *Akanyoora omosigari nao are.*  
He found the constable there.
25. *Omosigari akamotebia amang’ana onsi buna areenge.*  
The Constable told him everything that transpired.
26. *Omomyene engoko akabea kerage koigwa ng’ a engoko yaye yairirwe n’abanto atamanyeti.*  
The owner of the Chicken was saddened so much to hear that the chicken had been taken by strangers.
27. *Omosigari oyio akamororera amabera.*  
The Constable pitied him.
28. *Akagenda bwoye akamoretera engoko anyenye, ribaga ri’eria yaibwa.*

He went to his home and brought him a hen to slaughter in the place of the stolen one